

20^{YEARS}  innofreight



2022
ANNUAL REVIEW

*moving limits
since 2002*



PREFACE

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Innofreight turns 20! What started in 2002 with two persons in a small office, grew in a short time to an internationally operating company in the logistics industry. With innovative ideas and the courage to implement them, we are constantly moving rail freight forward.

Innofreight develops the most efficient total logistics solutions for every industry, at all times in close cooperation with our customers. Our system has established itself and there is no other technology that can compete with ours.

We are deeply grateful to many people for this success. Our

great team, reliable suppliers and trustworthy business partners made the growth of the last two decades possible. Thank you for your enormous trust.

Despite the current difficult global economic situation, Innofreight has managed to successfully complete numerous projects. Among them the biggest project in the company's history so far. In 2022, we continued to develop further with large steps and, in addition to rail transport, we are also implementing our first activities in intermodal transport.

This year Innofreight celebrated the 20th anniversary in big style. With moving into the new head-

quarters, we have created additional space for new employees and our numerous new ideas.

At the same time, we have remained true to our Austrian roots and are proud of the stable cooperation with our hometown of Bruck an der Mur. As a special honor, the city granted us the right to use its coat of arms.

With this annual review, we would like to acknowledge the successes of the past year and provide an overview of our offerings. We are ready for the next 20 years!

**Manuela Iris Mayer &
Peter Wanek-Pusset**

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ANNUAL REVIEW

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20 YEARS

MOVING LIMITS

During our anniversary year, we were able to continue our growth and reach new milestones. In doing so, we always remained true to our roots and principles: InnoFreight is European, modular, professional, ecological, and of course innovative.

We are Innofreight. We have been offering innovative logistics solutions for rail for two decades. Always with the aim of pushing rail freight transport even further.

Our expertise lies in the development, production and rental of total logistics concepts. Wagons, superstructures or unloading – we implement the solutions that are needed. Innovation has been our great strength since the beginning and all these years we kept the commitment to develop more and bring new solutions to the market.

In 2004, the first container system, at that time for the wood industry, was successfully introduced to the market: the Wood-Tainer XXL in combination with the forklift unloading. Ten years later the first InnoWaggon came. In the meantime, we offer Europe-wide transport logistics solutions with more than 40 different superstructures suitable for three InnoWaggons of different lengths for all branches of industry.

Innovation on track

In this anniversary year, we proudly look back on these beginnings. Today we are no longer only oper-

ating in the pulp and paper industry. We have containers and pallets for a wide range of industrial companies in our product range.

Thanks to the development of the InnoWaggons, we have been able to provide significantly higher payloads for various freights and our unloading solutions are tailor-made to meet the needs of our customers. Regardless of whether transport is required for the wood, steel, building materials, energy or liquid sectors – Inno-freight has the right solution.

Nowadays, it is no longer enough to transport goods from one place to another or to just rent out wagons. Instead, what is needed are modular innovations from a single source that can be adapted to local conditions, and that for every industry. When it comes to this, no two industrial operations are the same.

The optimal solution depends on the infrastructure on site. To optimize the entire logistics supply chain, everything has to be taken into account: from the type and quantity of raw material transported to the length and number of loading tracks. With Innofreight as a partner, you have a compa-

ny at your side that not only develops and integrates optimized equipment, but a custom-tailored concept as well.

Europe-wide in operation

Innofreight has been around for 20 years and to mark the anniversary, our equipment is on track in 20 European countries. From Scandinavia to Portugal, our solutions are rolling by rail on all three common gauge widths, supplying the largest industrial plants and local family businesses with the raw materials they need.

Iron ore, wood chips, saline surface water, construction site excavation, scrap or acid transport – we offer the optimal wagons, containers, pallet systems and unloading techniques for every raw material.

Innofreight modular system

The basis of our concept: modularity. We work with a highly modular system. The various types of superstructures can be combined with the InnoWaggons of different lengths and can be used in all three European gauge widths. If a solution is required that is not yet part of our modular system, it will be developed, tested and built. Within the shortest possible time,

the highest quality equipment can be put into operation and can be unloaded with highly automated systems.

Grown professionally

Over the past two decades, we have gained know-how from which our customers now can benefit. A lot has happened since September 2002. Today, more than 140 employees at six international locations are working to put optimal logistics on track. Since our 15th anniversary, the number of employees has more than doubled.

Internally, we are always working on adapting our structures to create opportunities for further growth. Innofreight has established itself as a secure employer. In recent years in particular, the business model has proven to be crisis-proof and Innofreight has developed to an internationally successful company.

Green logistics

With the Green Deal, the EU has committed to reducing net greenhouse gas emissions to zero. Europe is to be the first continent to become climate neutral, with emissions to be reduced by 55 percent as early as 2030.

By shifting transport from road to rail, we are making a daily contribution to a greener future. We already transport more than 30 million tons of goods by rail every year – an important step towards making the planned CO₂ reductions in transport become a reality.

The energy crisis, resulting also from the dependence on fossil fuels, shows once again how important it is to focus on green energy and climate protection.

At Innofreight, we are working on solutions for the transportation



Anniversary present for the city of Bruck an der Mur

of raw materials that are needed for CO₂-neutral production. By reducing the number of truck transports and the high payload capacities of our equipment, we are making a contribution towards a greener future.

Thanks to our hometown

To properly thank our hometown Bruck an der Mur for the good cooperation and support, we handed over a big anniversary present this year in spring. From Bruck, a train with 75 WoodTainers XXL on 25 wagons is transporting wood chips to supply the pulp and paper industry throughout Europe,

proudly representing our hometown.

This 500 meter long train is used by the Austrian Federal Railways ÖBB for our first and long-term customer Papierholz Austria to supply many customers such as Mondi, Zellstoff Pöls, Norske Skog and Sappi. The very first WoodTainer XXL from Innofreight was also delivered to Papierholz Austria.

Together with Deputy Governor Anton Lang, the Mayor of the City of Bruck an der Mur, Peter Koch, and municipal representatives,



20 years Innofreight on rail through Europe



Launching ceremony with the mayor of Bruck, Peter Koch



A thank you to deputy governor Anton Lang

we handed over the train to the city. The ceremonial opening of the business park also took place during this handover.

A big thank you from Bruck an der Mur

Not only did we thank the city, the city also thanked us: The city

of Bruck an der Mur gave us a special honor this year. Innofreight was granted the right to bear the city's coat of arms.

In this way, the city honors our outstanding work and our contributions to the well-being of the economy in Bruck an der Mur.

We are very proud of this award and will continue to make an important contribution to the region over the next 20 years.

Highlight of the anniversary year

Innofreight started two decades ago as a two-person company in the old business park in Bruck an der Mur.

For our birthday this year, we gave ourselves the biggest present and moved to new headquarters. But we have remained true to the location of Bruck an der Mur and the business park: We have only moved to the other side of the roundabout, where we have become the largest tenant, occupying two and a half floors of the new office building.

Train by train digitalization

In addition to innovative equipment, we at Innofreight develop digital solutions for our customers as well. The digitalization of the fleet allows to manage transports even more efficiently.

The data collected enables us to make better decisions for operational processes. This is for the benefit of our customers: We optimize their raw material supply, while they can fully concentrate on their core business.

Almost our entire fleet of InnoWaggons was provided with GPS sensors this year. Newly delivered wagons are already being equipped with Nexxiot sensors as standard. Across Europe, 1,300 InnoWaggons track data such as mileage, locations, or shock events.

This data helps to optimize maintenance and makes it possible to predict when maintenance or revision is necessary. In this way, the wagons are serviced at the right time.



Special honor for Innofreight



Since it is always well known where our trains are, the delivery to the workshop can be optimally coordinated. This enables our customers to plan better and increases the availability of the assets used.

Innofreight as platform and app

This data is made available on our online platform Innofreight OS and in the Innofreight OS app. In the future, the platform will be used to visualize the entire logistics chain: Digitalization from loading, transportation all the way to unloading.

We already monitor the transport, and we can transfer the unloading data to the Innofreight OS platform by digitalizing our stationary unloading machines as well. By evaluating the data from the unloading equipment – container weight, operating hours, performance, oil pressure, hydraulics – the sources of disruption can be identified here in order to avoid breakdowns and downtime as well.

An additional feature is the implementation of a transport management tool. Our customers get an overview of the entire logistics chain and can manage their transports in the best possible way. Predicted arrival times and optimized loading and unloading windows help to reduce turnaround times and avoid downtimes.

The ongoing collection and analysis of this data enables us to make better and better decisions for all the operational processes.

With high volumes of data comes high responsibility as well. The multi-client capable group management system at Innofreight OS ensures the security and protection of data in accordance with the GDPR (The General Data Protection Regulation).



Innofreight OS platform and App for our customers

As many innovative companies, Innofreight works very closely with universities. Together with experts from the Institute of Technical Informatics at Graz University of Technology (TUG) and University of Applied Sciences FH

Joanneum (Department of Industrial Management), we are working on developing the best possible solutions for the digitalization of the logistics chain. As always, with close cooperation with our customers.



InnoWaggons are equipped with sensors from Nexxiot

Efficient base: The InnoWaggon

The basis of the rail freight transport system is the InnoWaggon. In its many different configurations, the InnoWaggon ensures that freight transports by rail can be organized as efficiently as possible.

Currently, we have InnoWaggons in three different lengths in all three common European gauges in operation.

An InnoWaggon consists of two half-waggons that are coupled together. This means more axles and subsequently more payload at the same length. Combined with a special lightweight construction, this meaning the right wagon can be used for any freight and the highest possible payload is guaranteed.

80 ft InnoWaggon

This year we made further progress in the development of our new one-piece 80 ft InnoWaggon. The tests were successfully carried out with the prototype and we have made some import-



Wagon production down to the smallest detail at TŽV Gredelj

*Starting in 2023
one block train
per week will leave
the production
halls of TŽV Gredelj*

ant forward steps towards series production. The single wagon is to be used for even more efficient transports of biomass, wood chips, and other light bulk materials.

With the 80 ft InnoWaggon we make more efficient use of the axle load. The advantage of the one-piece 80 ft InnoWaggon is the low number of components required compared with conventional con-



Prototyp of our new one-piece 80 ft InnoWaggon



Finished 2x30 ft InnoWaggons ready for delivery

tainer wagons. This saves both material as well as maintenance costs and weight.

InnoWaggon production brought “in house”

A “Memorandum of Understanding” between Tatravagónka, Budamar Logistics and Innofreight guarantees the reliable and high-quality production of InnoWaggons for the next ten years.

In the presence of Croatian Prime Minister Andrej Plenković, this contract worth two billion euros was signed this year at TŽV Gredelj in Zagreb, Croatia.

Around 1,000 InnoWaggons will be produced annually at the Croatian facility in the future – that means around three to four wagons per day meaning one block train per week.

The step towards our own wagon production makes it possible for us to supply companies with high-quality and affordable InnoWaggons as efficient as possible.

As a result, Innofreight is less dependent on external suppliers and is able to respond and react better to supply shortages on the market.



Signing of the “Memorandum of Understanding”



Manufacturing insight into the wagon production in Zagreb, Croatia

Superstructures for all freights

Our wide range of superstructures enables us to transport a variety of different freights. Whether heavy or light bulk goods, liquids, construction materials, agricultural or chemical transports – our portfolio covers all major industries and continues to expand.

The lightweight design and optimized volume enable the highest payload per wagon throughout Europe. This results in shorter and less trains providing additional space in the rail network.

New on the market

This year we have been working hard to develop new products to fulfill the market requirements. With our pyramid-shaped DryTainer, Innofreight is designing a completely new container adapted to the requirements of DRI (direct reduced iron), the new raw material used by the steel industry.

Our know-how allows us to react faster and faster on the market. This was the case, for example, with the development and delivery



Newly produced MonTainer XML II in our anniversary design

of the HighPerformanceBase. The request came at the end of August and already at the beginning of October we were able to carry out mutual tests with the prototype in cooperation with our customer.

Together with the common system for pipe transports from DHATEC, it is possible to load two to four additional pipes per double wagon, thanks to the high payload of our InnoWaggons. In order to

completely optimize logistics, the transport containers will have to be considered as intermediate storage facilities in the future.

It is not only the goods that are loaded from one transport medium into the next – the superstructure comes along with it. In this way, the truck can ensure optimized transport for short distances and the rail for long distances. Innofreight is currently in the test

phase with several solutions for intermodal transportation. One of the newly developed superstructures is the CemTainer. In the future, this 22.5 ft long container will transport cement for Silo Riedel by road as well as by rail. The next intermodal container has been further developed for the building materials industry – the CityLogistics container. This container is unloaded through a flap and tipping chassis from the truck. At the moment we are working on unloading them also with forklifts. For the company Knauf we are preparing these containers for the transport of natural gypsum.

A further innovation is the WireStanchions system, which enables two-layer loading of the wagons with wire coils and can additionally be used for the transport of sawn wood. With the Box-OnBox system, we are working to further minimize empty runs.

Efficient production

Since 2019, our superstructures have been produced in Europe's most modern container production facility. Innoduler, our joint venture with Duler from Slovenia, manufactures the entire product portfolio of Innofreight superstructures according to the highest quality standards. As a result, Innofreight offers our customers efficient and high-quality equipment.

This past spring, Innoduler produced the 1,000th container for In-



1,000th container produced by Innoduler for Innofreight

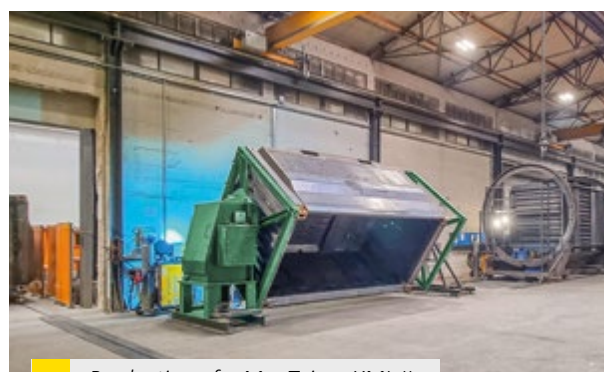


100th RockTainer ORE produced by Innoduler, 1,000th by Container d.o.o.

Innofreight offers the optimal transport solution for every raw material

nofreight. The production and delivery of the 999th and 1,000th superstructure was duly celebrated in the Innoduler halls. Since April, these containers with their own Innoduler branding have been rolling by rail through Europe.

Another anniversary container produced by Innoduler was the 100th RockTainer ORE, an Innofreight classic for transporting iron ore, ore pellets, or limestone.



Production of a MonTainer XML II



Painting of a SurfaceWaterTank



Robot supported manufacturing



Detail labeling of the MonTainer XM 2000



Motivated and competent team from Innoduler



Optimized unloading – stationary or mobile

Nearly 20 years ago, when we equipped the first forklift with a rotating device, we had no idea where this development would eventually lead us. From the very beginning, optimal unloading was an important point for us to provide a smooth logistics process. Depending on the requirements on site, we offer two systems: stationary unloading machines (SUM) or mobile unloading forklifts.

Stationary unloading machines – digital and safe

With the stationary unloading system, large quantities are unloaded reliably and with high availability in a short cycle time.

This year we successfully implemented three additional stationary unloading machines. Once again, a technology step forward has been achieved with these systems. They are fully digitalized and equipped with condition monitoring. Thanks to a variety of sensors, we know about all movements and the condition of the machine at all times – an important step in the digitalization process. Our team is also working on models



Part of the project team in Eisenhüttenstadt, Germany

for predictive condition monitoring in order to be able to detect breakdowns at an early stage and avoid downtime.

The SUM mainly consists of a tipper, shunting equipment, conveyor technology, as well as hopper and a suction system. Only one person operates the entire unloading machine from an air-conditioned cabin, which enables easy operating and work safety.

The demand is increasing rapidly and we are developing our stationary unloading machines more and more in order to create the best working conditions and ensure high availability.

The stationary unloading machines have achieved a lot in the past years: Our SUMs in use have unloaded approximately 1.7 million containers with around 49 million tons of transported goods.



Stationary unloading machine in Štětí, Czech Republic

Optimized rotating unloading – fully electric in the future

If a mobile solution is required, our forklifts are ready to perform the job. The forklift quickly brings the containers to the unloading point, if there is no direct rail connection on site. Depending on the density of the material and the size of the container, the appropriate forklift is selected and provides the necessary flexibility for unloading.

In the field of unloading systems, Kalmar is our long-standing partner. We have been working with the machine producer since 2004, and the company is responsible for the maintenance and service of our forklifts as well. Kalmar has been operating successfully in Austria for 60 years, for which we sincerely congratulate them.

In cooperation with Innoduler, we constructed the first rotator “in-house” this year. The new design of the rotator for mobile forklift unloading is even better adapted to the market needs. In the first half of 2023, five of the faster and more powerful devices will already be in use.

In order to save energy and make the transition to CO₂-neutral production, many companies are investing in electromobility. Not only trucks, but also forklifts are being modified to operate on electric power. For the paper mill Sappi in

Gratkorn, Austria we will deliver a battery-powered all-electric forklift including a charging station in 2023. The electric device with a lifting capacity of 33 tons is intended to replace a diesel forklift. Innofreight is the first buyer of an

Our unloading technologies have already unloaded around 6.2 million containers



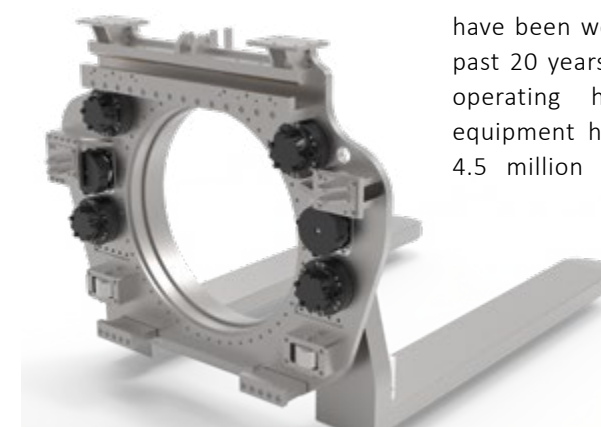
Anniversary container for Kalmar in Austria

After Sales Service

Innofreight offers overall solutions. This also means that for us it doesn't stop by any means after a stationary unloading machine has been up and running. An essential aspect of our total package is also service and maintenance during ongoing operations. Through maintenance concepts that are adapted to the machine and the customer, we achieve the highest possible availability.

This year, Innofreight laid the foundations for a central warehouse to guarantee high availability and rapid replacement of spare parts. In this way, we want to further expand our after-sales service and assist our customers as fast as possible.

To meet market requirements, we are developing new technologies for loading and unloading, which are needed for the production of green steel, for instance. In terms of development, we are focusing on the high-automation of our machines and intend to take even further steps towards digitalization and automation.



In house development of the forklift rotator



INNOFREIGHT MILESTONES

*moving limits
since 2002*

September 12, 2002: founding



2004: 1st WoodTainer XXL with forklift unloading



2006: 1,000th WoodTainer XXL in operation



2007: first unloading machine for wood chips



2008: first biomass transport in Scandinavia



2010: millionth unloading at Sappi Gratkorn, AT



2012: testing of the RockTainer-system



2013: 4,000th WoodTainer XXL



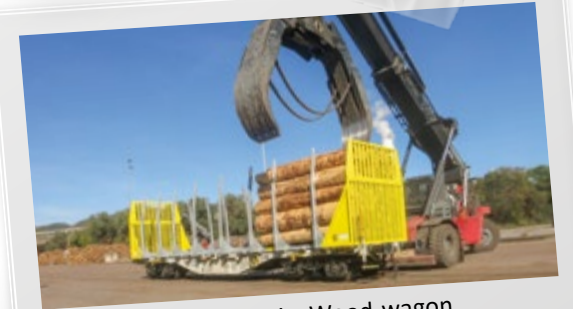
2014: first block train with InnoWaggons



2015: first unloading for coke and coal



2017: first repair and maintenance hall



2017: first GigaWood-wagon



2017: first container for liquids



2018: 1,000th InnoWaggon



2020: in-house production Innoduler



2020: launch of the digitalization platform



2021: first GigaWood on narrow gauge



2022: first intermodal terminal



Welcome from the owner family



A tasty Innofreight train



Owner family Wanek-Pusset

Anniversary celebration

Innofreight was founded on September 12, 2002. A lot has happened in the 20 years since the founding. The company has grown rapidly and is now the leading provider of rail freight logistics.

This is something we are proud of and therefore we did not miss the opportunity to celebrate this great success in a proper way. In September, we invited our employees and their families to spend a pleasant evening together and to honor the last two decades.

The founders said thank you for the trust placed in the company and for the excellent work of our team. At the same time, they also made a brief look into the future – Innofreight still has great visions in mind for the coming years.

Peter Koch, the mayor of Bruck an der Mur, was also at the event. He thanked for the well-functioning cooperation between the city and Innofreight, which has existed since the company was founded.

The Joseph-Haydn-Orchestra together with the Zwitschertanten from Bruck an der Mur provided the musical frame. At a later hour, “The Sundays” ensured the right atmosphere, as they had done at many company celebrations before.

*A big
thank you to our
outstanding team.
To the next
20 years!*



Joseph-Haydn-Orchestra and the “Zwitschertanten”



A thank you from our hometown



Legal department



Project team for Innofreight Germany



Modular Solutions department



Marketing and Communications department



Finance and Controlling department



Festive atmosphere at the Stadtsaal in Bruck



INNOVATION FOR **ENERGY**

The energy crisis and inflation are the buzzwords of the day. In times of crisis, it is even more important than usual to have the courage to implement innovative ideas. Inno freight delivers solutions and supports companies in the energy transformation.

Energy is the ability to carry out work. It gives off heat, radiates light and is necessary if anything is to be set in motion, accelerated or uplifted. Energy is essential to life and exists in many different forms: Oil, gas, coal, nuclear energy, solar energy, wind and water power.

Global price increase

Since this year everybody is talking about the energy crisis. Worldwide, energy sources such as oil, fuel, gas or electricity have become more scarce, causing prices to rise dramatically.

There are several reasons for this development: On the one hand, demand increased rapidly as the global economy recovered after the Corona pandemic. On the other hand, political developments are influencing the situation: The Russian war with Ukraine caused a significant increase in gas prices.

Reliance on natural gas

Gas is needed not only for heating, but also for the production of electricity and within industry. Russia, Europe's largest supplier of natural gas, has been supplying less and less gas to the West since

the outbreak of the war. To meet the demand, Europe buys gas and oil from other countries – at higher prices and with longer delivery times as well.

*Innofreight
is a reliable
partner,
also in times
of crisis*

The weather also caused energy to become scarcer in Europe last year. A cold winter, in which a lot of gas was used for heating, was followed by an extremely hot summer.

Because of the heat, rivers carried less water, which meant that hydroelectric power plants produced less electricity. Air conditioning caused electricity consumption to rise even further during the very hot season.

Inflation in all branches

The increasing energy prices are a common price driver in all sectors. Inflation has risen rapidly in Europe this year and not only in Austria. As a result of the high energy costs, companies have to produce their products more and more expensively. These costs are being passed on to consumers, which further increases the cost of living and reduces the people's purchasing power.

Stable through the crisis

All in all – no good news so far. However, this is the situation in which we currently find ourselves. As a European company, we at Innofreight are feeling the effects of the current crises in various markets.

In recent years, we have been able to build good relationships and prove to our customers how stable our technology is. This means they can be certain they have a reliable partner with Innofreight – even in times of crisis. With the experience of the last 20 years, we are implementing Europe-wide large-scale projects and offer total logistics solutions from a single source for a wide range of industries.



MonTainer XXL in operation with ČD Cargo for Sev.en



Stationary unloading machine in Chvaletice, Czech Republic

We have earned good references and can find many market leaders in different industries among our customers. We take every opportunity to increase our internal know-how and use the accumulated knowledge to optimize all processes. We can react fast and deliver the right solution in the shortest possible time.

Ensuring security of supply

To compensate for the loss of gas, some countries are again increasingly relying on coal as an energy source. Innofreight's logistics solutions for this sector are proven and have been successfully in use for years. At the moment, larger volumes are once again being moved in this sector to meet energy requirements.

In order to be able to guarantee security of supply, our flexible model is proving to be very valuable for our customers. We can quickly provide the proper equipment to meet the required demand. This year, the demand for the MonTainer XXL in the Czech Republic has risen significantly.

Increased transport volume

Our Czech customer Sev.en Energy moved higher volumes of coal in the first half of this year than in the entire previous year to make up for the gas shortfall. In the previous year around two million tons of coal were unloaded annually with the stationary unloading machine in Chvaletice. This year, the figure was already 2.5 million tons in the first half of the year.

Limestone for flue gas purification

For increased energy production with coal, larger quantities of limestone are needed to do their part in cleaning flue gas. When the power plant burns the coal to produce energy, flue gas is produced.

In the so-called limestone washing process, the flue gases are released into a large-volume container. The



Transport of limestone with the RockTainer ORE for flue gas purification



Stationary unloading machine in Mělník, Czech Republic

gases are sprayed with a special scrubbing suspension containing finely ground limestone. This absorbs the sulfur dioxide contained in the flue gases. The addition of oxygen finally produces calcium sulfate – as gypsum.

Innofreight uses the RockTainer ORE to deliver this urgently needed limestone to the power plants in Tušimice, Ledvice, and Prunéřov, Czech Republic, thereby making an important contribution to reducing flue gases.

Unloading machine in Mělník

For the largest Czech energy supplier ČEZ Group, we have built a stationary unloading machine and put it into operation in the beginning of 2022. Our technology will supply the Czech capital city of Prague with heat. 180 MonTainer XXL on 45 2x40 ft InnoWaggons ensure a smooth transport of raw materials.

Up to four block trains each day are arranged in position for unloading by the “E.T.” shunting ro-

bot. The electric operating robot is capable of shifting trains weighing up to 2,700 tons. The partially automated machine has a built-in dust extraction system with a suction capacity of 60,000 m³ per hour.

All the systems installed are state-of-the-art. The plant will unload around 1.5 million tons per year while an unloading capacity of 740 tons per hour would be possible. Unloading of a MonTainer XXL with 32 tons takes about two minutes.



MonTainer XXL in operation for the biggest Czech energy supplier ČEZ Group



Only one person operates the entire machine

Compared to other solutions, we offer the optimum in availability, operator friendliness and work safety through our unloading machines. From the excavation work for the unloading bunker to the installation of the tipping system, Innofreight supervises the entire implementation of these machines. For the implementation we are relying on long-standing and strong partners.

The stationary unloading machine consists of a tipper, shunting equipment, conveyor technology, and a hopper and suction system. Only one person operates the entire unloading machine from an air-conditioned cabin. Regardless of the season and weather conditions, the MonTainers XXL can be easily unloaded all year round.

Successful together

This year, we also celebrated the successful implementation in the Czech Republic together with Miroslav Krpec, Managing Director of the Mělník power plant, and David Zajonček, Managing Direc-

tor of SDKD. They all are very impressed by the stationary unloading machine, which the guests were also able to visit and see the unloading of the MonTainers XXL in action during the celebration.

We also invited our suppliers to this event, who supported us in the implementation process of the unloading machine. Without our strong partner companies, we would not be able to deliver so fast and guarantee such a smooth process.

The unloading machine has an unloading capacity of 740 tons / hour



The electric operating shunting robot “E.T.”



Project team from Innofreight Czech

The representatives from Vollert, Bilfinger Tebodin, Neuson Hydrotec, Bauset, Metalia, Cipres and ČEZ EP were once again able to see for themselves how well the finished stationary unloading machine works.

A special part of the ceremonial program was the handing over of a certificate to Adéla Fousová, the first woman who has been trained to operate our machine. Adéla does not only operate our un-

The unloading machine in Mělník supplies heat and energy for the Czech capital Prague

loading machine, but also drives freight trains. Gender equality is a top priority at Innofreight and we offer equal opportunities to everyone.

With the stationary unloading machine in Mělník, Innofreight has successfully implemented the fourth machine in the last five years in Czech Republic. In Třinec, for Třinecké železářny, we are already working on the installation of the next one.



Our longstanding and proven partner companies

Thanks to our customers, suppliers and partners for the good cooperation

Climate-neutral energy sources

The short-term increase in coal transports is not a permanent solution. The clear goal is to switch to climate-neutral energy sources in the future. Many customers, who are currently still using Innofreight equipment to supply coal-fired power plants, will switch to biomass in the next few years.

Even in the Czech Republic, where there are currently still many coal-fired power plants, the signs are pointing to a change. Our local Sales & Service team is in close contact with our existing and potential customers to provide them with the best possible support in the technology shift from coal to alternative fuels.



Thank you to the Mělník Power Plant and SDKD



Certificate handover to Adéla Fousová



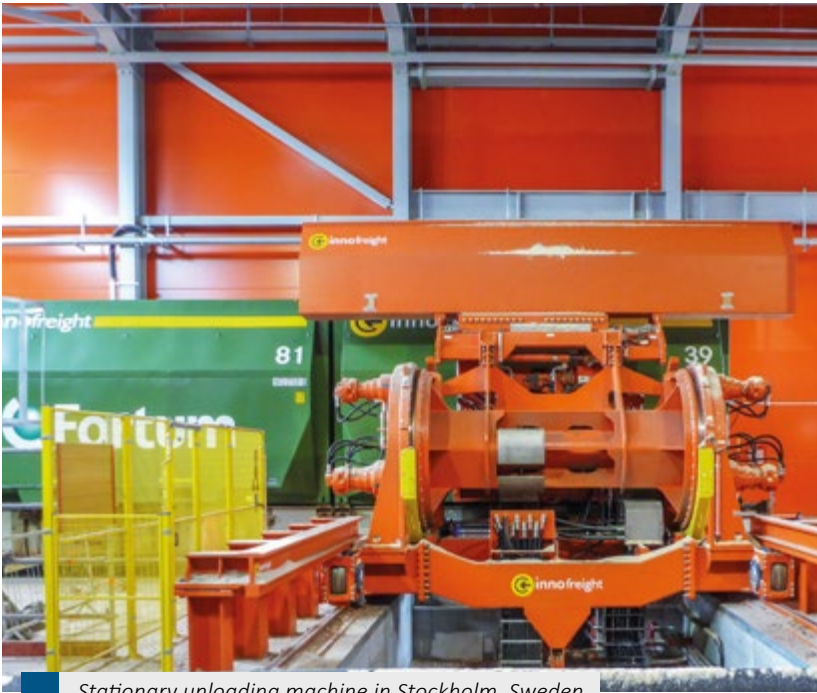
Visiting of the unloading machine during the ceremonial opening

Biomass – energy of the future

Biomass is considered as one of the raw materials for the future in the energy sector. Biomass is formed from the substance of all living things – this includes wood residues, recycled wood or other substitute fuels. These substances can be used to generate energy by using biomass as a fuel. The energy produced from biomass is called bioenergy. One of the great advantages of biomass is that it is a renewable material.

For 18 years Innofreight has been offering our WoodTainer system for the transport of biomass as the container with the highest payload on the market. The WoodTainer XXXL is the largest container of this system with a loading volume of 57 m³ and can therefore transport up to 65 tons of biomass or wood chips per 60 ft wagon.

This giant among the WoodTainers operates in the Czech Republic as well as in Sweden and has been successfully unloaded for years using a stationary unloading machine.



Stationary unloading machine in Stockholm, Sweden

The Polish company Skarna relies on the second largest container from this product line, the WoodTainer XXL. The unloading is carried out for the entire biomass supply using unloading forklifts.

Heating for Sweden

The Swedish energy company Stockholm Exergi also relies on the maximum transport capacity of the WoodTainer XXXL. At

this plant, a stationary unloading machine for biomass has been in successful operation for several years.

190,000 connections of the Swedish capital Stockholm are supplied with heat by Stockholm Exergi. 180 WoodTainers XXXL are in operation to deliver biomass for the modern Värtaverket power and heating plant.



The WoodTainer XXXL successfully transports large quantities of biomass



Unloading of biomass in cooperation with Skarna

Around the clock and at all times, the Innofreight equipment therefore provides heat in the Swedish capital.

More efficient transport

For even more efficient transport of biomass and other light bulk goods, we are working on a new type of wagon. The 80 ft InnoWaggon is intended to replace the 60 ft Sgns wagons in biomass

transport. The single wagon is particularly well suited for transporting biomass, wood chips, pallet systems or 40 ft ISO containers.

As a result of the lightweight construction of our wagons and the reduced number of components required, we are also able to save additional material and maintenance costs with our new wagon. After the successful carried out

tests this year, we are looking forward to going into series production with this innovative development soon.

The first 20 newly built 80 ft InnoWaggon will be used next year for transporting wood chips and biomass with WoodTainer XXL for several customers and will be further tested with other superstructures.



Newly developed 80 ft InnoWaggon for the transport of biomass and wood chips



TOWARDS **GREEN DEAL**

We only have one planet, and we need to protect it. New approaches are needed to meet the major challenges of the coming decades. Innofreight is an important partner on the way to a greener future.

The future of all of us depends on a healthy planet. The European Union has set itself the goal of achieving climate neutrality by 2050. The aim is to reduce net greenhouse gas emissions to zero and make Europe the first climate-neutral continent.

In order to achieve this ambitious goal, the EU launched the European Green Deal. This package of political initiatives is intended to support the green transformation towards a modern and competitive economy.

What is required is a comprehensive approach that affects all relevant areas across sectors: climate, transport, environment, energy, industry, agriculture and sustainable finance.

All relevant sectors need the rail to reverse the trend of rising greenhouse gas emissions. The volume of transport and the fossil fuels used are having a serious impact on the climate. While greenhouse gases in trans-

port are increasing across the EU, emissions from rail transport have fallen by 32 percent.

Innofreight is an important partner on the way to a greener future

Rail ride to climate neutrality

Rail is the most CO₂-efficient mean of transportation on land. The European railroads made a joint commitment to reduce emissions by a further 50 percent. Increasing energy efficiency is a major goal here. To reduce energy consumption, rail companies are renewing their rolling stock. Innovative ideas are helping to make

rail transport more efficient and pave the way to a greener future.

In order to save CO₂, railroads are turning to electricity. Four out of five trains in Europe are powered by electricity. One-third of the electricity already comes from renewable energy sources. More traffic on the railways means a significant reduction in transport-related CO₂ emissions.

To ensure that the increased volume of traffic can be handled by rail, Innofreight technology comes into play from here on. Our technology enables significantly higher transport payloads. This frees up rail capacity, as there is no longer so much traffic to move from loading point to unloading point. The higher load capacity makes rail more competitive than road transport.

Our second powerful argument is the modular system. The three InnoWaggons of different lengths can be combined with our approx. 40 different types of superstructures. The equipment

needed can be put into operation within a very short time.

If, for example, the demand for supplies for energy generation decreases in the summer, the superstructures can be exchanged and the wagons are available to transport other freight by rail. These wagons are easily used for one other project, which increases the effectiveness.

Germany wants to transport every fourth freight load by train already in 2030. To make this work, investments must be made in expanding and modernizing the rail network. In addition, innovative solutions are needed to make rail transport more efficient and competitive. We are already achieving savings of 25 percent on block trains in iron ore transport, which means that with Innofreight equipment fewer trains are needed and therefore less energy is consumed. In this way we have been working towards the Green Deal for years and will be making an even greater contribution in the years to come.

Forerunner in green steel

But it is no longer enough just to move freight from the road to the railways. The industry is constantly considering new ways of sustainable production for a green future. The steel industry in particular is working on new techniques, towards sustainable and CO₂-saving production.

The keyword is "green steel". This change brings with it significant challenges, for which the steel industry needs strong partners. Innofreight has set itself the goal of being the leading partner in the transport sector. This year we successfully completed our first green steel production project. At the same time, it is the largest order we have had so far in the company's history.

From March 2021 to May 2022, we installed two semi-automated stationary unloading machines for

AcelorMittal relies on our technology for raw material logistics in Eisenhüttenstadt

the steel mill in Eisenhüttenstadt, Germany in a short construction period. Together with DB Cargo, we achieved a milestone in green logistics for the world's leading steel and mining group ArcelorMittal.

For the first time, a steel mill switched its entire raw materials logistics to our technology. Each of the two stationary unload-

ing machines can handle up to 1,000 tons per hour, and around 3.5 million tons of ore, limestone and coke are unloaded annually. The additionally installed dust removal system protects the environment from fine dust and emissions.

Alongside the construction of the unloading machines, we delivered 352 InnoWaggons in two different lengths and 1,408 Mon-Tainers with four different loading volumes to DB Cargo. Our lighter wagons and the special containers allow even more efficient capacity utilization of the freight trains and optimize rail transport to Eisenhüttenstadt. Six freight trains can be saved per week thanks to Innofreight technology.

Depending on the raw material, we have been able to increase the net load for the transport of ore, limestone or coke by between 21 and 48 percent. The shunting robot "Herbert" shunts trains weighing up to 2,160 tons and enables the InnoWaggons



Insight in the stationary unloading machine for limestone, iron ore and ore pellets



Stationary unloading of ore pellets



Dr. Sigrud Nikutta und BMDV Dr. Volker Wissing with the Innofreight-Team



Press event on the occasion of the opening



Project team DB Cargo, AMEH, Neuson Hydrotec and Innofreight

and MonTainers to be automatically positioned for unloading operations.

Both systems have been in operation since July 2022. At the end of October, we celebrated the successful implementation of the largest Innofreight project together with project partners, customers, and suppliers to thank them for the good cooperation and the trust they have placed in us.

During a press event, Dr. Sigrud Nikutta, Chairwoman of the Management Board of DB Cargo, and Reiner Blaschek, CEO ArcelorMittal Germany, presented and introduced our logistics system to the German Federal Minister of Transport, Dr. Volker Wissing, and State Secretary Hendrik Fischer from the Brandenburg state government.

During the presentation, ArcelorMittal emphasized that this solution is already a first step towards CO₂-free steel production. Changing raw materials will require different containers in the future, but thanks to the modular Innofreight system the wagons can continue to be used with adapted superstructures.

Innofreight is a total solution provider. In our anniversary year, we have repeatedly been able to present ourselves as a reliable partner to the steel industry.

Our service does not end with the delivery of the stationary unloading machines or the InnoWaggon including superstructures. We also support our customers during operation and take care to maintain our equipment in the best possible way to avoid breakdowns. However, should an unexpected malfunction occur, our competent service staff are available at various locations to keep downtimes as short as possible.



MonTainer XML II in operation for Třinecké železárny

Unloading at the steel mill

In the Czech steel industry, Innofreight's experts are also very much in demand. In Třinec, Czech Republic, we are working on another major project. Together with Budamar Innovations, we are in the middle of the implementation phase for a new stationary unloading machine for the steel producer Třinecké železárny.

The plant in Třinec is scheduled to start operation in the first quarter of 2023. In addition to the unloading machines, the project includes the delivery of 330

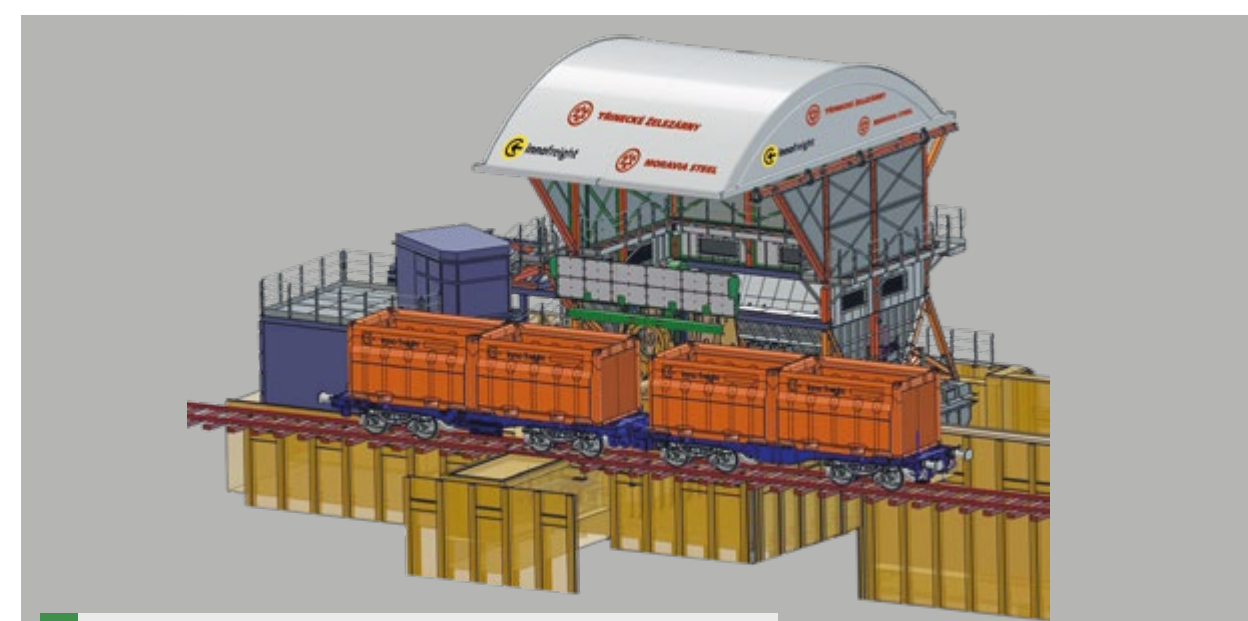
60 ft InnoWaggon with 1,320 MonTainer XML II. Our equipment is going to supply the steel mill with iron ore. The start-up phase including test runs is planned for January, and series traffic is expected to begin in March.

With the implementation of these projects, we are gaining acceptance in the steel industry, which will lead to further orders. More and more steel mills are showing interest in Innofreight technology and want to make their raw material supplies even more efficient with us.

New raw materials and scrap

In the steel industry, it is not enough to optimize transport and offer faster unloading. On the way to green steel production, new raw materials are needed that enable more efficient, energy-saving production. All the major steel producers in Europe are working to make this a reality as quickly as possible. As soon as the first new production facilities are built, transport technology will also have to be adapted.

This year we have invested a lot of time and energy in developing



Stationary unloading machine for Třinecké železárny, Czech Republic



Test unloading with the DryTainer in St. Michael, Austria

new products to meet market requirements. DRI (direct reduced iron) is one promising solution for replacing the classic blast furnace process.

With our DryTainer in a pyramid shape, we are developing a completely new container, adapted to the requirements of the new raw material. Since DRI can react with air if necessary, the shape of a four-sided pyramid was chosen to have as little air as possible in the container and to avoid dust pollution. The shape of the DryTainer is also adapted to a dump cone, which simplifies unloading.

The Innofreight concept avoids abrasion and breakage during loading activities, maintaining the high-quality product properties of DRI. We are the very first to implement the transport of this reactive material by rail.

To make steel production more environmentally friendly, many producers are already using scrap as a raw material. Old steel, for example from cars or washing machines, is recycled and can be converted into new products in a more energy-efficient way. At present this scrap is still often transported by truck to electric

steel mills. Here we are working with our customers on innovative solutions for delivering scrap by rail in the future and making simple unloading possible with the help of a stationary unloading machine.

Wherever large quantities of raw materials are transported by rail, Innofreight is not far away. In cooperation with all major steel group we develop solutions to make their logistics as simple as

possible. For next year we are already working on new projects to further improve the transport of raw materials in Europe.

Delivery of proven solutions

Last year we started delivering the first RockTainer ORE with 2x30 ft InnoWaggons to our partner DB Cargo for the German steel group Salzgitter Flachstahl. This year we successfully completed this project. With the handover of the last set of 56 Rock-



Handover of the RockTainer ORE to DB Cargo



RockTainer ORE in operation with DB Cargo for Salzgitter Flachstahl

Tainer ORE, a total of 170 RockTainer ORE are now on the rails for Salzgitter.

The wagons were extensively tested and precisely adapted to the needs of the German steel producer. Thanks to the optimizations, adhering iron ore fines can now be unloaded with minimal cargo residues. And the side unloading flaps can be opened in pairs or simultaneously, which enables simplified and targeted

unloading into the steel mill's deep bunkers.

The longest Austrian flag

In our anniversary year we delivered a new block train to DB Cargo which underlines our Austrian roots. The 42 optimized ScrapTainers on 21 2x40 ft InnoWaggons can also be described as the longest Austrian flag. The red-white-red block train and two others, each with 40 ScrapTainers and 20 InnoWaggons, transport

With a length of 512 meters our red-white-red ScrapTainers form the longest Austrian flag



Red-white-red ScrapTainer on the way to Germany



The colorful RockTainer ORE attract a lot of attention with DB Cargo

fuels for steel production from the port in Hamburg, Germany to voestalpine in Linz, Austria.

The second part of this project was another milestone in the company's history. Within just half a year, we were able to secure the supply of raw materials together with DB Cargo for the largest steel producer in Austria for many years using 132 2x30 ft InnoWaggons and 264 RockTainers ORE.

Fast in traffic between plants

For the transport of steel slabs, blooms, pipes and coils we have

developed the CoilPallets. Depending on requirements, the pallets can be used for different freight. In August we delivered 2x30 ft InnoWaggons with these CoilPallets to DB Cargo.

The wagons were handed over directly to the end customer and will be used to transport slabs between the plants. Afterwards, it is planned to use the CoilPallettes for the transport of cold-rolled coils and for the combined transport of coils and slabs.

This once again shows how universally usable Innofreight prod-

ucts are. The short wagons and lightweight loading frames enable customers to achieve a very high payload with a shorter train length.

One product – two areas of use

Wire coils are a preliminary product of steel production. These coils, which have a weight of around 2 to 3.6 tons, often have to be transported from one plant to the next for further processing. This is usually done on long trains loaded with the wire coils in a single layer.

Innofreight has developed a new solution here: The WireStanchions system allows the coils to be loaded in stacks. This means that fewer wagons are needed, as each wagon can carry around 40 to 50 percent more payload. A 2x45 ft InnoWaggon can transport 38 wire coils with a payload of 141 tons.

The stanchions and end walls provide optimum load securing – no additional securing is required, so loading and unloading can be done, above all, safely and fast.

Together with Liberty Steel and ČD Cargo, we carried out success-



Stacked loading of wire coils with the WireStanchions system



Test loading of stacked sawn timber pallets



HighPerformanceBase for the transport of pipes

ful test loadings with our prototypes. Further test loadings are planned both in Germany and Austria.

However, like everything at Innofreight, the wire stanchion system is highly flexible and can transport more than just wire coils bundles. Initial test loads of sawn wood have been carried out at Labewood in Štětí, Czech Republic. The Wire Stanchions system can additionally be used for timber and pipes.

Developing, testing, delivering

More know-how also means faster reaction times on the market. Innofreight was able to benefit from this in the development and delivery process of the HighPerformanceBase. After receiving a request from our customer at the end of August, it was already possible for us to test the prototype in October.

The HighPerformanceBase has a square profile with a wooden support. The base serves as a carrier on which a wide variety of products for different industries can be transported.

The HighPerformanceBase was originally developed for transporting pipes. Together with DHATEC's common system for pipe transport, it is now possible to load two to four additional pipes per double wagon. Thanks to the higher payload of our InnoWaggons, rail capacities can be saved again.

With this development Innofreight has created a universal product, which can transport different goods thanks to the support base. In addition to pipes, the HighPerformanceBase can also be used for transportation of slabs or parts of concrete easily and safely.



2x30 ft InnoWaggons with CoilPallets

Pilling the superstructures

Another great innovation in our product portfolio is the BoxOn-Box system. A simple idea with the aim of minimizing empty runs. Once the bulk containers have been unloaded, they can be stacked on top of each other, creating space on the wagon to load another full container. In this way, the train can transport materials in both directions and does not return to the loading point empty.

After successful tests with the prototype, the containers will transport raw materials to a steel mill next year.

In the North Sea ports, the BoxOnBox containers will be loaded with iron ore and the empty containers will be placed on top of one another for the return journey. ISO containers are placed on top of the empty spaces on the wagon, which are then loaded with coils or similar goods and returned to the seaports.

This innovative project also helps to save rail capacity and transport goods more efficiently by rail.



AcidTainer rolling on broad gauge with FinnoWaggons in Finland

Tank container for transportation of liquids

The SurfaceWaterTanks transport saline surface water produced during the mining of salt. The German company K+S took the old tank cars, which were highly susceptible to breakdowns, out of service last year and switched its transport operations completely to Inno freight equipment.

The SurfaceWaterTank is our largest tank container with a capacity of 62,000 liters. K+S is convinced

of the Inno freight technology and the delivery for further tank containers will start this year and continue in 2023.

Another tank container from our product portfolio is the Acid-Tainer. The tanks are designed for transporting nitric, phosphoric and sulfuric acid. A payload of up to 136 tons is possible per double wagon. On rail, the acid tanks are combined with our wide-gauge 2x40 ft FinnoWaggon for VR Transport in Finland.



Successfully tested BoxOnBox system



MonTainer XM 2000 on rail with SBB Cargo

Since 2022 the AcidTainers are successfully in operation. Stainless steel containers for the transport of hazardous goods must meet high quality standards in order to transport these goods. Inno freight has mastered this very demanding project outstandingly well.

Renaturation on rail

Together with SBB Cargo, a subsidiary of the Swiss Federal Railways, we have started a big infrastructure project this year. In March we delivered 22 2x40 ft InnoWaggons with 132 MonTainers XM 2000 and an unloading forklift to Switzerland.

The containers are loaded in Geneva with non-hazardous excavated material from a large construction site and are transported to Lake Neuchâtel. Unloaded onto dumpers, the excavated material is then lowered into the lake to fill in holes previously created by gravel excavations.

In this way Inno freight is helping to restore the lake to its natural state. This will restore the Lake Neuchâtel to a near-natural state and provide a habitat with better quality of life for animals and plants.

Cooperation on rail

Since the beginning, we have had special cooperations with various of railways. Large quantities of Inno freight equipment, with which our end customers are supplied, are rented directly from state railways and private railroads all over Europe.

While Inno freight provides the modern technology, the railways secure the traction and ensure the supply of raw materials to the industrial plants. This year we

Inno freight transports goods efficiently on track and saves rail capacities



Mobile unloading with the rotary forklift in Switzerland

were able to sign new framework agreements with two state railways.

The new agreement with Rail Cargo Austria, a subsidiary of the Austrian Federal Railways ÖBB, will determine cooperation for the next few years: contracts worth 1.18 billion EUR for the leasing of intermodal loading units and freight wagons have been assigned to InnoFreight. The cooperation includes the leasing of InnoWaggons and a variety of superstructures for projects in the coming years.

Together with Rail Cargo Austria, we started to replace the InnoWaggons with RockTainer ORE for voestalpine from 2x40 ft wagons to 2x30 ft wagons. Here we are saving 20 ft train length per double wagon and provide more rail capacity again.

We will also be delivering newly built RockTainer ORE on 2x30 ft InnoWaggons for the Slovenian state railroad SŽ-Tovorni promet for the first time and thereby switching to shorter trains as well.

We also signed a framework agreement with the Czech railways ČD Cargo this year. After the excellent cooperation of the past 15 years, we have succeeded in cooperating even more closely. Over the next few years we will supply between 1,000 and 2,000 InnoWaggons to ČD Cargo, while the company continues, along the path it has taken, with renewing its whole fleet together with InnoFreight.

Smart transports of timber
The wood industry has been an important customer for InnoFreight from the very beginning. We offer a whole number of solutions for transporting wood in a wide variety of processing forms.



RockTainer SAND on track with the Austrian state railway

Our flagship in timber transport is the Smart GigaWood system – it enables up to 30 percent more

and our particularly lightweight 2x45 ft InnoWaggons, a double wagon can transport up to 144 tons.

The specially designed stanchion eliminates the need for belts, and no person has to get close to the heavy loads. This speeds up loading and unloading significantly and makes a huge contribution to increasing work safety, as no employees have to work in the danger zone. Timber from two to twelve meters can be optimally transported and the high payload means that block trains are saved at the end of the day.

payload compared to conventional timber wagons. Thanks to optimum use of the clearance gauge

Innoduler, our expert for the production of superstructures, produced the 500th Smart GigaWood



Smart GigaWood on rail with the Czech state railway



Loading of Smart GigaWood at HLG in Bebra, Germany

at its production plant in Slovenia this year. Instead of the usual yellow, this special superstructure with its eye-catching pink color attracts attention on the rails, and not only because of its outstanding performance compared to similar timber wagons.

This year we delivered 18 Smart GigaWoods with 40 stanchions for timber with a length of 2.5 meters to HLG Holzlogistik und Güterbahn in Germany.

DB Cargo Logistics received 18 Smart GigaWoods. These Smart GigaWoods 5x5 have 24 stanchions and are optimized for the transport of five-meter timber. Optimization is achieved by loading the 2x45 ft InnoWaggons over the close coupling. This type of loading enables

5 stacks of 5 meters of timber to be loaded and is a further milestone in our company's innovative strength. With our customer Rail Cargo Austria, we delivered 18 Smart GigaWood 5x5 for Binderholz this year.

The manufacturer of flooring and panels Kaindl will also be relying on InnoFreight equipment in the future. 18 Smart GigaWood systems, nine with 48 stanchions and nine with 42, will be delivered this winter.

Smart GigaWood Round & Sawn
In order to optimize the transport of sawn wood, we have additionally developed the Smart GigaWood in this direction. The Smart GigaWood



500th Smart GigaWood from Innoduler

Round & Sawn is used for loading round wood as well as sawn wood.

In order to be able to load the sawn wood packages in the best possible way, the stanchions in this configuration are at right angles. By loading both round and sawn wood, we once again reduce the number of empty runs.

Our goal for the future is clear: We want to offer technologies that enable our customers in a wide range of industries to transport their raw materials by rail. We offer the complete solution and are an important partner on the way to a greener future.





THE FUTURE IS **INTERMODAL**

Efficient intermodal transport reduces the volume of traffic on the roads and saves emissions. With the Mošnov terminal and newly developed superstructures for rail and road, Innofreight is entering combined transport.

Intermodal transport refers to a transport chain in which two or more means of transportation are used. The transported goods are not reloaded, only the loading unit changes the means of transport.

Freight can, for example, be transported in a container by truck to the loading station, where it is transferred to the railroad and then transported further by ship. Transports are combined with each other and merge the advantages of the different advantages of transport in a single transport chain. The key here is to find the right mix.

An efficient multimodal transport leads to avoiding the high traffic density on the road and reducing CO₂ emissions. More and more companies are deciding in favor of intermodal transport as a reliable and environmentally friendly transport solution.

Intermodal terminals are central links in the transport chain. Containers are handled, transferred and distributed here. In the logistics chain, the terminals are critical transition points: Only when all parties involved work well together, everything runs safely and effi-

ciently. In addition, the terminals need special equipment to handle the traffic, such as gigantic cranes or reach stackers that move the containers from one transport vehicle to another or set them aside for temporary storage.

Intermodal transport combines the advantages of different types of transport

Terminal Mošnov

With the opening of the intermodal transport terminal in Ostrava-Mošnov, Czech Republic, Innofreight is taking a big step in the direction towards intermodal transport.

Together with our partner operators Medlog Czech Republic, Budamar Logistics and ČD Cargo Logistics, we have been ensuring

since this year that thousands of tons of goods are no longer transported by road – but by rail.

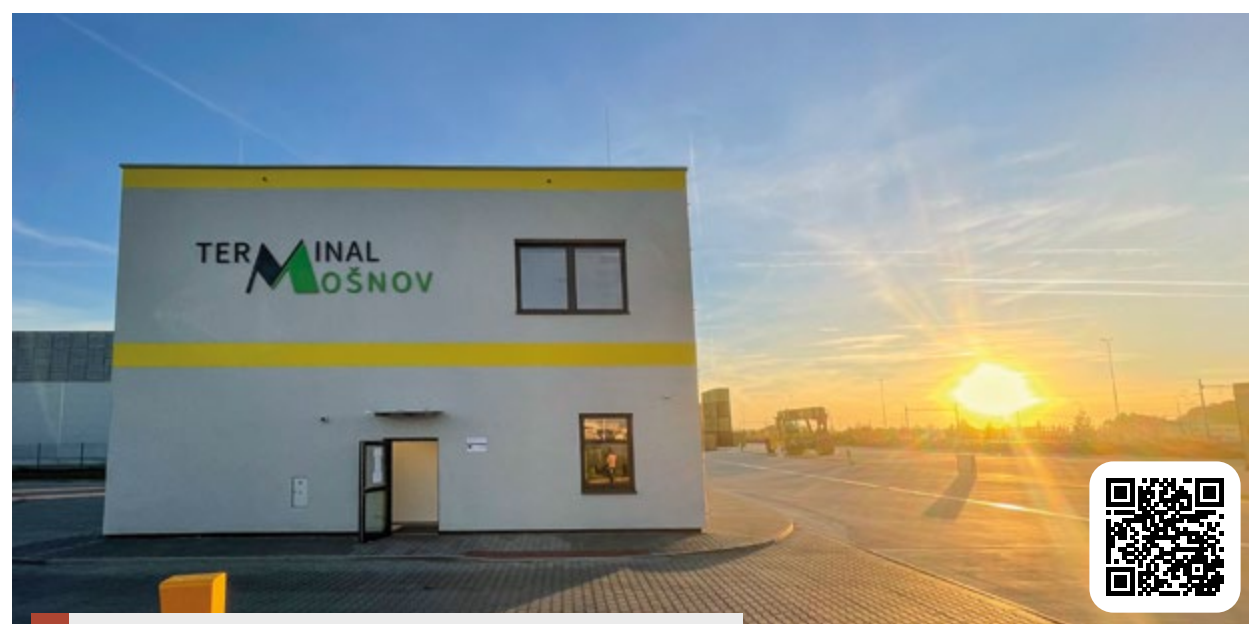
Well located on the Czech, Slovak and Polish borders, the terminal Mošnov connects the neighboring regions with European ports, both in Northern and Western Europe, as well as with the Adriatic Sea. In addition to shifting the transport of goods to rail, the terminal also contributes to the sustainable development of the entire region.

The Mošnov terminal has 6 tracks with a length of 655 to 723 meters, a traction of 3 kV and a direct connection to the railroad corridor. The existing container storage area of 55,000 km² can be expanded by 30,000 km².

Handling is carried out with reach stackers from Kalmar, which can reload 8 block trains per day. In the future, portal cranes will be used here. The location in a large industrial area close to Airport Leoš Janáček Ostrava also provides fast access to the highway network.

First train from Italy

On August 14, the first train arrived from Manoppello in Italy



Intermodal transport terminal in Ostrava-Mošnov, Czech Republic



Ceremonial opening of the terminal together with our partner operators

with 32 truck trailers from Arcese in pocket wagons. For each distance covered by a single train on this axle, at least 190 tons of CO₂ are saved compared to the corresponding road transport.

This year Innofreight has celebrated this outstanding success at the terminal together with our partner operators and suppliers. In addition to representatives of Medlog Czech Republic, Budamar Logistics and ČD Cargo Logistics, the regional governor, Ivo Vondrák, and the mayor of Ostrava, Tomáš Macura, were also at the celebration.



Reachstaker "Super Gloria" - one of the largest mobile lifting machines



Start of the cooperation with MSC shipping company



Terminal project team in Ostrava, Czech Republic

For InnoFreight, the Mošnov terminal is an extremely important project and a further step towards the intermodal concept. As an operator at the terminal, we are making an essential contribution

to the expansion of intermodal transport here. We transport the goods by train from the ports to the inland. At the terminal, the containers are reloaded onto the trucks and only the last few ki-

lometers on the way to the end customer they roll on the road. In addition, we are further expanding our service and maintenance capacities and enabling even faster service for our customers and partner companies in Central and Eastern Europe.

Container Service = ContServ

The company IC ContServ GmbH, founded a year ago, is responsible for the maintenance of all InnoFreight superstructures. Based at the St. Michael terminal in Austria, ContServ handles all service, refurbishment and maintenance work for our equipment.

The terminal is the central hub for our superstructures. The team prepares prototypes and modifications of containers and handles the supply of spare parts as well. Centrally located, St. Michael is a good location as a central warehouse for our equipment. All of Europe is supplied with spare parts from there. This year, a large number of containers were completely refurbished and put back on track.



Together we celebrate successes

In addition to the repairs, ContServ also takes care of the documentation, maintenance instructions and keeps track of the condition of the containers.

Second branch in Vacha

In the first year of business, ContServ was already successful in opening a second branch office. A new location was established about five kilometers from our customer K+S in the German town of Vacha.

The SurfaceWaterTanks, for the transport of saline surface water, are repaired by the mobile team in Vacha in the shortest possible time in case of any issues. The service staff can repair not only the superstructures but also the wagons.

With the branch office in Vacha, ContServ completely covers the central German area. The mobile service team can reach customers in no time and carry out the necessary work directly on site. The site is currently being further expanded and a professional freight wagon workshop is being built, which will start operations at the end of next year.

Expansion across Europe

Next year ContServ is planning to set up two support bases in the Czech Republic. One base is planned near our stationary unloading machines around Chvaletice, Mělník, Opatovice and Štětí in order to be as close to the customer as possible. In this way, downtime on the one hand and the cost of repairs on the other can be kept low.

There is also considerable potential for expanding the service capacities of ContServ at the new intermodal terminal in Ostrava-Mošnov. Here, a mobile service team is to take care of on-site maintenance of InnoFreight



ContServ celebrates a successful year

equipment as well as third-party business.

In order to optimize the overall logistics, the transport containers must be considered as temporary

storage in the future. Not only the goods are loaded from one means of transport to the next – the superstructure comes along with it. In this way, the truck for short distances and the train for long



Refurbishment of containers by ContServ

distances can ensure optimized transport.

Optimized transport of cement

To meet the needs of this inter-modal traffic, we developed new solutions. With our partner Silo Riedel we have founded a joint venture: InnoRiedel. Together we can provide a new competitive offer for cement transports in inter-modal traffic.

Through this cooperation, the Austrian forwarding company for bulk goods transports and Innofreight offer a complete package for logistics from the cement manufacturer to the end consumer. For the optimal transport, the CemTainer was newly developed.

The first prototype of the CemTainer is ready and the first loading and unloading tests have been successfully carried out. The container, made of steel, has a length of 22.5 ft and is optimally adapted to the density of cement. This makes it possible to achieve an optimum payload on the road of 30 tons. One 2x45 ft InnoWaggon can transport four CemTainers.

The CemTainer is a pressurized container – but only during unloading. The container is filled by



CemTainer for intermodal transport

*CemTainer:
ecological
transport of
cement over
long distances*

erating pressure of up to two bar is connected and blown into the container. This makes the cement act like a liquid, which facilitates unloading. By tilting, the cement slips easily out of the tank and is subsequently blown up into the cement silo.

Transport of natural gypsum

Since there are usually no rails in mines, certain goods have to be first transported by truck before they can be transported further by rail.

This is the case, for example, with the Knauf company, which

gravity loading and is not under pressure either during loading or transport. For unloading, an op-



Successful test together with Silo Riedel



CityLogistics Container for intermodal transport

mines natural gypsum in a mine in Tragöß, Austria.

In the future, our CityLogistics container will optimize the traffic between the mine in Tragöß and the plant in Weißenbach near-by Liezen, about 100 kilometers away.

The natural gypsum will be loaded directly into trucks at the plant and will be transported to the next terminal. There, the CityLogistics containers will be transferred to freight trains. In Liezen, the containers will then be unloaded by forklifts.

*CityLogistics
Container:
intermodal
transport solution
for building
materials*

The aim of the development of the CityLogistics Container is to combine the system of rail with

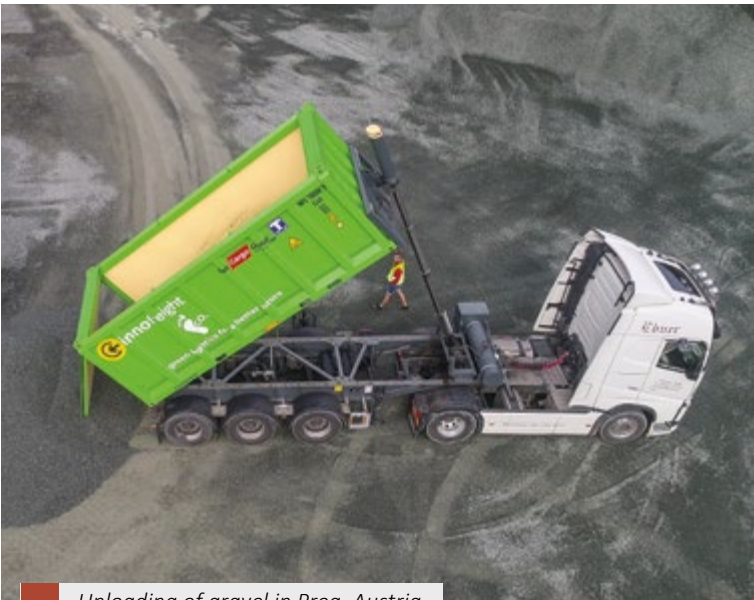
the flexibility of road. The multi-functional solution is to transport various goods in the building materials sector in an environmentally friendly manner.

Our technicians are already working in the background on further solutions to push intermodal transport forward in the future.

The use of transport solutions for road and rail is also interesting for finished products. The container solution is to be regarded as a “moving warehouse” that brings the products safely to the desired destination.



Loading of natural gypsum in Tragöß, Austria



Unloading of gravel in Preg, Austria



INNOFREIGHT EQUIPMENT

The product range offers an overview of which Innofreight equipment rolls on track and the unloading solutions we offer for different industries.

The rolling equipment and our unloading solutions are at the heart of Innofreight. The extensive product range is presented on the following pages.

Depending on the gauge and wagon type, there are more than 40 different superstructures that can be combined with our different InnoWaggons.

With this product range we currently serve the pulp and paper industry, the wood industry, the energy sector and the steel industry. Furthermore,

we transport building materials, liquids, agricultural and chemical products using the European rail network.

When it comes to superstructures, the number of products we put on the rails increases every year. The portfolio is comprehensive, but this does not stop us from continuing to research, develop and bring new innovations to market. For new raw materials, we are working on solutions to meet the changing requirements – and help to develop solutions for a greener future.

The next few pages show the equipment from Innofreight with information on loading volume, payload, size, loaded freight and unloading possibilities.

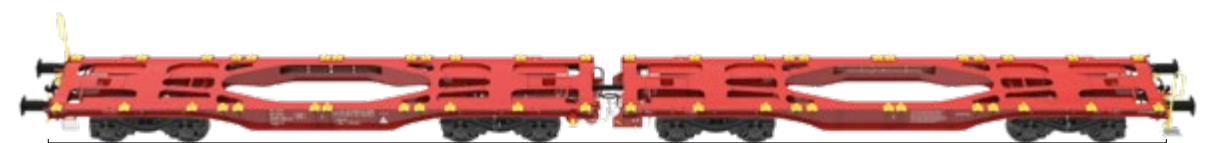
Unloading technologies are an important part of our overall solutions. Our stationary unloading machines and the forklifts help to optimize logistics processes as a whole.

The overview map in the last part of the product range shows where in Europe our unloading solutions are successfully in operation.

InnoWaggon	2x30 ft	2x40 ft	2x45 ft	80 ft
Classification	Sggmmrrs	Sggrrs	Sggmrrs	Sggns
Classification code	4658	4854	4657	4561
Track class	A, B1, B2, C2, C3, C4, D2, D3, D4			
Number of axles	2x4			4
Tare mass	2x14,200 kg	2x14,850 kg	2x14,950 kg	19,500 kg
Length over buffer	22,500 mm	26,620 mm	29,520 mm	25,710 mm



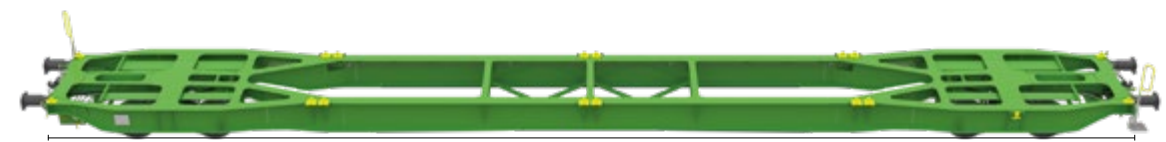
2x30 ft InnoWaggon



2x40 ft InnoWaggon



2x45 ft InnoWaggon



80 ft InnoWaggon



2x30 ft InnoWaggon



RockTainer ORE

Loading volume per container: 47 m³

Length: 30 ft

Max. payload per double wagon: 138 t

Loaded goods: iron ore, ore pellets, ore concentrate, limestone

Unloading:
sudden unloading into hopper



product video



DryTainer

Loading volume per container: 25 m³

Length: 13 ft

Max. payload per double wagon: 140 t

Loaded goods: DRI, salt, cement clinker and other wet-sensitive bulk materials

Unloading:
adjustable unloading with forklift or stationary unloading machine



CoilPallet

Length: 10 ft

Max. payload per double wagon: 141.8 t

Loaded goods: Coils (Ø: 800-2,250 mm, weight: 35.75 t, temperature: up to 500°C)

Loading width: 2,170 mm

Loaded goods: steel slabs, blooms, pipes

Loading width: 2,652 mm

Unloading:
unloading crane or forklift

2x30 ft InnoWaggon

MonTainer XM

Loading volume per container: 23.6 m³

Length: 13 ft

Max. payload per double wagon: 143.5 t

Loaded goods: iron ore, ore pellets, limestone

Unloading:
forklift or stationary unloading machine



MonTainer XML

Loading volume per container: 30 m³

Length: 15 ft++

Max. payload per double wagon: 141.5 t

Loaded goods: iron ore, limestone

Unloading:
forklift or stationary unloading machine



MonTainer XML II

Loading volume per container: 27 m³

Length: 15 ft

Max. payload per double wagon: 141.5 t

Loaded goods: iron ore, limestone

Unloading:
forklift or stationary unloading machine





SlurryTainer

Loading volume per container: 43 m³

Length: 30 ft

Max. payload per double wagon: 142 t

Loaded goods: Slurry

Unloading:
unloading by gravitation



InnoTainer Coils

Number of coils per container: 3

Length: 30 ft

Max. payload per double wagon: 142 t

Loaded goods: coils

Unloading:
unloading crane or forklift

2x40 ft InnoWaggon



MonTainer XM 2000

Loading volume per container: 19 m³

Length: 13 ft

Max. payload per double wagon: 139.1 t

Loaded goods: building material, soil, crushed stone, excavation material, rubble

Unloading:
forklift or stationary unloading machine

2x40 ft InnoWaggon

MonTainer XM

Loading volume per container: 23.6 m³

Length: 13 ft

Max. payload per double wagon: 139.6 t

Loaded goods: building material, coal, iron ore

Unloading:
forklift or stationary unloading machine



MonTainer XXM

Loading volume per container: 29 m³

Length: 13 ft

Max. payload per double wagon: 137.5 t

Loaded goods: building material, coal, iron ore

Unloading:
forklift or stationary unloading machine



MonTainer XXL

Loading volume per container: 46 m³

Length: 20 ft

Max. payload per double wagon: 137.5 t

Loaded goods: coal, coke

Unloading:
forklift or stationary unloading machine



2x40 ft InnoWaggon



ScrapTainer

Loading volume per container: 71.1 m³

Length: 40 ft

Max. payload per double wagon: 136.5 t

Loaded goods: scrap metal, iron ore, coal

Unloading: magnetic unloading or unloading crane



BoxOnBox-System

Loading volume per container: 32.5 m³

Length: 40 ft

Max. payload per double wagon: 140.7 t

Loaded goods: scrap metal, iron ore, coal

Unloading: unloading crane



DryTainer

Loading volume per container: 25 m³

Length: 13 ft

Max. payload per double wagon: 137 t

Loaded goods: DRI, salt, cement clinker and other wet-sensitive bulk materials

Unloading: adjustable unloading with forklift or stationary unloading machine

2x40 ft InnoWaggon

CoilPallet

Length: 10 ft

Max. payload per double wagon: 143 t

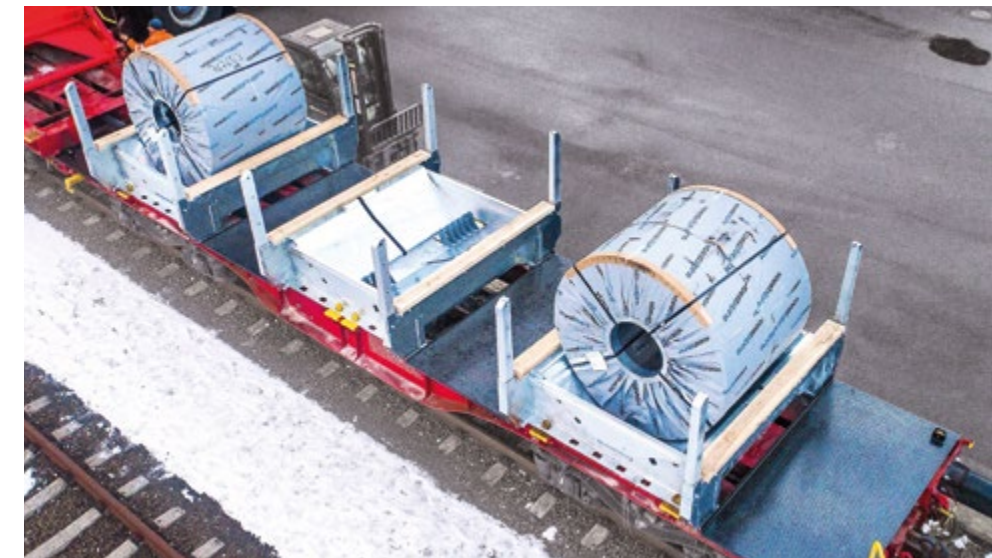
Loaded goods: Coils (Ø: 800-2,250 mm, weight: 35.75 t, temperature: bis 500°C)

Loading width: 2,170 mm

Loaded goods: steel slabs, blooms, pipes

Loading width: 2,652 mm

Unloading: unloading crane or forklift



SteelPallet

Length: 10 ft

Max. payload per double wagon: 143.7 t

Loaded goods: steel slabs, blooms, pipes

Loading width: 2,652 mm

Unloading: unloading crane or forklift



Smart GigaWood Sweden

Loading volume: 110 m³

Max. payload per double wagon: 142.1 t

Loaded goods: timber

Unloading: logstacker or highlifter



2x40 ft InnoWaggon



RockTainer SAND

Loading volume per container: 68 m³
Length: 40 ft
Max. payload per double wagon: 143.3 t
Loaded goods: sand, gravel, cement
Unloading: sudden unloading into hopper



RockTainer INFRA

Loading volume per container: 51 m³
Length: 30 ft
Max. payload per double wagon: 136 t
Loaded goods: track ballast
Unloading: adjustable unloading to the centre or to the sides



CityLogistics Container

(intermodal)
Loading volume per container: 27.1 m³
Length: 20 ft
Max. payload per double wagon: 138 t
Loaded goods: building materials, excavation material, rubble
Unloading: truck tipping chassis or stationary unloading machine



2x40 ft InnoWaggon

ChemieTainer

(intermodal)

Loading volume per container: 32.5 m³
Length: 20 ft
Max. payload per double wagon: 139.1 t
Loaded goods: corrosive bulk materials
Unloading: truck tipping chassis or tipping platform



SurfaceWaterTank

Loading volume per container: 62 m³
Length: 40 ft
Max. payload per double wagon: 140 t
Loaded goods: waters contaminated with salts
Unloading: Gravitation – hose connection DN 100 or flange DN 150



AcidTainer

(broad gauge)

Loading volume per container: 49 m³
Length: 40 ft
Max. payload per double wagon: 136 t
Loaded goods: phosphoric acid, nitric acid, sulphuric acid
Unloading: gravitation – hose connection DN 100, camlock





OreTainer LM

(broad gauge)

Loading volume per container: 18.1 m³

Length: 13 ft

Max. payload per double wagon: 140 t

Loaded goods: ore

Unloading:
forklift or stationary unloading machine



InnoTainer Coils

(broad gauge)

Number of coils per container: 7

Length: 40 ft

Max. payload per double wagon: 138 t

Loaded goods: coils

Unloading:
unloading crane or forklift

2x45 ft InnoWaggon



MonTainer XXL & XXLL

Loading volume per container: 47 m³ (XXL) & 57 m³ (XXLL)

Length: 20 ft & 25 ft

Max. payload per double wagon: 138.5 t

Loaded goods: coal, coke

Unloading:
forklift or stationary unloading machine

2x45 ft InnoWaggon

WireStanchion System

Loading volume:
38 wire coils bundles

Max. payload per double wagon: 144 t

Loaded goods: wire coils, tube bundles, flat products, long goods or construction steel

Unloading:
unloading crane or forklift



HighPerformance Base

Loading length: 2x13.65 m

Max. payload per double wagon: 147.5 t

Loaded goods: pipes, long steel products, concrete finished parts

Unloading:
unloading crane or forklift



CemTainer

(intermodal)

Loading volume per container: 32 m³

Length: 22.5 ft

Max. payload per double wagon: 4x30 t for the intermodal traffic

Loaded goods: cement

Unloading:
compressed air discharge with tilting



2x45 ft InnoWaggon



Smart GigaWood 5X5

Loading volume: 225 m³

Max. payload per double wagon: 144 t

Loaded goods: timber

Unloading:
logstacker or
highlifter



Smart GigaWood

Loading volume: 220 m³

Max. payload per double wagon: 141 t

Loaded goods: timber

Unloading:
logstacker or
highlifter



Smart GigaWood Round & Sawn

Loading volume: 220 m³

Max. payload per double wagon: 144 t

Loaded goods: timber,
sawn timber packs

Unloading:
logstacker, highlifter or
unloading crane or forklift



80 ft InnoWaggon

WoodTainer XXL

Loading volume per container: 46 m³

Length: 20 ft

Max. payload per wagon: 62 t

Loaded goods: light bulk materials

Unloading:
forklift or stationary
unloading machine



OpenSideTainer

(intermodal)

Loading volume per container: 67 m³

Length: 40 ft

Max. payload per wagon: 62 t

Loaded goods: palletized goods

Unloading:
forklift



SteelPallet

Length: 10 ft

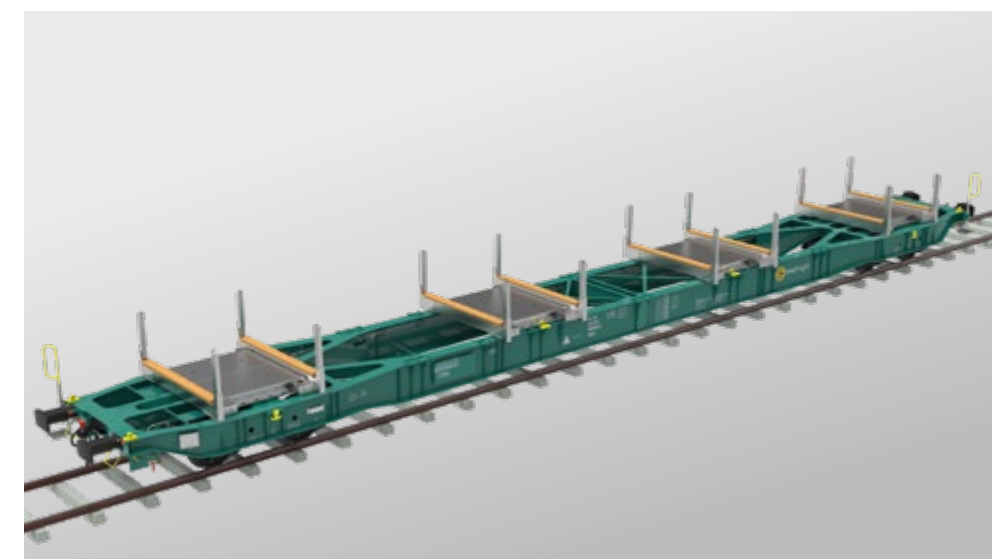
Loading length: 24 m

Max. payload per double wagon: 143.7 t

Loaded goods: steel slabs,
blooms, pipes

Loading width: 2,652 mm

Unloading:
unloading crane or forklift



60 ft container wagon



AgroTainer Open Top

(intermodal)

Loading volume per container: 50 m³

Length: 30 ft

Max. payload per wagon: 66 t

Loaded goods: coke, short timber

Unloading:
truck tipping chassis
or excavator



AgroTainer XXXL

(intermodal)

Loading volume per container: 50 m³

Length: 30 ft

Max. payload per wagon: 66 t

Loaded goods: cereals, sugar,
palletised goods

Unloading:
truck tipping chassis or
excavator



MonTainer XL

Loading volume per container: 41 m³

Length: 20 ft

Max. payload per wagon: 67 t

Loaded goods: coal, coke

Unloading:
forklift or stationary
unloading machine

60 ft container wagon

WoodTainer XXL

Loading volume per container: 46 m³

Length: 20 ft

Max. payload per wagon: 67 t

Loaded goods: light bulk materials

Unloading:
forklift or stationary
unloading machine



WoodTainer XXXL

Loading volume per container: 57 m³

Length: 20 ft

Max. payload per wagon: 65 t

Loaded goods: light bulk materials
(biomass)

Unloading:
forklift or stationary
unloading machine



Pallet system

Loading width: 2.750 mm

Length: 10 ft

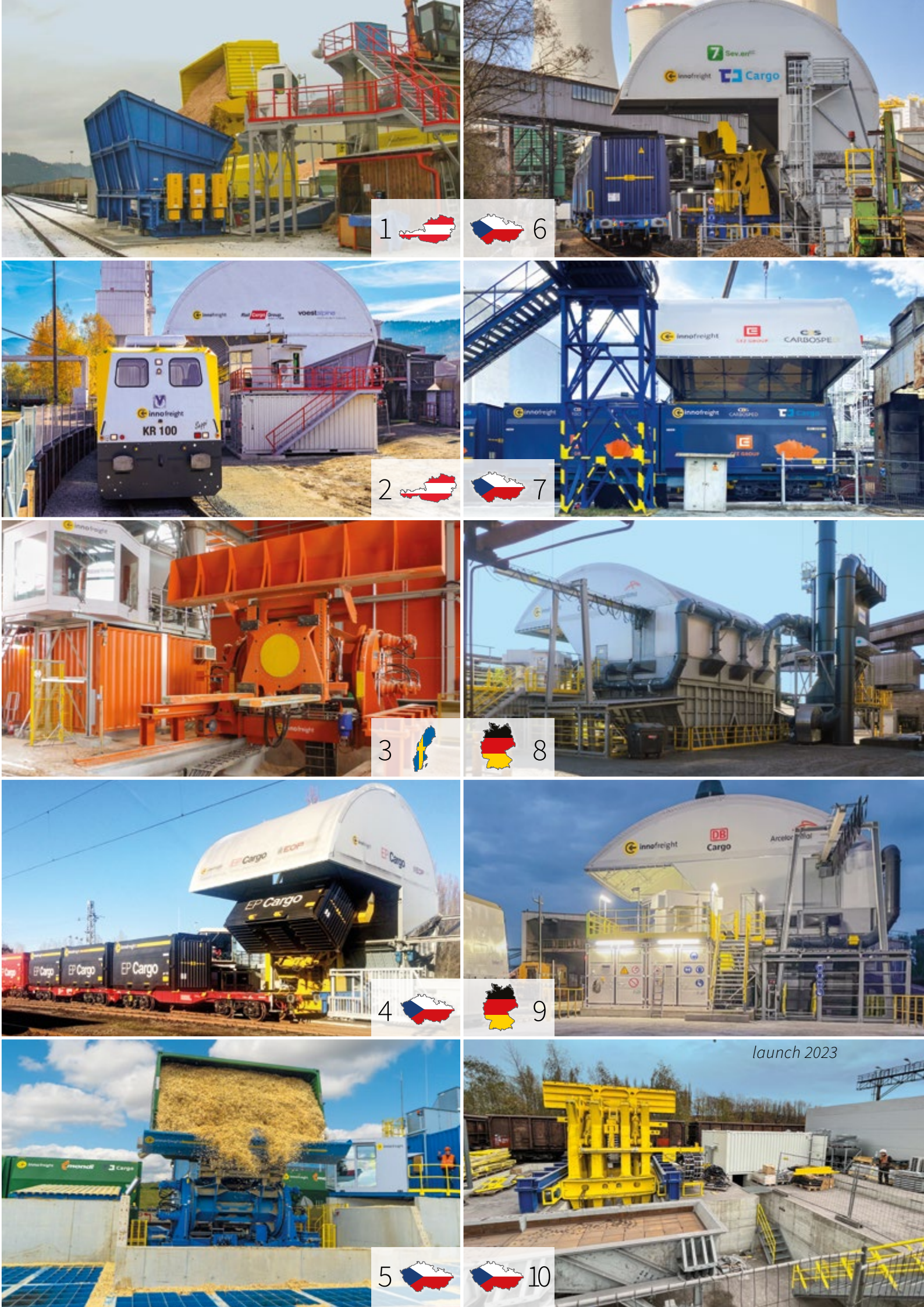
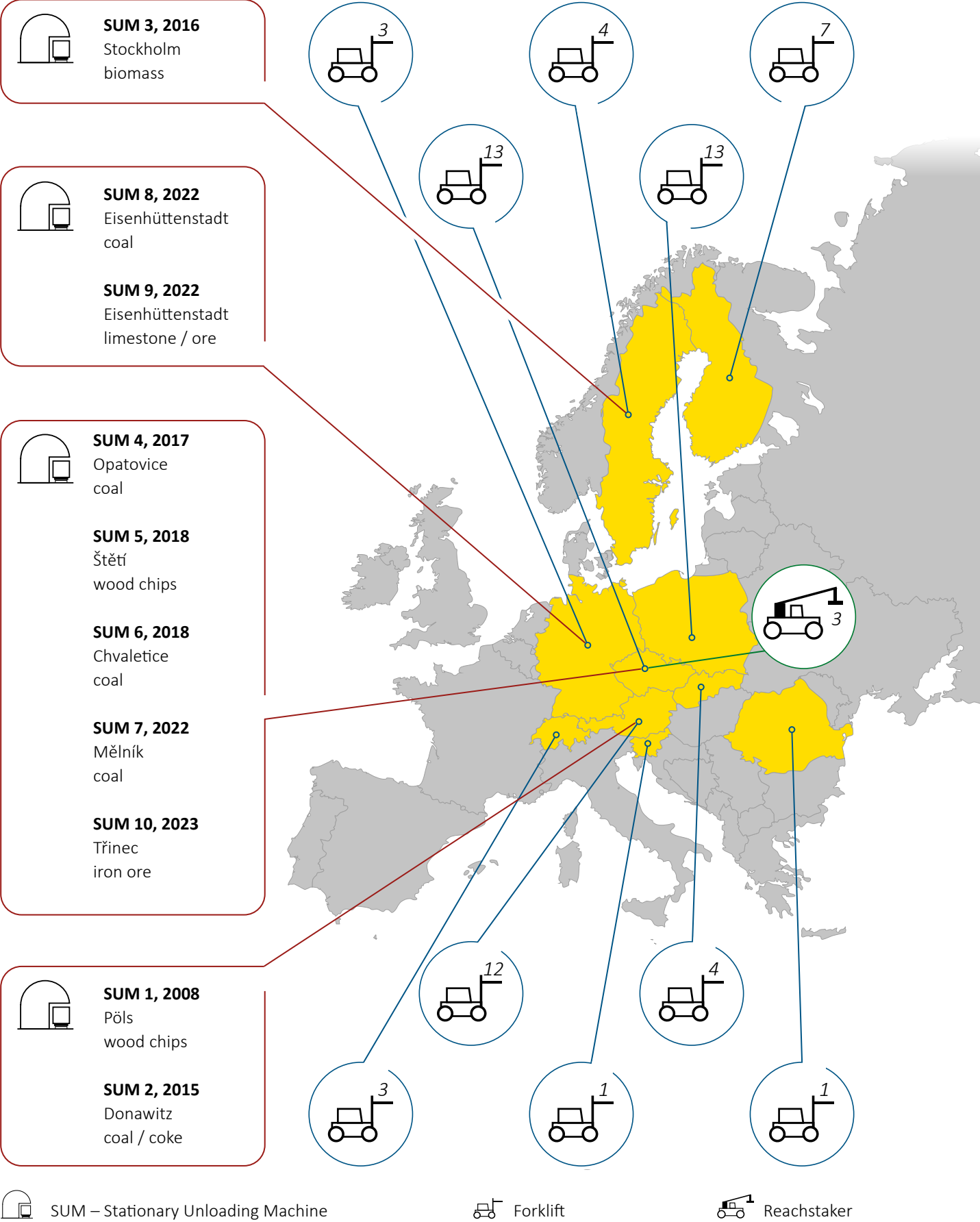
Max. payload per wagon: 68 t

Loaded goods: pipes, timber

Unloading:
unloading crane or
logstacker



Unloading stations & forklifts



INNOVATIVE EMPLOYER

We could never achieve our mission of driving rail freight forward without our outstanding team. Around 140 technicians, developers and experts in various fields such as sales, finance, project management, digitalization, marketing and human resources work every day on finding innovative logistics solutions for the railway and on the overall success of the company.

International employer

Our offices are located in six international locations, we are represented in Austria, Germany, Switzerland, Slovenia, the Czech Republic and Sweden. Our employees advice and support our customers in more than 20 languages. We are proud to have created a melting pot for the most diverse cultures.

Innofreight has high standards for its products and we know that we can only accomplish our goals with a highly motivated team. As an employer, we offer all the opportunities required in the modern business world and

give our employees a lot of space to carry out their work in their own way. Flexible working hours, modern working structures, hybrid working or home office are not just buzzwords for us, but daily practice.

Bright, modern and ergonomic workplaces, state-of-the-art equipment, company healthcare, sports programs, meal allowance for lunch, coffee, tea and fresh fruit are a matter of course to us. Innofreight also offers external and internal education opportunities for all employees.

We care about each other, because only together can we achieve success. Even in the difficult past years, we have proven that Innofreight is a secure employer also in times of crisis. As a result, we have been able to more than double the size of our team over the past five years.

Since we have accomplished a lot in our daily work, we take the time to celebrate successes together as well. Also, once a year we organize company trips for all employees and their families,

which have already taken us to Croatia, Slovenia, Italy and Spain.

Insight into our everyday work

To give everyone an idea of Innofreight as an employer, we have made a short video, with our owner in the starring role, showing a completely typical working day at our headquarters in Bruck an der Mur.

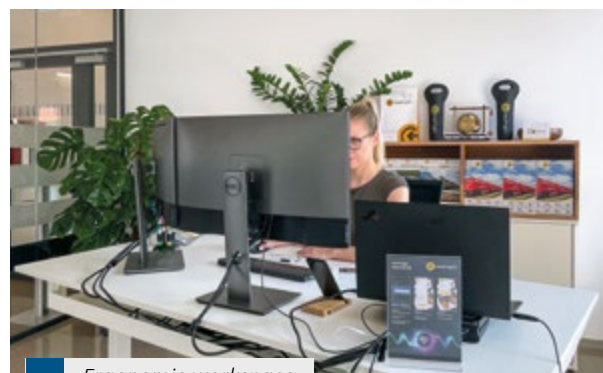
Scan the QR code and enter the world of Innofreight.



A video like that is not created without one or the other blooper – here are the funniest outtakes:



Workday at Innofreight



Ergonomic workspace

MINIATURE INNOFREIGHT

InnoBahn

700 meters of rails, 300 switch points, 150 trains, as well as a funicular railway up the Schlossberg in Bruck, a digital car system, three train stations, a mine, the Erzberg – this is the largest model railroad installation in Styria. It is located in the entrance area on the fourth floor of the Innofreight headquarters in Bruck an der Mur.

The model railroad was in the planning phase for two years before construction began in early 2022. As a socio-economic project, the clients of the Pius Insti-

tute Bruck an der Mur produced around 4,600 trees in the creative workshops for people with cognitive impairments.

The newly founded Model Railway Club (MEC Bruck) with around 25 members is responsible for the operation and maintenance of the wagons as well as for the visitors.

The InnoBahn is open to the public on opening days and by appointment. The tours begin with a welcome drink at the MiraMonti restaurant followed by a presentation about Innofreight and a visit to the model railroad. All information about registration, reservation and current opening hours can be found at www.mecbm.at.



On the fifth floor in the business park another highlight can be found. The MiraMonti restaurant serves culinary specialties from Styria and Italy above the rooftops of Bruck an der Mur.

Innofreight employees can enjoy a healthy lunch menu at the restaurant at a reduced price. From a pleasant breakfast and lunch to a glass of prosecco with Styrian and Italian delicacies at the end of the day, you will find everything a gourmet's heart desires. The restaurant also offers a beautiful view of the Brucker Schlossberg.



250 m² InnoBahn in Styria



MiraMonti, InnoBahn und MEC BM on track



Model railway club (MEC) Bruck Mur

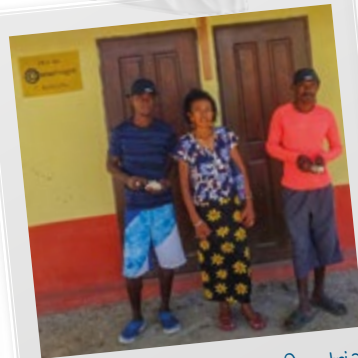


MiraMonti on the 5th floor of the business park

SOCIAL ENGAGEMENT



Christmas action Club 41 Leoben



Madagaskar Sozialis Austria



Pius Institute of the Sisters of the Cross



Piteå IF DFF



Liselotte Zechner
women's award Bruck



Commercial high school Bruck an der Mur



Andreas "Rambo" Ropin



Elementary school Bruck an der Mur



FSC Zellstoff Pöls



Special Olympics



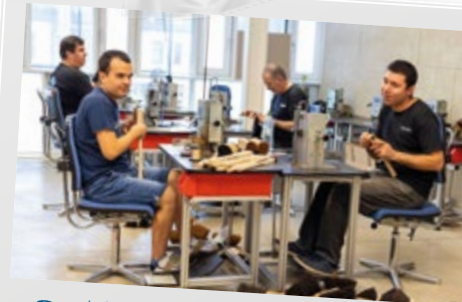
Association Sportbündel



DC Butterfly cheerleader association



ÖZIV / Integra Cup



Fund for the blind and visually impaired



Traditional association Rossecker



Volunteer Firefighters Kapfenberg-Parschlug



Sport and culture association Selnica ob Mur



Handball team BT Füchse



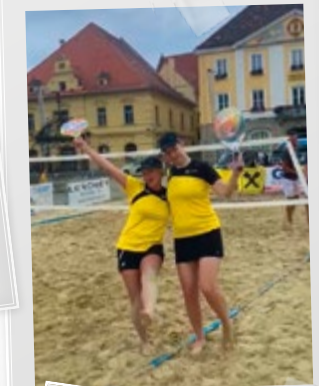
The Sundays



African integration association



Alpinestars Enduro Riders Club



Beach an der Mur



Joseph-Haydn-Orchestra Bruck

*moving limits
since 2002*



20^{YEARS}
 inno**freight**

