

PREFACE

1,000 INNOWAGGONS IN **USE FOR OUR CUSTOMERS**

Our heart beats for the rail. We are convinced that goods should be transported by rail in order to relieve the road network and reduce environmental impact. That is why we along with our rail partners and industrial customers are constantly working to develop freight solutions which prove the economic and logistical efficiency of the rail freight transport on a daily basis.

In 2018, we were able to put the 1,000th InnoWaggon onto rail. And we presented new structures, such as the Smart GigaWood-wagon with a modular stanchion system for timber, which has pushed the timber transportation in Europe into a new dimension. The SlurryTainer and the InnoTainer-Coils also expand our portfolio with a range of solutions for industrial sectors depending on the high-performance freight transport.

Together with the major cargo providers in Austria, the Czech Republic, Slovenia, Germany, Sweden and Spain, we face the challenges of a dynamic market. We shall continue to apply innovative solutions to achieve logistical and economic added value for industrial customers throughout

Our annual review shall provide you with an overview of the most important innovations of 2018 with an outlook of our plans for 2019. With our highly motivated and experienced teams and a new organisational structure which has run well in 2018, we are well prepared for any kind of tasks that will come. Bearing this in mind, we would like to thank our partners and customers for the brought confidence and are looking forward to further successful joint projects!

DI Peter Wanek-Pusset & Bernhard Grentner

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FOCUSING ON THE STRENGTHS

2018 WAS A GOOD YEAR FOR LOGISTICS COMPANIES THROUGHOUT EUROPE. WITH THE ECONOMY BOOMING, INDUSTRY IS EXPERIENCING OUTSTANDING PROSPERITY. EVERYTHING THAT HAS WHEELS IS ON THEIR WAY TO DELIVER RAW MATERIALS AND ENERGY SOURCES TO INDUSTRIAL CUSTOMERS AND TO DELIVER END PRODUCTS TO CUSTOMERS.

2018 was also very successful for Innofreight: New products were presented, and the 1,000th InnoWaggon was handed over and innovative solutions have been tested for new industries. The following pages of the 2018 annual review shall report in detail. The new organisational structure with subsidiaries for Sales & Services with their offices in Austria, the Czech Republic, Germany and Sweden has also run adapted to all important gauges within

continental Europe. Innofreight's rail stock has also been designed to meet the future challenges such as the EU noise protection directives for rail freight traffic, coming into force in 2020. The modular Innofreight system is now being imitated by companies also sending lightweight wagons onto rail - of course without being able to offer a wide-ranging portfolio of structures tailored to the needs of industrial in well in 2018. The InnoWaggon was customers. Innofreight takes a relaxed view of the competition.





INNOFREIGHT SOLUTIONS GMBH - TECHNO

MAKING GOOD THINGS **EVEN BETTER**

INNOFREIGHT PROVIDES ITS CUSTOMERS WITH SOPHISTICATED ENGINEERING SOLUTIONS FOR RAIL FREIGHT TRANSPORT. THE TECHNICAL HEART OF THE COMPANY BEATS AT INNOFREIGHT SOLUTIONS GMBH.

Innofreight Solutions in Bruck an der Mur is working on the further development of rail and stationary Innofreight equipment, which have become the industry standard in many industries. Innofreight Solutions searches for ideas and suggestions from their railway partners and industrial customers bringing them to new solutions. In 2018, the company has been working on improvements in all three areas of its integrated rail logistics system: wagons, containers, pallets and unloading systems.

NEW WAGONS FOR THE WHOLE OF EUROPE

Whether the standard gauge, Russian broad gauge or Iberian broad gauge: Since 2018, the InnoWaggon has been available for every gauge from Portugal to Russia. The variety of InnoWaggons has not only increased concerning the gauge, but also in terms of length, meaning a greater flexibility. In addition to the "classic" 2x40ft InnoWaggon, there are also 2x45ft InnoWaggons available now for XXXL wood transports and shorter 2x30ft InnoWaggons for heavy loads such as steel products or liquid transports. The lightweight construction of all three InnoWaggons combined with the modular superstructures enables higher payloads than possible with conventional freight wagons.

The new SlurryTainer and above all the Smart GigaWoodwagon for more efficient log transport presented at

NEW CONTAINERS AND PALLETS FOR EXPANDED

INDUSTRY SOLUTIONS

InnoTrans Berlin are the key product innovations for 2018. But these are not the only ones: Innofreight has also adapted the liquid transporter to fit the needs of the customers from the chemical industry in terms of transporting hazardous goods: The ChemieTainer shall be delivered in 2019. Thanks to the removable tank, maintenance and servicing are easier than with conventional tank wagons.

HEAVY TRANSPORTS WITH CLEVER CONTAINERS AND PALLETS

Light-weight wagons is the motto of the Innofreight industry solution for the steel processing industry: In the months to come, high-performance Coilpaletts and InnoTainer-Coils for transporting of heavy-weight semi-finished and finished steel products shall be introduced. The robust system is extremely appealing for raw material transports of all kinds.

Fewer trains and still more timber reaching its destination - this is the performance of the Smart GigaWood-wagon from Innofreight, which was welcomed with open arms by the wood processing industry in Europe in 2018. The timber giant had already completed its maiden voyage in Sweden





vears of Kalmar Austria GmbH

Stationary unloading machine at Mondi Štětí a.s.

equipment technology. Cargotec, the manufacturer of the Kalmar unloading forklifts for Innofreight, is working on a forklift which can handle up to 75 tons instead of the former 45 tons. This represents a huge leap for loading and unloading of even the heaviest freight.

Innofreight's stationary unloading machines already provide a high degree of automation, combined with shorter unloading

> times and reduced personnel expenditure. The customers had expressed their wish for fully automatic unloading possibilities. Innofreight is currently in the process of developing systems to achieve this goal in 2020.

INNOFREIGHT SOLUTIONS GMBH - ECO

GROWTH REQUIRES CHANGE

THE WORLD CHAMPIONS ARE RELATIVELY SMALL COMPANIES WITH A BIG IMPACT ON THE INDUSTRY. SUCH AS INNOFREIGHT. THE COMPANY'S STRONG GROWTH IS SUPPORTED BY THE NEW ORGANISATIONAL STRUCTURE WHICH HAS ALREADY PROVEN ITSELF IN THE DAY-TO-DAY BUSINESS.

Innofreight has established itself as an innovative benchmark within the European rail logistics market and has recorded strong growth in the recent years. Alone the number of employees has grown from 50 to 80 since 2017. In addition, the product portfolio has been expanded, new international markets have opened up and the customer base has expanded.

All this made it necessary to adjust the company structure. The project ITECCO Demo (Abbreviation for "Innovative Transport Equipment for Coal, Coke and Ore"), funded by the EU within the framework of the Horizon 2020 SME programme, has enabled Innofreight to obtain professional support in order to respond to the challenges of growth and increasing internationalisation optimally.



Within the framework of ITECCO Demo, Innofreight entered a holding structure with InnoWaggon GmbH and Innofreight Speditions GmbH as asset companies and Innofreight Solutions GmbH as the central controlling company for the subsidiaries in Austria, the Czech Republic, Scandinavia and





& Logistics GmbH, the main vehicle of the group is thus ideally equipped for the further growth of Innofreight throughout Europe.

INNOFREIGHT **AUSTRIA GMBH**

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INNOVATIVE IMPULSES FOR DEMANDING **MARKETS**

INNOFREIGHT AUSTRIA GMBH HAS BEEN HANDLING THE OPERATIVE BUSINESS OF INNOFREIGHT SOLUTIONS IN AUSTRIA, POLAND, SLOVENIA, PORTUGAL, SWITZERLAND, ITALY, SPAIN, AND THE BALKANS SINCE 2016.

Raw materials and energy sources for steel production, biomass for heating and power plants, wood, wood chips and slurry for paper and pulp production: In 2018, all of these goods were transported throughout Europe with the wagons and containers and palettes from Innofreight Austria. A total of 4,500 containers, 1,000 pallets and 400 InnoWaggons were used as a means of transport; 14 forklifts and a stationary unloading station ensured smooth loading and unloading.

Austria, Poland and Slovenia are the core markets of Innofreight Austria GmbH; some major projects were also implemented in Portugal and Switzerland in 2018. In these highly-developed national markets, only those can take a stand who offer innovative products and carefully considered total solutions for logistical requirements. Innofreight is a proven, inspiring partner for rail and industrial customers alike.



INNOFREIGHT IS FOR US THE MOST INNOVATIVE COMPANY TO CREATE NEW RAILWAY SOLUTIONS, ALWAYS OPEN MINDED, SOLUTION ORIENTED AND DRIVEN BY A HIGHLY MOTIVATED AND INSPIRED TEAM. WE LIKE TO **WORK WITH THEM!**

Mondi AG, Vienna, Austria

KEY FACTS

INNOFREIGHT AUSTRIA GMBH

OFFICE: Bruck an der Mur

SUPERVISED AREAS:

Austria, Poland, Slovenia, Portugal, Switzerland, Italy, Spain, Croatia, Serbia, Bosnia and Herzegovina

CEO: Primož Rauter

EMPLOYEES IN SALES & SERVICE: 10 people

SPOKEN LANGUAGES:

German, English, Slovenian, Italian, Polish, Russian,

Croatian

EQUIPMENT IN USE

Containers: 4,500 **Paletts:** 1,000 InnoWaggons: 400

Stationary unloading machine: 1

Forklifts: 14



Primož Rauter CEO INNOFREIGHT Austria GmbH Grazer Straße 18, 8600 Bruck an der Mur, Austria primoz.rauter@innofreight.com

ORE, COKE AND COAL FOR STEEL PRODUCTION

INNOFREIGHT PROVIDES VOESTALPINE AG ORES FOR SMELTING IN LINZ AND DONAWITZ AS WELL AS COKE AND COAL FOR FIRING THE DONAWITZ BLAST FURNACE.

The Austrian steelworks of the voestalpine AG are among the most modern ones in the world. Innofreight Austria is proud to have been able to support the high-tech steelworks for several years now with the innovative solutions in the rail freight transport.

With the InnoWaggons, the Rail Cargo Group and the Slovenian state railway SŽ transport large quantities of ore for the steel production in Linz and Donawitz. The trains equipped with RockTainer ORE run both between the international port of Koper, Slovenia, where iron ore is handled from the world market, as well as between the Styrian Erzberg and the steelworks in Donawitz. The unloading of the trains weighing thousands of tons takes place without any physical effort by simply activating a pneumatic lever. Such an operation is much easier than with conventional self-unloading wagons — and that with more net load!

The Donawitz steelworks is also the site of a stationary combined unloading station for coal and coke, which went into operation in 2015. It was built by Innofreight in cooperation with the

voestalpine AG and the Rail Cargo Group. The energy carriers such as coal and coke delivered to Donawitz with the MonTainer are distributed directly from the unloading plant to the steelworks via conveyor belts. The stationary unloading system is operated by one person using a joystick directly from an air-conditioned operator's cabin-protected from dust and noise.





ORE TRANSPORT

ADVANTAGES: larger loading volume and faster, safer unloading with less effort

EQUIPMENT: InnoWaggon 80ft, RockTainer ORE

CUSTOMER: voestalpine AG

RAIL PARTNER: Rail Cargo Group, Slovenske železnice (SŽ)









COAL AND COKE TRANSPORT

ADVANTAGES: Automatic unloading directly onto conveyor belts, low personnel costs, high work safety for the operator or unloader

EQUIPMENT: Stationary unloading machine, InnoWaggon 80ft, MonTainer XXM und XXL

CUSTOMER: voestalpine AG

RAIL PARTNER: Rail Cargo

Group

GYPSUM WELL GROUNDED

THE INNOFREIGHT EQUIPMNET STANDS THE TEST EVEN IN THE COLD WINTER MONTHS - NO MATTER WHETHER FINE FGD GYPSUM OR COARSE-GRAINED NATURAL GYPSUM HAS TO BE DELIVERED TO THE BUILDING MATERIAL MANUFACTURER KNAUF.

The FGD gypsum is obtained from the flue gas desulfurisation plant (FGD) of the lignite-fired power stations. The material is chemically identical with natural gypsum and is mainly used in the gypsum and cement industry to produce building materials such as plaster, plasterboards and screeds.

In cooperation with the Rail Cargo Group and VTG Rail, Innofreight supplies the Knauf plant in Weißenbach near Liezen with titanium gypsum from Slovenia, FGD gypsum from the Czech

Republic and natural gypsum from Austria. In the cold winter months, when the material is compressed and freezes, gravity discharging would be virtually impossible for conventional freight wagons due to the residual moisture content of approx. 10%. The modular Innofreight system consisting of InnoWaggons and WoodTainer XXM can be easily unloaded all year round using the unloading forklifts that can rotate the containers up to 360°. Even during the cold, humid days in

WE ARE PLEASED TO BE PARTNERS WITH INNOFREIGHT IN DEVELOPING AND IMPLEMENTING INNOVATIVE TRANSPORT SOLUTIONS. YOU CAN CLAIM TO HAVE HELPED TO SHAPE AND DEVELOP THE RAILROAD WORLD — THAT IS A LIFE-LONG ACHIEVEMENT.

VTG Rail Logistics Austria GmbH, Vienna, Austria



WATCH THE VIDEO! Forklift unloading of gypsum



GYPSUM TRANSPORT

ADVANTAGES: Easy unloading even in cold winter months

EQUIPMENT: InnoWaggon 80ft, WoodTainer XXM

CUSTOMER: Knauf AG

RAIL PARTNER: Rail Cargo Group, VTG Rail Logistics



PREMIERE FOR THE SLURRYTAINER

IT WAS SUCCESSFULLY TESTED IN 2017, AND SINCE 2018 IT HAS BEEN REGULARLY ON ROUTE: THE NEW SLURRYTAINER, INNOFREIGHT'S FIRST RAIL TANK WAGON.

2018 it has been regularly on route: the new SlurryTainer, Innofreight's first rail tank wagon. Innofreight has taken on another segment of the freight transport market, namely the transport of liquids. In particular, it deals with the transport of suspended calcium carbonate, also known as "slurry". Slurry has a high specific density of 1,700 to 2,000 kg per m³ and is mainly used as a filler material in the paper production.

Since 2018, 10 InnoWaggons with 20 specially developed SlurryTainers have been on route in Austria. Compared to conventional liquid wagons, they have a higher payload weight of 142

It was successfully tested in 2017, and since tonnes per wagon, are more cost-effective to maintain over their entire life cycle and can be handled flexibly thanks to their modular design. And their design is refreshing anyway.



WATCH THE VIDEO! SlurryTainer in





Innofreight Austria Gmbh

QUIDS

CROSS-BORDER BIOMASS **TRANSPORT**

INNOFREIGHT PROVIDES POLISH POWER PLANTS WITH BIOMASS. DIFFERENT GAUGES ARE NO OBSTACLE.

Together with its Polish partner Skarna Sp. z o.o, Innofreight has set up a flexible logistics network in Poland to provide the power plants throughout the country with biomass. The most significant part originates from Poland: Twelve trains with 1,200 WoodTainer XXL are on route to deliver the heating material. A big share of the raw material comes from the neighbour country Belarus.

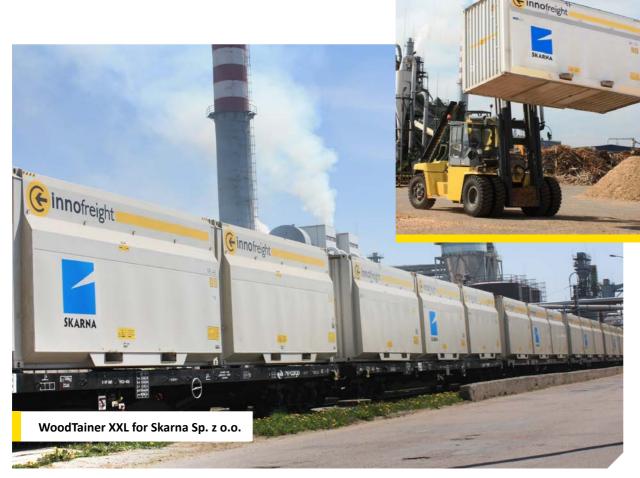
In the past, the foreign freight was reloaded at the border. In 2018 Innofreight started a promising test: The WoodTainers were posed on the Belarusian wagons and loaded directly by the Belarusian biomass supplier. The Innofreight containers are compatible with the eastern broad-gauge wagons - a promising model for the future rail freight solutions with Eastern European and Asian countries.

BIOMASS TRANSPORT

Advantages: A modular system, higher payloads possible, also suitable for broad gauge

EQUIPMENT: InnoWaggon 80ft. WoodTainer XXL

CUSTOMER: Skarna Sp. z o.o.



A RELIABLE PARTNERSHIP WITH SŽ CARGO

SŽ Cargo has been an important rail partner of Innofreight for many years. In September 2018, the Slovenian cargo partner received the 100th 1e InnoWaggon at the container terminal in Ljubljana. The wagon was pulled by the yellow-white painted Taurus of SŽ Cargo. The loco in Innofreight colours has been in service between Slovenia and Austria since June 2018 and is a symbol of the excellent cooperation between these two companies.



EVENT





TIMBER ROLLS THROUGH EUROPE

TIMBER AND WOOD CHIP TRANSPORTS ARE A PART OF THE INNOFREIGHT AUSTRIA'S CORE BUSINESS. IN ORDER TO SUPPLY THE LEADING AUSTRIAN PAPER AND PULP MANUFACTURERS WITH RAW MATERIALS, AROUND 500 WAGONS WITH INNOFREIGHT CONTAINERS AND PALETTS WERE ON ROUTE WITHIN THE EUROPEAN ROUTE NETWORK IN 2018.

Innofreight equipment has also been used on the Iberian Peninsula for several years now: Trains with stanchions structures have been running for several years between the forest areas in Spain and pulp producers in Portugal. And in Austria and Switzerland, Waggons are on route with the AgroTainer Open Top.

Timber transports are recording high growth rates in Europe, and Innofreight offers decisive logistics advantages in this segment to its cargo partners: At InnoTrans 2018 in Berlin, the company presented innovative stanchions structures for maximum loading capacities and a new 90ft InnoWaggon. From the great interest in this combination, which was developed together with Papierholz Austria, it can be concluded that it shall be used on several routes in Europe in the future with unprecedented quantities of timber.

TIMBER TRANSPORT

ADVANTAGES: Pallet and stanchion wagons can be used flexibly

EQUIPMENT: InnoWaggon 80ft, stanchions structures, AgroTainer OT

RAIL PARTNER: Rail Cargo Group, DanuRail, Takargo/ Ibercargo

WOOD CHIPS **TRANSPORT**

ADVANTAGES: A modular system with increased capacity

EQUIPMENT: InnoWaggon 80ft, WoodTainer XXL

PARTNER: Rail Cargo Group and Papierholz Austria GmbH

INNOFREIGHT BRINGS US YEARS OF PARTNERSHIP AND MOTIVATION FOR MOVING BOUNDARIES IN LOGISTICS!

Papierholz Austria GmbH, Gratkorn, Austria



"SMART GIGAWOOD" IN ACTION

Right in the thick of it – not just on the sidelines, was the motto on 14th November 2018 technology. in Gratkorn. Together with the project development partners Papierholz Austria, LinkinBiz and TU Graz, Innofreight invited to the presentation of the new Smart GigaWood-wagon for timber transport. The innovative 2x45ft wagon was unloaded in front of the numerous guests.

Customers, freight forwarders and experts could convince themselves of the efficiency and the advantages of the well-grounded

Among other things, the advantages include:

- 100% safety against overloading,
- higher availability,
- approx. 40 % less unloading costs.



VENT







INNOFREIGHT AUSTRIA GMBH

SERVICE & FORECAST

SALES-HIGHLIGHTS 2018

- Raw materials supply for voestalpine Donawitz
- Biomass network Poland with raw material from Poland and Belarus
- Raw materials supply for the manufacturer of construction materials Knauf. Weißenbach bei
- First fluid transports with InnoWaggons
- Equipment for the transportation of timber in Portugal, Austria and Switzerland

THE HIGHEST QUALITY AT **SERVICE & EQUIPMENT**



OUR HIGH SERVICE QUALITY AND THE STATE-OF-THE-ART EQUIPMENT ARE HIGHLY APPRECIATED BY OUR CUSTOMERS AND RAILWAY PARTNERS. WE ARE IN PERMANENT CONTACT WITH OUR BUSINESS PARTNERS IN ONGOING OPERATIONS. DUE TO THIS FACT AND THE HIGH MAINTENANCE LEVEL, THE INNOFREIGHT SYSTEM PROVIDES ITS CUSTOMERS WITH UNDISTURBED PRODUCTIVITY AND EXCELLENT PERFORMANCE.





2019: FURTHER DEVELOP-MENT OF COMPETENCIES

Enhancing the strengths and expanding competencies these are the plans of Innofreight Austria for 2019. Up to 200 new InnoWaggons are to be put on rail. The focus shall still be on the transport of energy sources and raw materials for industrial customers, complemented by the transport of finished products.

With the introduction of the new 90ft InnoWaggon, the basis has been laid for the further expansion of the timber transport with partners in Austria, Slovenia and Portugal. The aim is to bring around 100 new stanchion wagons with increased loading capacity into service in 2019. The transport of liquids will also play an increasingly important role.

Last but not least, the test runs on the broad gauge in Belarus turned out so promising that Innofreight shall be working on the expansion of its broad-gauge system in





INNOFREIGHT CZECH S.R.O.

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ATTRACTIVE TRANSPORT **SOLUTIONS IN THE HEART OF EUROPE**

FOR THE LAST SEVERAL YEARS, THE CZECH REPUBLIC, ROMANIA AND SLOVAKIA HAVE BEEN RECORDING ABOVE-AVERAGE ECONOMIC GROWTH RATES WITHIN THE EU. INNOFREIGHT CZECH SERVICES THESE DYNAMIC MARKETS VERY CLOSE TO THE NEEDS OF THE CUSTOMERS.

countries like Romania and the Czech Republic are at the growth forefront. The transport sector is also feeling the effects of the positive economic situation: Everything able to roll, is currently rolling on rails. After all, the industry needs energy and raw materials for its production facilities.

Thanks to a reliable logistics partner, Innofreight Czech can offer an

Europe's economy is booming, and the innovative logistics concept for raw material, energy, steel and agricultural transports to many industrial customers, which shortens turnaround times and reduces costs.

> This makes the railway more attractive and more transports are shifted from road to rail - which also constitutes benefits to the neighbours of power plants and production sites.

KEY FACTS

INNOFREIGHT CZECH S.R.O.

OFFICE: Brno

SUPERVISED AREAS:

Czech Republic, Slovakia, Hungary, Romania, Bulgaria

CEO: Petr Valach

EMPLOYEES IN SALES & SERVICES:

11 people

SPOKEN LANGUAGES:

Czech, Slovak, German, English, Polish



"WE VALUE THE EXISTING COOPERATION VERY POSITIVELY AND BENEFICIALLY FOR BOTH SIDES. WE APPRECIATE THE PROFESSIONALISM OF THE INNOFREIGHT TEAM AND WE ARE HAPPY TO COOPERATE WITH INNOFREIGHT IN THE FUTURE AS WELL.

Mondi Štětí a.s., Štětí, Czech Republic

EQUIPMENT IN USE

Containers: 2,330 **Paletts:** 1,190 InnoWaggons: 315

Stationary unloading machine: 3

Forklifts: 12



Petr Valach CEO INNOFREIGHT Czech s.r.o. AZ TOWER, Pražákova 1008/69, 639 00 Brno, Czech Republic petr.valach@innofreight.com

INDUSTRY STANDARD FOR WOOD CHIPS

INNOFREIGHT CZECH, TOGETHER WITH ITS RAIL PARTNER ČD CARGO SETS THE INDUSTRY STANDARD FOR TRANSPORTING WOOD CHIPS AND TIMBER BY RAIL AND RELIEVES INDUSTRIAL SITES IN THE CZECH REPUBLIC, SLOVAKIA AND AUSTRIA OF TRUCK TRAFFIC.

In Štětí, approx. 40 kilometres north of Prague, Mondi operates one of the leading paper mills in the Czech Republic. The wood chips have been transported to the plant since 2005. In the spring of 2018, a new stationary unloading machine was handed over to the plant. Three block trains per day are handled here by only one worker.

about 30,000 fewer trucks per year

the delivery volume considerably, combined

with the higher work safety and the reduction in operating costs. And more importantly: Thanks

to the attractive overall system, Innofreight, to-

gether with ČD Cargo, was able to transfer traffic from road to rail. The residents of Štětí are happy

FULLY AUTOMATIC SAMPLING

Unloading and onward transport of the WoodTainer XXL take place at the push of a button with unloading times of around 2 minutes per container; sampling of wood chips also runs on a fully automatic basis. The samples are necessary in order to determine the water content of the wood and to be able to calculate the load according to ATRON tons.

The WoodTainer XXL in combination with the new unloading station enables Mondi to increase



In addition to Mondi Štětí, Innofreight Czech and ČD Cargo supply numerous other paper, wood and pulp mills in the Czech Republic, Slovakia and Austria with raw materials.

WOOD CHIPS FROM THE UKRAINE AND TIMBER FROM POLAND AND GERMANY are processed into paper and pulp at one of Mondi's largest paper mills in Europe in Štětí (Czech Republic). The delivery takes place in MonTainers XXL or on wagons with stanchion structures.

As part of the Czech "WOOD & PAPER WOOD CHIP NETWORK", wood chips are transported from sawmills in Eastern and Central Bohemia to Lenzing Biocel in Paskov (the Czech Republic) and to Sappi in Gratkorn (Austria).

WASTE WOOD FROM ALL OVER EUROPE is processed at Kronospan in Jihlava (Czech Republic) into fixing plates and structural wood panels. The delivery takes place in MonTainers XXL.



WATCH THE VIDEO!

station at the power plant

Stationary unloading

in Štětí.

WOOD CHIPS TRANSPORT TO ŠTĚTÍ

Stationary unloading machine at Mondi Štětí

ADVANTAGES: Quantity increase; rapid dispatch incl. automatic sampling; noticeable relief to the road network

EQUIPMENT: Stationary unloading machine, 450 WoodTainer XXL, 60 AgroTainer OT

CUSTOMER: Mondi Štětí a.s.

RAIL PARTNER: ČD Cargo







ENERGY

COAL FOR CHVALETICE AND OPATOVICE

THE CHVALETICE POWER PLANT IN EASTERN BOHEMIA IS EQUIPPED WITH THE HIGHEST CHIMNEY IN THE CZECH REPUBLIC – AND SINCE APRIL 2018 ALSO THE MOST MODERN LIGNITE UNLOADING STATION.

Together with ČD Cargo, Innofreight had officially commissioned the tailor-made lignite logistics at Sev.en EC in Chvaletice power station in April 2018. The stationary unloading facility enables unloading 2,500 tons of lignite per block train – 400 tons more than before.

At the destination, the electrically operated pushing robot "Golem" moves the wagons to the unloading station, where the containers are unloaded through tilting. In order to reduce dust generation, water is finely atomised in the infeed hopper. The entire system is operated by one person using joysticks from an air-conditioned cabin.

The unloading of a block train takes place in less than 3 hours and enables train turnaround times of 24 hours.

SAFE UNLOADING ALSO IN WINTER

The coal is transported by conveyor belts to the warehouse or to the boiler. The unloading machine ensures reliable winter operation even at very low temperatures, and the use of the pushing robot significantly increases the work safety.

THE ROLE MODEL OPATOVICE

Innofreight Czech was able to draw on its prior experience during the construction of the unloading machine in Chvaletice: In 2017, the first stationary Innofreight tilting station in the Czech Republic was successfully commissioned at the Opatovice power station in Eastern Bohemia. The lignite used to operate this power plant comes from mines in northern Bohemia and partly Poland. Together with EP Cargo, Innofreight uses 70 InnoWaggons and 280 MonTainers to transport the coal to Opatovice.

WE ARE THANKFUL THAT INNOFREIGHT IMPLEMENTED A STATIONARY UNLOADING MACHINE, WHICH BECAME AN INTEGRAL PART OF THE COAL HANDLING. THIS PROJECT FULFILLED ALL OUR EXPECTATIONS. WE RELY ON THE CONSTRUCTIVE AND PROFESSIONAL APPROACH OF INNOFREIGHT.

EP Cargo a.s., Prag, Czech Republic



BROWN COAL TRANSPORT

ADVANTAGES: Coal lands directly in the conveyor system; process-reliable winter operation, higher work safety with reduced personnel costs

POWER PLANT CHVALETICE:

EQUIPMENT: Stationary Unloading machine, InnoWaggons, MonTainer XXL

CUSTOMER: ČD Cargo

RAIL PARTNER: ČD Cargo

POWER PLANT CHVALETICE:

EQUIPMENT: Stationary Unloading machine, InnoWaggons, MonTainer XXL

CUSTOMER: EP Cargo

RAIL PARTNER: ČD Cargo





HEATING FOR THE BEER CITY

PILSEN IS WORLD-FAMOUS FOR ITS BEER. DIRECTLY NEXT TO THE PILSNER URQUELL BREWERY, A POWER PLANT SUPPLIES DISTRICT HEATING TO THE FOURTH-LARGEST CZECH CITY.

Coal and biomass are transported by CarboSped trains to the power plant of the energy supplier Plzeňská teplárenská, which is located in the industrial area of the city – only separated from its medieval centre by the Radbuza River.

Since 2010 Innofreight has been supplying the district heating power plant with biomass from the western and southern Bohemian region of the Czech Republic, and since 2012 with lignite from Bohemian mines. In 2018, 40,000 tons of biomass and 350,000 tons of coal were transported to Pilsen with the Innofreight equipment. Thanks to the lightweight construction of the MonTainer XXM used, around 1,800 tons of coal can be transported per train – 20% more than using conventional bulk freight wagons. Not only does the power plant operators benefit financially, but also the residents of the inner-city industrial area benefit from an ecological point of view, as they now experience considerably less truck traffic at their front

BROWN COAL **AND BIOMASS** TRANSPORT TO **PILSEN**

ADVANTAGES: Processreliable winter operation, noticeable relief of the road network

EQUIPMENT: 156 MonTainer XXM, 26 InnoWaggons 80ft, 60 WoodTainer XXL. 2 Forklifts

CUSTOMER: Plzeňská teplárenská

RAIL PARTNER: CarboSped, ČD Cargo

INNOFREIGHT CZECH S.R.O Z RG

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FLEXIBLE AND ADVANTAGEOUS

FROM COKE AND SUGAR BEET TRANSPORT UP TO THE DISPOSAL OF CONTAMINATED MATERIAL — THREE DIFFERENT INNOFREIGHT CZECH PROJECTS ILLUSTRATE HOW FLEXIBLY THE INNOFREIGHT SYSTEM CAN BE USED IN THE RAIL FREIGHT TRANSPORT.

COKE FOR GERMAN STEELWORKS

Coke from the East Bohemian town of Ostrava is of particularly high quality and is used in several German steel mills for firing furnaces. Repeated reloading would damage the material. For this reason, the forwarding company Nyylcon has been relying on container solutions from Innofreight for years. For the transport of the flexible Innofreight containers, block trains are used in combination with trucks for the very last mile.

SUGAR BEETS FOR AGRANA SLOVENSKÉ CUKROVARY

At the factory of AGRANA's Slovakian subsidiary Slovenské cukrovary s.r.o. in Sered', around 4,800 tonnes of beet are processed into sugar every day. The sugar beets have been delivered on WoodTainers XXL for several years. The most important advantages: high transport volume, high reliability, low personnel costs and, last but not least, lower traffic burden for the local residents.

FINAL STORAGE FACILITIES IN THE OLD MINE SHIFTS

Deep underground – in the shafts of the former radium mines in Mydlovary – the contaminated material has been transported from the Czech landfills for several years. WoodTainers XXL are used, transported by rail for most of the route and reloaded for the last mile onto trucks with Innofreight rotary forklift trucks.

A THOUSAND THANKS! – THE 1,000TH INNOWAGGON IS DELIVERED

Together with the supplier Tatravagónka a.s. Poprad Innofreight delivered the 1,000th InnoWaggon at the "Czech Rail Days 2018". The lightweight wagons, which can be modularly equipped with the Innofreight containers and pallets, are on route in Austria, the Czech Republic, Germany, Slovakia, Slovenia, Sweden and Finland. ČD Cargo was the recipient of the anniversary car — the clear proof of the good partnership with the leading Czech cargo service provider.





VENT

VENT



INNOFREIGHT - A COMPANY WITH A GREAT POTENTIAL, INNOVATIVE IDEAS,
UNCONVENTIONAL APPROACH, WHICH HAVE LITERALLY MOVED THE RAILWAY WORLD.
Tatravagónka a.s Poprad, Slovakia

CEREMONIAL OPENING OF A BROWN COAL LOGISTICS SYSTEM AT THE CHVALETICE POWER PLANT

In April 2018, the new brown coal logistics system at the Chvaletice power plant in Eastern Bohemia was officially opened. Half a year and almost 2 million unloaded tons later, the business partners of Sev.en EC, ČD Cargo and Innofreight, have met on the 21st November 2018 to witness the ceremonial opening of the stationary unloading station. Over 50 guests arrived from plants all over Europe, also relying on Innofreight technology or who are in an implementation phase at the moment. The cooperation with Innofreight offers the end customers a whole solution including the InnoWaggons, MonTainer and a stationary unloading station as well as a pushing robot. This equipment enables to transport more than 4 million tons of brown coal per year by rail with a total of 100 InnoWaggons.







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INNOFREIGHT CZECH S.R.O.

SALES & **SERVICES**

SALES-HIGHLIGHTS 2018

- Commissioning of the new stationary unloading machine at Mondi Štětí
- Wood and wood chip transports in the Czech Republic, Slovakia and Austria
- Commissioning of the brown coal unloading machine at the Chvaletice power plant • Smooth operation of the unloading machi-
- ne in the Opatovice power plant • Biomass and brown coal transport for the
- Pilsen heating and power plant • Coke transports to Germany and sugar
- beet to Slovakia
- Combined transport of contaminated material to the Mydlovary disposal site

• Expansion of the transport of finished products from the steel industry – 100

THE HIGHEST QUALITY AT **SERVICE & EQUIPMENT**

THE HIGH LEVEL OF STANDARDIZATION OF OUR EQUIPMENT SIMPLIFIES BOTH HANDLING AND MAINTENANCE OF THE ROLLING STOCK FOR RAIL PARTNERS. THE NUMBER OF RESERVE WAGONS REQUIRED IS SIGNIFICANTLY LOWER IN OUR MODULAR SYSTEM THAN IN CONVENTIONAL WAGONS, AND OUR CONTAINERS AND PALLETS ARE VERY ROBUST AND HARDLY SUSCEPTIBLE TO ERRORS. ALL THIS HAS A POSITIVE EFFECT ON THE TRANSPORT LOGISTICS OF OUR INDUSTRIAL CUSTOMERS.

Petr Valach, CEO Innofreight Czech s.r.o





OBJECTIVES FOR 2019

The booming Eastern European industry depends on reliable and efficient logistics solutions. For 2019, there are signs of approaching growth in coal and biomass deliveries for power plants, and Innofreight Czech is also planning to expand its customer base. Thanks to the new Innofreight developments such as the InnoTainer-Coils and the WireTainer, it is also possible to make the transport of finished and semi-finished products in the steel industry more efficient. Increased loading capacities, combined with a safer and easier loading and unloading, are the Innofreight virtues arousing the interest of industrial customers. In order to be able to carry out the maintenance of the rolling stock closer to the customer, the construction of an Innofreight service terminal in the Czech Republic is planned over the medium term.





INNOFREIGHT GERMANY GMBH



KEY PLAYERS COUNT ON INNOFREIGHT

WITH ITS MODULAR SOLUTIONS FOR RAIL FREIGHT TRANSPORT, INNOFREIGHT HAS WON THE LEADING GERMAN RAIL LOGISTICS PROVIDERS AS PARTNERS.

Germany is Europe's number 1 economic driver. The need for sophisticated logistics services is correspondingly high for the exporting nation. When it comes to the rail freight transport, Europe's economic growth engine is still lagging behind its neighbours Switzerland and Austria. But smart solutions such as the Innofreight system can help move more goods away from the road and towards the rails.

With its modular system of light wagons and demand-oriented containers and paletts, Innofreight has aroused DB Cargo's interest and initiated joint

developments. In addition, Innofreight was able to win another major European logistics service provider, VTG Rail Logistics based in Hamburg, as a new German sales partner.

Today, transports for the wood, paper and pulp industries in Germany are already being carried out using the Innofreight equipment. New developments – together with DB Cargo – such as the InnoTainer-Coils for steel coils and the ScrapTainer for scrap – are also making Innofreight solutions to the focus of interest for the steel industry.

KEY FACTS

INNOFREIGHT GERMANY GMBH

OFFICE: Saalburg-Ebersdorf

SUPERVISED AREAS:

Germany, Belgium, Netherlands, Luxembourg, France

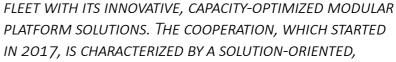
CEO: Mario Carl

EMPLOYEES IN SALES & SERVICE: 5 people

SPOKEN LANGUAGES:

German, English, French

DETERMINED AND TRUSTFUL COOPERATION.



INNOFREIGHT SUPPORTS DB CARGO AG WITH THE

EXPANSION AND MODERNIZATION OF THE FREIGHT WAGON

DB Cargo AG, Mainz, Germany

EQUIPMENT IN USE

Containers: 1,000 Paletts: 1,000 InnoWaggons: 200





Mario Carl CEO Innofreight Germany GmbH Lobensteiner Straße 5, 07929 Saalburg-Ebersdorf ,Germany mario.carl@innofreight.com

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144 TONS OF STEEL PER DOUBLE WAGON

AROUND 42 MILLION TONS OF CRUDE STEEL ARE PRODUCED IN GERMANY EVERY YEAR. THE MOST – 36 MILLION TONS – ARE FURTHER PROCESSED IN THE COUNTRY. INNOFREIGHT HAS THE OPTIMAL SOLUTION FOR THE TRAFFIC BETWEEN THE PLANTS.

Germany is the largest steel manufacturer in the EU. Sustainable transport solutions are needed for the transport between furnaces and rolling mills or further to the large customers within the vehicle and machine industry. Light but robust wagons are required in order to be able to transport a maximum of freight.

Basic wagons from Innofreight are weight-optimised 40ft and 60ft container wagons that are equipped with low-noise braking systems. The InnoWaggons can be equipped with different containers and paletts, depending on the load or infrastructure requirements at the loading and unloading sites.

In 2018, Innofreight Germany delivered the first 80ft InnoWaggons with steel pallets for the Industrial sales division of DB Cargo AG. These will be used to transport steel slabs in the traffic between plants. The slabs are processed into coils in rolling mills – the raw material for sheets

used in the automotive industry and in the power plant construction.

The new InnoTainer-Coils go into series production in 2019. In combination with the new 30ft InnoWaggon, payloads of up to 144 tons can be loaded onto double wagons — more than with any other wagon.

STEEL PRODUCTS TRANSPORT

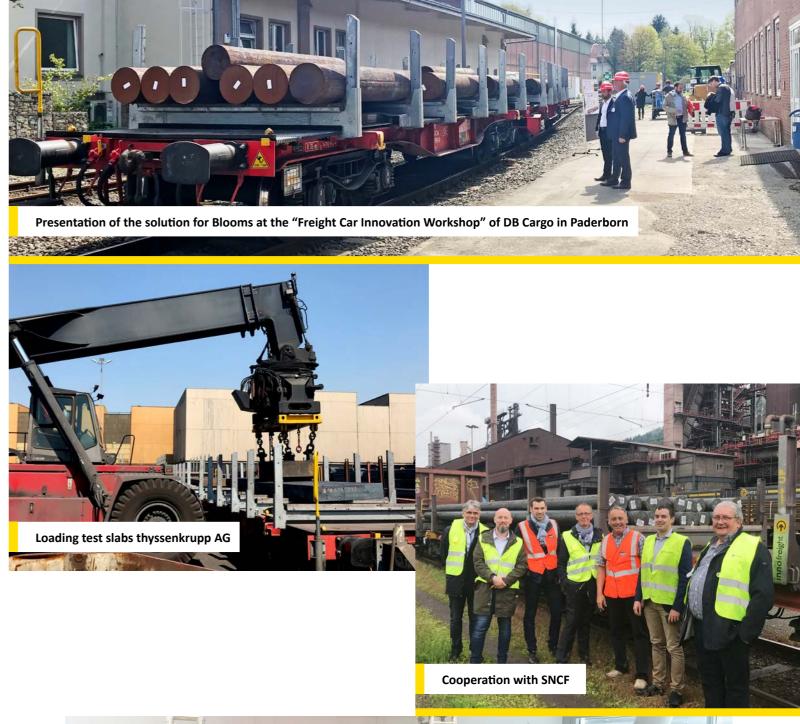
ADVANTAGES: Significant volume growth

EQUIPMENT: InnoWaggon 80ft with steel palettes

CUSTOMER: Hüttenwerke Krupp Mannesmann, Salzgitter Mannesmann Grobblech, thyssenkrupp Steel Europe

RAIL PARTNER: DB Cargo







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MERCER HOLZ TRANSPORTS WITH INNOFREIGHT

THE GERMAN COMPANY MERCER HOLZ IS ONE OF THE LARGEST RAIL LOGISTICS COMPANIES FOR WOOD RAW MATERIALS IN CENTRAL EUROPE. SINCE 2018, IT HAS ALSO BEEN USING INNOFREIGHT WAGONS WITH STANCHION STRUCTURES FOR ITS TIMBER AND LUMBER TRANSPORT.

Every year, Mercer Holz transports over 2 million tonnes of timber, wood chips and lumber by rail. Innofreight has developed its stanchion structures so that Mercer can efficiently transport lumber as well as timber which are more than 3 meters long.

Of course, the advantages of the brand new Smart GigaWood-wagon, which was presented at InnoTrans in Berlin, are also of great interest to the wood service provider Mercer.

TIMBER TRANSPORT

ADVANTAGES: Significant volume growth

EQUIPMENT: 60ft Container wagon with stanchion structure and WoodTainer XXL

CUSTOMER: Mercer Holz GmbH

RAIL PARTNER: SETG/DB

Cargo

Zellstoff Stendal Test XXXL wood chips Test timber loading Use of the new waggon for wood

IMPRESSED TRADE VISITORS AT INNOTRANS

THE NEW INNOFREIGHT SOLUTIONS FOR TIMBER AND STEEL TRANSPORTS IMPRESSED THE TRADE VISITORS AT INNOTRANS WITH THEIR MAXIMUM DIMENSIONS AND PERFORMANCE.

Together with Tatravagónka a.s. Poprad, Innofreight presented two new InnoWaggons in the outdoor area at InnoTrans 2018 in Berlin. The shorter 2x30ft wagon was equipped with the SlurryTainer and InnoTainer-Coils, and with the 2x45ft wagon Innofreight presented the new stanchion structure for timber.

wagon alone impressed the trade public at the InnoTrans. Not only does the XXXL wagon appeal to the maximum dimensions for freight wagons try with its higher payload capacity, robust but also offers some superlatives in terms of construction design and ease of operation. functionality.

Among other things, the advantages include:

- a particularly high payload (the payload up to 145t), resulting in a possible increase in the train utilisation capacity or a reduction in the number of trains;
- the more efficient utilisation of existing tracks and reduction of shunt costs through

the maximum utilisation of the wagon length and height;

- no semi-trailer loading necessary, enabling significantly shorter loading and unloading times without belts, combined with higher work safety;
- universally applicable on all gauges.

The dimensions of the new Smart GigaWood- The InnoTainer-Coils, a joint development with DB Cargo, presented for the first time, convinced customers from the steel indus-





INNOFREIGHT GERMANY GMBH

SALES & SERVICES

SALES-HIGHLIGHTS 2018

- Delivery of the 60ft container wagon Sgns with timber pallets for Mercer Holz and DB Cargo Logistics
- Delivery of the 80ft InnoWaggons with steel pallets for the Industrial Sales
 Division of DB Cargo AG for the transport of steel slabs
- AgroTainer Open Top for sugar beet transports between Germany and Switzerland to ChemÖl

THE HIGHEST QUALITY AT SERVICE & EQUIPMENT



WITH THE COMBINATION OF A WAGON, CONTAINERS, PALLETS AND UNLOADING TECHNOLOGY, INNOFREIGHT OFFERS A SYSTEM FOR THE RAIL FREIGHT TRANSPORT WHICH IS NOT ONLY UNIQUE ON THE GERMAN MARKET. TOGETHER WITH OUR CUSTOMERS, WE DEVELOP SPECIFIC LOGISTICS SOLUTIONS THAT ENABLE HIGHER PAYLOADS AND RELIABLE UNLOADING PROCESSES AND AS A RESULT REDUCING WAGON AND PERSONNEL COSTS PER TRAIN. DURING THE EXTENSIVE PRACTICAL TESTS, POTENTIAL CUSTOMERS CAN CONVINCE THEMSELVES OF THE EFFICIENCY OF THE INNOFREIGHT EQUIPMENT. VIEWED AS A WHOLE, YOU DO BETTER WITH OUR SYSTEM.

Mario Carl, CEO Innofreight Germany GmbH





OUTLOOK OF 2019

Innofreight Germany, together with its distribution and development partners VTG and DB Cargo, feel confident that the modular Innofreight system shall establish itself as an industry standard in the transportation of timber, steel and raw materials in Germany, the Benelux countries and France. In close cooperation with its partners, Innofreight Germany 2019 is pursuing the further development of complex integrated transport and handling solutions in order to advance the raw materials logistics of its major customers in the pulp and steel industry. Higher capacities, increased economic efficiency and greater attractiveness for the rail transport solutions are the top goals which can be achieved with innovations such as the InnoTainer-Coils and the Smart GigaWood-wagon. The chemical

industry is also a highly interesting sector for Innofreight: In 2019, the first corrosion-resistant ChemieTainers for transporting hazardous goods will be delivered to the major customers. In addition, plans for stationary unloading machines for wood chips, ore, coal and limestone at German and French locations are being hustled on together with industrial customers.





INNOFREIGHT SCANDINAVIA AB



MIGHTY WOODS, MIGHTY TRAINS

IN THE FAR NORTH OF EUROPE, INNOVATIONS FALL ON GOOD SOIL. NO WONDER THAT SWEDEN AND FINLAND HAVE INSPIRED INNOFREIGHT TO FURTHER DEVELOP THEIR SOLUTIONS FOR RAIL FREIGHT TRANSPORT.

In Sweden, foundations have been set for the new, high-performance stanchion system with maximised payload capacity. This caused a sensation not only at the InnoTrans in Berlin in 2018. The first timber transport that Innofreight Scandinavia handled with Hector Rail as early as 2017 was the star in the Canadian TV documentary series "Mighty Trains", which casts "Mighty Trains" all over the world for the American TV audiences.

Sweden's neighbour Finland, where trains move on the Russian broad gauge, was the reason for Innofreight to modify the InnoWaggon into a FinnoWaggon. It is now going into series production and will also be available on the broad-gauge rail networks of Eastern Europe.

KEY FACTS

INNOFREIGHT SCANDINAVIA AB

OFFICE: Piteå

SUPERVISED AREAS:Sweden, Finland, Norway

CEO:

Bertil Lejding

EMPLOYEES IN SALES & SERVICE: 3 people

SPOKEN LANGUAGESN: Swedish, English, German,

Finnish

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WE APPRECIATE THE COLLABORATIVE CLIMATE OF THE PEOPLE AT INNOFREIGHT, THEY HAVE A STRONG FOCUS IN FINDING THE BEST SOLUTIONS!

Green Cargo AB, Solna, Sweden

EQUIPMENT IN USE

Containers: 800 Paletts: 146 InnoWaggons: 146

Stationary unloading machine: 1

Forklifts: 5



Bertil Leijding CEO Innofreight Scandinavia AB Box 23, Malmgatan 22, 941 31 Piteå, Sweden bertil.leijding@innofreight.com

MAXIMAL WOOD TRANSPORTS

FORESTRY PLAYS A MAJOR ROLE IN SCANDINAVIA. EVERY FIFTH FREIGHT TRAIN IN SWEDEN LOADS WOOD, WOOD CHIPS OR WOOD PRODUCTS.

If the percentage of block trains drops in the future, it is not because there is less wood on route, but because the trains can transport 25% more wood than before thanks to the powerful InnoWaggon. The stanchion system of the Innofreight wagon is 3.6m wide and 3.5m high.

The optimised volume in combination with the lightweight InnoWaggon enables a maximum loading capacity of up to 142 tons per wagon. And because no belt systems are required thanks to specially developed stanchions, loading and unloading is faster and safer than ever before.

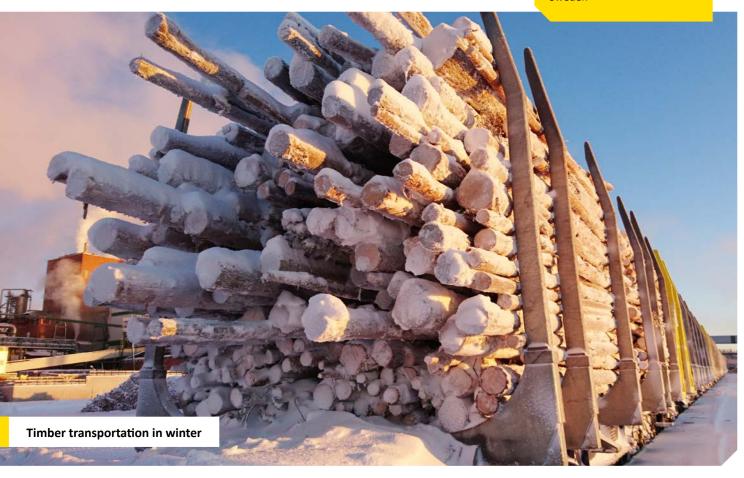
Between 2017 and 2018, Innofreight Scandinavia delivered 144 InnoWaggons with the innovative

stanchion structures to its rail partner Hector Rail in Sweden. The timber trains are on their way for Svenska Cellulosa AB (SCA). SCA is the largest private forest owner in Europe and manages forest areas the size of Belgium.



WATCH THE VIDEO!
Stanchion structures in

Stanchion structures in Sweden





SVEYTURE SPORTER TYPE 28-21

TIMBER TRANSPORT

ADVANTAGES:

Significant volume growth of up to 142t/ wagon; faster and safer loading and unloading

EQUIPMENT: 144 80ft InnoWaggons with Hector Rail Stanchion-System

CUSTOMER: SCA AB

RAIL PARTNER: Hector Rail



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Timber-Unloading

ENERGY

DISTRICT HEATING AND **ELECTRICITY FOR STOCKHOLM**

ONE OF THE SCANDINAVIA'S LARGEST BIOMASS POWER PLANTS PROVIDES 190,000 CONNECTIONS IN THE SWEDISH CAPITAL STOCKHOLM WITH HEAT. THE WOOD CHIPS ARE DELIVERED WITH INNOFREIGHT EQUIPMENT.

180 WoodTainers are being used to supply biomass and wood chips for the modern Värtaverket power and heating plant for Stockholm Exergi. The Innofreight containers use the Swedish railway profile with a maximum width of 3.5m and a maximum height of 3.15m and have therefore been given the name SCANMAX. The XXXL dimensions allow a reduction of block trains while maintaining the same transport volume and offer an overall delivery of biomass to the municipal power and heating plant which is friendly to the local residents.

The unloading of the WoodTainer takes place stationary in a multifunctional underground bunker. A weighing system is integrated in the tilting system. 12,000 m³ of biomass can be unloaded here

during the three-shift operation – at any time of

Southwest of Stockholm, in the town of Södertälje with a population of 100,000, biomass is delivered for another combined heat and power plant with 90 WoodTainer SCANMAX containers. For the power plant operator Stockholm Exergi in Stockholm and for the railway partner Green Cargo in Södertälje, process reliability in winter operation and excellent international references were the decisive factors for using the Innofreight equipment for the district heating supply of the Swedish capital.





BIOMASS FOR STOCKHOLM

ADVANTAGES: Process reliability in winter operation, stationary unloading machine incl. weighing system in Värtaverket, reduction in the number of trains thanks to XXXL container volume

VÄRTAVERKET:

EQUIPMENT: 180 WoodTainer XXXL + Stationary Unloading machine

CUSTOMER: Stockholm Exergi **RAIL PARTNER:** Hector Rail

SÖDERENERGIE:

EQUIPMENT: 90 WoodTainer XXXL + 2 forklifts

CUSTOMER: Söderenergi

RAIL PARTNER: Green Cargo



INNOFREIGHT SCANDINAVIA AB

SALES & **SERVICES**

SALES-HIGHLIGHTS 2018

- 144 InnoWaggons delivered with the stanchion systems for timber for Hector Rail
- 180 WoodTainer SCANMAX for Stockholm Exergi in use
- 90 WoodTainer SCANMAX for Söderenergi in Södertälje in use
- 300 Innofreight containers on route in Finland
- 424 WoodTainer XXL in Sweden in use

THE HIGHEST QUALITY AT **SERVICE & EQUIPMENT**



IT IS TIME TO EMPHASISE THE MEANING OF THE RAIL IN FREIGHT TRANSPORT IN SCANDINAVIA. INNOFREIGHT SCANDINAVIA HAS THE EQUIPMENT AND THE KNOW-HOW TO DELIVER IMPULSES WHICH DO NOT ONLY CONVINCE ECOLOGICALLY, BUT ALSO ECONOMICALLY. OUR REFERENCE PROJECTS IN SWEDEN AND FINLAND HAVE PROVEN THAT THE INNOFREIGHT SYSTEM CAN ALSO SET BENCHMARKS FOR US.

Bertil Leijding, CEO Innofreight Scandinavia AB





OUTLOOK OF 2019

50 FinnoWaggons optimised for the Russian gauge will be handed over to the Finnish partner VR Group in 2019. With appropriate containers, they are used to transport semi-finished products from the steel industry, ores and chemical liquids. 300 Innofreight containers and 5 rotary unloading forklifts are already in use in Finland. Timber will also be an interesting topic on the Finnish market over the medium term.

Timber and biomass transports will remain the dominant topic for Innofreight Scandinavia in 2019. By participating in the Nordic Rail Fair 2019, the company wants to win new customers for the XXXL wagons and expand activities to Norway.

360° - Maintenance / Repair / Service







Ceinnofreight

BCargo

3CollsTainer - ttu - fully open - 71t payload



NUMBER OF COILS PER CONTAINER: 3

LENGTH: 30 ft

MAX. PAYLOAD PER DOUBLE WAGON: 142 t

LOADED GOODS: Coils

UNLOADING POSSIBILITIES: Forklift or unloading crane



LOADING VOLUME PER CONTAINER: 43 m³

LENGTH: 30 ft

MAX. PAYLOAD PER DOUBLE WAGON: 142 t

LOADED GOODS: Slurry

UNLOADING POSSIBILITIES: Without overpressure



TYPE NUMBER:

35 81 4854 000 – XXX

TRACK CLASS: A, B1, B2, C2, C3, C4, D2, D3, D4

NUMBER OF AXLES: 8 per double wagon

TARE MASS:

14,500 kg per single

LENGTH OVER THE BUFFER: 26,710 mm



2x40ft InnoWaggon



LOADING VOLUME PER CONTAINER: 47 m³

LENGTH: 30 ft

MAX. PAYLOAD PER DOUBLE WAGON: 138 t

LOADED GOODS: Iron ore and ore pellets

UNLOADING POSSIBILITIES: Sudden unloading into hopper



ROCKTAINER INFRA

LOADING VOLUME PER CONTAINER: 51 m³

LENGTH: 30 ft

MAX. PAYLOAD PER DOUBLE WAGON: 136 t

 $\textbf{LOADED GOODS} : \mathsf{Track\ ballast}$

UNLOADING POSSIBILITIES: Adjustable unloading to the centre or to the sides





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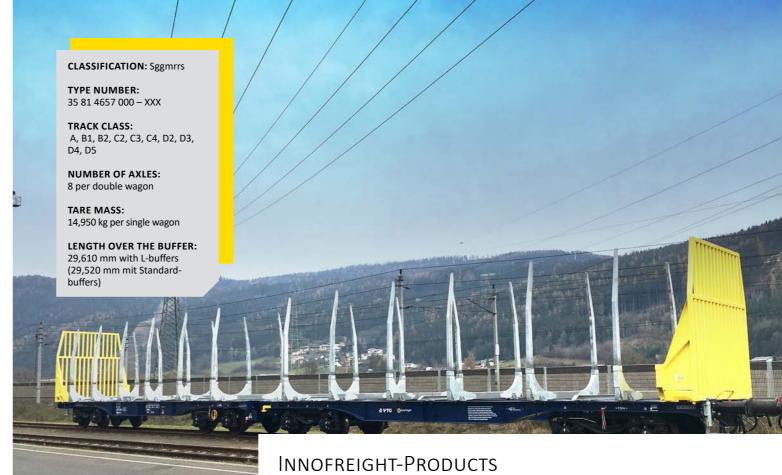












SMART GIGAWOOD

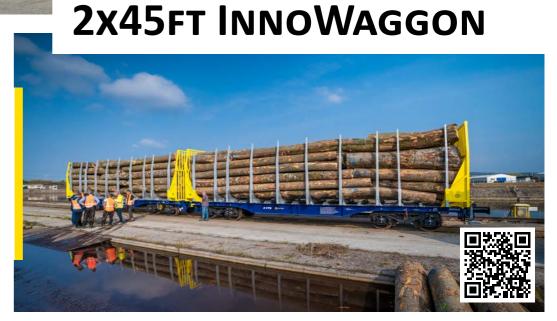
LOADING VOLUME: 110 m³

LENGTH: 45 ft

MAX. PAYLOAD PER DOUBLE WAGONN: 141 t

LOADED GOODS: Timber

UNLOADING POSSIBILITIES: Logstacker or Highlifter



BOXINBOX

LOADING VOLUME PER CONTAINER: 45 m³

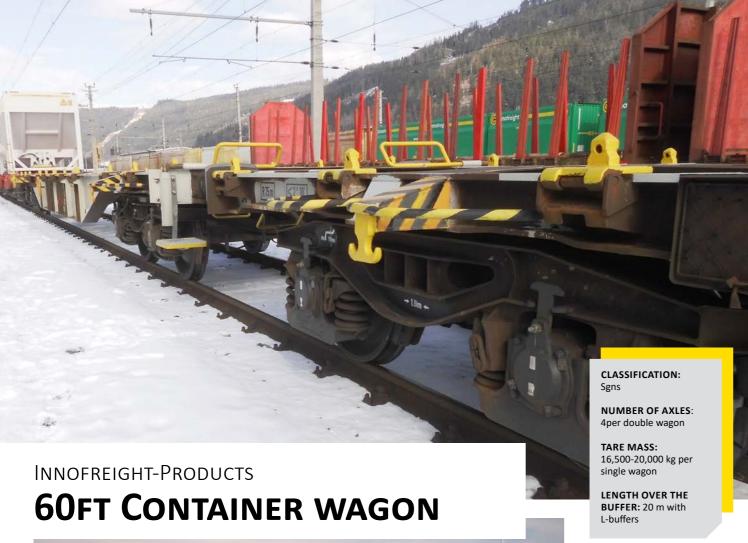
LENGTH: 22.5 ft

MAX. PAYLOAD PER DOUBLE WAGONN: 138.95 t

LOADED GOODS: Coal, ores, building materials

UNLOADING POSSIBILITIES: Forklift or Stationary Unloading Machine







AGRO

FREIGHT



LOADING VOLUME PER CONTAINER: 50 m³

LENGTH: 30 ft

MAX. PAYLOAD: 66 t

LOADED GOODS: Coke, short wood

UNLOADING POSSIBILITIES: Truck tipping chassis or Excavator

LOADING VOLUME PER CONTAINER: 50 m³

AGROTAINER XXL

LENGTH: 30 ft

MAX. PAYLOAD: 66t

LOADED GOODS: Cereals, sugar, palletized goods

UNLOADING POSSIBILITIES: Truck tipping chassis or Forklift

WOODTAINER SCANMAX

LOADING VOLUME PER CONTAINER: 57 m³

LENGTH: 20 ft

MAX. PAYLOAD: 65 t

LOADED GOODS: light bulk materials (biomass)

UNLOADING POSSIBILITIES: Forklift or Stationary Unloading Machine



WOODTAINER XXL

LOADING VOLUME PER CONTAINER: 46 m³

LENGTH: 20 ft

MAX. PAYLOAD: 67 t

LOADED GOODS: leichte Schüttgüter

UNLOADING POSSIBILITIES: Forklift or Stationary Unloading Machine



PALETTENSYSTEM

LOADING WIDTH: 2,750 mm

LENGTH: 10 ft

MAX. PAYLOAD: 68t

LOADED GOODS: Pipes, timber

UNLOADING POSSIBILITIES: Unloading crane, or Logstacker





FAST FORWARD AWARD 2018

ALL GOOD THINGS...

FOR THE THIRD TIME, INNOFREIGHT WAS ABLE TO CONVINCE THE JURY OF THE STYRIAN INNOVATION AWARD "FAST FORWARD AWARD" (FFA) IN THE CATEGORY OF THE MEDIUM-SIZED COMPANIES.



Styria is one of the top European regions in terms of research, technology and innovation with the research quota of over 5% of the gross domestic product. For this reason and in the competitive environment of the Styrian innovation scene, it is all even more remarkable for a company to receive the Fast Forward Award (FFA). Since 1995, the Province of Styria has awarded the prize annually to companies which have brought outstanding innovations to the market maturity.

At the award ceremony in September 2018 at the Messe Graz, Styria's Councillor for Economic Affairs Barbara Eibinger-Miedl presented the Innofreight Managing Directors Peter Wanek-Pusset and Bernhard Grentner with the coveted FFA trophy in the category of the medium-sized companies. With this award, the jury of the Fast Forward Award recognized the development of the Smart

GigaWood-wagon, which Innofreight implemented together with Papierholz Austria. The stanchion system on a particularly light high-performance wagon enables productivity increases of up to 40 % in timber transport. The Smart GigaWood-wagon, due to its cost-effectiveness and holistic logistics approach, will help to move more timber deliveries from road to rail. Among all Styrian FFA winners in 2018, Innofreight has been nominated for the National Innovation Award.

Innofreight has already received the coveted award for the third time: In 2006 the development of the "InnoFold", a foldable container, was distinguished with the FFA. And in 2013, the coveted trophy for the development of the InnoWaggon went to the company.





WE ARE VERY PLEASED THAT OUR WORK ON SMART GIGAWOOD-WAGON WAS HONOURED WITH THE FAST FORWARD AWARD.

DI Peter Wanek-Pusset, CEO Innofreight



WINNING THE STYRIAN INNOVATION AWARD AGAIN IS A GRATIFYING RECOGNITION ON THE PART OF THE PROVINCE OF STYRIA AND AN IMPORTANT CONFIRMATION OF OUR WORK.

Bernhard Grentner, CEO Innofreight



INNOFREIGHT CARES

SOCIAL COMMITMENT















