



RAIL

Sustainability Special

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NETWORK RAIL

Welcome

Until recently, the rail industry has adhered to the principles of sustainability, but mainly in an environmental context, in its efforts to protect the natural environment by limiting carbon emissions and so forth.

Although these efforts have become no less important, in recent years there has been a marked shift in how this term is being applied and understood. For example, the rail industry is facing a huge skills shortage, highlighting the acute need for a sustainable influx of capable people.

As we are repeatedly warned, large-scale skills shortages could jeopardise the effective delivery of future flagship construction projects such as HS2, if not promptly addressed. At the same time, this skills deficit is being exacerbated by an ageing workforce, plus considerable and persistent ethnic and gender under-representations.

The response has been positive however, with the Government setting itself a target to create 30,000 new apprenticeships in transport by 2020. Meanwhile, Network Rail has also taken steps and is providing leadership with its 20:20 diversity strategy, to increase its female workforce by 20% by the end of the decade.

The industry-wide efforts don't end there though. We hear from National Skills Academy for Rail Chief Executive Neil Robertson (p44-45) about the scale of the challenge ahead, but also the steps that can be taken to address these serious issues - and what's being done right now.

We also hear from four companies which are at the vanguard of shaping the next cohort of young rail professionals, with well-

developed and highly successful recruitment and career development programmes of their own.

Stefanie Foster meets with Carillion (p46-47) to see for herself how sustainability has been embedded throughout the company, while SNC-Lavalin explains how its UK sustainability strategy has set high standards for the rest of the company's global operations (p48-49).

Colas Rail sheds light on its Future Leaders Graduate Programme (p52-53), and Taylor Woodrow explains how taking sustainability seriously has benefited the company (p54-55).

Finally, Women in Rail's Adeline Ginn reveals how the organisation is successfully beginning to tackle the gender gap, and how more young women can be attracted to join the rail industry (p50-51).

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Addressing the UK's skills shortage

With no guarantee that Government investment will continue, the industry must develop ways to attract and train tomorrow's workforce, while retaining its existing highly skilled engineers. **STEFANIE FOSTER** reports

It will be news to nobody that there is a skills shortage in the rail industry. This well-trodden ground has been the subject of many a conference speech and magazine article over the past few years.

But there comes a point when admitting we have a problem and quantifying the size of it can only get us so far. Continued investment in the railway will only be worthwhile if we take action now to ensure that the workforce and expertise is put in place to deliver on our ambitions.

We're suffering from the legacy of past underinvestment in transport and its workforce, preventing skills from being handed down to the next generation and stifling the flow of new and young people onto the railway.

In more recent years, rail has enjoyed significant Government investment, but will this continue?

The National Skills Academy for Rail (NSAR) has been tasked by the industry with setting up a strategic forecasting model to measure, monitor and manage the national skills supply and demand, and provide intelligence by business unit, project, skill set or geography to inform investment needs.

This will allow the industry to establish a baseline, factoring age, gender and the skills profile of the current workforce. It will analyse expected rail investment, changes in technology and productivity gains, to understand future demand.

The Government has set a challenge to create 30,000 new apprenticeships in transport by 2020 (20,000 of them expected from the rail sector). Achieving this will require a proactive approach to changing the perceptions people have of the industry, particularly to encourage a more diverse intake than our current make-up. So what is this baseline study, and how will it help to achieve this goal?

"It is the biggest ever skills study," explains Robertson. "This is a report which will be a cut of the data as of today. There are very few surprises, which is good because we've validated that a lot of our assumptions are correct."

At the time of speaking to *RAIL* the baseline was not yet published, so Robertson would not be drawn on the finer details of its content. But he did say that it will contain some encouraging signs - it is certainly not all 'doom and gloom', with positive indications on gender and skill levels.

The baseline will give us the best database we have ever had, allowing us to answer just about any question on today's workforce and our future needs. The idea is that every year, we measure ourselves against the baseline to establish how far we have come and how much further we have to go.

The accuracy with which future demand can be identified will obviously tail off through the years, as projects tend to be signed off five years in advance, but even allowing for that, the rail sector already has more clarity on future demand than any other industry.

Understanding where the peaks and troughs are in demand for skills across different sectors would allow the Treasury to build a picture of the whole construction industry, enabling it to commission work for a sector experiencing a trough while there is a peak elsewhere. Of course, this will only help with the non-specific skills - it will make little difference to the ebb and flow of demand for rail-specific skills.

This becomes all the more important because the roads, energy, telecoms and house building sectors are also experiencing growth and skills shortages. The concrete pourers, welders, plant drivers, bridge builders and road builders of this world will all be needed... by all of us. And Brexit is only going to make that worse.

Says Robertson: "Up to half the workforce



(around 46%) in the southern half of the country are from a non-UK EU background. This has been confirmed by all kinds of construction surveys. How many of them are going to go or stay after Brexit? Who knows. There are some that have already gone.

"In the Autumn Statement, the Office for Budget Responsibility (OBR) prediction showed that the EU workforce will approximately halve. That means we could lose a quarter of our workforce. That's both bad and good. It's good because it creates opportunities for local youngsters to get good, well-paid work. It's bad because we're not training local youngsters at anything like the rate."

Robertson says we are therefore likely to lose about an eighth of our total workforce. But he is surprisingly optimistic about this, because it presents a real opportunity provided we train more people. He believes

the Apprenticeship Levy will incentivise this.

A recent report by Balfour Beatty raises the same concerns about loss of skills from the EU, but is less optimistic about the short term because it can take a decade or more to train a highly-skilled specialist engineer.

"Uncertainty around the free movement of labour in the EU could increase the industry's recruitment and staffing difficulties, as it may no longer be able to handpick highly-skilled engineers from other EU countries as is currently the case.

"In November 2016, more than 10% of the Balfour Beatty workforce held non-British EU passports, and around 11% of new recruits in 2016 held non-British EU passports. Around 100 of our 2016 recruits came to us via a proactive campaign targeting Greece and Portugal, with a further 40-50 expected in 2017.

"In our supply chain and the people who actually build tomorrow's infrastructure, the proportion of non-British EU workers is even higher. Only 0.2% of our 2016 recruits come from outside the EU, due to the complexity, cost, administrative burden and time delays required in managing the current points-based sponsor licence system. There is also currently a global shortage of engineers."

The latter point makes Robertson's view that we have an opportunity to 'grow our own' even more vital - perhaps we need an element of pain to incentivise change.

Technology advancements such as the

NSAR's soon to be published baseline study will provide the rail industry's most comprehensive database of skills shortages to date, enabling more targeted interventions. NSAR.

implementation of the Digital Railway and the introduction of new trains will require us as an industry to have more highly-skilled people, either by training new people to a higher level (something that is already under way by the creation of new apprenticeship standards) or by the upskilling of the existing workforce. So signalling engineers become digital signalling engineers, for example.

Digital skills are also in short supply, so this is not an easy task. Robertson's advice on this is simple - we need to increase the skill levels of the current workforce because the current levels will not serve us well in the future.

However, he thinks that Brexit could have a negative impact on rail's wage inflation issues: "Immigration has kept wages lower than they otherwise would have been in the construction and semi-skilled sectors (not in the rail specialist sectors). It has been easier to take on Eastern Europeans rather than innovating and trying to do things differently. So in many cases we have continued to do the same thing, the same old ways, but we've got Polish people to do it. Brexit will mean they have to do something differently.

"Many are now working to create the long-term view through the Industrial Strategy - because you will not invest in new ways of doing things or in training people unless you have a reasonably confident view of the future. That's the most important question - how can we create long-term confidence so that people can invest in kit and people?"

NSAR's baseline study will give the industry the best springboard it has had in a long time to incentivise and assist credible action on skills. But it will be just that - a springboard - for others to take action from.

"I've been doing this sort of stuff in different sectors for a long time, and it is the most exciting time I've had in a long time. Because we're really making a difference," says Robertson.

"The framework is in place. The strategy is in place. People just need to roll up their sleeves and just bloody get on with it. It's good to see that many already are." ■

“ How can we create long-term confidence so that people can invest in kit and people? ”

Neil Robertson, Chief Executive, National Skills Academy for Rail



Deeper insight...

For the full interview with Neil Robertson, see *RailReview* Q1 2017. The innovative brand from *RAIL* for business decision-makers.

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INTEGRATING SUSTAINABILITY

STEFANIE FOSTER finds out how Carillion's RACHAEL RILEY is building the principles of sustainability into everything the company does

Sometimes you meet people in the rail industry who you just know have the drive to make a real difference. Last year, RAIL interviewed Carillion's Rachael Riley (at the time, East Midlands Sustainability Manager) about her commitment to achieving tangible improvements to sustainability in her region.

In February, Riley was recognised for the hard work she had put into that region with a promotion to Professional Head of Sustainability for the whole of Carillion's rail business.

Her clear strategy was one of the key drivers for her appointment.

"At my interview, I pitched this idea that we need to focus on priority areas, so I was setting an agenda - a strategy - that was very much aligned with Carillion's corporate aims. It's a clear direction which I know people recognise in me," says Riley.

Her first task is to meet as many members of the senior management team in Carillion's rail business as possible, to ensure everyone is on the same page in terms of what those priorities are - both the areas that should

be considered 'business as usual' and the more challenging tasks that will require collaboration across the company.

So what is Riley talking to them about?

Sustainable design

"What I'm looking to do now across the whole of Carillion's rail business is to embed sustainability in the decision-making process throughout the design stages," says Riley.

"I'm currently working with the head of design and engineering to update the Carillion design and engineering management plan, which I've been invited to have an input into. I'm hoping to be able to very easily slot in at the key decision-making points sustainability prompts so that it is fully integrated, rather than a standalone process."

This is an opportunity to transfer some of her knowledge from the East Midlands region into the wider business.

In her previous role, Riley and her team developed a set of tools for comparing different materials for their sustainability performance to inform the decision about



The Carillion rail sustainability forum brings together all the sustainability professionals across the business every two months to share best practice. CARILLION.

which should be used.

What might a 'sustainability prompt' lead to in the decision-making process?

"An example that's very common is cable troughing. We've done quite a lot of work to assess the sustainability performance of different types of troughing (essentially concrete versus recycled plastic). The latter is a better performing product in terms of sustainability, and in some circumstances is a more cost-effective option."

Another tool is a tracker to check what decisions have been made throughout a design process to provide an evidence bank of what worked and what didn't, to provide pointers for the next project.

Riley is hoping to have this tracker working as early as possible in the design process so that best practice can be shared and implemented more easily - and deliver further benefits.

Sustainable procurement

Procurement is intrinsically linked to the design process.

Says Riley: "We need to make sure the decisions we make at the design stage for sustainability reasons are then fed through into the procurement process. Again, it's about communicating that information and making sure people understand why we're doing things in a particular way."

Riley is working on ways to display sustainability information on design drawings and to appropriately include it in the specifications of a design. This is also where her experience in the East Midlands is of benefit.

The tracker that we mentioned earlier is also used in the GRIP 5 stage of a project (the stage where strategic procurement

occurs) and allows Carillion to check whether materials that are being bought are what was intended at the design phase.

"There are three areas to procurement - those that the project team can influence, those that are pre-issued by the client and the third element, which is the decisions made at Carillion head office level. That's where influencing the work-winning teams is important. I need three different strategies to ensure sustainability influence filters through to everyone."

But this is not just about Carillion. Riley is also looking at how the companies in the supply chain are incorporating sustainability into their thinking. She has been working on including sustainability questions in Invitations to Tender and wants them to share their best practice.

"We're inviting sub-contractors to share their knowledge and expertise, and tell us about what they've been doing with other clients."

"A lesson I learnt some time ago was

that we need to ask sub-contractors these questions as early as possible. It could be about specific materials, constructability, or asking them how they could minimise noise in the construction process. We ask about entry-level employment, apprenticeship schemes and work placements, and we ask them if they'd be willing to take part in community projects with us."

Subcontractors are not penalised for a lack of sustainability knowledge though. Riley is keen to help small specialist businesses to learn these skills so that she can share best practice beyond Carillion's own operations.

Employment, skills and training

The third priority for Riley is all about skills, diversity and inclusion.

In January, Carillion launched the Respect ambassador network. The Respect programme is linked to the Supply Chain Sustainability School FIR (Fairness, Inclusion, Respect) programme. It was launched by Riley and her colleagues,

and is supported by Operations Directors Dave Diskin and Simon Fowler. Carillion is a corporate member of the Supply Chain School.

Carillion already had a number of affinity groups to support individuals within the company, for example a working parent group, an LGBT (Lesbian, Gay, Bisexual and Transgender) support group and SNOWE (Support Network for Operational Women in Engineering).

Says Riley: "Respect ambassadors are there to support what we already had, get messages across and disseminate information to people who wouldn't necessarily have access to it."

Essentially, ambassadors across the business communicate information to others. This might be about initiatives within the business, or to help those who might find it difficult to talk to someone about their problems.

"It's been really exciting. We don't know where it's going because it's very new. But it's had a lot of support so far."

Another key priority is biodiversity net positive. Says Riley: "I'm keen to make sure Carillion continues to lead on the work that was achieved through the Network Rail pilot schemes last year and that as an industry we start to acknowledge the opportunities we have to mitigate habitat loss."

Riley has achieved a great deal in the past year, not least with her promotion. But she's not stopping there: "I want to work on raising the profile of our sustainability function, both internally and externally. So I'm looking at engaging with other organisations."

"I'm taking the best practice that I achieved in the East Midlands and I have the opportunity now to widen that across the rail business and link it in with the overall Carillion strategy." ■



Riley was presented with the Women in Rail Award at the 2017 Rail Business Awards in February, recognising her achievements in the rail industry, her personal commitment to gender equality and to promoting the industry to entry-level employees. Says Riley: "I was up against some absolutely brilliant women and I was very excited to win it. It was a huge surprise."

RESPECT

In the London North Eastern region, Respect boards have been placed in Carillion offices. Anyone can write on the board or put a sticky note on them.

Riley emphasises that this is not "some big monitoring exercise", it is there to provide recognition for good deeds. Someone might comment on a presentation given by a colleague or some good news a colleague told them. There is also a confidential box to tell ambassadors about anything that is not so positive and to seek help. CARILLION.



LEADING BY EXAMPLE

SNC-Lavalin Rail & Transit UK's regional director MICHAEL GRACE, and HR manager RABINDER KAUR explain to RAIL why the Canadian firm's UK sustainability strategy is making waves across the globe

If imitation is the sincerest form of flattery, then SNC-Lavalin's UK-based rail & transit team has much to be proud of.

That's because the positive actions it is taking to tackle the skills and diversity deficit that exists in the UK rail industry are now being used as a powerful benchmark by its international parent company, to address these same issues throughout its entire global operations.

The impacts of a sustainability strategy born at the firm's UK head office in Derby are subsequently being felt as far afield as Toronto, Ottawa, Montreal and Vancouver in the SNC-Lavalin's home market of Canada, and Sydney in Australia, where the company is currently heavily engaged in delivering innovative light rail solutions to these global cities.

This is an impressive achievement for the 430 employees of SNC-Lavalin Rail & Transit UK who are located in offices in Derby, London, Manchester, Birmingham, Glasgow and Edinburgh, but make up less than 1% of the global construction and engineering group's total worldwide workforce of 35,000.

Regional Director for SNC-Lavalin Rail & Transit UK Michael Grace explains: "The skills gap exists the world over and, if anything, those markets are looking to us in order to play catch up.

"Within the SNC-Lavalin group, we are seen as a centre of excellence for increasing sustainability and diversity and when (Group Managing Director of SNC-Lavalin

Rail & Transit) Richard George speaks from here in the UK, other senior managers based around the world most certainly listen and take note of what he has to say."

The statistics speak for themselves, with more than 150 graduates being recruited by SNC-Lavalin Rail & Transit UK since it opened its accredited training scheme in 1998, known then as Interfleet Technology (a company formed from the privatisation of British Rail's InterCity fleet engineering division in 1994, and acquired by SNC-Lavalin in 2011).

During this calendar year, 20 more graduates will be joining the team, plus five higher apprentices and five technical administration apprentices.

The average age of the staff is in line with the industry average of 41, but is continuing to decrease year-on-year, while 21% of the workforce is female, versus an industry average of just 11%.

SNC-Lavalin's UK HR Manager Rabinder Kaur says much of the company's high sustainability and diversity scores are owed to its engagement with potential candidates before they have even left school, in order to reverse a decades-old misperception that working in the railways is an unfashionable career choice, and one largely restricted to white middle class males.

By making the industry more attractive to young people, and women and ethnic minorities in particular, Kaur says that the shift in workforce demographics has been organic, without any need to artificially



SNC-Lavalin's UK senior management team's sustainability strategy is seen as an exemplar for best practice. SNC-LAVALIN.

manage the inward flow of new entrants.

It is this approach that has made the UK-facing sustainability strategy one that others are keen to follow, argues Kaur, while laying the groundwork for even larger improvements to the future ethnic and gender balance of the workforce.

She adds: "This isn't imposed in any way, it's simply the right thing to do. We don't have targets and neither do we agree with positive discrimination, but believe in positive actions. The person we're bringing in has to be the best person for the job, and nothing else.

"We've inherited this predominantly white industry, so we work with schools and young people, and that is where our journey has to start so we can reach people of all backgrounds. You can't bring about change overnight, and these are long-term goals, but the actions we take today will continue to serve the industry long after our own careers have ended.

"I'm proud to say that the sustainability and diversity culture and ethos in the UK is now one that other countries aspire to achieve. You

don't always expect to be leaders in the UK, but actually we are more advanced than we thought."

In addition to recruiting healthy numbers of young talented people to the company, staff retention is also very high as a result of a strong commitment to staff development and engagement. This is perhaps best demonstrated by SNC-Lavalin Rail & Transit UK's adopted maxim that, while it is delighted to have happy clients, 'our clients should never be happier than our staff/colleagues'.

To achieve this, talent management and succession planning are critical tools used for staff development, while mentoring, coaching and a Learning Development Framework are all provided. A learning model of 70:20:10 is also promoted, under which 70% of employees' learning is achieved 'on the job', 20% is learned through other people, and just 10% is learned in the classroom and on training courses.

Staff satisfaction and enjoyment levels are also kept high through popular initiatives

such as recognition evenings and 'feel good' Friday treats, when the company provides food and confectionery on a regular basis, to coincide with the general good feeling at the end of the working week.

This is often linked to diversity, with ethnic foods often provided to help build cultural understanding and tolerances, such as on April 13, when Indian sweets were made available to mark the Sikh religious festival of Vaisakhi.

Staff engagement is further increased by having an open door policy with senior managers, an 'ideas factory' to generate employee input into the effective running of the company, and a steering group with staff representation.

SNC-Lavalin Rail & Transit UK also regularly takes part in extra-curricular industry events, such as The Big Rail Diversity Challenge, which is organised by Women in Rail on an annual basis to support women in the sector, by seeking gender-balanced teams to compete in fun physical and mental challenges.

These initiatives have resulted in the company being accredited gold standard for Investors in People, while engagement levels are regularly monitored using the Great Place To Work survey, that identifies where improvements need to be made.

"It's not just about getting people in through the door," adds Kaur. "It's about helping them reach their potential, and so we have robust development plans for all our employees.

"We are seen as a poaching ground by our competitors, and we regard that as an accolade in itself, as we want to be regarded as a name that people want on their CVs. Obviously we want to retain them too, which is why we focus so heavily on engagement.

"Very few people tend to leave, and if they do it's almost always to a client, rather than a competitor in the supply chain. We are proud that people we've nurtured have gone on to some very senior positions in rail. I can honestly say that I've never worked anywhere else where employee engagement is so high." ■



“ We are proud that people we've nurtured have gone on to some very senior positions in rail.”

Rabinder Kaur, HR Manager, SNC-Lavalin



Banishing stereotypes

Rail is an industry which keeps Britain moving. Not only does it transport people from point A to point B, it sits at the very heart of the UK's industrial history. Career possibilities in rail are endless, but we are facing a skills shortage and a lack of entrants from diverse backgrounds, which is threatening its future success. That is not to say that rail is not booming - it is. Investment in the UK rail sector has risen to record levels, but rail suffers from a talent shortage to feed its pipeline.

In 2016, Women in Rail conducted an industry survey which revealed the extent of the problem. It found that the proportion of women employed in the rail sector was just 16.4%, most of whom are in non-managerial roles. The rail industry needs a skills overhaul to bring it back to its former glory as a hub of British business and knowledge. This can only be achieved through a concerted effort to promote the career opportunities available in the rail sector to a wide and diverse set of candidates, and to support and develop the female talent already within rail to ensure we are retaining it. This, combined with tackling outdated stereotypes, will make the rail industry the national treasure it once was.

It is in companies' best interests to adopt new ways of thinking and there is a strong business case for having a diverse workforce. Studies have shown that companies with more women on their boards outperform their rivals with a 42% higher return in sales, 66% higher return on invested capital and 53% higher return on equity. With a more diverse workforce comes different perspectives, experience and skill sets, as well as new ideas and ways of working, all of which ultimately bring about positive change within companies, the economy and wider society.

EARLY YEARS

The issue begins at an early stage, in our schools. Research shows that currently, four times as many boys are studying physics at A-level than girls, and this seems to be the case across all STEM (science, technology, engineering and mathematics) subjects. The fact that girls are not continuing with STEM subjects at school is reducing the number of women entering engineering and its related



Redressing the gender imbalance in the rail industry is key to its future success, says **ADELINE GINN**, Founder of Women in Rail

sectors later on in life, something that is especially prevalent in the rail industry. It has been reported that a lack of confidence is causing a shortage of female students pursuing this career path. The study claims girls rate their ability lower than boys do, even if they are at the same level.

The reality is that the rail industry offers dynamic, exciting and varied careers, but this is not widely known. According to research, girls' perception of engineering is of men covered in dirt, labouring away on the rail tracks, despite the fact that our industry has come a long way in the last 100 years. We need to get women and girls to see the 'real' rail industry, up close. The way we can do this is by having a strong presence in schools and universities. Some of the UK's biggest rail companies have already identified the need for this: the National College for High Speed Rail is one of a few examples. Network Rail recently announced its 20:20 plan, to increase the female workforce by 20% by 2020. It is doing this through working directly with schools to operate an engagement programme.

By showing from an early age the vibrancy of a career within the railway industry, we can consign dated stereotypes to the Victorian era, where they belong.

AN IMAGE PROBLEM

One aspect holding the rail industry back from achieving better levels of diversity is the image that wider society holds of the sector. By ensuring the image of rail is brought into the 21st century, we can increase the number of women and young girls considering rail as

“ We need to get women and girls to see the 'real' rail industry, up close. ”

a career of choice.

Another Network Rail study revealed that younger girls were attracted to a career in engineering by better understanding of its social purpose, and those aged between 10 and 12 responded positively to female role models in engineering.

In order to change the overall perception of rail, we need to showcase its female talent, the many amazing and inspirational women who already work in our industry, and illustrate how rewarding a career in rail is. In 2015, the social media hashtag #ILookLikeAnEngineer became a global phenomenon. The campaign called for female engineers to post pictures to redefine what an engineer 'should' look like. This campaign was a brilliant way of showing wider society that there are plenty of women working within the industry in a broad range of roles. Within a week, the hashtag had been used in 50 countries.

The UK could also take a leaf out of Sweden's book, where engineering is revered and celebrated by both men and women. The level of women working in engineering in Sweden is 25%, notably higher than the UK's percentage. But even at 25% there is room for improvement: ultimately this is a global problem that needs to be addressed.

We need to inspire women and young girls to join our industry. To that end, in 2016 Women in Rail launched a survey to identify the 20 Most Inspirational Women in Rail. This year, we are identifying the 20 rising stars of rail - women in the first five years of their career in the industry who already have made a difference to customers, peers and colleagues. The aim of these initiatives is to showcase female talent in rail and illustrate the impact women have on the industry and their colleagues in their day-to-day jobs. These surveys enable us to celebrate the amazing contributions women make in our industry. Winners and nominees are showcased as role models to demonstrate to young girls there is a viable career in the



WOMEN IN RAIL.

rail sector and inspire them to be part of an industry they could be proud to work in. For businesses in the rail industry, elevating and celebrating female role models is the key to success, at every level.

SUPPORTING FEMALE TALENT IN RAIL

While it is crucial to attract new talent in the rail industry, it is as essential to support and develop the women already employed in our sector. They are its driving force, from project, contract and fleet managers to engineers, planners, HR managers and lawyers, to name a few. Companies need to be proactive in identifying, supporting and nurturing their female workforce and promote an inclusive culture.

Mentoring is an effective way of providing women with the support they need from a more experienced professional whose focus is on their career aspirations, professional development, personal growth and confidence. Mentoring also helps managers and leaders to see the world from the point of view of a less experienced professional and

understand the issues facing women in our industry.

For the last three years, Women in Rail has been running a cross-industry mentoring programme, which enables women to speak to someone outside of their management structure whose focus is on their career aspirations and supporting their individual growth. The programme has gone from strength to strength, with 190 pairs matched in 2017. The programme enables women to receive the guidance they need to navigate their careers and build their confidence, both professionally and personally.

Networking is another factor that plays a significant role in helping women advance their careers and build their confidence. Regular networking events enable women to create or widen their networks and to receive support from other women facing the same challenges, worries and questions as they do. According to a study, more than half of senior women believe it is extremely important to have a higher level sponsor help set them on the right path, compared with 42% of senior men who

would prioritise such relationships. Women in Rail holds networking events all over the country through its regional groups, helping women in the rail industry connect and form relationships with others in the same positions as them.

The future of the rail industry shines very bright, but to achieve this, companies in the sector need to be proactive in educating the next generation about the exciting opportunities available in our sector, and work hard to dispel the stereotypes. They also need to promote an inclusive culture, develop their female talent and foster the next generation of leaders through proactive initiatives and partnerships with like-minded organisations, such as Women in Rail. There are many amazing and inspirational women working in the rail industry, but we need more of them and, to do this, we need to identify, promote and celebrate female role models and devise ways to improve the way society views our industry. Working together, we have a real chance to give the rail industry and its workforce the bright future it is striving for. ■



LIFE AT HIGH SPEED

The UK rail industry is no different from any other sector in obeying the laws of supply and demand. Simple mathematics dictates that any specialised pool of labour must be replenished to remain sustainable, and flexible enough to meet rising demand.

Where the rail industry is perhaps different, however, is that its bespoke skill sets are highly transferable and much sought after, making talented young railway engineers and professionals well placed to go on to ply their trade in allied sectors, such as construction and the automotive sector.

This leaves the rail supply chain with two ways of retaining these individuals: either paying more for that talent than its competitors, or invest greater time and energy into carefully supporting the career development of the graduates that are being upskilled.

As the latter represents a far more economically viable path, Colas Rail has placed itself at the forefront of the drive to

Head of Career and Development at Colas Rail GEMMA SIMMONDS and Senior Vice-President (Infrastructure Division) ONDREJ ROUBICEK tell PAUL STEPHEN why bridging the skills gap facing the rail industry is not simply a numbers game

not only attract young people to the industry through its trainee and apprenticeship programmes, but to develop them into loyal, passionate and long-serving employees through a fast-paced career progression into meaningful roles.

This is achieved through its overarching graduate programme, through which almost 10% of the company's total workforce has passed (approximately 150 people are on a training scheme of some description - trainee

freight drivers, trainee techs, grads and so on), but in particular its Future Leaders Programme (FLP), which was started in 2009 to identify exceptional graduates and then elevate them into key leadership roles, critical to the operational success of the business.

So far, 22 graduates have completed the FLP in management and leadership roles (comprising 25% of the company's overall management team), while 18 graduates are still progressing through the scheme at the



time of writing, with another 14 actively being recruited for FLP's 2017 intake.

Applications are encouraged from all degree disciplines and universities, with candidates then invited to participate in a five-stage recruitment process beginning with an online application, and concluding with an assessment day.

With travel and accommodation paid for in order to eliminate unfair discrimination on socio-economic grounds, the selection process on assessment days is both challenging and rigorous, although intentionally kept informal and fun to ensure the best results.

Using assessment techniques such as 'speed dating'-style interviews and a networking lunch with senior management, approximately 20% of applicants are successful, so that only the best-suited graduates are recruited.

Successful candidates then embark on a two-year programme starting every September, which rotates graduates nationally and internationally to work with senior managers in Colas Rail's three divisions: Infrastructure, Services and Urban.

This global capability means that graduates have the advantage of being able to travel all over the world. Some have undertaken placements in Morocco and received training in the delivery of a High Speed Line between Tangier and Kenitra (North of Rabat)

The overall Colas Group target is to achieve a workforce where women make up at least 30% of the business by 2020. Colas Rail is also committed to providing equal opportunities and increasing diversity, with 23% of its current FLP intake female and 33% from ethnic minorities, both significantly higher percentages than the industry average.

Ondrej Roubicek, Senior Vice-President (Infrastructure Division), adds: "Having recognised the vast skills gap in the rail industry, Colas Rail has invested heavily for the last eight years in recruiting and

developing home-grown talent through our Future Leaders Programme. It is tough being a manager at Colas Rail, but it is these great managers and leaders which clearly sets us apart from our competition. 25% of our current management team are from the Future Leaders Programme.

"In my division there is a succession plan through this programme for all key management and leadership roles, which provides clear career progression for individuals while future-proofing my team, and we will only increase the intake year on year with the backing of our business as well as our clients. It is only by doing this that we will remain a leading supplier to Network Rail and secure future contracts such as HS2."

Colas Rail's head of career and development Gemma Simmonds explains: "We have focused on building our own talent instead of drawing from an ever-narrowing pool in rail, and I believe our flagship programme (FLP) has set us apart from the many other companies with graduate schemes, in terms of how we find talent, how we assess it, and how we progress it quickly through the business.

"On our assessment days, we see how people react in a fun but high-pressure atmosphere, which is basically what working in rail is like. It's about finding the right people and then putting them in the right roles.

"Those that are successful are fast-tracked into some very senior roles, and it has now become a self-fulfilling prophecy with lots of our senior people and FLP mentors coming through the programme themselves."

Colas Rail has five levels of seniority within its corporate structure, and the aim of FLP is to move graduates from a level 2 role to a level 3 role within two years of completing the scheme. Graduates can then expect to be in a level 3 or 4 role within another 12-24 months in what constitutes a clear succession plan and conveyor belt of talent.

Candidates for Colas Rail's Future Leaders Graduate Programme take part in speed dating-style interviews during a graduate assessment day. COLAS RAIL.

Nineteen FLP graduates now work within the infrastructure division, operating at all levels beneath the director and engaged in high-profile alliancing contracts, such as the Wessex Capacity Alliance, Midland Metro Alliance and the S&C (switches and crossings) South Alliance for clients including Network Rail (see panel).

The high retention rate of FLP graduates placed within the infrastructure division demonstrates the exceptional results that FLP is delivering for Colas Rail's operational business, as only one graduate has left the business in the eight years the programme has been running.

The graduate scheme has also received national recognition, having been adjudged the Rail Business Award Graduate Scheme of the Year in 2016.

Colas Rail's reputation for being best in industry is also being widely recognised externally by both business buy-in and client feedback, as demonstrated by the Midland Metro Alliance, which is using FLP to start its own succession plan and talent programme, as part of its £1.3 billion contract to expand Birmingham's light rail network.

"Like many graduate schemes, the Colas Future Leaders Programme provides new entrants with a general experience of the railway before they are appointed into full-time roles," says Steve Featherstone (Network Rail Programme Director - Track) in the S&C Alliance.

"At this point the Colas scheme differs in that they push their graduates into meaningful roles much sooner. This fast-tracks the future leaders to positions that would not be possible in other organisations. This means that there is a talent conveyor belt of future leaders for both operational and back-office roles. ■

GRADUATE SUCCESS STORIES



Will Bryant - Operations Director (S&C South Alliance) and the first graduate to enter the Colas Rail Future Leaders Programme in 2009.

"The Future Leaders' Programme at Colas Rail provides something that I believe most graduate schemes do not - a fast track to management by rotations in real business-critical delivery roles, with direct accountability for high-value contracts.

"These contracts include complex multi-million-pound remodelling jobs within some of the most significant routes in London, meaning any failure to deliver results in major delays to the travelling public and makes headlines - all adding to the complexity and pressure of the job.

"Many of the ex-graduates are now in senior leadership or management positions, so we have people supporting who understand how hungry a graduate is to learn and take ownership and responsibility.

"This belief in the programme means managers are comfortable delegating to their teams and by managing them effectively deliver on the succession planning required for the success of the business."



Cate Lough - Assistant Project Manager HS1 - Overhead Line

"I joined Colas Rail Future Leaders

Programme in 2015 as part of the S&C South Alliance. Here, I worked on the key Christmas project on the Brighton Main Line and was given responsibility to manage several logistical elements.

I also had the opportunity to become involved with the development and planning of renewals, including working with two universities to develop a new 4D planning software tool, tool bringing efficiency, certainty and greater visibility to the delivery of the programme and ultimately resulting in the ability to plan a safer job.

"My final rotation is with the Overhead Line Team, where I am a project lead for the first renewal on HS1, process mapping good practice within the Colas Rail Group in order to implement change, and working on High Speed 2 Enabling.

"Bringing good practice involves utilising the worldwide capability of the Colas Rail group, including many high speed projects it is currently working on.



Munaf Ally - Production Manager (S&C South Alliance - Euston High Speed Enabling Works)

"I joined the Colas Rail graduate scheme in 2012 after reading for a MEng in Civil Engineering at UCL.

"The scheme involves rotations around the various services Colas Rail provide to the UK Rail industry.

"I am grateful for my experience, the level of responsibility I was given during this time, and the support I received from the staff at each depot I was stationed.

"I was able to feel comfortable in my learning and development, which was well planned and managed, and it has provided me with a solid foundation for my current role as the Production Manager for the HS2 Enabling Works at Euston."

"As part of my role, I have developed an Overhead Line organisation with an emphasis on sustainability, bringing in trainee linesmen as well as building an overall OLE construction team with the engineering, design, manufacturing and construction capability to take on and deliver complex OLE works. I am also bringing the experience, lessons learned and capability of the worldwide Colas Rail Group to the UK, to support the practices of the team."



CORE VALUES

Taylor Woodrow's JULIAN GATWARD explains to PAUL STEPHEN how embracing the concepts of sustainability has enhanced the company

When it comes to sustainability, few companies give it as high a priority as Taylor Woodrow, says the company's Managing Director Julian Gatward.

He describes it as "a thread that runs through everything we do", and those wanting hard evidence need look no further than RAIL's National Rail Awards, where the business won the top accolade for Sustainability, last September, for its integral role in the construction of Old Oak Common (OOC) depot.

As one of the future stables for the Elizabeth Line's new fleet of Class 345 Aventras, Taylor Woodrow ably demonstrated its environmental credentials by devising an impressive energy efficient and carbon saving design solution for the £142 million depot, which will open in 2018.

Consisting of sidings to accommodate 33 of the 66 Bombardier-built Aventura trains, plus a nine-road operating, maintenance and control building, renewable energy generation from methods including ground source heat pumps and solar panels will meet more than 50% of the site's energy requirements.

These green technologies will also yield an estimated £10 million in reduced operating costs over the lifetime of the project, representing a hefty return on investment of 1,500%.

Within the company, sustainability is also at the heart of Taylor Woodrow's workforce, as Gatward explains: "Our most valuable currencies are our people, their knowledge and the way we work."

"In order for our people to thrive in our environment, we deliver a sustainable business approach led by our company

values and underpinned by how we interact with and lead our teams."

Achieving this sustainable business approach and value-based way of working involves a co-ordinated and carefully conceived four-way strategy comprising four distinct objectives.

These are: not taking on more work than the company can resource, employing more people at a young age, providing challenging training and monitoring, and also developing the company's talent pipeline.

The last three of these points are all accomplished by employing a variety of innovative tools beginning with Taylor Woodrow's graduate rotation programme, that offers practical experience in a number of business sectors including engineering, quantity surveying, design and Business Information Modelling (BIM).

This has proved extremely successful in helping address the sector skills gap by attracting university leavers to the construction sector as Taylor Woodrow reports a year-on-year rise in the number of graduates, apprentices and trainees recruited to the company from higher education since 2014.

As part of VINCI Construction UK, the team is supported by an Academy that is committed to excellence and lifelong learning, having pioneered four major development programmes to cultivate its talent.

These include: Empower, which teaches people how to adapt and thrive within a team environment; Orchestra, that gives them the tools to use in the planning and execution of projects; Project Management+, which gives current and future project management teams the skills to successfully



manage their teams and projects; and Best Practice in Collaboration, which provides the tools to develop empathy and uses role play to practise these skills.

Gatward adds: "We also encourage our teams to get involved in a range of external initiatives, such as the Duke of Edinburgh Award. This is another exciting development opportunity that inspires young people to develop through hands-on experience."

Taylor Woodrow considers staff engagement and retention as the most reliable indicators of the current sustainability levels enjoyed by its workforce. It strongly believes these must be kept high in order to increase profitability and productivity, while reducing absences and workplace accidents.

It can therefore be satisfied that its sustainability strategy is working well, as consecutive staff surveys confirm an increase in the company's engagement score from 78% to 85% since 2014. It's an exemplary score - and 7% higher than the construction sector average.

Meanwhile, the churn rate of employees fell by 50% during 2016, pointing to a reduced turnover and higher overall staff satisfaction.

These improved scores also follow on from a concerted effort to implement a

What CAREER LIVE



Increasing numbers of graduates, apprentices and trainees have been attracted to join the construction sector by Taylor Woodrow's graduate rotation programme. TAYLOR WOODROW.

new two-way communications plan within Taylor Woodrow that aims to give each team member a stronger voice in the company by opening up feedback mechanisms and direct channels to senior management, such as regular presentations, newsletters, blogs and Roadshows.

Its commitment to sustainability goes further still, as demonstrated by its part in VINCI Construction UK's diversity-enhancing initiative Fairness, Inclusion and Respect (FIR), which is about recognising and celebrating an individual's differences and what they bring to the team.

FIR is discussed at all employee inductions to instil the company's expectations and commitment to providing equal opportunities from the earliest stages of recruitment. FIR has also helped the company become the first major construction company to gain Leaders in Diversity accreditation.

"Different people have different viewpoints, which leads to new ways of thinking and, ultimately, better decisions being made," adds Gatward. "Promoting a culture of FIR means that everyone's voice is valued and heard. This diversity helps build a stronger team and a successful business through improved recruitment, retention and business performance, which is why it is important to Taylor Woodrow."

Taylor Woodrow also recognises that increasing sustainability means tackling the systemic gender imbalance that exists within the construction industry; sector-wide, only 11% of the workforce are women. Leading by example, 22% of the company's board members are female, while the Women in Taylor Woodrow working group has been formed to develop an inclusive environment in which employees can flourish, assisted by an active mentoring programme and holding educative workshops with both men and women.

Finally, over the past year, the company has changed its structure to create a larger internal engineering department, to enhance delivery of tenders and projects and create a truly engineering-led approach. The changes aim to strengthen the management of the business and to generate closer collaboration between engineering teams, consultants and the supply chain.

"We have brought together our design, engineering, BIM and planning functions to provide leadership, expertise and support to our projects from the bid stage right through

to construction on site," says Gatward. "We are engineers, not traders, and it is our projects where we create the chance to deliver our engineering-led approach to our work on site. Like many of the contractors in infrastructure, we deliver our work via a robust supply chain rather than direct delivery of the project.

"The value that we bring to the projects is therefore in the way that we co-ordinate the operations on our projects and get involved with our contractors. We generate value for us and our client by our knowledge of how to lead the work of our supply chain partners and the integration of specialist design with our lead consulting engineers.

"Our engineering-led approach is to integrate selection of methods with permanent and temporary works design, so that the solutions adopted are buildable and economic.

"We aim to deliver value to our clients by working alongside our designers to deliver economic, timeous and buildable solutions. The integration of this approach with our supply chain delivers sustainable solutions for our clients and challenging opportunities for our people." ■

“ Diversity helps build a stronger team and a successful business through improved recruitment, retention and business performance.”

Julian Gatward, Managing Director, Taylor Woodrow



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