



# **Transmanche Metro 11th Core Executive Meeting Heerlen – 10 December 2013**

## Business Case for Transmanche Metro: objectives

- A better & more consistent international rail timetable at Ashford, Ebbsfleet and Calais
- a cross-border link between Kent & Nord Pas de Calais stations
- We have 5 reports from which to work
  - Phase 1 Report: Ingerop / Halcrow / MOT
  - Internal KCC Study on Eurostar Customers and Catchment area in Kent
  - Phase II Timetable Study: Robson's Rail Consultancy
  - Phase II Demand, Cost, Revenue & Legal Study: Ingerop / Latournerie
  - Phase II Ashford Spurs Re-signalling: ART Ltd

## Phase II Study Methodology – a quick reminder

- Five Transmanche Metro scenarios were developed. Robson's Rail Consultancy rejected three as technically unfeasible to timetable
- The two remaining options were retained for further study as they:
  - provide three all stations services each way each day.
  - only alter the current timetable between Calais Frethun and London to avoid capacity problems on the French high-speed line and at Lille Europe station
- Consultants Ingérop carried out a demand, cost & revenue analysis
- Latournerie looked at the legal situation should revenue support be required
- Advanced Rail Technologies looked at how new-build international trains could serve Ashford International Station safely.

## Progress

- Consultants' Final Report: Completed September 2013
- Project Review Day with rail & regeneration experts: Oct. 2013
- Business Case: Outline agreed and work in progress with aim of completion by Spring 2014
- Business Case: Present to politicians in Nord Pas de Calais, Kent and European Parliament in Spring 2014

## 3<sup>rd</sup> October Review Day: Our expert panel said...

- A credible concept
- Could be market tested at low cost to the operator
- Now focus on getting political and business ownership
- You might want to talk to the regulator
- And, above all
- **Tell the strategic story**

## Business Case: what does the draft structure look like

- The Strategic Case
- The Options considered
- Economic Appraisal
- Technical appraisal
- Financial Case
- Delivery Plan



# Business Case for Transmanche Metro



## Ashford Spurs - why is it so important?

- Identified as a key issue as part of Action WP2A2 because:
- Access to and from Ashford International is by UK domestic signalling only.
- For Eurostar, their new fleet will not be able to serve Ashford.
- This creates fleet planning limitations both for regular timetabling and for emergencies (e.g. replacement trains for breakdowns, having passengers disembark at Ashford during Tunnel emergencies etc)
- The new trains start coming into service in 2016 so this is a critical scheme to deliver before then

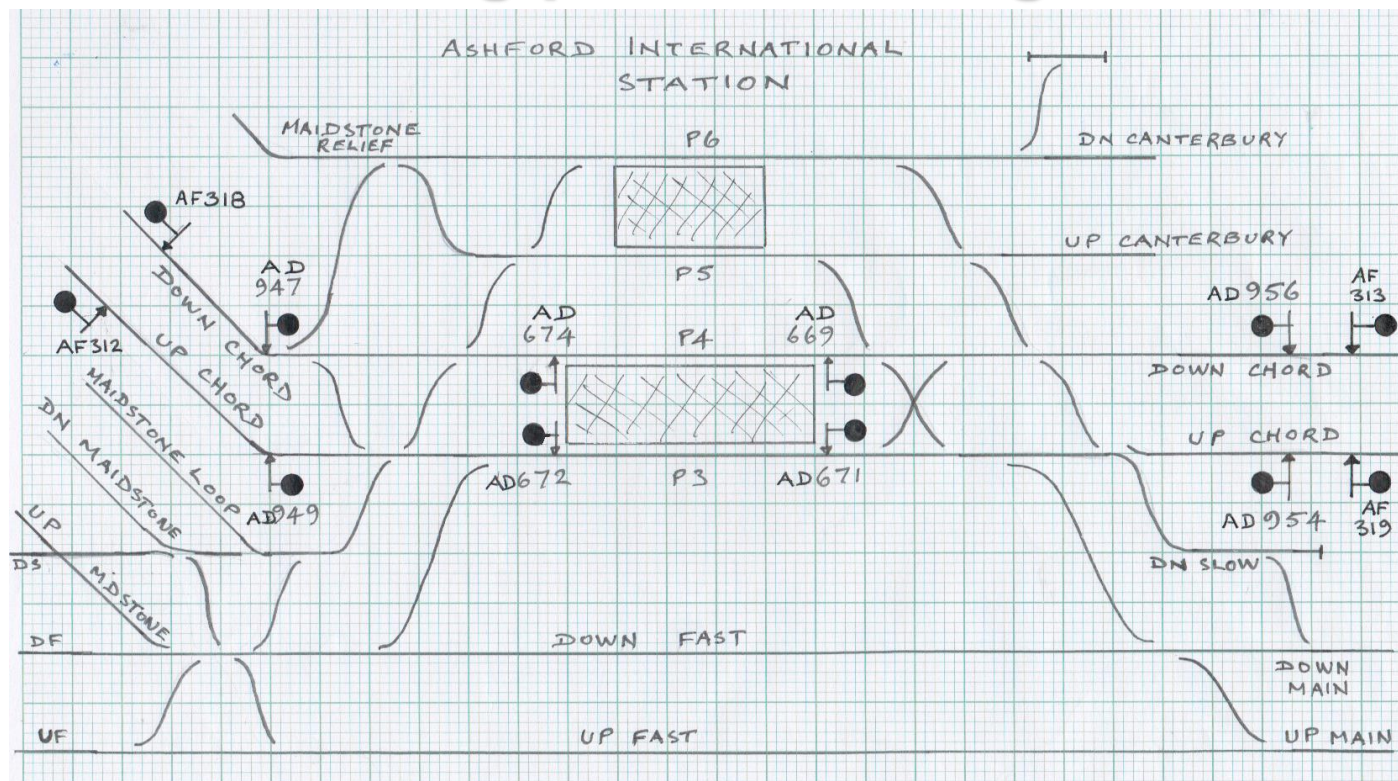


## Ashford Spurs Project – 3 phases

- **Phase 1:** consultants' report published September 2013 – recommends ETCS and KVB signalling as technically feasible. Notes that interoperability rules and EU financing possibilities go in favour of ETCS. Ashford Spurs Working Group in favour of proceeding to detailed development with ETCS.
- **Phase 2:** funding from stakeholders (50%) and EU RoCK project (50%) to fund Network Rail development work: **£520K**
- **Phase 3:** delivery of new signalling system on Ashford Spurs to be funded from UK (TBC) (50%) and EU (TBC) (50%)
- **We are seeking to complete Phase 2 within RoCK**



# Ashford International Station Track Diagram showing position of signals– ART Report



12 signals affected

- 8 on Network Rail

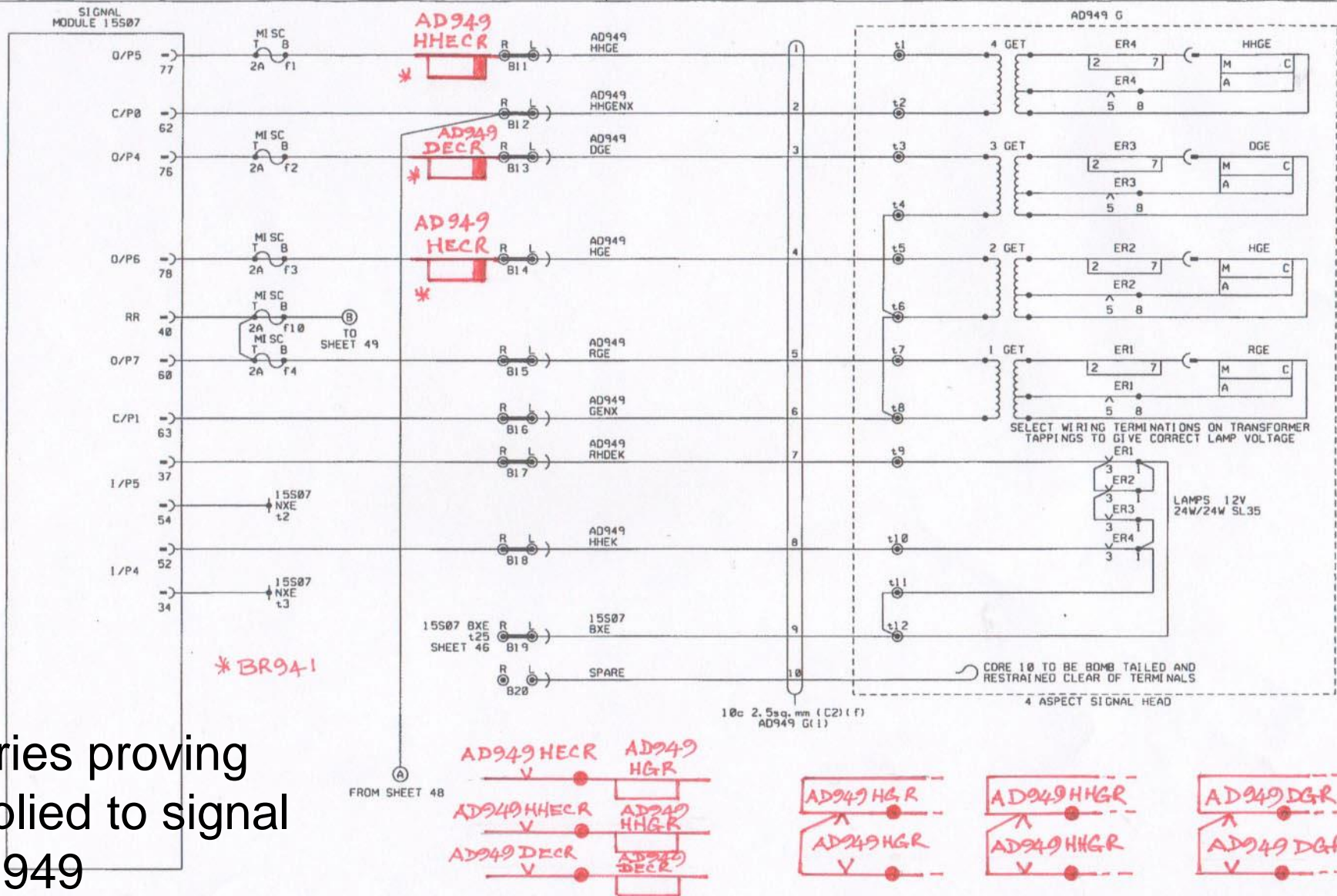
- 4 on HS1

## The key problem: how to get the information from the lineside signals to the train?

- ETCS Level 1 is a cab-based system that can be superimposed on the existing signalling system, leaving the fixed lineside signals in place. Eurobalise radio beacons pick up signal aspects from the trackside signals via signal adapters and telegram coders (Lineside Electronics Unit – LEU) and transmit them to the vehicle as a movement authority together with route data at fixed points
- **BUT...** ETCS Level 1 has not been applied to UK-style colour-light signalling anywhere in UK. This is ground-breaking, particularly for the interface between lineside signals and ETCS.
- ART has devised two possible options to take aspect information from the SSI TFM outputs into the ETCS LEU:
  - series (current) proving by the use of BR941 relays
  - parallel (voltage) proving by the use of BR966 F7 relays



# Series proving applied to signal AD949



TESTER NAME	SIGNATURE	DATE	ACTIVITY	COMPLETE	DATE	Source Record Updated
1			Prep. Inspection			Version
2			Prep. W.C. and Cont			NX1
3			Prep. S. & F./C.F.T.			Prod. PW
4			Cable core Loc. End			Check DH
5			Cable core Equ. End			
			Changeover Comp			

Railtrack Records Group		RAILTRACK	
ASHFORD		Drawing No 10BC-EL201-47	
ASHFORD WEST		Sht No 47	
LOCATION BC201 CASE C		Last Full Correlation	
AD949 SIGNAL CIRCUITS		Current Version	
Produced		Date	
Checked		Version	
Issued		NX1	

## Ashford Spurs – Development Work Profile

Activity	Cost £	Days Work
NR Technical approval of SSI interface circuits	304,000	147
Safety case approval of SSI/balise system	105,000	36
Scheme design	100,000	50
Approval for installation	10,000	10
	<b>519,000</b>	<b>243</b>

## Ashford Spurs – Funding Plan

	<u>£</u>	<u>£ EU</u>
—○ Kent CC	40K	40K
—○ Ashford BC	20K	20K
—○ HS1	20K	20K
—○ Eurostar	20K	20K
—○ ORR	160K#	160K
	<u>260K</u>	<u>260K</u>
—○ <b><u>Total development costs:</u></b>	<b><u>£520K</u></b>	
—○ # - ORR funding request in process but underwritten by KCC		

## Next steps forward ...

- Business Case to be completed and presented to RoCK CEM in Canterbury, May 2014
- Advocate the Transmanche Metro solution to Eurostar, rail industry stakeholders
- Present Business Case to politicians in Nord Pas de Calais, Kent and European Parliament
- Complete funding for delivery of Ashford signalling scheme
- Link all together to...



CONNECTING  
KNOWLEDGE BY RAIL

**Provide a regular International rail connection that  
also links Kent with Nord Pas de Calais**





## 12<sup>th</sup> CEM – Canterbury: 20/21 May 2014

- SO: on Monday 19 May 2014 ---
- Brussels Midi 16:56 (only train each day!)
- Ashford Int 17:38
- Coach link to Canterbury
- First Dinner: 19:30