



Volvo Construction Equipment

MINING & QUARRYING SOLUTIONS







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Serving customers for 180 years...

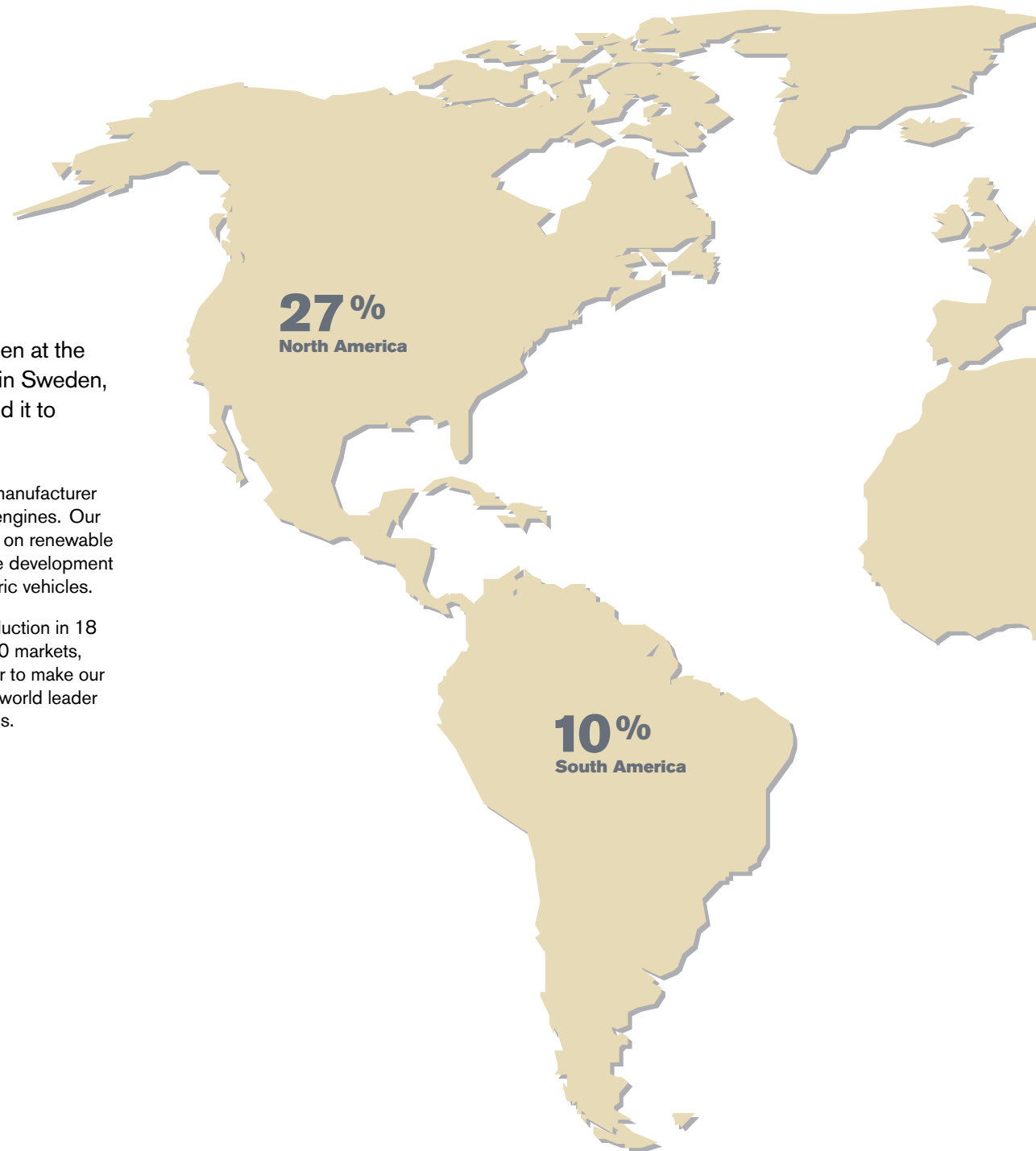
For over 180 years Volvo Construction Equipment has been at the forefront of the construction equipment industry. Founded in 1832 in Sweden, Volvo CE has a rich heritage and a pioneering spirit that has enabled it to prosper in this leading role.

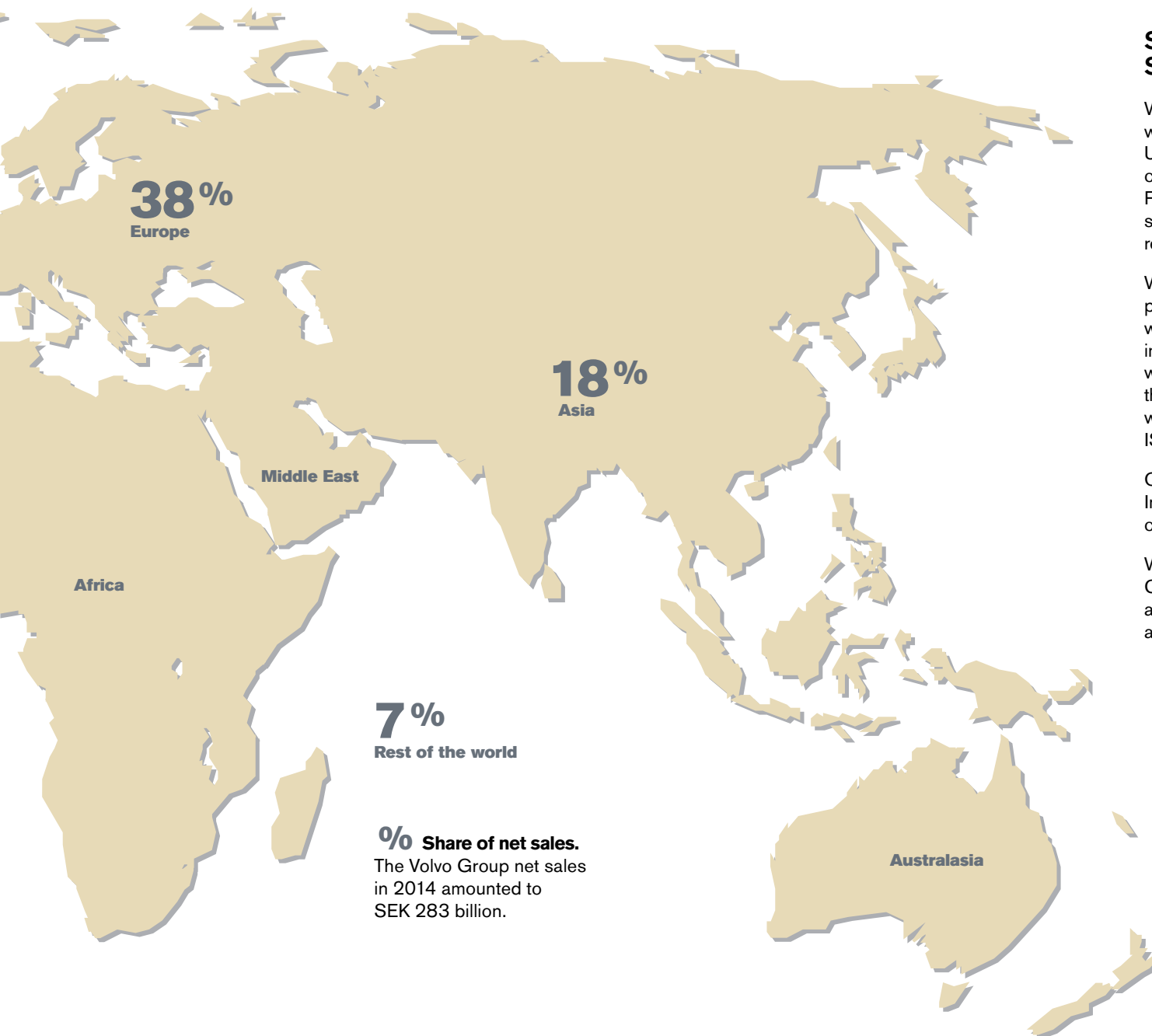
In 1954, Volvo Construction Equipment invented one of the world's first wheeled loaders, the H10, and in 1966 another invention was released to the market: the articulated hauler, "Gravel Charlie". Since those early days there has been constant innovation of new products and services.

As well as leading the way in construction equipment, Volvo Group is also one of the world's leading manufacturers of trucks, buses and drive systems for marine and industrial applications. Volvo Trucks is Europe's largest and the world's second largest truck manufacturer and Volvo Bus is the world's second largest bus manufacturer.

Volvo Group is also a leading manufacturer of 5-16 litre heavy-duty diesel engines. Our commercial trucks can operate on renewable fuels and we are pioneering the development of hybrid buses, plus fully electric vehicles.

With 110,000 employees, production in 18 countries and a presence in 190 markets, the Volvo Group have the power to make our vision a reality – to become the world leader in sustainable transport solutions.





% Share of net sales.
The Volvo Group net sales in 2014 amounted to SEK 283 billion.

Sustainability and Corporate Social Responsibility

We don't just claim to be sustainable at the Volvo Group; we set out to prove it. We were a founder signatory of the UN's Global Compact and the first construction equipment company to participate in the WWF's Climate Savers Programme. Furthermore Oxfam is a strategic partner for society engagement activities, including emergency and relief work.

We are also stringent with the standards we set in our production processes. We led the way by building the world's first CO₂ neutral automotive factory in 2007 and in 2013 we were the first construction equipment company with a factory to be certified carbon neutral. We also ensure that all our wholly owned plants are certified in accordance with ISO 9001 and nearly all our plants are certified to ISO14001 as well.

Our inclusion in the Dow Jones Sustainability World Index officially ranks us as one of the most sustainable companies in the world.

We are also a founding partner of the Construction Climate Challenge (www.constructionclimatechallenge.com) – the aim of which is to ensure the construction industry works with a more sustainable approach going forwards.



MEMBER OF
Dow Jones Sustainability Indices
In Collaboration with RobecoSAM

A dependable partner for a demanding business

While mineral extraction and aggregate production are clearly very different, the principal goal is strikingly similar – in both cases the key to success is profitability from productivity.

Your success depends on high levels of reliability, strong and robust machines that work in harmony with each other to maximise throughput and support services that are second-to-none – enabling you to concentrate on your core business while

we ensure you are equipped to do so.

Machines and expertise

Volvo offers the products and expertise to help you succeed in the mining and quarrying industry. We supply the construction and transport solutions and provide the support services to enable you to excel every step of the way from deposit exploration to full production, and finally site restoration.





Segment confidence – Volvo CE knows your business

With a heritage spanning over 180 years, Volvo is synonymous with mining and quarrying. Our robust and productive machines have literally been at the heart of mineral extraction and the quarrying of aggregates for generations. Indeed, Volvo was the pioneer of the wheeled loader concept back in 1954 and then the articulated hauler back in 1966.

Evolution and innovation to add value

Since those early days Volvo has constantly innovated in terms of safety, productivity, machine versatility and quality. This constant evolution means you can rely on Volvo for efficient and productive products and support services that bring added value to your business.

Group strength

Volvo Group is also one of the world's leading manufacturers of construction equipment trucks, buses and engine systems for industrial and marine applications, which adds strength in depth to your activities.

Across the range of machinery, on-highway transport, power generation and even when it comes to the transportation of employees, we have the products and support services to help you optimise your business.





1

Exploration



2

Project planning



3

Site preparation



4

Mining and quarry production



5

Stockpile management



6

Delivery logistics



7

Reclamation



A deep understanding of your business

1 Exploration

Pitting and trenching, site access and clearing for exploration, we have tools for your needs.

2 Project planning

Establishing the optimum equipment requirement for a site, having trained and productive operators and securing parts and service support before starting on site allows you to hit the ground running.

3 Site preparation

Deforestation, removal of overburden, installation of infrastructure and the construction of site facilities are prerequisites before any serious production. The capability to use individual machines for different duties aids efficiency at this stage.

4 Mining and quarry production

When it comes to production it is all about safely loading and transporting material efficiently. Tonnes and cost per hour determine your success and therefore your profitability.

5 Stockpile management

Hourly productivity is dependent on highly efficient material re-handling. Be it managing Run of Mine (ROM) or aggregate stockpiles or feeding crushers, short cycle times and versatile machines are vital.

6 Delivery logistics

Loading your production on site and transporting it off is all about efficiency, capacity and speed.

7 Reclamation

The environment is ours to hand on to future generations. Therefore site restoration and reclamation once extraction is completed is more important than ever before.

1 Exploration



Assessing viability through exploration

Assessing the viability of a prospective site to mine is a critical phase and one in which Volvo offers equipment and services to support exploration activities. Our range of excavators includes mid-size models perfectly suited to the task.

Furthermore, our articulated haulers, starting at just 22.5 tonnes net weight with a load capacity of 24 tonnes right through to the range-topping A40G FS with a load capacity of 39 tonnes are masters of all terrains, so getting to where you need to be and shifting the material from the exploratory pits and trenches is right up our street, even when there isn't one!

Accessing aggregate

And when it comes to creating access and clearing overburden for the drilling of exploratory holes in quarry exploration Volvo is equally well placed to support you. This means you can concentrate on establishing the quantity and quality of rock available, while we take care of your equipment needs.



2 Project planning



Optimised resources

Volvo has the expertise, systems and processes to support you well in advance of production, so when you mobilise on site you're immediately in a position to maximise output.

Calculating the optimum solution in advance

Our Site Simulation programme enables a skilled Volvo engineer to calculate the numbers and types of machines and attachments required to optimise your productivity.

Site Simulation assists in assessing on-site transport, road construction and fleet alternatives based on input data such as personnel, fuel, tyre wear, depreciation and service costs.



Competence

Even more influential to site optimisation are your machine operators. Volvo training simulators and EcoOperator based training can support you in developing your operator competence so you get the best productivity from your fleet.

3

Site preparation



Efficient from the outset

To attain optimum levels of productivity, preparation is key. Once on site you will likely need to remove overburden and establish infrastructure.

Harmonious versatility

Volvo excavators, wheeled loaders and articulated haulers work in harmony to extract and transport unwanted materials, overburden and timber from the site.

This exceptional versatility means you can work across various tasks without necessarily introducing additional machines to the site. In this vein, the innovative 360° swing Volvo pipelayer, which dramatically speeds up the installation of pipework, can be easily converted into an excavator, essentially converting a single machine into two equally impressive workhorses.

Infrastructure

Developing the infrastructure to support your mine or quarry, be it in terms of access roads, tailings dams, the installation of water and electricity or the construction of site offices and facilities will ultimately reflect on your productivity. The versatility of Volvo machines to carry out these duties encourages smart capital investment, which reduces your costs and therefore helps in terms of margins and profitability.



Making productivity profitable

Production is the real business end of the project, where productivity directly correlates with profitability. Here, safety, efficiency, reliability and tonnes/hour (productivity) are paramount. At the heart of every mine and quarry sits the cyclical process of loading and transportation – and the more efficiently you can do this, the higher the output.



Volvo home territory

This is real home territory for Volvo as it is exactly the type of work cycle that our machines have been carrying out for decades. Furthermore, we've constantly developed and refined our wheeled loaders, excavators and articulated haulers to perform and to perform better!

Take our L350F wheeled loader for example. In normal operating conditions this 50-56 tonne loader (depending on specification) with a bucket capacity of 6.9 m³ can load upwards of 800 tonnes/hour, which could mean over 5 million tonnes/year.

These figures are only achievable through whole machine optimisation and reliability that is second-to-none – both hallmarks of the entire Volvo Construction Equipment offering.



One L350F wheeled loader
loading 800 tonnes/hour
would produce over 5 million
tonnes/year.

Performance +

We have also introduced performance-enhancing features such as the Volvo Tooth System, which enables you to fit your Volvo bucket with the optimum teeth for your product, and then quickly and easily replace them when worn to save time and maintain productivity levels. And as a leading manufacturer of diesel engines you can rely on us for power generation, further simplifying your operation and enabling you to benefit from shared spares and components.

All the while reliability is supported with MATRIS, our on-board electronic diagnostics system that continuously monitors every aspect of the machine's performance. And, when connected to CareTrack (where available – please discuss with your local dealer), our telematics system for remote monitoring, you can actively monitor every machine's productivity in real time and plan servicing and maintenance from your desk to maximize efficiency and uptime.



Cost management

To further support you over the longer term we offer factory remanufactured components and remanufactured engines to extend your machine's working window while minimising costs.

Furthermore, to manage costs as the project develops our Site Simulation programme can be repeated as you mine or quarry to facilitate continuous improvement.



Built to perform

Highly efficient material re-handling for Run of Mine (ROM) or aggregate stockpiles or for feeding crushers is essential to avoid bottlenecks. Volvo wheeled loaders are designed and built around performance, safety, efficiency and speed in these types of applications.

Thanks to the unique Volvo TP-linkage lift arm system operators are able to maintain good control of heavy loads with plenty of power and complete control. Additionally, the optional Volvo Boom Suspension System (BSS) increases productivity by up to 20 %.

Volvo Automatic Power Shift (APS) contributes to fast and effective work

cycles, ensuring the wheeled loader is always in the right gear. And in combination with our Optishift system featuring a torque converter with lock up and a free wheel stator as well as Reverse by Braking (RBB), you can count on machines that are 15% more fuel efficient than those without this innovative and driver-friendly technology.

Multi-functional

And with an extensive portfolio of attachments from re-handling buckets, through grapples to forks, Volvo wheeled loaders are the height of versatility. Indeed, with a sweeper attachment fitted a Volvo wheeled loader can even clean up after itself!



Strength – both off and on the highway



On the highway

Renowned for their reliability and efficiency, Volvo Trucks offer you a wide range of heavy duty commercial and construction vehicles that adapt to your needs.

The FL and FE Series are versatile units suited to city streets, performing a wide range of duties, from deliveries to refuse collection.

Construction giants

For the heaviest loads and the greatest distances, the Volvo FH is the ultimate delivery unit.

Indeed, the FH is the ideal match for your Volvo construction equipment as it is the perfect on-highway transporter for our excavators, wheeled loaders, articulated haulers and even our 58 tonne pipelayers.



Tough performer

To further support your operations on site, the FMX is a tough, rugged and versatile truck that can take away or deliver heavy payloads where you need them.

Designed with the mine or quarry in mind the FMX is equally at home on site as it is on the highway.



Creating a safe and sustainable future

Make good

Site restoration and reclamation once extraction is completed is critical in terms of safety and is often a contractual obligation associated with the licence granted to mine or quarry in the first place.

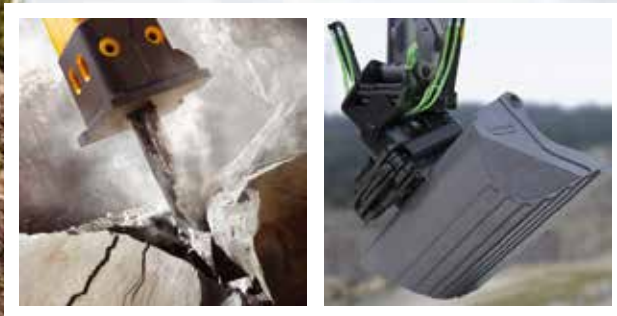
Reshaping and protecting the environment

Furthermore, the environment is ours to hand on to future generations so it is our responsibility to leave a site in such a way as to benefit nature and society. Very much in line with our capability in site preparation,

Volvo has the machines and support services to make good where you've mined or quarried. Thanks to the versatility of Volvo machines, our excavators, wheeled loaders and articulated haulers can all be utilised for site restoration once production's finished and our range of single drum soil compactors and compact excavators are ideally suited to landscaping duties.

This capability means that Volvo can genuinely partner you from start to finish and your Volvo dealer can support you across every phase so that you can rest assured that efficiency, productivity and uptime are on your side throughout.

Flexibility through tools



Couplers and brackets

While the extensive range of Volvo CE attachments such as buckets, hydraulic breakers, forks, grapples and material handling arms are all perfectly matched to your machine, we are able to offer even greater flexibility and productivity through the fitment of our quick-couplers and brackets. These make switching between tools a faster and safer process.

A perfect match

Maximum strength and flexibility require perfect interplay between attachment and machine. This interplay must begin during the development of the different components.

We have matched our attachments to our machines to optimise performance, productivity and durability. So, whether you choose to order your new attachment as factory fit or if you would like it delivered separately, we can provide the right tools to you in a timeframe that suits your business.

Suffice to say, because we manufacture both the machines and attachments they work as one.



The power of CareTrack

Stay connected to your machines via remote monitoring and experience new levels of control and efficiency with CareTrack, the Volvo Construction Equipment telematics system. With CareTrack you can reduce fuel costs, optimise machine and operator performance and proactively manage service and maintenance to maximise uptime.

Save time

Proactively manage your machines and increase your uptime by planning service and maintenance requirements in advance with CareTrack. The system increases the opportunities for the dealer to support you and your machines, helping you to maximise machine availability and avoid potential problems. Through CareTrack it's possible for your local Volvo CE dealer to troubleshoot faults remotely – minimising service time.

Information tailored to your needs

CareTrack gives you access to a wealth of information – allowing you to take actions that will have a noticeable impact on your business. The system is divided into packages that are tailored for different business needs. You can pick and choose the exact information that you need for your business.

Save money

Keeping track of your machines with CareTrack allows you to optimise productivity and save money. Through operational reports you can identify for example excessive idle time – information that gives you the power to reduce fuel consumption, non-productive machine hours and service costs.

Security

Keep your machines in sight even when they're on remote sites. With tracking and fencing features you can stop thieves in their tracks before they take yours!

And with our full anti-theft package already available on selected models you can ensure your equipment is completely safe at all times.



Standard



Tracking & Status



Service Management



Operation Reports



Anti-Theft



On Board Weighing



Satellite communication



API for integration into own fleet management system

CareTrack packages



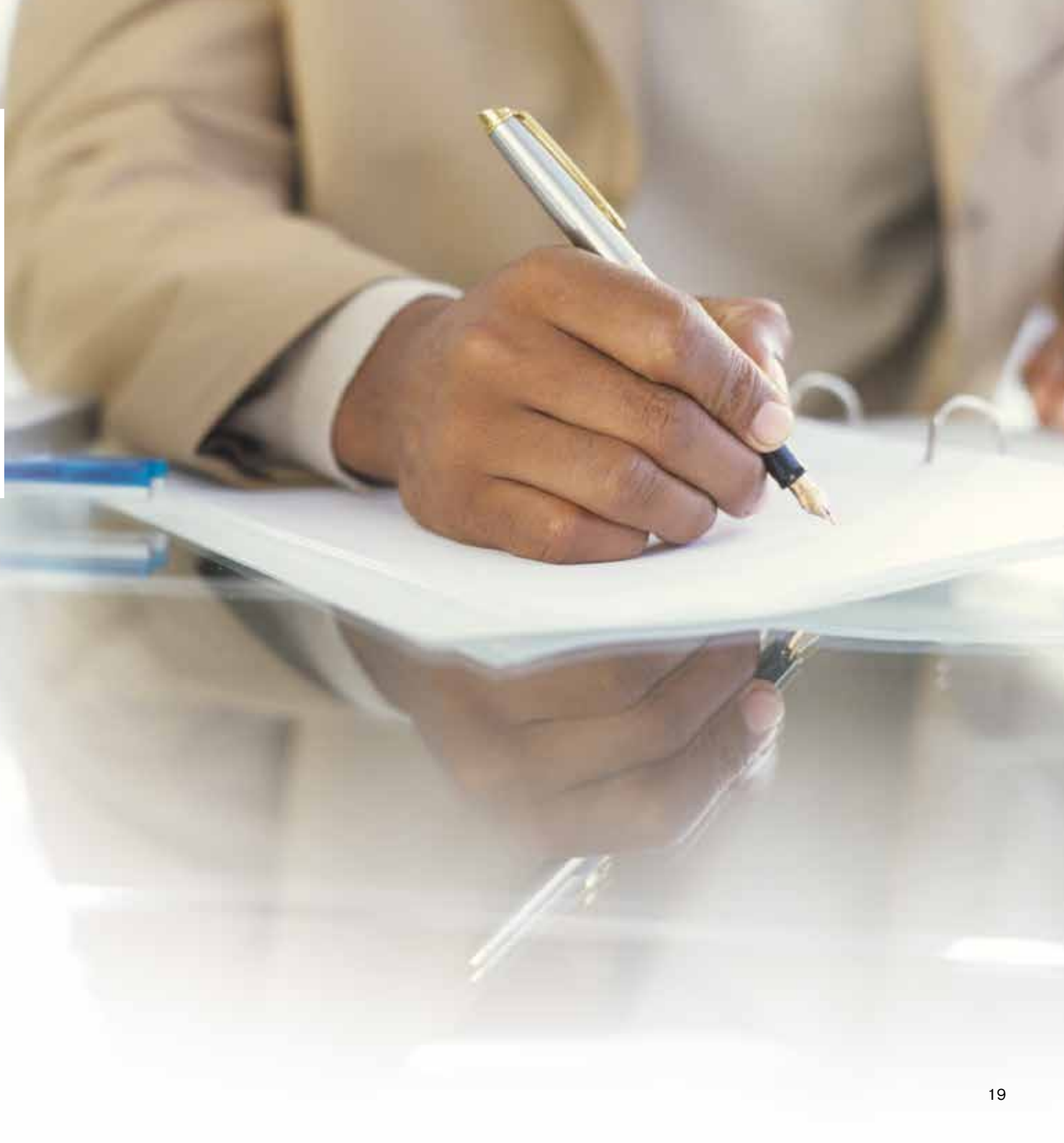
Financial finesse

Always by your side

In today's changing markets, the role of a strong and stable finance company is more important for your business than ever before. Value is no longer just about price. It's about trust, options, and convenience.

Volvo CE cooperates with secure and professional financial solutions partners and can provide tailored services such as financing, leasing and insurance in a one-stop shop fashion, directly through your local Volvo CE dealership.

Our financial solutions partners are knowledgeable about the construction equipment business – they know Volvo CE products and services and they know how best to support and optimise your business.



We are there for you

We call it our total commitment to you. It's born from our belief in quality, safety and environmental care. From technical support to financial assistance, our Volvo CE dealer network can offer you worldwide support. We're more than just a construction equipment supplier. We're a trusted partner to thousands of customers all over the world who rely on us every day.

Customer Support Agreements (CSA)

Volvo CE CSA's offer service and maintenance with maximum cost control and minimum downtime. The packages, tailored to your individual needs, cater for everything from total repair and maintenance to an inspection program covering vital parts and functions.

Volvo CE worldwide dealer support

Premium machines require premium support. Your Volvo CE dealer can provide the right support and solutions from day-to-day servicing and maintenance, through operator training and Site Simulation analysis to ensure you get the most out of your machine. Furthermore, the Volvo CE telematics based services help you to maximise uptime and monitor productivity, all the while maximising the long term residual value of your machine.



Volvo CE used and rental equipment

The Volvo Used Equipment Network exists to help you to find the right used machine, of the right quality, for your requirements – and always with the high level of service you would expect from an authorized Volvo CE dealer.



Rental machines are available through rental chains and selected dealers in EMEA (Europe – Middle East – Africa) territories to support you through potential project bottlenecks where equipment demands outstrip your existing fleet. Many of our machines are also generally available through most of the larger rental channels.



Global reach, local delivery

Volvo CE dealers are present in every major market in Europe (including Russia), the Middle East and Africa. They are there to support you and your business. From supplying machines to maintaining your operations, they can be a one-stop-shop for your operational needs.

Hundreds of customers across the Europe (including Russia), the Middle East and Africa region use Volvo Construction Equipment to complete their job on time and on budget. But don't take our word for it. Take the word of our customers.



“ We're currently leasing the machine from Swecon and since they have a workshop here in Kiruna, the service is excellent. They can send out specialist service personnel fairly quickly which makes a huge difference.

Johan Pettersson
NCC Roads Site Manager
Sweden

“ The machine is well designed, with all the filters grouped together and easily accessible. The access walkways are also well done. It's a machine that inspires confidence.

Stephane Ercoli, Chief Engineer
Spiecapag, France

“ The most important factor in choosing heavy equipment is fuel economy. This is as important as quality and speed when you're using machines of the size that we do. That's why my preference is Volvo – it ticks all the boxes for me, offering the quality, power and speed I need – but still giving me excellent fuel efficiency.

Erol Yüce, president,
Yüce Maden, Turkey.

“ Our operators are happy with these machines. FAMCO provides all operators with training and general assistance, so our people feel confident working with Volvo equipment. We are also impressed with how CareTrack can improve performance on site – the telematics system allows us to assess and adjust operator and machine behaviour to help us maximise our working day.

Saad Kamel Efat, General Manager
Bin Lahej Crushers, UAE

“ Volvo Construction Equipment machines were chosen because of their reliability in extreme conditions.

Eslam Reddah, Workshop Supervisor
Al-Rosan Contracting, “The Empty Quarter” desert highway, Saudi Arabia

“ Our machines perform like new thanks to the fact that we service them on schedule. They also meet our cost per tonne targets, which is making a lot of difference. All of the service and repair items used in the machines are Genuine Volvo Parts resulting in the equipment's efficiency and low fuel consumption. It's always reliable, with less down time and operators like the comfort and safety of the cabs.

Joseph Titus Glover, CEO
Justmoh Group
Ghana



