

# VITaI news

Special events newsletter

No. 2/2017

Transport & Logistic



**Contents:** Foreign Sales up Almost 21% | Plans Ahead for 2017 | Effective Day-to-Day Assistance to Keep Your Stock on Track | Ptuj Centre Boosts Maintenance Capacities Modernisation of Workshop Capacities at Dobova Centre | SŽ – VIT Now Certified to Knorr-Bremse Brake Maintenance | SŽ – VIT at InnoTrans | Customer Satisfaction Measurement | New Projects 2015-2017



# Dear Visitor!

Two years have gone by in a flash, and I am happy to have another opportunity of introducing our company at this high-profile transport and logistics event. Together with the freight operator SŽ Cargo, we always look forward to coming back to Munich so we can meet our partners in person and build new partnerships.

This is a unique occasion to have a pleasant chat with you amidst the bustling of the fair to exchange information and talk about your wishes and expectations, as well as any issues that might have come up in your day-to-day business. If you are new to SŽ - VIT, let us discuss the options for teaming up and how you could benefit from our services. After all, this is also a venue where corporate meets personal.

Understanding what you need, we grow and develop with you, creating partnerships that last. From VPI- and ECM-compliant wheel-set renewal and freight wagon maintenance to servicing of diesel and electric locomotives – we work hard to deliver on our promises, steadily spreading our good name across Europe. Starting with Austria, we have since won the trust of rail carriers and keepers in Germany, Switzerland, France, Italy and the Netherlands.

Because we value the trust you place in us, we strive to improve our know-how at every step through quick response, flexibility, continuous training, certificates and production updates, and have our results to show for it – almost a fifth of our revenues from maintenance are presently generated from services to foreign customers, with even greater goals set ahead. No matter the time and place, one thing is sure - a satisfied customer is a job well done.

I hope you have a great time at the fair, and also want to wish much success to all the exhibitors.



Dušan Žičkar, CEO

A blue ink handwritten signature of Dušan Žičkar.

# Foreign Sales up Almost 21%

The previous operating period ended on the positive note for SŽ - VIT – the company reported an operating result of €307 thousand, with operating revenues and expenses totalling €113.8m and €113.4m, respectively. Revenues from sales in 2016 show a year-on-year increase of 8.7%, in which foreign sales accounted for more than a fifth, or 20.9%.

Throughout the year under review, we successfully provided the required levels of rail vehicle availability and supplied traction and technical services to our biggest partners in the SŽ Group, SŽ Cargo and SŽ Passenger. We supplied rail maintenance services to companies in the SŽ Group, as well as to non-SŽ customers. In 2016, foreign sales broke the €10m mark – most were generated by wheel-set services, with freight wagon maintenance coming in second – and accounted for almost 20% of the sales generated from maintenance services, or almost 10% of total sales.

The 2016 witnessed our breakthrough in locomotive maintenance supplied to foreign keepers for units operating on the Slovenian network. To make sure locomotives leased-out to carriers are fit to run in real time, access to local workshops is as crucial as low vehicle downtime and quality maintenance when it comes to selecting the right maintenance supplier. Through a full-service approach and custom-made solutions, we have demonstrated our ability to respond to foreign keepers' servicing needs and successfully established our status as a reliable and trust-worthy partner in this field of rail maintenance.

Good results were also reported in sales of technical services to rail carriers throughout the Slovenian network and at border points, largely owing to our 24-hour technical assistance.

The projects completed in the past year showed that customers were satisfied with our service, and are the proof of our growing competitiveness and positioning on the European market.



# Plans Ahead for 2017

This year started off with work in full swing and production almost at capacity. Regular customers that have been with us for long years have chosen to continue their support in 2017, deepening our existing collaboration and bringing the partnership to the next level. Despite things being as busy as ever, this does not stop us from being active on the European market, where we are always on the search for new business opportunities.

The main portion of our portfolio is dedicated to providing a complete support to Slovenske železnice (SŽ) when it comes to maintenance of rolling stock and their components. In addition, we continue to offer tailor-made maintenance solutions and supply services on request to our customers outside SŽ Group, such as VPI-compliant overhauls of freight wagons and wheel-sets, which filled the capacities in both Dobova and Ptuj Centre.

Our biggest potential currently lies in increasing control checks and minor repairs of freight wagons and electric locomotives, as well as on-site train repairs. We have started boosting our market presence and brand recognition in these fields to bring them on par with our presence in wheel-set and freight wagon maintenance.

As we further enhance our cooperation with both foreign customers and SŽ, we recognise the need for continuous improvement in the sense of optimising work processes, ensuring investment in machinery and equipment, and staff training. To this aim, several investment projects were carried out in the previous year to improve the conditions of work and secure the assets necessary to supply one-stop-shop solutions at the highest quality possible, and we intend on continuing this trend in 2017, as well.

Having purchased a floor mounted bogie rotator for Class 541 locomotives, we are now able to supply this type of maintenance at our own workshop. Moreover, Ptuj Centre has recently been upgraded to offer wheel-set shrink-fitting for Pendolino trains, and is one of the few workshops in Europe with the facilities, skills and equipment necessary to handle un/mounting of compact tapered roller bearing units (CTBU). The shop has also received an additional wheel-set sandblasting booth and a designated zone with rails where incoming wheel-sets are deposited to, and has a maintenance hall and testing device for drive units in the works due for completion this year to boost our overhaul services. Upgrades were also made at Dobova Centre, which opened a new entrance-exit hall with an illuminated passageway, a new wagon sandblasting booth, and a new slack adjuster maintenance hall with a certified crew of technicians on the job. These improvements will help us offer a more complete service at higher quality, in turn enhancing our presence on the greater European market.

Much like the year before, we will work hard to complete our orders, honour our contract obligations and meet customer's needs in maintenance. In particular, we will do our best to again demonstrate we are a partner you can count on, offering services as reliable as they are quality. Almost every day, we host visits from our customers and independent certification authorities for annual certification, showing we're on the right track, and must keep up the efforts to further improve.

# Effective Day-to-Day Assistance to Keep Your Stock on Track

The policy of opening up the rail market has become widespread in Slovenia some years ago, and the number of companies involved in rail freight on the Slovenian network has been growing steadily since, now typically including not only rail carriers but also locomotive and wagon keepers who rent their vehicles out to operators without their own rolling stock or with a need for additional stock to meet market demands. To maintain rail safety and ensure low journey times from departure to arrival, vehicles making up a train need to be in top shape, which calls for quality in-house routine maintenance along with minor repairs on-site. This need for day-to-day technical assistance has turned into a market opportunity for SŽ - VIT that was first recognised in freight wagon maintenance, and recently also in diesel and electric locomotive servicing.



**P**reventive and corrective maintenance at SŽ - VIT is supplied from several places across Slovenia in a way which covers the entire rail network, with priority given to the busiest lines. Freight wagons are serviced at Koper, Divača, Zalog, Dobova, Ptuj and Tezno, while Maribor and Ljubljana as well as Divača take care of diesel and electric locomotives. Small repairs on wagons are done on-site without breaking the train consist, while major repairs and overhauls are performed at a specialised workshop in Dobova.

Workshop servicing is provided according to the wagon type, age, load, and the manner of un/loading and shunting. It typically includes various brake repairs, replacement of brake blocks, as well as repairs of axles, steps, walls, valves, etc. Each wagon is handled on a case-by-case basis; after inspecting the vehicle condition, we consult with the customer to decide on the final scope of repairs.

Services supplied on-site include inspections of wagons' mechanical condition and accessories to ensure fitness to run and maintain both safety and quality of transport.

**Preventive and corrective maintenance on freight wagons has been on the rise in the past two years at SŽ - VIT, with growth also noted in sales, which is attributed to affordable prices and offering service quality at the European level.**

On the locomotive side, we continue expanding our maintenance portfolio to best serve the variety of demands expressed by our customers, and the experience gained from years of work with SŽ rolling stock has shown to be invaluable in this regard when seeking out new clients. Next to carriers and locomotive keepers operating on the Slovenian rail network, we also supply services to foreign operators, who typically require maintenance only. Currently, Siemens Vectron is at the top of demand chart for preventive maintenance; work on this locomotive type ranges from control inspections and radio and fire-extinguisher checks to reprofiling of wheelsets when installed. Concerning modern electric locomotives, we offer a complete service for the Siemens Taurus (ES 64 U2), a multi-system locomotive common across Europe, which also accounts for the largest part of our experience in this maintenance field.

Additions to our portfolio in the recent years include periodic inspections of the ES 64 F4, Siemens Hercules (ER20) and Vossloh G6. Our workshops in Ljubljana, Maribor and Divača are specialised for servicing both diesel and electric locomotives, and our know-how continues to grow with each new locomotive leaving the shop.

## SERVICES ON-SITE COMPRISE THE FOLLOWING:

- Technical wagon inspections at designated facilities,
- On-request technical inspections and call-out servicing outside designated facilities,
- Minor repairs on wagons without breaking the train consist,
- Securing of loads without detachment from the consist,
- On-site repairs – outside designated facilities,
- Coupling and uncoupling,
- Complete brake testing (A) at and outside designated facilities,
- Partial brake testing (B, C, D, BC, BD),
- Brake tests using a fixed air compressor,
- Inspecting and accompanying of heavy and outsized loads,
- Consultancy and participation at train loading,
- Keeping train logs and drawing up train consist and brake testing reports.

# Ptuj Centre Boosts Maintenance Capacities

In 2014, our workshop in Ptuj was damaged by a fire, which destroyed a part of the maintenance facilities, machinery and wheel-set material, as well as a passenger coach. To resume operation as quickly as possible, work started in October later that year to renovate the damaged facilities and machinery, purchase new measuring apparatus and tools, and install a new heating and air filtration system.

The restored facilities are presently used in the renewal of freight wagon and locomotive wheel-sets, as well as wheel-sets with tyred wheels, and have recently also come to offer a couple of new services – axle-drive renewals on Series 711, 713 and 813 DMUs and renewals of wheel-sets on Series 310 through monobloc shrink-fitting.

Compared to conventional procedures, shrink-fitting involves heating the monobloc to a specific temperature, which causes it to expand and allow for the insertion of the axle without the use of force. The process is followed by a press-off test that is mandatory when renewing this type of wheel-sets.

To be able to supply axle-drive renewals, which were previously outsourced, we set up the appropriate facilities and purchased the right measuring apparatus and work equipment, as well as ensured proper training of our technicians for this kind of work.



# THERE ARE NO SAFE VEHICLES WITHOUT SAFE WHEELSETS

## VIT keeps them FIT



- IL, IS1, IS2, IS3
- New wheelsets according to TSI
- Replacement of wheel tyres
- Underfloor wheel reprofiling lathe
- Non-destructive testing (VT, UT, MT)



SŽ - Vleka in tehnika, d.o.o.  
Zaloška cesta 217, 1000 Ljubljana, Slovenija



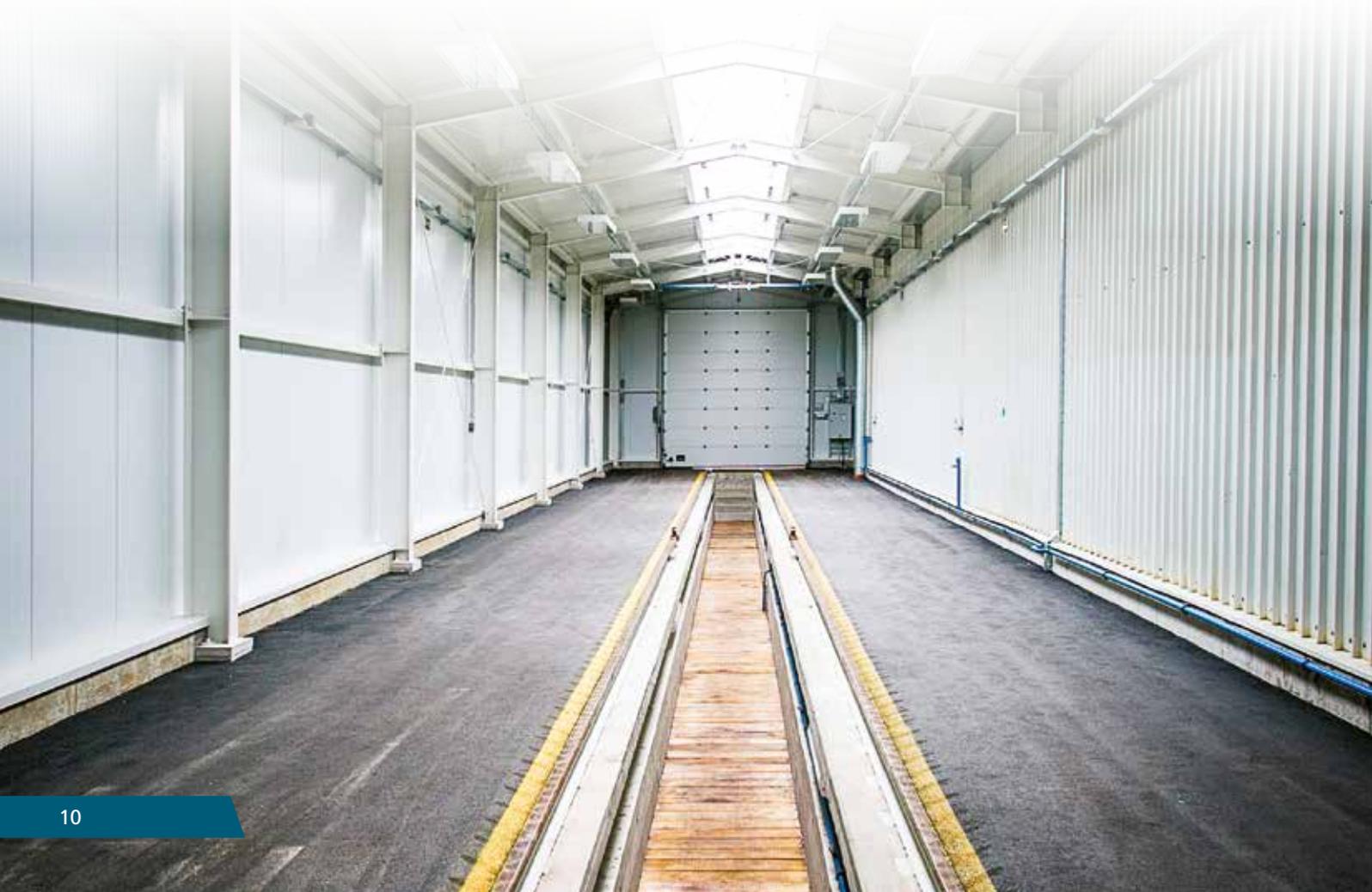
[www.sz-vit.si](http://www.sz-vit.si)

# Modernisation of Workshop Capacities at Dobova Centre

In 2016, our workshop in Dobova received a significant boost in the form of a new maintenance hall with an illuminated passageway used for entry/exit checks and minor maintenance works, such as brake block replacement, brake tests, and wagon label and inscription fixing. The new hall largely streamlined the previously complex logistics inside the workshop, which involve day-to-day movement of a considerable number of wagons to their designated place of servicing according to their maintenance phase while complying with the relevant contract requirements and orders, as well as making provisions for unscheduled vehicle orders, vehicle condition at the shop, and calls for emergency repairs and repairs of train loads.

Earlier this year, sandblasting work was started at the newly constructed sandblasting booth, which is equipped with water-based air filtration, two hose outlets and a reversible sandblasting medium – steel abrasive material in specific sizes. The booth is suitable for all types of standard freight wagons measuring up to 17m in length between the end axles, or with a maximum length-over-buffers of 24.5m. Sandblasting is also supplied for all types of wagon components and other rolling stock, such as track motor cars, DMUs and passenger coaches, as well as for structural steel and similar metallurgy products.

The slack adjuster maintenance shop, which has also been brought up to modern standards, now allows for easier, more transparent and more effective controlled servicing of Knorr slack adjusters and Sab Wabco's DRV 450-600. This kind of work is handled by a specialised team of technicians with access to post-maintenance testing devices for slack adjusters and springs, to spare parts and material, suitable tools and to all relevant manufacturer instructions for work.



# DOBOVA – A ONE STOP SHOP FOR TANK WAGONS

- Repairs and revisions of all types of tank wagons (excluding gas transport wagons)
- Maintenance of bogies
- Maintenance of wheelsets and of draw and buffing gear
- Renewal, installation, and testing of brake devices
- Non-destructive testing
- Repairs and removal of wagon damage and defects (e.g. cracks on welded joints, tank cracks, cracks due to fatigue, bogie cracks etc.)
- Pressure testing of tanks (also for transport of dangerous goods according to RID)
- Washing and cleaning of wagon inner side (including petrol, crude oil, mazut (fuel oil), benzene and chemical substances) and outer side
- Painting of the whole wagon

**We are accredited to carry out pressure testing of equipment and have a certificate for the performance of non-destructive testing (NDT) as well as all the authorizations required in rail vehicle and component welding.**



SŽ - Vleka in tehnika, d.o.o.  
Zaloška cesta 217, 1000 Ljubljana, Slovenija



[www.sz-vit.si](http://www.sz-vit.si)

# SŽ – VIT Now Certified to Knorr-Bremse Brake Maintenance

Situated at the crossing of two major rail corridors, Corridor V and X, Slovenia is part of the European rail transport system. When the rail markets started opening up, foreign rolling stock has started gaining ground on our rail network, introducing new challenges in rail maintenance, in particular when it comes to brake systems. This called for further training, so SŽ - VIT decided to take part in special courses held by the biggest European manufacturer of braking systems for freight wagons, KNORR-BREMSE.

An arrangement was therefore made with Knorr-Bremse in early 2016 to organise training courses for the work crew in charge of brake repairs at the Ljubljana workshop. The courses were held at Knorr-Bremse facilities in Budapest, Hungary, and were split into theory and the practical part organised according to the work processes in brake maintenance. By completing the courses, we have gained new skills and obtained the necessary certificates to carry out scheduled maintenance and repairs on Knorr-Bremse brake systems.



# SŽ – VIT at InnoTrans

Every two years, trade visitors and exhibitors gather at the world's leading trade fair for transport technology InnoTrans to check out the latest technology and advances in the rail industry. Amongst other, the fair is known for its outdoor railway sidings used to exhibit the newest rolling stock, from tank wagons to high-speed trains. In 2016, the fair witnessed over 2,800 thousand exhibitors from 61 countries, including eight from Slovenia. SŽ - VIT was a first time exhibitor at the time along with three other companies in the field of rail technology, namely Anton Blaj, Kovis Group, and Magneti Ljubljana.

**A**part from arranged meetings, our booth hosted numerous visitors, mostly from the rail field, who stopped by to check out our exhibits, in particular a pair of custom-made sofas, which were designed from modified wheel-sets specifically for the fair. Most were looking for quite specific services, with some asking for general information or wanting to introduce their own company and services; all potential customers and suppliers were invited to a meeting to discuss business in greater detail.

This was also an excellent opportunity to visit our customers from the past year and exchange a few words in person, while talking business with existing partners or discussing options for collaboration with those interested in our services. Once again, experience showed that a personal approach is key in business. The following weeks after the fair, our efforts put into the fair were well rewarded as we started receiving new orders. Combining quality of service with flexibility, we work hard to meet your expectations regardless whether you're new to SŽ - VIT or have been around for many years now. One of our goals is therefore to build on the good impression we made at InnoTrans 2016.



# Customer Satisfaction Measurement

With a response rate of 62%, this year's customer satisfaction measurement included a total of 31 companies from Slovenia and other European countries. While the survey targeted our clients from every services category, most responses came from the regular users of our freight maintenance service (wagon and wheelset servicing).

Overall, our partners are found to be very happy to do business with us, as shown by an average score of 4.2 (on a rating scale from 1 to 5) in the business cooperation category, which is slightly up on the result from last year. Moreover, with improvement in customer experience noted in almost every category, the company reached a total average of 4.05 putting our services at a good place from which we can work on making things even more successful. Almost everyone expressed a wish to continue doing business with us, while as many as 28 would recommend SŽ – VIT to their partners.

Overall, the survey results for 2016 have met our expectations, yet that does not leave us complacent about the future, but rather the opposite – we set ever higher goals to achieve, blending established practices with hard work along the way. Moreover, we will be putting in extra work to bring up the survey results which did not quite hit the mark.

Eurolinex GmbH is very satisfied with the collaboration with SŽ – VIT. The communication between us has been open, respectful and effective. The services are high quality and offer excellent value for money. Eurolinex has a high regard for this collaboration, and hopes to see many more such projects in both near and far future.

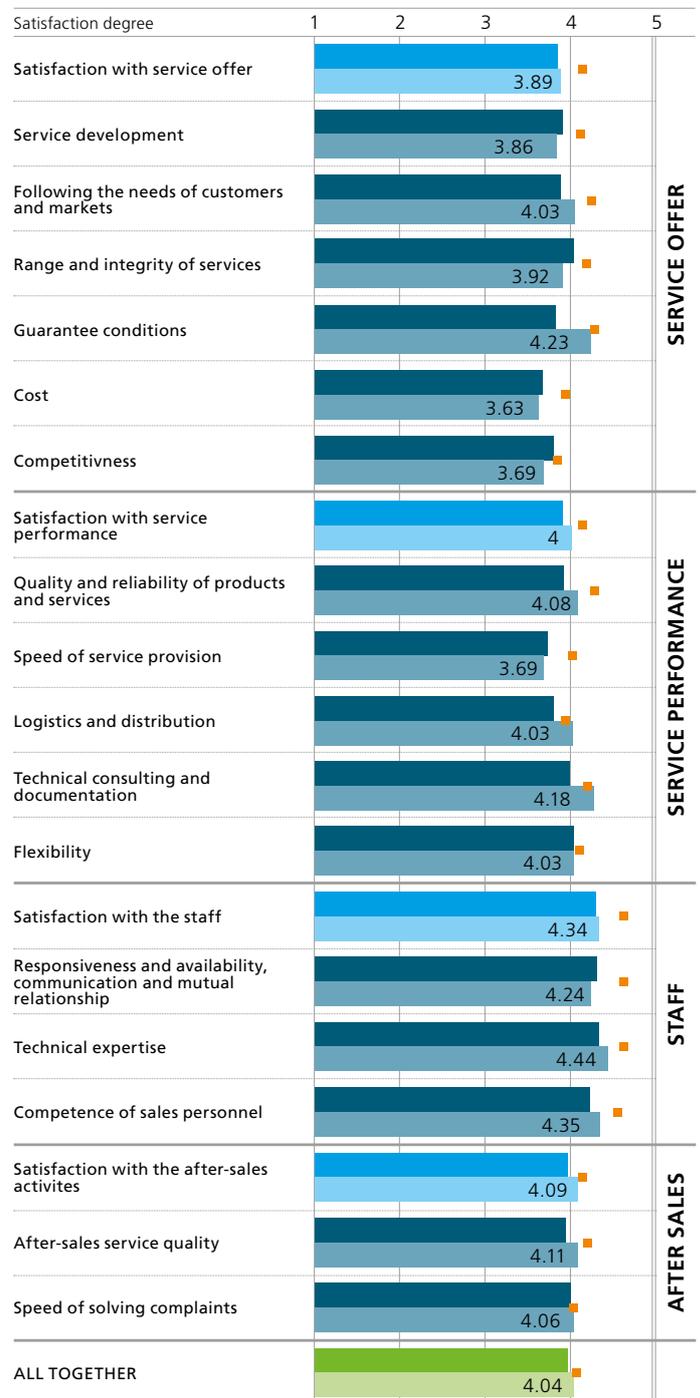
**Nikita Marfut**, Sales, Eurolinex

TWA wishes to give its thanks to the workshop in Ptuj for the work carried out on the wheel-sets and in particular for the quick response. Your goal is to keep customers satisfied, in particular when it comes to solving complaints, and your responsible manner of handling situations supports that.

**Marcel Benzenberg**, Technic Spare Parts, Transwaggon

We consider SŽ - VIT a reliable supplier of wheel-sets who always does its best to meet our expectations, e.g. in specialised wheel-set maintenance. The wheel-set quality fully meets our requirements, the documents comply with the ECM regulations, and the supply deadlines are always met. Both the transport and the operational team-work are a smooth process.

**Karl Eglseer**, Fleet Cluster Manager, LogServ



- satisfaction degree of the group 2015
- satisfaction degree of the group 2016
- satisfaction degree 2015
- satisfaction degree 2016
- goal

## Overhauls of Class 541 Bogies



When Slovenske železnice obtained a set of 32 Class 541 locomotives – the first 20 units were purchased between 2006 and 2007, and the other 12 in 2009 – a fresh challenge was introduced to our maintenance team, as these were the first electric locomotives to have been procured in more than 30 years. At the time of purchase, a contract was concluded with the Austrian maintenance supplier ÖBB – Technische Services for the supply of the locomotives' maintenance and repairs, including bogie overhauls. The 541 is overhauled periodically every eight years, or after reaching a mileage of one million kilometres. While body overhauls of the first 20 units were done at our workshop in Ljubljana, the bogies were overhauled by ÖBB – TS in Linz, Austria.

With 20 overhauls of the 541's body successfully completed, our Ljubljana crew gained enough experience to handle a complete overhaul of the remaining 12 units. For this purpose, a Schmitt floor-mounted bogie rotator was purchased at the end of 2015 along with some additional equipment required in the overhaul process. In early 2016, we proceeded to update the maintenance contract with ÖBB – TS by including an annex to supply bogie overhauls of the said units at our Ljubljana workshop.

In 2016, a total of six Class 541 overhauls were carried out, with the remaining 6 due for completion this year.

## First Major Overhaul of Siemens Desiro



End of 2000, Slovenske železnice received the first few EMU from a total delivery of 30 units purchased for passenger service, with SŽ – VIT set to supply both preventive and corrective maintenance of the new units. Following eight years in service, the EMUs were ready for the first medium overhaul, which started in May 2008 on the 312-007/008. As this was the first overhaul on this class of electrical multiple unit, and the specifics of the maintenance process were therefore still a work-in-progress, we set up a dedicated overhaul crew, designed purpose-built tools and arranged properly equipped facilities and machinery, which allowed us to complete the overhauls of all 30 units with success, as well as carry out a couple of repairs and modifications on request. This involved retrofitting the air conditioning with energy consumption meters and make it run more quietly, replacing the passenger car joints, installing additional earthing on the wheel-sets, repairing window leaks and replacing any inscriptions in German with Slovenian.

In 2016, another eight years have passed since the previous periodic inspection, this time calling for a major overhaul. The work started in September, once again on the 312-007/008, at our workshop in Ljubljana, which is specialised for the maintenance of electric rolling stock. Compared to the previous inspection, the maintenance process in a major overhaul has several additional steps, which mostly involve servicing the traction converters and auxiliary device converters (i.e. repair of converter seals and insulation, which requires disassembling of the auxiliary device converter). A large chunk of the work is also done on the underframe, brakes and the interior. A special new feature of this overhaul was the renewal of the exterior using anti-graffiti films to enable easy removal of graffiti and ensure a better appearance of the unit as a whole.



## Overhaul of Diesel Engines for Srbija Kargo



SŽ - VIT and the Serbian freight operator Srbija Kargo (former Serbian Railways) have been partners for many years now. Our workshop in Maribor, which is specialised for the maintenance of diesel vehicles, performed several locomotive and engine overhauls for our Serbian partner over the past few years.

Our past work includes overhaul of two 16 645E General Motors diesel engines in 2014, with another pair overhauled in 2015, which is fitted in Series 644 locomotives (G22). A major engine overhaul involves disassembling the engine, replacing all main components, washers and bearings, and renewing the cylinder heads.

The project, awarded in a public call for tenders, was completed on schedule, with both engines handed back to the owner in April 2016. The first start-up of the overhauled engine installed in 644-017 was carried out the December 2016, with no engine breakdowns reported at present. The other engine is planned for start-up in the 644-006 this July.

### CUSTOMER STATEMENT:

On 22 December 2016, service was resumed for the 644-017, which was fitted with a DM 12-654E engine No 72-J1-1144 that was overhauled by the Maribor branch of SŽ - VIT. The engine has been operating without issues since then; no irregularities were discovered, and the level of fuel consumption has been kept at the lower limit.

Mladen Ifkovič, MSc En  
Subotica Kargo department - ZOVS

## Routine Maintenance of ES 64 F4



When our business partner Mitsui Rail Capital Europe BV (MRCE) acquired Siemens' leasing company Dispolok it also gained ownership of the ES 64 F4, a Siemens-built four-system locomotive of the EuroSprinter family, which is widely known to rail folk around here as the type was operated by Slovenske železnice in rail freight services before Siemens Taurus units were purchased.

Numbered Class 189-155, the locomotive was leased out to RCC and is currently operating on the Slovenian network, with maintenance done at our workshop in Ljubljana. A P1 inspection (known as »N« inspection within MRCE) was carried out on 7 March under the supervision of an MRCE technician to brush up the skills gained in the past. Following the inspection, the workshop acquired a certificate for this level of maintenance work.

The P1 inspection comprises a visual check of the locomotive, replacement of the air-conditioning filter, sand refilling, refuelling, thickness measuring of the pantograph strip and the brake disc, wheel measuring, and a final locomotive check at exit from the workshop.

Ready for service, the 189-155 left the electric maintenance workshop, and will be returning again for the next scheduled servicing. While »N« inspections are now carried out independently, the remaining levels are still performed under MRCE supervision until a licence is obtained from the keeper for each respective maintenance level.



## Maintenance of Siemens ER20



When ER20, a Siemens diesel locomotive of the Eurorunner family, joined the locomotive fleet of Slovenske železnice back in 2014, SŽ - VIT workshops were working hard to rise up to the new challenge and continue providing full support to SŽ Cargo in diesel traction. Several units are currently running service on the Slovenian and Croatian network under SŽ and other operators, with maintenance supplied by SŽ - VIT.

Given our hands-on experience with maintenance of as many as 32 units of Taurus U4, another Siemens-built locomotive, we had a good head start to tackle the ER20. There is, however, a significant difference between the two when it comes to maintenance scheduling – while electric tractive units are inspected according to mileage, diesel locomotives such as the Eurorunner are sent to the workshop when reaching a set number of hours in service.

With the training that our team of technicians from Center Ljubljana and Center Maribor received by MRCE three years ago, we were fully ready to carry out the periodic inspection scheduled at the 500-hour mark (referred to as W2 at MRCE), and completed it successfully at the end of August 2014. Our team have also been trained at a partner workshop for maintenance of the ER20 up to Level W4 (2,000 hours in service), granting us the relevant certificate of competence.

Our work in 2017 includes control checks of the Eurorunner locomotives for Beacon Rail, Adria Transport, and RTS along with wheel turning and minor repairs outside preventive maintenance, which are supplied on a case-by-case basis and arranged with the owner.

### CUSTOMER STATEMENT:

We feel satisfied with the servicing work done on the ER20 locomotives. So far, the maintenance was carried out at Level W2 (at every 500 hours of operation). The quality of supplied services was at an appropriate level, and we are also satisfied with the way the process is organised and the flexibility displayed by the workshop when scheduling the maintenance work. We look forward to the forthcoming certification of the workshop to higher levels of this kind of maintenance.

**Viktor Šinkovec,**  
Head of Technical and Technology Department

## Overhaul and Painting of Regmms



In 2016, we once again received an order by our Czech customer LOKO TRANS for an overhaul of 12 Regmms freight wagons. The work included a G4.0 overhaul, complete painting of all 12 units, replacing the timber floor with metal panels, installing wagon sidewalls, and adding a new exterior design for the end customer.

As a VPI- and ECM- certified workshop, we were able to supply a quality service that successfully fulfilled the expectations of the end customer from Italy at the final inspection and wagon hand-over.

### CUSTOMER STATEMENT:

We were satisfied with the nice communication and work of SŽ – VIT regarding the delivery of 12 wagons type Regmms for our Italian client.

**Veronika Flodrová,**  
Sales Department



## Inspection of Vossloh G6



It wasn't long before the most recent addition to the locomotive fleet of the Port of Koper, a Vossloh G6 shunting locomotive, reached enough hours in service to be ready for its first inspection. The manufacturer agreed to entrust this important task to our team in Divača, who have all the necessary qualifications for this type of maintenance.

The first servicing, scheduled after reaching 500 operating hours, included a thorough inspection of the unit and its key components along with replacement of the oils and filters in the engine compartment. With the work successfully completed, the locomotive returned to service until it hit the 1000-hour mark, which called for another inspection according to the manufacturer's list of maintenance work.

A couple of years passed until this beauty of the port came chugging again down the entrance to our Divača shop. It was 2016 when the locomotive's time in service reached the 5000-hour mark, which required more extensive servicing. In line with the manufacturer's instruction of work, a thorough inspection was carried out on all key components: from wheel-sets, brakes, and buffing and draw gear to electric equipment, pneumatic parts, and the diesel-hydraulic driveline. Inspection of the diesel engine was performed by an authorised supplier of Cummins engine maintenance from an Italian town of Portogruaro (Venice) who did a complete check of the fuel injection system and, using a special diagnostic tool, examined the on-board computer diagnostic system for trouble codes. The check also involved replacing the filters, oils and other fluids, as well as a first-time inspection of the VOITH hydraulic system. Overall, the manuals that came with the locomotive were helpful in keeping the work process smooth and clear of any major issues.

## Maintenance of ELL's Vectron Locomotives



In the second half of 2016, our workshop in Ljubljana took up maintenance of the Vectron electric locomotives owned by European Locomotive Leasing (ELL). Our team are certified by the Austrian maintenance supplier ÖBB – TS to supply N30 control checks, also known as P1 checks, which are carried out after every 30,000 km in service.

The workshop is currently in charge of 5 such units, which arrived for regular maintenance. With the Vectron gaining more and more ground on the Slovenian network, SŽ – VIT held a training course for I1 (P6) and I2 (P12) control checks led by a Siemens technician, who will also head the practical part of the course due this year. This will help us gain additional skills, as well as the certificates necessary to carry out I1 and I2 control checks.

## Our Customers

 Slovenske železnice				
				
				
				
				
				
				
				
				
				
				

# MAKE SURE YOUR VEHICLES STAY SAFE AND RELIABLE



VIT keeps them FIT - at six different spots across Slovenia



SŽ - Vleka in tehnika, d.o.o.  
Zaloška cesta 217, 1000 Ljubljana, Slovenija



[www.sz-vit.si](http://www.sz-vit.si)