

#### The magazine of Hitachi Construction Machinery (Europe) NV



### **GROUND CONTROL**

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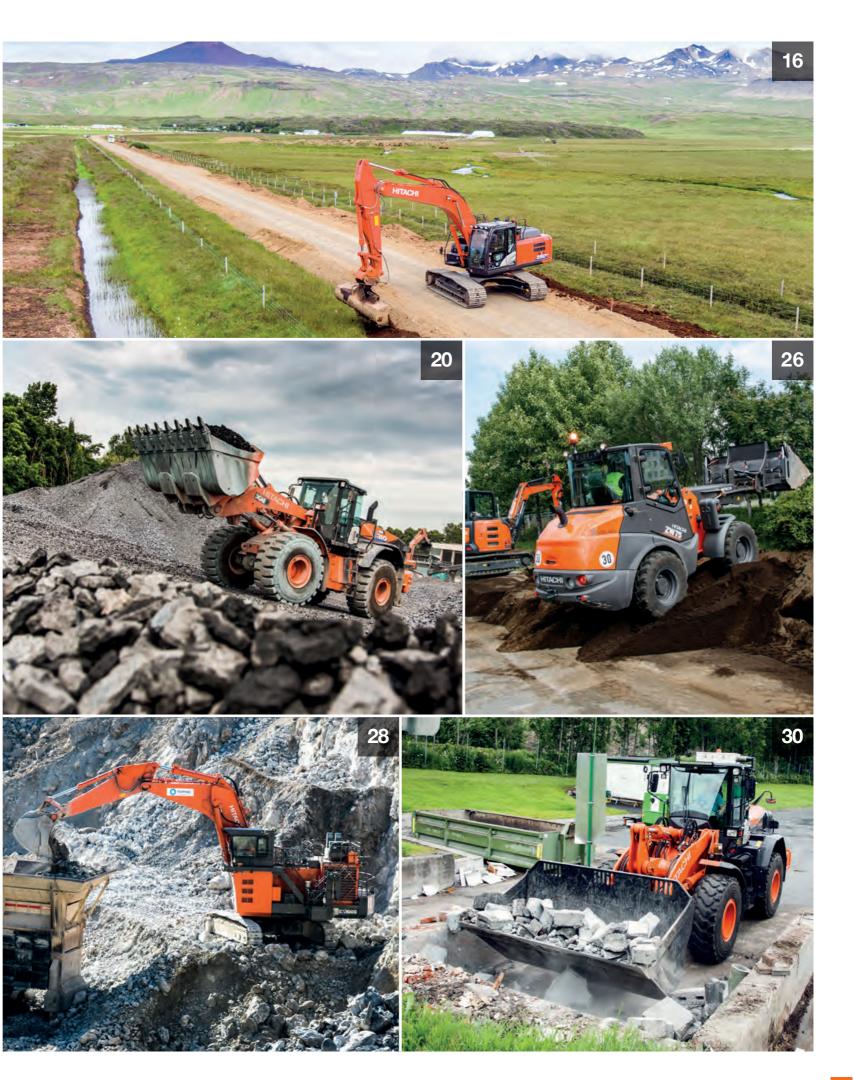
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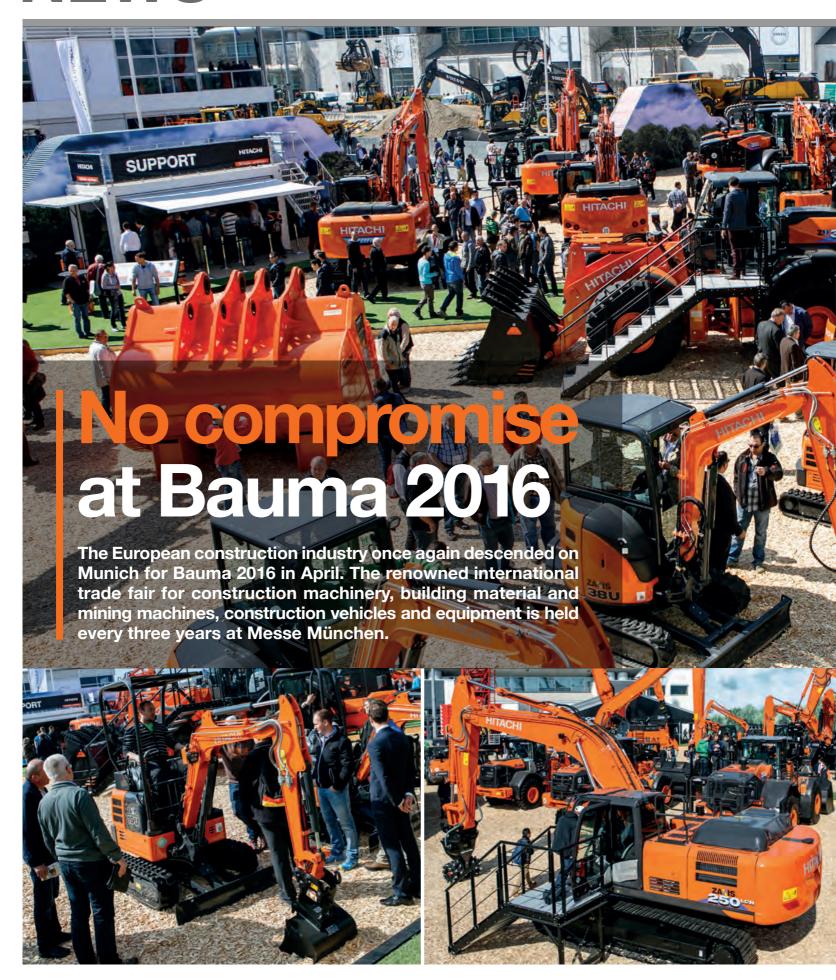
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Top of the bill were the latest Zaxis-6 excavators, with the medium ZX250LC-6, ZX300LC-6 and ZX350LC-6 crawler machines, and the large ZX490LCH-6 and ZX890LCH-6 models. In addition, the ZX145W-6 was the first of the new wheeled excavator range on show. This was supported by several new special application excavators, such as the ZX300LC-6 super long front, ZX350LC-5 with 30m telescopic front arm and ZX135US-5 for tunnelling applications.

Sharing equal billing with the excavators were six Hitachi ZW-6 wheel loaders: the ZW65-6, ZW75-6 and ZW95-6 compact machines; the ZW220-6 and ZW310-6 medium models; and the large ZW370-6.



### The sky's the limit

Among the largest exhibits at Bauma was the new Hitachi Sumitomo (HSC) SCX3500-3 crawler crane. This was handed over to its new owner – the UK's largest crawler crane company, Weldex (International) Offshore Ltd. – in a special ceremony hosted on the HCME stand.

The SCX3500-3 was supplied by the sole UK and Ireland HSC distributor, NRC, which has a long and established relationship with Weldex. The new HSC machine, already painted and branded exclusively for the Scottish company – including its distinctive strapline, "the sky's the limit" – was launched earlier this year and made its first overseas public appearance at Bauma.

### **Introducing HCME's new President**

Mr Makoto Yamazawa also made his first public appearance at Bauma as HCME's new President. Appointed on 1 April, he is also the new regional General Manager of Hitachi Construction Machinery for Europe, the Middle East, and North, West and Central Africa.

After he graduated in law from Waseda University in Tokyo, Mr Yamazawa joined Hitachi Construction Machinery Co., Ltd. (HCM) in 1983 as a sales representative for the company's domestic business. Eight years later, he was transferred to HCM's International Division for ten months before a subsequent transfer to the company's subsidiary in Thailand.

Mr Yamazawa held the positions of Marketing and Sales Manager in Bangkok from 1992 until 1998, and Managing Director of HCM's Malaysian subsidiary from 2005 to 2010. In between these assignments, he took up various managerial roles at the Tokyo head office within the Asia and Oceania (1998-2000), Mining (2000-02, 2004-05 and 2010-16) and Construction (2002-04) departments.

## Ground Control spoke exclusively to Mr Yamazawa at Bauma 2016.

### What was your reaction to your appointment at HCME?

I was relatively surprised, due to the low number of mining opportunities in Europe. This is another good opportunity for me to continue developing my career, because Europe is the most stable and important market for Hitachi in the world. It is very exciting, as HCME's customers operate everything from compaction to mining equipment and therefore this is a very similar operation – albeit on a smaller scale – to HCM.

#### What experience will you bring to your new role?

The experience I have gained at our headquarters, in our territories and with our leading product categories will help me to meet the challenges that lie ahead. While I still have more to learn about the European market, I also feel that I have much to offer from my past construction industry experience.

My intention is to get even closer to our customers in the spirit of our competitive proposition. We will continue to differentiate our product and service offerings as a reliable partner and provider of solutions. This will help us to maintain our strength and profitability, despite the unpredictable nature of the global marketplace. I believe that I not only have the expertise, but also the spirit to see HCME grow.

### What are your immediate goals?

My first goal is to reinforce the enviable reputation forged by my predecessors at HCME, which was in fact established as HCM's first overseas operation more than 40 years ago. Then, as part of the formidable team at Hitachi and the HCME dealer network, I will strive to build on the foundations required for the company to become the number one OEM over the next decade.

### How do you see the current market?

Only a minority of Hitachi customers use their machines just to dig – there are so many applications required. So, this means that we really have to work with the factory to prepare for the increasing demand from this part of the industry. In the future, we will have to be a solution provider to help our customers earn more by being creative.

### What has been the most significant development in the industry?

Everything is now changing on a daily basis with the increasing number of applications and telematics. The speed of technological development is so rapid that it's even difficult for manufacturers to keep up during the development time that is required to create a new range of machines.

There have already been some notable achievements in the mining industry, such as the introduction of autonomous systems. We have to be faster with our innovations than the competition. We can maintain our advantage by adopting some core technologies from within the Hitachi group and applying them to construction equipment.



### What have you enjoyed most in your career?

In Malaysia I was able to make my own decisions and achieved so much to change 'the game' there. I looked at every aspect of the business to come up with new ideas and solutions. If everyone agreed, we tried it – and if it didn't work, we came up with another idea. I learnt so much from so many people and therefore it was a very interesting assignment.

### What is your impression of HCME's dealer network?

The dealers are more advanced than in any other region in the world. They have to be practical and versatile, and have had to diversify their businesses due to the characteristics of their respective



markets and to meet the customers' needs.

Europe is the leading region for construction equipment, because of the way in which the machines are used. With the number of solutions on offer to customers, HCME has to be the pioneer that is followed by the other regions.

### What will be your approach to each market?

If we look at the three current major markets – UK, France and Germany – each has a different structure and it is necessary to become aligned with the dealer network in each. With help from the rest of the team and the relationships that they have in place, we can work together with the same goals and proactive action plan.

### And finally, what is your message to Hitachi customers?

My ultimate goal is to satisfy our customers. We would like to be their partner, not just for the hardware, software and to minimise their operational costs, but also help to keep their machines running. In fact, we would like to be their best partner for solutions.



To see a movie of the Hitachi stand at Bauma, featuring Mr Yamazawa and HCME's team of product specialists, please visit

www.youtube.com/user/HitachiConstruction

# O'Neill trusts in ZX350LC-5 SLF

A specialist marine contractor in Northern Ireland has taken receipt of its first-ever, new Hitachi machine – a Hitachi ZX350LC-5 super long front (SLF). Based in Dunloy, County Antrim, RA O'Neill Ltd (O'Neill) operates throughout its home country – as well as the Republic of Ireland and the UK – and manages various maritime projects, such as dredging, piling, scour defence (sheet piling around bridge piers) and marina installations.

The majority of O'Neill's nearshore operations are carried out by its fleet of long-reach excavators, which are positioned on board hopper barges and work boats. The ZX350LC-5 has been earmarked for a number of maritime developments, firstly in Glenarm, County Antrim, where it is being used for coastal protection work. Its extended working range means that the SLF is the ideal solution for such an operation.

O'Neill's decision to purchase the ZX350LC-5 was bolstered by its close relationship with TBF Thompson (TBF), an authorised sub-dealer of Hitachi Construction Machinery (UK) Ltd since 1991. TBF's Group Director Seamus Doherty believes it was this strong partnership – combined with the overall quality of Hitachi construction machinery – that helped during the decision-making process.

"We've been working with O'Neill for around 15 years," Seamus says. "It already owns a number of used Hitachi machines, but approached us at the end of 2015 to enquire about purchasing a new SLF. We struck a deal with them in January to deliver the ZX350LC-5 in June and the feedback has been excellent so far.



For example, the cab offers an excellent, all-round view and the hydraulics are second to none."

Seamus is also enthusiastic about the benefits of owning Hitachi machinery. "Hitachi moves with the times, and the company's vision is first class," he continues. "I have also been impressed with Hitachi's new Zaxis-6 range, in terms of its smoothness and controllability. O'Neill will benefit from a fuel-efficient and cost-effective machine, and the peace of mind that the resale value will remain strong."

Owner Rodney O'Neill has been highly satisfied with the productivity of the ZX350LC-5, which has been engineered at Hitachi's special application factory at Oosterhout in The Netherlands. "We know what to expect from Hitachi, and are extremely happy with the way the excavator is performing," he says. "They always seem to get it right, and we will certainly consider buying additional machines through TBF in the future."

## Simply the best

Westbourne Civil Engineering has taken delivery of the UK's first Hitachi Zaxis-6 excavator – a ZX250-6. The innovative new machine was complemented by an order for eleven further models from Hitachi's medium excavator range, including the ZX85US-5, ZX130-5, ZX135US-5 and ZX210-5.

The delivery marks the beginning of an exciting new era for civil engineering company Westbourne, which has plans to further expand its fleet to 50 machines by the end of 2016. The family-run business has recently moved into new, self-built premises near Manchester. This will allow it to hire additional surveyors, engineers and apprentices to meet the growing demand in the UK's housing market.

Westbourne Managing Director Martin Colgan was delighted with the multi-machine purchase. "The legendary reliability and resale value of the Hitachi excavators, coupled with the excellent customer service provided by Hitachi Construction Machinery (UK) made it an easy choice. These excavators are quite simply



the best machines for groundworks and civil engineering in the current market.

"I am also delighted with the addition of the latest model from Hitachi," continues Martin. "The ZX250-6 is already proving to be very popular with our operators and the enhanced fuel efficiency is excellent from a business perspective."

### New dealer in Serbia



A new dealer in Serbia has been appointed to provide customers with the full range of Hitachi construction machinery, including mini, medium and large Zaxis excavators, ZW wheel loaders and special application machines.

West Balkans Machinery, which specialises in supplying equipment for mining, quarrying and construction projects, was founded in 1996. The company has continued to grow since then and moved to its new 4,764m² facility based in Simanovci, near Belgrade, in 2014. It has 57 employees, including two Hitachi sales representatives and two service technicians.

Quality and Marketing Manager Sanja Vukovic said, "We appreciate the strong and proactive support that we have received from Hitachi. We are united as one team and are able to offer a high level of support to the local market and make our customers feel valued.

"Although the construction industry in Serbia has faced many challenges and problems in recent times, the country is now in a phase of transition. This should see an increase in the number of jobs and projects, as well as the level of investment from abroad.

"It can be difficult for contractors to buy new construction equipment in Serbia, and our customers prefer durable machines supplied with 24-hour technical support. In this respect, Hitachi is helping us to achieve our mission of building relationships and securing customers for life."

# Street-wise mini excavator

A Hitachi ZX33U-5 is proving to be a big hit in the city of Reykjavík as it plays a central role in a major utilities project. Grafa og Grjót uses the new zero-tail swing mini excavator for the complex process of laying new pipes and cables over a 1km stretch of the Hverfisgata street in the Icelandic capital.

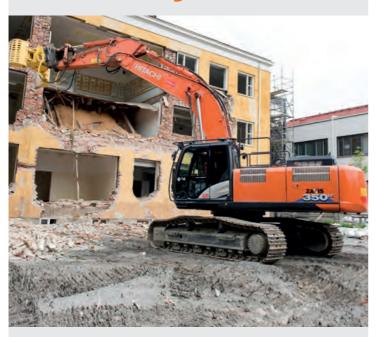
With the bitterly cold weather and arctic conditions experienced in winter, the contractor can only complete such jobs during the summer months. The hot and cold water, and sewage pipes, as well as telephone cables and an underroad heating system have to be renewed between June and September.

The main operator of the ZX33U-5, Sigurdur Thor Skulason, has worked with several larger Hitachi excavators over the past 17 years, including a ZX470 and ZX520. However, he prefers the multi-faceted approach of operating a mini: "I really enjoy jobs like this, where there is more variety to my work.

"The Hitachi is a really good machine with an excellent hydraulic system, which enables everything to work well together. It's very precise for digging around the cables and pipes, loading materials, and backfilling and finishing off the street. There is more than enough space, the all-round visibility is good and quality is evident throughout."



# **ZX350LC-6** proves versatility



A Hitachi ZX350LC-6 medium excavator has been used to demolish an old school in Pirkkala, Finland. The building had been in use since the Fifties, but the decision to tear down the structure came after harmful bacteria was discovered on site. The month-long project was managed by contractor Hervannan Kaivin Oy.

Founded in 1996, the company operates throughout the Pirkanmaa region on various construction, demolition, groundwork and public utilities projects. It has a fleet of five Hitachi machines. The decision to purchase the new Zaxis-6 model was based on its positive experiences with previous excavators, and the proven power and reliability of the machines in particular.

The ZX350LC-6 can be equipped with a demolition grapple and other specialist equipment as necessary. The country's authorised Hitachi dealer, Rotator Oy, is conveniently located nearby, and currently preparing a second new Zaxis-6 machine for Hervannan Kaivin Oy – a ZX300LC-6.

Operator Vesa Koivunen is delighted with the overall performance of the new ZX350LC-6: "The project is developing exactly as we'd planned, and I have been particularly impressed with the improved visibility from the cab.

"I have been in the industry for a long time, and can safely say that the machine is much quieter than earlier models. The enhanced comfort inside the cab also makes for a more pleasant working environment. In addition, the fuel economy is far superior to any other excavator we have been using."

## Polymetal prefers Hitachi Sumitomo

A leading producer of precious metals has bolstered its Hitachi fleet with a SCX1500A-3 Hitachi Sumitomo crane. Polymetal International PLC (Polymetal) is among the leading silver and gold mining organisations in Russia, where it is conducting further exploration studies. It also has operations in Kazakhstan and Armenia. In 2015, the company produced 26.8 tonnes of gold and 998 tonnes of silver

Polymetal's first Hitachi model was delivered in December 2005 to its subsidiary JSC Northern Urals Gold. Today, 14 Hitachi excavators (ranging from 30 to 110 tonnes) are at work on various open pit mines, all managed by Polymetal. In 2015, it purchased an SCX1500A-3 to help with the construction of an ore preparation complex, and a heap leaching processing plant in Svetloye, Russia.

The Svetloye open pit mine is one of the company's key projects in the Khabarovsk region, but only accessible by two winter roads. These include a 380km journey from the community of Okhotsk, and a 92km route from the seaport at Unchi. Between May and November, it is only possible to reach the site by helicopter.

Polymetal has also invested in an EX1200-6 large excavator. The machine was delivered in July 2015, and is being used to excavate and load rock mass into dump trucks at Svetloye. With 2,200 working hours, the excavator is helping to boost productivity at the mine, which now exceeds one million tonnes of extracted ore per year.

The remote location and demanding conditions were among the key factors behind Polymetal's decision to buy proven Japanese technology. In addition, the company's positive experiences of working with Hitachi machinery over the past decade also influenced the selection. Hitachi's authorised dealer in the region, Techstroycontract, worked hard to ensure the shortest possible delivery time for both machines.



## Zaxis-6 range unveiled at TKD





The biennial TKD (Technische Kontakt Dagen/Technical Contact Days) event took place in Almere, The Netherlands in May. The exhibition is one of the most important for the domestic market of Hitachi Construction Machinery (Europe) NV (HCME). Visitors were able to test drive the construction machinery on display and compare competitive models.

HCME and its domestic dealer HCM NL took the opportunity to present the new Zaxis-6 range to the Dutch market. Several excavators were showcased, including the ZX250LC-6, ZX300LC-6 and ZX490LCH-6, alongside several Zaxis-5 mini excavators. Hitachi's new ZW220-6 and ZW310-6 wheel loaders were also on display, as well as the ZX145W-6 wheeled excavator.

Dutch owners and operators also had the chance to try out the Hitachi excavator simulator, which proved equally popular at this year's Bauma exhibition. HCME's stand was completed by the new range of compaction equipment, including the ZV-R vibratory rammer, ZV-PR reversible vibratory plate and TMR walk-behind roller.

"We were delighted to see so many visitors at our stand," says HCM NL Coordinator PR & Marketing, Esther Navest. "Not only did the Zaxis-6 machines garner significant interest, but the ZX85US-5 super long front also received an enthusiastic response. It was pleasing to hear positive feedback about the new ZX145W-6, which will be released to the market later this year."

# EX1200-6 showcases durability

Hitachi's EX1200-6 has proven to be the ideal choice at two demanding quarries in Germany. Kiesel, the country's authorised Hitachi dealer, has supplied one of the large excavators to a project in Mönsheim, and two further units to a site in Passau. The Mönsheim quarry is operated by MSW Mineralstoffwerke Südwest (MSW), while the Passau site is managed by Niederbayerische Schotterwerke Rieger & Seil (NDB Schotterwerke).

MSW took delivery of its first EX1200-6 model at the Mönsheim quarry in 2009. The current machine extracts and loads over 300 tonnes of shell limestone per hour. "The Hitachi does a superb job in these tough conditions," says MSW's Plant Manager, Stefan Kunkel.

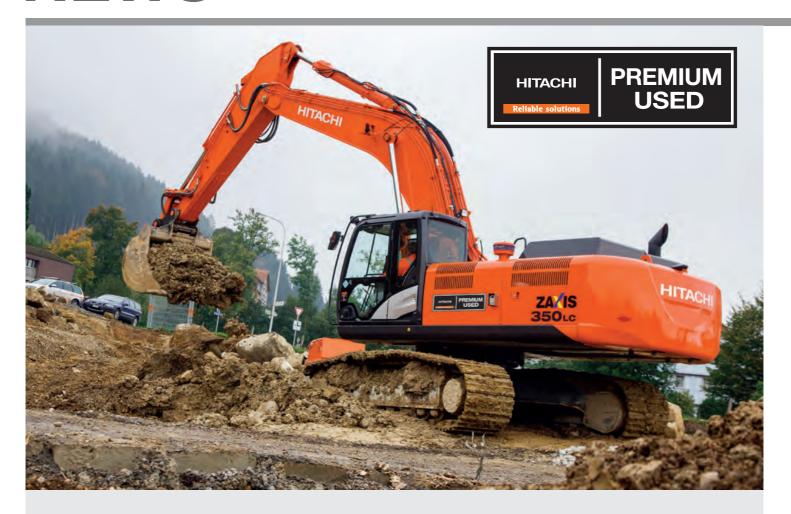
"That's why we purchased the same model again as a replacement in 2014. Since then, the machine has been in continuous use without a single breakdown. Our operators have also noted that the hydraulic performance is better than ever."

In Passau, high-grade Neustift granite is being blasted and processed into track ballast, while smaller fractions are used to



make gravel, chips and crushed sand. The two EX1200-6s are fitted with high buckets for excavating the granite and their excellent loading performance. "The Hitachi excavator was the most cost-effective solution we found," says NDB Schotterwerke's Managing Director. Peter Gusek.

"We tested a number of comparable models, but the choice of the EX1200-6 was unanimous. Hitachi machines have paid off over the years – not least because of the reliable support provided by Kiesel. That is one of the main reasons we bought the latest model in 2015."



### **Hitachi Premium Used**

A new initiative to promote second-hand Hitachi construction equipment has been launched by HCME. Hitachi Premium Used provides peace of mind for customers when they purchase a used Hitachi model, guaranteeing a high-quality machine with an approved Hitachi warranty.

The new programme applies to Hitachi medium and large excavators with less than 5,000 hours or less than five years old, and mini excavators with less than 3,500 hours. It also applies to all ZW-series wheel loaders above 125HP. They will be covered by Hitachi's six-month/1,500-hour powertrain and hydraulics warranty.

Every Hitachi Premium Used machine undergoes a rigorous inspection and refurbishment process. This is carried out by an authorised Hitachi dealer using only Hitachi Genuine parts and lubricants, according to Hitachi specifications. Scheduled oil sampling is completed and maintenance records are available via Global e-Service, Hitachi's remote monitoring website. The machines are painted if required to provide an immaculate appearance, and the undercarriage and tyres are guaranteed to have less than 50% wear.

"These inspections ensure the high quality of Hitachi used equipment is maintained throughout Europe," says Tom van Wijlandt, Manager Service Business Support at HCME. "Customers travelling to, or working in, different countries can benefit from the same warranty and will be supported by the local authorised Hitachi

dealer, irrespective of where they are on the continent."

Hitachi Premium Used machines can be viewed on the new HCME website at https://used.hitachicm.eu, which offers a comparison feature to check the hours, specs and pricing of similar models.

"The Hitachi Premium Used programme has been created to give our customers confidence in the quality and performance of their equipment," adds Tom. "It also continues Hitachi's long-established reputation for providing reliable solutions to the construction industry."



## Hitachi awarded prestigious licence

Hitachi Construction Machinery (Europe) NV (HCME) has been issued with an authorised economic operator (AEO) licence. The presentation recognises HCME as a company in complete control of its internal customs framework, and its adherence to strict import/export regulations. It also reflects HCME's commitment to delivering products of the highest possible quality.

The AEO concept was introduced by the World Customs Organisation (WCO), and signifies that a business has met a wide range of criteria, and is working positively toward supply chain security. Throughout the process, HCME had to display its financial solvency, solid record-keeping and compliance with customs legislation.

HCME will now have easier admittance to simplified customs processes, fewer controls, and priority treatment if selected for auditing. In addition, the certification indirectly acknowledges the company as a secure business partner, and will further strengthen its reputation as an international supplier of reliable construction machinery.

An official handover ceremony was held on 11 July. A commemorative certificate symbolising the achievement was presented to Mr Makoto Yamazawa (HCME President) by Mr Van Buijtenen (Regional Director Dutch Customs). Mr Van Buijtenen was joined by five associates who had performed the qualifying audit.



"We are proud that the Dutch Customs authorities have recognised our enthusiasm and diligence in this area," says Marrie Jagt, HCME Manager Customs. "The licence demonstrates not only the trust placed in our organisation, but also our ability to work in a transparent and professional manner. We will ensure that the high standards for which we have been credited are reinforced and maintained in the future."

## Mini donated to technical school



Hitachi Construction Machinery (Europe) NV (HCME) has donated a mini excavator to Bouwschool Breda in The Netherlands. The handover ceremony took place at the end of May, with students, teachers and representatives from HCME in attendance. The ZX18-3 will be used for practical tutorials, and provide students with invaluable hands-on experience.

Bouwschool Breda specialises in production, engineering and maintenance, and offers vocational training for students aged between 16 and 25. It is situated close to HCME's Oosterhout factory and the presentation will further strengthen the links between the two organisations, with a number of graduates finding employment at the Oosterhout site.



"The ZX18-3 will be an excellent fit for Bouwschool Breda," says HCME Product Specialist, Joep van den Maagdenberg. "Not only will students have access to the very latest equipment, but it is also important that pupils are able to learn about safety, and they will do so at the school's authentic replica job site."

The donation was proposed by HCME's Advisor Production & Procurement Tonny Engels, who says: "Hopefully, the ZX18-3 will encourage students to become the Hitachi workforce of the future. We see it as a win-win situation – the machine will give pupils the chance to test their skills on a working model, and we will hopefully welcome enthusiastic engineers and technicians to HCME."

# Peace of mind for Hitachi wheel loader owners

wners of Hitachi wheel loaders are invited to take advantage of an exclusive, limited time only, free offer. Hitachi's Full Coverage extended warranty programme provides peace of mind from the moment they take receipt of their new machine. The programme reinforces Hitachi's commitment to providing the best possible after-sales service for users of its construction machinery.

The company has launched the special campaign to celebrate the unveiling of the ZW-6 range at Bauma 2016 in Munich. The latest Hitachi wheel loaders have been developed specifically to meet the requirements of the evolving European construction industry. In addition, the ZW-6 machines underline Hitachi's reputation for high-quality engineering and durable products.

"There are a number of reasons that we chose to offer this campaign to customers," says HCME Wheel Loader Product Specialist, Vasilis Drougkas. "We have the highest confidence in the quality of our wheel loaders and have been working hard to further improve their overall performance. However, we also want Hitachi owners to share in our passion for their machines."

Full Coverage forms part of the Hitachi Extended Life Program (HELP), which offers increased protection for machines regardless of working conditions or application. It protects new wheel loaders for 36 months – or 5,000 hours – from the date of the machine's delivery.

This package is available to customers free of charge if they have purchased a wheel loader from the ZW-5 or ZW-6 range (and any model, from the ZW140 up to the ZW550) between 1 April 2016 and 31 March 2017.

"Our extensive network of authorised European dealers has been really supportive of the new arrangement," continues Vasilis. "Not only will it guarantee expert assistance regardless of working conditions or application, but it also keeps Hitachi competitive in the market. In addition, it means that customers can completely rely on our machinery."

There is no special process required for customers to take advantage of the offer. To be eligible, a maintenance contract must be signed between the owner of the wheel loader and the authorised dealer (appropriate to each country) from the time of delivery.

"Ultimately, our aim is to ensure customers have complete satisfaction when they purchase a wheel loader from our European authorised dealer network," concludes Vasilis. "They can always be sure of buying an excellent machine, fully supported by our world-class, after-sales service."









The Snæfellsnes Peninsula situated to the west of Borgarfjörður is known as "Iceland in Miniature" due to its diverse and fascinating landscape. One of the area's highlights is the 1,446m Snæfellsjökull volcano, regarded as one of the country's best-known symbols and the highest mountain on the peninsula.

With a glacier at its peak, the volcano can be seen on clear days from the capital Reykjavík – a distance of about 120km – and the surrounding area has been designated one of the country's four national parks. The peninsula is also home to the tallest structure in western Europe, the long-wave radio mast at Hellissandur.

Among the local fishing villages and small towns on the northern shore of Snæfellsnes lies Stykkishólmur, home to contractor BB og Synir. Founded by twins Hafthór and Sævar Benediktsson, the company commenced operations in December 1998 after purchasing its first truck.

Today, BB og Synir focuses on road construction and housebuilding sites in the summer months, and transports the daily catch from local fishing boats in winter. These activities have enabled the company to develop at a steady rate in a sparsely populated country with a current team of 12 full-time employees and up to four additional staff in the summer. "It is too cold to work on construction projects all year, and so like many other companies in Iceland we have to diversify our activities," explains Sævar. "The fishing industry is not so affected by the freezing cold conditions and they are also busier in winter as they strive to use up their annual quotas in good time.

"We are able to collect the fish directly from the boats with our fleet of nine trucks and bring each load to the processing plants, and then the finished products subsequently on to the airport for exporting. In addition, we also carry out some snow-ploughing work when required."

BB og Synir bought its first Hitachi medium excavator in 2007, a ZX250LC-3 and traded it in – with only 4,000 hours accumulated in nine years – for the latest model, a ZX250LC-6, in July 2016. The machine is fitted with a tilt rotator, additional lights and a central greasing system, all of which are common accessories requested by Icelandic contractors.

These features further enhance the machine's versatility for a wide range of tasks, from loading materials on to the trucks at its lava rock quarry, to digging out foundations for new houses. Sævar was using the ZX250LC-6 on the day of *Ground Control*'s visit to widen and raise a small road – that leads to a fish-drying



processing plant – before building up the verge with soil to prepare it for asphalt.

"We decided to buy a Hitachi, because we were really happy with the service from Vélafl, the Hitachi dealer in Iceland," says Sævar. "I also like this size of the machine for our typical projects and we had an excellent track record with the Zaxis-3 model – it was even suitable for drainage work on soft ground."

Despite a gap of two generations of Zaxis medium excavators – only the Zaxis-5 range had been introduced between the former -3 and current -6 models – Sævar is able to assess the development of one of the most popular Hitachi machines in Europe.

"My first impression is that the ZX250LC-6 is quieter and smoother to operate than our previous model," he explains. "On its first earthmoving and loading job, it was so quiet, I had to check to make sure it was running at full rpm! It feels like it has been completely redesigned. The control panel is well laid out and the machine is suited to precise jobs such as this."

In addition, he believes that it compares favourably to the competition: "The most important aspect of this machine is that it is the strongest and most durable for our tough working conditions. The auto-shutdown feature is also useful when the

same operator is working in the quarry, and climbing in and out of the cab to drive one of the trucks as well."

Perhaps unusually for a machine of this size, Sævar and his twin brother have to think like both owners and operators of the ZX250LC-6. "From a business outlook, the fuel consumption is excellent – we now have to fill up every third day, rather than every other day," he adds. "And from an operator's perspective, there is now easier access for checking the lubricant and water levels as part of our routine maintenance procedures."

From both viewpoints, the ZX250LC-6 excavator is a perfect fit for BB og Synir. With this, the new-generation Zaxis-6 range has made a promising debut in Iceland, building on the successful reputation of previous Hitachi models and supported by excellent service from the local HCME dealer, Vélafl.



To see a movie of the ZX250LC-6 in Iceland, please visit www.youtube.com/user/HitachiConstruction. To receive a digital version of *Ground Control* with new movies, please register online at www.hitachicm.eu/iground-control



"Our operators said that not only were the hydraulics excellent, but the cab was so comfortable it was like sitting in your living room!"

Morten Gultvedt, Managing Director, Gultvedt





s with many European countries, the need to create new housing in Norway is high on the agenda. On the outskirts of Oslo, a similar story is also unfolding. In the community of Kolbotn, which lies on the edge of the picturesque Kolbotnvannet lake, new apartments are being built to provide accessible accommodation for Oslo's high volume of commuters.

The project is being managed by contractor Morten Gultvedt Entreprenør AS (Gultvedt), whose main office is located in the municipality of Ås. The company was established 25 years ago, and specialises in complex construction and earthworks activities in the region. It now employs over 20 permanent members of staff.

At the Kolbotn site, rock blasting and removal are taking place in order to lay the foundations for 121 new apartments. Given the current demand, it is not surprising to learn that every dwelling was sold in advance – before a single brick was laid.

Work began in June 2016, and 30,000m³ of materials had to be removed within 14 weeks. The process begins with seam drilling, which is necessary to blast the rock into manoeuvrable fragments. These are then broken up further by a Hitachi ZX490LCH-6, before it loads a fleet of trucks for onward transportation. Once the bedrock has been completely removed, Gultvedt will prepare the groundworks for the buildings.

The short timeframe prompted Managing Director Morten Gultvedt to look for a reliable large excavator that could work quickly, and keep up with the rigorous workload: "We needed a powerful machine to help us meet the tight deadline within the short working windows available to us.

"We opted for the Hitachi ZX490LCH-6, because it is ideal for the work we do. It is more than capable of handling the substantial amount of large rock. Smaller machines with less capacity would simply not have been efficient enough."

The input of Morten's operators was also important in making the final decision. "At the time we were testing a few different models," he adds. "One of my most experienced operators advised that I had to purchase the ZX490LCH-6. In addition, they all said that not only were the hydraulics excellent, but the cab was so comfortable it was like sitting in your living room!"

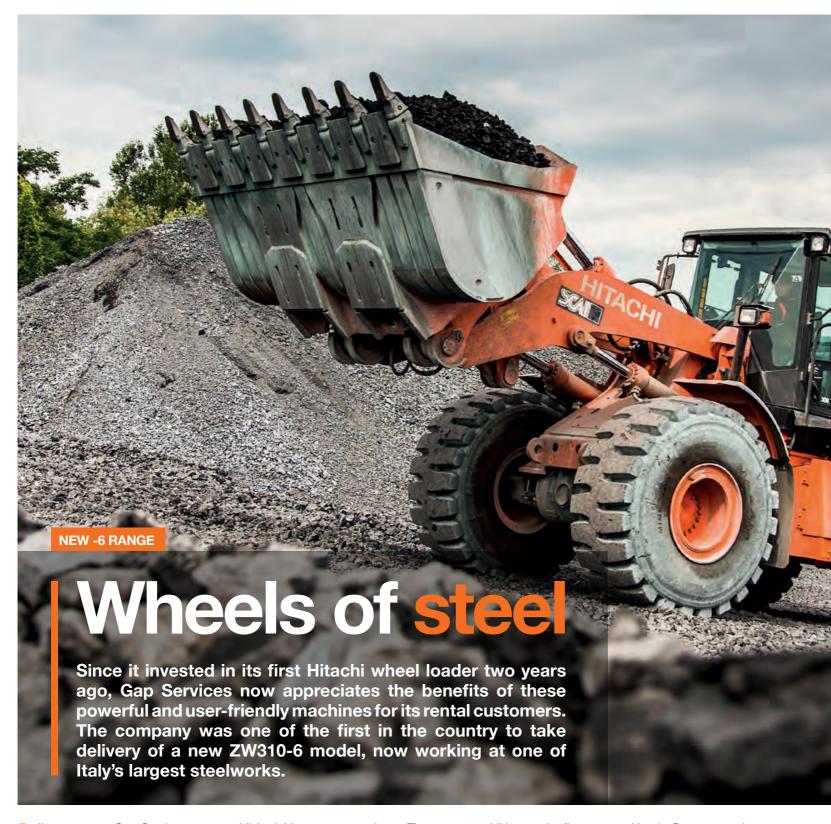
It is a busy time for Gultvedt, as it aims to complete a further four projects around Oslo. The ZX490LCH-6's next assignment will be to remove 8,000m³ of rock from a similar project in the nearby village of Skårer. However, this rigorous schedule is not something that fazes operator Rune Romsdal, who is confident that the large excavator is more than up to the task.

"I was surprised by the precision of the ZX490LCH-6," he says. "It felt to me as if I was driving a 20-tonne machine and this is the key feature. The responsiveness and hydraulics are also impressive. I've only just started working with it, but I'm incredibly excited about seeing what it can do."

Rune's long experience in the industry has seen him come into contact with Hitachi machinery before. "I started working with excavators in 1997 – and the first machine I operated was a Hitachi," he continues. "When I ran my own business, we used a range of mini excavators, so I know how reliable the Zaxis range is. I really enjoy using Hitachi equipment, because it offers an excellent operating experience overall."



To see a movie of the Hitachi
ZX490LCH-6 in Norway, please visit
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talian company Gap Services was established 60 years ago and works within the mechanical steel industry. Its 500-strong fleet of equipment is active at the main electric steelworks in the north of the country, and its customers include major companies such as Arvedi, ABS, Thyssen, Duferco and Brembo.

Since it became a customer of SCAI (the official Hitachi dealer in Italy) two years ago, Gap Services has invested in 10 Hitachi wheel loaders and medium excavators, ranging from -3, -5 to -6 machines.

Director Alberto Gallini explains the appeal: "There are two advantages of the Hitachi machines: power and the hydraulic system – for which Hitachi is famous. The most important factor for us is the productivity of the machine. The wheel loaders are responsive, user-friendly, and offer good traction and breakout force."

Three recent additions to its fleet are working in Cremona at the Arvedi steelworks, the largest in northern Italy. The Hitachi ZW310-6 and ZW250-5 wheel loaders, and a ZX290LCN-5 medium excavator, have been supplied by Gap Services to Ageco2, which is responsible for maintaining a 44,000m² stockyard owned by Arvedi.

Two types of heavy and abrasive cast-iron materials are kept in stockpiles at the site. The first (inertex) is sorted and crushed into three sizes (0-20, 20-40, 40-90mm), and is used for concrete, asphalt, sub-base and railway lines, filling material for construction and even ornamental fireplaces. The second product is recovered cast iron and white slag (calcetek) and available in sizes 0-3 and 3-25mm. All scrap from the waste is recycled at the Arvedi furnace, located 1km away.



Arvedi produces approximately 400,000 tonnes of inertex and 100,000 tonnes of white slag per year. Asphalt uses a combination of both materials. "The Arvedi furnace takes in approximately three million tonnes of scrap cast iron from around the world, including the US, UK, North Africa, and 10% comes from within Italy," says Riccardo Morandi, Responsible for the Environment at Arvedi.

At this stockpile site, 20-25 trucks per day deliver inertex, and a further 10 trucks per day deliver calcetek. The ZX290LCN-5 is used to move the materials and load the crusher. The two Hitachi wheel loaders move the materials into stockpiles of relevant sizes, and also keep the site tidy. They also load trucks transporting material to customers – 30% goes to the private sector in the local area and 70% is used for public works projects.



Site Manager for Ageco2, Moreno Morandi, has been impressed by the performance of the Hitachi machines, which arrived on site between February and March. "Both the wheel loaders and excavators have demonstrated a high level of productivity in comparison to other brands," he says.

"Our demand from the wheel loaders is to move as much material as possible to maximise the efficiency of the process. The ZW250-5 is fast, easy to manoeuvre and responsive; the ZW310-6 is a bigger machine so it can move more materials."

Operator Agim Kuqi, who has 15 years of experience using Hitachi machines, agrees: "The ZW310-6 is a beautiful machine. It's powerful and strong, but also soft and gentle, which makes it extremely comfortable and easy to operate."

Considering the abrasive nature of the materials at the stockyard, it's an advantage that all of Gap Services' Hitachi models are supplied by the SCAI Assago branch with HELP (Hitachi Extended Life Program) – an extended warranty for 10,000 hours/five years.

Alberto adds: "We are very happy with the service we receive from SCAI, and the HELP and maintenance programme they provide for every machine is very important to us. We have a strong and professional working relationship with Area Manager Riccardo Bianchi and his colleagues."

Gap Services made a big decision to invest in Hitachi machines two years ago, but it has already proved to be a positive step. The company, based in Bergamo, near Milan, is continuing to grow its activities in Italy and Romania, and seeking new customers. It also plans to extend its Hitachi fleet of wheel loaders and excavators in line with these plans.

"We are very happy with our investment in Hitachi machines, the machines are good and our operators are happy," adds Alberto. "The Hitachi name is a guarantee in itself of quality and reliability. I have seen how the machines have evolved from -3, -5 to -6 in terms of performance, hydraulics, electronics and stability. They are getting better with each generation."



To see a movie of the ZW310-6 in action, please visit www.youtube.com/user/HitachiConstruction.

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itachi medium excavators are renowned in the European construction industry for their superior hydraulics. This enables them to operate with speed and precision on a wide variety of job sites, helping to increase productivity for owners and making them easy to use for operators.

For two companies in northern Italy, Massimo Repetti SRL and Mezzanzanica SpA, the hydraulics of Hitachi machines is one of the key factors in their decision to continue investing in these innovative models. Both businesses took delivery of their first Zaxis-6 machines earlier this year, a ZX300LCN-6 and two ZX350LCN-6s, and shared their impressions of the most recent evolution of Hitachi excavating technology.

### Speed and precision

"Our work requires a high level of precision," says Cristian Mezzanzanica, Managing Director of Mezzanzanica SpA. His company, based in Parabiago near Milan, specialises in road construction, pipe-laying projects, quarrying, environmental plants, waste handling and recycling.

It has a fleet of nine Hitachi mini and medium excavators and wheel loaders, ranging from Zaxis-1, -3, -5 models to the most recent additions, two ZX350LCN-6s (the first to be delivered in Italy). "Over the years, we have found Hitachi hydraulics to be superb," Cristian explains. "This has also increased our productivity as working with high levels of precision means no time is lost."

One of Mezzanzanica's new Zaxis-6 models is working on a



high-profile railway project – worth an estimated €113 million – connecting cities in Italy and Switzerland. The Arcisate-Stabio line will connect Varese in the north of Italy with Ticino and Como, via Mendrisio, and ensure passengers can reach Milan's Malpensa Airport from cities in central and southern Switzerland. It is due to be completed by the end of 2017.

In Induno Olona, on the outskirts of Varese, the ZX350LCN-6 is installing irrigation pipelines stretching a total of 9km underneath the railway line. Equipped with a quick coupler and standard 2.3m³ bucket, it is used for earthmoving and placing one-tonne concrete structures into the trench. Material from the site is used for restoring quarries owned by RFI (the Italian rail network) to their original state.

In addition to its precision, the Hitachi medium excavator is

capable of operating efficiently, which is particularly important for public contracts such as this and a key factor for Mezzanzanica. "We tested the Hitachi ZX350LCN-6 against other leading brands and found it to be extremely fast," says Cristian.

### **Exceptional hydraulics**

Massimo Repetti took delivery of the new ZX300LCN-6 medium excavator in April for his earthmoving and demolition business based in Rivergaro, south of Piacenza. "By June, it had 270 hours on the clock, and we have found it to be fast, stable and smooth – the hydraulics are exceptional," he explains.

Massimo invested in the latest model after several years of positive experiences with Hitachi models and his local Hitachi dealer. "Our first Hitachi excavator was a ZX280-3. Since the company started in 2007, we have developed a very good working relationship with SCAI and Salesman Paulo Corcagnani," he adds.

The ZX300LCN-6 is used for earthmoving at an 80,000m<sup>2</sup> gravel pit, where the company has five years' extraction rights (or 100,000m<sup>3</sup> gravel). The material is used for road construction projects and sent to quarries to be crushed into smaller aggregates.

Like Massimo, operator Fernando Viani has been impressed by the precision and speed with which the new Zaxis-6 machine operates thanks to its hydraulics. The 71-year-old has 50 years of experience and has worked with Hitachi excavators for seven years. "The new Hitachi is very easy to operate," he says. "The cab is comfortable and the machine has a powerful digging performance. It's the best machine I've ever operated!"





To see a movie of the ZX350LCN-6 in action, please visit www.youtube.com/user/HitachiConstruction.

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n northwest France, Brest lies in a sheltered position not far from the Breton peninsula. During the Second World War, the city was almost totally destroyed and only a few buildings were left standing.

At the end of the conflict, large parts of Brest emerged with utilitarian granite and concrete buildings, as it became established as an important harbour and the second largest French military port. The majority of the materials required for the city's post-war construction process were sourced locally from such sites as the Guena granite quarry.

Guena is part of the Sotravi Group and is located at Saint-Renan, 15km from Brest. The company's quarry actually opened in 1945 after the end of the war to help supply the vast quantities of aggregates that were required.

In 2008, Guena received permission from the local authorities to extract materials from the quarry for another 30 years. With the capacity to reach 300 tonnes per hour (or 1,500 per day) the company is producing 300,000 tonnes of aggregates annually on the 13-hectare site.

This is achieved by blasting the rock, and then excavating and loading the stone on to two long-lasting Euclid rigid dump trucks with a new Hitachi ZX530LCH-6 – one of the first of the new generation of Zaxis-6 excavators in Europe. The trucks haul the materials to the on-site crushers, where they are dumped to feed the production process.

Guena also has the equipment required to wash the extracted sand and gravel products, mix the aggregates and produce asphalt. In addition, the volume of waste is reduced through the recycling of construction materials.

The President of the Sotravi Group, Freddy Talarmin, took over from his father in January 2016 after serving his time over the previous 16 years. "We bought our first Hitachi machine in 1989 and we have bought 14 Hitachi excavators since then, as well as several ZW wheel loaders and an EH750 rigid dump truck," he says. "We remain loyal to Hitachi construction machinery due to the undoubted reliability of the products.

"We also enjoy an excellent working relationship with our local Hitachi dealer, Cobemat, and we are happy with the latest addition to our fleet, the new ZX530LCH-6. We aim to change machines after 14,000 hours and this impressive model has been selected because of its stability, strength and durability."

Operator Eugene Laot has 40 years' experience and his latest excavator arrived on his birthday in April 2016 thanks to the generosity of Monsieur Talarmin. "I'm delighted with the new machine," he enthuses about his 'present'.

"I used to operate a ZX520LCH-5 and so I can offer a direct comparison with the latest model. The new machine is fast, powerful and stable – even with a full bucket. And in my opinion, one of the highlights is the reversible fan, which makes the maintenance easier on a daily basis."



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Due to its geological location, over a rift in continental plates, Iceland has a high concentration of volcanoes. This is regarded as an advantage for the generation of geothermal energy – the heating and production of electricity.

There are five major geothermal power plants on the island, which produce more than a quarter of the nation's electricity. In addition, geothermal heating meets the heating and hot water requirements of approximately 90% of all buildings.

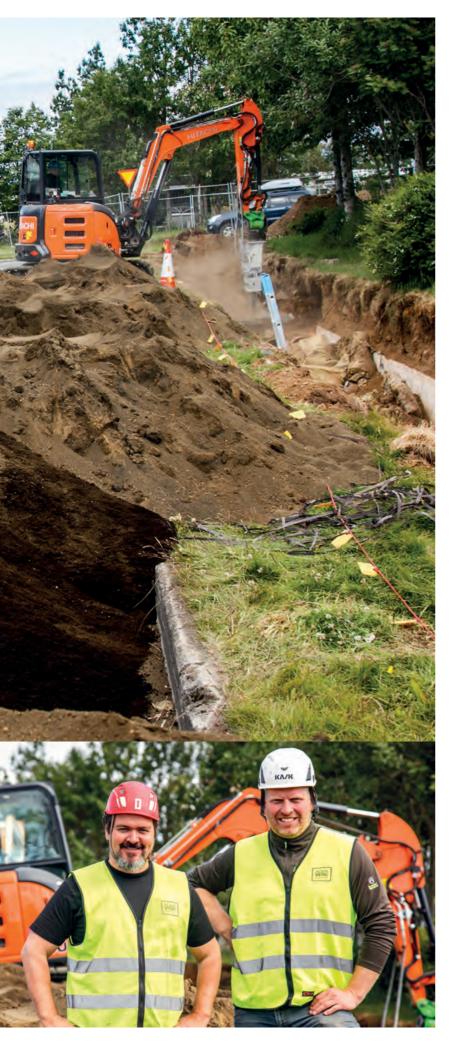
During winter, the pavements and certain roads near these plants are heated up through a network of underground hot water pipes to prevent freezing and hazardous conditions. It is therefore vital to maintain, repair and if necessary replace the pipes to enhance the efficiency of this system.

The insulated water pipes on the adjacent streets of Vikurbakku and Núpabakki in Reykjavík were originally laid in 1984. The contract to replace them over a stretch of 600m was awarded by the city's power company to Alma Verk.

"We like the ZX55U-5 as it is smooth and fast to operate, as well as offering more than enough power and all-round visibility for a job like this"

Alfred Gunnarsson Baarregaard, owner, Alma Verk





The name of the company is derived from the first two letters of the names of owners, Alfred Gunnarsson Baarregaard and Magnus Valthorsson. The Hafnarfjordur-based firm was formed as a joint venture between the business partners to combine their resources for larger jobs such as this. With a team of ten employees, Alma Verk specialises in utility, fibre-optic cable, high- and low-voltage electricity, water works and small road construction projects.

"The construction industry in Iceland is recovering and the demand for our services is increasing following the financial crisis," says Alfred. "Business is good in the utilities sector and we hope that it will continue for at least another five years."

The project commenced at the beginning of July 2016 and was to be completed by October, when the demand for hot water will increase again. Over the winter months, when it is impossible for them to continue working on frozen ground, Alfred and Magnus (both trained mountaineers) will resume their other vocation of driving tourists to the glaciers in special vehicles.

Alma Verk's current project involves the excavation of a trench to expose the old water pipes and insulation. Any rock is broken up and the existing underground concrete wall (that was used to house the existing pipes) is demolished with a breaker attachment on the ZX55U-5 mini excavator. After the pipes have been lifted out and loaded on to a truck, the bottom of the new-look trench is levelled.

The base layer consists of 15cm of sand, which not only allows for drainage, but also the easy maintenance of the new pipes. The cold water pipes are laid at a minimum depth of 150cm below ground level – to keep the water from freezing in sub-zero temperatures – and two hot water pipes are laid in parallel at a depth of 120cm.

All of the pipes are covered in a further 15cm of sand and then the trench is backfilled with soil by the ZW75-6 compact wheel loader. The larger 350mm incoming pipe allows for the flow of water from a nearby power plant at a temperature of 70°C. The 300mm outgoing pipe's water runs through at 25°C on its way to be recycled for other uses, such as heating footpaths and drives.

Before the project started, Alma Verk purchased its first Hitachi machines from Icelandic dealer, Vélafl. The two new models were delivered in May 2016 and now form a strong working partnership at the side of the capital city's streets on this and other utility projects.

"We have known the Hitachi dealer for 15 years and enjoy an excellent working relationship with Vélafl," continues Alfred. "We appreciate how quickly they make decisions, they are good to deal with and have a strong technical support team.

"The decision to buy the compact equipment stems from this relationship and the good feedback that we have had from other contractors with Hitachi construction machinery. The number one priority for us is that the machines are extremely reliable and only need minimal routine maintenance.

"We like the ZX55U-5 as it is smooth and fast to operate, as well as offering more than enough power and all-round visibility for a job like this. The wheel loader is also well suited to this environment. It is easy to operate, powerful and responds well during loading, unloading, and load-and-carry operations."



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Tarmac's Swinden Quarry is one of the largest quarries in the north of England, providing limestone used in projects across the region. Since taking over the site in 1999, Tarmac has made some significant investments, from updating equipment and extraction operations, to landscaping and developing important relationships with the local community.

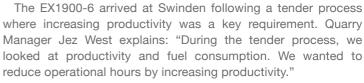
Since November 2015, an EX1900-6 ultra-large excavator, delivered by Hitachi Construction Machinery (UK) and built on

site, has been in operation. It loads the crusher after the material is extracted from the quarry by drilling and blasting.

A field conveyor takes the limestone to a secondary crusher at an average rate of 1,000 tonnes per hour. It is then crushed into various sizes, from 100mm down to dust (including grades of 80, 40, 28, 20, 14, 10 and 6), which is dry stored in silos.

From the silos, the material is either directly transferred to the site's rail siding via a conveyor to the fully automated lorry load-out,





Job site

HCM (UK) Mines & Quarries Manager Mark Turnham and HCME Manager Heavy & Mining Equipment Malcolm Edwards took Tarmac representatives to see another EX1900-6 at work in a chalk quarry in Belgium. It had actually contributed to higher levels of productivity than expected at Ciment Belge Reuni's Romont site to demonstrate its suitability.

The EX1900-6 at Swinden Quarry was supplied with a longer boom and arm, and a smaller 8.0m³ bucket, than is customary on a machine of this size. "This is because it needs a larger working range to reach the material and load the crusher," says Mark. "It means the primary crusher isn't moved as frequently – this can take 45 minutes – so it also enhances the efficiency of the process."

The excavator was also supplied with Hitachi Genuine Ground Engaging Tools (GET), which further enhance productivity by improving penetration and overall digging power. Manufactured from high-grade steel and tested to the same standard as all Hitachi construction equipment, the GET range is specifically engineered for hard rock mining and quarrying applications.

"We supplied Hitachi-branded edge shrouds for the bucket and Long Penetration teeth," says Mark. These are one of three types of reversible teeth designed to suit the particular operation of the EX1900-6. "The material is very soft, so the teeth can last up to two years," he adds.

The EX1900-6 is the first Hitachi model to be used by operator George Metcalfe, who has worked at Swinden Quarry for 31 years. He has been impressed by the speed and productivity of the new machine.

"It's faster than other machines I've used and has good all-round visibility," he explains. "The cab feels more open and spacious, the seat is comfortable, and the controls are easy to use."

or into the 'toast rack' storage, from which a wheel loader can directly load customers' trucks.

"Approximately 60% of the materials are transported by rail with three to four trains a day travelling to our dry distribution centres in Leeds, for onward transportation to South Yorkshire, and a depot in Hull," says Quarry Supervisor Chris Jones. "Much of the limestone is used in Tarmac's concrete and asphalt plants in the north of England."



To see a movie of the Hitachi
EX1900-6 in the UK, please visit
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n the heart of Norway's Buskerud region, Drammen has been a city enjoying a recent resurgence. Indeed, significant investment along the edge of the Drammenselva river has the seen the city centre change beyond recognition, with new restaurants, accommodation and other amenities now in plentiful supply.

As with other modern Norwegian municipalities, Drammen is not only taking responsibility for the welfare of its citizens, but also the natural environment. This means ensuring residents have easy access to state-of-the-art, recycling sites. In 1997, the city council established Lindum AS as a 100% municipal enterprise with ambitions to be Northern Europe's leading waste business.

Since then, Lindum has grown confidently in the right direction. From eight full-time members of staff at the beginning, it now has

over 180 employees across multiple locations. The company's operations have also been expanding, and it routinely handles domestic and industrial waste, and contaminated soil. In addition, Lindum treats hazardous material, and is also involved in energy production.

### A vision of the future

Lindum's main hub near Drammen can actually trace its roots back to 1963, when it was originally used for landfill. However, substantial progress has been made in waste handling over the last 50 years, and today's activities on site are an accurate reflection of Norway's recycling pedigree. Alongside its core interests, Lindum also produces biogas – a source of renewable



energy - and organic fertiliser.

Despite its comprehensive reach, the company is still looking forwards. Lindum is hugely proactive in research and development, and microbiology and chemistry in particular. It is pioneering with its Food 2 Waste 2 Food programme, a novel approach for processing organic waste into new food. One pilot is already under way in Drammen, with a similar site in Poznań (Poland) also operational.

As it continues to grow and diversify, Lindum needed reliable construction equipment to support its ambitions. The company had also been awarded a profitable, five-year contract that further extends its purview.

"We undertake a range of demanding activities in a competitive market," says Lindum's Managing Director Pål Smits. "Therefore,

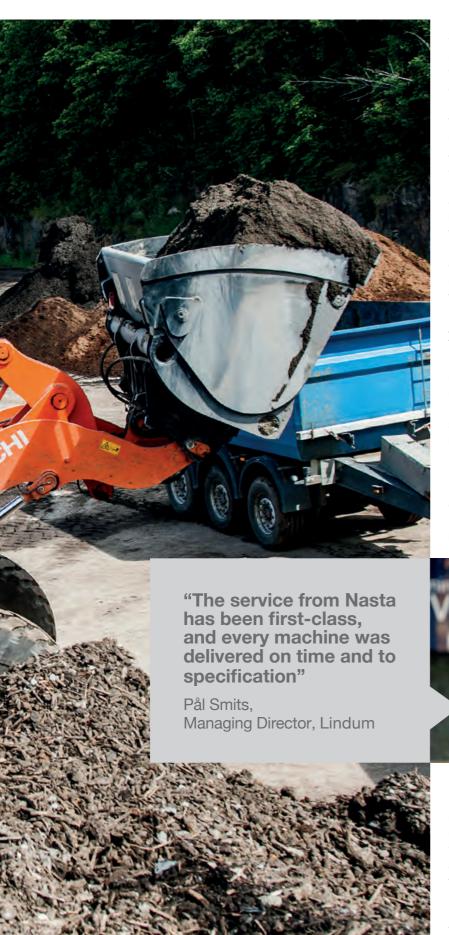
it was important for us to identify a fleet of machinery that gave us high availability, but also the best return on our investment."

#### The ideal package

The support Lindum was looking for came in the shape of the authorised Hitachi dealer in Norway, Nasta. Sales Representative for Nasta, Øystein Myrhaug, recalls the first meeting between the two parties: "In May of 2015, we were exhibiting at the Vei & Anlegg construction fair. After the show, we were approached by Lindum's Head of Purchasing, Benn Solstad, who was interested in hearing about what the Hitachi machines could do for them."

From there, Lindum was keen to see the wheel loaders in action, particularly the ZW180-5 and ZW310-5. "We arranged for them to





visit our facilities, and demonstrated the capabilities of the Hitachi machines," continues Øystein. "I think what really impressed them was the combination of proven Japanese technology, and the comprehensive service provided by Nasta."

Lindum was convinced enough to place an immediate order for nine machines, with six ZW180-5 wheel loaders forming the majority of the purchase. The company also requested a new ZX300LC-6 medium excavator, a ZX170W-5 wheeled excavator and an additional ZW310-5 wheel loader.

Such was Lindum's confidence in Nasta, that it put an order in for a ZX225USLC-5 medium excavator before the first nine machines had even been delivered. "The interest from our competitors was fierce, but we just kept doing what we do best," continues Øystein.

"We take pride in being a professional dealership, and taking care of our customers. Having seen the machines in operation, and meeting our experienced technicians, I'm sure this helped Lindum to put their trust in Hitachi construction machinery."

### A wheel loader for every purpose

The seven wheel loaders were the first to be delivered to Lindum in April 2016, with the other three units staggered over subsequent months. While a ZW180-5 and a ZW310-5 were kept back at the main recycling centre, the other five ZW180-5s were distributed to Lindum's smaller satellite sites. These serve nearby communities, such as Sande and Mjøndalen, and are used for general wastehandling duties.

In Drammen, the ZW180-5 is being utilised for a variety of tasks in the domestic waste area. This is divided into multiple containers in which members of the public distribute general refuse, such as cardboard, wood, metal and packaging. The mobility of the wheel loader makes it ideal for removing the containers quickly once they have been filled, and exchanging these for empty units.



Its versatility also means that it can compress waste materials into the containers ensuring maximum use of space. Due to the high number of visitors (over 400 cars per day on average) safety also remains important. For this reason, Nasta fitted all the ZW180-5s with a rear-view monitor, and four additional cameras, which create a composite image of the immediate environment for the operator to check.

This commitment to safety has impressed wheel loader operator Espen Ringstad, who has worked in the recycling industry for over ten years. "The visibility from the cab is incredible, which is crucial given the high number of customers that visit the site. However, this doesn't take anything away from the overall driving experience, and I can work for long periods due to the comfort of the cab. Quite simply, the ZW180-5 is the perfect machine for the type of work we do, and has more than enough power to move the containers around quickly."



Elsewhere, the ZW310-5 is being used to mix topsoil, compost and other specialist fertilisers, which Lindum supplies to households and wholesalers. The process begins when trucks deliver organic – and waste – compounds to a dedicated area on site. The wheel loader then piles the materials accordingly, per type. At this stage, the operator begins heaping and turning the aggregates at a central mixing point.

Once the cumulative material has been produced, it is loaded into a three-way mixer to further separate the individual grades. Despite the significant volumes of material being handled, productivity is kept high due to the ZW310-5's three work modes. This allows the operator to choose the most appropriate machine speed depending on the task, which also keeps fuel consumption low.

### Durability, versatility and comfort

Lindum also selected a medium excavator from Hitachi's Zaxis-6 range to help achieve its daily targets – a ZX300LC-6. The machine's durability makes it highly suited to its primary function of refining pollutants and sewage. This is commonly referred to as "slam" in Norwegian (pronounced "shlüm"), which arrives from other municipalities or Lindum's own treatment plants.

The refined slam is a key ingredient in biogas production, but must be mixed with other elements in a particularly demanding process. The ZX300LC-6 manoeuvres around an open-air morass, in which raw sewage is mixed with sand, bark and other organic compounds. Completing this process outside is an important factor in slam production, because the resulting chemical reaction nullifies any harmful pathogens.

The ZX300LC-6 is also used for handling recyclable wood, and the scale of the operation is colossal. Sitting atop an enormous pile of surplus timber, the excavator gathers the material to a central location, before loading a steady stream of trucks. These take the lumber to an industrial chipper nearby. To ensure the excavator was suited for softer environments, it was specially fitted with 800mm-wide tracks (600mm is the standard).

It is the machine's combination of versatility, durability and



comfort that has caught the eye of operator Nicklas Mjør. "The ZX300LC-6 is performing remarkably well," he says. "It is a truly powerful machine, and excels at the variety of work we do on site. The cab is also extremely comfortable and quiet, and I can easily reach the instrument panel for the climate control and radio."

### An excellent overall service

The positive reception from Lindum's operators is not something that surprises Pål Smits, who was keen to include them in the testing phase. "It was important for us to hear what the drivers thought about the Hitachi machines," he says. "We actively sought their feedback, and they are more than happy with our collective decision."

Over the next few years, Nasta's positive involvement is set to continue. Every Hitachi is monitored through ConSite, which provides monthly data on the performance of each machine via email. In addition, Nasta has been asked to cover all units under a service contract. These measures will help Lindum to monitor fuel efficiency and productivity, safeguard the availability of the machines, and ensure running costs remain fixed.

"I am confident that over the next five years, we will be able to keep the total cost of ownership to a minimum," continues Pål. "The service from Nasta has been first-class, and every machine was delivered on time and to specification. Its expertise and technical knowledge have been invaluable throughout the entire process, and we will seriously consider renewing our fleet again with them in five years."



To see a movie of the Hitachi machines in Norway, please visit

www.youtube.com/user/HitachiConstruction. To receive a digital version of Ground Control with new movies, please register online at www.hitachicm.eu/iground-control

