

Connected

Focusing on One Hitachi in Europe

September 2020



At a glance



Hitachi Welcomes ABB Power Grids!

On July 1st, Hitachi Ltd., announced it had completed the procedures for its investment in the company operating power grids business that had been carved out from ABB Ltd. The new company, Hitachi ABB Power Grids Ltd., was launched and has begun operation.



This is an exciting acquisition for Hitachi. Under the leadership of Claudio Facchin (CEO) and Toshikazu Nishino (Executive VP of Hitachi), as Chairman, Hitachi ABB Power Grids will expand Hitachi's energy solutions business globally as a core part of the company's Social Innovation Business. By combining world-class power grids business with Hitachi's advanced digital technologies such as Lumada, Hitachi and Hitachi ABB Power Grids will provide innovative energy solutions spanning the Energy, Mobility, Smart Life, Industry, and IT sectors.

With roots in Hitachi and ABB, the new business will build on more than one century of expertise in pioneering engineering technologies, enabling customers to increase efficiency and maintaining resilience. It will unlock new business models and contribute social, environmental and economic values for a sustainable society.

The demand for electricity continues to outpace the rising need for energy; the challenge is to meet this growing demand while minimising environmental impact for a sustainable energy future.



As individual companies, Hitachi and ABB have been leaders in innovating and improving technology for over a century. Together, as Hitachi ABB Power Grids, we bring forward this long and rich heritage to tackle today's urgent challenges facing society. With a combined heritage of almost 250 years, we employ around 36,000 people in 90 countries. With a proven track record, global footprint and unparalleled installed base, Hitachi ABB Power Grids balances social, environmental and economic values, and is committed to powering good for a sustainable energy future.

We welcome the Hitachi ABB Power Grids team to Hitachi and look forward to many exciting opportunities for collaboration.

To watch a short video please click the link or visit:

<https://tinyurl.com/HitachiandABB>

To read the full press release please click the link or visit:

<https://tinyurl.com/Hitachi-ABB-Press>

Hitachi's Environmental Vision and Mid-term Management Plan



GOAL 7

Ensure access to affordable, reliable, sustainable and modern energy for all.

Hitachi's focused on 'Affordable and Clean Energy'

In June's Connected we kicked off our series on Sustainability looking at Hitachi's sustainability strategy and approach towards the Sustainable Development Goals (SDGs). Despite global progress, action to meet the Goals is not yet advancing at the speed or scale required. 2020 therefore marks the start of what has been called the 'Decade of Action'.



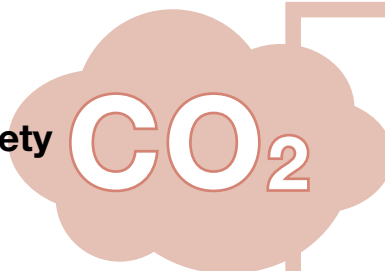
The 'Decade of Action' calls for accelerating sustainable solutions to all the world's biggest challenges to ensure the global goals are met by 2030. We decided to take a closer look at what Hitachi is doing to support SDG 7: Affordable and Clean Energy and speak with some of our colleagues involved.

Hitachi Environmental Vision and the 2021 Mid-term Management Plan

Hitachi's Environmental Vision was established to clarify the society that Hitachi seeks to support from a long-term perspective; a 'low-carbon, resource-efficient society, harmonized with nature'. To achieve this ambition Hitachi has set long-term environmental targets 'Hitachi Environmental Innovation 2050' which include reduction targets for CO₂ emissions.

Climate Change Mitigation /Adaptation

For a low-carbon society



In the 2021 Mid-term Management Plan published in 2019, Hitachi established the management policy of improving Quality of Life and delivering corporate value for customers through developing social, environmental and economic values in parallel. Supporting this and to accelerate our action under Hitachi Environmental Innovation 2050, Higashihara-san announced this year a new target of achieving carbon neutrality by FY2030 related to CO₂ emissions from self-manufacture/production (Factory/office).

SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD

In 2015, the United Nations announced 17 Sustainable Development Goals (SDGs) to be achieved by 2030, including goals for ending poverty, fighting inequality and injustice, and tackling climate change.

Through the value chain
CO₂ emissions

FY 2050

80 % reduction

FY 2030

50 % reduction

(compared to FY 2010)

We spoke to colleagues to find out how Hitachi Europe (HEU) are rolling out an energy management project in Europe to support achieving the target.



Helen Grundy
Environment Specialist,
HEU

“ Energy consumption (electricity and gas) of Hitachi Group Businesses in Europe is around 300,000 MWH/yr (not including Hitachi ABB Power Grids), to put this in context 1MWH is enough to supply around 2000 homes for 1 hour, so our energy consumption is not insignificant. To achieve carbon neutrality Group Businesses are setting plans that include energy efficiency measures, on-site renewable generation, procuring renewable energy and buying offsets. In HEU, we are developing solutions for each of these, this will benefit Group Businesses by combining our shared experience but also Hitachi's scale allowing us to deliver more cost-effective outcomes.”



Daniel Holmes
(Deputy General Manager
(Acting GM)) – Hitachi
Automotive, Bolton)

“ In Bolton 100% of the electricity we purchase is from renewable electricity sources from our energy supplier. This is great because our carbon impact has already been greatly reduced. But we are also looking at how we can reduce our reliance on supplied electricity, by working with HEU to find the best options for installing solar PV on our site. This will reduce the risk of price fluctuations in the future, but it also reinforces our commitment to the environment. This is important to us but also our customers who are also looking for commitment in their supply chains.

Efficiency measures are also part of our energy management strategy. Energy efficiency reduces both our costs and our environmental impact directly. We've replaced all light fittings with LED alternatives which has a significant impact on reducing the electricity consumption associated with lighting. In addition, we have replaced the sensors in our building energy management system and ensured all the time schedules match the respective occupancy as well as adjusting summer and winter programmes to get the optimum outcome without wasting energy. In our compressed air systems, we have put in heat recovery systems. These support our central heating systems in colder months. Alongside this, focus on right first time manufacturing ensures that energy is not wasted within our manufacturing process. Its shown that small projects as well as the larger can play their part.

Next, we are keen to look at what we can do with battery storage on site especially once we have installed the PV system.”



Stefan Kintscher
(GM – VCIG, Dusseldorf)

“ The Value Chain Integration Group (VCIG) within HEU provides innovative procurement expertise and strategic business solutions to support the Hitachi Group Businesses in Europe. Energy is a key commodity for us. Currently Business Groups procure energy individually, however by establishing a single procurement contract that allows flexibility, aligns to our carbon neutral target but also provides a cost-effective solution we're able to utilise our scale to our benefit.”

If you are interested in finding out more about energy and carbon management, please contact Helen.Grundy@Hitachi-eu.com or Stefan.Kintscher@Hitachi-eu.com

Editor's note

I am pleased to share another great issue of Connected magazine with you. I hope you enjoy the articles from our different European teams and perhaps feel inspired to take part in some corporate volunteering after reading the article on Page 7.

Don't forget to enter our cookery competition on the final page of the magazine!



Creating possible opportunities from a global pandemic

COVID-19 sparks speculative collaboration between Hitachi Design Lab and Takram Hitachi Europe's Research and Development Centre (ERD) and Takram, a global design innovation studio, are exploring the future of infrastructure as a reaction to the COVID-19 pandemic.

For any questions, please contact Junko.Tateishi@hitachi-eu.com

Or visit
<http://innovate.hitachi.eu/en/>



Invitation to IYGA Regional Ceremony!

We are delighted to share that this year's Inspiration of the Year Global Award (IYGA) received a record breaking 43 entries for our region. We will be announcing our winners live at the regional award ceremony on Thursday 22nd October.

For an invitation, please contact Emily.Seaton-Potter@Hitachi-eu.com

Hitachi Rail and Bombardier win contract to supply Frecciarossa trains in Spain

Hitachi Rail SpA and Bombardier Transportation announced today that they have signed a contract with Italy's primary train operator Trenitalia to supply 23 Frecciarossa 1000 very high-speed (VHS) trains for the new Intermodalidad de Levante (ILSA) rail operation, a joint venture established by Trenitalia and Operador Ferroviario de Levante SL. The contract value is around 800 million euro (\$ 943 million US) in a partnership involving company participation of approximately 60 per cent and 40 per cent respectively.



Andrew Barr
Group CEO,
Hitachi Rail

“The ETR1000 train, widely known commercially as the Frecciarossa 1000, has transformed passenger transport on high-speed lines in Italy, setting the standard and becoming the fastest and most admired train in Europe. It is a platform that we are very proud of and is proof of our continuous and positive collaboration with Trenitalia to the benefit of passengers and society in terms of comfort, sustainability, style, performance and low noise. We look forward to bringing the same advantages to Spain, and to contribute to the development program of high-speed railway services in this country with these new services.”

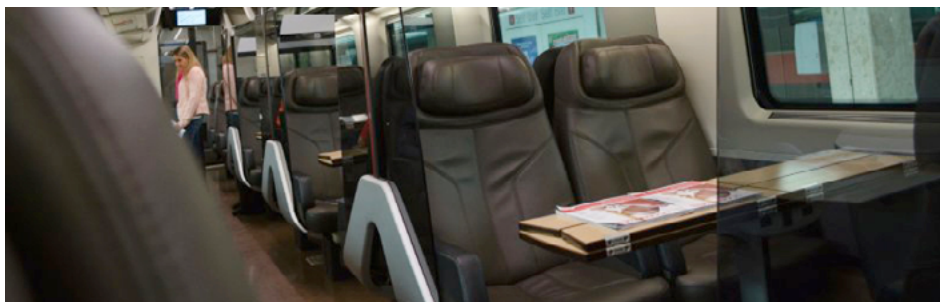
“The Frecciarossa 1000 very high-speed train has been chosen for the new ILSA franchise in Spain to enrich the travel experience for passengers, thanks to its high levels of comfort and reliability. With cutting-edge train control and propulsion technologies deriving from the V300ZEFIRO platform, these fast and quiet trains are already very popular with long-distance travellers in Italy. The liberalisation of Europe's railways enables ILSA to offer new rail services in Spain to encourage even more passengers to shift their journeys from cars and planes to trains, contributing towards global sustainability goals,” added Franco Beretta, President and Managing Director of Bombardier Transportation Italy.

“Working together with Bombardier as trusted partners of Trenitalia for this new international project, renews and recognizes our valued experience in the high-speed rail sector. For Hitachi, a fully integrated, global provider of rail solutions, this is a further confirmation of our capability to contribute to society through the development of superior, original technology and products that deliver sustainable mobility,” commented Christian Andi, Executive Officer, Region EMEA, Hitachi Rail Group.

“We are delighted that Trenitalia has put its confidence in Bombardier and Hitachi once again with this order for 23 trains based on Bombardier's V300ZEFIRO platform. This innovative, super-fast train is already extremely popular with passengers in Italy and we're looking forward to bringing this outstanding high-speed travel experience to millions of rail passengers in Spain,” concluded Marco Biffoni, Head of Sales Italy for Bombardier Transportation.

The Frecciarossa 1000 is the fastest and quietest very high-speed train in Europe. The 23 new trains for ILSA will be designed and built by Hitachi Rail and Bombardier in Italy. Each train will be approximately 200 metres long with capacity for around 460 passengers and capable of commercial speeds of up to 360 kph. State-of-the-art aerodynamics and energy saving technologies give the train unmatched operating efficiency. Once onboard, passengers will be able to enjoy WiFi, a bistro area and high levels of comfort in all classes. The trains are operable on high-speed rail networks equipped with multi-voltage technology fulfilling all TSI requirements. Since their introduction in Italy in 2015, the Frecciarossa 1000 very high-speed trains have set enviable standards of performance, operating efficiency and passenger comfort.

ILSA has been selected by ADIF (the company who runs Spain's rail infrastructure) as the first private operator to be granted access to the Spanish rail market. From 2022, ILSA will run high-speed services on the Madrid-Barcelona, Madrid-Valencia/Alicante and Madrid-Seville/Málaga lines.





Hitachi Rail to acquire railway technology firm Perpetuum to accelerate UK digitisation strategy

- Japanese mobility firm to purchase UK technology company in move to advance and digitise its global train maintenance programme
- Perpetuum's technology could cut delays and improve reliability of thousands of passenger services across the world
- Southampton-based firm, including all 73 staff, to be integrated within Hitachi's railway business of more than 12,000 employees across 38 countries

Hitachi Rail Ltd has announced that it has agreed to acquire Perpetuum, a technology firm that is pioneering digital technology to optimise railway operations, offering improved efficiency, safety and quality of service.

The move supports Hitachi Rail's vision to provide superior transport solutions by using digital technology designed to improve the reliability of thousands of passenger services across the globe, including the 276 Hitachi-built trains running across the UK network today.

Perpetuum's product utilises wireless condition monitoring to spot faults and have them fixed before they delay passengers' journeys. In fact, none of the 3,000 carriages that are fitted with Perpetuum sensors have ever had critical components fail in service.

Once they are installed on trains, Perpetuum's self-powering digital sensors detect on-board vibrations and send back real-time data about the performance of critical train parts – e.g. wheel sets, gearboxes, motors or bogies – faster and more accurately than traditional condition-monitoring approaches.

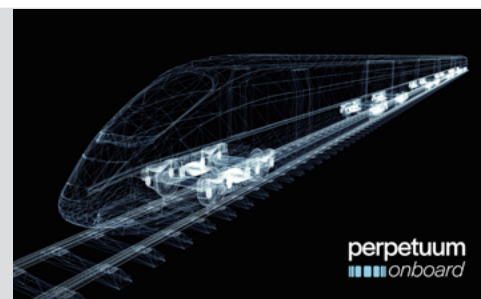
Combining this information with artificial intelligence-led analytical tools means that:

- potential faults are identified and fixed before they impact services – meaning passengers enjoy more reliable and punctual journeys;
- critical parts on trains are replaced exactly when they need to be, which increases their lifespan by more than 25%, cuts costs and protects the environment;
- maintenance needed by the trains can be reduced, increasing availability to provide reliable and efficient passenger services

Its future inclusion as a Hitachi group company will create new opportunities to fit self-powered sensors to the hundreds of trains already serviced around the world by the wider mobility business. Hitachi's global transportation portfolio is unique in offering full service solutions for passenger and freight operators globally; from driverless metros, to high-speed bullet trains and signalling solutions – all to ensure an integrated and optimised railway operation. Service and maintenance is key to this fully integrated offering and will complement and develop solutions already in place for customers.

The acquisition will further support Hitachi, Ltd.'s strategy of investing in digital and data-driven ways solve complex customer challenges – in line with Hitachi's Lumada platform.

For more information please contact a member of the UK Rail Communications, Brand and Marketing team by emailing rail.enquiries@hitachirail.com



Andrew Barr, Group CEO, Hitachi Rail said: "The inclusion of one of the most exciting, pioneering companies in digital asset management is an exciting development for our global mobility business.

"Perpetuum's data-driven insights will offer further improvements to the service we provide to our customers – leading to better journeys for passengers. It also supports Hitachi's growth in the digital technologies space, which is becoming increasingly key to our offering – adding value to support our global customer base."

Hitachi's moves marks further direct investment into the UK – at time when the British and Japanese governments are negotiating a free trade agreement. It also follows an £8.5m investment into constructing a new welding and painting facility at its Newton Aycliffe train manufacturing facility.

The transaction will be subject to relevant anti-trust clearance being obtained. Closing is expected in the autumn of 2020.



New opportunities to promote rental construction equipment

Hitachi Construction Machinery (Europe) NV (HCME) has explored new ways to reach both new and existing customers during the pandemic and found fresh opportunities to position Hitachi as a thought leader within the European construction industry.

As part of this approach, it has created white papers and podcasts, in addition to movies and news releases, on several topical issues, which would be of interest to customers, particularly in the light of COVID-19. The first of the series addressed the subject of rental equipment – highlighting the Hitachi Premium Rental programme – in the context of a growing market, the rise of the sharing economy, and the potential that this solution offers to increase the efficiency of equipment use and cut carbon emissions.



Ghislaine Jonker
Public Relations and
Communication Manager,
HCME

“ In the early weeks and months of the pandemic, evidence suggested that customers were likely to have more time to digest written content, such as white papers.”

To read the white paper
please click the link or visit:
<https://tinyurl.com/HCME-rental>

“Audiences of podcasts also rose during lockdown as people staying at home used these channels to keep informed and entertained.

“We interviewed product experts within our own organisation and dealer representatives, as well as industry professionals and customers, to explore these topics in-depth. The aim was to reach our customers in an informative way, giving them useful, interesting and exclusive content, with less of a commercial approach,” says Ghislaine Jonker, PR & Communication Manager at HCME.

The dynamic content also outlined the benefits of rental construction equipment to contractors, such as minimal financial risk, with fixed costs and flexible contract conditions to respond to fluctuating market demands.



To listen to the podcast please click the link or visit:
<https://www.buzzsprout.com/1025977>



Special recognition for a Hitachi Vantara employee

Marion Sassen works for Hitachi Vantara, Germany and we would like to share her heart-warming story with you:

“My name is Marion and together with my dog Sharky I am part of a Rapid Deployment Unit which forms the German Urban Search and Rescue Team GER 01. I am one of over 80,000 volunteers of the German Agency for Technical Relief which belongs to the department of the Federal Ministry of the Interior and which provides technical assistance to the population and people in distress for 70 years.



My dog is a trained rubble and area search dog and together we are 24/7 ready for missions within Germany and abroad. Typical missions within Germany are rubble searches after gas explosions, collapse of houses or area searches for missing people in the woods. To train a dog up to this level it takes about 2½ years and afterwards constant training twice a week is necessary to keep the level of training and readiness.



On 4th of August a massive explosion shattered the harbour of Beirut in Lebanon. Many people died and many people were still missing. In such situations the affected country is asking for help and other countries response. Within the EU a so-called EU Civil Protection Mechanism starts. Established in 2001, the Mechanism fosters cooperation among national civil protection authorities across Europe and was set up to enable coordinated assistance from the participating states to victims of natural and man-made disasters in Europe and elsewhere.

Germany responded at once to the request of help and offered a medium urban search and rescue team.

Part of such a team are four dog handlers with their dogs. I was selected for this mission and after six hours of preparation, packing personal stuff and notifying my family and my employer I left my home to be deployed to Lebanon.

50 people, 4 dogs and 15 tons of equipment hopped on a regular flight to Lebanon and within 36 hours after the catastrophe took place, we were ready to start our work in Beirut. Speed is essential because you only have the golden 100 hours. After this time, the chances to survive such a catastrophe rapidly diminish.

Already on the transfer from the airport to our campsite the immense destruction of the explosion was visible. Blown out windows, destroyed façades of the houses, houses which have collapsed, the harbour area completely destroyed. It was appalling to look at. An already stricken country had been hit by an additional immense catastrophe. And still we were welcomed with thankfulness and gladness by the Lebanese people.

The role of me and my dog is to locate living people who are trapped under the rubble/debris so that the rescue team can extract them. Without proper localisation no rescue can happen. Therefore, we are the first to get on the rubble after the worksite has been examined and has been ranked as safe for search. Sharky and I searched a whole day close to ground zero, the starting point of the explosion. The immense heat of 36 degree (96.8 Fahrenheit) and the high air humidity made the work for humans and dogs very tiring. And additionally, the pandemic situation due to corona and the possibility of toxic material like asbestos made us wear face masks during the search which demanded a great deal of physical exhaustion from us.

Unfortunately, we did not find any survivors. The explosion was too violent as that somebody could have survived under the destroyed storehouses in the harbour area. Nonetheless was our mission a successful mission. Because the knowledge that no living people are left in this area is also important. For relatives as well as for the government. Because at one point in time you need to look forward. Hope needs to be given up and the harbour and the living apartments need to be built up again. And we could give at least the certainty that no living human is left in this area.

After five days Sharky and I returned home. And the governmental rules regarding corona struck us. I had to conduct a first test directly at the airport and needed to go in quarantine until the -luckily- negative result arrived. After this I needed to stay in isolation for additional six days. Which meant I still was not allowed to go shopping or to meet people. But at least I was allowed to walk my dog and to go for a run. After the negative result of a second test I then was finally free of any governmental regulations and I returned into my normal life.

I would like to thank Hitachi for the immense support and the excitement that has been shared among my colleagues and throughout the whole company with me. Without this support I would not be able to do my voluntary work. I would not be able to focus on my task at hand; to rescue people. And I can only encourage everybody to do voluntary work. Without

this, our world would not be able to be like it is. Encourage yourself and support your employees to do voluntary work.



Number of the issue 43

The record number of IYGA entries
for EMEA in 2020

Follow Hitachi's presence on our
European social media channels...



HEU Turkey Branch won JPY 199M order for Electric&Automation System Modernization

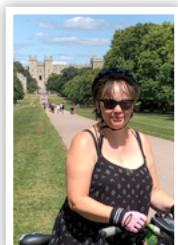


HEU Turkey Branch Office recently won a JPY 199M project from a reputable flat steel producer in Turkey despite of difficult Covid-19 days. Customer has been working with Hitachi Industry & Distribution Business Unit (ID BU) since 1990's by using Hitachi's Electric&Automation system for Reverse Cold Mill. Hitachi will modernize existing PLC system by implementing R900 Series Automation products to replace obsolete R600 series items; and also provide Retrofit for drive control units of Converter, Pay off Reel, Mill, and Entry & Delivery Tension Reel. Modernization project will be completed in 2 phases at the end of 2020 and 2021 respectively in collaboration with ID BU Project Team. Despite of harsh business conditions HEU Turkey Branch was able secure the order on time to obtain the satisfaction of both customer and ID BU.

Competition

For our September competition, we hope to get lots of people involved in something new – a cookery competition! If you would like to be involved, please submit a photograph and recipe of your dish (sweet or savoury – or both!) to by Monday 2nd November.

As we all have different tastes and skills, our competition winner will be chosen at random to win a **Hitachi 24 Inch 24HB21T65U Smart HD Ready LED TV**.



Previous winner

Congratulations to our June competition winner **Clare French** (HEU) for submitting a wonderful photo of her new lockdown hobby of cycling.

Due to saving time on her normal commute, Clare is using her extra time to get out on her bike which has been great for physical and mental wellbeing.

Cab comfort is a big hit with the UK's first HCMUK Zaxis-7 operators

The first machines from the new generation of Hitachi Zaxis-7 excavators have arrived in England and been delivered to DMJ Drainage, one of the UK's leading land drainage contractors. The first assignment for the two ZX300LC-7 medium excavators was to work on a stretch of the West Cumbria water supplies project in the northern part of the Lake District National Park.

One of the DMJ's operators, Roger Knipe, has more than 30 years' experience and is impressed with the new ZX300LC-7: "This machine has been designed around the operator, because it's very comfortable and they've thought about the little things... For example, the increased sweeping area of the wiper is excellent, and the Bluetooth connection is handy so that I can continue to operate safely without stopping to answer the phone.



"The seat is comfortable and I like the way that it moves as one with the console. There's so much legroom, as well as less noise and no vibration. The layout of the control panel is easy to understand and use, and I can view the monitor clearly. My favourite aspect of the machine is the visibility, it's brilliant, and I especially like the view from the three cameras.

I really enjoy operating this machine, and it's ideal for this earthmoving and levelling job.

"At the end of a long day, I feel less tired than I would in another machine. In my opinion, Hitachi excavators are the best, because they are so responsive due to the hydraulic system. If another operator asked me about this new Zaxis-7, I would say that it's better than your machine!"

The positive feedback on the ZX300LC-7 given by DMJ's operators may be attributed to Hitachi's commitment to create the perfect working environment. This includes the ultra-spacious cab, some of the lowest noise levels in the market and 20% less vibration than the previous generation. With a priority on safety, the superior view from all angles adds to the protection of the operator and the immediate surroundings of the job site.

DMJ's two Hitachi ZX300LC-7s have joined three ZX130-6s on the West Cumbrian pipeline project. The Lincolnshire-based company was initially employed as a sub-contractor to install drainage pipes on either side of the main water pipeline, and is now moving the topsoil back into place before returning the agricultural land to its natural state.

A large proportion of the work is being carried out in the fields during the spring and summer periods to help reduce the impact on the grassland. When the project is complete, the water will be sourced from Thirlmere reservoir, before being transferred along 30km of the new pipeline to a water treatment plant. After this process, the drinking water will be used for homes and businesses in the West Cumbrian region.