## CP6 and Beyond Mark Carne, Chief Executive

Construction News Summit Hilton Bankside, London







I am going to start this speech by unashamedly talking about some of the great things we are doing around the country to transform rail. We are going to help to transform the economy of this country. Just a week or so ago, we opened the Ordsall Chord in Manchester with the Rail Minister. This is a beautiful bridge. It may not look an awful lot, but it was an

incredible project delivered bang on time, on budget for £300 million. It reconnects the North in completely new ways, so that Manchester Victoria and Manchester Piccadilly are now connected. But it's not just in Manchester. People right across the North now have new paths, new access to journeys that they didn't have previously. It's an exciting change in the North.

Of course, a month or so ago, we had the first of the Intercity Express Programme trains running on the Great Western Railway line. This line is going to be transformational. The railway will be fully electrified to Cardiff by the end of the next year. Journey times to Bristol will be reduced by 15 minutes. There will be twice as many services from Cardiff and Bristol as there are today, absolutely transforming the economy of the West.

We've just finished the construction of the Edinburgh to Glasgow electrification route. The trains are now arriving and they'll be in service in the New Year. This, again, compresses journey times between these two economic hubs in Scotland by ten minutes, and increases the number of seats by 25,000. Huge changes are occurring. These are just some of the examples of the many, many that I could have chosen from the investment programme in the last few years.

But this is perhaps the one that will grab, I hope, some of the headlines in just a few weeks' time, because we will be opening up what I think is going to be the iconic London Bridge station on January 2<sup>nd</sup>. After an incredible project that's been going on for many, many years it will open, to the day, on time. This is one of the most demanding engineering projects you can possibly imagine: rebuilding a station of this scale. It's Britain's fourth-busiest station; 55 million people use it every year. We have been rebuilding it while still providing a service for those people every single day. It will become an iconic landmark in London as well as serve the needs of those millions of passengers every single year.

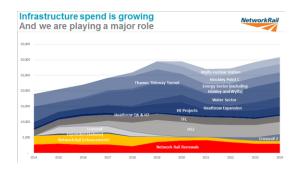
And these projects, they're rail projects but they're much more than that: they are transport projects. They really do change the transport geography of our country. We did a huge upgrade to Waterloo in the summer, and those of you who use the station, thank you for your patience, but it was a very necessary upgrade. It will increase the capacity of that station by 30%. That's 45,000 more commuters every single day. If those commuters choose to now travel by train, an environmentally much more friendly mode of transport than car, if they choose to travel by train, we will take the equivalent number of cars off the road of a three-lane, bumper-to-bumper traffic jam from Waterloo to Winchester.

So rail projects don't just affect rail, they have a huge impact on road and, therefore, on the economy as a whole. Their role is drive economic growth, jobs and businesses, and we need to continue the investment in railways that we've seen over the last few years. As many of you will know, the growth in railways over the last 20 years has been one of Britain's greatest success stories. We carry double the number of passengers that we did just 20 years ago. We are the safest railway in Europe, the fastest-growing railway in Europe. We invest more than any other country in our railways across Europe. It's a great success story, but there is much more to come.



We're Britain's biggest builder, Network Rail. Not something that most people would necessarily know, but when we're spending £2 billion to £4 billion every year on those sorts of iconic projects, £2 billion to £4 billion every year on renewing the network, the worn-out facilities, you can see that this is a massive business. And being it's such a crucial business, it has to deliver, and has to deliver well.

And I will be the first to acknowledge that in this five-year control period, CP5, we have had challenges, really difficult challenges, partly because we had an overambitious programme that was set at a time when debt, for Network Rail, was off the government balance sheet. And, therefore, perhaps those investments were not subject to the scrutiny that one would normally expect of a capital-disciplined business, but today, having reset the programme, we're doing amazingly well, and I want to talk, in a few minutes, about how we are doing.



But this is another aspect of the challenge that we have as a country. Just look at the scale of investment in infrastructure over the next few years: it's really very significant. And, by the way, that doesn't include that yellow slice, there, doesn't include all of my ambitions for new enhancement projects by Network Rail. Network Rail is a very significant slice of the overall investment pool in the industry.

So what do we, as an industry, need to do to rise to this challenge? Because creating the capability to deliver successfully those infrastructure projects is a challenge we all face. So I'm not going to cover this in length today, but perhaps we can pick it up in the Q&A session, but certainly we need to continue to attract young people to want to become engineers, to what to come and help build the infrastructure in the future in this country.

And as engineers, we all play our role in attracting young people to want to become part of this amazing industry. We do need to tackle diversity and become a much more attractive industry to the brilliant young women, and also black, Asian and minority ethnic people who are not properly represented in our industry as a whole.

We all need to play our part in driving apprenticeships across the industry. I'm very proud of what we're doing in the construction sector and, particularly, in Network Rail on apprentices, but there is more we can do, and we must. And we also need to look very hard – and I point this finger at myself – at the way we work, so that we maintain the great people that we attract into our industry to want to stay in the industry, by modernising some of our working practices.

I know that the supply chain looks at that wonderful curve that I've just shown. But it's very difficult for them to be quite sure how much of that slice of the pie is going to come their way, so the better that we can provide certainty to the supply chain about the spend that we're going to invest, gives them the opportunity to invest in skills, apprentices and, of course, innovation. And the sector as a whole, the construction sector as whole, I think does need to do more to come together, whether it's through a sector deal or through training and apprenticeships or through research and development, to drive innovation and improve ways of working.

But now, let me focus a bit more on Network Rail. I said that we had a very troubled start to the control period, and we certainly did, but after we re-based our programme two years ago, project delivery has really improved significantly. I want to thank all of you here who have been involved in our programmes over the last two years and have played a part in this improved delivery.



Do you know that actually only less than 0.3% of passenger delays are caused by overrunning engineering project works? It's a tiny proportion given the £130 million every single week we're investing in improving the railway. That's a staggering amount of investment, and we managed to do it all, basically, in the middle of the night, in two or three hours, and then have the trains running again in the morning. It's quite an achievement.

Now, these are just so obvious that why would I bother to say these things? These are some of the critical success factors for delivering great projects, and the first one is by far and away the most important, but it is a lesson that we, as an industry, continue to have to learn. Time spent upfront deciding what it is you need to build and why you need to build it is the best way of saving money. And I constantly say to funders, politicians and funders across the industry, please allow us the time to get it right and don't rush into making announcements about projects before you even really know what it is you want. It's one of the greatest mistakes that I think we make, and we live to regret it for years and years thereafter.

I know that when we work collaboratively, in alliances across the industry, rather than in command-and-control, hub-and-spoke models, we work better together; we deliver better outcomes. And it's more fun. It's a much more fun environment for people to work in, it's much more creative, more innovative, and we deliver better outcomes.

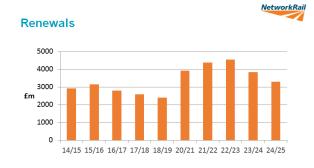
And I also know that when I involve the industry in the problem rather than just telling them what solution I want, we get much more creativity and innovation from the supply chain. So these are important signposts and messages for how we, as an organisation, are changing and how we will spend our money more wisely in the coming years ahead.



Now, safety and performance go hand in hand. That's my first business mantra. And those of you who've heard me speak will have heard me say it many times. So I'm encouraged, I'm very encouraged, that, over the last few years, we've almost halved the number of workforce injuries in the Network Rail's project-delivery area, Infrastructure Projects.

But is it good enough? Absolutely not. When I look across the construction sector as a whole, I see many companies that deliver significantly better performance, whether it's in the electricity sector or, most particularly, in the oil and gas sector. So we've got a lot more still to do, and some of our construction practices really do need to modernise and change.

Now, a headline from Construction News about the next five years of investment in the rail projects. "£48 billion and", optimistically, Construction News said, "that's just for starters". Well, certainly, £48 billion for the next five year control period is a very significant step up on the investment that we've had in the last five years, particularly in the area of operations, maintenance and renewals. It's an almost a 25% increase in funding in those critical areas, and I'm extremely pleased that we were successful in our discussions with government to achieve that level of funding increase. Because our railway is, bluntly, getting a hammering. The number of people, the number of trains, and we do need to invest and renew it in order to maintain and grow the reliability that we need.



So this is a rough idea, don't hold me to these exact numbers, but this shows the sort of level of increase in spending in renewals – track renewals, signalling renewals, bridge renewals and so on – that we will be doing in the next control period. And to give you a sense of scale of how we're catching up, we replace about one bridge every single week on the railway. In the last few years of British

Rail, they replaced one bridge a year. So for years, we were underinvesting in our infrastructure, and now we're playing catch-up.

And that investment is right across the country. Huge investments in Scotland and Wales, and right across the different route businesses that we have in Network Rail. But we want to do more than just invest in operations, renewals and maintenance, we want new projects. For example the TransPennine project, the route upgrade between Leeds and Manchester that is such a hotly-debated topic.Of course we need to invest in those sorts of railways.

We need to invest in the new railways between Oxford and Cambridge. We need to invest in more electrification in critical arteries across our country, and improve the ways of managing journey time. But we have to do this in a somewhat better way than we have done it in the past, and we have to do it in a better way on a number of fronts.

So, the first is about widening the market that is available to build on our railways. It cannot be right that it is really only Network Rail that can build railway projects. I want to open that market up to other construction entities, other client organisations, to enable them to build our railways. That contestability will drive innovation and a lower-cost solution. That's why I asked Professor Hansford to lead a review at the end of last year. His report came through in June. I fully accepted his recommendations, which we're now putting in place and I believe that Hansford's recommendations will lead to new sources of innovation and contestability in the building of projects.

But I take that similar theme of contestability further. I also think about it in terms of our standards. Too often, people say to me, "oh, it's Network Rail's standards that drive costs up." So I'm saying to the industry as a whole, okay, if you've got a better idea, come and tell us about it, and if we change our standard to reflect your new innovative solution, we'll reward you in proportion to the value of the innovation that your idea brings. Now, that's quite a big change, but what it means is that our standards should be industry standards. They should be reflective of the industry's level of innovation and creativity, not just a few Network Rail people sitting in the head of a central organisation.

I also want to talk about how we are going to decide which projects should be invested in. Of course, at the end of the day, that's a decision for funders. Funders are the people who decide, ultimately, which projects they want, and it's right and proper that the politicians, who are largely funders, should have that decision-making, but I believe that it is the industry that should be better informing politicians about which are the best projects to deliver that will create the greatest economic value from the railway system as a whole.



And this is where we've created a body called the System Operator that spans the whole of Britain's network, not just Network Rail but East West Rail, HS2 and Crossrail as well. This is a body which will work with the industry, the train operating companies, the rolling stock companies, to say, what are the best ways that we can enhance the performance of the railway

system as a whole? And it will then carry out independent, transparent economic analysis of those options and, if you like, provide a ranked shopping list for funders.

Now, I think this is a really important change, because we've invested £15 billion of projects in CP5 but I don't believe that anybody in this room could tell me what the relative attractiveness of those projects is, in terms of their economic value to the country as a whole. And if the purpose of the railway is to drive economic value, improve life chances for people, then surely, as taxpayers, as funders, we should have a better sense of where the greatest value can be created. This is an important role for us. It doesn't take away the ultimate decision-making from politicians, but it perhaps will enable them to make better decisions and better-informed decisions, based on industry expertise and input.

I can't possibly stand on stage and speak without talking about the digital railway. It is amazing that the signalling system that we employ on Britain's railways, in fact most railways around the world, is basically unchanged since 1840. It's an incredibly successful system for controlling, very safely, the movement of trains. But when your railway system is fundamentally full, it's a very inefficient way of allocating capacity on the railway, and that is why we are going to lead the digital railway revolution over the next ten to 20 years, to create far more capacity, more reliability and better services for passengers right across our country.

It's a very exciting change. The technology, as you probably all know, exists today. It's in place on the tube system today, that's why, when you get a tube you don't bother to run for a train anymore because two minutes later another one comes. That's the technology we want to introduce on our national rail network, and I think it's going to be a huge change. Its time has come. It's a whole series of different kinds of technology that come together to really transform the way the network runs.

But because it affects every part of the industry, this transformation is really difficult. That's why we've had a team working on this for the last three years, and I'm really encouraged that for the next control period, we're starting to really see the digital railway shift in terms of the spend. So this shows the allocation of spending in signalling technology. The grey share is the conventional full re-signalling, and the dark blue is the digital railway. So you can see we're doubling the amount of digital railway investment in CP6 and, really, at the expense of conventional signalling going forward. And I think for CP7, there won't be any conventional re-signalling spend.

We're really moving fast now towards the digital railway, and I think that is the future that we need in this country. Because it's just too expensive to build new railways right across the country, and if we can get more capacity out of our 20,000 miles of existing network, that must be the right thing. So this is a very exciting time to be a part of the transport sector. It's a hugely exciting time to be a part of the rail industry. We've got a fantastic plan. We've got a bold plan, we've got a delivery track record, now, behind us, and we will deliver and succeed in the future. Thank you very much.

\*Note: this a transcript, so language reflects the speech as delivered