

# DEUTZWORLD

THE CUSTOMER MAGAZINE OF DEUTZ-GROUP

EDITION

**01** 2020

FOCUS

# SUSTAINABILITY





# LOOKING AHEAD.

MOVING STRONGER INTO THE FUTURE WITH GROWTH PROJECTS.

Crisis situations demand decision-making. Like so many other companies, the coronavirus crisis has presented us with major challenges. However, it also showed us our strengths, because in this crisis we recognised how important it is to tackle the challenges together and look ahead. We are sticking firmly to our growth projects, because they are the future of our company. We are keeping a particularly close eye on developments in the Chinese market, where we are already so successful with our joint venture with SANY that we now even expect sales volumes to double or triple for the year 2020. This is an extremely positive message that further reinforces our actions and decisions.

In the current edition of our customer magazine, we have summarised the most important events of the last few months. You will see that DEUTZ is on the move – and will continue to do so.

A handwritten signature in white ink that reads "Frank Hiller".

Best regards,  
Yours truly,  
Dr Frank Hiller  
DEUTZ CEO

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# STRONG IN CHINA.

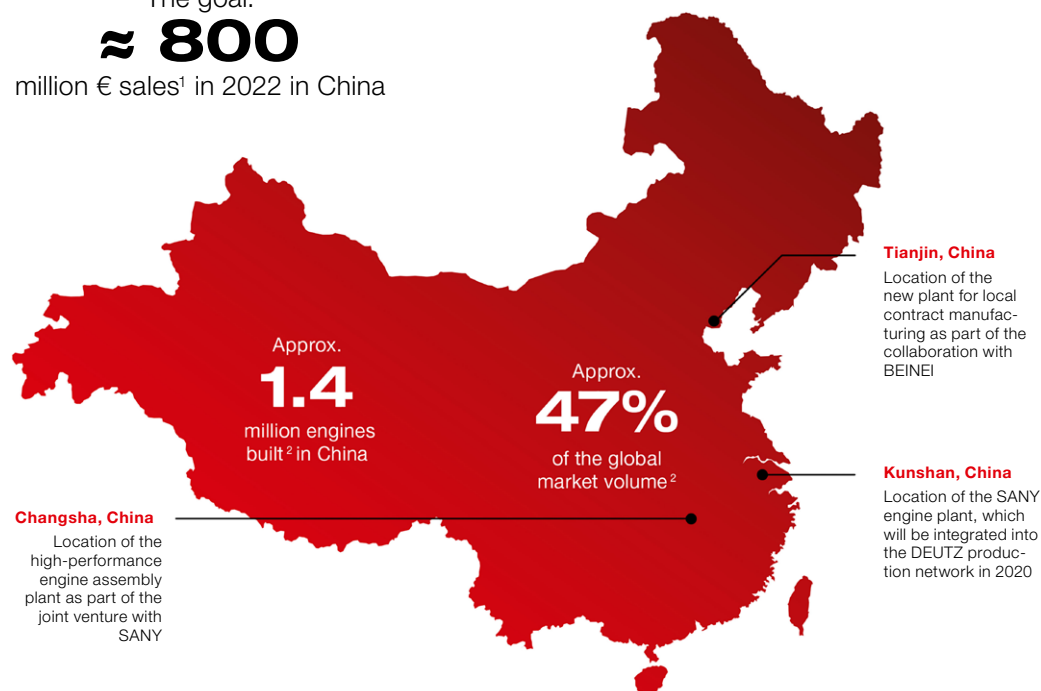
DEUTZ HAS COMPLETELY RE-ALIGNED ITS CHINA STRATEGY IN THE LAST YEARS. EVEN IN THE CORONAVIRUS CRISIS, THE COMPANY IS CONTINUING TO FORGE AHEAD WITH THE IMPLEMENTATION OF ITS GROWTH PROJECTS AND IS ALREADY RAISING ITS SALES TARGETS FOR THE CHINA OPERATION SIGNIFICANTLY DUE TO THE POSITIVE BUSINESS DEVELOPMENT.

Things are going well for DEUTZ in the Chinese market: In the region that is already considered the world's largest single market for construction machinery, the first months of the current financial year have already been so profitable that the company now even expects sales to double or triple for the entire year 2020. 'The joint venture with SANY is running very successfully and has been profitable since the day it was founded. We were even able to get new orders that exceed the originally planned volume', says CEO Dr Frank Hiller. 'That's why

'We are very pleased that, in a joint effort with our partner SANY, we were able to actively embed the first D12 engine from our joint venture in a truck, allowing us to once again demonstrate our joint development expertise. DEUTZ is now actively re-entering the on-road business.'

**Dr Frank Hiller**  
DEUTZ CEO

The goal:  
**≈ 800**  
million € sales<sup>1</sup> in 2022 in China



Besides working with SANY, DEUTZ is also collaborating with Chinese engine manufacturer Beinei, which acts as an assembly service provider for the Cologne-based company. The strategy is rounded off with a cooperation agreement with service provider Far East Horizon, which handles maintenance and repair of DEUTZ engines for Chinese customers.

<sup>1</sup> The sales target of approximately EUR 800 million includes sales generated by the joint venture with SANY. In accordance with the equity method, these sales are not included in the consolidated financial statements.

<sup>2</sup> Source: PSR download January 2020, based on 2019 OEM production volume in units, power classes 19 to 620 kW, non-captive.

we're raising our sales target: We initially assumed EUR 500 million when we launched our China strategy, but now we expect to increase our sales in China to EUR 800 million by 2022.' It should be noted here that participation in the joint venture with SANY is consolidated according to the equity method, meaning that consolidated sales will not increase to the same extent. However, a positive EBIT contribution is expected in return. It will be additionally boosted by the two other cooperation agreements with Chinese engine manufacturer Beinei and service provider Far East Horizon.

As a special highlight, DEUTZ and SANY have now installed a jointly developed engine in a new truck model for the first time. The Kingway 435 truck type presented by SANY in China once again proves how well the collaboration in the joint venture works and marks DEUTZ's return to the on-road business. The new truck was virtually presented to the public during a 10-hour live broadcast from the SANY Heavy Truck Headquarters in Changsha, the capital of the Hunan Province. The figures prove that it is already a bestseller: After the unveiling of Kingway 435, 1,000 trucks were sold in just 39 seconds.

> **To find out more, click here:**  
Please scan or click on the QR code.





# WITH 360 VOLT ACROSS LAS VEGAS.

EVERY THREE YEARS, GAMBLING METROPOLIS LAS VEGAS HOSTS THE CONEXPO, THE MOST IMPORTANT CONSTRUCTION MACHINERY TRADE FAIR ON THE AMERICAN CONTINENT AND THE WORLD'S THIRD LARGEST TRADE FAIR IN THIS SECTOR.





> The telehandler concept G5-18A, jointly developed by DEUTZ and JLG, features a compact 360-volt drive system with two 40 kW electric motors for drive mode and telescopic hydraulics respectively.



From 10 to 14 March 2020, DEUTZ presented its latest developments in the field of sustainable off-highway drives at CONEXPO.

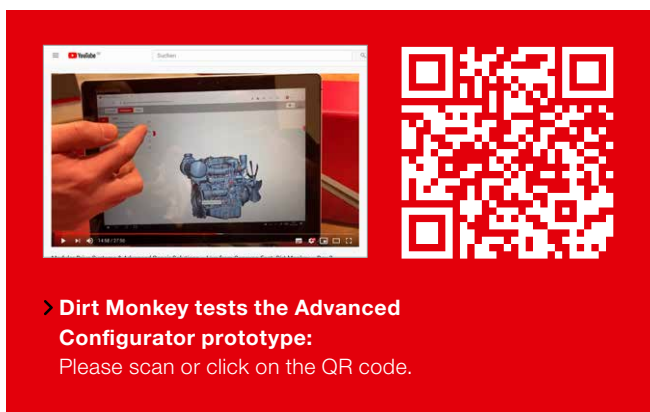
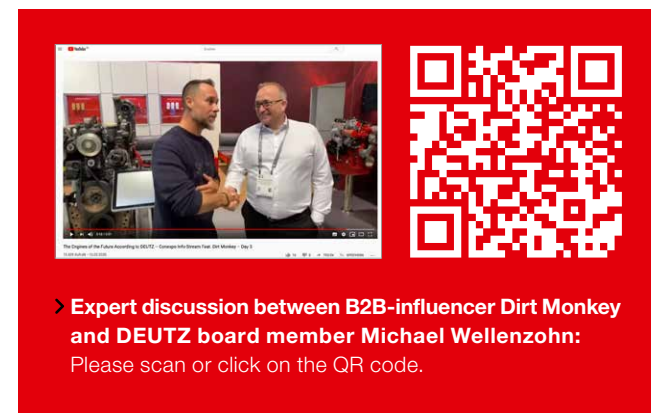
As a special highlight, DEUTZ presented the fully electric JLG telehandler concept G5-18A, which was developed together with JLG. At the core of this machine is a compact 360-volt drive system from DEUTZ, which has a so-called split drive with two 40 kW electric motors for drive mode and telescopic hydraulics respectively. As is the norm for electric motors,

the torque is applied directly, which further increases the dynamics of the machine. The battery comes from E-DEUTZ's own modular system and has a capacity of 42 kWh. With the 6.6 kW charging system, the battery can be charged up to 80 per cent in four hours. At CONEXPO, DEUTZ also presented an electric hybrid drive, which was specially designed for use in low-load lifting platforms. The new DEUTZ D 1.2 hybrid engine consists of a highly compact three-cylinder diesel engine with 1.2 litre displacement plus a 48-volt



'We rely on an intelligent combination of electric drives and combustion engines that contribute to a CO<sub>2</sub>-neutral future.'

**Dr Markus Müller, Senior Vice President Product Development & Technical Customer Support**



electric motor. Another highlight of the trade fair was the battery system, which was developed to pre-series maturity in collaboration with Futavis and has already been produced in three-digit numbers. DEUTZ acquired the German battery specialist Futavis in 2019 in order to expand the in-house competence in batteries as a key technology. The marketable system empha-

sises DEUTZ's strategic focus on electrification of its product range as well as its engineering competence to develop and manufacture high-voltage batteries and electric drive trains. In the service area, DEUTZ presented its innovative 'Advanced Repair' approach, which comprises various digital service concepts to ensure safe, efficient and comfortable machine oper-

ation. To make maintenance work even more efficient, DEUTZ offers, among other things, an augmented reality application for tablets, which supports mechanics to complete the required work steps directly on the engine. Visitors to the trade fair were able to test the application for themselves at the DEUTZ booth.



# TREND OR OF THE FUTURE.

SUSTAINABILITY IS THE CURRENT HOT TOPIC. AWARENESS OF SUSTAINABILITY HAS ALSO BECOME A KEY FOCUS OF CORPORATIONS.

## ➤ SUSTAINABLE DEVELOPMENT COMMITTEE (SDC)

The SDC, which is made up of relevant divisional managers and people responsible for specific topics, sets non-financial goals, develops measures to achieve them and deals with continuous development of the Group-wide commitment to sustainability.

Companies that want to play an active role in shaping the future must not only be prepared for change, but must also assume responsibility. For DEUTZ, this means achieving economic success in harmony with accepting social, corporate and ecological responsibility. In order to link sustainability aspects more strongly and long-term with the corporate strategy, DEUTZ has developed a Group-wide sustainability strategy for the first time in 2019. For this purpose, the main sustainability topics were defined and corresponding performance indicators were identified and tied in with qualitative and quantitative targets for 2023. At the same time, potential measures were worked out to achieve the set goals. The 'DEUTZ Sustainability Vision 2023' represents the entirety of these goals.



DEUTZ has divided its commitment to sustainability into three fields of action. Each of them summarises the key topics for the company based on the following themes: Social responsibility, corporate responsibility and ecological responsibility. For example, the topics focus on increasing the share of sales of electrified drives, reducing emissions from production sites, reviewing major suppliers with regard to respect for human rights, or promoting the proportion of women in management positions and in the overall workforce.



'Firmly entrenching sustainability aspects in the corporate strategy is not a luxury, but something from which we can benefit in many ways.'

**Leslie Ittgen, Senior Vice President Communications & Investor Relations, member of the DEUTZ Sustainability Committee**

➤ Part of the overall focus for all areas is to identify where further sustainability aspects can be incorporated in existing processes. For example, an analysis and evaluation of sustainability and handling aspects was carried out in the logistics centre at the Cologne-Kalk site by comparing wooden crates and cardboard packaging. The ecological aspects as well as the costs for production and disposal were compared. The investigating team compared the required storage capacities in unpacked and packed condition as well as how much transport was needed for delivery of the packaging materials and plant transports. In order to determine the most sustainable and simultaneously most optimal solution in terms of handling, the handling aspects of packing and unpacking were also taken into account in addition to the sustainability aspects.



➤ **To find out more, click here:**  
Please scan or click on the QR code.

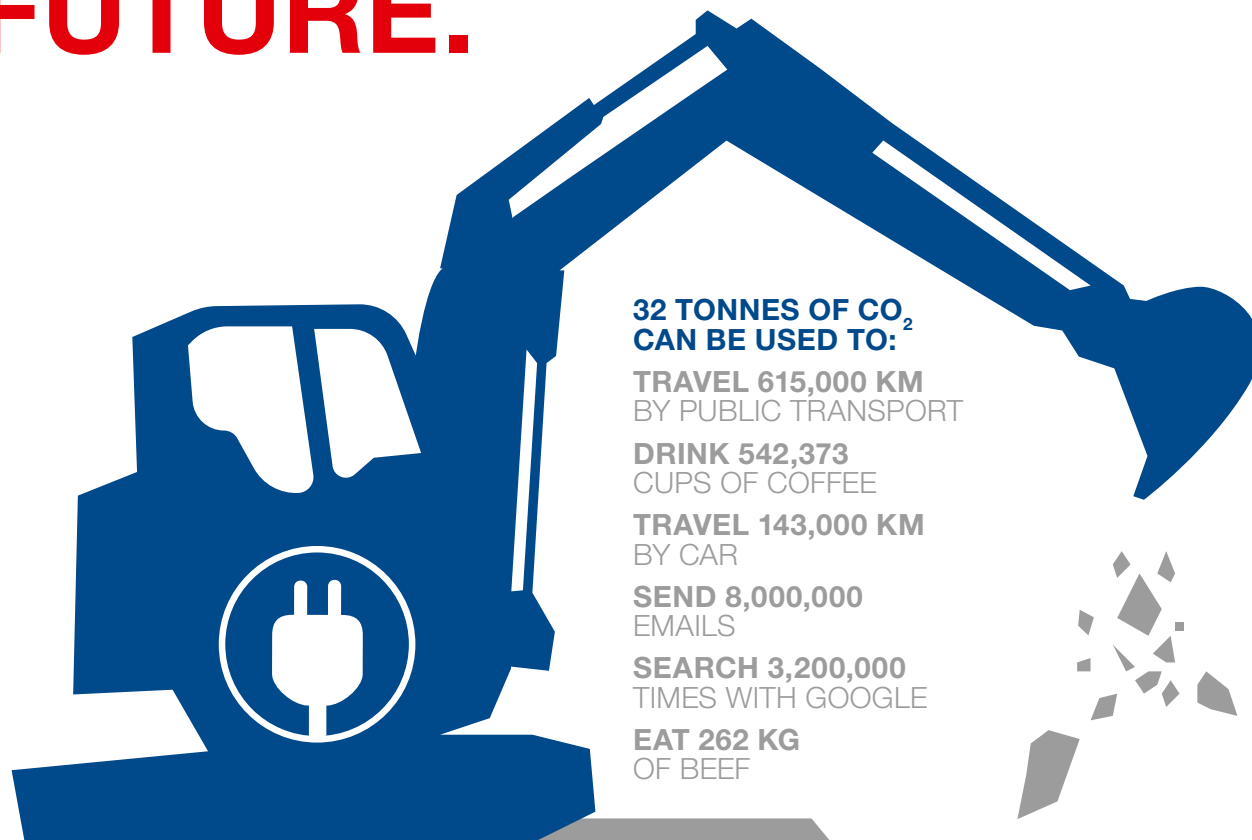




# THE CONSTRUCTION SITE OF THE FUTURE.

SUSTAINABILITY AND ZERO EMISSION:  
TWO HOT TOPICS THAT GO HAND IN HAND –  
INCLUDING IN MECHANICAL ENGINEERING.

More and more manufacturers are turning to environmentally friendly electric drives to power their off-road machinery. However, the widespread use of electric machines in the off-highway sector is still in its infancy. One possible reason for this fact: While electric cars, electric trucks and other commercial vehicles with electric drives as well as their charging infrastructure are already extensively subsidised by the government through purchase and tax assessments, the subsidy currently does not apply to the off-highway sector yet. Therefore, the barrier of entry for companies to invest in electric off-highway applications and corresponding charging infrastructures remains high. However, the German government has expressed a clear interest in promoting alternative drive technologies – whether in the field of electrification or other alternative technologies



**32 TONNES OF CO<sub>2</sub>  
CAN BE USED TO:**

**TRAVEL 615,000 KM**  
BY PUBLIC TRANSPORT

**DRINK 542,373**  
CUPS OF COFFEE

**TRAVEL 143,000 KM**  
BY CAR

**SEND 8,000,000**  
EMAILS

**SEARCH 3,200,000**  
TIMES WITH GOOGLE

**EAT 262 KG**  
OF BEEF

**AN E-EXCAVATOR SAVES UP TO  
32 TONNES  
CO<sub>2</sub> EMISSION PER YEAR!**

such as hydrogen. After all, construction machinery with alternative drive systems can make a significant contribution to achieving the planned climate targets.

#### **More awareness for the off-highway sector**

'If you're talking about state funding programmes for electrification, the focus is still unilaterally on cars, trucks and buses', says DEUTZ CEO Dr Frank Hiller. For the 54-year-old, that is not enough. 'In the meantime, inland waterway transport is increasingly mentioned as another area where these subsidies can be applied and occasionally agricultural engineering applications are also considered. By contrast, the off-highway sector, which is important for the German economy and the key sector of mechanical engineering have so far played a subordinate role in the political debate surrounding potential

measures to promote electric battery drive solutions.' The company therefore advocates explicit consideration and naming of the off-highway sector and mechanical engineering as part of the electromobility expansion. After all, the CO<sub>2</sub> savings derived from switching to an electrically powered construction machine are quite impressive: 200,000 engines consume around 2 billion litres of diesel per year at medium load and running times. This corresponds to 5.3 million tonnes CO<sub>2</sub>. If 15% of the engines were replaced by CO<sub>2</sub>-free drives (hydrogen engine + electrification) in the future, it would lead to a reduction of almost 800,000 tonnes of CO<sub>2</sub> per year.

#### **Creating incentives for alternative drive solutions**

'We need to expand existing subsidies in the field of electromobility for off-high-

way applications and the corresponding charging infrastructure. Clear tax incentives make the decision for an alternative drive concept attractive and reward it in the truest sense of the word', says Hiller.

The hydrogen topic also offers a wide range of potential applications. Hiller stipulates that here too, the off-highway sector must be taken into account in the Federal Government's hydrogen strategy and the hydrogen combustion engine must be treated like a viable alternative to the fuel cell.

'The federal government has clearly committed to be open-minded for dif-

ferent technologies and wants to promote it consistently. Nevertheless, the hydrogen topic is still equated with fuel cell technology in most funding projects and funding opportunities today. Technologies that represent an alternative or supplement to fuel cells, such as the hydrogen combustion engines, should be treated equally in all funding and legislation', says the DEUTZ CEO. DEUTZ has recognised the potential of the new technologies and offers its customers robust, powerful and emission-free drive as an alternative to traditional combustion engines – fully electric, hybrid or hydrogen-powered.

REPLACE

15%

OF ALL MOTORS WITH CO<sub>2</sub>-FREE DRIVES

↓ 800,000

TONNES CO<sub>2</sub> SAVINGS PER YEAR





# CREATE AN INCENTIVE.

INTERVIEW WITH DR FRANK HILLER ABOUT PROMOTING THE OFF-HIGHWAY SECTOR.

**Dr Hiller, the German government recently presented its electrification and hydrogen strategies in the context of achieving the climate protection targets for 2030. Are they in line with your ideas?**

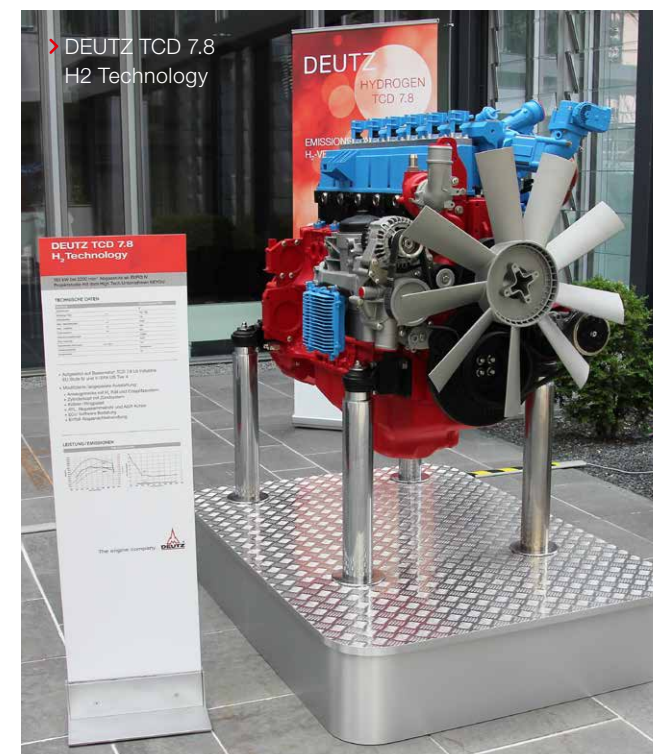
Let me clarify first: I think that the topic of climate protection has probably never been given such a high level of attention at the political level as right now – and that is a very positive development! After all, we must not lose sight of our climate policy goals even now, while we are trying to contain the economic consequences of the coronavirus pandemic. After all, we can only make a contribution to CO<sub>2</sub>-neutral mobility of the future by being open to further technological development. However, when looking at the federal government's support for alternative drive concepts as a whole, I believe that the off-highway sector has been somewhat neglected.

**Where do you personally see a need for action?**

For example, I would like to see explicit consideration and naming of the off-highway sector and mechanical engineering as part of the electromobility expansion. After all, with its various application areas, such as construction machinery, agricultural machinery, inland navigation, etc., this sector is a highly relevant factor in terms of CO<sub>2</sub> reduction. Applications in the off-highway sector are explicitly mentioned as part of the hydrogen strategy, but they are currently still limited to fuel cell technology. Nevertheless, I think it is great that, within the framework of the recently presented National Hydrogen Strategy, the support measures within the National Innovation Programme for Hydrogen and Fuel Cell Technology (NIP) are being continued, although the focus is on market activation in the railway and waterway (inland and coastal navigation) transport sectors, among other things.



> To find out more, click here:  
Please scan or click on the QR code.



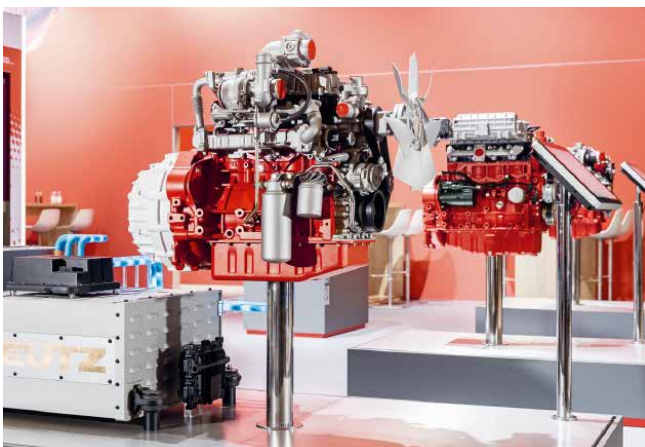
### What contribution could politicians make to promote alternative drive systems more strongly in the off-highway sector as well?

We are clearly advocating for an expansion of investment and tax incentives for off-highway applications, taking into account the potentially higher investment costs for off-highway applications compared to electric cars or electric trucks. Programmes for electrical retrofit solutions for existing machinery would also be an option. Due to the high investments required for off-highway vehicles and the generally significantly longer service life, a retrofit solution with an electrified powertrain could be a cost-effective alternative for many users, which should be stimulated by subsidies. Furthermore, we are making the case for development and use of mobile charging



➤ Fully electrified drives

infrastructures on construction sites by using electrical intermediate storage facilities. While the development of charging infrastructure for electric cars and electric trucks is progressing, supplying construction sites with sufficient charging infrastructure for construction machinery is an obstacle to the use of alternative electric drives in the construction industry. There are also no customer-ready solutions for these applications that have been tried and tested in the construction industry. The development and utilisation of mobile electrical intermediate storage units would be another way of creating an incentive for electrical applications on construction sites.



# WE ARE MAKING OUR VOICE HEARD!

FOR PEOPLE, THE ENVIRONMENT AND THE ECONOMY.



At the start of the Petersberg Climate Dialogue, DEUTZ and 67 other companies approached the German government to campaign for a climate stimulus package. The demand: Measures to overcome the coronavirus and climate crisis must be closely interlinked – for a sustainable, crisis-proof economy.

➤ To find out more, click here:  
Please scan or click on the QR code.





# ALTERNATIVE DIVERSITY.



When DEUTZ and 67 other companies approached the German government in April this year to lobby for a climate stimulus package, one message in particular became clear: even in light of the coronavirus pandemic and the consequences that come with it, climate policy objectives must not be ignored. This is why DEUTZ will continue to focus sharply on one of its most important growth projects in the future, because the E-DEUTZ strategy plays a key role in terms of sustainability.

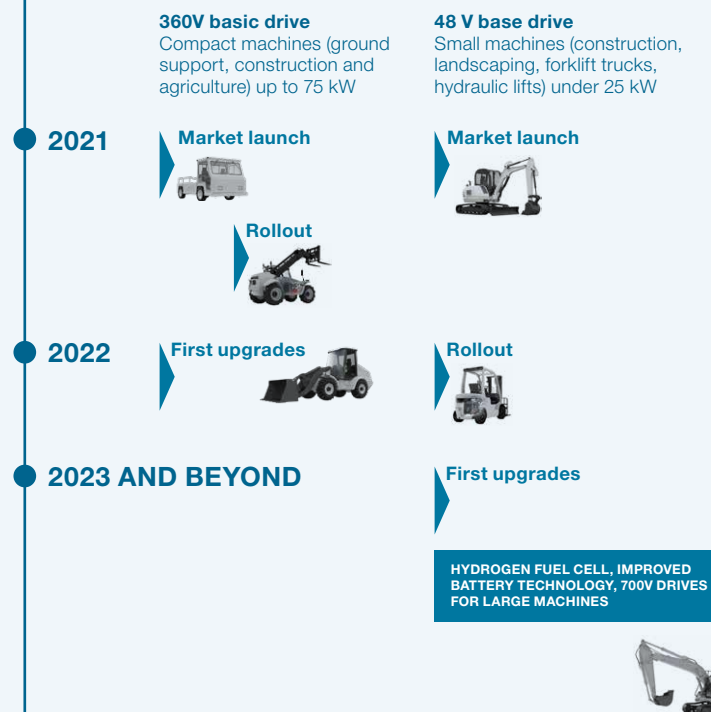
A look at the past year shows that DEUTZ is pushing ahead intensively with its electrification strategy. Acquiring battery specialist Futavis boosted the in-house competence in batteries as a key technology, which in turn reinforced the system competence in the electric drives segment provided by Torqeedo by adding a battery management system in the high-voltage range. An attractive product portfolio including the necessary battery management system is now available from one source to meet the individual requirements of customers. DEUTZ has also invested in the foundation of a team of dedicated engineers at the Cologne location. In coordination with specialists from the subsidiaries, this team is responsible for

the development and industrialisation of electrified powertrains and lithium-ion batteries within the framework of the E-DEUTZ strategy. Within the DEUTZ/Futavis/Torqeedo group, high-voltage batteries have already been developed and produced, and the first specific applications have been made available to a renowned customer from the on-road industry.

At the Conexpo trade fair in Las Vegas, a JLG telehandler was presented in the spring of this year, which is equipped with a 360V drive train based on the basic 360V E-DEUTZ drive. This basic system will be ready for the market in early 2021. It includes a 42 kWh lithium-ion battery for the power supply, which is produced in-house.

## MARKET LAUNCH OF E-DEUTZ DRIVE SYSTEMS

### FULLY ELECTRIC



Compared to the prototypes presented thus far, this is a big step forward to fully industrialised powertrains.

DEUTZ considers hybrid drives to be the right answer to downsizing requests, since they maintain the same performance compared to the diesel equivalent. The example of two telehandlers for customer Manitou, each equipped with a DEUTZ prototype, shows what the hybrid can do. The TCD 2.2 with 55 kW output plus a 20 kW electric motor is in no way inferior to the 'big' 75 kW DEUTZ TCD 3.6 diesel engine. DEUTZ is currently developing and industrialising E-DEUTZ hybrid drives for high-voltage (360V) and low-voltage (48V) applications.

➤ To find out more, click here:  
Please scan or click on the QR code.



As part of the E-DEUTZ strategy, DEUTZ is not only fully electric, but also relies on hybrid drives as a future solution for machines with utilisation profiles that are difficult to realise economically with purely electric drive trains. The modular E-DEUTZ system offers four basic drive systems – fully electric and hybrid on 360V and 48V basis. Over the next three years, these four drive systems will be industrialised and brought to market. Based on market demand, E-DEUTZ provides a range of components for each drive system. Customers can choose from them to configure drive trains for their individual applications, e.g. by selecting different power ranges of electric motors and different sizes of lithium-ion batteries. One clear advantage of the modular concept is that only the relevant components or modules that are subject to technological development are adapted – not the entire system. This allows DEUTZ to react quickly and flexibly to technological developments, which also significantly shortens the time to market. 'At DEUTZ, we want to actively shape the future and become a pioneer of climate-neutral off-road mobility of the future. This is our primary goal, which we are not losing sight of even in these challenging times', emphasises DEUTZ CEO Dr Frank Hiller.

## HYBRID ELECTRIC

**360V basic drive** Medium-sized machines (ground support, construction and agriculture) up to 130 kW

**48V basic drive** Small machines (construction, landscaping, forklift trucks, hydraulic lifts) under 75 kW

2022

Market launch



2023 AND BEYOND

Rollout



First upgrades



Market launch



Rollout



First upgrades



## LITHIUM-ION BATTERY SOLUTIONS

2023 AND BEYOND



# SERVICE (R)EVOLUTION.

IF YOU WANT TO REMAIN RELEVANT AND COMPETITIVE IN THE FUTURE, YOU HAVE TO EVOLVE CONTINUOUSLY – THIS OLD BUSINESS WISDOM ALSO APPLIES TO SERVICE. A COMPREHENSIVE PROGRAMME OF STRATEGIC REALIGNMENT MAKES THE SERVICE SEGMENT AT DEUTZ FIT FOR CUSTOMER DEMANDS OF THE FUTURE.

# 1

## EXPANDING STRENGTHS.

**The service business division has traditionally been a high priority at DEUTZ: A dense network of approximately 800 service partners in over 130 countries worldwide is available for local support of OEM and end customers.**

An effective system consisting of periodic training courses and audits ensures that each partner permanently meets the high requirements in terms of technical competence, workshop equipment and customer orientation. The DEUTZ service network logistics is also among the best: With 97% customer service satisfaction, the availability of spare parts is already the benchmark in Europe. In Asia and America, this high standard is also being realized step by step by continuously optimising the international supply chain. The continuous optimisation of the service network by connecting new service partners and through targeted acquisitions is a key component of the DEUTZ service strategy. In addition to acquisitions in Europe and the USA, cooperation agreements in China and the Middle East are a particular focus. In order to flexibly increase its service presence in regions with a small engine population in the future, DEUTZ relies on the so-called **Man-in-Van concept**: On-site customer support is ensured by mobile service technicians with fully equipped workshop vehicles without fixed location. Internal standards applicable worldwide and a special logistics and leasing concept ensure an internationally uniform, high level of quality.

**> 850** **> 130** **97%**  
SERVICE PARTNERS COUNTRIES CUSTOMER SERVICE SATISFACTION

# 2

## FROM SPARE PARTS SPECIALIST TO FULL SERVICE PROVIDER.

**Hardware, logistics and technical competence for our own products – these are the pillars on which the service business of a system supplier like DEUTZ is traditionally based.**

From the Long Life Filter to a refurbished Xchange engine – the product range in the service department ensures economical operation throughout the entire life cycle of the engine. However, markets and customer requirements are changing, and new opportunities are emerging to create added value and retain customers in the long term. The ambitious goal: DEUTZ as a global full service partner that offers its end customers fast and comprehensive support beyond spare parts. By offering service agreements in the future, the local service partner can take over maintenance of the engine and equipment fleet. For end customers, this means not only cost and costing certainty, but also a significant increase in equipment availability and, more importantly, the possibility to focus fully on their own core business. From the established diesel engine to the new electrified drive solutions of the future, the range of services at DEUTZ will continue to evolve – from parts business to full service provider.

3

## INTERACTIVE INSTEAD OF REACTIVE: EFFICIENCY AND CUSTOMER LOYALTY THROUGH DIGITAL SOLUTIONS.

**None of the above-mentioned developments would be conceivable without the consistent use and further development of digital tools.**

Only the consistent networking of devices and participants in the service value chain will make it possible to tap into the enormous potential in terms of productivity and efficiency. The vision is clear: The devices of the future will monitor themselves, so that in the event of a service call, all information, parts and competencies will be provided faster and more efficiently than today. This will prevent the device from coming to a standstill and thus reduce productivity. The DEUTZ strategy: To create a comprehensive and flexible offer to meet the different customer requirements. Powerful telematics hardware and open and scalable IT infrastructure are the key components to make the benefits of Industry 4.0 a reality. The necessary basis for it is continuous data flow. For example, all relevant service information on a DEUTZ engine will be stored in a central, digital service checklist, regardless of which system or user recorded it. The result is a significant increase in transparency, efficiency and productivity – across technology and company boundaries.



### DEUTZ SERVICE SUPPORT 2020

Tailor-made special offers for your success!  
Now until 31/12/2020 at your participating local  
DEUTZ service partner.



> To find out more, click here:  
Please scan or click on the QR code.



# SHAPING THE FUTURE TODAY.

INTERVIEW WITH BOARD MEMBER MICHAEL WELLENZOHN.

## MR WELLENZOHN, WHERE IS THE SERVICE AT DEUTZ TODAY?

DEUTZ service today is an essential part of our business. We want to differentiate ourselves from the competition, impress our customers and increase customer loyalty. Currently, we generate around €350 million with a 20% revenue share and are pursuing ambitious growth targets.

## WHAT IS YOUR CURRENT SERVICE STRATEGY?

The DEUTZ service is absolutely competitive due to the development and our activities over the last few years, and we see potential for significant growth. If we want to continue to be successful in the future, we must continue to evolve – and we must do so quickly and decisively. To provide the necessary focus and speed, we have launched an internal service offensive: We are working full steam in cross-divisional teams to implement a large number of projects and concepts that will take our service to the next level.

## WHAT DOES THIS REALIGNMENT IN SERVICE MEAN FOR DEUTZ IN SPECIFIC TERMS?

We have a strong aftersales portfolio and a global service network with unique coverage and competence. We need to continue to improve our performance by establishing new service locations and mobile concepts like the man-in-van approach. However, we are convinced that we must offer our customers more in the future: digitalisation in the off-highway sector, growing competition on the internet and the trend towards one-stop shopping mean that manufacturers like DEUTZ will have to differentiate their service even more in the future. We want to increase customer loyalty by providing comprehensive support beyond our current core business in the form of digital products and services, by offering individual service agreements and with technical competence even beyond DEUTZ engines.

## WHAT WILL THE DEUTZ SERVICE OF THE FUTURE LOOK LIKE FOR YOU?

For us, the service of the future is digital, networked and interactive. Thanks to the opportunities provided



by digitalisation, we will establish new services and business models with our customers, which will offer benefits for both manufacturers and end customers. This applies in particular to the next generation of partially and fully electric drive systems with all their challenges, especially in terms of service, for example, regarding high-voltage technology and the associated battery hardware. End-to-end networking and the offer of holistic service concepts in this area will create real added value. For DEUTZ this is a great opportunity to position itself as a provider of full service support right from the start. This means we have to act now, and that is exactly what our service initiative is all about – shaping the future today!

# DEUTZ NEWS: PROFESSIONAL DPF CLEANING AS A COST-EFFECTIVE ALTERNATIVE.



Diesel particulate filters (DPF) play an important role in exhaust gas after-treatment in modern diesel engines. However, safe and above all effective use of a DPF system is a science in itself: Combustion of the accumulated soot particles, the so-called regeneration, can only begin when the necessary exhaust gas temperature of at least 280 degrees Celsius is reached. What remains are the non-combustible components – better known as ashes. This process significantly increases the service life and effectiveness of the filter system. If the filter reaches the limit of its ash absorption capacity over time, it must be replaced or cleaned – depending on the operating mode of the engine, this only happens after many thousands of operating hours. Professional cleaning is essential in this case, because inadequately cleaned diesel particulate filters can lead to a reduction

in soot absorption capacity and an increase in exhaust back pressure. In practice, this means more frequent downtime regenerations and the risk of damage to the filter substrate, making replacement unavoidable. Fuel consumption is also affected: Optimum consumption values can only be maintained with a professionally cleaned diesel particulate filter, which keeps operating costs low.

The existing DEUTZ service offer of exchange filters that are as good as new and industrially reconditioned Xchange DPFs is now being expanded by a cost-effective alternative: Professional cleaning of the filter by the local DEUTZ service partner. This cleaning process enables gentle and reliable cleaning at low cost. As part of a standardised process, all filters are thoroughly inspected and the result is documented in a detailed

cleaning protocol. For end customers, this represents a simple and safe solution for reusing their own filter. The new DPF cleaning system is available now at the DEUTZ service location in Great Britain and will be introduced in other DEUTZ service centres throughout Europe in the coming months.

➤ **Further information about the DPF offer can be found here:**  
Please scan or click on the QR code.





# THE NEW ROUTINE AND THE CHALLENGES.

WHAT BEGAN AT THE END OF NOVEMBER 2019 WITH THE REPORT OF A NEW TYPE OF LUNG DISEASE IN CHINA, DEVELOPED WITHIN A VERY SHORT TIME INTO A PANDEMIC THAT FORCED THE WHOLE WORLD TO HOLD ITS BREATH.

The viral disease COVID-19, more simply referred to as the 'coronavirus', which was first detected in Wuhan, China, spread rapidly and reached even the most remote villages and regions worldwide. A pandemic for which neither the world's governments nor the global economy were prepared – after all, they were dealing with an event of unprecedented proportions. Panicked hoarding spurred retail trade and unsettled the average consumer. As strong as the demand for consumer goods was, it fell in other areas. Everything that was not essential was suspended indefinitely. Borders were closed, and local and long-distance transport came to a virtual standstill. The consequences for the international economy? It is impossible to estimate. How should companies, regardless of their size, deal with this situation?

## DEUTZ Sets Up Crisis Team

An internal crisis committee was formed at DEUTZ within a very short time, consisting of division managers, employees from the DEUTZ Safety team and the company physician. Top priority: Initiate measures to ensure safeguarding of the company interests and at the same time the health of the employees. Wherever possible, the first step was to move everyone to the home office. From that point on, conferences only took place virtually. Shift schedules were adjusted to minimise overlapping contact points of the employees in the production area. Business trips were stopped and protective masks were made available to employees at home and abroad. As a pre-





The colleagues from DEUTZ Spain made a special effort to help those affected by the coronavirus pandemic in their country: 'In our home town of Zafra, several NGOs, such as the Red Cross or Zafra Solidaria, applied for financial support to help families at risk of poverty – especially children who could not attend school during the lockout and thus did not have access to the school canteen. This is where we at DEUTZ Spain wanted to help. After consultation with the Zafra works council, we started a solidarity campaign with our employees in order to support the above-mentioned organisations with a financial contribution during the crisis.'



**Fernando Angulo, Head of Competence Centre for Mechanical Manufacturing at DEUTZ**

caution, external visitors were no longer allowed into the plants.

### **Shutting down production became unavoidable**

However, with increasing safety requirements from the government, DEUTZ also increasingly reached the limits of any possible implementation. While the home office solutions introduced at short notice were a measure that could be implemented quickly and without any problems, the minimum distance of 1.5 m required by the health authorities in the production area proved to be a real obstacle to daily work. 'The health of our employees is the focus of our efforts. However, the preventive measures to maintain a minimum distance in the assembly area currently no longer allow efficient production. Therefore, we have decided to temporarily

close large parts of our production', explained DEUTZ CEO Dr Frank Hiller at the end of March. Following the subsidiaries in Italy and Spain, the German locations also stopped production on April 1. This was also DEUTZ's reaction to the measures taken by its customers, who had already reduced their operations.

### **'Vision of Success 2020'**

After three weeks, work in the production area could be resumed and customer demands could be reliably met. However, there is no question that three weeks of production stoppage will not leave DEUTZ unaffected. In order to additionally strengthen the financial stability of the company in times of the coronavirus crisis and to continue to forge ahead with the growth projects as planned, the shareholders decided to suspend divi-





**> Present in the pandemic:**

During the coronavirus pandemic, DEUTZ CEO Dr Frank Hiller used video messages to address his employees and customers and made himself available for critical questions.

Please scan or click on the QR code.



dend payments at the virtual general meeting, which was held for the first time in June. Furthermore, the DEUTZ Management Board decided to waive its variable remuneration for the year 2020. All executives also waived a large part of their variable remuneration for 2020. In the midst of the coronavirus crisis, the company also presented its Vision of Success 2020 – guidelines for success in the current financial year.

‘During the crisis we experienced once again how important transparency and good communication are, both externally and internally. Our employees are the most important driver of our company’s success, and it makes me proud to see how each individual has contributed and continues to contribute to overcoming this difficult situation. Our company will continue to act responsibly within our society and will make an important contribution in order to emerge stronger from the current situation when full production activity resumes’, emphasises Hiller.

**➔ EMPLOYEES COME FIRST.**

The health and safety of the employees is top priority. For example, the risk of infection was minimised by measuring temperatures at the factory entrances. As a token of appreciation for the commitment of every individual, a free packed lunch was provided for a limited period of time.

## ELECTRIP. 2 AWARDS!



DEUTZ received two prestigious German Stevie Awards 2020 for the marketing campaign 'ELECTRIP – GET ELECTRIFIED': **Gold in the category 'Viral Marketing Campaign of the Year'** and **Bronze in the category 'Communication or PR Campaign'**. The campaign focused on the ELECTRIP event, where among other things telehandler prototypes with electric and hybrid drive solutions were presented.

➤ **Click here to listen to the acceptance speech of DEUTZ board member Michael Wellenzohn:**  
Please scan or click on the QR code.



## DEUTZ AWARDS INNOVATION PRIZE.

This year DEUTZ AG is again presenting the 'Nicolaus August Otto Award'. The innovation prize, which is endowed with EUR 30,000 and was awarded last year to electrical pioneer Prof. Günther Schuh, will be presented on 4 November 2020 during a virtual awards ceremony. Due to the coronavirus pandemic, there will not be a face-to-face event. However, the event will be recorded on video and published online. The winner will be announced on the day of the award ceremony.

## SUCCESSFULLY CERTIFIED.

As part of the annual audit by TÜV-Rheinland Cert GmbH, DEUTZ AG was successfully **re-certified in May 2020 for ISO 9001:2015 (Quality)** and **ISO 14001:2015 (Environment)** as well as **50001:2018 (Energy)**. The purpose of the 6-day audit was to inspect the management system of DEUTZ AG. In addition to the review of the core processes and the process landscape, audits were also carried out in the administrative areas as well as in the production areas.





## DR SEBASTIAN SCHULTE IS THE NEW CFO.

The Supervisory Board of DEUTZ AG appointed Dr Sebastian Schulte as a member of the Managing Board of DEUTZ AG, effective no later than 1 February 2021. As of 1 March 2021, Schulte will take over the areas of Finance, Personnel, Purchasing and Information Services as Chief Financial Officer (CFO). The current CFO, Dr Andreas Strecker, is leaving the company at his own request.

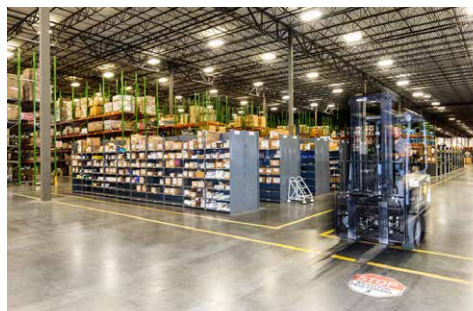
Sebastian Schulte has been Managing Director and Chief Financial Officer of ThyssenKrupp's Marine Division since 2018. From 2014 to 2017, Schulte contributed to the successful restructuring and sale of the ThyssenKrupp steel mill in Rio de Janeiro as Chief Financial Officer on the Executive Board.

## NEW SEQUENCE CENTRE IN PENDERGRASS.

THE DEUTZ CORPORATION OPENED A NEW SEQUENCE CENTRE COVERING ALMOST 15,000 M<sup>2</sup> IN THE IMMEDIATE VICINITY OF THE COMPANY'S PRODUCTION SITE IN PENDERGRASS, GEORGIA.

The Sequence Centre stores all components and engines required for the DEUTZ Xchange programme at a central location. The employees in the Sequence Centre assemble kits with all necessary parts based on the relevant engine specifications on a daily basis and forward them to the nearby production site. The Sequence Centre also has its own production capacities for manufacturing and dispatching component and spare part kits and individually adapted DEUTZ power packs for sales partners, retailers and OEMs.

**'By bundling all logistics processes in the new Sequence Centre, we can now use the additional space for further remanufacturing and assembly work', explains Bob Mann, President and CEO of the DEUTZ Corporation. 'It will also benefit our OEMs and their customers, as we can now supply the DEUTZ products they need even faster than before.'**



➤ To find out more, click here:  
Please scan or click on the QR code.



## DEUTZ ON THE BIG SCREEN: PREMIERE FOR OUR NEW IMAGE FILM.



DEUTZ is a versatile enterprise – you can find us in construction machinery, in agriculture, on the water, at the airport and in many other areas. To demonstrate who and where we are, we celebrated the premiere of our new image film on 20 May 2020.

The film was shot in the Innovation Centre in Cologne-Porz, on site at customers' premises on a construction site or on railways – in other words, anywhere where DEUTZ is involved or active.

Without the commitment of all those involved, our image film would not be what it is today – a film that shows the history and the faces behind our company. Together we are DEUTZ, and we can be proud of that!



➤ **Click here to go directly to the image film:**  
Please scan or click on the QR code.



## 25 YEARS OF PARTNERSHIP WITH MERLO. DEUTZ SUPPLIES 50,000TH ENGINE.

Our colleagues in Italy celebrate together with our customer Merlo: Merlo and DEUTZ have been working together for 25 years. The company, based in northern Italy, is one of the global market leaders in the production of telehandlers, producing around 6,000 machines per year. More than 60 per cent of the engines used by Merlo come from our company. In December 2019, we were able to deliver the 50,000th DEUTZ engine to the company. To celebrate this long and successful partnership properly, **Roberto Brivio, Managing Director of DEUTZ Italy, presented an award for 50,000 DEUTZ engines to Amilcare Merlo, President of the Merlo Group.**



## A TRACTOR ON FIFTH AVENUE ...

... may seem absurd to the spectator, but that is exactly the effect Rem Koolhaas wants to achieve: The city dwellers are supposed to be stimulated to think about the remaining, non-urban 98 per cent of the earth's surface. Placed in front of the museum, the massive Deutz-Fahr tractor really catches your eye. Koolhaas is very excited to announce the exhibition with the raw and fancy presence of a tractor in the streets of New York.

'We are pleased to be part of this literally great cause and to contribute to a new kind of agriculture and industrial progress', says Matthias Augenstein, CEO of Same Deutz-Fahr Deutschland GmbH based in Lauingen (Bavaria).

## NEW PARTNERSHIP WITH ASCENDUM TURKEY.

An important step in the development of the international service operation in the Middle East is the collaboration with the Turkish company Ascendum Turkey. Until 2010, Ascendum was part of the Volvo Group and has been an independent Volvo dealer with numerous other brands in its portfolio since 2010. In cooperation with the existing Turkish DEUTZ service partners, Ascendum will also particularly focus on boosting the service operation in Eastern Turkey. With around 20 new branches in Turkey and 350 employees, 170 of whom are mechanics, Ascendum will be able to provide comprehensive support for the Turkish market. Ascendum Turkey is part of the Ascendum Group, which has a long-standing partnership with Volvo and employs about 1,440 people in 14 countries worldwide.

## DPS POWER BECOMES DEUTZ.

In the strategically important European core market, DEUTZ AG has acquired its long-standing retailer Equipco – known as the DSP Power Group – with the headquarters DPS Power BV in Dordrecht (Rotterdam area) and DPS Power NV in Antwerp, thus strengthening its sales and service network in Belgium, the Netherlands and Luxembourg. With this acquisition, DEUTZ is also expanding its growth in the highly developed Central European market and intensifying local support for key Western European customers. In the future, the company will operate under the name DEUTZ Belgium in Belgium and DEUTZ Netherlands in the Netherlands. The company employs around 50 people and is aiming for an annual turnover of EUR 30 million in the long term.



## ALWAYS WITH A FINGER ON THE PULSE: NEW TRAINING CENTRE IN LOMAGNA.

As a company open to technology in engine manufacturing, DEUTZ is constantly developing and improving its products. In order to keep employees comprehensively informed about the latest technological developments in the future, DEUTZ Italy opened a new training centre on 1 February 2020. On more than 200 m<sup>2</sup> field service technicians and application engineers are trained. The training courses are directly customer-oriented, so that the training lessons hardly deviate from real practice. In the future, the possibilities of the training centre will be expanded: an area for training on running engines is planned.



## DEUTZ ITALY SELLS MORE THAN 28,000 ENGINES IN 2019.

In addition to the 25-year partnership with Merlo, DEUTZ Italy has another reason to celebrate: 28,560 DEUTZ engines were sold in Italy in 2019 – the highest number ever achieved in one year in Italy. DEUTZ Italy thus holds a local market share of more than 30 per cent. Compared to 2018, the number of DEUTZ engines sold has risen by 20 per cent, and compared to 2017, the number has even increased by 55 per cent. To celebrate this new record, the Italian employees were honoured with an award.



# NEW DEUTZ POWER CENTRE IN FLORIDA.



DEUTZ IS BUILDING ITS NEWEST DEUTZ  
POWER CENTRE IN JACKSONVILLE, USA.

The DEUTZ Power Centre in North Florida will feature a comprehensive range of spare parts and offer regular maintenance work as well as emergency repairs for DEUTZ engines – at the location of the centre and with the support of mobile service technicians on site at the customers' premises. The Power Centre will also provide application engineering services and technical sales resources for OEMs using DEUTZ products. This will provide manufacturers with access to customised production and assembly services and allow them to find the best possible DEUTZ solution for their requirements. In addition, customers can purchase new DEUTZ engines and replacement engines from the DEUTZ Xchange program through the Power Centre. 'The new Jacksonville location will complement the Power Centre in West Palm Beach, which we opened this spring, and will help us continue to provide our expert repair, maintenance and parts delivery service with the first-class quality that DEUTZ customers in all markets rightly expect from us', explains Dominick A. 'Nick' Vermet, Head of the DEUTZ Power Centres.

> **Additional information about the DEUTZ Power Centres:**  
Please scan or click on the QR code.





# TORQEEDO RESTRUCTURES MANAGEMENT.



DEUTZ subsidiary Torqeedo, global market leader for electric mobility on water, is restructuring its management. In the future, Dr Ralf Plieninger and Dr Michael Rummel will handle the management of Torqeedo. Founder and Managing Director Dr Christoph Ballin will move to the advisory board, where he will continue to advise and support the company together with Dr Frank Hiller.

'Christoph Ballin is a pioneer in the field of electric mobility. He has contributed significantly to the successful integration of Torqeedo into the DEUTZ Group after the takeover in 2017. We thank him for everything he has done for Torqeedo and thus also for DEUTZ. With Torqeedo's comprehensive know-how and excellent team, we were able to make a considerable leap forward in our E-DEUTZ strategy with the entire DEUTZ Group. We are excited that Dr Ballin will continue to advise us in the advisory board', says Dr Frank Hiller. With his move to the advisory board, Dr Ballin will also dedicate himself to new operational tasks outside the DEUTZ Group.



## POWERFUL AND QUIET: TORQEEDO IMPRESSES DURING TESTING.

For its latest issue (August 2020), the 'Segler-Zeitung' sailing journal tested three electric outboards – including the Travel 1103 C from the DEUTZ subsidiary Torqeedo. The environmentally friendly engine is mainly distinguished by its high performance, quiet operation and extensive features. In the test, it stood out from the other models – and emerged as the test winner. In electric mobility on the water, the market for motors with detachable batteries is becoming increasingly larger. Compared to conventional electric motors, they offer the advantage that the battery can be disconnected with a flick of the wrist and conveniently charged at home or in the boathouse. With Torqeedo, DEUTZ is able to serve the market for electric boat motors with optimised drive solutions. A broad portfolio offers customers a choice of different motors tailored to their individual application.



## NEW SEA RESCUE VESSEL WITH ELECTRIC TORQEEDO MOTORS.



Why are electric boat motors particularly suitable for sea rescue? Quite simply because they are quiet. Therefore, the Swedish Sea Rescue Society decided to use a new dual-mode boat for which DEUTZ subsidiary Torqeedo

provides a battery-powered electric drive system. While the main propulsion system – consisting of two Scania diesel engines with 650 HP – is used to get to the scene quickly, the crew can switch to the two electric Torqeedo engines with 160 HP for search and rescue operations. Quiet operation is crucial, because even the slightest noise makes it difficult to search for a person in the water.



➤ **To find out more, click here:**  
Please scan or click on the QR code.

## AUTONOMOUS SURFACE VESSELS.

Autonomous Surface Vessels (ASV) are used in a wide range of applications – from underwater acoustic measurements to whale song research. Leading manufacturer SeaRobotics has opted for a Deep Blue electric propulsion system from DEUTZ subsidiary Torqeedo to power its new surface vessel Endurance 7.0 reliably, quietly and over long operating periods.



➤ **To find out more, click here:**  
Please scan or click on the QR code.



## NEW PARTNERSHIP WITH ZF FRIEDRICHSHAFEN AG.

DEUTZ subsidiary Torqeedo has entered into a partnership with the international technology group ZF Friedrichshafen AG. Torqeedo will integrate ZF's innovative steerable pod propulsion (SPP) into its successful 'Deep-Blue' drive systems.



# CANDELA SEVEN: BETTER THAN FLYING AND PURELY ELECTRICALLY.



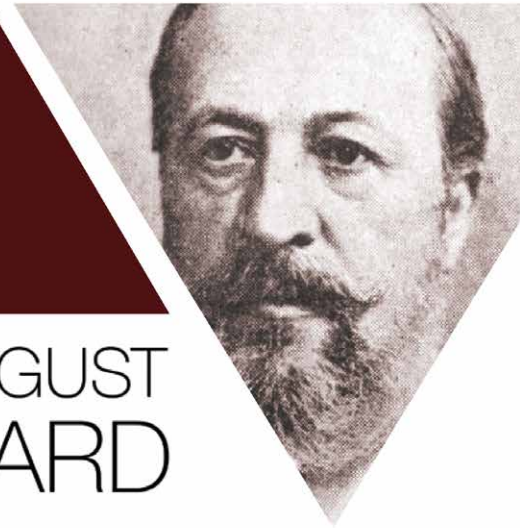
Candela Seven is the world's fastest electric speed boat with a range and speed comparable to those of competitors powered by fossil fuels. This enormous performance on the water is achieved by two key components: Engine and design. DEUTZ subsidiary Torqeedo manufactured the all-electric motor of the Candela Seven. The design of the Candela Seven is distinguished by the fact that wings (so-called foils) under the hull allow the boat to fly completely above the water surface. This reduces the water resistance of the hull by 80 per cent compared to conventional boats. The result of the interaction between the engine and the design is an unparalleled range of 92 kilometres – three times that of other electric boats. The Candela Seven is supported by a computer-controlled stabilisation system, which makes the boat immune to waves and hard hull impact. DEUTZ CEO Dr Frank Hiller experienced this quiet and simultaneously insanely fast marvel during a test run in May 2020.

> **Directly to the test drive by Dr Hiller on the Candela Seven:**  
Please scan or click on the QR code.



# INNOVATIVE IDEAS SHAPE OUR FUTURE.

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OTTO AWARD



The presentation of the NICOLAUS AUGUST OTTO AWARD for an outstanding life achievement in the field of innovative future design.

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