Volvo Group magazine 1.2015

BRAZILIAN INSPIRATION

CUSTOMERS AT THE CORE IN THE NEW ORGANISATION

MORE TO LEARN

MANY PATHS TO DEVELOPMENT AT VOLVO GROUP UNIVERSITY

A SELLING STRATEGY

MEET THE NEW HEAD OF VEHICLE SALES AT GTS

"The technology has major business value"

Christer Lundevall



Augmented reality check

A new application can help improve assembly operations

Our target is in sight

BELIEVE THAT PEOPLE who can see their jobs as part of a greater whole, who understand their role in a larger process, will work in a smarter, more efficient way. This is one of our reasons for launching Volvo Group Magazine, a publication for all the co-workers who work together within the Volvo Group. I hope that this magazine will contribute to a strong and cohesive global corporate culture and increase everyone's understanding of the strategic choices the Volvo Group makes. At the same time, it is an excellent way of saving money.

Merging several different publications to create one magazine represents a considerable saving. Through this and thousands of similar measures, we have started to reduce the Group's costs. Our report for the final quarter of 2014 demonstrated that we have made progress: we have reduced our costs for sales, research & development and administration, while our truck operations have improved their profitability, despite lower sales. This is something of which we can be proud.

We are now on the final stretch of our strategic period 2013-2015 and we must now focus all our efforts on implementing the measures we have begun. We still have a great deal left to complete and we still need to reduce our structural costs even further if we are to be as profitable as our competitors. Once we succeed in doing this, we will have achieved something decisive. We will have increased our potential to achieve the things we believe in, in the form of the products and services that are the Volvo Group's future. Our target is in sight

OLOF PERSSON

PRESIDENT AND CEO, VOLVO GROUP

and I am convinced that we have what it takes to realise it.

VOLVO GROUP MAGAZINE is aimed at all the co-workers within the Volvo Group. It is published six times a year in Swedish, English, German, French, Portuguese for Brazil, Polish, Russian, Japanese, Dutch, Korean, Thai, Chinese and Spanish. There are three editions of the magazine: Operations, Technology and Sales. PRINT RUN Approx. 80,000 copies ADDRESS Volvo Group Magazine, Volvo Group Headquarters, Dept AA13400, VHK3, SE-405 08, Göteborg, Sweden PHONE +46 (0)31 66 00 00 E-MAIL groupmagazine@volvo.com EDITOR RESPONSIBLE UNDER SWEDISH PRESS LAW Markus Lindberg EDITOR-IN-CHIEF Ann-Mari Robinson EDITORS Lotta Bäwman (Operations), Carita Vikstedt (Technology), Joanna Galczyńska (Business Areas). A Group-wide Editorial Network is also content contributors. MARKET LANGUAGE REVIEW Ann-Mari Robinson EDITORIAL PRODUCTION Spoon (project team: Maria Sköld, Nic Townsend, Lina Törnquist, Hanna Zakai, Janne Saaristo, Charlotte Sundberg). PRINITED BY RR Donnelley CHANGE OF ADDRESS Contact your local HR TRANSLATED BY Jeanette Kliger











Volvo Group magazine 1.2015

10 Closer to customers

A new, even more customeroriented Volvo Group is taking shape. In Brazil this is already an established way of working.

A centre of excellence and expertise

In less than a year, the new Volvo Group University has already educated more than 6,200 Volvo Group employees globally. 2015 is set to be an expansive year with a further 160 courses being made available.

Competence development through healthy competition

VISTA has proven the value of a global competition for encouraging competence development and team building, which is why similar competitions have now been established for the Volvo Group's other truck brands.

A new age in vehicle connectivity

After years of hype, vehicle connectivity is finally taking off. Experts from the Volvo Group explain the exciting potential of wireless and connectivity technology, and why it is an area that cannot be ignored.

Returning home to a new organisation

After seven years in Asia, Elisabeth Larsson returns to Sweden as the new head of Vehicles Sales at Volvo Group Trucks Sales, ready to share her knowledge and experience from working with several brands.

Using Volvo Group know-how

A unique two-speed transmission developed by GTT enables high-density electric motors to power heavy vehicles, and is a key component in the Volvo Group's new full electric driveline.

Start around the world with the volvo group

Welcome to your new magazine!

The new Volvo Group Magazine you are holding in your hand is a joint magazine for all the co-workers in the Volvo Group. Its aim is to spotlight where the Group is heading and our progress as we move towards our target. The magazine will also provide background information when it comes to large-scale changes and important events.

The Volvo Group is a large, global organisation which values diversity. We are planning to demonstrate this in our new magazine. We are also planning to describe some of the many things that are done every day with the help of committed co-workers successful partnerships and projects, fantastic products and exciting innovations. We want to describe the work that is done on the markets in the meetings between dealers and customers. In other words, this magazine is going to support and promote the corporate culture we all share and create together.

The decision to start a new Group magazine - and thereby wind up a number of existing newsletters and publications - was made by the Group's executive management team in the summer of 2014. As we are currently working increasingly as one company, it was only natural to focus on one magazine. A review also revealed that the resources that had so far been



What would you like to see in the new magazine?



ADRIANO MERIGLI Commercial Director, Volvo Financial Services, Brazil

"I believe that sharing experiences is important so that we can have an understanding of best practices in different markets. This is a way to keep up to date and implement ways of working that have proved successful."



SHAZARINA ZAINAL **Executive Assistant. Asia** Oceania Sales, Singapore

"One of my favourite features in Global Magazine is global culture - it is interesting to read about the unique mix of cultures in the Volvo Group. The new magazine could have a more personal touch with a section where employees can contribute."



OLIVIER GARCIA IT Services, Corporate Process

"I would like to find articles on R&D as well as technical features on the trucks and other Volvo Group products, Also, I'd like to see historical facts and stories - key events from the past that we are proud of and helped shape our company."



PETTERI VUORI Industry Development & Operations, Volvo Buses, India

"I would look for business updates from other business areas, technology developments and articles that focus on people and customers. I believe that together we become very powerful."

invested in written, printed communication had been unevenly distributed throughout the organisation. In some cases, this meant that co-workers were receiving as many as two or three magazines as sources of information.

So the assignment during the autumn was to formulate a new concept that could provide a more cohesive picture of the Group, as well as offering reading adapted to different target groups, using fewer resources and at a lower cost. The solution was a magazine, where each issue will be published in three different editions (variants).

Just like *Global Magazine*, this new magazine will be published six times a year. Violin will continue to be the main channel for internal news, while the task of this magazine will be to explain the relationships and analyse things in more detail.

All of us working on this new magazine would really like to hear what you think. At the bottom of this page, you can read what eight colleagues in different parts of the world are expecting of the new magazine. So let us know what you think, too! Please feel free to contact groupmagazine@volvo.com

I really hope you enjoy reading the magazine!

ANN-MARI ROBINSON, EDITOR-IN-CHIEF



How the magazine works

Volvo Group Magazine will be published in 13 languages and three different editions. These editions are being produced to give readers a more in-depth understanding of Sales, Operations and Technology. Some 75 per cent of the contents will be the same for everyone, while 25 per cent will be designed for the target group of the individual editions: those of you involved in production & logistics, technology or marketing and sales. The first page also differs, as the cover photo will be specially adapted and the edition will be specified at the top of the page. Sales will also be the edition that is sent to Group co-workers who are not involved in either Operations or Technology. All three editions are available online. The editorial team is made up of Ann-Mari Robinson, editor-in-chief, Lotta Bävman, editor for Operations, Carita Vikstedt, editor for Technology, Joanna Galczyńska, editor for Business Areas, and an editor for Sales who will shortly be appointed.



RICARDO NANAMI HR Center of Expertise, Corporate HR. Brazil

"I would like to see a summary of the Volvo Group's financial results, as well as learning more about what the competition is doing. In addition, I'd like to read about best practices and success cases that focus on customer satisfaction."



CHRIS FRENCH Retail Credit, Volvo Financial Services, USA

"I look forward to reading about new business processes and strategy updates from a global perspective. I am also interested in reading articles that highlight innovative uses of IT, which result in cost savings and efficiency gains."



RYO ARAKI GTO Logistics Services, DC Gunma Distribution Center, Japan

"I have worked for the Volvo Group for two years and I would like to learn about different training programmes available within the Group, especially related to logistics. I'm also interested in working conditions in other countries."



CORA VINAGRE SENDINO Competitive Intelligence, Volvo CE, Belgium

"I would like to find stories about our colleagues around the world, from workshop floors and offices. Stories of the people who – with their work and energy – make the Volvo Group what it is today. People are the soul of the company."



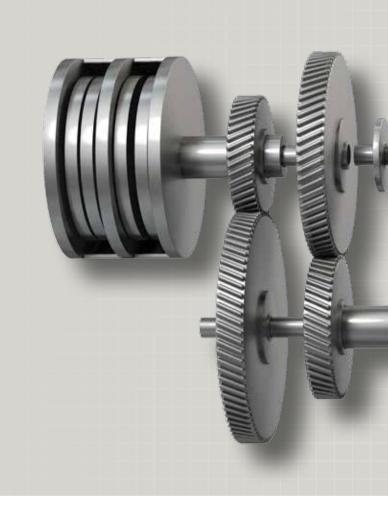
A WORLD FIRST

A WINNING **COMBINATION**

I-Shift Dual Clutch has revolutionised transmission - this is how it works.

The world's first dual-clutch gearbox for heavy vehicles is available from Volvo Trucks, and has won both the European Quality Innovation of the Year Award and the Volvo Group's own Technology Award (see page 47).

In effect, the technology is like having two gearboxes linked together. When a gear is active in one gearbox, the next gear is already prepared in the other. As a result gear changes are seamless and the truck does not lose momentum. It is especially useful in driving conditions that require a lot of gear changes.



Volvo Penta unveils FWD

The first Volvo Penta Forward Drive (FWD), a revolutionary new concept in marine propulsion, was unveiled at the Miami International Boat Show. This patented innovative design pulls the boat through the water rather than pushing, with an undisturbed water flow to the propellers.

The clean and efficient propulsion system delivers superior responsiveness, allowing for an array of activities behind the boat, including wakesurfing and wakeboarding. New boat models featuring FWD will be available starting in mid-2015.

Drivers vie for fuel efficiency award



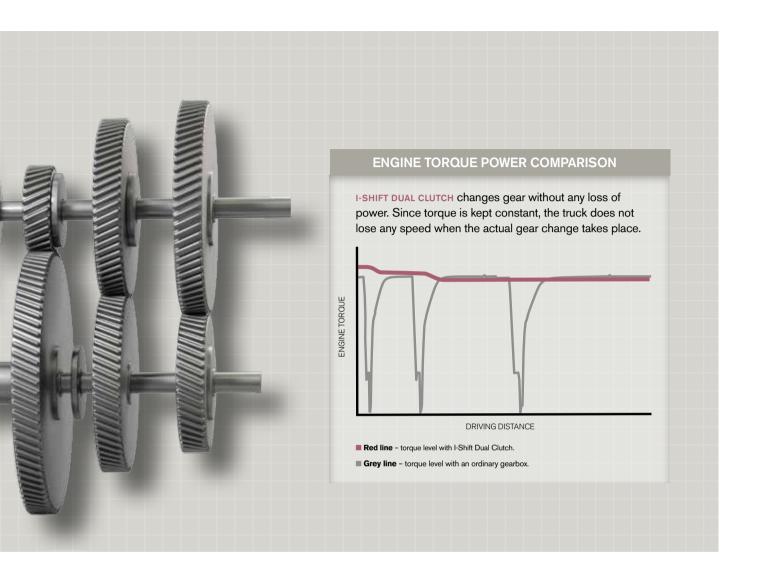
The 2015 Volvo Trucks Fuelwatch Challenge was launched in Sanya, China, in conjunction with the Volvo Ocean Race stopover in February.

The driver competition has grown considerably since its start in South Korea in 2007. Setting the standard for fuel efficiency and competent driving, the challenge has attracted more than 13,000 participants across the Asia Pacific region.

The 2015 edition will see participants from 13 countries. National competitions will select local winners who will then take part in

the grand final in Thailand in September.

years ago Volvo Penta launched the revolutionary Inboard Performance System, IPS. With IPS propulsion, boats are cleaner, more responsive and more versatile, while also providing better fuel economy.



Important landmark for UD Trucks

UD Trucks will be celebrating its 80 year anniversary in 2015. To celebrate historic milestones, a 50 year-old 6TW truck and the new Quon drove across Japan, retracing founder Kenzo Adachi's legendary journey. It took the two drivers Shigeo Takayama and Koji Yamamoto 13 days to complete the trip, which ended in Ageo in late 2014. Some 700 customers participated in four regional events which were held along the way.

"I was so proud to see kids stare at the new Quon, and I enjoyed seeing old people stop to watch the 6TW drive by. That moment,



I realised that we were doing something that captured people's hearts - this is what we wanted to create with this event," said Misa Watanabe, UD Trucks Brand Implementation.

Strong showing

Intermat, a large construction equipment exhibition held in Paris in April, was chosen for the unveiling of several new offers from Volvo CE, reinforcing its continued commitment to international road construction, building and utilities, quarry and aggregates. Volvo Penta, Volvo Trucks and Renault Trucks also took part in the show, emphasising the size, strength and breadth of the Volvo Group.







TRAINEES TEAM UP

Successful meeting at Logistics Services

Nine former and current trainees from Logistics Services (LS) got together earlier this year in Gothenburg, Sweden, for three days of sharing experiences through workshops, study visits and dialogue. Some had completed their trainee year, while others were in the middle. The Volvo Group trainee programme is aimed at recent

graduates who are permanently employed at the Volvo Group.

"It's important to be able to employ young, talented personnel but also to demonstrate the opportunities available so that they want to stay and develop further with us," said Christer Svärd, SVP LS, who took part and spent time with the trainees.

The participants spoke about



Over three days, the trainees shared experiences.

their experiences from different businesses globally and about their future plans. Jun Du, originally from China, has already had three different jobs since the trainee programme in 2011 and wants to continue developing at the Volvo Group. "For the future I see no limitations, in terms of either assignment or geography," she said.





new alliance between the Volvo Group and Dongfeng Commercial Vehicles, DFCV.

"This strategic alliance is a real

milestone and entails a fundamental change in the Volvo Group's opportunities in the Chinese truck market, which is the largest in the world," says President and CEO

The aim is to turn DFCV into an even stronger domestic player but also to help develop the company's business outside China.

New heavy-duty version of the mDRIVF HD for Mack Granite

A heavy-duty version of the automated manual transmission, mDRIVE HD. is available as

standard equipment in the Mack Granite model as of March.

The 12-speed **mDRIVE** HD has

an automated clutch, so no clutch pedal

is required. The operation of the transmission is controlled through a dash-mounted shift pad by selecting drive, neutral or reverse.

"Our construction customers told us they wanted a heavy-duty version of the mDRIVE designed specifically to handle rough jobs in tough conditions. We listened

> to them and developed a reinforced rugged transmission that will help our customers deliver power,

performance,

enhanced durability and improved driver satisfaction at a time when the industry is experiencing a driver shortage," said Stephen Roy, head of Mack Trucks North American Sales and Marketing.

Happy IT users

According to the latest IT User Satisfaction survey, 85 per cent of Volvo Group employees are satisfied IT users. This is an alltime high since the first survey in 2008.

Satisfaction has increased significantly for several sites, especially in South Korea, Japan, India and Asia Pacific. All measured parts of the survey have improved including IT equipment and work situation, interaction with others. organising and attending virtual meetings, ordering IT and reading and sharing information.

Happy IT user - just like most of Volvo Group employees

Hot hybrids

Bogotá has the world's largest BRT (Bus Rapid Transit) system, and it is now also including Volvo hybrid buses. The Fanalca Group operates a fleet of about 3,200 Volvo buses, making them the biggest customer in Latin America

"Transportation is a growing business. Mobility is the biggest problem facing large cities all over the world and this offers major opportunities for bus operators. When we buy a Volvo bus, we are getting much more than the vehicle itself. We are buying service, training and access to expertise. Volvo Financial Services are also important to us. We buy the whole package, which enables us to finance and maintain the buses," says Joaquín Losada, CEO of Fanalca.

"For the future, I see no limitations in terms of either assignment or geography."

TRAINEE PROGRAMME 2011







on trucks, from the sand we gather, to the concrete we deliver," Rodrigo Hobi says. "We can't work without trucks."

He uses four different models, in the Volvo VM, FM, FH and FMX range, and gets them from the Nórdica dealership based in Curitiba, Brazil. Having spent millions on trucks over the years, the local Volvo Trucks' dealers are not only business contacts – they have come to know each other well.

That close relationship is down in part to Brazil's informal business culture, where friends are made easily and cordiality is a highly prized asset.

However, it is also due to Volvo's culture in Brazil. As the Volvo Group looks to promote cross-functionality around the world, Brazil can be seen as a best-practice case, where secretaries, truck drivers, executives and salespeople all know each other and where the boundaries between factory, dealers and customers have long been blurred.

"When the Volvo Group thought of making changes, the model they are moving to is something that we've been doing here for a long time," says Nilton Roeder, Director Strategy and Business Development for Latin America.

In Brazil, every effort is made to ensure maximum contact between clients and manufacturers and the pivotal position is held by the sales organisation, which communicates the good and the bad from both the factory to the clients and the clients to the factory.

"IT DOESN'T MATTER if the product is great – if you're not working together, it makes future business very difficult," says Edvaldo Silva, one of Nórdica's sales representatives. "We try to resolve any problem ourselves and we know what we can and can't do."

For Rodrigo Hobi, who has 15 plants across the southern states of Paraná and Santa Catarina, that means regular contact with the Nórdica team. Hobi says Nórdica has gone the extra mile to ensure their trucks are always roadworthy, never an easy task in Brazil, where the lack of railtrack mean most transportation takes place on roads, even though investment in new highways has long been lacking.

"At Nórdica they treat us well," he says, as his trucks load up with mortar on a cloudy day outside Curitiba, Paraná's state capital. "I never have trucks off the road for lack of parts. They've even taken an



Barbara Honorio

GRUPO HOBI AND GRUPO KREBER

Founded in: 1929

Headquarters: União da Vitória, Paraná, Brazil

Business area:

stone, sand, concrete, mortar and pre-cast concrete parts production



RODRIGO HOBI

Rodgrigo Hobi appreciates the fact that his local

Volvo Trucks dealership always goes the extra mile

for him.

engine off the production line for me."

That service relationship has helped form a deep bond of trust between Hobi and

Nórdica's commercial manager. Hobi

can go to Sohm with any issues and Sohm has no qualms about soliciting feedback from Hobi's drivers, sometimes giving them a test run of new products.

"We trust their opinion," says Gilberto Sohm. "If there's something wrong, they will tell us. We know what the roads are like in Brazil and it is important that we know the truth."

EXECUTIVES AT VOLVO do Brasil encourage such close relationships at every level and are keen to get to know staff and clients. The company often organises events to showcase new products, updated financing terms, or simply just to keep in touch.

The events, which can be typically Brazilian with music, *caipirinhas*, and photos with the president, are open to all employees and serve to unite them behind the same goal.

"I really feel like I am an integral part of the whole supply chain," says Barbara Honorio, one of Nórdica's credit analysts. "We support the sales people and we have an important role to play from start to finish. We are there at every stage and that's important."

Bernardo Fedalto, Sales & Marketing Director Trucks Brazil, says he has a close relationship with the

dealers, because they sell trucks and help him understand what the drivers think of them.

"We have 12 dealers in Brazil and we have a very tight working partnership with them," Fedalto says. "We have total access and they do, too. That confidence has been built up over 30 years."

The confidence works both ways, assures Paulo Pizani, the Director of the Nórdica dealership: "I feel valued as a dealer. At Volvo Trucks I know the president's door is open. I have his mobile phone number and I know he'll either take my call or call me back. It doesn't matter how small the problem is."

In turn, Nórdica's relationship with their customers is strong enough that they can communicate openly on just about anything.

"I once called Sohm and said I am testing a

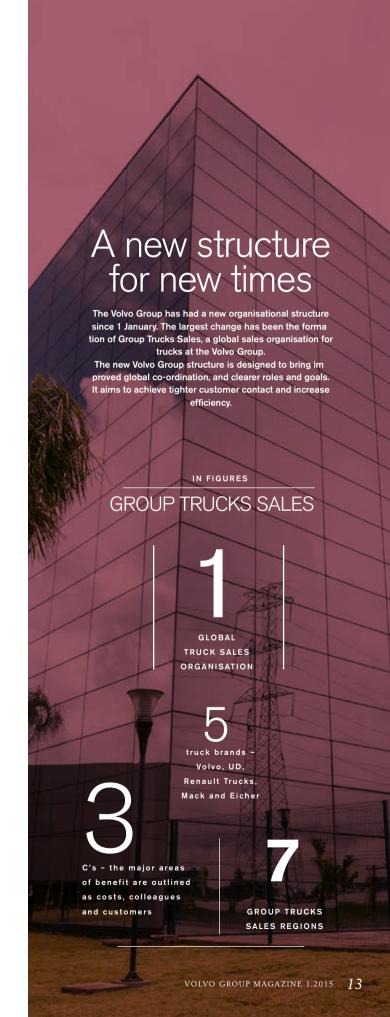


Paulo Pizani

Mercedes and he said, OK," Hobi recalls with a smile. "In truth, only about five per cent of our trucks aren't Volvos but sometimes you need to try something else in order to remind yourself that what you've got is already the best. And that was exactly what happened. I proved to myself that Volvo Trucks were the best."

Output

Description:





The Volvo Group's reorganisation has brought about new ways of working. But for Volvo do Brasil, many of the changes are just an extension of how they have always done things.

ANY GLOBAL GOALS for

TEXT LINA TÖRNQUIST PHOTOS PAULO FRIDMAN

the new Volvo Group organisation are already established ways of working in Brazil.

Take the fact that the Volvo Group's new structure is designed to enhance a "One Volvo Group" approach and open strategic collaborations across organisational boundaries. This is how it has worked in Brazil for 35 years.

"In Brazil, Volvo started its business as one company on one site, so it's the mindset we have had here since the start," says Bernardo Fedalto, who today works as head of trucks sales in Brazil but has previously also worked as a manager at Volvo Buses.

Managers for all Volvo Group divisions in Brazil have also always held cross-functional meetings that brought together people from all areas at the Curitiba site. In the new Volvo Group organisation, this type of regional cross-functional collaboration is being formalised globally through five regional truck teams with representatives from GTS, GTO and GTT. It is a change that Fedalto welcomes based on his own experience of working this way.

"It's human nature. If I only see my own KPIs, then I work according to them. But getting an overview of all the parts of the business, by meeting with HR, IT and Buses, for example, you get a broader view and help each other reach the same targets. That helps a great deal in creating a common way of thinking about the company and a more nuanced view of the market."





Jimmy Erick Kochinski works on a new truck at the Volvo Group plant in Curitiba.





The porous organisational borders in Brazil have also opened up for strong collaboration between trucks and bus divisions within the Volvo Group business. Here, too, Brazil is a forerunner.

THE BUS AFTERMARKET services, for example, are operated by Volvo do Brasil's truck dealer network, which is privately owned – parts sales, dealership development and service are all jointly managed. The truck-bus collaboration also extends to technology development. A front-engine bus, which is unique to Latin America, was developed in Brazil simultaneously with the Volvo VM truck, another product unique to the region. Both vehicles have been developed to meet local customer needs and use many of the same technical solutions.

"We can keep costs down and provide a larger network for our customers through joint dealerships," explains Bernardo Fedalto. "The products are also similar. We use the same engine, the same gearbox and gear axles: It makes sense to work together."

The fact that the collaborative 'one Volvo Group' way of working also extends to Volvo Group dealers in Brazil is a large part of the reason why the country has produced such strong market results, believes Roger Alm, who before his move to take over sales region Europe North in January 2015, was President of Volvo Group Latin America. These results include a market share for Volvo Trucks that has almost doubled from 13 per cent to 21 per cent over the past five years.

But Alm also underlines that the needs of each market are different, there is no one recipe for success.

"You can't just take Brazilian concepts and transfer them directly to Europe, for example. But you can bring forward best practice and benchmarks."



The current Group Trucks Sales organisation, in place since 1 January, is designed to empower the regions so that decisions can be taken closer to customers. Dividing Group Trucks Sales regions into more homogeneous groupings (North America and Latin America, for example, will now be managed separately) is set to allow regions to respond more rapidly to local market fluctuations.

Making decisions closer to customers is especially important in an emerging market like Brazil, where there are plenty of ups and downs.

"There's always turbulence here," says Lucimari Stocco, Private Importers Director at Volvo Latin America. "Both political and economic."

"We plan a lot, but we know that we might have to change our plans at the last minute and we do that without stuttering," Fedalto adds. "This year, after the market had a slow start, I called in the heads of dealers on a Friday and we met on Monday. We had a meeting at which we clarified doubts and we established an action plan of what to do to respond."





Lucimari Stocco, Private Importers Director at Volvo Latin America.



The team at Nórdica's dealership in Curitiba. In Brazil, Volvo Group dealers also adopt a "one Volvo Group" approach to working.



TEXT MARIA SKÖLD PHOTOS CHRISTER EHRLING

T IS CLEAR THAT BOTH Roger Alm and Claes Nilsson are impatient to get to work on all the new things that lie ahead. Roger Alm has just moved back to Sweden after five years in Brazil. He will now be leading truck sales in Northern Europe as Senior Vice President Europe North Sales.

He will be doing this from Claes Nilsson's old office at Lundby in Gothenburg, Sweden. Its previous incumbent will now instead be taking over Alm's desk in the Brazilian city of Curitiba. In the new organisation, Claes Nilsson is Senior Vice President Latin America Sales at GTS, Group Trucks Sales.

However, even if they are moving into one another's old offices, they will naturally not be inheriting exactly the same jobs. Since 1 January, they are part of the new global sales organisation, Group Trucks Sales.

What is different about working in the new organisation compared with the previous one?

Roger Alm: "There is one major difference, as we are now working for a global organisation, with a global

management team. Previously, we had three commercial organisations (Americas, APAC and EMEA), whereas now there is just one. At the same time, the regions are assuming commercial responsibility. Things will be more straightforward, more efficient and faster."

Claes Nilsson: "I can see some important benefits. In the new organisation, decision-making power and responsibility are going to be delegated as far as they can possibly be. This will create better conditions to focus really heavily on the things that are important, so that we can take the best possible care of our customers."

How will customers experience these changes?

Roger Alm: "Decisions will be moved far closer to customers. We shall be able to take faster action and find more effective, smarter solutions."

Claes Nilsson: "It will be easier to base our work on the special conditions that characterise each market."

What attracts you most when it comes to your new job?

Claes Nilsson: "Latin America! There is such a strong Volvo culture there, which is stimulating, as well as extremely skilled co-workers. We have an unbelievably strong position in Latin America, a continent with enormous potential."

Roger Alm: "The new organisation feels like a new and exciting era, which will be extremely positive for the company! When we had our first meeting in Joachim Rosenberg's new executive management team, all the energy and skills in the new team could be clearly seen. Developing our offer in Europe North is also going to be exciting. I'm really looking forward to working with everyone here and creating a top-class team spirit with them."

What is the greatest difference between Europe North and Latin America?

Roger Alm: "Wow, what a question! There are both huge differences and no differences at all. It's obvious that Latin America has another culture and geography to Europe, but, at the end of the day, they are similar: we sell and buy trucks. Then again, business in Europe is perhaps more developed. People focus more heavily on the kilometre cost and the monthly costs."

Claes Nilsson: "There are more fluctuations in Latin America and at the moment the principal challenge is the economy. Many countries have experienced fantastic trends in recent years, but things are more challenging right now. At the same time, our co-workers are used to this, so they can quickly take the necessary action. In Europe, we are used to things being more stable and this can lead to slow reactions. I believe that the new organisation will make it easier to make the right decisions."

How have you prepared for your new jobs?

Claes Nilsson: "The best way to prepare is to talk to experienced colleagues. I have been given excellent information, views and opinions by the incredibly skilled team in Latin America. Of course I've also had many discussions with Roger. We have known one another for a long time. He previously worked in Europe for many years, but a great deal has obviously happened during the five years he has been away."

Roger Alm: "Claes and I have had many conversations since this was announced. At the same time, everyone has to make his or her own decisions.

Sales & Marketing

BRAND NEW MAN

The Group Trucks Sales' Brand and Product Line organisation is an entirely new entity that will help the Group meet the needs of truck customers globally. Loic Mellinand recently arrived from Japan

to Volvo Group Trucks head office to lead it. But although he has a new role, he is not new to Gothenburg. His international career at the Volvo Group has taken him around the world, from Renault Trucks in Lyon, to Mack in Hagerstown, Asia Trucks in Beijing and working with UD Trucks in Japan. He is now back in the Swedish portside city for a second stint.

Moving between places and working with different Volvo Group brands has allowed him to stay on a steep learning curve, Mellinand explains. He hopes to make good use of this global experience in heading the new organisation, which will co-

ordinate Volvo Group truck brands globally.

What he has learnt from working in so many countries is that truck customers around the world are more alike than they are different.

"Customers everywhere want to run a business and they want to work with people who will help them develop their business," he says.

But although aspirations are similar everywhere, there are big differences between what customers can afford, Mellinand explains, and that should not be overlooked, especially in developing markets.

"While customers in mature markets often take a life-cycle view of costs, many customers in emerging markets simply do not have the cash flow to do that. But their basic reasoning is the same. They think: what can I afford that is a good deal for

me? People have the same aspirations worldwide, but our products have different levels of affordability and adaptability. So, our focus will be on creating strong, clear brands, in different markets and across different price points."



Loic Mellinand heads the new Brand and Product Line organisation at Group Trucks Sales.



Globally, Mellinand believes the competition is heating up in the trucks business. A changing world is creating both opportunities and new threats and it is important to stay ahead of the game both in the markets where Volvo Group is the market leader and in emerging markets.

"For the Volvo Group to be a leader globally, we need to be a leader in growth markets. We need to offer products that are attractive to customers in those markets. To do that, we need to develop products and services they can afford while delivering a profit for the Group. It's a big challenge but it's a worthwhile one."

Having a centralised Group Trucks Sales organisation will allow the Volvo Group to take on the challenge globally, he explains.

"It will allow us to arbitrate centrally, while listening closely to the regions. Our

aim is to have a lean headquarters, where the customer's voice is listened to and a business that's local."

Thankfully, the challenges of communicating with customers through brands is not too different around the world.

An emotional connection is key. That's possible at every price point. Branding needs to be a mix between the rational and the emotional: brain and heart. That's the same everywhere and it's something to build on globally, both in our interactions with customers and within our organisation.

"Every employee working for a brand needs to feel proud of that brand irrespective of price point. Pride and trust are at the heart of a brand and that pride shines through to the customers. It's something you feel," says Loic Mellinand.

TEXT LINA TÖRNQUIST

THREE SOURCES OF BRAND INSPIRATION FOR LOIC MELLINAND:

Apple is an inspiration because it has been able to combine both hardware and services - such as the iPhone and apps. This is the same challenge we have with combining hard products and soft offers. We also do both."

Another interesting player is Xiaomi, the Chinese mobile phone brand - it offers a sophisticated touchscreen phone for about half the price of Apple's iPhone. Soon it will be the most sold phone in the world."

"I am also intrigued by Japanese fashion UNI retailer Uniqlo, which has managed OLO to build a strong brand identity even at a low price point and has managed its global expansion well."



"I had just started my Christmas holiday and it was my 40th birthday that day – the same morning I heard about the fire."

MIA SANDH

Facility manager at Volvo Group Real Estate Services in Gothenburg, Sweden

"On the night of December 21st 2013, there was a large blaze at the premises of Volvo Penta, in the Lundby area of the city. The building was destroyed, though thankfully no one was injured.

"My work started immediately after the fire

had been put out. Around 500 people worked at the location, so we had a huge job on our hands. I have a good relationship with property owners in the area and luckily we were able to find a large vacant office space in Eriksberg, around ten minutes' drive from the original office.

"Everyone had a workspace - either at the new location or at the Volvo Group's



own premises nearby – when they returned to work after the short Christmas break. With help from our distributors, we were able to source office furniture and fittings at extremely short notice.

"We worked every day over the Christmas period – apart from on Christmas Eve. I didn't mind, because it was a great feeling to be involved in such a successful operation."



"There's the whole technical side to take care of, but my favourite aspect of the job is working with people."



REBECCA OVELGOENNER Industrial Engineer at the New River Valley plant in Virginia, USA

"In my role I get to spend time on the production floor working with lots of different employees. I'm a really sociable person so this suits me just fine! I currently work with a team of seven colleagues and we have a fantastic rapport with each other.

"I started at the Volvo Group as an intern during spring 2010 and worked between 12 and 20 hours per week supporting the Engine Groom line, while I completed my degree in Industrial and Systems Engineering. Following my graduation in 2011, I went full-time and am now responsible for multiple departments. The team takes care of work-breakdown, troubleshooting, product change implementation, tooling and a whole lot else.

"During my internship, I became part of the Kaizen team at NRV. A pilot project encouraged employees to create and implement ideas in the plant 'from the bottom up'. To assist this process, we have recognised individuals' contributions by selecting a winning idea each month. The employee who came up with the idea presents it to plant management and receives an award. I believe this has made a positive difference to our working environment here."

>



"My biggest challenge is that I am moving abroad to a foreign country and trying to build a life there."



KONSTANTINOS VALSAMIS has worked with Volvo Group Trucks for ten years, in both his native Greece and his new home in Germany.

"I first started working for Volvo Trucks in Greece in 2005, after I finished my studies. I started as a sales engineer and later became workshop supervisor. One of my proudest memories was reaching the VISTA semi-finals in 2011. It was a very interesting experience and taught me a lot.

"Due to the financial crisis in Greece in 2012, I decided to move to Germany. The Volvo Group helped me to settle here. They found me a place to stay, supported me financially in my first steps and also provided German language courses. It has been difficult to move countries, especially in the beginning. My German skills were very basic and communication with other people was quite hard. However I managed to reach a decent level quite fast – at least this is what my colleagues tell me. I'm still struggling to improve my German, but my colleagues often help me.

"Today, I work mainly as a Product Quality Engineer, where my main task is to work with my colleagues to offer technical support to workshops. I'm also a Service Planning Specialist, where my main task is to support everyone in Germany who works with VOSP (Volvo Optimised Service Planning)."



"I love meeting people who dare to be themselves, even when it means standing out from the crowd or going against stereotypes."

ERIC WAY

Director of Diversity and Inclusion at Volvo Group. He is based in France.

"My family moved every five years while I was growing up, but we mostly lived in the south eastern USA. By the age of five, I knew I wanted to be a mechanical engineer, then after starting French in school, I became fascinated by languages. At age 22, just after getting my engineering degree, I went

to study abroad in Lyon and continue my French. I fell for and appreciate everyone's uniqueness. in love with France, Europe and later a Frenchman. After 25 years, I still live here with my partner Laurent, who is a French preservation architect.

"My passion and values drive my work. I love meeting people who dare to be themselves, even when it means standing out from the crowd or going against stereotypes. They inspire me to fully be myself, to dare to think differently and to look

"In 2014 the Volvo Group celebrated our first ever Diversity and Inclusion Week. We often talk about our KPIs and future targets, but we also need to stop and celebrate the diversity we have and the progress we have made. Teams across the globe demonstrated their passion and pride at working in a diverse environment with strong connections among team members."



So far, the Volvo Group University (VGU) has trained more than 6,200 employees. Two new academies have just started – and others are in the pipeline.

TEXT SOFIA ERIKSSON PHOTOS SÖREN HÅKANLIND

HE VOLVO GROUP has always invested in training for its co-workers.
However, as the company has grown and new needs have emerged, the trainings have been numerous, varied and difficult to grasp.

"We have almost 550,000 days of training a year in the Volvo Group, which is a lot compared with other companies and naturally represents a substantial investment. This also includes training for our dealers. We had numerous different variants of introductions for our new employees – but we have just launched one which passes on the

same message to everyone, more effectively," explains Kristina Rejare, SVP Volvo Group University, which, since April 2014, has been the Group's centre of excellence for learning, with responsibility for training of all Volvo Group employees.

The previous training programme will gradually be replaced by methodically developed, quality-assured trainings with a clear-cut Volvo Group profile.

"The VGU's trainings are very closely linked to the Group's real-life situation and business needs. They secure both benefits and quality, as the co-workers can learn the kind of things that are relevant to both their own and the company's development."





To date, more than 6,200 employees have been trained at the VGU, either at one of the physical educational facilities at five different places worldwide or via e-learning on their computers. Regardless of where and how people study, the training is guaranteed to be the same.

"As far as the participants are concerned, this increases their potential to move between divisions and regions, which is obviously extremely valuable," says Kristina Rejare.

ONE OF THE THREE so-called academies, knowledge areas, which have been established since the start is Project Management, which offers a total of 19 different courses – everything from half-day e-learning sessions to three-day trainings.

"Project management is a general skill, so we have participants from every area within the Volvo Group and this wide scope constitutes an excellent basis for the exchange of knowledge. When we developed the portfolio, the objective was to create the conditions for a common knowledge and understanding of project management within the Volvo Group. At the same time, we held a dialogue with all the business organisations about their individual needs over the next few years in order to create trainings that were as closely related to business as possible," says Sven Ljungren, head of the Project Management Academy.

He explains that the VGU's trainings, regardless of length and subject, are based on a number of pedagogic principles. One is 70/20/10, which means that 70 per cent of learning comes from experience and practice, 20 per cent from conversations and collaboration with colleagues and managers and 10 per cent from formal

training – in other words, the actual course.

The trainings at the VGU are based on what is known as the BDA, Before/During/After, method. This means that each participant collaborates with his or her closest manager before, during and after the training to ensure that the course plan has been followed, that the training can be conducted smoothly and that it is followed up and evaluated. The target is that the investment in knowledge development should be planned and implemented in such a way that the participant is able to apply his/her newly acquired skills and know-how at work, change behavioural patterns and achieve results.

"THIS CALLS FOR A FAIR amount of work before, during and after, but it also generates commitment and understanding that have a decisive effect when it comes to obtaining results in business operations and business benefits," explains Sven Ljungren.

In view of the prevailing economic situation, starting a new venture and attracting participants has been a challenge. However, the Volvo Group has an explicit aim to invest in the development of its co-workers.

VOLVO GROUP UNIVERSITY

- Started in April 2014
- Currently operating in Gothenburg, Lyon, Greensboro, Ageo and Bangalore
- Currently comprises five academies: Volvo Group Fundamentals, Project Management, Leadership

& Management, Operations and Engineering & Purchasing.

> In 2015, three more academies

will open: Process & IT, Business Administration and Sales & Marketing.

>

The VGU is now entering an expansive phase and will launch several new academies in 2015. The first step has included an Operations Academy, with trainings in subjects such as basic problem-solving, and an Engineering & Purchasing Academy, which will teach the FMEA (Failure Mode and Effect Analysis) method, among other things. At the end of the year, there will be a total of eight academies and 200 trainings aimed at all the co-workers and they will successively be made available everywhere.

"New target groups constitute new challenges, which will enable us to continue developing the whole time. We are now going to focus on participants who don't spend the whole day working on computers. We need to remember this when we design our training," says Kristina Rejare.

In addition, the VGU is looking at new ways to reach more people. One way is what are known as Train the Trainer courses, where the VGU trains someone who then trains a complete plant, for example. Another is Group Talks, inspired by TED Talks and developed by the Leadership and Management Academy, where a number of leaders give short talks on different subjects.

"We are also planning to be even more virtual, with more e-learning but also using different connection techniques that we are currently investigating," says Kristina Rejare.

•

"We have trained 1,147 in the USA"

STEVE SUTTON

Delivery Manager, VGU, USA:

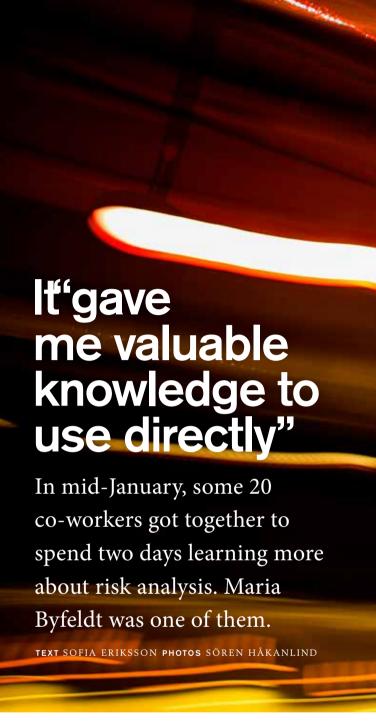
"In the USA, we offer the entire existing VGU curriculum which includes 22 classroom-based learning offerings and the 10 e-Learnings from the Leadership Academy, the Project Management Academy and Volvo Group Fundamentals. We also offer 12 classroom-based learning offerings local to the US market.

The basic training calendar is set in Greensboro, but all offerings are available by request for any US location. Since the kickoff in April 2014, we have trained 1,147 participants in classroom offerings. By embracing both office workerand industrial worker training, the VGU can serve the needs of all Volvo Group employees.

Over the next five years, we expect the number of learning

offerings from the VGU to grow tremendously as we levarage training from around the





WHEN MARIA BYFELDT received an e-mail from her boss in mid-December inviting her to a two-day training on risk management, she had one question. How can you fill two days talking about this subject?

"As far as I'm concerned, the benefits are important. If I'm going to take part in a training, I need to be sure that I'm going to learn the sort of thing that's going to be beneficial for my work."

Maria Byfeldt is PMQ, Product Manager Quality, at Q&CS, Quality and Customer Satisfaction, at Group Trucks Technology at Lundby in Gothenburg, Sweden. She is responsible for product quality within telematics, first and foremost software, and she is currently involved in two parallel projects that will



The training gave Maria Byfeldt new ideas, which she is already starting to implement in her work team.

run for several years. She started her job late last year, so the offer to take part in training came at an ideal time, as risk analysis is a key part of quality work.

"In the past, I have participated in different project management courses that have included some aspects of risk analysis, but I have never attended one that focused exclusively on risk analysis. This was an excellent opportunity for me to test and question my way of working and to clarify expectations about the work I will be doing in the future."

She found herself on the training at fairly short notice, but she still managed to complete all the preparations she was instructed to make in Navigator at Employee Center on Violin.

"I read through two pre-studies and reflected on them. That gave me a good basis and some important pre-understanding."

IN JANUARY, THE TIME HAD COME for two full days at the Volvo Group University in Gothenburg. Maria and a colleague, who had been working at the department for a year, participated together. In all, 20 people attended the training, a successful mixture of people from Group Trucks Technology, Group Trucks Operations, Corporate Process & IT and Volvo CE, among others. There were seven women and 13 men.

"The exchange of experience in our discussions



"It was fun getting to know new colleagues. A course like this is a great way to network."

MARIA BYFELDT, PRODUCT MANAGER QUALITY

was tremendous. We were able to compare our levels and demands and obtain some degree of perspective on our work from different parts of the Volvo Group," says Maria Byfeldt.

The days were intensive, as the training started at 9 am and finished at 5 pm. The teacher was an external trainer from the IIL, International Institute of Learning, a training company with an excellent reputation and, because he came from outside, he was able to present a different angle on the Volvo Group's way of working, according to Maria Byfeldt. Each session began with theory.

"We must have studied at least 400 slides in total, but it's a complex subject, so I understand why there were so many. The training was successful, primarily because of the way it was designed: firstly a theoretical review, which was followed by discussions in small groups with examples from our own part of the organisation. After that, we split up and joined the other groups."

The participants ate lunch on the other side of the road and the discussions continued, just as they did during the coffee breaks: "It was fun getting to know new colleagues. A course like this is a great way to network," says Maria Byfeldt.

Ideas for changes in the work process came to her directly and she started to outline a suggestion for her working team the moment the course ended.

"Prior to each project, a project description is produced with a strategy for managing risks and it is updated before each 'gate'. I suggested in one of my projects that we should follow up the risks and that each risk owner should update his or her risks prior to each weekly follow-up. Also, that we should quantify the most probable risks — in other words, put a price on them so that we could include them in the budget plan. My suggestion was accepted, so we are going to work along these lines in the future."

AS THE TRAINING ENDED FAIRLY RECENTLY, Maria Byfeldt has not had time to follow it up officially with her manager or to evaluate it according to the VGU's processes.

"However, the fact that it was so relevant to the work I do feels really good and it was an incredibly rewarding training, as it dealt with every aspect of risk management. So it was really easy to fill two days! One thing I realised was that there isn't a single common way within the Volvo Group of working on risks – that became clear when we compared notes. This means that there are no uniform Volvo Group examples and no technically correct answers. So that's what we eventually need to tackle." ●



TEXT NIC TOWNSEND PHOTOS ALEX&MARTIN

ACH COMPETITION OFFERS aftermarket personnel the opportunity to test their skills and knowledge against colleagues from around the world, as well as earn well-deserved recognition for their work. However, each is also more than a competition – they are first and foremost training events, designed to push participants out of their comfort zones and acquire new skills and knowledge together as teams.

"Compared with traditional classrooms and training programmes, competitions are a very effective way of motivating people to go that extra mile," says Jessica Lindholm, project manager of VISTA and RTEC and co-ordinator for all four competitions. "Everyone likes to win, so, if we're competing it's in our nature to try that little bit harder and try to find the right answer."

OF THE FOUR COMPETITIONS, VISTA (Volvo International Service Training Award) stands out as the oldest and most successful of the aftermarket competitions and serves as a template for the other three. Founded in 1957, VISTA has grown to become the biggest competition of its kind in the world. The

last instalment, VISTA 2012-2013, was the biggest yet, attracting over 17,000 participants from 93 countries. What originally started out as an event exclusively for Volvo's Swedish employees is since 1977 an international event open to all employees in Volvo Trucks' and Volvo Buses' global service network.

THE KEY TO VISTA'S success is that all participants, regardless of experience or expertise, benefit from taking part, whether it is new knowledge or simply getting to know their team mates better. It is estimated that VISTA 2012-2013 resulted in over 500,000 hours of additional training.*

VISTA has also proven to be an effective tool for identifying competence gaps and areas for improvement. After every VISTA, Volvo Trucks' and Volvo Buses' competence development teams analyse results from each round and adapt local training programmes accordingly.

It is because of this success that VISTA has been adopted as best practice and as a template for the other competitions. While it is still too early to measure the full impact of the new competitions, the outcomes from VISTA do suggest some clear benefits that can be expected.

Gemba Challenge

JUNE 2014 - NOVEMBER 2014
UD Trucks' Gemba Challenge
started in June 2014, attracting
750 participants forming 186
teams, from Indonesia, Malaysia,
South Africa, Pakistan and
Japan. After two theoretical
rounds, nine teams qualified
for the final, which was held
in Japan on November 18th
2014. South African team BB
Truck & Tractor Polokwane
won the world championship.



TEAM PROFILE

MEMBERS: Muhammad Imran Nazir, service and team leader - Sajid Qamar, service - Muhammad Irfan, service -Muhammad Farhan Irfan, aftermarket (parts)

"Our team name is 'VPL Tigers', because tigers are focused, smart and feared in the jungle. We aspire to be the best at what we do and we believe tigers are the best at what they do. We learned about our strengths and weaknesses, grew as a team and learned about the fundamentals of management and objective orientation. Now we have a vision of continuous improvement, are more positive and will pass on this learning to other teams and newly inducted members. Also, our attachment to the UD brand has vastly increased."

VISTA World Championship

JULY 2015 - JUNE 2016
Registrations will open in June, with the first of three theoretical rounds starting the following
September. Regional semi finals will be held in April 2016, with 32 teams qualifying for the world final, which will be held in Gothenburg in June 2016.
VISTA 2012-2013 attracted over 17,000 participants from 93 countries.



TEAM PROFILE

MEMBERS: Moises Hernández Barrera, technician - Israel Osorio Tapia, technician - Guadalupe García Aranzolo, team leader

"There's no better way to exchange knowledge than to participate in an international competition. In order to succeed in VISTA I think dedication and communication are key."

ISRAEL OSORIO TAPIA, TECHNICIAN

"This team has a very solid foundation, so I thought it would be interesting to compete alongside them. The most important thing really is the team work, everyone is very dedicated and knows a lot about his or her area of responsibility."

GUADALUPE GARCIA ARANZOLO, TEAM LEADER

"Compared with traditional classrooms and training programmes, competitions are a very effective way of motivating people to go that extra mile."

JESSICA LINDHOLM, PROJECT MANAGER AND CO-ORDINATOR FOR ALL FOUR COMPETITIONS

Until recently, VISTA was a biennial event, but the next competition was pushed back to 2015-2016 in order to accommodate RTEC, the UD Gemba Challenge and Mack Masters. The schedule has been designed to minimise overlaps between each and, while the first instalments of the new competitions are relatively small compared with VISTA, the hope is to grow them in the coming years.

"Each is a pilot project for now, but we have high ambitions and would certainly like to replicate some of the success we have seen with VISTA," adds Jessica Lindholm.

*Estimation based on the assumption that each participant spends an average of 20 minutes on each question, with 30 questions in each round.



Mack Masters

NOVEMBER 2014 - JUNE 2015 The first ever Mack Masters started in November 2014. attracting 263 teams from 171 locations across the USA and Canada. Participants will complete three theoretical rounds, with five teams qualifying for the final, which will be held at the Mack Customer Care Center in Pennsylvania on June 16th 2015.



TEAM PROFILE

MEMBERS: Patrick Tarpley, service and team leader - Ben Crafton, service - Steve Graves, warranty - Tina Rollins, parts

"We have found that the additional education was a huge benefit but working as a team was a close second. The competition proves that teamwork pays off. The more minds you can apply to a problem, the faster and more accurately the problem can be solved. You must have people that can work together and for each other. Once the group has this understanding and acknowledges it either in this competition or a real world scenario, their job becomes much easier to perform." PATRICK TARPLEY, TEAM LEADER

RTEC

JUNE 2014 - APRIL 2015 The Road to Excellence Championship (RTEC) was initiated in June 2014 and had attracted over 2,000 participants by the closing of Round One last September. The competition was open to employees in France, Belgium, Luxembourg, Spain, Portugal, Italy, the UK, Ireland, Malta and Cyprus. The final will be held in Lyon in April 2015.



TEAM PROFILE

MEMBERS: Yvette Calvo, shop manager and team leader -Frédéric Gunle, foreman - Yannick Cazac, vehicle body builder -Mohammed Bouij, specialist diagnostic reparation (SDR)

"Why miss this opportunity to participate in a new adventure that allows us to move forward? It is also a break from the ordinary; it is a motivating project that strengthens the bonds between the team members. It's a great way to learn and to simplify things and it adds to our confidence. RTEC is also a nice way to connect at a national level. We are keeping an eye on the results of the Monpeyssin garage, the other Renault Trucks dealership in this county - we are really caught up in the YVETTE CALVO, TEAM LEADER

WIRELESS IS MORE

Vehicle connectivity is

transforming the automotive industry. Here, we talk to connectivity experts at the Volvo Group about their work, including a team that is using wireless technology to cut the amount of fuel used by construction vehicles at quarry sites.

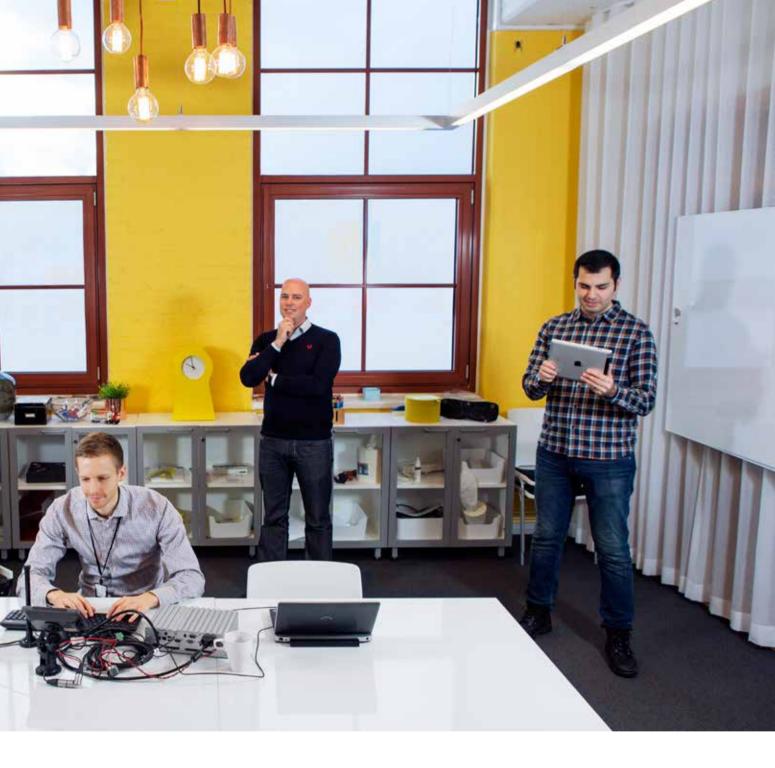
TEXT LINA TÖRNQUIST PHOTOS JONAS TOBIN

HERE ARE SOME 25,000 aggregate and quarry sites in Europe alone. David Rylander estimates that he might be able to cut fuel costs at similar sites globally by 10-20 per cent through wireless technology that allows better workflow for vehicles on site. The idea came from his PhD research for Volvo CE, where he applied lean thinking at quarries and saw that sites operated in a closed system, a bit like factories, except that the flow patterns were very uneven since vehicles often stood still.



"By studying the operation I was able to identify and measure waste, such as waiting time and stops, and translate it into potential energy savings," says David Rylander, Connected Vehicle Technology Specialist at Advanced Technology & Research (ATR) within Technology Product Project, Volvo Group Trucks Technology (GTT).

BY CONNECTING THE vehicles into optimised routes and speeds, Rylander realised he could cut waste dramatically. Despite the complexity of the project (the system must take account of an enormous number of variables and react to changes in the



Marcus Larsson, Jakob Fryk, David Rylander and Amin Asadi are part of a team developing a connectivity technology that could cut fuel used by vehicles at quarry sites by 10-20 per cent. number and type of vehicles, the particular features of a specific vehicle types and worksites) building and trialling the software has gone quickly.

"David explained his idea in March 2013 and we immediately began to brainstorm," says Jakob Fryk, System Developer, also at ATR, GTT, who is part of a team of three software engineers who have been working on the project. "Eight months later, we had a prototype ready."

This spring, just two years after they started working with the project, the team will be trialling the system at customer sites.

The project is one of many underway at the

Volvo Group that are unlocking the potential of connected vehicle technologies. In the same way that mobile phones went from separate units with some connectivity to connected to the world around them through a range of technologies including Bluetooth, 3G, Wi-Fi and GPS, tomorrow's vehicles are set to be much more connected to their surroundings.

"THE CURRENT MOMENTUM IN ALL THINGS related to connectivity is unmistakeable", says Johanna M. Karlsson, Connected Vehicle Technology Specialist at On-Board Telematics within Vehicle Engineering at GTT: "I've worked in this area for over a decade and >



it's always been the next big thing, but now it's really happening."

At the same time, the area is becoming more and more competitive and this makes speedy development essential. Instead of large "forklift" upgrades that are common for vehicles and parts, software development is quickest when it is agile, incremental and iterative and developed in very close collaboration with customers.

"It requires a totally new way of thinking about project management," explains David Rylander. "What we do is more related to mobile apps than engines when it comes to time to market."

THIS TRANSITION TO "SOFTER", more connected vehicles is changing the dynamics of the whole vehicle industry. As a sign of how important software will be in vehicles, BMW, Nissan, Audi, GM, Toyota, Mercedes-Benz and Ford have all opened offices in Silicon Valley. In late 2014, a top Apple executive jumped ship and moved to Ford.

The Volvo Group is also building up considerable expertise in the area. M1 in Gothenburg, where David Rylander and his team are situated, is in a clustered area of software development focused on telematics, including WirelessCar, Chalmers University and the telecom company, Ericsson. The team's quick results are due in part to the project

building on expertise aquired from previous projects.

"We could reuse code from previous work we've done and so we're becoming more agile at this type of work," says Marcus Larsson, Systems Architect and Amin Asadi, Systems Developer in the project.

THE POTENTIAL CUSTOMER GAINS for this project and others like it are global. In the early stages of research, David Rylander also looked at quarry sites in China.

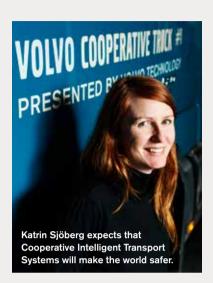
"Fuel is a major part of cost structures all around the world and it is actually even more important in emerging markets such as China, as personnel costs are relatively lower there," says Rylander.

For the project team, the next step in connectivity at quarry and mine sites could be increasing productivity by allowing vehicles to be operated remotely by operators sitting separately – a change that could potentially mean large gains in safety and uptime. Today, dust, loose rocks and gases pose potential dangers to vehicle operators. Following a controlled explosion in an underground mine, they may have to wait up to seven hours for the dust to settle, before allowing people back on the site.

Any such downtime leads to huge costs: "Shutting down a site's operations for a day while waiting for the dust to clear is massively expensive. So, customers already see the potential in new connectivity solutions."

Output

Description:



A SAFER WORLD

Allowing vehicles to talk to each other can improve safety. Co-operative Intelligent Transport Systems (ITS) is one such system. Katrin Sjöberg, Connected Vehicle Technology Specialist at ATR within Technology Product Project, GTT, explains how it is being adapted for the road:

"Put simply, co-operative ITS allows vehicles to talk to each other through 'hello signals'. The technology is already being used in both ships and planes. Now we are working on implementing a similar system on the road.

The system could improve safety considerably for both trucks and other road users. Making the world safer motivates me, so it's rewarding work. A friend of mine died in a head-on collision when a delivery van was overtaking a truck but failed to see a car approaching in the opposite direction. This technology would make this type of accident preventable because it would allow the driver to see the approaching vehicle.

The fact that the Volvo Group sells trucks to 190 markets worldwide means that we are obviously aiming for global solutions. In the USA, the government is looking at making this system mandatory for automakers, while, in Europe, implementation is so far industry-driven, so we are collaborating with other automakers to define standards and bandwidth that vehicles can use globally – something the mobile industry has achieved with its connectivity solutions."



GLOBAL APPROACH

The quick development in connectivity technology means the global approach to platform development that the Volvo Group is taking makes a lot of sense, explains Johanna M. Karlsson, Connected Vehicle Technology Specialist, On-Board Telematics, within Vehicle Engineering, GTT:

"I am working with the common platform for connectivity technologies at the Volvo Group called the GTP-Global Telematics Platform. There is a huge advantage to having one platform, as there are a lot of similarities in the needs we have globally. Coaching a driver in a UD truck in Japan or in a Mack truck in the USA is essentially the same. The language in the interface might be different, but the advice given to the driver on how to save fuel is similar.

Having one platform also saves a huge amount of time and effort as it avoids implementing different technologies several times and keeping them all updated. But we also need to make sure we are not slowed down by the fact that we co-ordinate globally. A big part of my job is to co-ordinate that work and make sure things keep moving forward.

I like working with connectivity because the developments in this area are really exciting. Before it was something that was just about to happen. These days, salespeople tell us that they need telematics to sell the trucks. It's already crucial."



3 CONNECTIVITY CHALLENGES

Several different technologies

In the same way that your mobile uses 3G for calls, Bluetooth to connect to your headset and Wi-Fi to connect to your local internet network, connected vehicles are likely to use different sensor and telematics technology to cover the communication needs for different distances and uses. There is no one, quick fix.

Short lead times

Technology development is speeding up and shortening lead times is a key challenge. Fast software development is best achieved through agile processes. Tasks are broken down into small increments with minimal planning, instead of large "forklift" upgrades that are common with vehicles and parts. Software upgrades are instead often launched incrementally, which allows adjustments over time.

Understand the customers' needs - don't always ask them what they want

Understanding the customer is a key factor in the development of better connectivity systems. This also means working closely with customers to map their needs, systems and processes: "It is not enough to ask fleet owners what they want. The answer will often reflect what exists on the market today. We need also to analyse their operations further to understand what they need and translate that into products and services," says David Rylander.

"I believe in focusing on what customers want"

After seven years in Asia, Elisabeth Larsson knows almost everything there is to know about working with several brands in a dynamic market. As the new head of Vehicle Sales at Volvo Group Trucks Sales, she is going to lead strategic sales support and make sure everyone works together to implement a joint agenda.

TEXT OLIVIA KRANTZ PHOTOS JONAS TOBIN

ou are back in Sweden, after a number of years working as Vice President Vehicle Sales and Marketing, Volvo Group Trucks Asia Oceania Sales. How does it feel?

"It's both exciting and a little overwhelming. First and foremost, the difference in climate is enormous. I had to scrape my car windows this morning for the first time in seven years – that was an experience, I can tell you! For some reason, it's always easier to move away than it is to return

home. However, it feels good emotionally. I have learned an incredible amount during my time abroad, but it feels totally right to come home and put what I have learned into action."

From working regionally, you are now moving to a more strategic role where you will be responsible for supporting truck sales within the Volvo Group. How do you see your new role?

"My role will involve supporting the markets and building an organisation based on the support the markets need to meet their customers'



"I envisage fantastic opportunities now that we have a joint agenda, rather than three different ones."

> requirements - without focusing too much on the way things used to be done. We have a backoffice function which rests on a number of 'legs' - everything from price, support and packaging to sales systems and planning demand. It's important that we strike a good balance and find the right level in production. Our target here is to create a global process based on confidence. In some parts of the world, confidence has declined and we want to rectify that. We are talking about situations that change rapidly, in Asia and South America, for example. We need to be an organisation that is able to handle the fluctuations quickly. My first priority is to build a strong team and make sure that people with the right drive and customer focus are put in the right positions."

Which challenges and opportunities do you envisage?

"There's a real difference in the level of maturity in the different regions. We need to adapt the support to match the individual regions. Process and IT solutions are one such challenge. We want as many people as possible to use our sales systems, but we aren't going to force the same solution on everyone if it doesn't work. We also need to improve the way we use our global networks in order to pass on best-practice cases. We're very good at coming up with new ideas, but we mustn't be afraid to 'steal' ideas from other markets. I also envisage fantastic opportunities now that we have a joint agenda rather than three different ones."

During your time in Asia, you have worked with most of the Volvo Group's brands. How will you benefit from this?

"When I started working in Asia in 2008, it was the first region comprising a number of countries that worked actively with several brands. I was involved



from the start and I learned a great deal, first and foremost to think about the business benefits before thinking about the brand. Working with several brands is less complicated in Asia than it is in Europe, for example. In Asia, UD Trucks and Volvo Trucks are the two main brands and there is no risk that they will overlap in the way Renault Trucks and Volvo Trucks can in Europe. In Europe, a great deal of work focuses on differentiating between brands that are closely linked. It's important to apply an holistic approach and not regard our 'brothers' as our principal competitors. If we are going to capture market share, we are going to do so from our external competitors."



In Singapore, you were a member of a team of people with more than 20 nationalities. How has this affected you?

"It gives you different perspectives – simply the fact that people come in and say 'Good morning' in 20 different ways is a fantastic asset. In an environment like this, you have to communicate a great deal. You can't expect information to reach other people through the normal everyday buzz. This makes clarity even more vital and it's especially important that everyone receives the same information. It's also a question of creating confidence. The advantages are that I now find it fairly easy to deal with people with different backgrounds and I'm not afraid to give both positive and negative feedback. I always try to make sure that my message really reaches its target."

Asia is a dynamic, rapidly expanding region. What insights will you be bringing to Sweden from the time you spent there?

"Our customers in Asia are incredibly demanding. The market there can be split into three segments: European premium brands, Japanese and Korean manufacturers and Chinese and Indian brands. Japanese brands that offer high levels of both quality and efficiency and, at the same time, have lower prices are the best-selling trucks in South-East Asia. In the past, the segments were separated - a customer who purchased a truck from Hino or UD would not purchase a Volvo truck. These demarcations are being increasingly erased and, as a result, the premium brands also need to stay on their toes and focus on both customers and costs. The ability to keep things simple is another important factor in Asia. We are extremely creative in this company and we are also good at finding new solutions. I don't believe in complicating things. I believe first and foremost in focusing on the things that need doing and the things customers want."

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ELISABETH LARSSON ON ...

...THE WAY HER FAMILY INFLUENCED HER CHOICE OF CAREER

"My father worked for Volvo and my brother still works at GTT, but I didn't make a conscious choice to apply for a job here. My father actually thought that I ought to look for a job somewhere else. It was a coincidence that I ended up at the Volvo Group when I got my first job, but it was definitely not a coincidence that I felt as much at home as I did or that I stayed on!"

... VOLVO GROUP CULTURE

"It isn't something you simply talk about, it actually exists everywhere, globally. I think people in Sweden are somewhat spoilt and take The Volvo Way for granted. In Asia, it's something pretty unique and it's also a factor that makes many people stay at the company. The Volvo Way is very largely a question of respect and information, it isn't so hierarchical. It's an unusual way to run a company. In Sweden, it's part of our heritage, but I think that we sometimes take our basic values and our way of working on recruitment and feedback a bit too much for granted. The Volvo Way is an incredibly powerful tool and we should be really proud about being able to work with it."

GEARING UP

A change in organisation, greater efficiency and customer focus. These are some of the central aspects of the changes the Volvo Group is currently undergoing. The target is to increase profitability and close the gap on the competition, thereby strengthening the Group for the future.

TEXT ANN-MARI ROBINSON

o understand the challenges both now and in the future, it might be a good idea to begin by looking backwards.

In 2001-2011, the Volvo Group expanded through acquisitions (purchasing companies) and operations were equipped for capacity levels that were never fully utilised and do not match the current situation. Moreover, the cost of product development doubled during the same period, while sales only increased by 63 per cent.

Over-investment in capacity, research and development has created an imbalance in costs and income. "When these decisions were made, everyone believed in continued powerful growth. Since that growth has not taken place, it has been necessary to adjust to match our current sales. The lack of balance between our costs and income becomes very clear if we examine 2011, which, in many ways, was a record year for the Volvo Group, even if our profitability was the second lowest in the industry," explains the Group's CEO, Olof Persson.

THERE IS A GAP between the Volvo Group and the competition. Together with the heads of the truck divisions (GTS, GTT and GTO), Joachim Rosenberg, Torbjöm Holmström and Mikael Bratt, Olof Persson met some 3,000 managers (plus an additional couple of thousand via Lync) on 17 occasions in Gothenburg, Greensboro, Lyon and Ageo, at the end of last year to describe the situation. The theme was Closing the gap. This remains an important theme for 2015 and was underlined at the Group Management Conference (GMC) in January, a conference for the Group's 160 top executives.

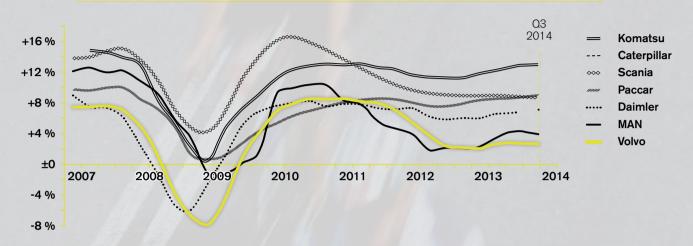
"We need to increase our co-workers' understanding of why change is and has been necessary," says Olof Persson.

In 2012, the most comprehensive reorganisation in the Group's history was implemented. The target was, and still is, to be *one* company that is better equipped to take advantage of all its brands, products and the geographical coverage the Group has obtained as a result of the many acquisitions.

"What's more, we realised that it was necessary to reverse the trend and calibrate operations to match the changing volumes 19

Number of countries where the Volvo Group has production facilities

OPERATING MARGIN VS PEERS



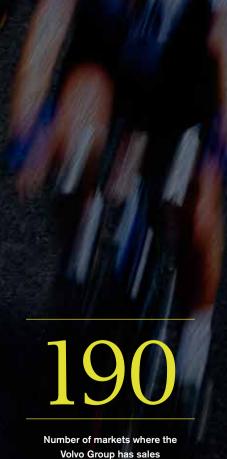
we were beginning to see in the market.

We need to be an organisation that works more efficiently, globally, in a co-ordinated manner, with the emphasis on processes. We are still on a journey of change and I'm really proud of everything we have achieved, even if we still have some way to go," says Olof Persson.

Many activities have been run by the Volvo Group's co-workers in the space of just a few years. They relate to large, revolutionary changes such as optimising the industrial systems in the USA, Japan and Europe; improving efficiency and thereby reducing the cost of product development; optimising sales distribution in Europe; and reducing the number of employees in staff units and support functions. The vision and objectives have been clearly defined and a Group-wide positioning strategy has been put in place for the brands.

The past few years can be summarised as

▶ In 2012, a reorganisation took place and new Strategic Objectives for Group Trucks and the Business Areas were formulated for the period 2013-2015.



▶ In 2013, large-scale product launches took place. They have involved a great deal of hard work and substantial costs, but as a result the Group is better equipped than ever before. programmes and cost reductions were implemented.

In 2015, this work will continue and a totally new and global sales organisation within the truck organisation will lead to greater efficiency and increased customer focus. At the same time, local influence over decision-making will be strengthened through the introduction of regional teams. There will be a combination of global strength and local speed. Opportunities for a powerful growth in truck operations in China will also be made possible by the establishment of the joint venture Dongfeng Commercial Vehicles (DFCV).

The changes have impacted people in different ways, depending on where in the organisation they work. In the 2014 VGAS results, it was clear that the engagement of the employees had fallen, something Olof Persson and his

colleagues in the Group's executive management team take very seriously.

"When changes are made, it's especially important to understand our starting point, where we are heading and what we are hoping to achieve. We have a unique position, unique brands and fantastic strength in our skilled co-workers. That's why I'm totally convinced that we are going to succeed in becoming a leader in our industry, also in terms of profitability. And profitability is important since it allows us to control our own destiny," says Olof Persson.

After a period characterised primarily by structural change, long-term work has begun in 2015, including revitalising the Group's culture and leadership – areas that will be given a prominent place in the future. During the first half of the year, workshops with managers have been run, together with a large number of interviews with employees and other important stakeholders to obtain an even clearer understanding of the expectations they have when it comes to the company's culture. The next step will be to create a broad-based dialogue throughout the company relating to the values and what they mean in people's everyday work. \odot

THE TERMS EXPLAINED

OPERATING MARGIN gives analysts an idea of how much a company makes (before interest and taxes) on each dollar of sales. When looking at operating margin to determine the quality of a company, it is best to look at the change in operating margin over time and to compare the company's yearly or quarterly figures to those of its competitors. If the operating margin is increasing, a company is earning more per dollar of sales.

MARKET SHARE is calculated by dividing a company's sales by total sales of the industry over the same period. This metric is used to give a general idea of the size of a company in relation to its market and its competitors.

ORDER INTAKE shows how much interest there is among customers for a company's products and services.

TRUCK DELIVERIES are reported every month, and compared with the previous year.

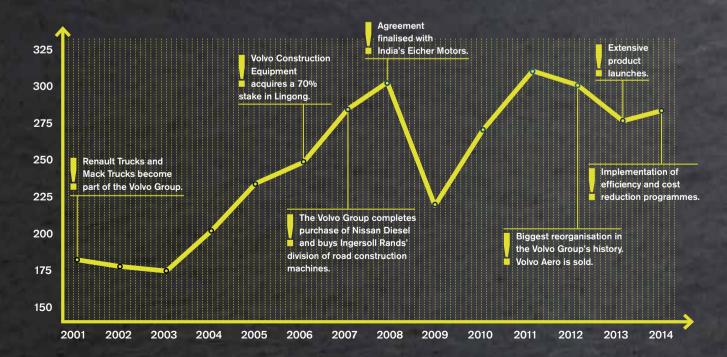
NET SALES is the amount of sales generated by a company after deducting returns, allowances for damaged or missing goods as well as any discounts.

OPERATING INCOME shows earnings before interest and tax. It is reported quarterly.

CASH FLOW indicates the difference between in-coming and out-going payments from operating activities.

NET SALES 2001-2014

BILLION (SEK)



VOLVO GROUP DELIVERIES

DELIVERIES EUROPE

	2014	2013	CHANG
Trucks	72,458	82,088	-12 %
Buses	2,221	2,146	+3 %
Construction			
equipment	14,174	13,522	+5 %

DELIVERIES SOUTH AMERICA

	2014	2013	CHANGE
Trucks	23,741	29,137	-19 %
Buses	2,985	2,434	+23 %
Construction			
equipment	3,669	3,568	+3 %

DELIVERIES NORTH AMERICA

	2014	2013	CHANG
Trucks	57,714	44,755	+29 %
Buses	1,590	1,752	-9 %
Construction			
equipment	7,127	5,240	+36 %

DELIVERIES ASIA

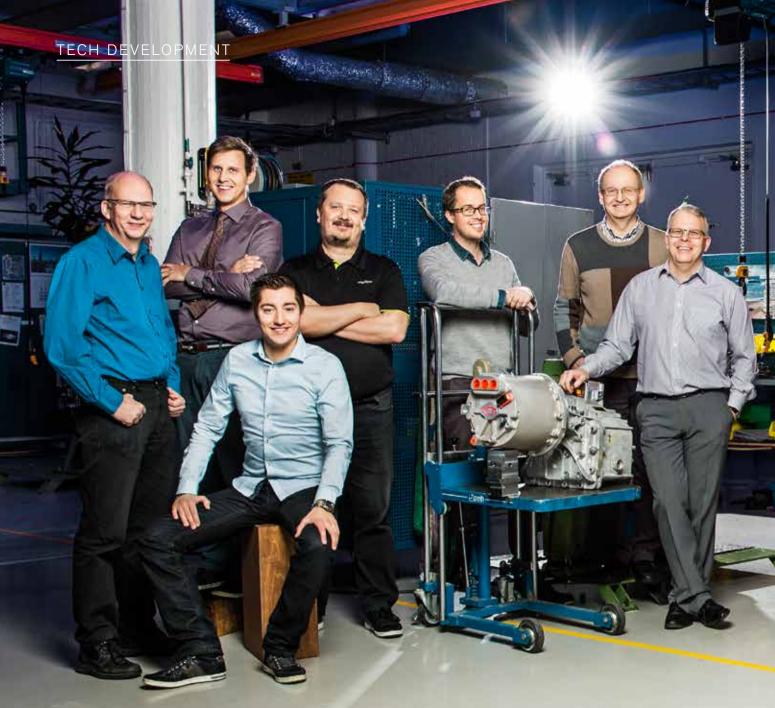
	2014	2013	CHANGE
Trucks	32,399	28,692	+13 %
Buses	1,242	1,822	-32 %
Construction			
equipment	33,648	44,892	-25 %

DELIVERIES OTHER MARKETS

	2014	2013	CHANGE
Trucks	16,812	15,602	+8 %
Buses	721	756	-5 %
Construction			
equipment	2,699	3,564	-24 %

Source: Volvo Group Q4 2014 Report





A GATEWAY TO FULL ELECTRIC DRIVELINES



A unique two-speed transmission enables a compact electric motor to deliver excellent speed and power capabilities. It is a vital component of the Volvo Group's new full electric driveline.

TEXT NIC TOWNSEND PHOTOS ANNA SIGVARDSSON NE OF THE greatest challenges in developing a new full electric driveline is meeting all the necessary power and torque requirements for city buses and medium-duty trucks up to 18 tonnes, while at the same time keeping the driveline light and cost effective.

"To be able to directly output the required torque for all applications, the electric motor would need to be large and heavy and expensive to manufacture and install," says John Lord, Project Leader Driveline & Hybrids, GTT. "However a small electric motor could produce similar power by spinning faster and, with a reduction gear, it could create useful torque at the correct speed."

This led the electric driveline team at GTT to develop the two-speed transmission. "It is uniquely designed and developed by Group Trucks Technology," says Fredrika

THE FULL ELECTRIC

ELECTRONIC VALVE UNIT

Controls the gear shifts.

HIGH POWER DENSITY ELECTRIC MOTOR

Propels the driveline through the transmission.

> ADAPTIVE LUBRICATION AND COOLING CIRCUIT

Varies flow according to current demands.

TRANSMISSION OIL COOLER AND FILTERING UNIT

LIGHTWEIGHT **ALUMINIUM HOUSING**

DRIVFI INF

Internal packaging enables wide variety of ratios.

STANDARD INTERFACE

Connects to driven axle for easy vehicle integration.

Berndtsson, Chief Project Manager, GTT. "Initially, we considered purchasing a gearbox, but we could not find one that would meet our needs. And since we have so many skilled people here, who have developed world-class products like the I-Shift, we thought 'why not build it ourselves?".

The two-speed transmission works by multiplying the torque from the electric motor. The standard working gear is the second gear, which has been optimised for efficiency by only using a single gear mesh. When higher torque is required, for example when climbing hills, the first gear can be used. Using a dedicated lay-shaft with two gear pairs, the speed is reduced and the torque is multiplied. By having two gears, the operating area is greatly expanded and it makes it possible to tailor each gear ratio according to application.

Despite expanding the driveline's capabilities, the two-speed transmission is still light and compact and does not increase the overall weight. "The key is

to keep it as simple as possible - less is more," adds John Lord. "The more stuff you put into the transmission, the greater the parasitic losses. Two speeds in this case represents a perfect balance between minimising component losses and maximising system efficiency and driveability. We could have designed a three-speed transmission, but we would have doubled the complexity and increased the overall weight."

THE TWO-SPEED TRANSMISSION, along with the rest of the full electric driveline, will go into operation for the first time this June. Three full electric demonstration buses will service an eight-kilometre bus route in Gothenburg, starting at the time of the Volvo Ocean Race final. It represents a significant milestone in the development of the Volvo Group's electromobility programme and the twospeed transmission has been significant in making this possible.

"The two-speed gearbox enables us

"Since we have so many skilled people here, we thought 'why not build the gearbox ourselves?""

to use low-cost, high-power density electric motors to power heavy vehicles," continues John Lord. "The Volvo Group is the first to achieve this and the complete driveline is 50-60 per cent lighter than other systems with comparable performance. This increases the potential to industrialise electromobility products at low cost."





A winning combination

I-Shift Dual Clutch team wins Volvo Technology Award

IT TOOK A COUPLE OF DECADES, but last year a big dream became reality. That was when Volvo Trucks introduced the world's first dual-clutch gearbox for heavy-duty vehicles. Now the team behind the I-Shift Dual Clutch is being honoured with the Volvo Technology Award.

The award was presented at a ceremony in conjunction with the Volvo Group's Annual General Meeting on April 1st.

"It's fun to get this type of recognition - we naturally feel very proud," says Lennart Brusved, who was project manager for the hardware development of the I-Shift Dual Clutch.

He received the award, along with Klas Bergström, Anders Hedman, Lars Simonsson and Lars-Erik Theodorsson. They have all been involved in the project to develop the dual-clutch gearbox since the work to produce it began in earnest in 2008.

But the plans to develop a dual-clutch transmission for trucks are older than that. Back in 1990, Volvo Trucks' transmission department presented its first sketch of the technology.

ANDERS HEDMAN WAS HIRED in the mid-1990s, when the work to produce a dual-clutch transmission entered a new phase. He could hardly imagine that it would take another 20 years before the plans to launch the technology became reality. The big breakthrough came when the I-Shift transmission was launched in 2002.

"That we managed to get it all the way to

large-scale production is down to the fact that the I-Shift Dual Clutch is based on the regular I-Shift. This led to advantages in development, production and in the vehicle," says Anders Hedman.

THE I-SHIFT DUAL CLUTCH means major improvements in the daily life of drivers. Not least, the new gearbox has become popular among those who drive heavy loads, such as timber, on narrow and icy forest roads.

"We have tested the gearbox in the field and drivers have been so pleased with it that they didn't want to give the truck back afterwards. It feels great to have developed something that is truly useful," says Lars Simonsson.





reacts to what is being viewed by the

The next step for the project would naturally

support the plant operators in getting





The viewer receives images and information superimposed onto what he/she is looking at.

THIS IS HOW IT WORKS

PHOTO: SÖREN HÁKANLIND

- Augmented Reality (AR) is technology that superimposes a computer-generated image on a user's view of the real world, thus providing a composite view.
- ▷ It uses positional data (for example GPS) or tracks an image or marker. This marker must be in the user's field of view at all times.
- □ Augmented (or supplemented) elements are computer-generated sensory input, such as sound, video, graphics or GPS data.
- AR is related to Mediated Reality, which enhances the perception of reality through computer modification. In contrast, Virtual Reality replaces the real world with a simulated one.
- Augmented reality technology is used in many walks of life, including industry, architecture, medicine and the military, as well as in commerce and entertainment.
- ➢ Google Glass, the most high profile form of smart eyewear, was discontinued in January 2015. However, optical headmounted display (OHMD) technology continues to develop in various forms for the global marketplace.

insights understanding the world around us



3. What is planned for 2015? "Moving Society Forward will be running for the first time this year, it is something that has been requested for a long time by our colleagues. The focus is to learn from and leverage our best practices within traffic and worksite safety, environmental sustainability and skills development. We will then expand the initiatives into other countries where we want to increase our societal commitments. Some of the current initiatives will continue to run, some may transform into other initiatives aligned with our focus areas." 4. How about the interest in CSR internally? "I see a huge interest in CSR. Our employees are highly motivated and engaged and they expect the Volvo Group to act proactively. They see the benefits, both for society and for our business." 5. How can employees contribute? "For many years, our employees have been part of CSR initiatives in their home countries. Now, within the 'Moving Society Forward' programme, the employee volunteering opportunities will be further expanded with a global pilot, to be run in 2015 within GTO." ANN-MARI ROBINSON

HANS PERSSON:

PHOTO: JONAS TOBIN

3D printing is a clear opportunity

(AM) is becoming both more versatile and affordable it is destined to disrupt multiple industries. The key question is how this technology will affect us?

AM is a clear opportunity for the Volvo Group to address future challenges. Specifically, there are three areas we work with where this technology could product development, manufacturing and aftermarket

S 3D PRINTING technology* or Additive Manufacturing

make a difference: product development, manufacturing and aftermarket products. Within product development, the opportunities presented to improve product differentiation and speed up the production of prototypes are exciting. Processes for small series production and tooling are key areas in manufacturing. For the aftermarket, producing spare parts on demand would help reduce supply chain costs and would also improve customer satisfaction through shorter lead times.

WE ARE OF COURSE closely following the developments at other companies. General Electric's aviation division is using 3D printing to produce a fuel nozzle for a new aircraft engine by printing the part with lasers. GM is using AM to enhance quality and lower costs through rapid prototyping and BMW has adopted the technology for building customised industry tools with better ergonomic design.

To summarise, by adopting this route the outcome can be leaner supply chains and possibly greater value contribution from Original Equipment Manufacturers (OEMs). The main benefits are currently for small production series but also for producing complex parts in a lean way. I believe 3D printing has the potential of disrupting the whole vehicle industry but we would need strong partnerships with key suppliers to be successful in this emerging area.



* 3D printing is defined as computer-driven additive manufacturing technology used for producing the final product from a digital model by laying down successive layers of material.

Hans Persson Director Technology Strategy & Innovation in Group Trucks Technology

