



A SUSTAINABLE Y INABLE YEAR 2017



Sustainability in numbers

CNH Industrial is a global leader in the capital goods sector, with established industrial experience, a wide product range and worldwide presence. Through its 12 brands, the company designs, manufactures and sells agricultural equipment, construction machinery, trucks, buses, specialty vehicles and powertrains.

CNH Industrial's commitment to sustainability lies at the core of everything it does and its 63,000 employees are positively engaged in these activities.

This focus has been recognized by the Dow Jones Sustainability World and Europe Indices. The Company has been named Industry Leader in the Machinery and Electrical Equipment sector for the past seven years, and as Capital Goods Industry Group Leader for a second time.

PEOPLE

\$79
MILLION spent on health and safety

+15%
of employees involved in training

PRODUCTS

9,629 active patents owned

+44%
in natural gas engines sold

\$957
MILLION invested in research and development

LOCAL COMMUNITIES

\$57
MILLION invested in local communities

+23%
students received training through TechPro² projects

SUPPLIERS

95%
of procurement spending on local suppliers

+18%
on suppliers assessed for sustainability

WCM

\$107
MILLION saved through World Class Manufacturing projects

13
suggestions per employee collected under the WCM program

ENERGY

\$7.7
MILLION invested in improving energy efficiency

-11%
in CO₂ emissions per hour of production

56%
of electricity from renewable sources

ENVIRONMENT

\$38
MILLION spent on environmental protection

-16%
in water withdrawal per production unit

92%
of waste recovered

All financial data is in US\$, and prepared in accordance with US GAAP. Figures are updated at the end of 2017. Variation are compared to the previous year.

CNH Industrial's 12 Brands:



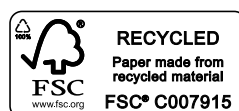


POWERING TRANSFORMATION

OUR SUSTAINABLE TECHNOLOGIES, YOUR ACHIEVEMENT.

CNH INDUSTRIAL'S PURPOSE EXPRESSES THE COMPANY'S ABILITY TO EFFECT POSITIVE CHANGE - BY EMPOWERING ITS CUSTOMERS AROUND THE WORLD.

TRANSFORMATION EVOKES THE FUNDAMENTAL WORK OUR CUSTOMERS DO IN THEIR DIFFERENT SECTORS AND HOW WE HELP THEM CHANGE TO ACHIEVE SUCCESS, AS WELL AS THE TRANSFORMATION OF ENERGY THAT MAKES IT ALL POSSIBLE.



We have a clear purpose: powering transformation through sustainable technologies – with a vision to grow our business while taking actions to safeguard the environment and increase our positive social impact. This year's edition of *A Sustainable Year* looks at some of the key stories, steps and actions that we took in 2017.

Feeding the world's populations and building the homes, communities and infrastructure our world needs has been in our blood from the very beginning. Fast forward to 2017 and you will see that what we have achieved goes beyond the machines that we are known for. Through our continued efforts as a truly global Company that produces agricultural and construction equipment, commercial vehicles and powertrains, we are investing in innovations to improve the environment and enhance the working lives of our stakeholders, customers and employees. We are fostering communities and furthermore we are optimizing our processes and establishing best practices to set an example for our industries as a whole.

Our approach to sustainability is in tune with the changes that are taking place globally. One of the latest developments for us on this path was the analysis of the United Nations' Sustainable Development Goals (SDGs). The SDGs are the starting point for quantifying the social value generated by our Company, taking into consideration social needs, in line with the shared value approach.

For this reason, we combined the SDGs with our materiality analysis, which takes account of the opinions of our stakeholders. Consequently, CNH Industrial is focusing on five of the 17 SDGs and is playing its part in achieving them:

- SDG 2 'Zero hunger' – through our work in the field of agricultural equipment and precision-farming technologies. The world's farmers are facing the serious challenge of feeding a growing population: through advanced precision-farming technologies and training on the ground, CNH Industrial is providing the tools to help reach this target
- SDG 8 'Decent work and economic growth' – through our commitment to involving our workforce and their ongoing training, investments in fostering community education and the sustained development of our Company throughout the markets in which we operate
- SDG 10 'Reduced inequalities' – through

Our Sustainable Year

CNH Industrial's direct participation and collaboration with non-profit organizations to assist local communities, including our contribution to helping in the aftermath of natural disasters

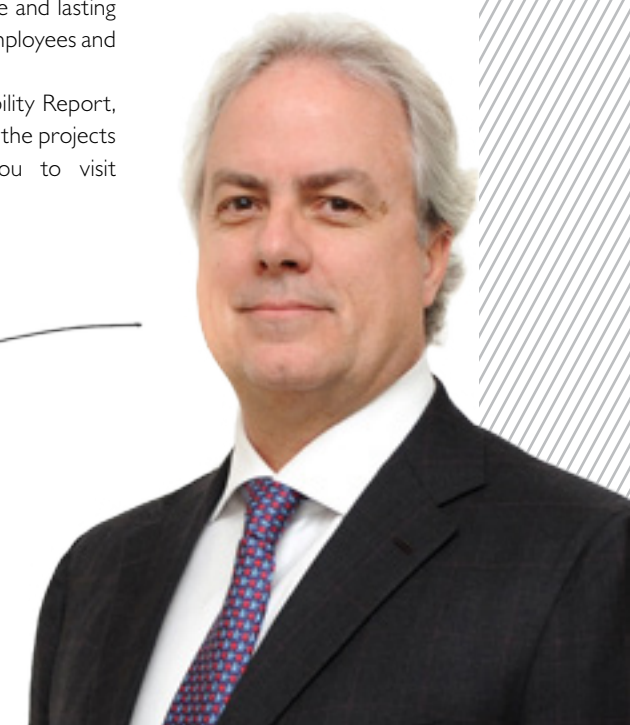
- SDG 12 'Responsible consumption and production' – through our processes and the education of our employees and suppliers to be conscious of their impact on the environment
- SDG 13 'Climate action' – through our continued efforts to reduce our environmental footprint through our operations and product development, and our commitment to developing vehicles powered by alternative fuels, both on and off road.

This annual publication looks at the significant ways in which CNH Industrial's people and its partners worked together in 2017 to build a better present and to lay the foundations for a sustainable future.

This document contains a year full of sustainability milestones that we can be proud of and which will give us traction for the year ahead and the new projects we will be embarking on – leaving a positive and lasting impression on our customers, employees and all those touched by our efforts.

To see the full 2017 Sustainability Report, and to find out more about all of the projects mentioned herein, I invite you to visit www.cnhindustrial.com.

Richard Tobin
Chief Executive Officer
CNH Industrial



Everyone's a winner in the age of digital farming

By implementing precision or digital agriculture systems, growers can increase productivity and production, while improving land and soil quality

Agriculture is the single largest employer in the world, engaging 40 percent of the population, and the largest source of income for poor and rural households. With an estimated 9.7 billion people on the planet by 2050, food production needs to become more efficient everywhere – and quickly. According to the International Fund for Agricultural Development (IFAD), global demand for food is expected to increase by more than 60 percent by 2050, requiring rapid growth of agricultural productivity and resulting in more stress on natural resources.

CNH Industrial is committed to helping increase food production through its expertise, advanced technologies and innovations.

The digital revolution in farming

There are four pillars to precision farming: planning, planting, application control, and harvesting. According to Joe Michaels, Senior Director of Global Product Management for Precision Solutions & Telematics at CNH Industrial, digital farming will be the “backbone of the secure, sustainable food-production system”.

Precision technologies and analytics can make a farm's operations more efficient and effective in real time, improving both yields and profits. With digital devices such as field robots and decision-support software, data from the field gives agribusinesses greater precision with irrigation, weed control, and spraying processes. Growers can

understand soil conditions and see precisely where pests, weeds, fungi, and other diseases are. They can also learn about soil moisture levels, the best time to harvest, and even what seeds to plant.

Precision farming also benefits the environment by supporting sustainable soil management, while maintaining or improving speed and productivity. It helps growers adjust when there are water or land constraints. Through precision farming, they use pesticides and fungicides more precisely, are able to target fertilizer applications, and to see and correct where water waste may be occurring. Ultimately, it reduces waste and energy consumption.

Adoption rates of precision farming have been carefully tracked and show that the majority of farms now use yield monitoring, guidance, and other solutions. For example, in Kansas, USA, adoption rates line up at about 60 percent, according to recent research from the American Society of Agricultural and Biological Engineers. It is therefore unrealistic to presume that the full digital revolution, in its current form, will make it to the poorest growers in the world any time soon. Such systems rely on a consistent electricity supply and internet connectivity, as well as high-cost, hi-tech applicators and other tools. Nonetheless, some smaller farmers are currently able to access information about and assistance with their crops through smartphones.

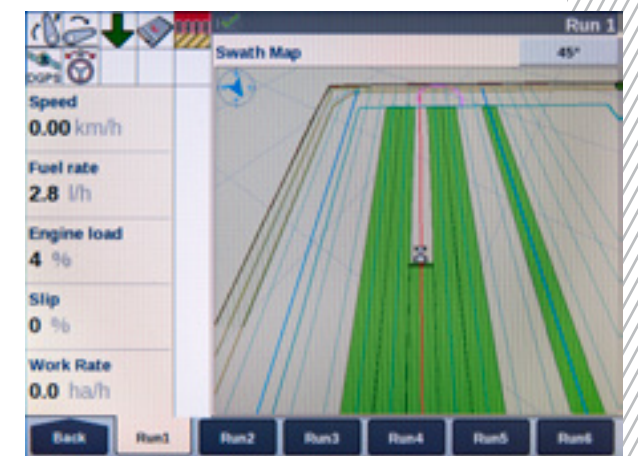
Moreover, many agricultural dealers offer some kind of precision-agriculture service, and these

systems are increasingly user-friendly and more effective. According to Beecham Research, a technology market-research, analysis and consulting firm, the take-up of smart farming tools will intensify from 2017 to 2020.

Increasing productivity and efficiency through technology

CNH Industrial's agricultural brands, Case IH, STEYR and New Holland Agriculture, provide a range of precision-farming solutions for all phases of crop production, from planning and planting to growing and harvesting. These products are offered through Case IH's Advanced Farming Systems (AFS), STEYR's S-Tech and New Holland Agriculture's Precision Land Management (PLM) technologies.

CNH Industrial is also working with national policy makers and growers to raise awareness of the sustainable future of farming and new tools that are being developed. The goal is that farming will become 25 percent more productive compared to 2015 through technology, by expanding data management and machine-based control systems.



Highly accurate path planning and coverage maps ensure efficient field coverage with no over- or under-laps. This screen is what an operator sees in their machine

The Case IH Trident uses precision-farming technology to accurately apply crop protection products



Last December, Thierry Panadero, Vice President Case IH, Europe, Middle-East and Africa (EMEA), said that, "While precision farming has enabled farmers to gather data more easily, digital farming is now allowing them to develop the application of that data. As a consequence, it makes their businesses, and the whole industry of farming and food production, more targeted and efficient." He further noted that systems such as AFS could help growers become more environmentally responsible through tools such as the satellite-correction signal that eliminates overlaps, reducing applications of fertilizer, chemicals and seeds.

AFS Connect is an advanced farm-management system that provides real-time access to data on equipment productivity, vehicle diagnostics, fuel usage, and machine location. Meanwhile AFS Software lets growers generate yield, prescription and soil sampling maps, as well as import satellite imagery to detect crop anomalies in time for any required intervention. AFS AccuGuide for tractors, combines and sprayers helps growers reduce skips and overlaps, save on fuel and labor costs, and better manage seed, fertilizer and chemical inputs, which means more efficient use of resources with resultant environmental benefits.

The Trident 5550 liquid/dry combination applicator

"Precision agricultural technologies are used to help with productivity, accuracy and operator comfort," says Mark Burns, Case IH Application Equipment Marketing Manager. "The adoption of these technologies on application equipment continues to grow and gain in popularity." With more precision-farming options and greater adoption will come more food production using fewer resources.

The most recent and most advanced precision technology from Case IH is the Trident 5550 liquid/dry combination applicator. With the Trident, growers can switch from liquid to dry in under an hour, greatly increasing productivity and the effectiveness of applications. From protection to fertilization, the Trident is designed for three seasons of use – spring, summer and fall – in a variety of ground conditions, crop types, and sprayer or spreader configurations. In addition, growers can use the Trident to go in after a crop emerges to assess and adjust nutrients and chemicals as and where needed.

"A high-clearance, row-crop applicator like the Trident has the advantage of being able to travel down emerged crop rows without running over the plants," says Burns. "Every plant that gets run over or damaged results in lost yield, and that means lost revenue to the grower."

The Trident 5550 is a single-chassis applicator that can switch between fertilizer and crop-protection applications. The liquid system has AIM Command FLEX advanced spray technology that allows for

precise flow and spray pressure, eliminating over- and under-application. With its patented spinner technology, the dry nutrient applicator offers a new level of precision and consistency, and growers can apply up to four dry products at once with the MultiApplier option, further increasing efficiencies.

The Trident 5550 also features other AFS technologies such as AccuGuide and AIM Command FLEX. "With the Trident, thanks to AIM Command FLEX, we can dial in and maintain constant pressure and droplet size, putting a chemical exactly where it is intended," says Burns. The Trident 5550 is effective on all kinds of crops, from corn and soybeans to edible beans, cotton and cereal grains.

There are multiple environmental benefits, including reduced run-off, thanks to precision application and lower overall emissions due to optimized in-field coverage.



AUTOMATE FOR EFFICIENCY

Autonomous farming techniques will help make agriculture safer, more efficient, more productive and more consistent – and CNH Industrial continued its investments in this important area in 2017.

Today's farmers are able to benefit from the derived technologies arising from the autonomous research and development program. One example is fully automated end-of-row turning. At the end of the field, and at the touch of a button, the tractor will perform the headland turn automatically, a prerequisite for autonomy, but also a technology that enhances in-field productivity and operator comfort.

The autonomous program is being further developed, and pilot programs are due to start in 2018 with E. & J. Gallo Winery and Bolthouse Farms, both in California, USA.



Automated end-of-row turning fully automates the turning process and is activated at the touch of a button

Creating opportunity in Africa

The Northern Region of Ghana is the largest in the country in terms of land mass, yet home to only 10 percent of the country's population. It is also Ghana's poorest region. Yagaba is a small town in the area, about 100km from the border with Burkina Faso. Poverty and illiteracy are high, while indoor electricity and plumbing are rare. It has a population of fewer than 50,000, with more than 97 percent of adults engaged in crop-farming activities – mostly done by hand or with animals – according to the Ghana Statistical Service.

It is here, in the northern savanna, that Case IH has partnered with Integrated Water Management and Agricultural Development Ghana (IWAD), a company focused on expanding viable commercial irrigation and modern agronomic practices, and the German government's development arm, the Society for International Co-operation (Die Deutsche Gesellschaft für Internationale Zusammenarbeit) or GIZ. Together these public-private partners are training technicians who will help their community become more efficient and effective growers.

Daniel Bordabossana, Case IH Marketing Manager for Africa and the Middle East, says that the right know-how for "advanced agricultural activities" was in very short supply. "Through mechanization, they will be able to feed more, produce more, and increase the number of people formally working in this area."

Starting in September 2018, the program will train 60 students at Damongo Agricultural College (a four-and-a-half-hour drive from Yagaba) in better irrigation techniques and climate-smart management practices (including the use of solar-powered pumps), and also how to operate and maintain agricultural equipment.

Graduates will have direct responsibility over some acreage back in Yagaba, and they will be taught how to pass on their training, so students may go on to become managers in the field, and the program can have an exponential impact.

Case IH, a leader in the sugarcane business, sees the program as an opportunity to develop what it

Case IH is helping bring agricultural technologies to Northern Ghana



Case IH is working in Northern Ghana to train local communities in modern farming practices to enhance the agricultural productivity of the local area

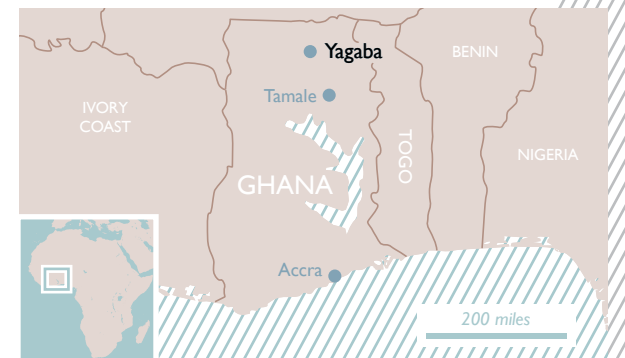
believes is a promising region for the crop. IWAD Ghana has developed the first state-of-the-art, 400-hectare commercial irrigation scheme in Northern Ghana, with the goal of producing different seed crops and more than 10 different sugarcane varieties.

Negotiations are on-going with the traditional authorities and the government of Ghana to expand sugarcane cultivation to 6,000 hectares. An influx of well-trained men and women from Damongo Agricultural College will be key to the sustainability and success of this large commercial sugarcane venture. The project is expected to create about 15,000 new jobs and positively impact economic development in Northern Ghana.

Support for the Damongo facility started at the end of 2017 with the training of six Ghanaian trainers in sugarcane cultivation at the Sugarcane Industry Research Institute in Mauritius, and the donation of a JXT55 tractor by Case IH for the Damongo field-training facility in Yagaba. Regular training modules, including tractor repairs and driving skills, will start later in 2018.

By the end of the pilot program, the school and Yagaba training facility will have a fully-equipped workshop for the maintenance of up to five tractors – outfitted with Case IH Advanced Farming System components for precision sugarcane production – practical training materials, and a series of demonstration crops, including sugarcane, for training purposes.

Partners Case IH, IWAD Ghana and GIZ hope that this program will not only help boost the region's economy, but that by creating entrepreneurial opportunities, it will help stem the flow of youth migrating to urban areas. "We are not only teaching farmers how to work with sugarcane, we are also teaching them how to work in a more modern agricultural sector in general," says Bordabossana. "They will be able to transfer these skills to almost any crop."



Above: the principal and teachers of Damongo Agricultural College with representatives from Case IH, Case IH's distributor Cane International, CNH Industrial, GIZ, and IWAD



More than 45 million meals have been delivered and 15,000 tons of fresh food saved from ending up as landfill

FIGHTING FOOD WASTE

Customized IVECO Daily vans help Australian charity OzHarvest distribute unwanted fresh food to the hungry

Across Australia a fleet of distinctive yellow vans collects unwanted fresh food every day from supermarkets, restaurants and manufacturers, and delivers it free of charge to the people who need it most – the hungry, homeless and underprivileged.

It is a sustainable service run by pioneering charity OzHarvest, founded in 2004 by Ronni Kahn and supported by IVECO Australia, which helps supply the delivery vehicles. Today, the organization provides 850,000 meals per month to more than 800 partner charities across seven cities. So far, more than 45 million meals have been delivered and 15,000 tons of fresh food saved from landfill.

James McHendrie, IVECO Key Account Manager Light-Medium Product for Australia, who took part in the early discussions between IVECO and OzHarvest, feels the two are a natural fit. "OzHarvest and their campaign to cut food waste and help the community with fresh food closely aligns with our corporate values and identity," he explains. "It's in our DNA to avoid waste, care for the environment and give something back in the areas where we operate."

When OzHarvest decided on the IVECO Daily 35S13s, the van's environmental credentials were very important. "We were seeking a vehicle with the most energy-efficient engine and lowest possible emissions," Kahn explains. "The Daily 2.3-liter diesel fitted the bill perfectly."

IVECO Australia has been equally proactive in helping ensure the specifications of the vehicle matched OzHarvest's needs, and even adapted one for use as a mobile kitchen. With 126hp/93kW of power and 320Nm of torque, the Daily's engine is ideal for transporting 1,000kg loads of food in the refrigerated 12m³ storage area. The reversing camera and proximity signal are also handy features because many of the volunteers are not experienced drivers.

McHendrie believes the partnership is destined to grow. "We get a real sense of pride whenever we see the distinctive OzHarvest van," he says. "It's great to be part of a good-news story. Putting something back into the community is part of what we do. All of us at IVECO like being part of something bigger. Part of a big family."



INFORMATION INNOVATION

Throughout 2017, a range of projects driven by technology that was customized, built in-house or bought in have helped a number of departments reallocate resources

The Internet of Things opens up a new connected world for CNH Industrial. To streamline integration and ensure effective implementation of this new technology, ICT Connected Services is working closely with the Company's Precision Solutions & Telematics unit. One of their first achievements is the development of the Service Delivery Platform – an in-house 'cloud' – to which machines can be connected, not only storing operational data, but offering customers access to specific services.

In agriculture, real-time data can be analyzed to facilitate accurate decision-making. Excessive idling is a key challenge for construction-fleet operators. The idle-time monitoring feature enables fleet managers to detect these inefficiencies and redeploy machines, enhancing productivity and reducing emissions. Commercial Vehicle customers have access to innovative artificial-intelligence algorithms to reduce fuel consumption by up to 15 percent, as well as the carbon footprint and total cost of ownership.

Mixed-reality workshops

Mixed reality is a new concept that merges the real and virtual worlds. It features elements of augmented reality, augmented virtuality and immersive technologies that assist technicians.

CNH Industrial is partnering with Microsoft in an innovative mixed-reality pilot at Heuliez Bus and Case IH brand workshops. HoloLens glasses enable technicians to interface with Company experts located throughout the Europe, Middle East and Africa (EMEA) region, hands free, while at work. Questions are answered quickly, making for timely interventions, so customers get their machines back faster.

Robotic Process Automation

Robotic Process Automation (RPA) uses special software – or 'bots' – to do work once undertaken by humans. Several RPA initiatives are being piloted in the purchasing and finance departments, executing repetitive, rule-based processes, reducing human error, improving accuracy, and affording employees more time for higher value-added tasks.

Further projects are under investigation with other departments. "I hope we will have five bots within a few years," says

Vahe Ter Nikogosyan, Chief Information Officer EMEA at CNH Industrial, who has led the group's nascent RPA program.

Digital innovation

One of the strengths of CNH Industrial is its global workforce. Project teams are often comprised of individuals not only working in different time zones, but also on different continents. In addition to the Company intranet, available in six languages, new tools are continually assessed to see if they can help employees in their daily activities. "We have invested in a range of tools that bring teams together," says Luis Abreu, Global End User Services at CNH Industrial. "In 2017, we successfully trialed three collaborative working tools: SharePoint Online, Yammer and Project from the Microsoft Office suite. These will be extended to all regions in 2018."

Reducing emissions through modernization

Throughout 2017, ICT looked at how it could reduce its environmental footprint. "Many of our employees spend much time using computer-based services and applications. Any reduction in CO₂ emissions we can make through smart hardware and software choices can have an impact," says Guido Barbero, Chief Technology and Security Officer.

Some notable savings have been achieved:

- 3,000 personal computers were replaced with more efficient power-supply units, reducing CO₂ emissions by 276 tons compared to 2010
- 4,580 computer monitors were replaced with EnergyStar and EPEAT Silver/Gold-rated units to ensure a low lifetime environmental impact
- 167 physical servers were eliminated and 60 virtualized, while 234 new virtual servers were created. This resulted in an annual reduction in energy consumption of 7,575MWh – saving 3,696 tons of CO₂ emissions over 2010 levels

Three projects in India are helping hundreds of people get the skills and education they need to lift them out of poverty



Hands-on help with lessons in life

It's October and a group of visitors from CNH Industrial's Corporate Social Responsibility (CSR) India team are in a noisy classroom at a school in Noida, Uttar Pradesh. Shriya, a bright 10-year-old in Class III, in her smart uniform and braided hair, tells them of her ambitions to be a doctor.

Shriya attends the Mission Education Centre, a charitable school founded by army veterans to help Noida's underprivileged children. New Holland Agriculture sponsors the school and the visitors were checking on progress.

"We fund the education of 200 children at the school, between the ages of seven and 15, up to Standard eight. It's part of our CSR, with its focus on education and the environment," explains Kavita Sah, Head of CSR India at CNH Industrial and one of the visitors. "The children attend from 8am until 1.30pm and learn math, English, Hindi, history, geography and other subjects, and it was great to meet some of them."

Investing in education

The school was recommended to CNH Industrial and New Holland by the Smile Foundation, an NGO that matches sponsors with projects. After working together for just over two years, the results are plain to see.

"Attendance is up to an average of 95 percent from somewhere between 30 and 40 percent before our involvement. More girls are coming to school – they account for 52 percent of the school roll, up from less than 40 percent. And since we became involved, all the children continue to the next school level to finish their education," she says.

This is hugely important in order to enable them to join the formal workforce, which in turn enhances their chances of getting a good job.

Poverty is a huge problem in the school's local community of three or four slums that are home to some 10,000 people. Shriya lives there with her



New Holland, through the Smile Foundation, is improving educational opportunities for underprivileged Indian students

grandmother and mother, who is the sole breadwinner, working as a housemaid – a typical story among her fellow students.

Maximizing the opportunity

With high attendance and 100 percent now going on to finish their education, the school allows Shriya and her fellow students to hope for a brighter future than many. And to make sure their opportunity is maximized, the Company's sponsorship goes deeper than purely financial.

"Getting the children to come to school in the first place can be hard," says Sah. When she looked into what would increase their motivation for turning up, it turned out to be extracurricular activities and making learning fun.

"We run competitions – last year there were drawing, painting and cultural competitions, and we had a science exhibition organized by some of the children. We also offer health checks as well as sex education – know your body, stay safe, stay healthy," she says. She also set up community mobilizers – people to knock on doors and explain to families the importance of education and that the school is free.

Training for teachers

Lessons have also become more activity-based, with worksheets, science kits, maps and globes, and there's extra support for students who need it. "We've given training in activity-based teaching and provide special classes in math and English for the less able students," she says.

So successful is the scheme that there are plans to lift the headcount to 220 this year. "After the initial set-up costs, there's now more money to spend on educating more children," explains Sah.

And it's not just the students who – like Shriya – attend the morning sessions who have benefited. A different group attends afternoon sessions in vocational training. While New Holland is not actively involved in this aspect of school life, it's clear the Brand's support for the morning has had a positive impact here, too.

Social benefit

"The school's reputation has benefited from the work we do with the morning sessions. It now has better teachers and better systems, and people who come often have family members who attend the morning school. It has all worked to encourage more students to join in the afternoon," says Sah. "It's a social benefit."

Parents are delighted and grateful. "I am fully assured of my daughters' education and safety as their performance and learning levels are constantly improving. Thank you so much CNH Industrial, New Holland and Smile Foundation," said Shyamlal Mishra, whose daughters Prema and Radhika attend the school.



Construction-machine training provides practical skills (above), while agri-training schemes empower local communities to enhance productivity (below)



"When I speak to parents they say a great load has been lifted from their shoulders. They can't afford to pay fees and they know their children are going to a good school run by good people," adds Sah.

Agritraining programs

Similarly encouraging results are coming from two other CNH Industrial community projects elsewhere in India – both in the agricultural and construction-equipment business. The first project is aimed at increasing standards of living in rural areas by teaching farmers advanced cropping techniques.

With low agricultural productivity across much of India, farmers often need to augment their incomes with other activities. By offering training in crop systems, maintenance, animal rearing, mushroom cultivation, biogas plant composting, beekeeping and silk farming, CNH Industrial has been able to help 900 farmers (men and women) in three locations – two in Karnataka and one in Rajasthan.

Skills development training

The other project, started in August 2017, focuses on helping unemployed youth learn how to operate a loader backhoe, giving them the skills to get a job.

India faces high unemployment along with a dearth

of skilled, educated labor. CNH Industrial's brand CASE Construction Equipment hopes its project will help tackle this twin problem. It set up two construction-equipment training centers in western and southern India, and developed a course tailored very closely to the needs of the participants. "They learn how to operate the loader backhoe, to read and understand the manual, maintenance, repairs and safety, along with basic soft skills such as courteous behavior, which is helpful when dealing with customers and employers," says Sah.

Literacy rates are low and because operation of the loader backhoe requires a high level of skill, much of the teaching is based on verbal rather than written materials. In addition, 15 days of the 60-day course are spent gaining practical, on-the-job experience.

As of February 2018, some 80 operators had been trained, with 30 of those already placed in jobs. Ten more were undergoing training.

Both the education project in Noida and the training initiatives in Rajasthan and Karnataka are improving the lives of their participants. Close involvement by CNH Industrial and its brands, constant dialogue, and the use of shared resources such as loader backhoes, mean that all the projects have achieved more than would have been possible with funding alone.

Where respect for the environment meets technology



"Drones monitored how the crop was progressing and this information was used to apply manure according to need. The result was a 6% higher yield than before the project started"

CNH Industrial is helping to create an open digital ecosystem to optimize the role technology plays in sustainable farming

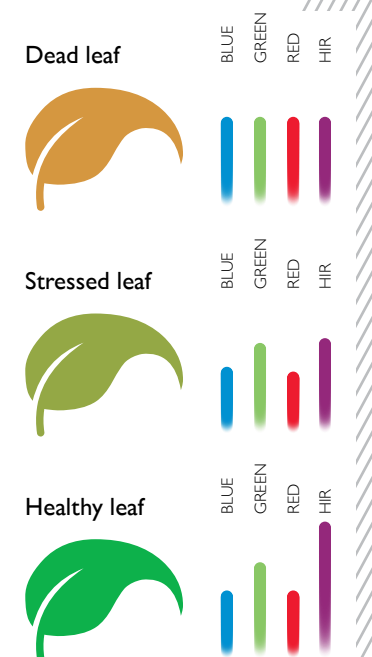
Sustainable farming is about the careful husbanding of all our resources. It's a balancing act to make sure we produce enough to feed the planet while protecting local ecosystems and the global environment. To this end, CNH Industrial has developed a range of hi-tech solutions involving telematics and precision farming that collect data to help farmers operate more efficiently with fewer inputs, generating higher yields.

The product range includes drillers and sprayers that can be programmed to regulate the flow of seeds and fertilizer across a field according to need; combines that can analyze the harvest; drones that take pictures of crops as they grow; and much more.

The technology is popular among farmers, particularly in certain applications – plotting the most efficient tractor course across a field, for example. But it has also been apparent that many have not been using some of the more complex applications, such as soil quality and fuel mapping – perhaps deterred by the perceived difficulty – even though they help save time, fuel, fertilizer and water, while increasing yields.



Accurate field maps are used to fine tune inputs and enhance yields



The drone's camera analyzes the different quantities of each color of light in the spectrum. Depending on the amount of each color detected, this is then used to determine the health of the leaf, and is extrapolated to the wider crop field



The Case IH Benelux Team worked with the grower to demonstrate the advantages of precision-farming technology



Compatibility issues

"Farmers who had invested in these technologies often complained about complexity and the effort required to get everything to work together. They were also reluctant to share data, concerned about how it might be used by third parties, and unaware of the benefits sharing brings," explains Vik Vandecaveye, Head of Connected Services Industry Relations in the Precision Solutions & Telematics Department at CNH Industrial in Belgium. "When we found this out we started thinking about what we could do to help."

Compatibility was a big issue. Farmers often have machinery from multiple suppliers, and the equipment has traditionally run proprietary software. For example, Case IH tractors run different software to those of the competition. "Manufacturers and software companies have focused to date on getting the technology and features into their software. The compatibility between products has not received much attention. Solutions are often supplier specific, lacking genuine compatibility with different brands' product offerings," he says.

But the problems weren't limited to standards and compatibility. CNH Industrial quickly realized that there was also a dearth of education and training.

"Much of the problem seemed very chicken and egg. Manufacturers are hesitant to implement standards when software platforms don't yet support them," Vandecaveye says. "And software platforms

don't support the standards because no vehicle is speaking a universal language."

An open ecosystem

CNH Industrial's approach has been aimed at creating an open ecosystem. It has started supporting the Open Ag Data Alliance (<http://openag.io>), an organization developing common interfaces for data exchange in agriculture. At the same time, it got involved in AgGateway, a non-profit group promoting digital farming, with a particular focus on connectivity. It has some 230 member companies and is working on a variety of connectivity areas. ADAPT is its first solution. "We've finally got a solution in ADAPT, a simple software plug-in that translates data for different software packages," says Vandecaveye.

Farmers have seen the benefit of collecting data sets on yields, inputs and soil quality. But these just scratch the surface of what could be collected, and CNH Industrial is looking at new categories of data whose analysis could contribute to further yield increases.

Fuel mapping

"By recording and mapping fuel consumption and the load placed on the engine as it drives through the field, a farmer can see variations in the quality of the soil," says Vandecaveye. Denser soil will make the equipment work harder, using more fuel. This

map can be given to a crop adviser, who can use it to get insight into the structure and quality of the soil across the field, both of which influence planting patterns such as the distance between seeds and depth of planting. Heavier soil might ultimately mean planting further apart."

The Case IH team in the Benelux markets, Belgium, the Netherlands and Luxembourg, realized that advanced precision technology could assist local potato farming. So they worked with a grower to unlock a whole host of benefits. This trial, piloted by Marc Devriese, Case IH and STEYR Business Director for the Benelux, saw the use of fuel maps combined with data collected by drones to decide how far apart potatoes would be planted. "During the growing season, drones monitored how the crop was progressing and this information was used to apply manure according to need. The result was a six percent higher yield," says Devriese. Soil compaction data was also collected, which was subsequently used to optimize the level of inputs including seeds and water, as well as how deep to plant.

"This data can lead to very technical analysis of the field at no extra cost to the farmer. The precision technology is already incorporated into their equipment. Once the farmer has a map and a plan from the crop analyst, the equipment will work out all the details, automatically adjusting the variables," concludes Devriese.

Sharing the benefits

Throughout the course of the pilot, Case IH also realized the need to educate farmers about the value of sharing the data they collect. While many could see that using their own data would increase yields and save on inputs, others had concerns about sharing it with third parties – and were unaware of the possible upsides, including reductions in inputs such as fertilizer and water.

"The farmers feared it might be shared with competitors, or even that they would be judged. Farming output data is very emotional as it represents everything they've done. But the insights gained from shared data bring even greater benefit to the bottom line than a single farm's data alone, so it was important to get them onside," he says.

Transparent data ownership

CNH Industrial became an active contributor to developing the farming code of conduct and data ownership principles to bring transparency and clarity. It was also the first to confirm that the farmer owns the data rather than the equipment or service provider. This means farmers remain in control of how the data is used. "It came down to generating trust," says Vandecaveye. "We are now explaining the benefits and how the data can bring value."

Proof of the benefits of sharing data comes from a study started in 2006, when a small group of sugar-beet farmers in the Netherlands collaborated and enjoyed a jump in yields of some 20 percent. "If you know what your neighbor is doing in terms of fertilizers, irrigation and pesticides, it can affect what you do," says Vandecaveye. "It also helps small farmers come together to farm as if they were bigger, so they can get the benefits of scale."

The Company started communicating the advantages of data sharing at conferences and workshops, and helped establish the Ag Data Coalition, which acts as an independent, secure data repository drawing on academic and industry experience. And to encourage widespread data collection, CNH Industrial will be providing all digital features as standard on new generations of medium to large equipment. "The ecosystem will get a boost as more vehicles and data sources become available. We want to make it as easy as possible for the farmer to participate in the digital value chain," explains Vandecaveye.

CNH Industrial is doing all it can to prove the value of data and of the data ecosystem, and Vandecaveye is convinced that its efforts are having a positive effect. "We've managed to get one standard and are working on more. We've got examples of how different data sets increase yields, and we're incorporating the technology on our equipment as standard. It's all progress," he says.

HOPE IN THE FACE OF DISASTER

CASE Construction Equipment and Team Rubicon, a veteran-led disaster-response organization, provide relief for victims of natural disasters

CASE provided equipment to Team Rubicon to assist in the clean-up operations following Hurricane Harvey in Texas, USA

In 2017, CASE Construction Equipment unveiled a special edition of its most powerful skid-steer loader – the SV340 – to promote its partnership with Team Rubicon, a non-profit, veteran-based disaster-response organization. The specially adapted machine was used across the United States – by Team Rubicon in the field and at training events – to support those affected by natural disasters, including Hurricane Harvey, which hit the country's south-eastern coast in August 2017.

"We've taken our largest skid steer and added specialty guarding, storage, safety and attachment features that align with the work Team Rubicon does," explains George MacIntyre, Product Manager, CASE. "This skid steer is a great ambassador for the partnership as it embodies the sense of community service, patriotism and veteran workforce development that is at the core of the relationship between CASE and Team Rubicon."

Team Rubicon says the heavy machinery boosts productivity. "Whenever we have CASE equipment on the ground at a disaster site, we're able to get more work done, faster," explains David Venables, Construction Manager with Team Rubicon. "That means we can get more families back on their feet sooner, which means local economies get back to business sooner. CASE is a great example of how strong partnerships enable Team Rubicon to perform its mission of providing relief to communities in the wake of natural disasters."

The partnership: a natural fit

Since 2015, CASE – in partnership with the US Fish and Wildlife Service – trained Team Rubicon staff in how to use heavy equipment. By supplying both machinery and qualified people, CASE now teaches Team Rubicon personnel the special skills demanded by disaster-relief equipment operation. In turn, Team Rubicon's core group of certified instructors can pass on these skills to its volunteers through a formal training program. To reduce risk, training takes place in a controlled environment rather than in disaster zones.

"We train our volunteers in a safe and thorough manner, so that when they headed down to Texas to help with the clean-up after Hurricane Harvey, they were able to do the work there in a proficient and safe manner," explains Kyle Doyon, who serves as an Incident Commander with Team Rubicon.

Hurricane Harvey: Operation Hard Hustle

In September 2017, with the support of CASE and Sonsray Machinery (a CASE dealer), Team Rubicon undertook Operation Hard Hustle. Volunteers and equipment arrived at Rockport and Aransas Pass, Texas, where the eye of Hurricane Harvey hit. They witnessed a scene of total carnage, with most homes destroyed or left uninhabitable. The

objective was to clear up, remove hazards and create safe conditions for reconstruction.

"You can't understand the devastation leveled by a hurricane until you stand in its aftermath," says Scott Harris, Vice President Construction Equipment, NAFTA, who was in Houston immediately after the storm and saw the aftermath first hand. "It disrupts basic services and infrastructure for weeks and potentially months. We were committed to doing what we could with Team Rubicon to start rebuilding the community."

Hurricane Harvey caused an estimated \$125 billion in damage, according to the National Hurricane Center, and affected 13 million people from Texas through Louisiana, Mississippi, Tennessee, and Kentucky. It is a huge logistical challenge to reinstate living accommodation and local amenities. To support the operation, the Team Rubicon SV340 was on site, as well as an SV270 skid steer, a CX75C excavator from the Tomahawk Customer Center in Wisconsin, two CX210D excavators from Company inventory, an excavator CASE rented from a local dealer, and Sonsray's two TV380 compact track loaders. Team Rubicon deployed 1,762 volunteers to Texas to help with debris removal, damage assessments, muck-outs, expedient home repair and chainsaw operations. Strike teams on the ground serviced 972 homes in three months; now, the organization is shifting into long-term recovery to help rebuild homes impacted by Harvey.

"What CASE staff saw in Rockport and surrounding areas were communities coming together to lift each other up and rebuild, and Team Rubicon was there at the forefront," says Harris. "It's that sense of community and civic responsibility that drove us, and dealers such as Sonsray, to step up and join them in Texas."

Rebuilding homes and the economy

Earlier in 2017, CASE also supported Team Rubicon's heavy-equipment mission in Hattiesburg, Mississippi, to help clear up after a catastrophic tornado hit the region in January. As part of Operation Iron Bird, CASE dealer JWH Equipment from Jackson, Mississippi, supplied a CX160D excavator and a TR340 compact track loader that were pivotal in helping to demolish 17 severely damaged houses and remove the debris from 13 other properties.

"JWH Equipment stepped up and saw an opportunity to help people in their own community, and we're proud of the work all partners accomplished in Mississippi," says Harris. "This was a perfect execution of what this partnership was intended to be."

Team Rubicon strongly supports this view: "Having the CASE heavy equipment here means we can accomplish in two hours what would normally take a full day for a crew working with



CASE trains Team Rubicon personnel so that upon deployment they hit the ground running with operational machinery skills (above); Team Rubicon puts CASE equipment to good use during Hurricane Harvey clean-up operations (right); and the Team Rubicon Mobile Command Center (bottom right)

hand tools," explains Victor Civitillo, a certified heavy-equipment instructor and operator with Team Rubicon, who managed the deployment. "Together we can help families get back on their feet faster, and that means the whole community and the local economy recover faster."

A helping hand: CASE staff volunteer

Although the primary objective is to offer relevant machinery to help in the recovery of communities hit by natural disasters, there is also a benefit to CASE employees, who enjoy participating in such important and life-enhancing projects. A team of 13 CASE volunteers helped with the clean-up during Operation Fox Yeah in Kenosha County, Wisconsin, and McHenry County, Illinois, after severe storms caused substantial flood damage in the area.

When Team Rubicon is involved after a natural disaster, it always assesses and then targets areas with the people most in need. Brad Stemper, Product Manager, CASE Wheel Loaders and Compact Wheel Loaders, took part in the clean-up and says the team spirit and sense of togetherness made it an unforgettable experience for everyone.

"It is so satisfying to contribute," he explains. "People are so appreciative of the camaraderie and moral support. Success is not about huge-scale operations. Helping even a small number to hope and believe that life can return to normal is important."



Rebuilding communities

Habitat for Humanity, a non-profit organization, has helped shelter 9.8 million people in more than 1,400 communities in the United States, and 70 countries worldwide, since it was founded in 1976. In 2017, CNH Industrial continued its support for the charity with a wide range of initiatives, from providing staff volunteers to give a helping hand on building sites, to donating heavy machinery for clean-up and demolition projects.

Constructing a new family home

Over the past year, 140 volunteers from CNH Industrial have dedicated 879 hours to community projects near Company facilities in Fargo, North Dakota, Burr Ridge, Illinois, and Racine and St Nazianz, Wisconsin.

Thirty employees from the Fargo plant joined the Lake Agassiz Habitat for Humanity Chapter for two days in 2017 on a project dedicated to the memory of police officer Jason Moszer, who was shot dead after intervening in a domestic dispute.

The house where the incident occurred was torn down to make way for a new one built by Habitat for Humanity, who chose Danielle John and her family to be the new owners. John was offered a no-profit mortgage, and had to contribute more than 250 hours of work building her new home with the Habitat for Humanity team and volunteers from the community, including CNH Industrial staff.

On day one of the project, the team of volunteers helped put up the framework of the first floor of the house and had a wall-raising ceremony, which was attended by the officer's widow. On day two, they framed the second floor and put up the wooden structure for the roof.

"CNH Industrial staff not only have a positive impact on the local communities where they volunteer, but they also get a huge amount of personal satisfaction by helping fellow community members in need," says Michelle Javaherian, Community Relations Specialist, CNH Industrial, NAFTA. "Supporting the communities in which we operate is also a very important part of our Company philosophy."

CNH Industrial continues its decade-long partnership with Habitat for Humanity, providing people with shelter in communities where the Company operates

The fight against urban blight

In September 2017, CNH Industrial worked with Habitat for Humanity through CASE partner Team Rubicon, a veteran-led disaster-response organization that brings together skilled military veterans with first responders following natural disasters. Together they embarked on Operation Fearless Mary in Roosevelt Park, Grand Rapids, Michigan, an area suffering from poverty and urban blight. The objective of the project, which will continue through 2022, is to create new family homes, retail outlets, green spaces, and a high school for 500 students.

Team Rubicon brought in 72 volunteers and 20 new members, and CASE provided an SR240 skid-steer loader and SR270 skid steer, as well as the Team Rubicon SV340. CASE Construction Equipment and dealers RPM Machinery and Southeastern Equipment donated two more skid steers and two excavators to help remove debris prior to the construction phase.

"There's a lot of moving parts to this project, and one of them is debris removal," says Cort Beard, Managing Director of Operations for Habitat for Humanity of Kent County, and a Regional Field Operations Manager with Team Rubicon. "We removed close to seven million pounds of debris from the worksite."

Beard estimates the operation carried out by Team Rubicon and the other partners involved in the project saved the community about \$347,000 in total expenses. "That's a huge saving and helps Habitat for Humanity continue to grow," he says. "It's been a tremendous experience. It's amazing that we have volunteers from across the country, as well as from Team Rubicon Canada."



Burr Ridge Intern build team (opposite page). This page, from top: beginning of day one build in Fargo; the assembled team; Fargo Plant Manager Adi Garg speaking at the wall-raising; Burr Ridge Intern team hard at work; colleagues from St Nazianz

Smart recycling for the community



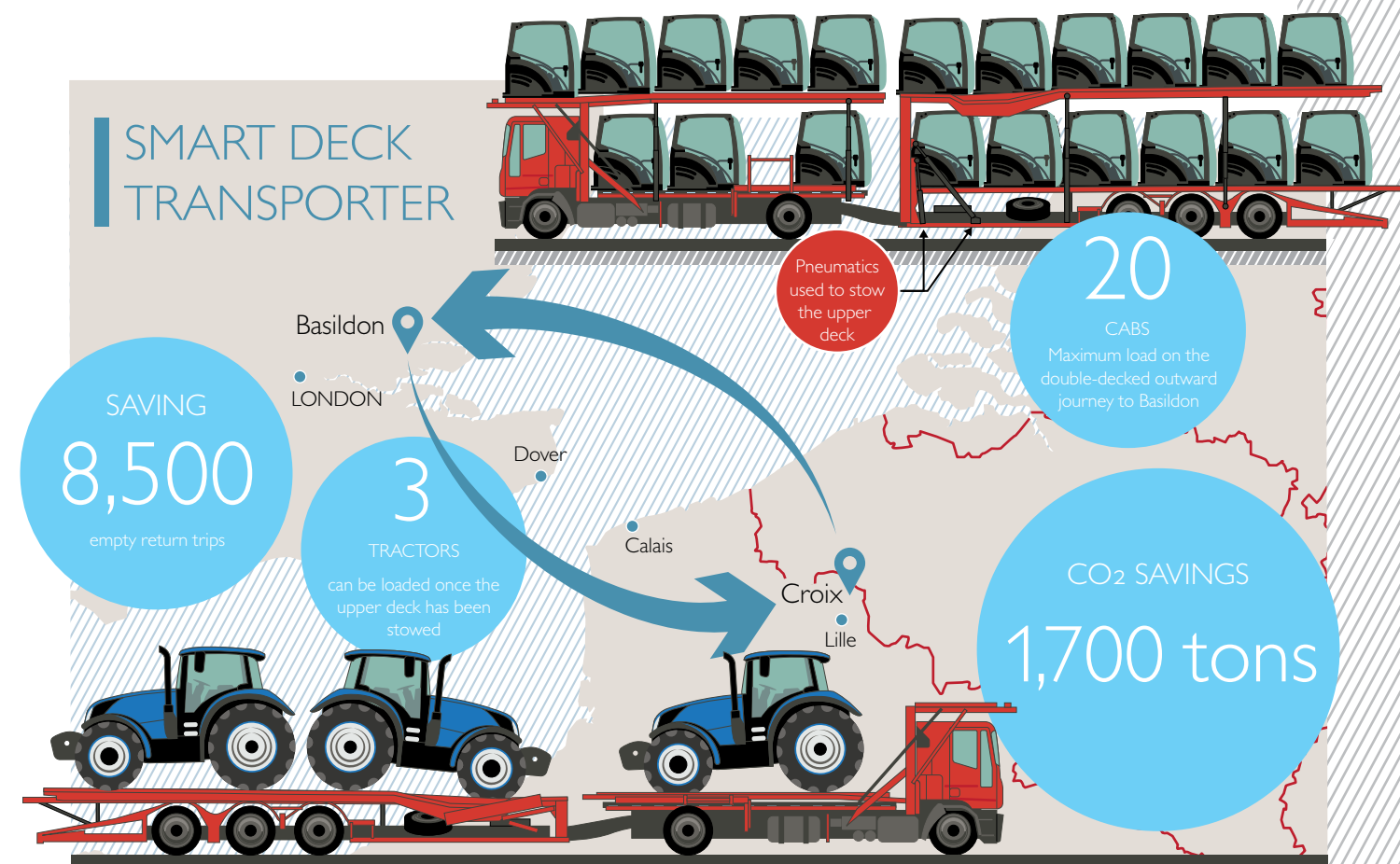
CASE exhibit at CONEXPO-CON/AGG 2017 in Las Vegas, Nevada, USA

In March 2017, CASE Construction Equipment donated more than \$175,000-worth of materials from its exhibit at CONEXPO-CON/AGG 2017 to Habitat for Humanity. This included 40,000sq ft of carpeting and padding, and 5,634sq ft of finished plywood paneling. "Partnerships such as this help us continue our mission to bring people together to build homes, communities and hope," says Veronica Martinez, Director of ReStore Donor Relations, Habitat for Humanity Las Vegas.

To reduce waste, the main structure of CASE's booth will also be reused by other vendors for future events, and all marketing materials, signage and

branding will be repurposed at the Company's facilities and dealerships. The aim is to leave almost zero impact on landfill and waste services following CASE's presence at one of the world's largest trade shows.

"Trade shows place a heavy burden on landfill space, and sustainability is a top priority for our Company," explains Athena Campos, Senior Director of Marketing, CASE. "Giving back to the community is also core to our brand and our people. This initiative combines both efforts, where we can supply Habitat for Humanity with much-needed supplies for building new homes and simultaneously reduce our wasteful footprint."



A smart solution to wasted truck journeys

Before 2009, double-deck trailers delivering tractor cabs built at CNH Industrial's factory in Croix, north-eastern France, would arrive at the New Holland Agriculture plant in Basildon, UK, unload and then drive back completely empty. The finished tractors built in Basildon were too tall to fit on to the trailers because the second deck was fixed in place.

This was the definition of an unsustainable process, and CNH Industrial's logistics team was determined to put an end to it. Working with tractor transportation partner De Rooy, of the Netherlands, CNH Industrial developed a new two-deck trailer with a collapsible top floor. When the second level is stowed, this creates a single-deck trailer large enough to carry the finished tractors from Basildon back to France or Belgium, for onward global distribution. Truck drivers can raise or lower the second deck at the touch of a button.

Making this change has saved an astonishing 8,500 empty trips between 2010 and 2017, says Fabrizio

Sanna, Head of Logistics Contracting for Europe, Middle East and Africa. It has also saved 1,700 tons of CO₂ to date, and cut emissions of diesel particulates and other polluting gases as a result.

Double-deck trailers are common in the car-transporter segment, however they are not able to carry the weight of tractors; this is why a heavy-duty car transporter with a hydro-pneumatic-powered second deck was adopted.

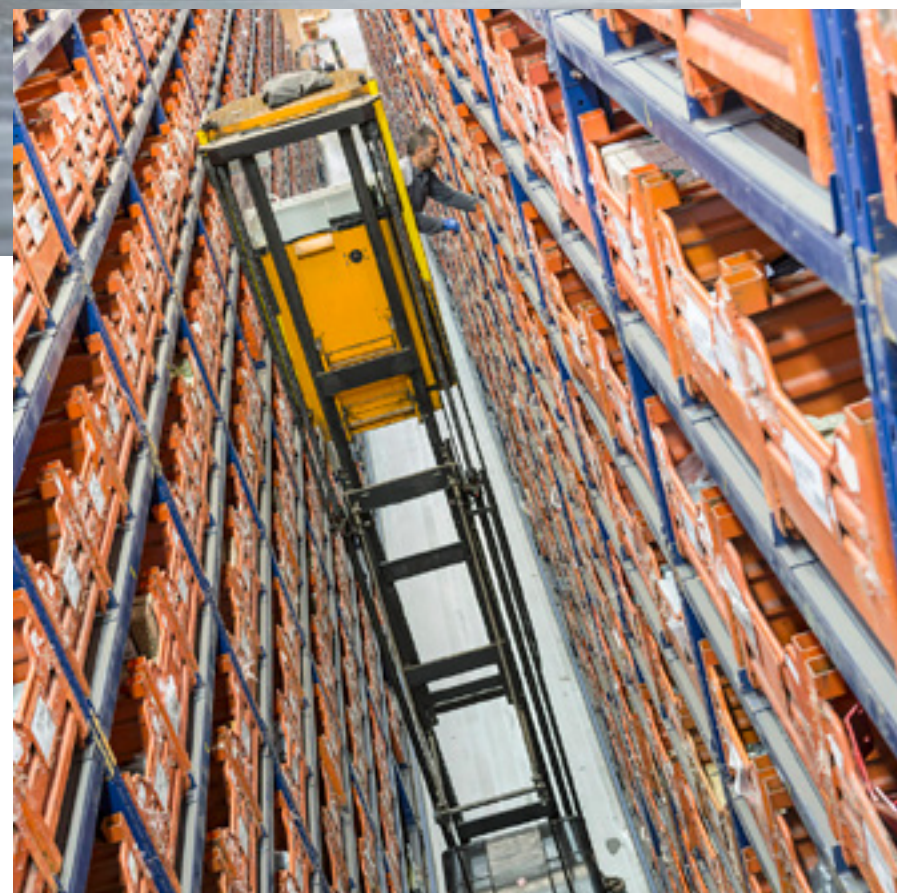
"We had a superb level of co-operation with the provider," says Sanna. "We knew what the issue was – we were shipping empty trucks on the way back. But without the engineering expertise of the provider, we would not have achieved this level of success."

After implementing the change at the Basildon facility, in 2011 CNH Industrial was able to replicate this best practice at St Valentin, a Case IH and STEYR tractor plant in Austria. There are now eight double-to-single-deck trucks in the fleet in Basildon and 12 in St Valentin.

APPLYING LOGIC TO LOGISTICS

A PROGRAM IMPLEMENTED ACROSS FIVE MASTER DEPOTS REDUCES WASTE AND LOSSES IN A STRUCTURED WAY, IMPROVES SAFETY, STANDARDIZES PACKAGING AND EMPOWERS EMPLOYEES TO SUGGEST THEIR OWN IDEAS TO INCREASE EFFICIENCY

Standardized packing has improved handling processes in depots



CNH Industrial's World Class Logistics (WCL) program puts in place ambitious goals for quality and customer-service improvements, and operating-cost reductions in the Parts & Service division. WCL mirrors the priorities of World Class Manufacturing (WCM), the efficiency-focused production management model implemented by the Company for more than a decade.

"The main principle of WCM and WCL is the reduction of waste and losses, with the goal of achieving no safety incidents and no quality defects," says Rosella Risso, Head of Parts & Service Distribution for CNH Industrial, who has responsibility for WCL.

"That naturally involves sustainability; how we improve our internal and external logistics flows to

deliver the right part to the right customer in the right quantity at the right time, while minimizing the environmental impact in terms of packaging and packing material, and energy consumption."

Furthermore, improving safety and ergonomic conditions for operators at the Company's Parts & Service depots is just as important to the WCL program as using time and materials more intelligently.

Four master depots introduced the WCL program, starting in 2015: Modena in Italy and Sorocaba in Brazil were first, followed by Le Plessis in France, and Lebanon, Indiana in the USA. They cover the agricultural, construction and commercial vehicles segments, and receive materials from suppliers and also serve the local depots. WCL is now being expanded to other depots, including Turin in Italy, the Company's biggest commercial vehicle depot.

Root causes of waste

Reducing operating costs by cutting out losses and improving customer service may seem like two contradictory goals. However, by analyzing where losses are occurring and applying specific tools and methods to combat them, WCM and WCL allow CNH Industrial to do both.

"It's a big challenge," says Risso. "It's not simply a case of cutting costs by reducing inventory. Instead we try to reduce overstock and obsolescence in the inventory."

A smaller inventory saves money, and also has a positive environmental impact because it reduces the amount of obsolete parts that the Company will eventually need to responsibly dispose of.

Working smarter

Another area where WCL has reduced waste and improved customer service is in packaging. Analysis showed that the number of different kinds of cartons, crates and wrapping in use could be reduced through standardization. Priority was given to the most stackable forms of packaging, to save space and cut the number of journeys, and Risso says several pilot projects involving suppliers using returnable containers are working well.

By reducing packaging complexity, depots are able to buy fewer models and benefit from economies of scale, while also improving handling processes because operators are not driving to different parts of the site to collect specific kinds of packaging.

The WCL program is also addressing the flow of parts between suppliers and depots. In a number of pilot schemes in the Europe, Middle East and Africa (EMEA) region, the Company is linking suppliers directly with local depots instead of doing all the deployment through the master depots.

Empowered people

The first figure to be collated across the WCL program was employee involvement, which has increased from 60 percent in 2016 to 95 percent in 2017. The reason this figure is so important is that "employee engagement is key to the success of this initiative", says Risso, adding: "They know in detail what is most important and what could be improved in their working areas."

Some 500 people have now been involved in projects and training, and the Company has given all employees the chance to make a direct impact on the ergonomics and safety of their workplace, so they can make suggestions that are assessed for suitability of implementation.

"When people see their recommendations have been implemented, they really get on board, because safety and ergonomics directly impact their lives," says Risso.

"The operators are very pleased to see that we



“Safety has improved, as we no longer catch our feet in pallets or pallet trucks, and we make fewer mistakes because we are no longer searching for parts. Overall, I feel more productive and more professional”

Marjorie Colot, center, Packing Standard Technician at the Le Plessis depot



Modern Parts & Service depots are organized along WCL principles.

are taking an active interest in them and their work,” adds Frédéric Cartier, Packing Area Manager at CNH Industrial’s depot in Le Plessis. “People have been re-energized and have ‘reclaimed’ their work areas.”

The Parts & Service depots have also introduced technical solutions to reduce the risk of accidents, by increasing separation between man and machine. Safety is a specific pillar of WCL and is audited with its own score. Each event, whether an accident, a near miss or unsafe condition, is analyzed in depth to identify the root cause, and robust measures are then taken to eliminate the risk.

“Safety has improved, as we no longer catch our feet in pallets or pallet trucks,” says Marjorie Colot, Packing Standard Technician at the Le Plessis depot. “We make fewer mistakes because we are no longer searching for parts. Overall, I feel more productive and more professional.”

Logistics supported by technology

Technology has a key role to play in WCL. CNH Industrial is upgrading its operations in every depot worldwide with a warehouse-management system called ‘Click’ that covers all depot operations and tracks cycles, productivity and time management.

There is also a new pilot project that uses camera recognition to ensure all the parts requested by a specific customer are picked and packed in the right quantity, and an improved inbound tracking process that lets the depot know in advance the part numbers, number of parcels and quantity of parts linked to each shipment, to reduce the time it takes to upload the delivery into the warehouse-management system.

Auditing system

As with WCM, WCL is assessed by external auditors and measured across ten technical pillars:

safety; cost deployment; focused improvement; work-place organization; professional maintenance/autonomous maintenance; quality control; logistics and customer service; early equipment management; people development; and environment. There are ten managerial pillars that sit alongside the technical pillars, with their own audit criteria, and both sets of pillars must improve in tandem.

CNH Industrial sets global targets according to WCM/WCL audit criteria for both the technical and managerial pillars, then auditors evaluate the actual status of the pillars and make suggestions for improvements to bridge the gap between reality and the target.

“WCL standards are the same in all regions,” says Risso, adding that the scores show some differences because each site started from a different base and has its own challenges. “We are currently in the early stages, and our scores reflect this,” she adds.

As part of maintaining employee involvement, there is a WCL depot coordinator at each site, as well as a central WCL team developing and sharing standard guidelines for all depots.

A force for good

CNH Industrial Parts & Service is ideally placed to understand what happens to CNH Industrial’s products throughout their lifecycles and at the end of them, and to influence recycling. One example was the move to offer a ‘green filter’ with a replaceable cartridge, rather than replacing entire engine filters.

Thanks to the combination of highly-detailed problem analysis, prioritization of the issues, the application of the right tools and the standardization of procedures, the WCL program has given the logistics division the chance to lead the way in thinking and acting sustainably throughout the lifespan of CNH Industrial’s products.

THE ENERGY-EFFICIENT PRODUCTION LINE

In 2017, CNH Industrial invested in 328 energy-efficiency projects across its four regions. The changes made resulted in reduced annual energy consumption of 262 terajoules, the equivalent of around 73 gigawatt hours – enough to power 6,210 average US homes for a year, according to the US Energy Information Administration website. Projects included replacing existing lighting with LED technology, converting and retrofitting equipment, redesigning industrial processes and raising employee awareness. Here the IVECO plant in Madrid, Spain, is used to highlight projects implemented in our plants around the world.



PUMPS, FANS AND MOTORS

- Installation of inverters that optimize the electric absorption of fans
- Ventilation optimization

Case study: In 2017, plants in Fargo, Goodfield and Wichita, USA upgraded the dust-collector operations that monitor welding fumes and were causing a spike in electricity consumption due to their large motors. By programming them to match production schedules, and using opacity sensors that check air quality, they now only work when the welders in the collector-controlled area are operating, saving a total of 3,042GJ in energy, and reducing CO₂ emissions by 576 tons per year

METERING

Expanded across all sites

ENERGY RECOVERY

Heat recovered from painting ovens and compressors is reintroduced into the system and used for chilled-water generation to reduce the amount of primary energy required

HEATING AND COOLING PROCESSES

- Replacement of old heating systems and application of optimal set points
- HVAC (heat ventilation air-conditioning) system efficiency and maintenance
- Replacement of burners with more efficient models
- Insulation of ovens
- Introduction of start-up and shutdown procedures
- Cooling reduction

LIGHTING

- Continued installation of high-efficiency lighting systems (LED) inside and outside plants
- Use of presence detectors and dimmers
- Use of solar lamps
- Creation of skylights to exploit natural light

Case study: In 2017, 73 percent of lighting at the plant in Rorthais, France, was converted to LED technology. Further progress is planned for 2018, and it is working towards becoming a Green Plant or 'Usine Verte'

BUILDINGS

- Roof repairs
- Insulation of walls
- Installation of rapid-close doors to keep heat in

COMPRESSED AIR

- Sealing air leaks to improve efficiency and modulation
- Lowering overall pressure
- Increasing machinery shutdowns and the introduction of portable compressors during idle periods

DRIVING THE PACE OF CHANGE



Overall emissions are 80% lower than a standard diesel tractor and when fueled by crop residues and waste materials, the methane concept tractor has a zero CO₂ profile

Futuristic styling

It's fair to say that nothing like this tractor has ever been seen in agriculture before. And an extraordinary concept demands extraordinary exterior design. David Wilkie, CNH Industrial's Design Director, spent 30 years in automotive design before joining the Company. He says the methane concept tractor is a new departure.

"What we've built is very special; there's nothing else like it – it's a genuine first," he says. "There's something very fresh about the challenges of agricultural design. I feel it's something that's really helping the world; it's not like producing just another concept car. The details of the design were important and the whole tractor had to be more ergonomic and easier to use, so we went into considerable depth with the design."

Brainstorming for that design was a global effort and involved teams in Turin and Modena, in Italy, and Chicago, USA.

"It triggered some really positive competition – it really raised the bar," explains Wilkie. "Twice a week we'd review the ideas and choose the best bits. It was my job to pull it all together and bring in as many good ideas as possible."

But the design ideas had to be absolutely functional. "We had to build a 100 percent functional tractor. Cars sell on style, but tractors sell on functionality. We had to remember that although



Advanced technological solutions make the tractor more ergonomic

CNH Industrial is one of the companies setting that pace. In August 2017, its global brand New Holland Agriculture unveiled a pioneering methane-powered concept tractor that is spearheading the move away from fossil fuel-powered agricultural vehicles towards truly viable renewable resources.

The concept goes further than simply reducing emissions. This tractor offers a new way to farm sustainably by completing a "closed-loop" virtuous cycle using biomethane from energy crops and recycled waste products produced from the farm and food industry. The tractor offers technology that is future-proofing power and ultimately helping to combat climate change.

A history of sustainable innovation

CNH Industrial's brands have a long history of developing natural gas-powered vehicles and are already the market leaders in this area. The new methane-powered concept tractor represents a

significant technological advance, building on the foundations of previous prototypes. FPT Industrial, the powertrain brand of CNH Industrial, has created a natural gas-fueled engine offering the same power and torque as its standard diesel counterpart (a maximum 180hp and torque of 740Nm). Overall emissions are 80 percent lower than those of a standard diesel tractor and when fueled by biomethane produced from crop residues and waste materials, it has a zero CO₂ profile.

The methane concept tractor has achieved this along with a 50 percent reduction in drive-by noise levels, which means less noise pollution when working in the yard, around livestock or in municipal operations.

But most importantly, it can complete all the tasks that a standard diesel-powered equivalent undertakes: from yard work to transport, high-speed field work, cultivation and heavy draft activities – such as plowing – through to loader work feeding animals and hauling grain.

The New Holland concept methane-powered tractor can complete all the tasks of a standard diesel equivalent



it's a pioneering machine, it's still a working tool. We had to balance the futuristic with the realistic.

"In car design, the cars have to look fast, even when they're standing still. With this tractor, we couldn't focus on speed, so we chose to be inspired by nature. Take the front grille: we could have just chosen a plain mesh, but instead we used a motif of growing crops. For the seat, we originally had a design for a rally-style body-hugging seat, but our Turin-based designer, Stefano Fincato, came up with a design inspired by the New Holland leaf. It turned out to be so ergonomic, iconic and appropriate that we put it in."

The overall look of the concept tractor is, as Wilkie puts it, one of "flowing integration," the fenders, hood and doors all flow through. The cabin boasts 360-degree visibility with another first – a glazed, domed roof like a bubble. The steering wheel turns around a stationary central fixed-hub instrument screen; LEDs are secreted throughout the cabin and a bank of touchscreens has been fitted into the right inner roof panel. This panoramic display contains the screen for the viewing cameras (which replace conventional wing mirrors); a central screen for linkage height, PTO speed and lighting controls; and a third screen dedicated to the information feeds such as weather data and news, climate control and the media package. It also features innovative "drag and swipe" logic to manage less frequently used parameters.

"The methane concept tractor is the first of its kind," says Wilkie, "so we wanted to reflect that with a design where each detail has a story to tell, a design that would suit a tractor for the future. In all my years as a designer, I've never created anything quite like this. I hope it will be inspirational and I hope it will move farming on – I hope it will move the world on."

Sean Lennon, Head of Tractor Product Management at New Holland Agriculture, says the plan was to create something with a real "wow" factor, something that would make a real impact on the market.

"To do this we knew it had to be about more than the biomethane fuel. It had to focus on the other technology and the styling," he says. "The fully-glazed cab with 360-degree visibility, the lights, the shape; I think the styling has brought about something unique and thought-provoking, something that's got people thinking about the future."

As with anything new, Lennon says there were different reactions to what the concept tractor represents. "There are guys who are already buying into the idea of an Energy Independent Farm; they've already invested in biodigesters and can see how this whole thing works. But there are others who were more skeptical. For them, we've worked hard to inform and educate about the other benefits of the biomethane tractor – such as the total cost of



Crops and animal waste are used to feed the biodigester that produces the biogas

ownership, the reduced noise levels, the cab technology. It's not just an environmentally friendly tractor, it has other incremental benefits, too."

The concept tractor has created a groundswell of interest, not just out in the field but also at senior level. The project has received a grant from the UK government via the Advanced Propulsion Centre, an organization that brings innovators and producers of low-carbon systems together with those who can help get the technologies to market.

Lennon says the funds are being channeled into refining specific areas of the concept tractor. "We will work on refining the gas storage on the vehicle, on temperature management and on fine-tuning the engine for both operational profile appropriateness and emissions standards. The funds will also be directed towards pure engineering, so we can work out how to take the concept and move it towards mass production. The grant is recognition of the role of New Holland as the Clean Energy Leader™ and it highlights the work we are doing in CO₂ reduction and sustainability.

"But it is very important to remember that, as an industry, we have to work towards a range of different alternative technologies. Currently the media focus is very much on electric vehicles; but don't forget you still need to produce the electricity. What we have here is a truly viable, sustainable solution that is feasible now, and it has enormous potential. Our biomethane technology exists today. It's not just a promise for the future."

These projects embody New Holland's commitment to its Clean Energy Leader program, which dates back to 2006. This strategy, a cornerstone of the Brand's activities, encompasses a wide range of sustainability initiatives.

THE VIRTUOUS CYCLE FOR AN ENERGY INDEPENDENT FARM

This is a blueprint for the farm of the future: energy independent, satisfying its own fuel requirements and contributing surplus energy to the local community



The concept tractor and the Energy Independent Farm of the future

The methane tractor is a fundamental element of the Energy Independent Farm, a truly sustainable system introduced by New Holland in 2009 – awarded a Gold Innovation medal at that year's SIMA international agricultural trade fair in Paris, France – to accelerate the adoption of alternative fuels and the circular economy. For almost a decade, the brand has been actively pursuing solutions to bring its ambition to fruition.

The key element in creating the Energy Independent Farm is the production of biomethane. It is achieved by means of a cyclical system – a closed-loop "virtuous cycle". Farms and agricultural

vehicles are particularly suited to such a cycle because farmers already possess the raw materials and space to produce the biomethane. Agribusinesses can become fuel and energy self-sufficient because the biomethane is also used to generate electricity to power and heat farm buildings. Furthermore, the biomethane produced on-farm can be used to fuel on-road vehicles, which not only provides a valuable additional revenue stream for the farm, but contributes to enhancing the localities' fuel infrastructure.

The biomethane is produced from specifically-grown energy crops or from waste plant and food material, either liquid or solid. The crops can be

grown on the farm and the waste food sourced from factories, supermarkets and restaurants. This raw material is fed into a biodigester, which is heated and in the absence of air broken down and digested by bacteria. It works like a giant compost bin. During the two-stage fermentation process, which lasts around 60 days, gases – including biomethane – are produced.

This biomethane is refined to produce a fuel-grade product and used to power the tractor. In the meantime, the digestate – the residual liquid and solid waste material from the digester – is returned

to the fields as a nutritious and natural fertilizer for the next season's crops.

By closing the loop in this way, farmers can produce CO₂-neutral fuel, protect themselves from fluctuating oil prices and save significantly on running costs (up to 30 percent compared to using bought-in diesel). Surplus gas can be sold on to other farmers or used for other methane-powered vehicles, be used for domestic power or converted into electricity and sold.

This concept tractor is setting the pace in the race to find safe, renewable and sustainable solutions. It represents the next step in realizing the farm of the near future – one that moves away from fossil fuel-powered vehicles and instead embraces renewable, sustainable energy.

Sustainable fuels are the way forward

Over the past few years, the profile of alternative vehicle fuels has shifted significantly. Thanks to the pioneering work of companies such as IVECO – the commercial vehicles brand of CNH Industrial – the demand for sustainable natural gas-fueled transport is on a clear upward trajectory

In 1988, IVECO began working with natural gas to investigate its potential as a fuel for commercial vehicles. Today it leads the field in terms of technology and its dealer network. There are now some 23,000 natural gas-powered IVECO trucks and buses on the roads of Europe.

In October 2017, IVECO, which has been working to try and shrink the carbon footprint of the transport industry, launched its most sustainable truck ever – the Stralis NP 460. This vehicle is the culmination of decades of research and development into natural-gas fuel. The gas tanks provide it with enough fuel for a range of up to 1,600km; it uses 15 percent less fuel than an equivalent diesel truck; and it has virtually eliminated air pollutants, offering significantly reduced CO₂ emissions (95 percent less when operated with biomethane). It is also extremely quiet.

At the heart of the IVECO Stralis NP 460 is the new Cursor 13 natural-gas engine, designed

by FPT Industrial, CNH Industrial's global power-train brand. It is the most powerful 100 percent natural-gas engine on the market and is designed for long-haul transport. Its enhanced combustion process ensures the best fuel efficiency, while the high fuel-flow injectors, fuel rail, pistons and turbo are designed to deliver high power output and torque. The engine holds two patents, the first for its proprietary knock control, which includes features that increase performance and protect the engine and three-way catalyst from misfiring; and a second for its reactive air-flow control management system, which helps ensure continuous torque delivery during AMT gear shifting. The pioneering work in the field of natural-gas transport achieved by these two global brands has received a significant amount of attention. In 2017 alone, they received eight major environmental and industry awards from around the world.

The IVECO Stralis Natural Power uses 15% less fuel than an equivalent diesel truck and has significantly reduced air pollutants



2017: A PIVOTAL YEAR FOR NATURAL-GAS TECHNOLOGY

JANUARY

The IVECO Stralis NP 400 is the first long-haul natural-gas truck. Elected Project of the Year at the European Gas Awards of Excellence 2017 in Vienna, Austria.

FEBRUARY

IVECO wins in two categories at the Sustainable Truck of the Year awards at Transpotec in Verona, Italy.

The IVECO Natural Power range, from left: the Eurocargo CNG, Stralis NP and Daily Blue Power Natural Power

MARCH

NGV Global (the International Association for Natural Gas Vehicles) recognizes IVECO as its NGV Global Industry Champion in Rotterdam, the Netherlands.

SEPTEMBER

IVECO announces its plan to support the development of the natural-gas transport market in Japan. As part of its mission to reduce greenhouse-gas emissions in the transport sector, IVECO has committed to working with the entire supply chain in Japan, from transport operators to natural-gas distributors.

Discussions are now underway for IVECO to supply trucks and buses, chassis, technologies, engineering and after-sales support to Japanese transport company Ryobi Holdings. IVECO will also set up partnerships with natural-gas suppliers and transporters so that, as the market develops, the infrastructure is in place to support it.

OCTOBER

IVECO launches the new Daily Blue Power family, offering three different technologies: compressed natural gas; Euro 6, ready for Real Driving Emissions regulations in 2020; and electric.

The new Stralis NP 460 is launched internationally. Latest in the Stralis NP range, it's the most sustainable truck ever and offers even more power and efficiency than its predecessor, the NP 400.

Jost Group, of the Netherlands, one of Europe's leading transport and logistics companies, places an order for 500 natural-gas powered Stralis NPs, that will run on liquefied natural gas.

FPT Industrial unveils its new Cursor 13 natural-gas engine at the FPT Tech Day in Turin, Italy. It is the first specifically developed for long-haul missions.

NOVEMBER

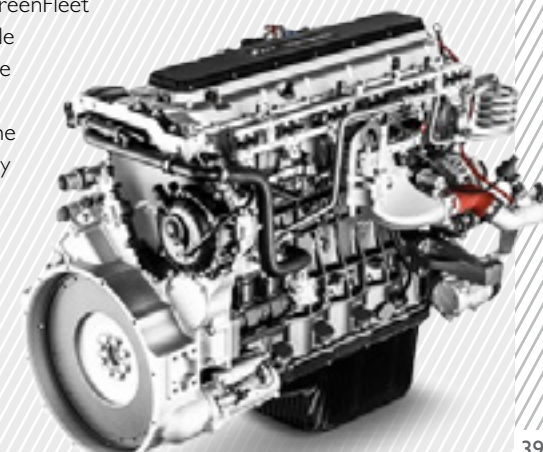
The Daily Blue Power is elected International Van of the Year thanks to its sustainable choice of powertrains.

IVECO is named GreenFleet Large Goods Vehicle Manufacturer of the Year and Leader in Low Emissions at the National Air Quality Awards in the UK.

DECEMBER

The IVECO Stralis NP is named Low Carbon Truck of the Year at the Commercial Fleet Awards in Birmingham, UK.

The FPT Industrial Cursor 13 NG is the most powerful natural-gas engine available



Engines of the future

Throughout its history, FPT Industrial has invested in the future through the development of next-generation diesel engines and alternative engine technologies



Interactive displays focused on advanced engine technology at FPT Industrial's Tech Day in Turin, Italy

FPT Industrial develops and manufactures powertrains for trucks, vans, tractors, power generators and marine applications. Since building its first diesel truck engine in 1908, the brand has endeavored to increase the efficiency of its products.

In the past 15 years, amid growing concerns over emissions and noise pollution, it has also invested in finding new ways to power them. In 2012, FPT Industrial launched one of its breakthrough technologies, the patented HI-eSCR (high-efficiency Selective Catalytic Reduction) system, which offers a unique solution to meeting stringent emission standards.

"For decades we concentrated on refining and improving our diesel engines," explains Giancarlo Dellora, FPT Industrial's Research and Technology Manager. "It was simply a matter of focusing on reducing emissions by between 30 and 50 percent. Legislation would demand reductions and we would work to that. It was a process of evolution."

"Today it's different," he says. "We're seeing a revolution. The emphasis has shifted."

Alternative fuels have entered the game, and our task is to understand which new technologies we can realistically use without compromising engine efficiency."

"Alternative fuels" is a broad term that includes natural gases (such as methane and biomethane), propane, hydrogen and alcohols

(such as ethanol and butanol), and also electricity in the form of fuel cells that utilize hydrogen. All of these options form part of the range of alternative propulsion concepts, and alongside BEV solutions (battery electrical vehicles), they will have a role to play in the future alternative-fuels landscape.

Dellora says it's about finding the right mix of technologies for different applications:

"They need to be in the right place. For high-performance, long-haul and high-power requirements, we predominantly use advanced diesel technology, alongside natural gas. We are constantly exploring other applications of alternative fuels."

FPT Industrial is already a world leader in the production of natural-gas engines. In October 2017, as part of the Tech Day at the CNH Industrial Village in Turin, Italy, FPT Industrial revealed its latest innovations and showcased the Cursor 13 NG engine, the most powerful 100 percent natural-gas engine currently on the market.

This engine offers significantly lower emissions than an equivalent diesel and delivers up to zero CO₂ emissions when fueled with biomethane. It features FPT Industrial's most advanced technologies, including stoichiometric combustion that ensures clean combustion, and very low levels of particulates and NO_x. The brand was a pioneer in adopting this technology, which is now standard in the sector.

But it's not just about creating new ways to use new fuels. The Tech Day demonstrated that it's also about refining existing technologies to make them more efficient. For the past four years, FPT Industrial has been involved in a European Union project known as GASTone, aimed at developing solutions to recover and reuse waste kinetic and heat energy from heavy-duty engines.

And while continuing to work to develop the next generation of heavy-duty natural-gas engines, there is also a focus on high efficiency in diesel engines, with the goal of achieving 50 percent BTE (brake thermal efficiency, a measure of how well an engine converts heat from fuel into mechanical energy).

What are Dellora's predictions for the future? "Natural gas for commercial vehicles is already a reality," he says. "It's an excellent solution that can drastically reduce pollution. But it's not the only solution. In towns and cities, where there are demands for zero emissions, the current emphasis is on electric batteries and fuel cells. But you do have to consider how the batteries and energy are produced – the processing of the materials and energy production could in fact create significant amounts of CO₂."

"In the future there will certainly be many more technologies, it's a very fluid sector," he adds. "We have to keep an open mind, and leverage the best practice and technological know-how from all of our different sectors. What we do know is that we will be in the position to offer our customers sustainable solutions in powertrain technologies."

A BURNING ISSUE

Known as India's breadbasket, the state of Punjab grows 20 percent of the country's wheat and 10 percent of its rice

In the very short window between crop cycles, Punjab's land has to be cleared of paddy straw and stubble quickly. Many farmers resort to stubble burning, and around 35 million tons of crop residue are set on fire in Punjab and the neighboring Haryana region every year. This leads to severe air pollution, generating dangerous smogs that engulf both this region and the National Capital Region that includes New Delhi.

In October 2017, CNH Industrial joined with the Department of Agriculture in Punjab to find sustainable solutions to stubble burning. Its global brand New Holland Agriculture launched a project to work with farmers in Kallar Majri village in Patiala district.

Using specialist New Holland equipment, the team helped establish new ways to use the crop residue by showing farmers how to collect and bale straw for the local biomass plant, which generates electricity for nearby communities.

They also demonstrated how to use New Holland machines to produce in a more efficient way. Following the combine harvester, a rotary slasher cuts the stubble to ground level. The New Holland RKG 129 gyro rake is used to form the crop residue into windrows, which are more easily picked up by the BC5060 small square baler, thereby increasing efficiency by 60 percent. The consistently dense and easy-to-handle bales are transported to the nearby power plant to produce electricity for rural communities. On average, each baler produces enough to generate electricity for 900 homes per paddy season.

Bimal Kumar, Director Sales and Marketing New Holland India, says: "Since the beginning of the project, 1,000 tons of paddy straw and crop stubble from 440 acres of land in Kallar Majri have been baled, contributing to reducing stubble burning and creating a sustainable mechanized model for the farming community – one which could be adopted at a wider scale. It also represents an additional income stream for the farmers, because they are selling the straw rather than burning it."

It is estimated that New Holland balers in India are preventing more than 1.5 million tons of crop residues being burnt annually.

"Since we started, 1,000 tons of crop stubble from 400 acres of land in Kallar Majri has been baled and stubble burning has been eliminated here"

POWERING TRANSFORMATION FOR A SUSTAINABLE FUTURE

CO₂ emissions per unit of production were cut by 24% compared to 2014, which already exceeds the 2022 target for manufacturing processes

As a global capital goods company involved in the design and manufacture of machines that keep our world moving, sustainability is at the heart of everything CNH Industrial does. It applies to the machines that drive stages of food production – from the tractors that plow the fields and harvest the crops to the delivery vehicles that transport them for processing or to our homes. It also applies to the machines that build our homes, schools and vital infrastructure.

The UN has set its Sustainability Development Goals (SDGs) to ensure the world's population is able to live fulfilling, sustainable lives. They focus on topics including combating food scarcity and climate change to boosting economic growth while reducing inequality. To ensure CNH Industrial moves forwards on an effective and coordinated path, the Company has linked its Sustainability Plan to the UN's SDGs. This Plan is a reflection of the Company's commitment, from designing a pioneering new product to making management decisions at facilities around the world.

In 2017, the Company continued to make significant progress towards reaching its long-term targets. CO₂ emissions per unit of production were cut by 24 percent compared to 2014, which already exceeds the 2022 target. And the employee accident-frequency rate was cut by 11 percent, well on the way to the 33 percent 2022 target.

Advanced agricultural technology

CNH Industrial has embarked on a journey to increase field productivity to help feed the world's growing population. A key area of focus is expanding data-management and control systems for harvesting, tractors, and crop production.

The rise of new digital technology provides it with a powerful array of tools to help boost the efficiency of all its activities. The Company's real-world trials of autonomous tractors give it a valuable insight into one of many ways in which it can help increase agricultural yields. The pilot programs established with Case IH and Bolthouse Farms, one of the USA's largest carrot growers, is looking at how to boost food production. The flexibility of autonomy is demonstrated by New Holland Agriculture partnering with E. & J. Gallo Winery, California, USA, one of the world's largest family-owned vineyards.

By combining Big Data, connectivity, new software programs, sensing technology and telematics,

CNH Industrial is already creating bold new products – innovative fusions of hardware and software – that help boost agricultural yields and increase operating efficiency.

The growing role of natural gas and renewable fuels

For more than two decades, CNH Industrial has been pioneering alternative fuel technologies, with specific focus on natural gas. Today, this commitment continues, and the Company is committed to developing and further promoting these solutions in both the on- and off-road segments.

On the road, IVECO already leads the world in developing natural gas as a fuel for commercial transport, and last year launched its most sustainable truck ever – the Stralis NP 460, which has a 1,600km range. Its Cursor 13 natural-gas engine, developed by FPT Industrial, is now the most powerful fully natural-gas engine available anywhere, and the perfect long-haul transport solution.

On the land, New Holland Agriculture unveiled a methane-powered concept tractor that demonstrates renewable sources of energy can readily replace fossil fuels. The tractor thus becomes an integral part of a “closed-loop” virtuous cycle that uses biomethane derived from energy crops and recycled waste products.

Investing in people

CNH Industrial continues to engage with its people, who will help it to achieve its ambitious targets. Increased opportunities for training and the continued reduction in accident rates are testament to this. The Company is also committed to improving outcomes for those who live in communities throughout the world, by providing them with the skills to obtain rewarding work. Initiatives are focused on areas as

diverse as youth training, agronomic and machinery skills, education and cultural activities, with the ultimate aim of improving the quality of life for those touched by these efforts and programs.

Efficient processes and care of the environment

CNH Industrial is committed to enhancing the efficiency of its processes, whether in a production facility, in the way it sources its components, in offices around the globe or in how it delivers finished products to its customers all over the world. No matter the process, it all starts with people, because every individual has a key role to play.

Safeguarding the environment is based on the principles of prevention, protection, information sharing and people engagement to ensure effective long-term management. Optimizing the use of resources and reducing environmental impact are prerequisites for the continuous improvement of the Company's performance and the protection of the environments in which it operates.

The road ahead

CNH Industrial is contributing with its technologies and initiatives to shaping a better future. Guided by the UN's SGDs, together with its stakeholders' opinions, the Company endeavors to set sustainability targets that will benefit both the environment and society. The contribution of CNH Industrial's people, suppliers, customers and other stakeholders is crucial to the entire sustainability process and to the achievement of its targets.

The road ahead is challenging, but the Company is committed to achieving its goals by promoting better practices, increasingly engaging its people, optimizing its processes and developing innovative products that meet – or surpass – its customers' needs.

CNH Industrial is committed to investing in the future of alternative fuels, including biomethane, which can be produced on-farm from waste products

Pioneering innovation

CNH Industrial believes innovation is essential to be able to offer customers technologically advanced, eco-friendly, safe, efficient and ergonomic products with a low total cost of ownership. In this spirit, R&D together with design activities focus primarily on the development of products that can:

- Reduce polluting emissions
- Optimize energy consumption and efficiency
- Use alternative fuels
- Adopt alternative traction systems
- Incorporate advanced telematics systems
- Ensure safe use

APRIL

New Holland Agriculture sets a new world record in soybean harvesting in Bahia State, Brazil. The CR8.90 harvested 439.73 tons of soybeans in eight hours.

MAY

IVECO BUS Daily Tourys wins International Minibus of the Year 2017. CNH Industrial's global bus brand won this inaugural award at the FIAA 2017 International Bus and Coach Trade Fair in Madrid, Spain.

SEPTEMBER

CNH Industrial is declared Industry Leader in Machinery and Electrical Equipment in the Dow Jones Sustainability World and Europe Indices for the seventh consecutive year. The Company is also named Industry Group Leader in Capital Goods for the second time.

OCTOBER

CNH Industrial is listed in CDP's Water A-List, and evaluated with an A- in the CDP Climate Change Program. These distinctions confirm the Company's commitment to the sustainable management of resources.

CNH Industrial has received a number of awards throughout 2017 that recognize its many ground-breaking innovations and support its commitment to sustainability



NOVEMBER

Case IH, STEYR and New Holland Agriculture all awarded Machine of the Year titles at the Agritechnica tradeshow in Hanover, Germany.

IVECO Daily Blue Power wins International Van of the Year 2018 at Solutrans, the international trade exhibition for road and urban transport solutions in Lyon, France.

DECEMBER

Case IH and New Holland Agriculture together win nine innovation awards at the AE50 awards from the American Society of Agricultural and Biological Engineers (ASABE).

The Case IH Autonomous Concept Tractor and the CASE G Series Wheel Loaders both win GOOD DESIGN® Awards.



**New Holland
Photojournalism award**

This community initiative sponsored by CNH Industrial is now in its 13th year, and has attracted a total of more than 21,000 entries from amateur and professional photographers across South America. For each of the past 12 years, a selection of the best photographs recognizing developments in agriculture has formed a touring exhibition shown in more than 100 cities across the region, and has been seen by nearly half a million people. In 2016, for example, the entries were displayed in the Municipal Museum of Culture, City Hall of Bogotá, Colombia.

This shortlisted entry, 'Bandeira de Agricultura', by professional photographer Sergio Reghin Ranalli, shows a New Holland combine harvester at work in the soybean fields of Paraná state in South Brazil.



SUSTAINABLE YEAR 2017 YEAR 2017 A SUSTAINABLE



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