INFORMED SOURCES e-Preview March 2016

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This year's Rail Delivery Group annual conference was a showcase for the organisation's serious work which has tended to be overshadowed by its Panglossian defence of privatisation. Take the workshops, for example. At many conferences these get in the way of the business of the day and may even trigger my departure for an afternoon at the word-face back in the office.

But RDG's six workshops had me torn as which was the best of the morning and afternoon sessions, rather than the least worst as is often the case. So for the morning session I chose Regulation, which we cover in this month's Editorial. After lunch my decision was made for me when a senior chum came up and told me that I was duty bound to attend the digital railway session in an attempt to inject some reality.

WCML moving block haunts Digital Railway
Europe collaboration to determine definitive ETCS?
Draft' Enhancements Delivery Plan for consultation
Smart ticketing – DfT bows out.

In the event, apart from my usual protest that the 40% gain in capacity from ETCS is not supported by any experienced railway operator or signal engineer of my acquaintance, I spent an engrossing 40 minutes sharing some top level insights presented by Euan Clifford. NR's Head of Programme Engineering - Digital Railway.

What Euan made clear is that while the technical systems at the heart of the Digital Railway (DR) – the European Train Control System (ETCS), Connected-Driver Advisory System (C-DAS and Traffic Management(TM) all exist, NR still needs to ensure that 'we understand how this package of technologies work together'. As a result, NR is considering the use of the Norwich-Lowestoft/Great Yarmouth 'Wherry line' for a 'proof of concept' pilot scheme to demonstrate the integration of the three systems.

I queried whether, since TM demonstration suites I had played with included C-DAS as a modular option, did we really need another pilot? Euan was firm that 'we don't want to roll out something brand new and wonder why we can't do it; this is about building confidence'.

There is also a wider commercial imperative behind this need for reassurance. In my articles on the East Coast Main Line last year, then Route Director Phil Verster explained that making a business case for ETCS on its own was proving difficult.

Meanwhile from Holland comes the news that the national roll-out of ETCS is to be paused while priories are re-evaluated.
Slowing down the roll-out would allow the Netherlands to benefit from experience in other railways in Europe that committed to network-wide implementation of ETCS.

With one major European network reported to be also finding it hard to make a business case for Traffic Management on its own, Digital Railway is not alone in wanting to be confident that not only will the 'holy triangle' of ETCS, C-DAS and TM work together on a live railway, but also deliver the promised benefits.

Nailing down the definitive ETCS
This year sees the 20th anniversary of the publication of the European Directive which gave us the European Rail Traffic Management System (ERTMS) and its subset the European Train Control System (ETCS. But the definitive System Requirements Specification (SRS) which Network Rail and other European railways are hoping to use was not published until just before Christmas.

Starting from scratch ETCS has been making itself up as it goes along. What happens is that an SRS is issued and everyone with an interest spots omissions/flaws and sends in a Change Request.

These are considered and included/corrected as necessary, together with the closure of current open points (things the current version couldn't handle). Then the Version number moves up a decimal place and the process starts again

By 2008, SRS 2.3.0d had just been authorised and work was starting on what was expected to be the definitive version of ETCS known as 'Baseline 3' Network Rail used Version 2.3.0d (the 'd' stands for 'de-bugged')on the Cambrian Lines Early Deployment Scheme and it has now been installed on the central core of Thameslink.

Baseline 3
After Baseline 3 Version 3.0.0 emerged, it then took seven iterations, each introducing new Change Requests, to achieve the release version (Version 3.3.0) in March 2012.

A further four iterations resulted in Version 3.4.0 in May 2014. After a further four iterations, Version 3.5.0, which NR intends to use - was released in December 2015. This, too, will be subject to Change Requests leading to a possible Version 3.6.0 in 2017.

After 34 versions since 2009, what the European operators want is a stable version of ETCS they can get on and use. In an attempt to speed things up, Network Rail is hoping to sign a Memorandum of Understanding with ProRail - the Netherlands infrastructure operator - and Deutsche Bahn aimed at a joint approach to accelerating the establishment of Version 3.5.0 as the European standard.

With a big ETCS programme ahead NR sees the need to 'chivvy along' ERA. The MoU would see NR working with the other infrastructure operators with the aim of being able to present ERA with a 'European solution' for ETCS. Germany has been taking the lead in seeking to streamline the Change Request process and the proposed Memorandum of Understanding could add weight to this approach.

And, of course, nailing down Version 3.5.0 will be crucial to the proposed Wherry Lines Digital Railway pilot scheme, already mentioned above. As for fitment of ETCS on the Great Western and East Coast main lines, that seems to be moving to the right. GWR is still only at GRIP3.

Enhancements Delivery Plan out for consultation

Network Rail's updated Enhancements Delivery Plan fills in the detail behind Sir Peter Hendy's review of Network Rail's enhancement programme. With 170 pages to go through, you had to be persistent to dig out the serious stuff because, as Sir Peter pointed out when he

programme. With 170 pages to go through, you had to be persistent to dig out the schemes that were slipping because, as Sir Peter pointed out when he published his report, most of the schemes are going to plan.

What puzzled me when I finally got stuck in was a 'draft' watermark on each page. There are two reasons for this.

First, this is a consultation document designed to support the Department for Transport's consultation on the Hendy review. Second, any resulting changes to the outputs, obligations, scope or regulated milestones of a project, compared to the previous Enhancements Delivery Plan, will have to be approved by the Office of Rail Regulation.

Consultation closes on March 18 so if there is anything readers feel strongly about you need to move fast.

Following an analysis of the replies, DfT will publish a report summarising the responses and the Secretary of State's resulting decision on investment priorities. Following validation by ORR, the definitive updated EDP is expected to be published in 'late spring' (Informed Sources 3rd Law applies).

GWEP confusion

Of course, my first port of call in the updated EDP was to see what it said about the Great Western Electrification Programme (GWEP. Readers will recall that in the January issue I had some unkind fun at Network Rail's expense over a version of the Hendy Report which appeared fleetingly on the Company website.

This showed most of GWEP being delivered in CP5, with the exception of Didcot-Oxford and Filton Bank which would be substantially carried out in CP5 (1 April 2014- 31 March 2019 but completed in CP6 (1 April 2019-31 March 2024).

Within half an hour the correct version was in place, showing all the GWEP electrification delivered in CP5

So imagine my surprise when the updated EDP listed all the stages of GWEP with 'First timetabled public use of the infrastructure' shown as 'CP6'. So perhaps the 'wrong' versions really was the 'right version after all.

Getting deeper into the detail in the EDP reveals that Didcot-Oxford electrification is also contingent on the completion of the Oxford Corridor Phase 1 track re-modelling, signalling and associated civil engineering works. The indicative date for this Phase 1 infrastructure to be ready for use is May 2018. This seems to support talk of Didcot-Oxford not being wired until sometime after 2020.

Costs

So it still all looks worrying vague, and that's before we get down to costs. ORR informed sources reckon that the £2.5 – 2.8 billion cost of GWEP quoted by NR Chief Executive Mark Carne at the Public Accounts Committee hearing back in October is a rough estimate in response to a request for a 'not exceed' figure he could quote.

Officially, the £1.6 billion submitted to ORR in December 2014, and validated under the ECAM process, is the only credible figure. According to informed sources in addition to the ECAM process, this costing was also 'crawled all over' by the Department for Transport.

Confirming the current uncertainly, when asked for the Benefit:Cost ratio of GWEP 'on the latest date for which figures are available', Rail Minister Claire Perry replied: 'Network Rail is continuing to refine its work schedule for delivering the Great Western Route Modernisation programme and the Hendy Report is currently the subject of a consultation with stakeholders. A revised benefit-cost ratio for the programme will be produced after the conclusion of these important strands of work'.

It gets worse. When the wonderfully named Welsh MP Huw Irranca-Davies asked for the date when electrification to Swansea would be completed, Claire could only reply, 'I am sorry, but I do not have that completion date. As the plans proceed and the work accelerates on the electrification to Cardiff, I will be happy to make sure that the hon. Gentleman is one of the first people to know'.

Smart ticketing – let a thousand flowers bloom.

After last month's article it became apparent that there is considerable scope for confusion over what the various forms of smart ticketing can do. For example, in a recent speech, Claire Perry said that passengers wanted to be able to load a ticket onto their credit or debit cards – which would need an ITSO compliant chip adding to bank cards.

Several readers e-mailed me on how contactless cards would apply to long distance journeys, assuming a form of Pay As You Go which is also not on. So I start this item with a guide to the various types of smart ticketing and their limitations. I hope everyone finds it useful. I also have a feature article in this month's magazine on TfL's development of Oyster and Contactless.

Meanwhile DfT continues to bluster that the South East Flexible Ticketing (SEFT) scheme is not dead, and was indeed a huge success on the scale of the Bristol Brabazon. However confirmation of its demise came in a letter from Ticketing Queen Claire Perry to the Rail Delivery Group outlining the government's expectations for smart ticketing. Claire made it clear that future innovation 'could and should be led by the private sector'.

While bus and tram operators around the country have introduced a host of ITSO compliant smartcards, vying for the silliest name, one of the issues that sank SEFT was the inability of the Train Operating Companies to co-operate. Hence, within SEFT we have various South East operators with their own back offices and their individual cards with obscure names adding to the registry of daft nomenclature.

Sorry to bang on about names, but if you have a national rail network, if only in theory, then you need a nationally recognised card if passengers are not to be even more confused than at present. If all the operators adopted, say, 'RailSmart' as the generic name, the smartcard revolution would be a lot easier for passengers. Virgin could still have a red Virgin RailSmart card or Great Western a Brunswick Green Brunel RailSmart if they have to, but the card would be national.

End of rant. What was I saying? Oh yes, Claire Perry's letter. She thinks that the time is right 'for the rail industry to set out what it will do to deliver a real step change in smart ticketing'. In response, at its annual conference RDG outlined its aspiration to replace mag-strip with an application running on smartphones – in other word m-Tickets.

Developed by Masabi, m-Tickets have been around for a long time – Chiltern piloted them back in 2007. Most recently a pilot scheme has been running covering over 230 stations in the north of England, Scotland and the Midlands. The important thing here is that passengers have been able to switch between different train operators' services on a single journey. Over 40,000 tickets have been bought to date, including Anytime, Off-Peak, Super Off-Peak and Advance.

Mind you as the Trainline point out, there is more to it than displaying ticket and reservation details on your smartphone's screen. You will also be able to get 'live journey support', through your smartphone, such as real time train running updates and connections. That certainly gives m-Ticketing an edge over smart cards and contactless.

Feedback on readers' experience with smart cards in general, and m-Ticketing in particular, would be helpful.

Roger's blog
February has been quite busy. I had to miss the Rail Supply Group launch as I was collecting a new (second hand) car. Its dashboard ergonomics are already feeding into some work in progress on human factors on the footplate.

'Fast track to the future, setting out the new strategy for the UK's rail supply chain' has lots of worthy stuff on education and training, but is often confused on making things. Particularly puzzling/irritating is the claim that exports have 'gradually declined'. Analysis for my article back in the November 2015 Modern Railways showed that export performance was strong through the 1970s and 1980s then fell off a cliff after 1990.

A recurrent comparison is with the German railway industry which exports 50% of its output, including all those Desiros for Thameslink! It helps the German balance of payments that Germany builds trains in Germany with German bodyshells, bogies, traction packages auxiliary systems and so on.

While the slow decline theory is comforting, with the aspiration that it can be reversed progressively, loss of capability is an inconbenient truth. For example, we were strong in turnkey projects for metros and modernisation schemes. Now these are being handled by the European multinationals such as Alstom from their home organisations.

Last week, there was a briefing on the Victoria Line , including a visit to the control room and a cab ride. On Friday I was due to spend a day with the Great Western Electrification Programme team for an update on progress and a tour of the HOPS depot.

Two events are scheduled for March. My first, albeit reluctant, coverage of HS2, driven by its impact on the here-and-now railway, got me an invitation to a background briefing with the HS2 Operations Director.

Several readers got in touch with their alternative proposals for the High Speed network. Sorry chaps, I'm definitely not going there.

Coincidentally, the next day Virgin arerunning a media briefing, primarily on the West Coast franchise. It will be interesting to hear their views on 2026 and all that.

Later in the month, there's a conference on ETCS. I'm still pondering whether to attend.

So that's the month ahead. Workwise, I have two spreadsheets to update. First is the CP5 rolling stock requirements and orders, which I may save until the TransPennine Express deal for Hitachi AT300 bi-modes is made public. Second, readers keep dropping broad hints that an updated version of 'Who runs the railway' is overdue. True, and I must do something about it.

Roger