## INFORMED SOURCES e-Preview November 2014

This month's column includes  what I hope is a typical mix of subjects – a provocative signalling proposal, some ambitious rolling stock plans and an attempt to assess whether the Direct Award Franchise Agreements are good value.  There's also a lucky escape for readers.

**Carne challenges faster ETCS implementation.**

**Putting a cost on Direct Award Franchise Agreements**

**Captain Deltic's Rolling Stock Round-up**

When Network Rail invited me in for my first formal session with Chief Executive Mark Carne, I asked if we could focus on one of his three priority areas – the digital railway. Mark bought this idea enthusiastically and at the meeting we were joined by Jerry England, newly appointed as Director Digital Railway.

Creation of this new Directorate has been driven by Mr Carne's big technical challenge to the industry, which he emphasises is 'a provocation not a plan'.  Quite simply, he would like to see the roll-out of the European Train Control System (ETCS) completed by 2029.

When Mr Carne raised his aspiration internally it was immediately clear that Network Rail didn't have the structure to handle such an accelerated programme.  So the first step was to bring together the various functions, services and existing programmes into the new Directorate. Now, Jerry England and his multi-disciplinary team have two years to come up with proposals which could form part of NR's Initial Industry  Business Plan for Control Period 6 (April 2019 – March 2024).

While Mark sees ETCS as the key to meeting growing demand, he considers the current programme, with ETCS installation linked to the life expiry of existing signalling equipment, as an an inefficient use of resources because of the mismatch between track and train fitment. Even if only a short length of route has been fitted with ETCS Level 2, every train likely to run over that route will have to be ETCS equipped for cab signalling.

By 2024, under the current programme, some two thirds of trains will need fitting with ETCS because, at some point, they may have to run over an ETCS-only section.  But by then, only 7% of signals will be ETCS enabled. As a result, the heavy investment in cab fitment and driver training will generate limited benefit, with many trains and freight locomotives running most of the time with their ETCS equipment switched off.

Introducing ETCS as existing signalling  falls due for replacement is a valid approach, but Mark Carne argues that this policy does not take into account the  commercial benefits generated by a fully  ETCS-capable  railway. He told me 'when you think about it in terms of capacity, speed, environment, safety and lower life-cycle cost, what's not to like about ETCS? And when we compare that with our existing roll out plan that's not fast enough'

Hence Mr Carne's aspiration is for all trains to be ETCS fitted by 2024. Signalling on the bulk of the network would be ETCS-enabled five years later.

That said he knows that his 'provocation' is still a big ask. The key task for the Digital Railway team over the next two years will be identifying 'all the barriers that will make this [accelerated ETCS roll-out] difficult to do and to see how we would overcome them'.

**Barriers**

I can see two barriers, ETCS itself and the lack of experienced senior engineers to drive such an ambitious project forward.

In 1996. ETCS became the standard for all high-speed lines in Europe and the signalling industry set to work to make it happen. Some 18 years later, while Level 2 ETCS – cab signalling – is in service, the definitive software is now expected to be available next year.  This is Baseline 3, aka software Version 3.0.0.

Baseline 3 will replace, but be backwards compatible with, the current Version 2.3.0d in service on the Cambrian line pilot scheme and being tested on NR's Hertford North facility.  That the'd' stands for 'debugged' speaks volumes.  The intention is that Baseline 3 will close a number of 'open points' - ERTMS-speak for 'things ETCS can't handle yet'.

Put bluntly NR also lacks the senior engineers with the experience and vision of the old-school 'Chief Engineers'. This is particularly acute in signalling where the last 'Chief S&T Engineer' was an early victim of the Railtrack technophobic purge in the 1990s.

As a result, with ETCS we have the situation that NR is not the informed customer that knows what it needs. This may seem, harsh, but during a visit to the  ETCS Hitchin test Centre back in May I was told that the four framework suppliers were about to start demonstrating the additional capabilities of their respective systems. Given that ETCS is scheduled to be operational between Paddington and Airport junction in three years' time, the thought that NR doesn't have a definitive requirement and could still come out of one of the Hitchin laboratories after experiencing a 'Eureka!' moment, is cutting it fine.

**Direct Award Franchise Agreements**

DfT's use of Direct Awards to allow an incumbent operator to continue running a franchise until a replacement franchise can be let, has come in for a lot of stick.  Much of this is down to a misreading of what Direct Awards are about.

After the Intercity West Coast franchise procurement debacle, it was clear that DfT didn't have the resources to procure more than two or three replacement franchises a year.  So Franchise Director Peter Wilkinson brought out a schedule based on letting a steady flow of replacement franchises over the next five years.

This meant that some existing franchises would have to wait before they could be re-let.  While all franchises can be extended for seven accounting periods on the existing terms, the new schedule required periods of years.

And here is the important point.  For these extended periods, each Direct Award is based on an entirely new Franchise Agreement with new terms, conditions and funding arrangements. It is not an 'extension' of the old franchise.

While a Direct Award wipes the slate clean, it then writes a new set of obligations on the slate for the operator to meet. And several of the Direct Awards are based on preparatory spending for the replacement franchise to come.

**Complicated**

Given the criticism of the Direct Awards to date, I thought I would try to compare the subsidy or premium being paid with the equivalent numbers for what I am calling the 'old franchise'. DfT has released the subsidy or premium payments for each of the five Train Operating Companies covered by the current Direct Award franchises, but a direct comparison with the old franchise is complicated by a number of variables. Not least of these was the changes in Network Rail's Track Access Charges with the start of the new five year Control Period in April this year.

Having made that correction (explained for fellow regulatory wonks in the column), I then had to do the same for the Capacity Charge the TOCs pay per train mile. Just to give you a taste of the stuff I battle with, Capacity Charges for each TOC are broken down into a large number of individual service groups linked to the pressure on capacity of that section of route. First Great Western there has 42 separate Service Groups, each with its own Capacity Charge. And there are separate charges for weekdays and week-ends.

**Benefits**

Anyway, the end result was the subsidy or premium for the old franchise, based on today's charges. This allowed value for money to be compared.

But, remember, a Direct Award is a new agreement so we are not necessarily comparing like for like. For example Greater Anglia includes rolling stock upgrades in preparation for the subsequent replacement franchise. The Northern Direct Award agreement features significant additional expenditure. Virgin West Coast and SouthEastern are pretty much steady as she goes.

After this analysis I still reckon that Direct Awards are a positive development, offering money for value. When you've seen the numbers, let me know if you disagree.

**ScotRail's rolling stock bonanza**

When the award of the ScotRail franchise to Abellio was announced on 8 October my initial assumption was that the reference to '80 new trains', linked to the Edinburgh Glasgow Improvement Programme (EGIP), was a misprint for 'vehicles'. After all, how many four car EMUs would you need to provide the new service specified in Transport Scotland's Invitation to Tender for the franchise?

But I was soon put right. Hitachi does indeed have a contract to supply and maintain 80 of its new AT200 EMUs (described in the September Informed Sources). Not only that, ScotRail will also lease 27 re-engineered IC125 sets with shortened formations for the new Intercity services which will link Scotland's seven cities. Oh yes, and seven Class 321 units will also be leased for services around Glasgow. All this merited a little table of its own.

In terms of justifying rolling stock within a new franchise, ScotRail is an action replay of Thameslink Southern & Great Northern. In both cases 35% of the score in the bid evaluation was linked to quality.

How this works is that the quality score is given a monetary value which is subtracted from the subsidy required. So where, before the Wilkinson reforms, lowest subsidy/highest premium won, now the value of this quality improvement can offset the extra cost.

In the case of TS&GN it was explained to me that the case for the new trains for Gatwick Express and Class 313 replacement was marginal, but the quality factor gave Govia the confidence to go for it – and win.

Naturally I was attracted by the use of short formation IC125s to link Scotland's seven cities. With four or five coaches and two power cars these are going to be pocket rockets. Which brought a double benefit in scoring - once on the service quality upgrade and again on the benefits from reduced journey times.

All the ScotRail Mk 3 coaches will fitted with Chiltern-style power doors and Controlled Emission Toilets. While both Abellio and Transport Scotland danced round the question of where the IC125s would come from, the only available sets which could be available by the 2018 service date are those to be released from First Great Western as the Intercity Express Programme fleet enters service.

I show the current Greater Western IEP delivery schedule. For Abellio to have its 27 reengineered sets available by the December 2018 timetable, is going to need a delivery rate of around eight converted Mk3 coaches per month. Tight, but doable is my verdict.

**And finally**

Now for the lucky escape for readers mentioned at the start. On 1 October the Office Rail Regulation published its latest annual efficiency and finance assessment of Network Rail. This year it also included a review of how the company did in Control Period 4 (2019-2014).

Having gone through the assessment in detail, it is clear that even ORR and its reporters on the network don't really understand what is going on within NR. This uncertainty culminated in a 'Bohemian Rhapsody moment' when I came to the passage where ORR admits that is unclear on the detail of NR's offsetting 'other' savings but 'thinks' that it is a combination of lower prices and the impact of lower than required efficiencies.

'Thinks'? After four Periodic Reviews in the last 15 years, a permanent staff of 260 and annual budget of £30 million ORR only 'thinks'? The opening words of Queen's classic came to mind. 'Is this the real life? Is this just fantasy? Caught in a landslide, No escape from reality'.

I'll try to make sense of it next month. Yes, I know it's pretty dense financial stuff, but with NR under the cosh and government starting to wonder where the £35 billion it is putting into the industry in CP5 is going, we really do need to have a handle on the big spender's efficiency.

**Roger's Blog**

Thanks to all of you who, as requested in last month's blog, kept their fingers crossed on the night of the Chartered Institute of Logistics & Transport annual awards for excellence in October. Having fought off competition from my long-standing chums Christian Wolmar and Paul Clifton of the BBC. I emerged as Transport Journalist of the Year for the third time

It was a good night for railways with the Dawlish team of Network Rail and AMCO being honoured with the President's Award and Richard Brown receiving the Sir Robert Lawrence Award for his contribution of more than 35 years to the UK rail industry.

My previous awards were in 1993 and 2003 so I was a year late this decade. This was because I don't like losing, so enter only when I have written something that looks like a potential winner. Having reported the unravelling of London Underground's Sub Surface Lines resignalling contract in fortnightly bites in Rail Business Intelligence, and then as a lead item in Informed Sources, I was eligible for the special category for coverage of a running story.

Of course, up against a couple of heavy-weights I couldn't be sure. For once I found myself on the receiving end of the envelope opening ritual, fixed smile in place.

Also on our Table at the awards dinner was London's Transport Commissioner Sir Peter Hendy. Afterwards he came up for a congratulatory handshake, adding 'Can't say I thought much of the article that won it though'. I took this as a compliment!

After that excitement, the following week I had a couple of interesting meetings, one which is under embargo. The other was a discussion on rolling stock policy with the DfT.

Sadly, getting the November column to press on time meant that I had to forego the pleasure of an afternoon in Westminster watching the Commons Public Accounts Committee grilling the DfT Permanent Secretary on rolling stock procurement. But watching the video is a pleasure to come.

Even more sadly I had to give the IMechE Railway Division's annual reliability conference a miss for the same reason. But the research/writing balance was ever difficult to maintain.

Last week I did get out for a fun event. As an honorary Vice-President of Railfuture I get invited to join the judging panel for their annual awards. These include categories for things like user group newsletters and web-sites and. For the first time this year, a photographic competition. One entry was a super picture of Deltic in full flight, leaning to the curve at the head of a charter train. Did it win? My lips are sealed.

This week I'm meeting Chiltern for an update on the business and on Thursday it's off to Wabtec to catch up with the refurbishment and re-engineering market. It was Wabtec, of course which fitted power doors to the Chiltern Mk3s.

November starts with an interview with David Waboso, Capital Programmes Director for London Underground. It will be interesting to see if he agrees with Sir Peter on my SSL resignalling coverage and catch up with progress on the new contract.

The following week I may have the chance of inspecting Siemens' new train for Eurostar and the week after that it's off to Blackfriars for a progress report from SWT on the programme to increase capacity into Waterloo. This tends to get over-shadowed by the mega-projects like Thameslink and Crossrail, but is a mega-project in its own right.

And then, if it's the end of November it must be the Golden Spanners Awards at the Modern Railways Fourth Friday Club meeting (28 November). The 'Spanners' continues grow in popularity – this year we may even have a diesel engine on display!

I have also ordered an extra plinth for a wild card Golden Spanner, but I'm not sure what the category will be. The wild card spanner is meant to reward a depot whose equipment gets overshadowed within the five main classes. Previous wild cards have been for IC125 and Pacer fleets.

So once again it's time to order the spanners, get out the spray paint and Velcro and set up the trophy production line in the conservatory!

**Roger**