

2023/2024

## EUROPEAN RAILWAY Career Handbook

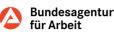
For Beginners, Trainees and Young Professionals

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Erfolg haben. Mensch bleiben.

## The Rail is the Solution



Philippe Citroën Director General UNIFE – Association of the European Rail Industry

Each crisis stimulates self-reflection. In the last two years, Covid-19 and the Russian war against Ukraine have forced the members of the European Union to evaluate their strengths and their weaknesses. These historical developments have led leaders across the European Union to the conclusion that the future of the Union necessitated an even higher level of interconnectivity, resilience, and sustainability. In tackling these challenges together, rail has been repeatedly named as an effective solution. The European rail companies are prepared to promote economic growth, cross-border cohesion, and the decarbonization of traffic. For a successful contribution to the next generation of the European Union, rail companies must maintain their sustained commitment to mobility research and innovation as well as attract qualified new employees, who can build the unified European railway area of the future.

Shift2Rail, initiated by UNIFE in 2014, was an ambitious public-private partnership that brought together rail stakeholders and European institutions to develop innovative technologies. This consortium as well as its numerous projects advanced the use of new solutions across Europe's rail network. Tools like the European Rail Traffic Management System (ERTMS), Big Data, geospatial data, artificial intelligence, and more are making Europe's trains, metros, and trams more reliable, even safer, and more eco-friendly.

The European rail supply industry, represented by UNIFE and consisting of its members, believes that rail sector professionals are crucial to ensuring that we remain a global leader and can realize the full potential of this mode of transport. Training and education programmes are essential to ensure that they have both the skills and competencies needed to keep rail providers innovative and competitive. To support future rail professionals in pursuing rewarding careers in our field, UNIFE – as part of a consortium of rail providers, operators, trainers, and government agencies – has launched an ERASMUS+-funded blueprint for skills called 'Skill Training Alliance For the Future European Rail system' (STAFFER).

In last year's 'European Year of Youth', the continent's rail suppliers have continued to help building a better European future. For its part, the European rail supply industry remains committed to developing new technologies and introducing innovative solutions so that our mode of transport can form the backbone of tomorrow's multimodal, seamless and sustainable mobility paradigm. Welcome on board, we look forward to embarking on this journey together.

## EOTO: ELIROPEAN LINION AGENCY FOR RAILWAYS

## On Safe Rails into Europe's Future

Dear friends of the railways,

we are living in a time of crises – the Covid pandemic is not yet over, and the daily news is full of reports about the tragic events caused by the Russian aggression against Ukraine. With these acts of war on European soil, not only is infinite human suffering being caused but we are also seeing increased effects on the economy, be it through gas shortages or shortages in the supply of certain foodstuffs. General inflation is progressively becoming a problem for many people. Record heat and persistent drought are making climate change directly felt, and the rail sector is struggling with ongoing capacity, staffing, and quality problems.



**Josef Doppelbauer** Executive Director of the Railroad Agency of the European Union

If we direct our gaze from the past to the future, we must, on the one hand, acknowledge the role of the railways in uniting people –

beyond the undisputed military strategic importance of rail, the European railways have made it possible to connect the continent economically, but what is even more essential is that without railways there would be no 'European culture'. 2021 was not without reason the European Year of Rail – trains link people, countries, and companies; the ambitious climate targets will not be achieved without a larger modal share of rail. The debate on decarbonization of transport often suppresses that the main advantage of rail is the much lower energy consumption per unit of transport – in fact: the wheel-rail system needs only about one-tenth of the energy of road transport per tonne or passenger-kilometre. The generally propagated approach to tackling the climate crisis can be roughly summarized under the keyword 'all electrical' – heating and mobility are to be switched to eco-friendly electricity. The key question then is where should this environmentally friendly electricity come from, at the times when it is needed? The railways are the key to decarbonizing transport and at the same time to massive energy savings.

2022 was the European Year of Youth – shaping Europe's future is a challenge that concurrently opens up many opportunities. Especially in the area of railways, it is important to set important impulses to increase customer-friendliness and reliability. The digitalization of railways and networking with other modes of transport are interesting tasks that simultaneously serve to protect the climate, improve the quality of life, and strengthen the European idea of a truly unified European railway area.

The European Union Agency for Railways will contribute to enabling a sustainable, safe European transport system without noticeable geographical borders. Since 2004, the Railway Agency has been a vibrant organization, constantly evolving and responding to the needs of partners in the sector. We work with passion and high pressure to further improve the railway system. Go to our website or follow us on our social media channels to get the latest news from the world of rail and for current vacancies. Who knows? One day you could

be part of one of our teams. Get on board, choose your future on safe rails!



## Working for the European Railway

## **Europa is Your Chance!**

Europe is not only a wonderful continent with great cultural diversity. With its open borders, the European Union also opens up a great asset for professional careers – and, together with the EU's first-class exchange programmes, offers trainees and students the perfect conditions to gain their first experience abroad and to make international contacts.

So much European freedom needs connection. And Europe's railways provide this connection. because the rail networks are also the lifelines of the European Union. But rail travel is not only comfortable and environmentally friendly: The European railway industry is a modern and efficient employer that has a promising future ahead of it, because no means of transport, except perhaps the bicycle or the glider, is as climate-friendly as rail transport! Few industries offer so many career opportunities at the same time - whether as a train driver in a railway company, as a mechatronics technician in maintenance, as a product manager in the railway industry or as an engineer in the railway construction industry.

## Seize the opportunity and get in!

And the beauty of it is that all these jobs around 500 job profiles in total – can be found all over Europe. Whether I live in Portugal, Ireland, Germany, Italy, Belgium, Poland, Austria or France, the job profiles within the railways are very similar, and to a large extent even identical. Why not work as a metal worker in the maintenance department of a Greek railway company, as a train conductor on the TGV in France, as an engineer for the Spanish railway industry or as a track builder in Germany to modernise the railway network? Life can be so colourful, and today's Europe offers professional freedom and opens up new horizons for you at the same time - you just have to take the chance and get on board!

## It wasn't always so easy: a look back ...

Yet it wasn't so long ago that the tracks ended at national borders – at least, entering neighbouring European countries was much more complicated than it is today. There were regular waiting times and checks on people at the borders, and sometimes even a visa was necessary to enter. Travelling by train, for example, from Warsaw to Lisbon or from Stockholm to Rome was a complicated affair a few decades ago, and time-consuming checks were the order of the day in every country crossed along the way. Working in Dublin for two years or studying in Amsterdam for three semesters was possible in principle – but associated with great difficulties and high costs.

Not so long ago, the clocks on the railways also ticked in a completely different way: although the trains in Athens and Brussels also ran on tracks, many different technical peculiarities, differences in signalling and vehicle technology and many bureaucratic hurdles ensured that

the European railway network was more like a patchwork quilt. This not only made cross-border passenger traffic more difficult, but especially rail freight traffic. Goods were therefore often transported by lorry from one European country to another. Of course, the borders also applied to road transport and here too there was a lot of paperwork and bureaucracy to deal with – but unlike rail transport, heavy goods vehicles were not slowed down by technical peculiarities such as different control and signalling technology.

Therefore, locomotives and personnel often had to be changed during the "border jump", and freight wagons could even be held up at the border for a few days. In spite of ecological disadvantages, trucks were much faster and more flexible ... This is one of the reasons why the share of rail freight transport in the total freight volume has been steadily decreasing since 1970 and why road freight transport has been able to record enormous growth rates.



PHOTO: FAUXELS / PEXELS

## Today: a European railway area

But in the meantime, many of these technical and bureaucratic hurdles have been removed in the field of rail transport. A few years ago, the European Union launched a structural change with numerous initiatives that led to a liberalisation of the railway market and at the same time to technical harmonisation in rail transport.

Through the elimination of these outdated operating practices and the consistent modernisation of infrastructure and vehicles, the countries of the European Union are well on their way to becoming an integrated European railway area. The importance of rail transport to the EU Commission was also demonstrated by the fact that the EU Commission had declared 2021 the European "Year of Rail".

## The railway industry: at home in Europe

But it is not only the railways that form a European network. For many decades, companies in the railway industry have been working in European partnerships. Many companies have branches and subsidiaries in other EU states as well as in countries outside Europe.

The European railway industry is considered the number one in the world market and has a reputation for setting technological and qualitative standards – for a new future of mobility: digital, economical and environmentally friendly. The European rail industry thus offers excellent opportunities for the future and the best prerequisites for an international career!

## Erasmus+: development without borders opportunities

For more than 30 years, the European Union has offered efficient funding for study visits and

internships through the Erasmus+ programme. With this programme, the EU would like to promote, among other things, the European mobility of students and trainees (Azubi-Mobil) and thus also strengthen the European Union as a location for science and business

Young people should prepare themselves for the demands of the modern labour market through a stay abroad and be given the opportunity to develop their professional, linguistic and social skills. The best thing about Erasmus+ is that it is open to students of all disciplines and universities, Erasmus+ scholarship holders do not pay tuition fees abroad, the "certificates" and degrees they earn are recognised throughout the EU, and there is also a monthly grant of up to 450 euros (study) or 550 euros (internship).

Railways and Erasmus+: together they are a real European opportunity provider! No matter what profession or qualification interests you in the broad field of occupational profiles related to the ecological transport mode of rail: With Erasmus+, you will gain international experience and future-oriented career opportunities.



## By Rail through Europe

## Architecture, encounters and adventure!



Immerse yourself in the fascinating diversity of Europe – from the very first moment of your journey: Grandiose architecture, cultures, and encounters await you at Europe's large and small railway stations. Experience the European Union in a climate-friendly way by rail!

The European Union is a fascinating network of countries, cultures and opportunities. Have you ever thought about discovering this unique community in a very special way? Get a ticket, pack your suitcase and set off on a journey to the most beautiful places, sites and stations in Europe...

### Pure Wanderlust!

Imagine you are standing on the platform of a majestic train station, its architecture shining like a lighthouse in the distance. This could be the train station of Amsterdam, Antwerp or Porto, for example. These stations are not only

transportation hubs, but true treasures of European culture! They tell stories of times gone by and at the same time are vibrant meeting places for young Europeans like you.

## **Vibrant Meeting Places**

In London, in the heart of Great Britain, St. Pancras station impresses with its Victorian splendour. While waiting for the train, you can admire the fascinating architecture and perhaps exchange ideas with other young travellers from all over the world. You might even meet someone who can tell you about the city's best insider tips. Maybe you will travel on to Paris

PHOTO: INGO BOELTER / MAURITIUS IMAGES

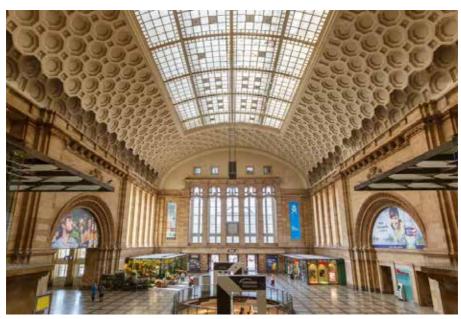
Antwerp central station is affectionately called the "railway cathedral".



Victorian splendour: St Pancras station in London, opened in 1868.



The term "Victorian" refers to the era of Queen Victoria's reign from 1837 to 1901.



The magnificent main railway station in Leipzig.



Liège-Guillemins station has one of the most spectacular roofs in Europe.

- the charming city of love and fashion. The Gare du Nord station, with its impressive façade and bustling passengers, exudes an atmosphere of promise, full of excitement and possibility. Here you can experience French flair. Let yourself be swept away by the energy of the city!

And then? On to Madrid! Atocha Station, with its amazing glass architecture and lush botanical gardens, is a real highlight. You can roam through a green oasis, the beauty of nature and the whole country enchant you in equal measure!

Now it is on to Milan: the Stazione di Milano Centrale is one of the most important and beautiful stations in the European transport network

## Traces of History

You may also encounter traces of the history of the European Union itself during your trip. The official information centre of the European Union in Strasbourg, the Centre d'Information sur les Institutions Européennes (CIIE), brings the history of the EU to life. Here you can find information about the founding fathers and mothers of the Union.

For example, about Louise Weiss, who was committed to women's rights and European integration. Or about Alcide De Gasperi, who, together with Robert Schuman and Konrad Adenauer, was actively involved in building the Coal and Steel Community and thus the European Union.

Perhaps you will travel on to Zurich and Lausanne. Here you will visit the train station with its Art Nouveau elements and make a detour



Madrid's architectural jewel: the impressive Atocha railway station.

to the Jean Monnet Foundation, the Fondation Jean Monnet Pour L'Europe, as it is officially called – Jean Monnet was another founding father and initiator of European unity. From there, you will travel via Vienna to Germany. Here you will visit the unique Hundertwasser station in Uelzen and the main station in Berlin with its glass structure.

And if you like, you can travel on from there – to Warsaw, Copenhagen, Dublin, Stockholm, Riga, Helsinki, Kiev, Budapest or to Belgium, to the station Liège-Guillemins, which with its colourful and curved shapes is one of the most beautiful train stations in the world! Or further, to other countries and cities – Europe's train stations are waiting for you cwk



The "Lyhdynkantajat" (lantern bearers) on the façade of Helsinki's Art Nouveau main station.



The vibrant soul of Paris: welcome to the timeless elegance of the Gare du Nord!



A colourful work of art: the Hundertwasser railway station in Uelzen (Lower Saxony) enchants with its shapes and vibrant colours!



## Railway Competition with Festival Feeling



Right: Excitement is in the air when the vehicles have to prove themselves in the Energy Recovery Challenge.

Doing something for the climate – that means building a locomotive in the European Railway Challenge 2023. In the competition, teams of students, trainees and young professionals design, build and test a 10 ¼ inch gauge locomotive and compete against each other with their self-built locomotives. The vehicles are compared on such contemporary and important points as energy efficiency, noise emission or reliability. The highlight: the one-hour endurance run.

Text: Prof. Dr. Raphael Pfaff Fachhochschule Aachen





## Why a Railway Challenge?

Because it's fun and brings more: In the Challenge, participants plan, tinker, build and test their own locomotive in teams – in practice. This way they learn much faster and more sustainably and have the sense and goal of their

activities directly in front of their eyes. Up to 15 participants form a team. This team size is optimal because sub-groups of two to three people form around many activities, giving each other immediate feedback and sharing their experiences.







Knowledge is always passed on in the process: Each team must consist of 60 percent new participants, who benefit from the previous knowledge of the more experienced ones – not only with regard to the Railway Challenge.

Learning from mistakes is also allowed here: All systems work with low voltage. If a locomotive derails, the team can manually re-rail it.



The competition vehicles combine creativity and improvisation with state-of-the-art rail vehicle technology.





Designed by students, driven by innovation. This impressive "model locomotive" shines in international competition with its performance, reliability and energy efficiency. A look into its fascinating technology and electronics reveals the future of rail transport.

For the winning teams, it's on to Stapleford. While the European Railway Challenge was held for the first time in 2023, the IMechE Railway Challenge in Stapleford (UK) took place for the twelfth time.

## Competition as a festival

The IMechE Railway Challenge takes place as a joint camp on a meadow in the immediate vicinity of the railway. This creates a festival feeling, which the teams also use extensively after work. The work on the up to twelve locomotives takes place in a very collegial and cooperative manner. Due to the narrowness of the railway facilities, the teams are right next to each other and thus have an insight into each other's challenges.

In addition to the work on the vehicles - by the way: students will always be students

and therefore also come to the competition with unfinished vehicles - several exams are planned on the topics:

- static and dynamic acceptance,
- static test of wheelset change and refuelling,
- test challenge with all driving tests outside the evaluation.
- document-based tests (construction, economy and innovation),
- Challenge with individual scores in Auto-
- Stop, ride comfort, energy efficiency, traction performance and noise reduction..

In the ten months leading up to the Challenge, the teams work according to a specification that evolves annually and therefore requires at least adjustments to the locomotives. Working to schedule and to specification with final approval enables a rail vehicle project with many

realistic aspects to be completed in the space of an academic year.

## The Teams of 2023

The first European Railway Challenge was held with the support of the Deutsche Maschinentechnische Gesellschaft, the German Railway Industry Association and Knorr-Bremse at the beginning of June in Bad Schussenried, from Friday 2 June to Sunday 4 June. Teams from Nuremberg (Team Eagle of the TH Nuremberg), Poznan (PUTrain of the TH Poznan) and Aachen (Molly loves I.I.M. of the FH Aachen and Reuschling) took part. With Poznan and Aachen, two very experienced teams were present in Bad Schussenried, taking advantage of the open atmosphere and the excellent track facilities of SEV Kürnbach for testing and optimisation. In contrast, TH Nuremberg's ADLER saw its first runs.

All three vehicles were ready to drive on the Saturday evening of the competition: The secret highlight of the Challenge was the one-hour endurance drive

On Sunday, the driving tests took place: Poznan won ahead of Aachen and Nuremberg.

## **IMechE Railway Challenge 2023**

Three weeks after the European Railway Challenge, Poznan and Aachen went to Stapleford to compete against strong British teams. And the intensive preparation in Bad Schussenried paid off: Among the top three were Poznan as the winner and defending champion Aachen in third place with a gap of less than 2 per cent of the points. Especially the narrow field of winners clearly shows the far advanced professionalisation of the competition.

## Participate or support?

The European Railway Challenge needs teams and financial support for further growth. The organisers are very happy about your commitment! Information and contact details are provided on railwaychallenge.eu.

Website of the European Railway Challenge: www.railwaychallenge.eu



## ÖBB, SNCF and DB

## Transnational Programme on Apprentice Exchange

The Austrian Federal Railways (ÖBB), Deutsche Bahn (DB) and the French state railway SNCF want to enable their apprentices to gain reciprocal experience abroad in the future.

tween companies for defined training modules. As host, ÖBB Infrastruktur opened the doors of the Vienna Hebbelplatz training workshop on the first day.





With an international apprentice exchange, ÖBB (top), SNCF (middle) and DB (bottom) want to share professional experiences and memories.

What has so far been reserved for schoolchildren and students will soon be possible for young railway workers from Austria, Germanv and France: to gain valuable professionexperience and unforgetmemotable ries during a stay abroad as part of their training.

This was announced at a two-day conference of the European Alliance for Ap-

prenticeships (EAfA), the Directorate-General for Mobility and Transport (DG MOVE), BMK and ÖBB in Vienna. An agreement is envisaged whereby apprentices can be exchanged be"ÖBB is doubling the efficiency of its railways in Austria by 2040 in order to achieve a sustainable change in mobility in the interests of climate protection. To achieve this, we need well-trained skilled workers and rely heavily on our own apprenticeship training. With two new greenjobs, 'Electrical Engineering – Energy Technology' and 'Refrigeration Technology', in our range of apprenticeships, digitalisation in training, diversity in staff and the targeted promotion of girls and women, we want to achieve our goal," emphasises Silvia Angelo, Director of ÖBB-Infrastruktur AG

"I was particularly pleased that we put a focus on the topic of 'girls and young women in technology'. This allowed us to learn from each other how we can continue to inspire girls and young women for technical professions. With the upcoming generational change, we need more skilled workers, so we also need more female colleagues. We are already on the right track in our apprenticeship training – our guests in the training workshop at Hebbelplatz were able to see this for themselves," says Ursula Bazant, Head of Training and Further Education at ÖBB Infrastruktur AG.



Moving Europe towards a sustainable and safe railway system without frontiers.



## Gemeinsam Europa verbinden

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https://www.era.europa.eu/agency/recruitment\_en

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A Jewel: Together, HVLE 2022 trainees restored Nohab railcar 9103 on the Aveiro-Sernada de Vouga narrow-qauge railway in Portugal.

## Havelländische Eisenbahn AG

## Rail Adventure - across Europe

Tradition meets innovation! Since 1892, Havelländische Eisenbahn AG (HVLE) has been a constant in German rail freight transport. HVLE also defied the difficult phases of German history, such as the separation into East and West, and is today one of the most successful rail freight operators in the country. One reason for this lies in the company's innovative strength and modern training concept, because HVLE looks beyond borders – towards Europe and beyond!

For many years now, HVLE has made an internship abroad an integral part of the vocational training for railway workers. HVLE thus enables all trainees to gain valuable international experience. Participation in the programme is voluntary.

## Italy, Eritrea, Greece

In the past years, the internships abroad took place in cooperation with a partner in Italy. After the Italian partner withdrew from the railway sector, HVLE found new opportunities in Eritrea in 2019. The dedicated HVLE team refurbished a historic "Littorina No. 2", a 1936 FIAT railcar that was once a proud part of the Eritrean State Railway.

In 2020, the team travelled to Greece to the railway museum in Thessaloniki. "Here we restored a historic railcar in Velestino with our trainees," explains Thomas Franke, Head of Vehicle Operations and Training at HVLE. "We", that is five apprentices, Thomas Franke himself and his colleague Uwe Heinrich. In 2021, it was off to Greece again, because railway museums



In 2019, the HVLE team in Eritrea renovated the historic Fiat railcar "Littorina No. 2".

always have enough work – whether in Greece, Ireland or Sweden.



Only together is the group strong: HVLE offers its trainees the opportunity to gain new experience with an internship abroad – like here in Greece in 2021.



Restoring historic rail vehicles is a great pleasure – but requires a lot of commitment from the team.

## Initiative and improvisation

The two-piece Greek railcar, once built by Linke-Hofmann, was in a dismal condition. "We just rolled up our sleeves and got started," says the training manager. "The start is always difficult, you have to improvise a lot, make spare parts yourself and get the locals on board, who are sometimes a bit sceptical at first."

But the initial scepticism quickly turns into friendship – and the result rewards all participants after three weeks of work. "We are often quite surprised ourselves at what we manage to do in this time and therefore proud of the achievement we have made together. And quite incidentally, we have learned a lot," says

Franke. "We all looked beyond our own horizons, got to know the country, the people and the culture, saw beautiful landscapes, made new friends and realised together that even today, when many processes are standardised, you can still achieve a lot with commitment and initiative." Joint excursions are also part of the internship programme, which is supported by Erasmus+.

### **Portugal**

In 2022, HVLE took its apprentices on a new journey – this time, the road took them to Portugal. At the CP workshop Contumil in Porto, the young talents took Nohab railcar 9103 of the narrow-gauge railway Aveiro-Sernada de

Vouga under their wing. With enthusiasm and expertise, they set about refurbishing the historic vehicle. In keeping with their status, the railwaymen and women travelled on rails to Porto and took the opportunity to explore the railways of France and Spain along the way. Europe's railway landscape opens horizons and connects – in the truest sense of the word

is beautiful and we railwaymen are part of a big European railway family!"

There are no limits to the spirit of adventure and the thirst for knowledge – in autumn 2023, the next trip to Portugal is already on the cards to once again bring historical treasures to new railway life. This time, the sister railcar 9102 will be refurbished at the CP in Porto.

## European railway family

During the internship abroad, HVLE trainees learn that each of them is a valuable member of the group and has skills that are needed in the team to achieve the set goals. Each individual contributes to the team – because only together is the group strong. "And there is something else our trainees learn during their stays abroad," Thomas Franke emphasises: "Europe



PHOTOS: HVLE

Thomas Franke, Head of Vehicle Operations and Training at HVLE, manages and supervises the internships abroad together with his colleague Uwe Heinrich.

## **IT Systems Electronics Technician**

Field of activity: IT systems electronics technicians plan, install and configure IT systems and put them into operation. Their basic tasks also include the maintenance of IT equipment and the analysis and elimination of faults. In the railway industry, IT systems electronics technicians are often involved in the installation and maintenance of technical systems in the area of security, ITC technology (information and communication technology) and vending machine technology, including, for example, burglar and fire alarm systems, video and public address systems, ticket vending machines and radio technology. The setting up of networks and networks and working with networks from copper to fibre optics are also important areas of work for IT systems electronics technicians.



**Prerequisite:** Realschulabschluss (secondary school leaving certificate) or (Fach-) Abitur (university entrance qualification). Also interested in technology and electronics, maths and physics.

Training: 3 years of dual training (company and vocational school) in industry, trade and crafts.

**Plus point:** Working with future technologies offers relatively secure job opportunities. career opportunities. The willingness to undertake further training ensures opportunities for promotion and offers good

**Learning potential:** Possibility of advancement to (industrial) master craftsman or through studies of Electrical Engineering or Computer Engineering.

## **IT Specialist – System Integration**

**Field of activity:** The future is digital. Computers, the Internet and smartphones have long since conquered our everyday lives. And the railway system has also been undergoing a rapid digital transformation for years - from a pure provider of rail transport to a modern and networked mobility platform. The fields of work of IT specialists are very diverse: they configure hardware and software components and integrate them into new and existing networks, they develop new user interfaces, analyse customer requirements, plan, install and maintain IT systems, advise users and, if necessary, conduct internal and external training courses. IT specialists can be employed in practically all sectors - including the rail There is also a wide range of tasks within the railway industry.



**Requirements:** Realschulabschluss or (technical) Abitur, interest in IT technology and mathematics, communicative, team player, knowledge of foreign languages.

**Training:** 3 years dual training (company + vocational school), partly also in inter-company training centres. training centres.

**Plus point:** Secure future prospects due to the rapid development of digital technology. The There are many opportunities for further training and career advancement: for example, to become a for computer management or by studying computer science.

# OTO: AGILIS VERKEHRSGESELLISCHAFT MRH & CO. KG

## **Locomotive Driver**

## (Train Driver)

**Field of activity:** The colloquially known train driver is called a train driver in the technical language. A train driver controls locomotives and multiple units (e.g. ICE) on behalf of a railway company and ensures that passengers and goods reach their destination reliably and safely. Engine drivers can be compared to pilots, because they are responsible for many passengers and goods and are the rulers of a high-performance machine with an output of up to several thousand horsepower. This requires flexibility, resilience and a high degree of reliability.



**Prerequisite:** At least a very good secondary school leaving certificate - better: Mittlere Reife. Technical understanding and a knack for mathematics. Reliable, able to work under pressure and a quick ability to react. Willingness to work shifts. Medical aptitude test required.

**Training:** three years of dual training (practical driving and simulator + theory). Cross-entry via numerous railway colleges possible in a shorter time.

**Plus point:** Independent action, very varied, contact with people and dealing with modern and high-performance technology. Very good career prospects at present!

## **Train Dispatcher**

(Railway employee in operational service - EIB F)

**Field of activity:** The field of activity of railway workers in operational service, specialising in track (EIB F), also called dispatchers, is comparable to the tasks of air traffic controllers in the tower, because through their work in the signal box – usually invisible to passengers – they ensure punctual, smooth and safe train operations in rail traffic. The dispatcher is responsible for all train and shunting movements that take place within his/her area of responsibility. This means that the train dispatcher has a high level of responsibility, for which he/she is systematically prepared in theory and practice as part of a comprehensive training programme.



**Prerequisite:** Realschulabschluss or Abitur. Ability to work under pressure, good coordination responsible behaviour, ability to work in a team, willingness to work shifts.

**Training**: three years, practical training, vocational school, training on the simulator, some training at internal railway training centres.

**Plus point:** train dispatchers work right at the heart of railway operations and are right at the right in the middle of the complex system of railway traffic. Good earning opportunities!

## **Track Builder**

**Field of activity**: The rail network of Deutsche Bahn AG alone currently extends over 33,000 kilometres. In addition, there is the rail infrastructure of ports, loading stations, works railways and private railway companies. So there is a lot to do - and the track constructor ensures that the existing track network is expanded as needed and regularly maintained and serviced. The track constructor works in a team, creates the necessary substructure with the help of special machines and replaces and installs tracks and points. The training includes welding and flame cutting, skills in track maintenance and knowledge of steel construction and civil engineering.



Requirements: At least secondary school leaving certificate, resilient and reliable.

**Training:** three years of dual training (company + vocational school), partly also in inter-company training centres. The training is usually divided into two segments: The first two years are spent training to become a civil engineering technician, and the final year of training is spent specialising in track construction.

**Plus point:** Versatile field of work with solid earning potential and very good prospects for the future. Further development to foreman, master craftsman, technician or engineer possible.

RAILWAY CONSTRUCTION

## **Civil Engineer**

Field of activity: From railway stations to new level crossings - the job description of a civil engineer in railway construction is very broad and the field of activity is correspondingly diverse. It ranges from classic civil engineering, for which planning engineers plan, design and construct earthworks and basic construction measures, to structural engineering, which deals primarily with the construction of bridges and tunnels, to the classic task of construction management, in which civil engineers responsibly manage and supervise railway construction sites as project managers. Civil engineers often work in teams and with specialists from a wide range of disciplines. This also includes cooperation and coordination with authorities (approval procedures, etc.). They prepare decision-making documents for project managers and clients and monitor deadlines and budgets.



**Prerequisite:** A-levels or vocational baccalaureate, interest in scientific topics, creative, team player and able to work under pressure, good foreign language skills (at least English).

**Training:** Study at a university or university of applied sciences. The first degree leads to a Bachelor's degree and usually lasts 6 semesters. Those who wish to obtain a Master's degree must study a further 4 semesters after the Bachelor's degree.

**Plus point:** Versatile fields of work with exciting topics, variety between office job and field work on the construction site, excellent earning and promotion opportunities, very good prospects for the future.



TOS: HVIF A

## **HVLE AG**

## **Engine Driver (m/f/d)**

for our locations Wustermark OT Elstal, Blankenburg (Harz), Celle, Magdeburg

Der Schlüssel zum Erfolg sind unsere Mitarbeiter

With more than 250 experienced employees, Havelländische Eisenbahn AG is a successful, stable railway transport and railway infrastructure company with a long tradition. To strengthen our team, we are looking for you as an engine driver (m/f/d) with immediate effect. If you would like to accompany our success story in the future, a strong, open-hearted team awaits you in the office and out on the locomotives. Discover your career with us.

### Your future tasks:

- You are responsible for the punctual handling of train journeys in local and long-distance traffic.
- Your tasks include carrying out local short-distance services and shunting services
- You will carry out preparatory and final services.
- You take over the brake testing and the inspection of our wagons.





#### havelländische eisenbahn

#### What you bring with you:

- You have completed vocational training as a railway worker in operational service (m/f/d) or have completed several months of qualification as a locomotive driver (m/f/d).
- You are medically and psychologically fit
- You are in possession of a car driver's licence
- The ability to work in a team and under pressure round off your profile

#### What we offer:

- 31 days holiday
- Pay above the standard rate and a 13th salary
- standard working hours of 39 hours per week
- employer-financed pension scheme
- great team
- profit sharing
- State-of-the-art locomotive and wagon technology
- Recognition of previous employment

If you would like to join us on our journey to the future, please send us an e-mail with your application documents, including your curriculum vitae, your earliest possible starting date and your salary expectations to bewerbung@hvle.de.

We are looking forward to your application!

More info at www.hyle.de/karriere





Havelländische Eisenbahn AG
HR Department

Bahnhofstraße 2

14641 Wustermark OT Elstal

Phone: +49 (0) 33234 300 100-0

E-Mail: bewerbung@hvle.de

Internet: www.hvle.de

#### Jennifer Berghoff, SBB Cargo International

# "If you enjoy solving problems and celebrating successes, this is the right place"

Dispatcher, SBB Cargo Deutschland

At the control centre of SBB Cargo Deutschland, a subsidiary of SBB Cargo International, 35-year-old Jennifer Berghoff makes sure that all trains get from A to B - even by diversions if necessary.

# You work at the control centre of SBB Cargo Deutschland in Duisburg. What is your job that you do every day?

My job is to schedule train drivers and their trains. We dispatchers come into play when deviations occur within regular traffic. If a train is delayed, we communicate with our drivers and look for solutions together. That's not always easy, but it makes the job exciting. In addition, we are in contact with DB Netz around the clock to request any necessary rerouting of trains, to clarify cancellations, or simply to ask why our train is still at a standstill.

# That sounds like a lot of responsibility. How do you feel about it?

I always feel responsible for my job, for my colleagues and of course for the train drivers. And it's always a great feeling when our plans are implemented and work.

#### Why did you choose this job?

After my training as a retail saleswoman and a few years of work experience, I wanted to see something new. Railways interested me because it is a huge and diverse industry. This was immediately confirmed to me after my training as a railway worker in operational service specialising in track (dispatcher). And since I like to

have contact with the outside world, I decided to apply for the job as a dispatcher.

#### Why would you recommend it to anyone?

I did have reservations about the office work at the beginning, but it was the best decision to work for SBB Cargo International. The core activity is always the same, yet no two days are the same. We are confronted with something new every day, so there is never a dull moment. So if you enjoy solving problems and celebrating lots of small successes, this is the place for you.

#### Do you work in a team? Shifts? Working hours?

Exactly, I work in a team at the control centre. Everyone looks after their own area, but of course we always work together. We work in a 3-shift system, early, late and night shift. At weekends and on public holidays, the working hours are different. The control centre is manned 24 hours a day, 365 days a year.

# Why is the job attractive, even if you have to work at night?

Because there is hardly any passenger traffic at night, we are lucky with freight traffic and have less downtime. In addition, you get bonuses for night and holiday shifts as well as weekends,

# SBB Cargo International



which makes the working conditions even more interesting.

# What further training opportunities are there at SBB Cargo Germany?

At the control centre, you can apply for a job from the load position, which mainly deals with processing papers, etc., to dispatcher and later to shift supervisor. Today, for example, I'm responsible for training and briefing the control centre. All new employees run with me for a while and I train them, show them the programmes. Of course, you can also apply internally.

#### About the person

Age: 35

Origin: Duisburg

**Apprenticeship:** KRetail saleswoman and railway employee, specialising in track

work

The most challenging moment:

When the bridge collapsed on the Rhine Valley railway line near Auggen

SBB Cargo International because

...versatile, exciting, simply mega :-)

# Why is SBB Cargo Germany the best employer?

It's a young, modern, international company with good earning opportunities and security. You are not dropped when you have problems, even private ones, but solutions are sought.



SBB Cargo Deutschland GmbH Mercatorstraße 1a-b 47051 Duisburg bewerbung.de@sbbcargoint.com

www.sbbcargo-international.com





#### **Contact Arena**

#### Companies

"If you want to take off, you are on the right track with the rail industry. Clearly, rail is a growth market: transport volumes are rising steadily. Only by rail can be they moved in a climate-friendly way. For young and dedicated people, rail freight transport therefore offers the best prospects and the exciting challenge of helping to shape intelligent and sustainable logistics concepts that are fit for the future."

Malte Lawrenz, Vorsitzender des VPI



# Eiffage Infra-Rail GmbH Specialists in Track Superstructures

Eiffage Infra-Rail GmbH is one of the most traditional suppliers in the rail infrastructure market. We are specialists in superstructure. We also design and construct slab tracks and mass-spring systems. For this purpose, we have a large machine park of the highest technical standard at our disposal.

Eiffage Infra-Rail GmbH belongs to the French construction group Eiffage and is part of the Eiffage Infra-Bau Group in Germany. In particular with our sister company Eiffage Infra-Nordwest, we have been working closely together in railway construction for years. After more than 120 years of company history, we have know-how that is unique in the industry. We pass on this extraordinary wealth of experience and high technical competence to our young employees.

The headquarters of Eiffage Infra-Rail GmbH and the mechanical engineering department, which looks after our large machines, are based in Herne. Further branches are located in Berlin, Leipzig and Cologne. We provide training in Berlin and Leipzig.

#### Training for secondary school leavers:

- Civil engineering specialist with focus on track construction (with a contract for two years and subsequent extension for another year to become a track constructor)
- Industrial mechanic (with a continuous contract of 3.5 years)
- Construction equipment operator specialising in track construction technology (with continuous contract over 3 years)

## Apprenticeship/dual degree programme for (vocational) school leavers:

- Industrial clerks
- Bachelor of Engineering, i.e. studies combined with training as a track constructor

Everyone should benefit from good training: The better we train, the better our own work will be. That's why we put a lot of effort into it, regardless of whether someone chooses a normal apprenticeship or a combination with a degree course: In the practical phases, everyone has the chance to quickly take responsibility for their own tasks. With us, you belong right from the start.

The dual study programme starts with the in-company training, just like normal trainees. It is not until the second year that the studies begin, and especially after the apprenticeship. The advantage is a double degree: IHK-certified skilled worker (civil engineering skilled worker and then track construction skilled worker) and, after the studies, civil engineer with a bachelor's degree and valuable practical experience. During the training, everyone is paid the collectively agreed training allowance.

We are looking for young people who come to stay. Our goal is to take on our trainees and offer them a future in the company.



What do you have to bring with you? School grades show strengths, but they are not our only criterion. We place a lot of value on honesty, motivation and team spirit.

- Study-related internships/ supervision of Bachelor's or Master's theses: Internship: Eiffage Infra-Rail GmbH offers students of civil engineering the chance to get to know work processes and tasks in practice within an internship. This allows them to check where their professional journey should take them. And we may find a junior employee who fits into the Eiffage Infra-Rail team. Perhaps this internship is the first contact with us as a future employer?
- Study: Students can also write their practice-oriented Master's or Bachelor's thesis with us. We are open to many questions and are happy to help with the development of a topic.

# Entry opportunities for graduates and experienced professionals:

 Got your degree in civil engineering in the bag? How about a direct entry into construction management at Eiffage Infra-Rail GmbH? We say "Welcome to the team" to all those who come to us with a proper degree, who are highly motivated, mobile, flexible and able to work under pressure.

- Civil engineers specialising in traffic route construction or structural engineering for construction and project management, costing or work preparation. Track construction experience is expected. The areas of operation can be in Germany and abroad, so a high degree of mobility is essential and knowledge of English is desirable.
- Technicians and foremen with track construction experience.



Diverse opportunities in traffic route construction for pupils, students and graduates.



Eiffage Infra-Rail GmbH Landgrafenstraße 29 D-44652 Herne

#### Frau Janine Bein

Phone: +49 (0) 2325 9551-102 E-Mail: ausbildung.er@eiffage.de

Frau Monia Balik

Phone: +49 (0) 2325 9551-112 E-Mail: bewerbungen.er@eiffage.de Internet: www.eiffage-infra.de/rail



#### **HVLE AG**

#### "Experience makes us strong"

Havelländische Eisenbahn AG (HVLE) relies on its long experience, as it has been in business and on the road for its customers for almost 130 years. In the course of the company's eventful history, the four business areas of freight transport, connecting railways, workshop and consulting services have crystallised. In these fields, HVLE convinces its customers with quality and reliability.

Since its foundation in 1892 as Osthavelländische Eisenbahn in Havelland, Brandenburg, HVLE has been able to demonstrate its expertise time and again and can now look back on a long railway tradition. Customers benefit from these decades of experience. As a private railway undertaking (RU), HVLE is licensed in freight transport and as a railway infrastructure undertaking (EIU). Through its subsidiary, Rail & Logistik Center Wustermark GmbH, it operates the Wustermark marshalling yard, the largest privately managed public railway station in Germany. HVLE is also an active member of the Network of European Railways, the Association

of German Transport Companies, the Pro-Rail Alliance and the Waste Management Association Transport and Environment.

## Six locations, 250 employees - lots of know-how

Today, the HVLE group of companies has a first-class foundation of over 250 highly trained employees. The continuous qualification and promotion of these employees is an important part of the daily work and ensures a high degree of reliability and quality. A well-coordinated team of engineers, dispatchers, train drivers, wagon masters, shunting attendants, adminis-



trative staff and service technicians work reliably to meet the diverse needs of customers - and have been doing so since 1892.

After 130 years in business, HVLE has built up a respectable fleet: 55 traction units and 855 freight wagons roll over Europe's rails. In addition to its former headquarters at Berlin-Johannesstift station in the district of Spandau, the company has a new control centre in Wustermark, where all the operational threads currently come together. HVLE also has locations in Celle, Hennigsdorf, Blankenburg in the Harz Mountains and an operations centre in Magdeburg.

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#### Transport, maintenance and advice

HVLE's main field of business was, is and will remain freight transport. There is hardly a commodity that the company has not transported since its foundation. The location advantage at an interface of important east-west and north-south connections in national and international traffic plays an important role. This enables HVLE to offer its customers tailor-made trans-

port solutions of high efficiency and quality. of high efficiency and quality. HVLE is distinguished by transports in national and international long-distance traffic with special expertise in the heavy goods sector and in hazardous goods. But HVLE's portfolio also includes grain transports, local service of trains and groups of wagons in the greater Berlin area, transfer journeys of suburban trains, underground trains and special vehicles and the execution of waste disposal and special transports as well as test journeys for industry. Added to this are many years of experience in railway construction logistics.

In addition to freight transport, HVLE also organises a connecting railway on request - with all the trimmings. With its well-equipped workshops in Berlin Spandau and Wustermark, HVLE also offers its services in terms of maintenance and repair. Thanks to its many years of experience.



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## Rail Transport Study Programmes in Germany, Austria, a

All data without warranty	RWTH Aachen	FH Aachen	Beuth Hochschule für Technik Berlin	HTW Berlin	HWR Berlin	TU Berlin	Hochschule Bochum	TH Brandenburg	TU Braunschweig	Brandenburgische TU (BTU) Cottbus	TU Darmstadt	Wilhelm Büchner Hochschule	TU Dortmund	TU Dresden	Uni Duisburg-Essen	FH Erfurt	
Dual Courses of Study			Х		Х	Х										Х	
Automation Technology	Х			х		Х		Х	Х			Х	Х		Х		
Railway System Engineering	х					х			х					х			
Civil Engineering	х	х	х	х	х	х	х		х	Х	х		х	х	х		
Business Administration				х	х	х		х					х	х	х		
Computational Engineering / Cybernetics				х		х		Х			х				х		
Railway Operations / Railway Business Administration	х					х			х					x			
Railroading	х					х			х					х		х	
Electrical Engineering	х			х	х	х			х	х		х	х	х	х		
Automotive Technology / Motor Technology	х	х		х	х	х			х				х	х			
Informatics / Engineering Informatics Information Technology (IT)	х			х	х	х			х	х		х	х	х	х		
Intelligent Transportation Systems and Mobility Management	х					х	х		х		Х			х	х	х	
Logistics / Logistics Management / Technical Logistics	х				х	х			х		Х		х	х	х	х	
Mechanical Engineering	х			х	х	х	Х	Х	х	Х		х	х	х	х		
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Mobility and Transport	х					Х	Х		Х		Х			Х	Х	х	
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Microsystems Technology				х													

## nd Switzerland

Duale Hochschule Gera-Eisenach	Tech. Hochschule Mittelhessen	Westfälische Hochschule	BA Glauchau	FH Südwestfalen	Hochschule Heilbronn	TU Kaiserslautern	Karlsruher Institut für Technologie (KIT)	TH Köln	DHBW Lörrach	Hochschule München	TU München	Technische Hochschule Nürnberg	Hochschule Offenburg	Ostfalia Hochschule	Uni Stuttgart	Bauhaus-Universität Weimar	TH Wildau	FH Würzburg-Schweinfurt	TU Graz, AT	Universität Innsbruck, AT	TU Wien, AT	FH St. Pölten, AT	ZAHW Winterthur, CH	ETH Zürich, CH
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