Thank you, and thank you for inviting me to deliver the 2017 Bradshaw Address here at the Institution of Civil Engineers. I’d also like to thank Bechtel for supporting tonight’s event.

I consider it a great honour to be here, especially having sat in the audience for the Bradshaw Address several times and heard thought-provoking and expert contributions.

For better or worse, it seems I have become a ‘career railwayman’ – not something I envisaged when as a final year student I was applying to every graduate scheme I could find an application form for, and yet I landed up at Railtrack.

I love our railway. Ask to see my Southern smartcard season ticket, and I can show you. Ask to see my CV and you’ll see a career starting in 1996, with time at Thames Trains, Southern, and now managing director at Arriva, punctuated only briefly by a short stay at the Foreign & Commonwealth Office, but that’s a story for another day.

I’ve chaired the National Task Force for six years. It is also my great honour to be the new chair of the Rail Delivery Group.

I tell you all this because if you’ve lived the bulk of your working life dedicated to Britain’s railway, it is impossible to ignore our history. Look around any British city, and you can see how the railway has shaped our cityscapes. There are over 300 pubs named after the railway. Station Road is the second most popular street name. Look at the mighty engineering feats, from the Severn Tunnel to the Forth Bridge.

Look around this Institution, with the portraits and statues of the civil engineers who designed those viaducts, tunnels, cuttings and stations.

In the quarter century after the Liverpool-Manchester line opened in 1830, 7,000 miles of track were laid. Whole towns like Swindon and Crewe grew from villages.

The railway was the catalyst for the seaside holiday, made fish and chips the national dish, and even invented our modern concept of time, with the publication of timetables by men like Bradshaw creating the need to synchronise the nation’s clocks.

Between the opening of the Liverpool-Manchester line in 1830 and the Railways Act in 1921, the railway transformed every aspect of British life: our economy, our culture, our habits and our diets.
Let’s not forget that George Bradshaw, in whose honour we meet, made his early name as a cartographer, not of railways, but canals, and lived through the rapid and dramatic transformation the railway brought.

The railway’s historic contribution to our economy and society is profound, and the impact of the railway surrounds us.

But, as they say, nostalgia isn’t what it used to be.

So why reflect on all this?

Of course we know that we can’t run a system based on reverence for our past, nor be imprisoned by our own nostalgia.

But it is instructive for us today, as any reading of the history of the railway must make the same conclusion: through all the historic ups and downs there was no stable, golden age. No still, settled moment. No time when the demands of customers existed in perfect equilibrium with the ability of the system to deliver.

The only constant factor in the long life of Britain’s railway has been, and remains, change.

And therefore change is the theme I want to address tonight.

My argument is simple: the railway has grown and has had to find ways to evolve and modernise many times already in the past. We are at a crucial turning point, and unless we manage change, embrace change and lead change now, our industry will go backwards.

We are living through a technological revolution, a fourth industrial revolution, as profound as the Victorians’, one might argue.

New technology is changing every area of our society.

Cars without drivers on our streets.

Drones in our skies delivering our parcels and even taxiing people

A device in almost every pocket, which can access more written words than were contained in the Great Library of Alexandria.

And alongside the technological revolution is a social revolution in culture, habits and attitudes.

I sense that people today are less deferential: they seem more sceptical, questioning, demanding. We challenge authority, ask questions of our leaders, seek our own answers. Demanding populations drive improvement and change and we are seeing more and more of this today.

Academics talk about a ‘post-traditional age’ where every institution – financial, political, industrial – must justify its place in the world on a daily basis, where no institution has the ‘right to exist’.
That includes our own beloved railway. The railway has no right to exist in perpetuity, we must continue to justify our existence amidst this maelstrom of economic, technological and societal change.

We must make the case for the railway, and we must do it not just with words, but with deeds. We must earn respect from passengers and politicians by what we do, not what we say. So it is not a question of whether to change, but how, and when.

Let’s start with some self-reflection.

We can be proud of recent achievements. Really proud.

In the past 20 years there are double the number of passengers, travelling on the safest railway in Europe.

3,800 more trains a day across the network.

Ten billion pounds in Gross Value Added to the economy from rail and our supply chain.

Eleven billion pounds of enhancements to the productive potential of other economic sectors.

By getting people off the roads and onto trains, we prevent over 850 road-related deaths each year.

And we’re part of the solution in decarbonising our country. The railway helps reduce CO2 emissions by 7.7 million tonnes a year, and each freight train helps to take up to 76 lorries off the roads, improving air quality.

We employ 216,000 men and women directly in the railway, and through our supply chain. Every man and woman makes a contribution.

The factory workers of Derby and the North East.

The signallers in Basingstoke, Didcot and York.

Engineers and maintenance workers from Cardiff Canton to Craigentinny.

Freight workers in Daventry, Felixstowe, Tilbury.

Train drivers and station staff from Thurso to Penzance.

But we have to be honest about when we let people down too. Really honest.

I catch the train at Haywards Heath. But it could be any line taking people to work.

On those terrible mornings when things are going wrong for people, all of the statistics I quoted just now would count for very little.

When you’re late for work, have to cancel client meetings or miss bedtime stories with your children, you’re not interested in the statistics.
The huge role we play in the economy is real journeys made by real people, for work, for business, for leisure and for love.

When it goes smoothly, people get the level of service that they should expect.

And when it goes wrong, it ruins people’s days, upsets their plans, makes people stressed.

Any of us that have done ‘meet the manager’ events or helped out on stations during disruption hear these stories first hand. It is right that we look people in the eye and apologise.

After all in the world of social individualisation, as a customer, your perception of the railway is driven most by your personalised experience and for too many, too often, that’s not always good enough.

We must be alive to criticism, and listen closely to what people are telling us.

For example, the Shaw Report last year on the future of Network Rail gave us all some food for thought on accountability, financial discipline and how to develop the workforce.

For example, this month the House of Commons Transport Select Committee said that our current franchising model ‘has not yielded all the competitive benefits initially envisaged by the Government in the early 1990s. Many metrics of performance are plateauing and the passenger is not receiving value for money.’

The MPs pointed out that there has not been enough real competition for franchises. I believe this report deserves to spark a real discussion about the size and scope of franchises.

For the future, the franchising model needs to match the market.

We don’t have a one-size-fits-all railway; what works on the West Coast Main Line isn’t necessarily what works on metro railways in our major cities.

The Department for Transport is moving to a more bespoke approach for each franchise, and I want us to accelerate the pace of this change.

Customers and taxpayers benefit from rail companies bringing new ideas and innovations to Britain from across the world. I am proud that they want to be a part of our railway, and to learn from us, and I want this to continue as Britain finds a new place in the world post-Brexit.

I said earlier there has never been a still, settled moment in our history.

Today and tomorrow will be no different.

The question is how to deliver change for the better, not change for the worse?

Forwards not backwards?

Progress not decline?

This is the question that we all must address.
And our answer must land firmly on the side of the people, and the communities and businesses who depend on the railway. A railway for passengers, for freight, for the whole country.

You may not know this about me, I have a couple of passions outside of my work, and my wonderful family.

One is music. And one is rugby.

I know it’s hard to believe, but I was once a chorister at St Paul’s Cathedral.

And for the last few years, I’ve been involved in coaching mini-rugby most weekends.

You may not think rugby and choral music have much in common. One is all about delicacy and beauty, the other about mud and muscle.

Although if you’re a member of the Haywards Heath Under-11s squad it seems to be more about rolling around in the mud.

Yet both choral music and rugby rely on each individual performing their own part to the best of their ability, on team-work, and on partnership.

And when everyone does their bit, puts in the effort, with the right leadership and strategy, the results can be magnificent.

We have a railway system, and each part of that system has to work. When it does, the result can be magnificent.

The Victorian railway boom I mentioned earlier, arguably led to the opposite of a coherent system. It created huge growth and investment but it also created a complex series of routes with different railway gauges and no overall co-ordinated timetable.

The early Bradshaw guides are testament to this complexity. It was said that the only person to master the railway timetable was Sherlock Holmes.

A more contemporary example is from when I joined the railway twenty years ago. From then, to just a few years ago when the National Task Force began a greater focus on customer information during disruption, there were nearly 70 different systems to handle customer information on trains, stations and the internet. I’m glad to say we’ve found a way to standardise the sources of information to those systems now.

The great lesson from this is that localised competition offers huge benefits in driving up quality and innovation whilst driving down prices. At the same time, that creativity and development might also drive differentiation and in the extreme, complexity.

Perhaps we see some of that today with the progress and developments of smart ticketing at different speeds and standards in different locations. I very much support a single vision for ticketing and the partnership that is in place with government to accelerate development at a system level.
And that is the point I think - We need to retain the best elements and advantages that the competitive market offers but at the same time, couple this with the best elements of system and government, when we take a network-level view of things for our customers. I want this to be the focus of the Rail Delivery Group in the coming months.

A daily obsession with a quality experience for our customers, coupled to a long-term sense of network stewardship over a precious national asset.

Now, there are those who believe that the way forward is to go backwards, to the structures and systems of the past, in pursuit of the golden age of rail. But if such an age ever existed, it was only in our imaginations. It certainly didn’t exist for many of the customers who experienced it.

That’s not to say at all that the current system cannot be improved. We don’t want to move backwards, but we don’t want to stand still either. We must move forwards.

Because it can be better and it needs to be better to deliver further success in the next 20 years. Change is what this industry needs, what our customers deserve, and what we are delivering.

The success of the railway rests on partnerships, on inter-relationships and on co-ordination.

Firstly, I want us to have a new relationship with our customers. Customers are our alpha and omega, our beginning and our end. We need to engage with their criticisms, their aspirations and their frustrations.

We need to do the things they demand: clean, safe, comfortable trains which run on time, which cost a fare which seems reasonable, with access to wi-fi and a seat, and clear information and redress when things go wrong.

Some of the things we have done to improve in the past, like making trains and infrastructure more reliable, are on their own no longer enough, given how busy the railway has become.

We need smarter solutions and a new approach across timetables, assets and the way we operate the system. A chess grandmaster would be challenged in handling the logistical complexity of a disrupted morning peak into one of our major cities – but we ask our controllers to do just that.

We need to harness technology for our customers to drive further improvement in our core delivery from the network.

Doing the right things in the right way builds customer confidence and trust, and means that when there are challenges, people give us the benefit of the doubt.

Secondly, I want us to build a new partnership with our people.

You’ll have seen today that more industrial action on our network is looming. I don’t believe that anyone in the railway – management, unions, our people – wants a railway that continues to be disrupted and that lets down the people who depend on it. I want to see these disputes resolved as quickly as possible.
We all need to recognise that the railway needs to change to deliver the service that our customers expect and the economy deserves. There can be no attachment to old ways of working. Failure to effectively modernise puts future investment at significant risk.

As we embark on a fourth industrial revolution with new technologies and opportunities, the very nature of work is changing including on the railway.

That does not mean the robots will take over, at least not in our lifetimes. There will always be the need for people, providing the full range of real services for customers. And with a growing railway finding ways to operate more services to meet demand, modernisation doesn’t mean de-staffing.

On the contrary, we’re planning for one hundred thousand vacancies in rail and our supply chain over the next ten years to deliver this modern railway.

Forty per cent of our workforce is over fifty years old. As they retire, many after decades of tireless service to the railway, we must attract new men and women to take up their mantle.

A generation born after the end of British Rail.

Some born in this new century.

So that valuable experience and expertise meets fresh millennial talent, new ideas, new ways of working.

The torch is passing to this next generation.

The types of jobs we do will be different, just as in every other sector of the economy, whether we embrace it or not. All of us have a duty to make sure that we’re doing more to attract new people into the railway through high-quality apprenticeships, and that we’re supporting all of our staff with lifelong learning.

Thirdly, I want us to have a new partnership with governments. And I use the term governments deliberately, as we look to greater democratic devolution to the nations and regions of the United Kingdom.

I believe that 20 years on from the end of British Rail it is time for a more mature relationship between industry and government to take us forward, together. Not parent-child, but adult-adult.

It must recognise that the relationship is symbiotic. We need each other to succeed.

I believe there is a vital role for government in changing our industry for the better. I mentioned the need for long-term, strategic planning earlier. The need for financial guarantees. The joining up of the railway system to roads, airports and ports. The need to align the supply chain, infrastructure and operations. The crucial role the railway plays in moving freight, keeping our power stations running, our construction sector supplied and our supermarket shelves stocked.

But governments need to recognise that we need our freedom to innovate, to grow and to access new sources of investment.
We need government to help us where they can, and to remove any obstacles on the line which may hinder our progress.

Network Rail’s nascent devolution of power from the centre to Routes, whose targets are increasingly being aligned and driven by customers, is a good example of industry leading change. Enabled by government, this will bring track and train closer together and reflect customer priorities.

With the decline of coal, freight companies are responding to challenging market conditions through modernising their businesses and developing new services. Rail freight has huge potential, but we need help from government to fulfil this.

In another example, the simplification of ticketing across the whole network will require a commitment from government. And, as in other cases, it is up to us as an industry to inform ministers how these changes can be made, to speak ‘truth to power’ about the winners and losers, to propose solutions, and to help handle the consequences.

Ticketing is a great example of a tough nut to crack that affects the system and cannot be fixed by individual contracts alone or by government alone. But we must address it together – and it is great to see the pilot activity in this area being led by RDG and supported by government.

There are more tough nuts, like this, for us both to crack.

If we focus on these three relationships: our customers, our people, and government, then we will succeed.

But there’s something else too. I want us to transform our organisational culture.

Increasingly, across the public services, there is a recognition that top-down targets and strict command and control is an outmoded method to deliver quality and innovation.

We’ve seen how targets can skew performance, stifle innovation, and reduce the system’s agility to address real people’s needs. First we saw it in private manufacturing, and more recently in public services such as health and education.

One of the best expositions of the need to move beyond this approach comes in a book by John Seddon, ‘Freedom from Command and Control’ which is a thought-provoking, if controversial, read.

Seddon argues that top-down imposition of targets leads to unintended consequences. He says that as a result:

‘Dysfunctional behaviour is ubiquitous and systemic, not because people are wicked, but because the requirements to serve the hierarchy competes with the requirements to serve customers. People’s ingenuity is engaged in survival, not improvement.’

I wonder if we can recognise any of this description within our own organisations, or the rail industry as a whole?
I remember when I visited a large area signal box to engage with signallers as a Train Company director. This was a few years ago and I am sure things have moved on, but it illustrates well the challenge.

I was watching the morning peak being signalled – it was clearly demanding. One decision made by the signaller surprised me a little and when things were quieter I asked why he had made that decision.

The answer was because that was what the ‘signal box simplifier’ said to do. I asked him whether he thought there were situations when he could see better decisions than the signal box simplifier and whether he’d do them.

He said that if he followed the plan, it can’t be his fault as it would be the manager’s – if he does what he thinks is right and it ends up not being, he’ll get the blame. Signallers are measured on how many mistakes they make.

Instead of top-down command and control, I believe we need to see the railway system for what it is: a system.

With routes, train operators and the supply chain working together as a team to focus on the customer.

With routes across the country working together.

With the Rail Delivery Group and Rail Supply Group, and our members, bringing together thinking and expertise to make this system, focused on the customer, work at a national network level.

With governments supporting and challenging us to do more for our customers.

As the new chair of RDG, I am looking forward to playing my part in this system.

This system is too complex to be run from Whitehall or to be left to disparate organisations effectively acting independently.

The system needs the rigours of competition from an enhanced, more open franchising model balanced with clear network values, principles and leadership.

It needs increasing investment from more sources.

It needs greater accountability to customers and passenger groups, perhaps on a localised, devolved level – the pilot of an independently chaired Board with customer representation in Great Western is hopefully the first of many.

It needs the enthusiastic support from governments, of whatever hue. It needs the big projects such as the Elizabeth Line and Hi-Speed rail links to be built as quickly as possible.

Most of all, it needs the active support from a majority of the population.
That’s my vision: a dynamic system, with industry-led improvements, driven bottom-up by customer demands, with the capacity to meet another doubling of passengers over the next twenty years.

I started by paying tribute to our history, and the magnificent feats of railway engineering and station architecture. The romance of *Brief Encounter*. The nostalgia of *The Railway Children*. The poetry of Auden or Larkin. The history of the railway is the history of Britain, the railway shapes our lives, it makes us who we are.

But now we need to look to the future if we are to build on the huge successes of the past. I am sure we can show these Victorians, whose portraits look down on us, a thing or two about how to build a modern railway system capable of prospering for another 200 years.

Now, our railway is at a crucial turning point. If we want to be true to our past, we need to embrace change for our future. No still, settled moment, no ‘right to exist’, just constant change.

And we don’t have long to do it.

Thank you.