

ANNUAL REVIEW



mprint:

Media owner and publisher: Innofreight Solutions GmbH, Grazer Straße 18, 8600 Bruck an der Mur, Austria +43 3862 89 89-242, info@innofreight.com

Printing: Medienfabrik Graz GmbH, Dreihackengasse 20, 8020 Graz, Austria

Photos and videos: Bernhard Schindler, Maximilian Steger, Thomas Kunze (p. 2-3, p. 35 bottom, p. 57 center), Trainspotter_Austria (p. 29 bottom), Christopher Eibl (p. 48), Sebastian Bollmann (p. 50 center), Alexandro Zanello (p. 50 bottom), Jan Čížek (p. 51 top), Petr Zobal (p. 51 center)

n the middle of another year marked by a pandemic, we proved that Innofreight's modular concept for rail freight transport is crisis-proof.

Despite challenges such as rising raw material prices and supply shortages, major projects were successfully implemented. Our team has also continued to grow in these uncertain times.

Innofreight is starting its anniversary year and will celebrate the 20th birthday in September 2022. Before that, we look back on a successful year 2021 and focus on what we do best: developing the most efficient logistics solutions for rail

freight transport in close cooperation with our customers. 19 years after the company was founded, the Innofreight system has become established and there is no technology that can keep up with ours.

We are collecting know-how internally, offering an even broader product portfolio and working on overall solutions for every industry.

However, you cannot implement something like this on your own. We need a great team, reliable suppliers and strong business partners who drive Innofreight forward every day. We would like to say a huge THANK YOU for the trust and confidence placed in us.

Companies in 20 European countries rely on Innofreight. With this annual review, we want to show how broad our range of services is.

At the same time we want to reflect the dimensions within which we operate — still according to the same motto that has accompanied us every day for 19 years now: "Moving Limits".

Vatch the





ANNUAL REVIEW

		r	
\mathbf{P}	re'	Tа	CP

Overview

Leading provider for rail freight logistics

Research & Development

Focus on the overall solution 10
InnoWaggon – the light base 12
Superstructures for every freight 14
Unloading mobile or stationary 16

Courage to new innovations
Producing efficiently
Digital hard- and software
Service and maintenance

Sales & Service

Closer than anybody else
 Clear the way for the
 steel industry
 Green steel, green future
 Putting wood on track
 Green, greener, biomass
 Solutions for every industry

	,	
8	Budamar Innovations	52
0	Hub, Eastern Europe	53
4		
6	Products	
	The rolling equipment	54
	2x30 ft InnoWaggon	56
8	2x40 ft InnoWaggon	58
	2x40 ft broad gauge	63
2	2x45 ft InnoWaggon	64
6	60 ft container wagon	66
8		
-2	New Innofreight headquarters	68
4	Social engagement	70



LEADING PROVIDER FOR RAIL FREIGHT LOGISTICS

With almost 20 years of experience under its belt, Innofreight is starting its anniversary year in 2022. The success story speaks for itself, but there is no resting on one's laurels. The focus lies on sustainability and how to make the greatest contribution to a green future.

n November 27, 1825, the first public steam train carrying freight was sent on its way and the forerunners of today's rail systems are already known from ancient Egypt and Greece.

In comparison, the almost 20 years of experience which Innofreight has in this field hardly seem worth mentioning. But as it is often the case, first appearances are deceptive and it quickly becomes clear that 20 years are much more than it seems at first glance.

Innovation without stagnation

Since its founding in 2002, Innofreight has been engaged in innovative logistics solutions for rail freight transport — developing, producing and renting wagons, superstructures and unloading solutions.

In this quite short period of time, no other company has succeeded in driving the European standard forward so quickly and changing it sustainably.

Today, it is no longer enough to transport freight from one place to another or to rent out wagons only. Instead, what is needed are customized, modular innovations from a single source that adapt to local conditions for any industry. Whether transportation is need-

ed for the wood industry, steel, building materials, energy or liquid sector, Innofreight has the right solution. No two industrial companies are the same. The ideal solution depends on the infrastructure on site. To optimize the entire

Today, it is no longer enough to transport freight from one place to another.

logistics chain, everything has to be taken into account. Starting with the type and quantity of raw material transported, up to the length and number of loading tracks.

If you choose Innofreight as your partner, you have a company on your side that not only develops and integrates optimized equipment, but also a custom-tailored solution.

Europe as a target group

Innofreight's success story shows that this approach is the right one. Within almost 20 years, we have established ourselves in the industry in such a way that our solutions are not only used for a wide variety of industries, but also throughout Europe.

From Scandinavia to Portugal, our equipment is on the rails in all three common gauges and ensures that all companies, from the largest industrial operations to local family businesses, are supplied with the raw materials they need.

From iron ore to wood chips, from saline surface waters to acid transports and from construction site excavations to scrap transports — we have the right wagons, superstructures and unloading techniques for every raw material.

However, the 20 countries in which our equipment is currently on the rails are by no means enough for us. The next big step will be taken towards the East. With a new intermodal transport terminal in Mošnov, we are creating a hub in the north of the Czech Republic.

We are expanding our service capacities and once again taking a big step towards being closer to our customers. From individual trans-



ports to the most complex industrial systems, our team provides on-site support around the clock.

Modularity as standard

Simplified, Innofreight offers a service. Within the shortest possible time, the highest quality equipment can be put into operation and unloaded with highly automated systems.

In addition, we take care of all maintenance and availability during operation. This allows industrial companies to concentrate on their core competence, while we concentrate on ours.

We can offer our services so flexible and individual because the base of the Innofreight concept makes it possible: modularity.

More than 40 different types of superstructures can be used with three InnoWaggons of different lengths in all three common European track gauges. Innofreight works with a modular system and if a solution is required that is not yet part of this extensive modular system, it will be developed, tested and built.

Professionalism in house

We have used the past two decades to acquire know-how from which our customers now benefit. There are always attempts to put modular concepts on the rails, but no one comes close to our experience.

Today we are a team of 130 people, ensuring the highest level of professionalism throughout Europe. Professionalism that also enabled us to navigate through a global pandemic in a crisis-proof manner.

Our system proved its worth, we were able to offer the market what it needed in uncertain times and to modify our InnoWaggons within a very short time if necessary. This efficiency is only possible because

we now have 17,000 superstructures, which can be replaced within a day

Sustainability for a green Europe

2021 was the European Year of Rail. As part of the European Green Deal, a special focus this year was placed on the most sustainable transport option: the rails.

Climate protection is a key issue in politics and by 2050 the European Union wants to reduce the net emission of CO₂ to zero. That way, Europe will become the first continent to achieve climate neutrality.

To accomplish this, countless processes will have to be rethought completely. With the help of our equipment, more than 30 Million tons of goods are transported by rail instead of road every year.

In this way, we are already contributing to reducing CO₂ pollution on a daily basis.

For the future, however, it will no longer be enough to transport goods by rail instead of road. Industryies are responsible for around 20 percent of all CO₂ emissions worldwide. In order to do justice to the Green Deal, there is a corresponding need for action. After all, there is no such thing as planet 2.0.

The steel industry in particular, is working at full speed on new possibilities for sustainable production that will lead the way into the future. "Green steel" should no longer be just a buzzword, but the reality of tomorrow.

This change naturally brings major challenges, for which strong partners are needed. Innofreight has set itself the goal of being one of these partners.

Together with DB Cargo, we are already implementing a project for the steel giant ArcelorMittal in Eisenhüttenstadt, Germany, which is the starting signal for green steel production. However, the preconditions for these projects are very different in the European countries. While discussions are already very far ahead in some states, they are just beginning in others.

We are working with a wide variety of companies that are dealing with different conditions. This includes, of course, that coal is currently still a necessary raw material to guarantee our energy supply, among other things.

Our goal for the future is to reduce these transports in general, because we offer alternatives that are cost-efficient and ecological.

This means that we will further increase production and transport capacities and create transport solutions for raw materials. That will be necessary in the near future to ensure CO₂-neutral production.







FOCUS ON THE OVERALL SOLUTION

Together with the optimal unloading systems, the rolling equipment on the rails forms the core service of Innofreight. For a wide variety of sectors, overall logistics solutions are offered and projects for industrial leaders are implemented throughout Europe. hat does it actually take to be able to call yourself a full-service logistics provider? Innofreight claims to be just such a full-service provider and this claim is based on several pillars.

Some of these pillars are 17 meters deep and form the foundation of a new stationary unloading machine for steel group ArcelorMittal in Eisenhüttenstadt, Germany. This project symbolizes the all-inone logistics solution from a single source. Both, rolling equipment and two stationary unloading machines are being implemented by us within a very short period of time. Innofreight was founded 19 years ago with the aim of providing modular and innovative solutions for rail freight transport and thus further developing the European standard in this field. The major projects now being implemented year after year reflect that this goal has been achieved. At the same time plans are already being continued, new transport solutions and new superstructures are being tested.

A core competence is needed

To this day the development of wagons, superstructures and unloading systems has been Innofreight's core competence — one could almost say the "hardware". This hardware has been developed on a daily

basis and with each individual project since the company was founded. Every chance is taken to increase the internal know-how and to use the gained knowledge to optimize all processes. Starting with the research process and ending with

With almost 20 years of experience, we implement major projects throughout Europe and offer complete logistics solutions.

the construction and development process — the size of the projects speaks for itself. Today we manage to implement a major project with DB Cargo for the ArcelorMittal Eisenhüttenstadt within just one and a half years. In this one and a half years we are building two stationary unloading machines, producing and delivering 352 InnoWaggons with 1,408 containers. In this way we are optimizing

the entire logistics chain of one of the biggest steel giants worldwide.

However, this is just one of the projects we are implementing at the same time. A third stationary unloading machine was built this year in the Czech Republic and will go into operation at the end of the year. Our SurfaceWaterTank went into series production and the Smart GigaWood 5x5, as a special part of the Smart GigaWood family, is also on track. In addition, more than 2,000 InnoWaggons and 17,000 superstructures are in daily use, which we manage on an ongoing basis.

Keeping the big picture in mind

Wagons, superstructures and unloading solutions are the foundation of the Innofreight concept and at the same time the all-round solution from which our customers and partners benefit. There is nothing that we cannot develop and now also produce ourselves. With almost 20 years of experience, we implement major projects throughout Europe and offer complete logistics solutions from a single source for a wide range of industries. From the first discussion to the final realization and implementation, we are at your side as a reliable partner who knows what works, where optimization is possible and what options are actually available.





A new one-piece 80 ft Inno-Waggon is planned for next year, which will be used especially for light bulk goods. The aim is to optimize biomass transport even further, because it will play a major role as a sustainable energy source in the future.

We are constantly optimizing

In 2021, an incredible amount of 670 InnoWaggons were produced. 327 of them are a new variant of our 2x30 ft InnoWaggon, which was specially developed for DB Cargo. The requirement was a wagon that could run with the maximum permitted speed of 120 km/h when it is empty.

In general, a wagon is allowed to run at a maximum speed of 100 km/h when loaded, which is why no attempt is usually made to achieve higher speeds.

For a wagon to be approved at all, it must also meet hundreds of standards and pass countless test. The conditions of the individual countries are laid down in the Technical

Specifications for Interoperability (TSI) — from driving dynamics and strength to noise emissions.

Our newly developed InnoWaggon 2x30 ft fulfills all the necessary requirements and is now allowed to travel at speeds of up to 120 km/h thanks to appropriate exemptions. The "new" InnoWaggon 2x30 ft is therefore successfully in service for DB Cargo. By the time Innofreight celebrates its 20th birthday, 812 of these new wagons will be on the rails to transport raw materials in Germany and the Czech Republic as efficiently as possible.

Big plans for 2022

Innofreight has big goals for its anniversary year 2022. In addition to developing a new InnoWaggon 80 ft for light bulk goods, 1,200 InnoWaggons will be produced and put on the rails with strong partner companies.

That is twice as many wagons as this year and tens of thousands of tons of goods, that will no longer roll on the road in trucks.

INNOWAGGON — THE LIGHT BASE

y definition, a rail wagon is a non-powered vehicle used to transport freight or passengers on the rails.

If you think about it, this definition is pretty accurate. However, the diversity and special features of our InnoWaggon find no place in this definition.

If you ask us, the definition would look somewhat different: The InnoWaggon is the basis of rail freight transport, which in its various configurations ensures that freight transport by rail can be organized more efficiently than ever before.

You always start small

In 2014, after a three-year development phase, the first InnoWaggon was presented. Seven years later, the InnoWaggon is not only available in three different lengths, but also for all three common European track gauges.

While the FinnoWaggon is used in the north for the Finnish broad

gauge, the IberoWaggon serves the needs of the west and has been adapted to the Iberian broad gauge.

Basically, an InnoWaggon consists of two individual wagons that are short-coupled to each other. The advantages? More axles and subsequently more payload per axle.

Combined with a special lightweight design, this means that the proper wagon can be used for any freight and the highest possible payload is guaranteed. 2,020
InnoWaggons are on track in all of Europe

120 km/h maximum speed when it is empty

3x3
options for all three
European track gauges





The RockTainer ORE has become a bestseller in recent years, transporting iron ore, ore pellets and limestone throughout Europe. At the end of October 2021, we delivered a new set of RockTainers ORE for Salzgitter Flachstahl — optimized and specially adapted to the needs of the German steel group.

Thanks to the further development, ore concentrates can now also be transported without any problems, because we have ensured that there is minimal residue during unloading. Another bonus is increased flexibility during unloading: The side flaps can now be opened either in pairs or all together. This means that the unloading can be controlled more accurately.

Research, advise, develop

Over the years, our know-how has continued to grow, and with the decision to also handle the entire design process in-house, it is possible for us to further develop products that already work very well. At the end of the day, our customers determine what they need and

we spare no effort to implement exactly that.

Every day we deal with an enormous variety of topics and that goes hand in hand with our broad product portfolio. We are also working to expand our portfolio of containers and pallets even further, because the requests are as varied as our equipment.

For example, we are currently working on the SiloTainer, which will be used for cement transport in the future or on transport solutions for HBI (Hot Briquetted Iron) and DRI (Direct Reduced Iron).

More and more often, we are also taking on a consulting role and are asked to provide advice long before a project is implemented.

With a highly competent team of experts and almost 20 years of collective knowledge, we know what works and can implement what companies need — as an interface between industries and railway companies.

SUPERSTRUCTURES FOR EVERY FREIGHT

nly with our huge range of superstructures we can cover the variety of goods we transport. In addition, lightweight construction and optimized volume enable the highest payload per double wagon in Europe, which leads to fewer trains. We optimize end-to-end.

No challenge is too big

Whether heavy or light bulk goods, liquids, building materials, agricultural or chemical transports — our portfolio covers all major industries

and continues to grow. In 2021, we focused on serial production and deliveries for new superstructures. Our SurfaceWaterTanks, the Smart GigaWood 5x5 and the AcidTainer, are already proving themselves in regular operation.

Especially the new variation Smart GigaWood 5x5, proved to be a complete success. The special feature: We load over the middle of the wagon and reduce empty volume. This was a controversial topic in the industry because it entailed

many challenges that had not been solved so far.

With extensive tests and simulations, we have explored the limits and made possible what no one thought was possible. The Smart GigaWood 5x5 is now used by our customers and offers optimal payload for timber with a length of five meters.

At the same time, we have also taken a closer look at our classics and tried to get even more out of them. 17,000 superstructures are or

track for our customers
45

different types of containers and pallets were already developed

20 years of experience in container development





mentation, we also rely on strong and long-standing partnerships with handshake quality, which connects us with renowned companies in the field of special machine construction. The machine mainly consists of a tipper, shunting equipment, conveyor technology, hopper and a suction system. The entire machine can be operated by just one person from an air conditioned cabin.

Forklift

If a flexible and mobile unloading solution is required, we rely on our forklifts. 59 of these forklifts are in use throughout Europe and are the counterpart to our stationary systems. For production, we rely on our long-standing partner Kalmar Austria. Depending on the density of the material and the size of the container, the optimal forklift is selected and offers the necessary flexibility for unloading.

In addition, the container does not have to be unloaded next to the rail, because it is lifted from the wagon. The forklifts are used in a wide range of industries and unload bulk materials such as wood chips, coal or gypsum. In the future we will also use electrically operated machines.

What the future holds

We currently offer two proven unloading systems that have stood the test of time. But we are not resting on our success. At the moment, we are working on a solution that lies somewhere between a forklift and a stationary unloading system: a kind of "mobile unloading machine". Without foundations and underground construction, this system is intended to serve as a kind of flexible interim solution without a large-scale project.

Digitization also plays a key role and we are working intensively on topics such as automatization, predictive maintenance, machine learning and product life cycle management. We measure ourselves against the highest standard and there are no compromises — this is the only way we can offer the market what it needs.

UNLOADING MOBILE OR STATIONARY

ou can transport as many goods by rail as you like — without efficient unloading solutions you will not reach your goal. That is why it was clear to Innofreight from the very beginning that smooth logistics processes can only work, if optimized systems for unloading are available as well.

Depending on the requirements on site, either mobile unloading solutions or stationary unloading machines are used. Both systems are integrated solutions that are designed differently, but ultimately produce the same result: optimized unloading all year round.

Stationary unloading machines

Since the beginnings of Innofreight, our stationary unloading machines have evolved significantly. The more demanding and technically complex the projects become, the higher the requirements on our systems. By the beginning of 2022, two more machines will be put into operation, and the tenth machine is already under construction.

Three of them alone were realized in 2021. Everything in the biomass and montan area can be unloaded, for example wood chips, coal or ores. Demand is growing rapidly and we are constantly developing these stationary systems to offer the optimum in availability, easiest operating and work safety.

From the excavation work for the unloading bunker until the installation of the tipping system — we oversee the entire implementation of these machines. During imple-

1,200

m³/h maximum handling capacity with a stationary unloading machine

minutes does it take to unlaod one container with both systems

person can operate both systems





COURAGE TO NEW INNOVATIONS

Innovation requires the courage to change: Additional production options, more capacity for service and maintenance and a focus on digitization are Innofreight's responses to constantly changing requirements in the field of rail freight logistics.

rocess optimization is often difficult, because too many parties are involved. Projects slow down and become more difficult. It is no different, when it comes to the further development of logistics processes.

This is why companies are increasingly demanding integrated solutions from a single source and one contact person.

These demands are noticeable in rail freight transport as well and that is where Innofreight comes in. The goal is always to consider logistics operations as an overall process, that has to be thought through from the start to the finish line. This is the only way to optimize completely.

Over the years, the requirements of our customers have become more and more complex: Larger quantities, higher availability, a wide variety of industries and different initial conditions. In order to meet the increasing complexity of projects as a company, it was logical for us to expand our portfolio of services. Therefore, we have continued to deal with multi-layered topics and developed new competences, which are now a standard part of the Innofreight package and from which, in the end, our customers benefit the most.

Expanded core competences

We have been taking care of all wagons, superstructures and unloading technologies for years, even during ongoing operations. This means, that we put great value on service and maintenance. In

> Larger quantities, higher availability, a wide variety of industries and different initial conditions.

2022, we will further expand our capacities in this area. A new intermodal transport terminal in Mošn-

creasing our own production capacities. This is the only way we can continue to deliver at the speed our customers need to optimize their internal logistics operations. The digitization process of our fleet is also in full swing.

The data we collect helps us not only to restructure processes internally, but also to make data accessible to our customers: Whether it is GPS data, loading status or automation of our unloading systems.

This new wave of digitization is resulting in new business models as well. What these will look like exactly and in which direction these projects will go, will become clear over the following year.

Why keep optimizing?

Today's standards can no longer be compared to those of 20 years ago. We did not force ourselves to go along with these changes, because we were confronted with them and had no choice.

Innofreight is all about innovation and even after two decades, we still live it like on the first day. This means dedicating ourselves to the issues that demand precisely this innovation power.

Every day, we make it our business to look closely and ask — to go one step further than others, to expand our own portfolio and thus remain the market leader in rail freight logistics.

ov, Czech Republic, and two newly established service companies in Austria will ensure this. In addition, we are constantly in-





Wagon production

The work stages until a wagon rolls out of production are highly complex. After all, a wagon has to withstand immense conditions every day for decades.

Production is basically divided into two areas. On the one hand, the production of undercarriages and, on the other hand, the assembly of the wagons.

Our undercarriages are manufactured by Tatravagónka Poprad in Slovakia and by Tatravagonka Bratstvo (TVB) in Serbia.

Afterwards, the undercarriages are transported to Waggonbau Niesky in Germany or to TŽV Gredelj in Croatia, where the assembly and final delivery take place.

Once the undercarriage is produced at TVB and brought to Waggonbau Niesky for assembly, the completion of just one wagon takes seven to ten days. However, this does not yet take into account the ordering of materials. It normally takes eight

months before all the necessary parts are delivered and production can start.

At Innofreight, this lead time is much shorter and no one can keep up with our speed. This is made possible by the high standardization of our products.

500 wagons rolled out of the production halls in Niesky by the end of 2021 and another 170 from those of TŽV Gredelj.

This means that almost two wagons have been completed per day. Compared with the lead times and the associated planning, these are more than impressive figures.

However, this is by far not enough for us and for the anniversary year 2022 we will increase our capacities even further.

The aim is to produce and deliver 1,200 new InnoWaggons next year. In the long term these figures will increase even further, just like the demand for our equipment.

PRODUCING EFFICIENTLY

he high quality of our products is already evident during this design and development process — from the initial draft through to the finished product. The high quality becomes tangible when you actually see a finished wagon, container or pallet in front of you. At Innofreight, we ensure that only the best equipment rolls out of production and that the supply of raw materials is guaranteed to our customers not only by efficient, but above all by high-quality equipment.

This guarantee is achieved by increasing our own production capacities and by working with strong production companies as partners. Together with Duler, we have built the most modern container production facility in Europe: Innoduler. The company was established in 2019, but due to the COVID pandemic the official opening could not be celebrated until 2021.

The entire range of Innofreight superstructures can be perfectly produced in the Slovenian halls.



For wagon production, we rely on Tatravagónka Poprad and recently also on the subsidiaries of the Slovakian wagon manufacturer Waggonbau Niesky in Germany and TŽV Gredelj in Croatia.

This year, 670 new wagons rolled out of the halls of the prestigious wagon manufacturers. In the coming years, we intend to increase our own production capacity even further, as this is the only way we can guarantee that all orders will be ready for delivery on time.

670

new InnoWaggons rolled out of production this year

1,200
InnoWaggons will be produced in our anniversary year 2022

13-40
ft long containers can
be welded at Innoduler



In-house container production

When it comes to superstructures, we have been relying on Innoduler since 2019. Any steel structure that is needed to successfully transport freight can be produced here.

We already have a long-standing cooperation with Duler, so it was only logical to take the next step together. After two years of preparation, the results of this success story are impressive.

Whether WoodTainer, MonTainer, RockTainer, SurfaceWaterTanks, AcidTainer, ScrapTainer or other superstructures — every container and every stanchion system is welded to perfection in the Innoduler halls. Starting with our shortest containers with 13 ft length, up to the ones with 40 ft, all contain-

ers are produced here. We accomplish this with high-end technology and the most modern welding robot in Europe.

The unique thing is that the whole process has now been automated so that entire containers can be welded at once. It is possible to either work on one 40 ft container or two 20 ft containers at the same time.

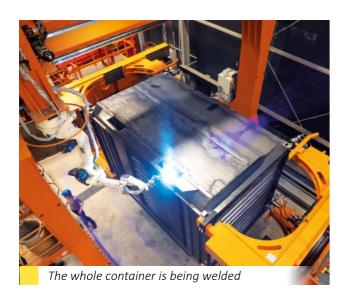
Close coordination with the production team on site means that the smallest changes and modifications can be implemented immediately. This has once again increased production speed immensely.

Moreover, Innoduler relies on highly qualified specialists who provide professional support for every step of the process, from welding to painting and labeling. In addition to a new production hall, the total area of 6,000 m² also includes a state-of-the-art office building.

Innoduler Opening

Such a great success must of course be celebrated in a proper way. On September 16, 2021, the company therefore invited to Slovenj Gradec in Slovenia for the grand opening of Innoduler.

350 international guests accepted this invitation and took the opportunity to catch a glimpse behind the scenes of Innoduler. The pictures speak for themselves. With disco lighting, even the new welding process became a show. Janez Cigler Kralj, the Slovenian Minister of Labor, Family, Social











Affairs and Equal Opportunities, also attended the event and emphasized that this project is a great opportunity for the region around Slovenj Gradec. In the future, the Innoduler team will grow even more.

After the speeches, the great event moved to a cozy get-together with plenty of food and drinks. "Kaffee am Rad" from Kapfenberg, Austria, also made an extra trip to Slovenia and served coffee specialties and homemade crepes to the guests.

A special highlight was the performance of the cheerleading club DC Butterfly from Krieglach, Austria, a youth group that we support as well.

Joint success

With Innoduler, we are ready for all the challenges the market has to offer and can secure our production capacities for a successful future.

Of course, this also means that we will continue to increase these capacities. The number of projects and their size is growing. Together we are looking to a successful future and will continue to produce high-quality containers and pallet systems, in line with Innoduler's motto: "Tradition for the future".

> Video: Innoduler Opening Event









functions, such as "track&trace". This is particularly important for users on site.

No matter how scattered the wagons are, with our app you always have the equipment in your pocket and know exactly where to find it at any time.

In order to realize all this, we are not only expanding our expertise internally, but are also working closely with the Institute of Technical Informatics at Graz University of Technology (TUG) to develop the best possible solutions together with experts and to be at the cutting edge of technology.

We are currently equipping more wagons with sensors, for which we also take care of maintenance during operation. Another optimized service from Innofreight that gives industrial companies a major advantage.

Fully automated systems as a goal

A central focus will also be placed on the topic of predictive main-

tenance and machine learning in combination with our stationary unloading systems. In the near future, for example, a fully automated system is to be developed in which operators take on an observing role.

Currently, we are mainly concerned with data processing and the question of which data will be collected for this process.

This step is also necessary because our unloading systems can now be found all over Europe. With digitization, we will also be able to power them up remotely and identify different sources of interference in advance in order to avoid standstill and downtimes.

In summary, we want to develop new business models and use digitization as a technology to achieve the highest possible utilization of our equipment. This is exactly what our customers benefit from, and we can optimize industry-specific processes and make logistics predictable.

DIGITAL HARD-AND SOFTWARE

any providers are currently working intensively on the digitization process of their assets and the digitization of entire logistics processes. At Innofreight, we are digitizing for our customers. As always, the first question we ask ourselves is how companies can benefit from this bonus.

Digitization of our "hardware"

1,000 InnoWaggons were equipped with sensors from Nexxiott in 2021. This means that 1,000 Inno-

Waggons are currently collecting and storing data on location, mileage, shock events or similar.

Our task is to evaluate this data and create reports from which our end customers in particular benefit. This allows us to determine whether a wagon arrives on time, how long loading or unloading takes or even whether a wagon soon needs a service.

In the future, we also want to digitize the containers themselves to

find out which wagon a container is running on, or to know whether it is currently full or empty.

With digitized assets, it is also possible for us to predict when certain parts need to be replaced or service is necessary. This allows our customers to be prepared and not be surprised by short-term failures.

We will make all this data available on our online platform Innofreight OS. In addition, we now have the Innofreight OS app for the basic





CONTSERV

IC ContServ GmbH was founded in October 2021 for the maintenance of all superstructures. Based at the terminal in St. Michael, Austria, ContServ will create a Europe-wide service network for the maintenance of containers and pallets and will correspondingly be primarily responsible for all service, refurbishment and maintenance work on Innofreight superstructures. In addition, ContServ will take over the entire spare parts management for containers and pallets.

At the location in St. Michael, more than 1,000 containers have been repaired, rebuilt or refurbished annually since 2017. With the diversification of our products, the necessary work also has become more diverse. A heart project in 2021 was the refurbish of the first WoodTainer XXL. After 17 years in traffic, this container found its way back to the terminal, underwent a proper makeover and shines in new glory ever since.

Railservice express

The same idea is behind the founding of IC RailService Express GmbH, just not for the superstructures, but for our InnoWaggons. In cooperation with workshops throughout Europe, RailService Express will take over parts of the ECM (Entity in Charge of Maintenance) for all our wagons.

Revision management is also an important component. The wagons have to be inspected every six years. RailService Express will ensure that this is handled as professionally as possible for our customers and that the wagons are taken out of service for the shortest possible time and ready for operation again as soon as feasible. RailService Express will also be responsible for spare parts management.

In this way, we established two competent companies that will take care of service and maintenance, while Innofreight will once again devote itself entirely to innovation and equipment development.

SERVICE AND MAINTENANCE

o company gains anything from us, just delivering wagons and containers or integrating unloading systems and then never hearing from us again.

Our list of customers would probably be a lot shorter if that were the case. An essential part of our service is therefore maintenance during operation. This applies to InnoWaggons, containers and pallets as well as forklifts and stationary systems.

In the future, we want to become even more professional in this area. In 2021, the foundation for this was laid with the establishment of two new service companies.

Innofreight is primarily characterized by speed and a Europe-wide network. This applies to maintenance as well. Conventional rail companies can never implement service or maintenance work so quickly. Due to our spare parts storage and a pool of stored superstructures, we can carry out small

repairs within a day or simply replace individual superstructures.

Service around the clock

Thanks to our service teams, which operate throughout Europe, we can be on site within the shortest possible time.

Particularly in the case of stationary unloading systems. In this way, we ensure that any malfunctions are remedied immediately and that our equipment is used in the best possible way.





CLOSER THAN ANYONE ELSE

Throughout Europe, our Sales & Service teams provide perfect support all year round. When it comes to proximity with our customers, Innofreight is unmatched. This is how we realize projects in record time and can be there when we are needed.

Speed that no other player in the market can offer. Whether it is the development of new products, the implementation of projects or maintenance during ongoing operations — we are available around the clock to take care of our customers' concerns.

Four international subsidiaries ensure that all industries can be perfectly served throughout Europe — from Scandinavia to Portugal. Depending on where the next major projects are being realized, we also constantly expand our team, because only experts in the respective fields can realize these projects to the customer's complete satisfaction.

Focus on steel and focus on wood

2021 was also used to put a whole range of equipment on track and to build three stationary unloading machines at the same time. Innofreight has been particularly successful in the steel and wood industry.

The steel industry is at the beginning of the biggest technology change in several decades and is researching intensively ways to produce "green steel" in the future without relying on fossil fuels. Innofreight is at the forefront of

these projects as a partner, and the flexibility of our equipment means that this transition can take place at any time. The timber industry is booming as well because wood is becoming increasingly important as a raw material. In order to meet

We are available around the clock to take care of our customers' concerns.

the industry's demand, high-performance wagons and containers with the highest possible payload are needed. Innofreight can provide exactly this equipment.

The project variety summarized

The following pages present these projects of our Sales & Service teams in more detail and provide an overview of how many different companies Innofreight actually

works with and how many industries are covered. They also act as the first point of contact for new projects. Therefore, the CEOs of these teams are briefly introduced on the following pages as well.

Furthermore, there is an overview map showing in which countries Innofreight superstructures or wagons are rolling and where which unloading technologies are used.

Innofreight works all over Europe and that very scattered. From the outside, it is easy to lose track of how many superstructures, wagons and unloading systems are actually in operation.

The figures on this overview map speak for themselves and confirm what we have been working for over the past two decades. Innofreight has risen to become the market leader in rail freight logistics using this technology and continues to develop the European standard with this innovative strength.

Our equipment is gaining ground europe wide, and thanks to our local Sales & Service teams, we are closer to our customers than anyone else. Combined with an ever-increasing diversification in our product range and a rapidly growing team, we are facing the future with a winning concept.



SALES & SERVICE TEAMS



PRIMOŽ RAUTER

CEO Innofreight Austria Grazer Straße 18 8600 Bruck an der Mur Austria

primoz.rauter@innofreight.com

Contact person for:

Austria, Croatia, Italy, North Macedonia, Portugal, Romania, Serbia, Slovenia, Spain, Switzerland, Ukraine



PETR VALACH

CEO Innofreight Czech AZ TOWER, Pražákova 1008/69 639 00 Brno Czech Republic

petr.valach@innofreight.com

Contact person for:

Czech Republic, Hungary, Poland, Slovakia



Innofreight at a glance

On this page you will find the faces behind these teams, so that it is clear who is the best person to contact.

At the same time, the map on the right shows in which countries our equipment is actually rolling and also in which country how many of our wagons, superstructures and unloading solutions are rented.

Exciting to know: Some of the superstructures are also in storage, because this is the only way we can guarantee that superstructures can be used flexibly and replaced quickly if necessary.



MARIO CARL

CEO Innofreight Germany Lobensteiner Straße 5 07929 Saalburg-Ebersdorf Germany

mario.carl@innofreight.com



JÖRG HILKER

CEO Innofreight Germany Hüttenallee 41 47800 Krefeld Germany

joerg.hilker@innofreight.com

Contact persons for:

Belgium, France, Germany, Luxembourg, Netherlands



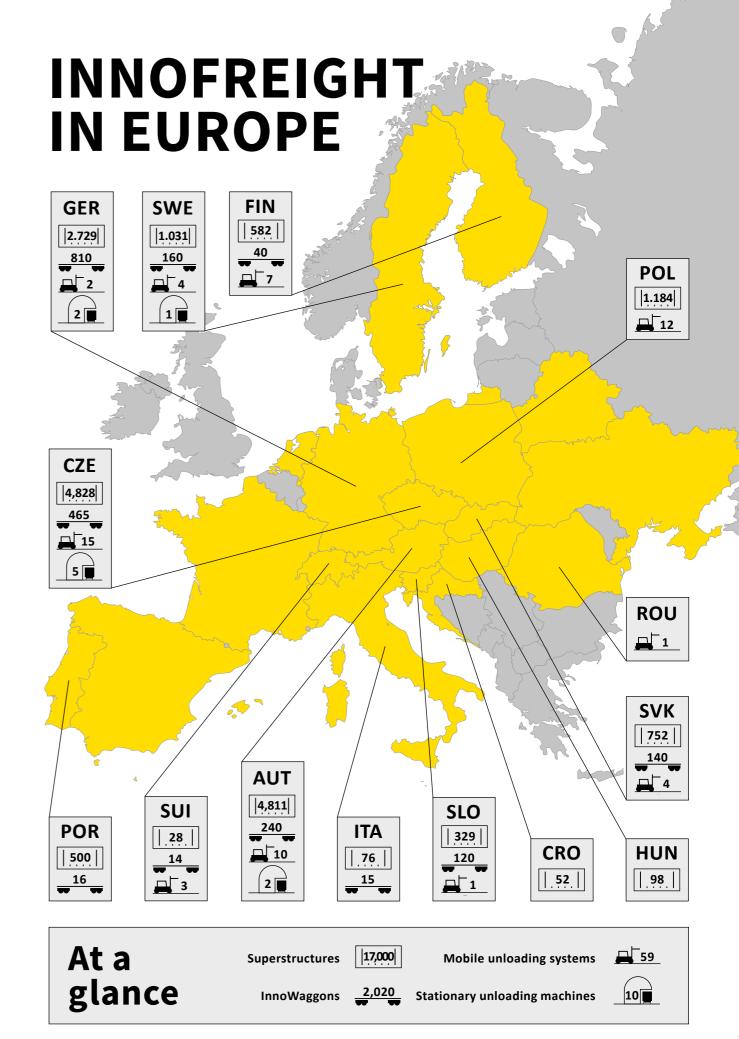
BERTIL LEIJDING

CEO Innofreight Scandinavia Box 23, Malmgatan 22 941 31 Piteå Sweden

bertil.leijding@innofreight.com

Contact person for:

Finland, Norway, Sweden





another close look at our ore container and optimized it once again.

On the one hand, iron ore fines can now be unloaded without any problems, and on the other, it is now possible to open the unloading flaps on the side in pairs or even all four at once. This way, the unloading can be dosed even better. Part of the equipment has already been delivered, and by January 2022 an amount of 170 RockTainers ORE on 85 InnoWaggons will secure the iron ore supply for Salzgitter Flachstahl.

In addition, for the first time in this project our optimized InnoWaggons 2x30 ft were used, which we have further developed especially for DB Cargo. A block train with 27 InnoWaggons transports up to 3,700 tons of ore.

The Slovenian state railroad SŽ-Tovorni promet also relies on our Rock-Tainer ORE and received 20 new InnoWaggons in 2021, together with 40 new RockTainer ORE. Next year, another 40 InnoWaggons,

with twice as many containers, will follow. This will also replace the last obsolete wagons with state-of-theart Innofreight technology.

Back to the roots

While we look at these new transports, we have also taken a trip back in time. The first further developed RockTainers ORE for Salzgitter Flachstahl were handed over to our customers on October 22, 2021.

The very first block train with Rock-Tainers ORE ever, was operated in Austria on October 24, 2014 together with ÖBB between Erzberg and Donawitz for voestalpine.

Seven years after the first RockTainer ORE went on track, our ore giant has proven itself once again and with slight optimizations it is now even more efficient.

The Innofreight success story can also be well illustrated by this project. Our solutions are future-oriented and work for a wide variety of customers in a wide variety of companies. No matter whether in Austria,

CLEAR THE WAY FOR THE STEEL INDUSTRY

ens of thousands of people are employed in the steel industry throughout Europe. Large corporations need a wide variety of raw materials for their daily operations. From open-top containers to special solutions, we have the suitable answer to all requirements. These superstructures are of course always combined with our InnoWaggons.

The steel industry has become a core sector for Innofreight in recent years. Steel giants through-

out Europe already rely on Innofreight equipment and we expect even more projects in the future. This is also due to the technological change that the steel industry is currently facing.

The buzzword "green steel" has become widely discussed and Innofreight is at the forefront as a supporter of this major step towards a green future. With our equipment, we are already able to support the biggest change in this industrial sector for decades. Additionally,

we are also researching transport concepts that will support the steel industry in its reorientation in the future.

Tried and tested — now rethought

Our RockTainer ORE has emerged as a classic on the product range over the past years, transporting iron ore, ore pellets or limestone. However, just because a product has proven itself does not mean that good things cannot be made even better. For the German steel group Salzgitter Flachstahl, we took

3,700

tons of ore can one block train with 27 InnoWaggons transport

vears the RockTainers ORE are running for the steel industry

812

optimized InnoWaggons 2x30 ft will be in use at our 20-year celebration



The first block train with RockTainers ORE started on October 24, 2014





Germany, Slovenia, the Czech Republic or anywhere else in Europe.

Special solutions for special goods

For steel transports we have not only developed our RockTainer ORE as an open top container. For finished and semi-finished products there are special containers, which are also used successfully.

Our InnoTainer Coils for transporting steel coils are especially popular. We are constantly working to ensure that our equipment is as easy to handle as possible. This characterizes the InnoTainer Coils as well. For example, it only takes one person to open the cover.

The InnoTainer Coils are in use as a 30 ft variant for both German companies Salzgitter Flachstahl and Schütz. Schütz was able to optimize its internal logistics chain with our solutions.

One year after the containers went on track, they are still rolling successfully between the two company plants Selters and Siershahn, Germany. For the Finnish company VR Transpoint, the InnoTainer Coils was developed as a 40 ft variant and is rolling there in combination with our FinnoWaggon.





In addition to the InnoTainer Coils, we also offer steel pallet systems for transporting steel coils, blooms or slabs — depending on what can be better implemented in the logistics chain of our customers. The steel pallet is used, for example, by the Italian rail company InRail. The transport distance is only 50 kilometers, but even here Innofreight equipment pays off, because the steel slabs could never be transported as efficiently by road.

Innofreight as a strong partner

Together with DB Cargo, the largest project for Innofreight is currently being implemented for one of the

world's largest steel producers. A total of 352 InnoWaggons, 1,408 containers for coke, limestone, ore, and ore pellet transport will be in operation next year, and two stationary unloading machines will go into operation in early 2022.

All 2x45 ft InnoWaggons with Mon-Tainers XXL and XXLL have already been successfully delivered and our optimized 2x30 ft InnoWaggons in combination with MonTainers XML and XM are also on track. However, it would be a shame, if some of this brand-new equipment had to wait to be fully loaded until the the second unloading machine is in operation. Therefore, a project was realized within a very short period of time and will be implemented by the end of 2021.

Starting in November 2021, three block trains with our MonTainers XM will be used to transport ore to Dillingen, Germany. They will be unloaded on site with one of our forklifts, which was also implemented within just one month. This proves once again how flexibly Innofreight equipment can be used, also when it comes to unloading: both, stationary unloading machine and mobile unloading systems, are possible.





GREEN STEEL, GREEN FUTURE

he European Union is committed to sustainability. The European Green Deal aims to reduce net emissions of greenhouse gases to zero by 2050.

In the steel industry, this is resulting in a strong effort to find ways to replace coal as a raw material. Germany is leading the way here, with major steel companies planning to replace their traditional blast furnaces with electric arc furnaces over the next ten years. But the rest of Europe, all the way up to Scandinavia is working on promising solutions for the future.

German steel industry, a role model

ArcelorMittal Eisenhüttenstadt is one of these steel companies and is relying on Innofreight technology to meet this challenging but necessary change.

This means that not only the production flow in the mills is changing, but also the incoming transport streams.

Our technology is flexible enough to still transport coal in the transition phase and then move on to alternatives. Here, our customers also show great trust in us. After all, two brand-new stationary unloading machines are currently being implemented at ArcelorMittal. These are located at key points in Eisenhüttenstadt, Germany, right in front of the blast furnaces.

We know that Innofreight technology is not only supporting this change, but driving it as well. Sustainable solutions are essential to secure the future of our planet.

Another major project in relation to "green steel" will be implemented next year, again together with DB Cargo. Also, voestalpine intends to

WeDeliverTheGoods.com

Belongs on rail.

DB Cargo has summed it up: Freight belongs on rail

rethink steel production from the ground up. To guarantee success, they will also rely on Innofreight for this purpose.

The quantities in demand speak for themselves. 264 RockTainer ORE and 132 InnoWaggons 2x30 ft will be delivered next year, launching a new era of steel production for a green future.

Raw materials of the future

To replace coal in the classic blast furnace process, "new" raw materials will of course be needed.

Various possibilities are currently being researched, and we are also looking very closely at their potential transport. DRI (Direct reduced iron) and HBI (Hot briquetted iron) are two very promising

possibilities. Both raw materials are produced by the direct reduction process of iron ore by natural gas. If DRI is processed further and pressed into briquettes, you get HBI — a sponge iron, with an even higher iron content.

Because both are very high-quality and environmentally friendly raw materials, they could be very important for steel production in the future. However, DRI and HBI are extremely reactive, which is why the right transport solutions are first needed to move these raw materials safely.

Already here, we are entering the research process, working together with the Montanuniversität Leoben, Austria. Only if we understand the raw material and know how it

reacts, we can develop the optimal technologies that our customers will need in the future.

Hydrogen is also very promising for green steel production and we expect a significant increase in demand in the coming years. But how do we manage to transport hydrogen efficiently? We are in the process of developing the ideal transport solutions here as well.

Our goal for the future is clear: We want to develop technologies that enable our customers in the steel industry to design their processes sustainably.

After all, DB Cargo summed it up: freight belongs on rail and Innofreight offers the equipment to make this possible.



New RockTainer ORE for DB Cargo





of the day. In these five years, the Smart GigaWood has already conquered nine European countries, and the number is growing every year. From 350 wagons in 2020, the number has been increased by 140 this year.

A total of 490 Smart GigaWoods are now in operation. For five years on the market, that is an impressive number. Step by step, our timber wagons are also being digitized.

Loading over the middle of the wagon

Two new variations were successfully introduced into the market this year. Both are so special that no one except Innofreight could have implemented them so quickly.

It has been discussed for years whether it is possible to load via the center of the wagon, and before us, no one had succeeded. For HLG Holzlogistik und Güterbahn, we have once again made the impossible possible. 70 Smart GigaWoods are already on the rails for the German company and this year we developed a new version of the Smart GigaWood that works optimally for five-meter long timber.

To do this, we removed the center end walls of our 2x45 ft InnoWaggon and arranged the stanchions, so that a stack of timber is loaded over the middle of the wagon.

This was a controversial issue because it can limit the wagon's mobility. However, after extensive testing, we have proven that it is possible as well.

You just have to be prepared to go one step further and keep researching until it actually works. That is exactly what Innofreight is all about. Our technology is already the most advanced on the market and we are constantly developing it to offer individual customers exactly what they need.

Some Smart GigaWood wagons 5x5 are already in use and a large number will follow in our jubilee year. Especially for sawmills the transport of this wood length of

PUTTING WOOD ON TRACK

wo decades ago, Innofreight laid the cornerstone of its activities in the wood industry. Today, a whole range of solutions is offered for the transport of wood in a wide variety of processing forms and even after two decades this industrial sector is still of central importance to Innofreight.

The solutions are appreciated by companies all over Europe and the requests are increasing every year. Demand is rising sharply because the demand for wood as a raw

material is increasing. In order to meet this growing need, high-performance equipment and state-ofthe-art technology are required accordingly.

Improvement has been made in recent years in the field of timber transport. Five years ago, the Smart GigaWood was introduced to the market as a timber giant that allows up to 30 percent more payload than conventional timber wagons. Thanks to optimum use of the clearance gauge and our particularly lightweight InnoWaggons, a double wagon can carry up to 144 tons.

The Smart GigaWood also outshines everything that has been seen before in terms of work safety. Specially designed stanchions eliminate the need for belts and thus eliminate the risk for people to be near the heavy logs.

Timber from two to twelve meters can be ideally transported, and the high payload means that block trains are spared at the end

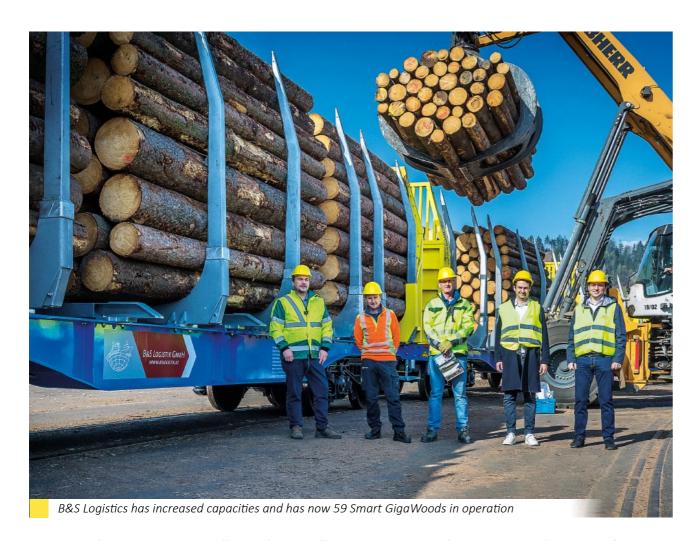
30% more payload compared to common timber wagons

2-12 meter long timber can be ideally transported

144 tons can be transported on a double wagon



Together with HLG at the UPM Biochemicals Speditionstag



interest. The German sawmill Schwaiger Holzindustrie has already chosen our Smart GigaWood 5x5 variant and will be supplied with wagons this year. Next year we will deliver a large quantity of wagons and new companies are already waiting in the wings.

The Tyrolean sawmill Binderholz, for example. In the beginning of 2022, the company will receive one set of Smart GigaWoods 5x5.

Narrow track, big impact

For Binderholz, we also implemented the second new configuration of our Smart GigaWoods this year. Between Jenbach and Fügen, Austria, the Zillertal Railway transports timber with our Smart GigaWoods.

Actually, nothing unusual, but if you take a closer look at the pictures, you will notice that the track width is slimmer than usual and the stanchion system even broader.

Only 760 millimeters are measured on that track between the inner heads of the rail edges. In comparison: The common standard gauge measures 1,435 millimeters, almost twice as much.

We were approached with the question of how timber transports on the narrow gauge could be made efficient and shifted from road to rail. Binderholz has made the attempt several times in the past years, but none of the efforts were profitable in the long run.

Our Smart GigaWood stanchion system in combination with the narrow-gauge wagons of the Zillertal Railway now make exactly that possible: an affordable and sustainable solution.

After all, limits are there to be moved and no matter how narrow the tracks are — what you put on top is a whole other issue. Since

May 2021, three sets of ten wagons each have been on track every day. One wagon can carry a load of up to 41.4 tons and replaces two trucks. That means 20,000 fewer truck transports per year, which is a great relief for the local population and our environment.

Once again Innofreight has proven that rail can do what road cannot — and is the ecological transport solution of the future.

Smart GigaWood throughout Europe

Of course, many other companies rely on Smart GigaWood technology and with the increased demand for wood as a raw material, we expect our customers in the wood industry to increase by several more in the coming years. For B&S Logistik from Austria, for example, our technology has proven itself. After switching to our equipment about a year ago, they already requested

more wagons and increased their capacity to 59 Smart GigaWoods. The IberoWaggon is operating successfully as well, transporting tons of timber for Takargo on the Iberian Peninsula. Furthermore, our timber wagons are becoming more relevant in the north. On the Finnish broad gauge, our equipment makes a higher payload possible than anywhere else in Europe.

In Sweden, the wagons are already being used successfully for the paper manufacturer SCA, and Finland is also becoming more and more interesting for us. In Eastern Europe, demand is also rising significantly. In the Czech Republic, more than 150 wagons are already in use, most of them for Mondi Štětí. This year, we delivered three more block trains, which will also be used internationally in the future.

Increasing demand also means that transport routes are becoming longer and wood imports from Poland, Ukraine or Belarus, for example, will be necessary to meet the demand. The more timber can fit onto one wagon, the easier it will be to handle these highly complex logistics processes. For us, the following applies: We offer the overall solution for the wood industry.





The Binderholz sawmill relies on Smart GigaWood technology





GREEN, GREENER, BIOMASS



he increasing demand for wood naturally affects biomass transports. Biomass in the form of wood chips is also considered as one of the most relevant raw materials for the future — not only for the wood industry, but for the energy sector as well.

Large power plants, for example in the Czech Republic, are planning to phase out coal combustion within the next ten years and use biomass instead. This means that large quantities of raw material will be needed to meet the high demand.

For this reason, a block train must transport as much material as possible in order to make these enormous quantities of material available at all. Innofreight offers the most eco-friendly and highest capacity equipment on the market, which is why companies rely on us as their logistics partner.

WoodTainers in all sizes

For this purpose, we have developed our WoodTainer family, in combination with the corresponding unloading solutions. The container with the highest payload is clearly our WoodTainer XXXL. With a loading volume of 57 m³, up to 65 tons of wood chips can be transported per 60 ft wagon.

Among others, the Polish company Skarna regulates almost their en-



tire biomass supply with our Wood-Tainer system. The Swedish company Stockholm Exergi, Hector Rail and Green Cargo, as well as Wood & Paper with ČD Cargo from the Czech Republic rely on our Wood-Tainer XXXL for maximum transport capacities.

Unloading as part of the whole

Of course, we also offer appropriate unloading solutions for biomass and woodchip transports. Three unloading machines are already successfully in operation and have proven their worth over the years.

One of them is located in Sweden and unloads biomass for Stockholm Exergi and another one has been implemented in the Czech Republic at Mondi Štětí's woodyard. The third one is in Austria at Zellstoff Pöls. Our mobile solutions can be optimally used as well. For example, Skarna uses our forklifts to unload biomass.



Every day, we travel throughout Europe with thousands of containers. These are countless square meters of space we can use for important messages.

On the one hand, we use our containers to communicate who we work with and on the other hand, we are happy to give the space to initiatives to spread their message.

Especially when it comes to climate protection, we use our Wood-Tainers as a platform for important statements. For this purpose, we have cooperated with Fridays for Future Austria and have recently also started supporting the Climate Walk. The cooperation underlines what Innofreight is working for a sustainable future and climate-friendly raw material transports — because climate change is even faster than our wagons.









impression with its appearance. We do not want to give too much away yet, but these containers will definitely stand out from the rest and also create a link to Innofreight's roots.

Basically, the ScrapTainer is multifunctional and can be used to transport steel scrap as well as coal. With a proud length of 40 ft, it is also one of the longest Innofreight containers.

Project Mělník

Together with ČD Cargo, a project was implemented for the largest Czech energy supplier ČEZ Group. Within one year, a stationary unloading machine was built in Mělník, Czech Republic, which will go into operation before the end of 2021. In November 2021 the first containers were already unloaded.

This is already the fourth stationary unloading system in the Czech Republic to be successfully up and running within just a few years. Following implementation, Innofreight will also be responsible for main-

taining the machine during ongoing operation. A total of 180 MonTainers XXL on 45 InnoWaggons will be used to ensure the supply of raw materials for ČEZ Group. Here our latest shunting robot, E.T., will be used as well.

Milestone liquids transports

A lot has happened in the liquids transport sector. We newly produced and delivered 240 of our SurfaceWaterTanks and 120 InnoWaggons 2x40 ft for the German company K+S in 2021.

The containers transport surface water containing salt that is produced during the mining of salt. With this project, K+S has completely replaced old malfunctioning tank wagons and places its full trust in Innofreight.

The SurfaceWaterTank is the largest of our tank containers and has a volume of 62 m³ or the equivalent of 62,000 liters. In comparison: A swimming pool that is ten meters long, 4.5 meters wide, and 1.4 meters deep holds 63,000 liters.

SOLUTIONS FOR EVERY INDUSTRY

ocusing on certain areas does not mean neglecting others. We have also been able to realize major projects in the energy sector, the liquids transports and the infrastructure segment.

With the ever-increasing range of projects, we are expanding our market leadership and experience step by step.

After 19 years, we have put logistics solutions on track in 20 European countries and it is clear that

we will take things up a gear in the future. Of course, 2021 was used to work successfully with customers on new superstructures for raw material transports.

Among other things, a SiloTainer for the transport of cement is in preparation, which will benefit the transport company Silo Riedel. Intensive work is also being done on a solution for transporting salt and the concept for the SaltTainer has already been finalized.

ScrapTainer in use

Our ScrapTainers are very popular as well. DB Cargo not only uses RockTainers ORE for transports to voestalpine, but also our ScrapTainers. In 2019 year the first set was delivered, next year two more will follow. To be quite precise: 41 InnoWaggons 2x40 ft and 82 containers.

For this, we have again adapted our ScrapTainer exactly to what voestalpine needs. Furthermore, this set will also make quite an 240
new SurfaceWaterTanks
for K+S in 2021

180
MonTainer XXL on track for ČEZ Group

50
FinnoWaggons for the Finnish wide gauge





Another milestone is the Acid-Tainer in Finland. With this container, we conquered the field of hazardous materials transport for the first time, and the results are impressive.

The tanks are designed for the transport of nitric, phosphoric and sulfuric acid, and a payload of up to 136 tons is possible per double wagon. With a volume of 49 m³, there is room for 49,000 liters of

liquid in just one tank. The acid tanks are on rail in Finland for VR Transpoint in combination with our FinnoWaggon.

The third tank container in the group is our SlurryTainer. It successfully transports lime milk (slurry) back and forth between Styria and Carinthia in Austria.

Slurry is an important filler for the paper industry.

More rail transports for Switzerland

In Switzerland, a lot is happening as well, and this year the basis for the next few years was laid.

In the future, several infrastructure projects will be realized and we will be the first point of contact for many companies as a partner for implementation.

One reason for this development is that the Swiss government is work-







With SBB in the future good on the rails and good for the climate

ing hard to shift transports to rail and the regulations for truck transports are getting stricter.

Investments are also being made in infrastructure development. This means that the demand for modern equipment in Switzerland is high. We are already implementing the first project at the beginning of 2022.

21 InnoWaggons 2x40 ft will be delivered in combination with MonTainers XM and transport excavation material for SBB Cargo, a subsidiary of Swiss state railway, from construction sites to their further processing.

Long-standing projects showing success

In 2016, the cooperation between VR Transpoint and Innofreight was sealed. The aim was to develop a new freight wagon to adapt the modular Innofreight concept to

the Finnish wide gauge. Five years later, the project was successfully realized.

The delivery of 50 FinnoWaggons has been completed and they are rolling across Finland in combination with AcidTainers, Inno-Tainer Coils and OreTainers.

Once again, we have relied on a long-standing partnership to implement something that will pay off in the future.

Support in emergency situations

Another project we are proud of may not have as much innovative power as what you are used to from Innofreight, but it provides at least as much value.

On June 24, 2021, a tornado struck southern Moravia, Czech Republic, leaving behind severe damage. Entire buildings were destroyed, leaving only ruins. 72 of our MonTainers XXL are now helping to remove the building ruins and clean up the damage. It will take some time to remove all the remains, but we are proud to be able to contribute to the reconstruction.

Finally, the diversity of our projects is what makes Innofreight special. We are constantly outgrowing ourselves, looking for new and innovative ways to implement solutions. Yet we never lose sight of the big picture.

The company was founded in 2002 and our technology has caught on. We probably could not have given ourselves a better anniversary present.

With a strong headquarters driving the development of our products and local Sales & Service teams in contact with our customers we face the next 20 years with confidence.



STAY AHEAD TOGETHER

Railways have played an important role for Innofreight since its founding. Not only do they make sure that equipment actually rolls on the rails — such large projects can only be implemented with long-standing and strong cooperation.

ers who join forces and make things happen together: In our case, moving thousands of tons of raw materials every day. We have long-standing partnerships with numerous well-known companies, some of which already worked with Innofreight, when we were still in our early days.

Over time, new projects have emerged from many of these collaborations, successful Joint Ventures, such as Budamar Innovations, have been established and process optimization has been taken to a new level.

A special type of cooperation with various railways has emerged from the beginning. A lot of our equipment is rented directly by state and private railway companies throughout Europe and then delivered to end customers. In this way, we create a process, in which everyone can once again concentrate on their core competence. While Innofreight provides the modern technology, the railways provide the traction service and ensure that everything arrives at the final destination. Of course, communication always takes place with all responsible parties in order to get the optimum for all customers and to guarantee the supply of raw materials at the highest level

ČD Cargo

The railway that started it all and has been with us almost from day one is the Czech state railway ČD Cargo. In July 2004, the first Wood-Tainers ever produced by us rolled through the Czech Republic. They

While Innofreight provides the modern technology, the railways provide the traction service.

were loaded with wood chips for Wood & Paper and the journey went on to Mondi Štětí. Today, almost 5,000 of our containers, on almost 500 InnoWaggons, are rented across the Czech Republic.

15 mobile unloading systems are in operation and the fifth stationary unloading machine is in the finalization phase. ČD Cargo has played a role in almost every project.

This successful cooperation was not only presented on the rails this year. 500 exhibitors from 25 countries traveled to Gdansk, Poland, in September 2021 and were part of the second largest European railway fair: TRAKO 2021.

Together with ČD Cargo, we were also represented at the fair and showed what can be possible. Promising projects will also be implemented with ČD Cargo in Eastern Europe in the future.

DB Cargo

Our cooperation with the German state railway DB Cargo has existed for years, and in the last two years in particular extensive projects have been implemented, including Innofreight's largest project so far for the German steel group ArcelorMittal Eisenhüttenstadt.

The heaviest trains we have in operation are also on track for the German steel industry. A block train for ore transports can weigh up to 4.500 tons.

ÖBB

The Austrian Federal Railways ÖBB has realized two "firsts" with us. ÖBB was the first to use our InnoWaggon technology and, in combination with the wagon, to put the first RockTainer ORE for ore transports on rails. It was mentioned on the









pages before that these transports started in 2014 and still guarantee the supply of raw materials to voestalpine in Donawitz.

Takargo Rail

Together with Takargo, we transport eucalyptus wood on the Iberian Peninsula from Spain to the Portuguese pulp and paper industry. It is also remarkable for Innofreight that our solution is attracting interest and is being used successfully so far away from our headquarters in Bruck an der Mur, Austria. Takargo also operates the first IberoWaggons we have produced.

Zillertalbahn

The cooperation with the Tyrolean Zillertalbahn is one of the most recent collaborations. However, the result of this cooperation demonstrates the highest degree of innovation. Together we were able to develop a narrow-gauge solution for the Binderholz sawmill that is not only efficient, but also saves 20,000 truck transports per year.

BoxTango

This Swiss-German railway company relies on the greatest traction power: They were the first to use Euro-Dual locomotives for transports. These are the most powerful freight locomotives in Europe and are on the road with our Smart GigaWoods.

Widmer Rail Services

Widmer Rail is also a rail company from Switzerland, with whom we were able to bring our Smart GigaWood technology to Switzerland in 2020.

SBB

Together with the subsidiary of the Swiss Federal Railways, we have been transporting waste paper across Switzerland very successfully for years. Next year, the cooperation will get a new boost and right at the beginning of next year an in-

frastructure project will be implemented together.

HLG Freight Rail & Wood Logistics

As far as liquid transports are concerned, our collaboration with HLG this year was groundbreaking. 240 SurfaceWaterTanks and 120 InnoWaggons are on track with HLG to transport saline surface water for K+S and they also have our Smart GigaWoods in use.

Hector Rail

With Hector Rail, we have introduced our equipment to Scandinavia for the first time. We have been successfully handling timber and biomass transports for years.

Green Cargo

When it comes to the Swedish pulp and paper industry, we rely on Green Cargo as a cooperation partner. Here, too, we have enjoyed a strong cooperation for many years.

SŽ - Tovorni promet

For the Austrian steel industry, our neighbor has been in operation for many years. The Slovenian state railway SŽ - Tovorni promet runs up to twelve block trains every day from the port of Koper to Austria.

Budamar Logistics

From the north of Ukraine to Liberty Steel in Ostrava, Czech Republic: When it comes to Eastern Europe, Budamar has emerged as a strong cooperation partner. The establishment of the Joint Venture Budamar Innovations has further strengthened this partnership.

The list of railway companies we work with is long. Of course, it has to be, because after all, we supply whole Europe. These cooperations are part of Innofreight's corporate philosophy and are very much appreciated, because without reliable partners we will not stay ahead.









BUDAMAR INNOVATIONS



he success that new business models can bring is demonstrated by Budamar Innovations a.s. over and over again. The Joint Venture was founded in 2020 together with Budamar Logistics and focuses primarily on logistics projects in Eastern Europe.

Project Třinec is the name of the next big milestone for Budamar Innovations. By the end of next year, a stationary unloading machine will unload thousands of tons of raw materials at the Czech steel plant. The contracts have been

signed and the implementation plan is currently being developed. 1,200 MonTainer XML and 300 InnoWaggons will be in operation in the future.

From broad to standard gauge

In the first step, transports will be handled from the Slovakian/ Ukrainian border to Třinec.

In the second step, it will be possible enable transports with Innofreight equipment directly from the Ukrainian mines. The challenge here is the handling of the

containers at the Ukrainian border, because the tracks in Ukraine have a different track gauge compared to those in Slovakia.

From the border, Budamar then takes over and uses Innofreight's modern equipment, reflecting the importance of this Joint Venture. Budamar provides the traction service and Innofreight the technology.

This means that transshipment at the border will be a lot faster and more efficient. Budamar Innovations will set a new standard.





HUB, EASTERN EUROPE



nother major step towards the East and the expansion of our service capacities will be the taken into operation of our intermodal transport terminal in the Ostrava-Mošnov region, Czech Republic. The groundbreaking ceremony took place on September 13, 2021 and in summer 2022 the opening will be celebrated. With partners, Innofreight will act as operator of the terminal.

This will enable us to further expand our service and maintenance

capacities and provide even faster service for our customers and partner companies in Central and Eastern Europe.

This project will not only create new opportunities for Innofreight. It also gives the Ostrava region a great opportunity to develop dynamically and economically, as Governor Ivo Vondrák and Mayor Tomáš Macura emphasized at the event.

On an area of $98,000 \text{ m}^2$, six tracks with a length of up to 724 meters

will enable handling capacities of 1,600 containers per day. Operating this terminal will be a new challenge that Innofreight is taking on in order to take another step towards its customers.

The services of the terminal will be offered to all companies that are interested in transporting their goods by rail.

Who knows, maybe new possibilities will be created there in the future to further expand our production capacities.







THE ROLLING EQUIPMENT

The product range provides an overview of which goods can be transported by Innofreight. There are now eight different industries that benefit from our technology and more are being added step by step. he rolling equipment forms the heart of Innofreight. The following pages present the extensive product range.

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.

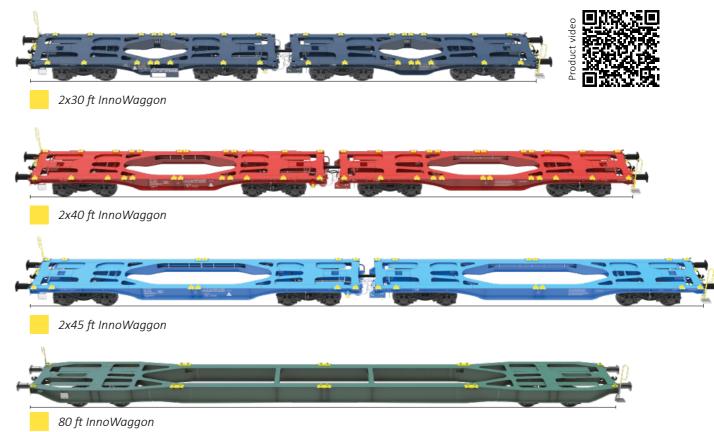
One-piece InnoWaggon 80 ft

Next year another member will be added to the InnoWaggon family.

Our new one-piece 80 ft InnoWaggon is being developed for transporting light bulk goods, such as wood chips or biomass. In terms of superstructures, we are also putting more and more on the rails every year. The product portfolio is already very comprehensive, but this does not stop us from continuing to research, develop and bring new innovations to the market.

The last pages summarize the entire portfolio summarizes and you will find information on loading volume, payload, size, loaded freight and unloading.

InnoWaggon	2x30 ft	2x40 ft	2x45 ft	80 ft
Classification	Sggmmrrs	Sggrrs	Sggmrrs	Sggns
Classification code	4658	4854	4657	-
Track class	A, B1, B2, C2, C3, C4, D2, D3, D4			
Number of axles	2x4			4
Tare mass	2x14.100 kg	2x14.500 kg	2x14.950 kg	19.000 kg
Length over buffer	22.500 mm	26.710 mm	29.610 mm	25.710 mm



2x30 ft InnoWaggon



SlurryTainer

Loading volume per container: 43 m³

Length: 30 ft

Max. payload per double wagon: 142 t

Loaded goods: Slurry

Unloading possibility: unloading by gravitation



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 possibility:

sudden unloading

into hopper







InnoTainer Coils

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



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 possibilities: forklift or stationary unloading machine





Loading volume per container: 23.6 m³

Length: 13 ft

Max. payload per double wagon: 143.5 t

Loaded goods: iron ore, limestone

Unloading possibilities: 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 possibilities: forklift or stationary unloading machine





2x40 ft InnoWaggon



SurfaceWaterTank

Loading volume per container: 62 m³

Length: 40 ft

Max. payload per double wagon: 140 t

Loaded goods: waters contaminated with salts

Unloading possibilities:

Gravitation – hose connection DN 100 or flange DN 150



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 possibilities: 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 possibilities: adjustable unloading to the

centre or to the sides

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 possibilities:

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 possibilities:

forklift or stationary unloading machine



MonTainer XXL

Loading volume per container: 46 m³

Length: 20 ft

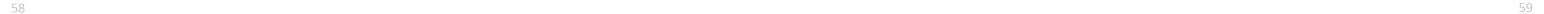
Max. payload per double wagon: 137.5 t

Loaded goods: coal, coke **Unloading possibilities:**

forklift or stationary unloading machine







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 possibilities:

forklift or stationary unloading machine



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 possibilities:

magnetic unloading or unloading crane

Smart GigaWood Sweden

Loading volume: 110 m³

Length: 40 ft

Max. payload per double wagon: 142.1 t Loaded goods: timber

Unloading possibilities:

logstacker or highlifter



WoodTainer XXL mit Tür

Loading volume per container: 43 m³

Length: 20 ft

Max. payload per double wagon: 138.7 t

Loaded goods: woodchips, building material, coal, sugar beets

Unloading possibilities:

forklift, stationary unloading machine or unloading with water cannons



Length: 10 ft

Max. payload per double wagon: 143 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 possibilities: unloading crane or forklift

StahlPalette

Length: 10 ft

Max. payload per double wagon: 143.7 t

Loaded goods: steel slabs,

blooms, pipes

Loading width: 2.652 mm

Unloading possibilities: unloading crane

or forklift

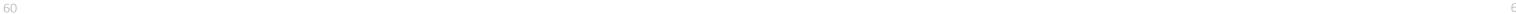












2x40 ft InnoWaggon

innofreight

CityLogistics Container

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 possibilities:

truck tipping chassis or stationary unloading machine



InnoTainer Coils

Number of coils per container: 7

2x40 ft broad gauge

Length: 40 ft

Max. payload per double wagon: 138 t Loaded goods: coils

Unloading possibilities:

forklift or unloading crane



INFU 8600010 2MUV K/S **@inno**freight Salze fürs Leben Kalium und Magnesium

ChemieTainer

Loading volume per container: 32.5 m³

Length: 20 ft

Max. payload per double wagon: 139.1 t

Loaded goods: corrosive bulk

materials

Unloading possibilities:

truck tipping chassis or stationary tipping device



AcidTainer

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 possibilities:

gravitation – hose connection DN 100, camlock



GrainTainer

Loading volume per container: 36 m³

Length: 20 ft

Max. payload per container: 32.4 t

Loaded goods: grain, corn, soy

Unloading possibility:

OreTainer

Loading volume per container: 18.1 m³

Length: 13 ft

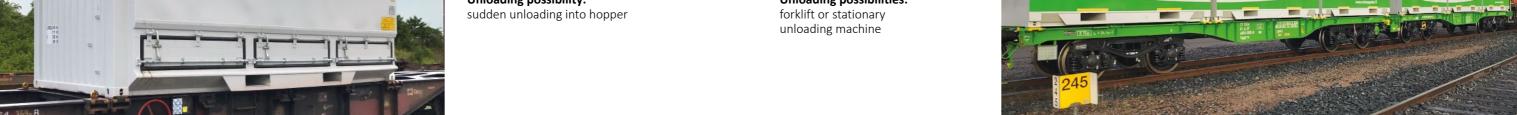
Max. payload per double wagon: 140 t

Loaded goods: iron ore

Unloading possibilities:







2x45 ft InnoWaggon



clira: ¿Justice Now

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: coke, coal

Unloading possibilities: forklift or stationary unloading machine



Box-In-Box System

Loading volume per container: 45 m³

Length: 22.5 ft

Max. payload per double wagon: 138 t

Loaded goods: coal, iron ore,

building material

Unloading possibilities:

forklift or stationary unloading machine



Smart GigaWood-

Waggon 5X5

Length: 45 ft

logstacker or

highlifter

Max. payload per

double wagon: 144 t

Loaded goods: timber

Unloading possibilities:

Loading volume: 110 m³

Loading volume per container: 80 m³

Length: 30 ft

Max. payload per double wagon: 136 t

Loaded goods: salt with release agent and other moisture-sensitive

bulk materials

Unloading possibility:

dosed gravity discharge



Smart GigaWood-Waggon

Loading volume: $110 \ \text{m}^3$

Length: 45 ft

Max. payload per double wagon: 141 t Loaded goods: timber

Unloading possibilities:

logstacker or highlifter

Product video

SiloTainer

Loading volume per container: 32 m³

Length: 22.5 ft

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

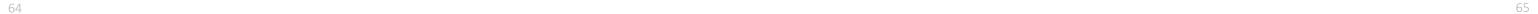
Loaded goods: cement

Unloading possibility: compressed air discharge

compressed all discharge

with tilting





60 ft container wagon



AgroTainer Open Top

Loading volume per container: 50 m³ Length: 30 ft

Max. payload per wagon: 66 t

Loaded goods: coke, short timber

Unloading possibilities:

truck tipping chassis or exvacator



WoodTainer XXL

Loading volume per container: 46 m³

Length: 20 ft Max. payload per wagon: 67 t

Loaded goods: light bulk materials

Unloading possibilities: forklift or stationary unloading machine





AGRO. FREIGHT

AgroTainer XXL

Loading volume per container: 50 m³

Length: 30 ft Max. payload per wagon: 66 t

Loaded goods: cereals, sugar, palletised goods

Unloading possibilities:

truck tipping chassis or excavator

WoodTainer XXXL

Loading volume per container: 57 m³

Length: 20 ft

Max. payload per wagon: 65 t

Loaded goods: light bulk materials

(biomass)

Unloading possibilities:

forklift or stationary unloading machine



MonTainer XL Loading volume per

container: 41 m³ Length: 20 ft

Max. payload per

wagon: 67 t Loaded goods: coal, coke

Unloading possibilities:

forklift or stationary unloading machine

Palettensystem

Loading width: 2,750 mm

Length: 10 ft

Max. payload per **wagon:** 68 t

Loaded goods: pipes, timber **Unloading possibilities:**

unlaoding crane or logstacker







NEW INNOFREIGHT HEADQUARTERS

A major change is coming up at the very beginning of the new year. In March 2022, Innofreight will move to a new headquarters. The company will remain true to its roots, as the new building is only a few hundred meters away from the original one.

t the beginning of the anniversary year, another highlight is on the agenda: a new headquarters for Innofreight.

The city of Bruck an der Mur, Austria, has decided to build a Business Park 2.0, as a state-of-the-art building complex that will provide office space for various technical companies.

Construction work has started in November 2020 and the building will be ready in March 2022.

Innofreight will be the largest tenant in this new business park and 90 people from our 130-person team will drive innovation in rail freight transportation from Business Park 2.0 in the future.

Anyone who wants to pay us a visit after the opening will be greeted by a special surprise. A new model railroad is currently under construction and will be integrated into the Innofreight entrance area on the fourth floor.

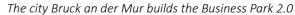
The InnoBahn will extend over 45 m² and 120 trains will make their rounds around a miniature of the Brucker Schlossberg from 2022. With the new headquarters, we remain true to our roots in Bruck an der Mur.



Those who want to admire a view of the real Brucker Schlossberg should pay a visit to the top floor.

The restaurant "MiraMonti" will offer culinary specialties from Austria and Italy, and Innofreight will also welcome guests here: from a quick lunch menu with take-away option to a cozy à la carte dinner.









SOCIAL ENGAGEMENT

























