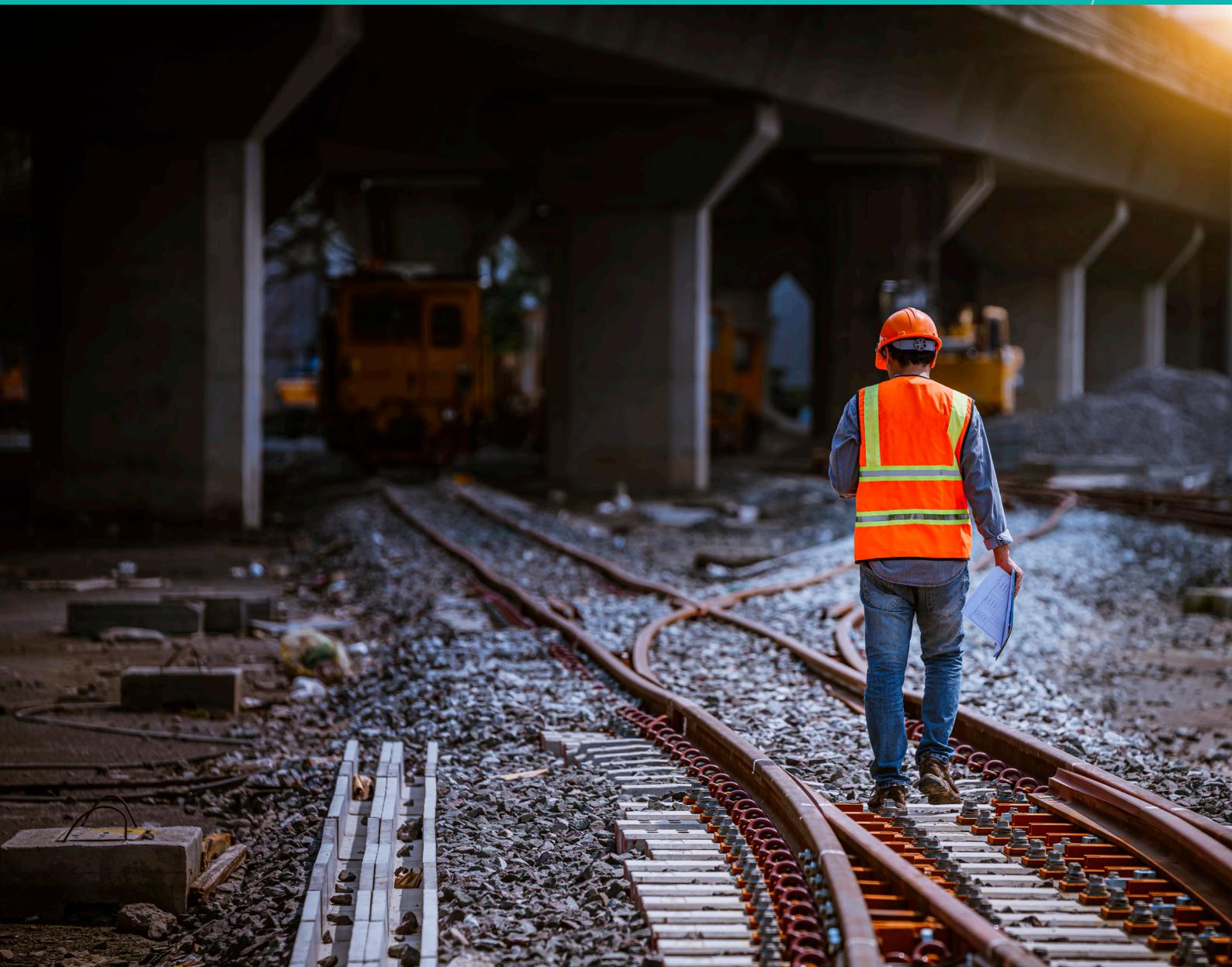


# Battling Fatigue in the Rail Industry



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## Introduction

Fatigue is a major safety risk in the rail industry. It can lead to accidents, injuries, and errors, which can have serious consequences for rail workers, passengers, and the public. Since 2017, the rail sector has suffered an average of 36 worker fatalities per year as a result of fatigue, costing the industry an estimated £240m per annum. In addition to this, 54 per cent of rail staff say they feel overburdened, with 37 per cent working in excess of 50 hours per week. The vast majority, (73 per cent) of rail staff view fatigue as a hazard that is ignored currently. With these stats at hand, it is clear that fatigue is a factor which should be of serious concern to both employers and employees in the rail industry.

This ebook provides an overview of fatigue and its impact on rail workers. It discusses the causes of fatigue, the consequences of fatigue, and strategies for preventing fatigue. It also discusses the updated UK fatigue legislation, our tips for ensuring your fatigue management plan is best-in-class, and a case study from Ash Construction who have used Roomex and Weston Analytics' Fatigue360 tool to successfully implement their fatigue management plan.

The ebook is intended to help rail workers understand the risks of fatigue and how to prevent it. It is also intended to help employers and employees work together to create a fatigue-free workplace.

### Key Takeaways

- **Fatigue is a state of decreased alertness and decreased ability to perform tasks.**
- **Fatigue can be caused by a variety of factors, including physical exertion, sleep deprivation, and shift work.**
- **Fatigue can have a significant impact on rail workers' safety, health, and well-being.**
- **There are a number of strategies that can be used to prevent fatigue, including adequate rest, proper nutrition, and shift scheduling.**
- **Third-party tools are at hand to make managing employee fatigue easier for employers.**

### Who Should Read This Ebook?

This ebook is intended for rail workers, employers, and anyone else who is interested in learning more about fatigue and its impact on the rail industry.

## The Causes of Fatigue in Rail Workers

Having established the dangers and risks associated with fatigue, it's important to understand the causes. It's not always a simple case of working long hours and being sleep deprived, there are many causes of fatigue, some of which may not be immediately obvious to an outside observer. For this reason, it's important to recognise and understand the causes of fatigue, no matter your position within the workplace. By understanding these factors, you will be able to better recognise and deal with fatigue in your employees, co-workers, and yourself.

Fatigue is a complex phenomenon that can be caused by a variety of factors. Some of the most common causes of fatigue in rail workers include:

**Physical exertion.** Rail workers often have to perform physically demanding tasks, such as lifting heavy objects, climbing ladders, and working in confined spaces. These tasks can lead to fatigue, especially if they are performed over an extended period of time.

**Sleep deprivation.** Rail workers often have to work long hours, which can lead to sleep deprivation and, in some cases, insomnia. Sleep deprivation can make it difficult to

stay alert and focused, which can increase the risk of accidents and injuries while working.

**Shift work.** Many rail workers work irregular shifts, which can disrupt their sleep patterns and lead to fatigue. Shift work can also make it difficult to maintain a healthy lifestyle, such as getting regular exercise, eating healthy foods, and socialising.

**Psychological factors.** Stress, anxiety, and depression can also contribute to fatigue. These psychological factors can make it difficult to relax and fall asleep, which can lead to fatigue.

**Medical conditions.** Some medical conditions, such as sleep apnea and chronic fatigue syndrome, can also cause fatigue. If you have a medical condition that is causing fatigue, it is important to see a doctor to get treatment.

It is important to note that fatigue is a cumulative phenomenon. This means that the more fatigued you are, the more likely you are to become even more fatigued. For example, if you are sleep deprived, you are more likely to make mistakes, this can lead to increased stress and anxiety while working, which in turn can increase fatigue levels.

If you are already fatigued, working long hours or shift work can make you even more fatigued, potentially resulting in accidents and injuries. But by recognising these factors, you will be better placed to care for yourself and those working around you.

Fatigue is a serious safety risk in the rail industry. By understanding the causes of fatigue and the strategies for preventing it, rail workers, employers, and everyone else who is involved in the rail industry can help to create a fatigue-free workplace.



## Fatigue Statistics

73% of staff view fatigue as a hazard that is ignored

73%

54% of workers said they feel overburdened at work

54%

37% of staff work in excess of 50 hours per week

37%

65% of staff think the industry is not doing enough to prevent such issues

65%

## The Consequences of Fatigue in Rail Workers

Fatigue can have a significant impact on rail workers' safety, health, and well-being. Some of the most serious consequences of fatigue in rail workers include:

**Increased risk of accidents and injuries.** Fatigue can impair a person's cognitive abilities, such as their ability to pay attention, make decisions, and react quickly. This can increase the risk of accidents and injuries.

**Reduced productivity.** Fatigue can make it difficult to concentrate and focus, which can lead to decreased productivity.

**Increased errors.** Fatigue can increase the likelihood of making mistakes, which can

have serious consequences in a safety-critical industry like rail.

**Increased absenteeism.** Fatigue can make it difficult to get to work and stay focused during work hours, which can lead to increased absenteeism.

**Decreased well-being.** Fatigue can lead to decreased physical and mental well-being. This can include symptoms such as headaches, irritability, and depression.

**Increased costs.** Decreases in productivity, with increases in accidents, errors, and absenteeism will result in longer project timelines with an increase in project cost.

## Employer Responsibilities

Employers also have a responsibility to manage fatigue in their workforce. This includes:

- Ensuring that employees are aware of the risks of fatigue. Employers should provide training to employees on the risks of fatigue and how to prevent it.
- Establishing policies and procedures to manage fatigue. These policies should address issues such as shift scheduling, rest breaks, and work-life balance. These policies should also ensure that fatigue is taken seriously when reported by an employee.
- Monitoring employee fatigue levels. Employers should have a system in place to monitor employee fatigue levels. This could include regular self-assessments or supervisor observations.
- Taking action to address fatigue. If an employee is showing signs of fatigue, employers should take action to address the issue. This could include providing additional rest breaks, changing shift schedules, or offering counselling services.

By taking steps to manage fatigue, employers can help to create a safer and healthier workplace for their employees.



## Preventing Fatigue in Rail Workers

Fatigue is a serious safety risk in the rail industry. By understanding the causes of fatigue and the strategies for preventing it, rail workers, employers, and everyone else who is involved in the rail industry can help to create a fatigue-free workplace.

There are a number of things that you can do to prevent fatigue, including:

**Get enough sleep.** Most adults need 7-8 hours of sleep per night. If you are not getting enough sleep, you are more likely to become fatigued.

**Establish a regular sleep schedule.** Go to bed and wake up at the same time each day, even on weekends. This will help to regulate your body's natural sleep-wake schedule.

**Create a relaxing bedtime routine.** This could include taking a warm bath, reading a book, or listening to calming music. Avoid watching TV or using electronic devices in the hour before bed, as the blue light emitted from these devices can interfere with sleep.

**Avoid caffeine and alcohol before bed.** Caffeine and alcohol both disrupt sleep. Caffeine is a stimulant that can make it difficult to fall asleep, while alcohol can disrupt sleep later in the night.

**Eat regular meals and snacks.** Eating regular meals and snacks will help to keep your blood sugar levels stable, which can help to prevent fatigue.

**Exercise regularly.** Exercise can help to improve your sleep quality and reduce fatigue. However, avoid exercising too close to bedtime, as this can make it difficult to fall asleep.

**Manage stress.** Stress can contribute to fatigue. If you are feeling stressed, try to find healthy ways to manage your stress, such as exercise, relaxation techniques, or spending time with loved ones.

If you are experiencing fatigue, it is important to talk to your manager. Working fatigued is a risk to yourself and the people around you and should not be taken lightly. If you regularly find yourself fatigued you should consult your doctor. There may be an underlying medical condition that is causing your fatigue. Your doctor can also help you develop a plan to prevent fatigue and help you get back to your best.

By following these strategies, rail workers can help to prevent fatigue and reduce the risk of accidents and injuries.

## UK Legislation Updates

Since the introduction of Network Rail's updated Fatigue Risk Management Standard (NR/L2/OHS/003) in October 2022, the importance of managing fatigue in the workplace has risen dramatically. In order to remain compliant, employers must proactively monitor fatigue levels and must have implemented a fatigue management plan which complies with the updated regulations.

Your fatigue management plan doesn't need to be a complicated document. In fact, an overly complicated fatigue management plan can actually hurt you more than it helps you. Your fatigue management plan should be a simple and straightforward document which states the legislation, shows the recommended Office of Road and Rail guidelines, and states what it is that your company is going to do. For example, the Office of Road and Rail states that good practice for a day maximum shift length is 12 hours. Your company may feel this is too much and want to factor in door-to-door time, therefore your company may set the maximum shift length to 10 hours to allow for employee commuting time. This more integrated approach has the added benefit of helping control fatigue risk arising from travelling to and from work.

Remember, if there is a challenge (e.g. someone needs to stay on site longer than they're supposed to) it's not the end of the world. Employees can stay longer than the guidelines suggest, however, in each case you must record a risk assessment. Thus, your plan must have a policy that indicates what happens in the scenario that an employee exceeds, or is likely to exceed, the guidelines, to ensure that you are mitigating risk and recording the mitigation of that risk.

# Ensuring your Fatigue Management Plan is Best-in-Class

Following the introduction of Network Rail's updated Fatigue Risk Management Standard (NR/L2/OHS/003) most, if not all, rail companies will have implemented a fatigue management plan of some sort. But how do you ensure that it is suited perfectly to your organisation? The best-in-class fatigue management plan is the one that is tailored to the specific needs of your organisation and that is constantly being reviewed and updated to ensure its effectiveness. Here are some tips for ensuring that your fatigue management plan is best-in-class for you:

## **1. Get input from key stakeholders**

One of the biggest mistakes many rail companies have made in implementing their fatigue management plan is the lack of input from the key stakeholders who are involved in setting and managing employee shifts. It is crucial to involve the people who are using the shift and rostering system on a day-to-day basis. These are the people who have knowledge of the systems currently in use, the details around rosters, and the pain points involved in the current process. Involving these key stakeholders at an early stage greatly increases the likelihood of success in creating a best-in-class fatigue management plan.

## **2. Change management**

Many companies underestimate the effect of change management when creating and implementing a fatigue management plan. Fatigue management is very tied in to

rostering and scheduling, an administration task which is deeply embedded in most organisations. People, especially when they have been in the job for an extended period, become attached to existing systems and processes. You may be dealing with people who are still using Excel spreadsheets for rostering issues and often in these situations, the rest of the team become used to checking the roster via these spreadsheets. It's crucial to involve human resources, anyone involved in rostering, and team leaders to get them on board with any system and process changes. This will help to smooth the transition to updated systems and processes.

## **3. Develop strategy**

Including key stakeholders in the decision making process encourages these stakeholders to understand the relevant statistics involved in fatigue management such as the HSE fatigue and risk scoring. Most people currently do not understand the statistics behind fatigue. This is particularly relevant with HSE fatigue and risk scoring as most people don't understand what the numbers mean. They know that they have to keep employees under the number, but they do not know why. Trying to implement a system without understanding it is never a good idea, thus including these stakeholders early on enables them to be better placed to develop strategies for managing fatigue scores later on. This strategy will be crucial for the long-term success of your overall fatigue management plan.

## 4. Account for external factors

Even the best fatigue management plans cannot account for every external factor. If an employee had one too many drinks the night before a shift or their baby kept them up all night crying, many companies have nothing to check how they're feeling the following day when they begin their shift. While the roster, with all its careful fatigue management, says they should be well rested, external factors have taken their toll leaving the employee fatigued. The best fatigue management plans have a method to get wellness data from trackside workers to verify that they are feeling rested and ready to work on the day of their shift. Weston Analytics' fatigue management tool, Fatigue360, uses questions in their app (which has been specifically designed for trackside workers) to assess how rested the employee is feeling, how safe they're feeling, and how confident they're feeling before their shift. The app also enables users to sign in and out of shifts and syncs with the Fatigue360 tool. This helps organisations account for external factors as best they can.

## 5. Ensure employees report actual hours

As organisations prepare for projects, it's normal to build rosters in advance detailing all of the working hours and accommodation provisions. However, it is not uncommon for the actual work carried out to not match with these planned rosters. For example, an employee might be scheduled to work a ten hour shift from 22:00 and 08:00. While this will

be recorded as a ten hour shift on the planned roster, in reality the employee may complete the work early and have returned to the hotel by 04:00. However, the planned roster doesn't reflect this. Organisations need to try and collect accurate working hours in order to see the benefits such as decreased employee fatigue scores. This can be done by making employees sign in and out of shifts, either on-site or in-app. This will enable companies to send employees out for more work before they hit the limit on the number of hours they're allowed to work in a cross revolving period.

## 6. Regularly review and update the plan

This last step may also be the most important. Even when you think your fatigue management plan is best-in-class, the only way to keep it like that is to review and update it when necessary. This should be done on a regular basis to ensure the plan is still effective. What your review looks like will depend on your organisation and what your plan contains. This could involve reviewing the risk assessment, the interventions, and the monitoring and evaluation systems that you have put in place. It will also be important to make sure that new hires are brought up to speed on the plan, so this is another element that can be factored into your reviews.

By following these tips, organisations can ensure their fatigue management plans are best-in-class and that they are effective in preventing fatigue and reducing the risk of accidents and injuries.

## How Ash Construction Successfully Transformed their Fatigue Management with Fatigue360 and Roomex

### Challenges

- Inefficient fatigue management process
- Complicated accommodation consolidation
- Too many manual processes

### Solutions

- Provided easy-to-use fatigue management process with Fatigue360
- Simplified accommodation booking with Roomex
- Automated accommodation transfer with one click

Established in 2013, Ash Construction is a rail construction company based in the UK. The company has hundreds of employees, and they often work on projects that require them to travel to remote locations.

Upon the introduction of Network Rail's updated Fatigue Risk Management Standard (NR/L2/OHS/003), Ash Construction were required to introduce a fatigue management plan that complied with the new legislation. They needed a solution that would help them implement an updated and compliant fatigue management system, while enabling them to easily book and import workforce accommodation into this new system.

This is where they were able to benefit from the partnership between Roomex and Weston Analytics. As the leading provider of workforce suitable accommodation, Roomex has over 100,000 workforce ready properties across the UK available to book on their platform, while Weston Analytics' Fatigue360 tool helps organisations through the creation and implementation of a NR/L2/OHS/003 compliant fatigue management plan.

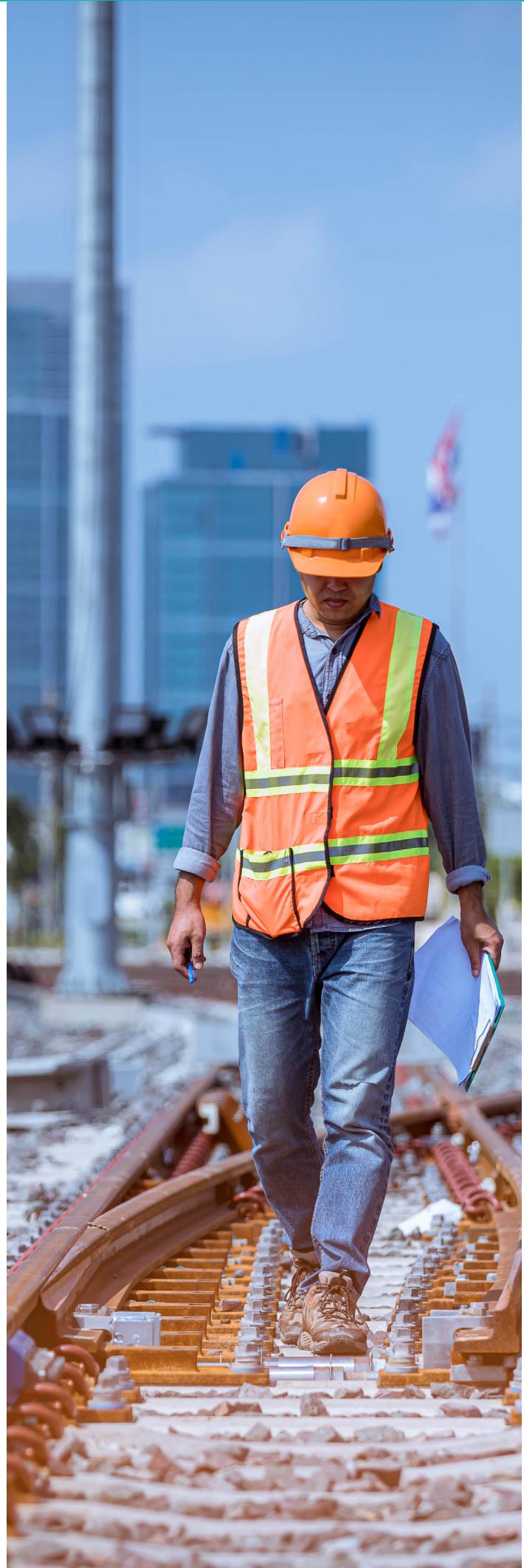
Before switching to Roomex and Fatigue360, Ash Construction were splitting roster creation and accommodation booking between two roles. This left one

***“Switching to Weston Analytics’ Fatigue360 tool and Roomex has made our lives so much easier. Fatigue360 makes it easy to remain compliant with UK legislation, while Roomex makes accommodation booking simple. The fact that we can import all of our hotel bookings with one click is just an added bonus.”***

employee creating roster spreadsheets in which they would be required to represent all of their accommodation, and another employee whose job it was to book the accommodation. Once the accommodation was booked they would have to send an email loaded with hotel data across to the employee in charge of roster creation who would manually update it in the roster. This process involved lots of unnecessary duplication of data and time spent on avoidable manual processes.

The switch to Roomex and Fatigue360 has managed to halve the time spent on this process for Ash Construction. Fatigue360 helped Ash Construction adjust their working procedures and data workflows onto their custom Roomex and Fatigue360 platform. Roomex has provided Ash Construction with access to the largest selection of workforce ready hotels across the UK and with just the click of a button all booked accommodation can be synced with the Fatigue360 platform in moments. For Ash Construction, this has cut out the need for Excel spreadsheets and data loaded emails, freeing up employees to focus their efforts more efficiently.

The consolidation of manual processes into the all-in-one solution provided by Roomex and Weston Analytics' partnership, has made Ash Construction much happier, saving them an enormous amount of time and. The real winners are the employees who were previously embroiled in data entry and now have extra time to focus their attention to other important projects.



## Conclusion

Fatigue is a serious safety risk in the rail industry. It can lead to accidents, injuries, and errors, which can have serious consequences for rail workers, passengers, and the public. Ever since the introduction of Network Rail's updated Fatigue Risk Management Standard (NR/L2/OHS/003) fatigue has been a hot topic in the rail industry. This new legislation has seen rail organisations across the UK reviewing and updating their fatigue management plans, a thankless but important task. Creating and implementing a compliant fatigue management plan is a complex, demanding, and ever changing responsibility. However, it doesn't have to be. Simply being aware of what makes a best-in-class plan and what tools and resources are at your disposal to help you create one, makes your life a lot easier.

While no two fatigue management plans will be, or should be, the same, tools like Roomex and Weston Analytics' Fatigue360 are available to simplify your fatigue management process. These tools have been designed specifically to make your life easier in both booking accommodation for your employees and remaining compliant with Network Rail's updated Fatigue Risk Management Standard (NR/L2/OHS/003).

With the information provided in this ebook we hope you will be able to take a look at your current fatigue management plan and make the changes where required. Not only will these steps increase employee safety but also help companies make both time and monetary savings.

