



# Delay attribution review

ORR workshop

February 2019



# Housekeeping & structure of the day

*Pedro Abrantes (ORR)*

# Structure of the day

Time	Activity
10:30am – 11am	<ul style="list-style-type: none"> <li>• Introduction (Graham Richards, ORR)</li> <li>• Background, structure and scope of the review (Joel Moffat, ORR)</li> <li>• Delay attribution facts and figures (Tom Leveson-Gower, ORR)</li> </ul>
11am – 12:15pm	<p>Guest presentations:</p> <ul style="list-style-type: none"> <li>• Rules and governance (Mark Southon, Network Rail)</li> <li>• Systems and process (Alex Kenney, Network Rail)</li> <li>• An operator's perspective (Jim Pepper, LNER)</li> </ul>
12:15pm – 1pm	Lunch
1pm – 2pm	Breakout sessions for more detailed discussions on specific areas of delay attribution (All)
2pm – 3pm	Round-up and next steps (Pedro Abrantes, ORR)



# Introduction

*Graham Richards (ORR)*



# Background, structure and scope of the review

*Joel Moffat (ORR)*

# Background

- In PR18 we proposed to change the Schedule 8 measure passenger operator performance, from 'TOC-on-self' delay to 'TOC-on-TOC' delay.
- Stakeholders raised several concerns with the current delay attribution process, including:
  - ✗ issues with specific delay attribution rules;
  - ✗ effectiveness of the governance arrangements;
  - ✗ effectiveness of the dispute resolution mechanisms; and
  - ✗ the amount of industry resources the process requires.
- We decided not to implement our Schedule 8 proposal.
- This was to allow time for the delay attribution process to be reviewed and any improvements implemented before the start of CP7.

# Ultimate objective of the review

- The ultimate objective of the delay attribution review is to:

**Support improved network performance**

- We hope this will be achieved by:

Improving the understanding of the causes of delay

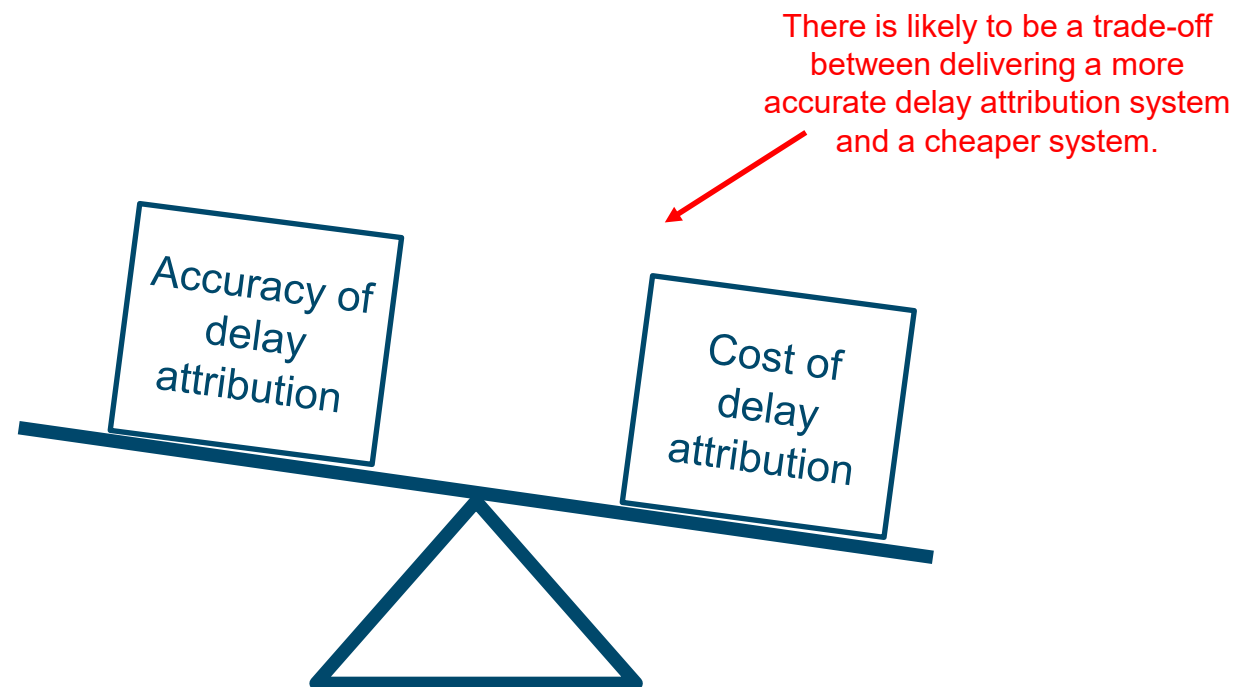
Facilitating future improvements to contractual incentives

Increasing industry trust and confidence in the process

Improving existing systems and processes

# Other objectives of the review

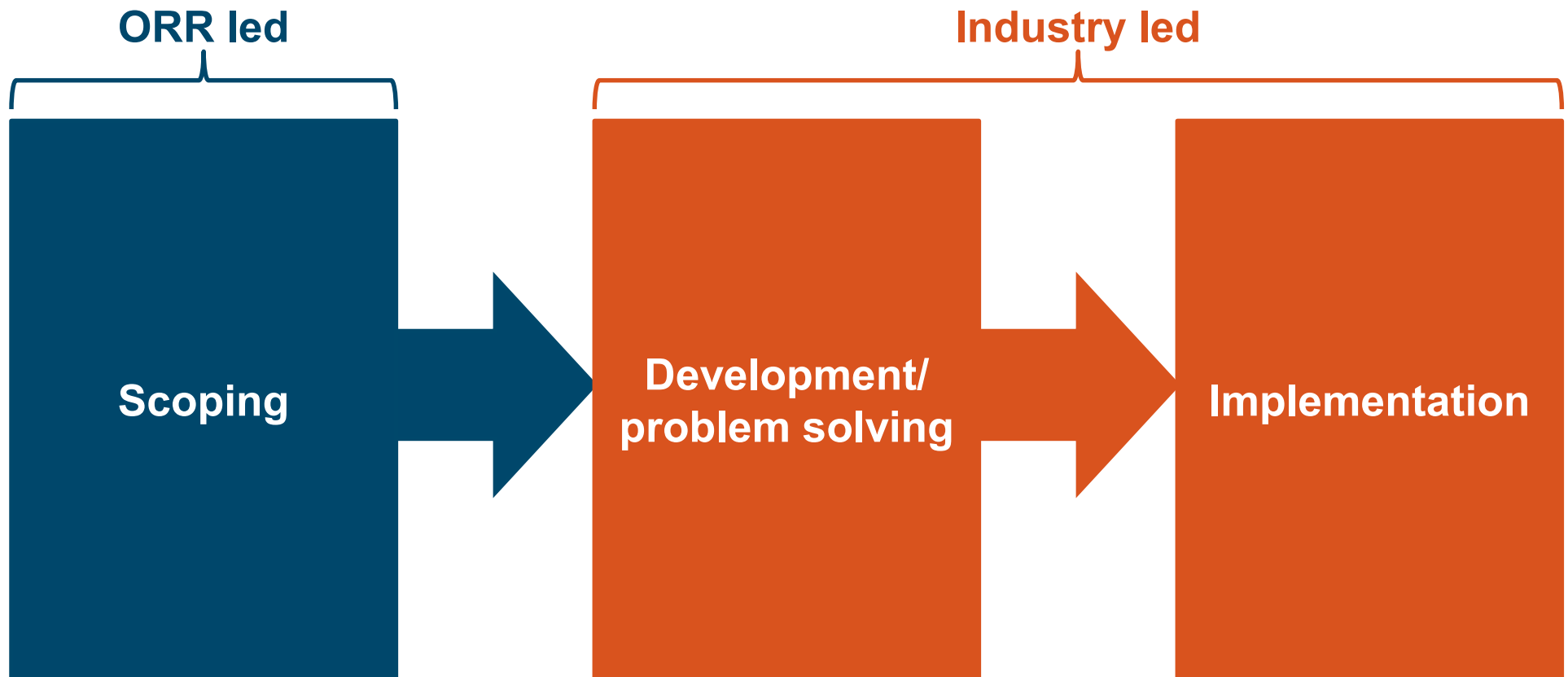
- A secondary objective of this review is to improve industry efficiency. For example, by:
  - increasing transparency of delay attribution;
  - reducing the cost of the delay attribution process; and
  - reducing the scope for, and the impact of, disputes.
- However:





# Plan for the structure of the review

- Our proposal is for the review to be split into three stages:



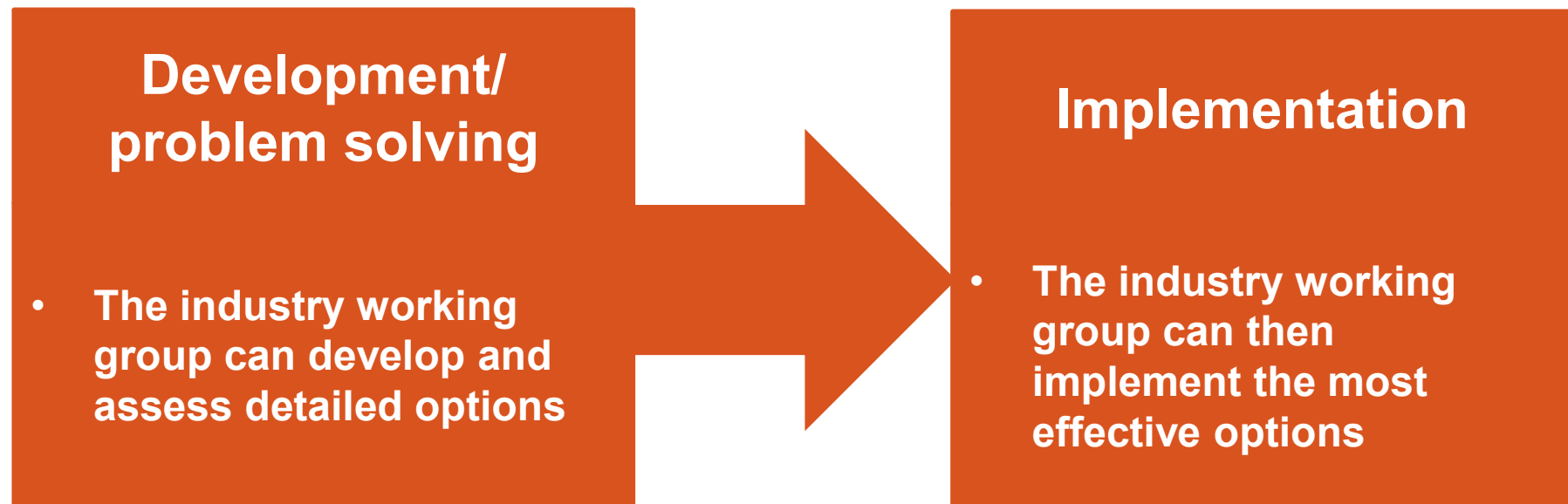
# Scoping stage

- The purpose of the scoping stage is to:
  - articulate objectives;
  - establish facts;
  - identify priority areas for improvement; and
  - suggest potential courses of action.
- This stage will be led by ORR, as part of this stage we will:



# Problem solving and implementation stages

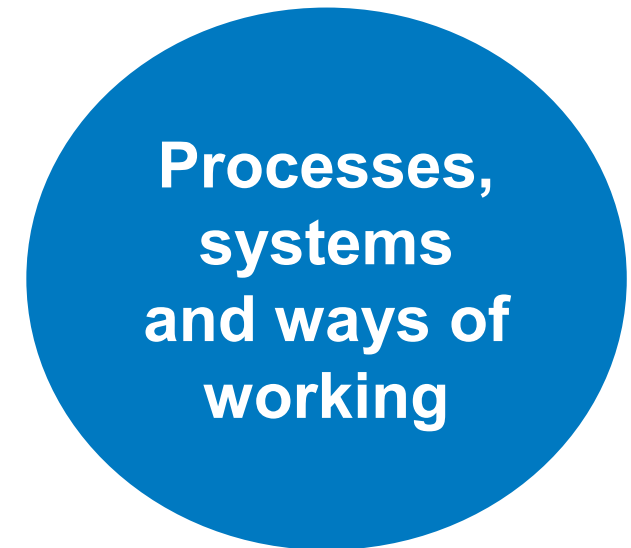
- Following the publication of our recommendations in June 2019 we expect the subsequent stages of the review to be led by industry.
- To facilitate the subsequent stages of the review we envisage an industry working group being set up. The industry working could then:



- The exact timing and approach for the subsequent stages of the review will be agreed with stakeholders in due course.

# Scope of review

- We propose to structure the review around the following three themes:



## ❖ Out of scope

- **Schedule 8:** Any potential reforms to the functioning of Schedule 8 are out of scope of this review
- But we will feed any relevant evidence into our early thinking as part of PR23.



# Guest presentations



# Rules and Governance

*Mark Southon (Network Rail)*

# **Delay Attribution Governance**

Mark Southon

Delay Attribution Specialist and  
Secretary to the Delay Attribution Board

# Back in Time...

Where it all began...

Train Performance Measurement became contractual with Privatisation in 1994 with the introduction of: -

The Network Code (specifically Part B) which sets out the Industry requirement for the:-

- Need to identify the cause of train delays and cancellations
- Delay Attribution Board (originally 'Shadow')
- Delay Attribution Principles and Rules (nee Guide); and
- Performance Data Accuracy Code

Track Access Agreements (specifically Schedule 8) which also set out the need for identification of the incident(s) causing each minute of delay of 3 minutes and over



# Delay Attribution Responsibility

**‘Well, it’s not mine...’**



**But why?**

# Schedule 8 Responsibility

Schedule 8, Paragraph 5 defines allocation of delay responsibility (simplified):

Network Rail is responsible for: -

“circumstances within the control of Network Rail in its capacity as operator of the Network”;

(whether or not Network Rail is at fault)

Operators are responsible for: -

“circumstances within the control of the Train Operator in its capacity as an operator of trains”

(whether or not the Train Operator is at fault)

There are also circumstances where responsibility can be shared:

“..affects the Network, or its operation, and prevents a Train entering or passing through a station at the time it is scheduled to do so; and prevents the access of passengers through the station to or from the Train;”

Contractually, attribution cannot be to Station, Depot, Terminal owners

Attribution responsibility can simply only be to ‘TRACK’ or ‘TRAIN’

# Delay Attribution Board

The Delay Attribution Board is an Industry body set up under the auspices of the Network Code and is remitted to provide guidance and assurance to the Industry on delay attribution issues.

The purpose of the Board is to **Lead, Advise and Monitor** on the effectiveness and accuracy of the delay attribution process and use of the Delay Attribution Principles and Rules and the Performance Data Accuracy Code.

# Who are the Board?

The Board consists of the Chairman, the Board Secretary and 12 Members.

The Members are appointed as follows:

- Six Members of Network Rail
- One Member for each of the three Bands of the Franchised Passenger Classes 1 to 3
- One Member for each of the two Bands of the Non-Passenger Class (Freight)
- One Member for the Non-Franchised Passenger Class (Open Access).

# Delay Attribution Principles and Rules

Previously the Delay Attribution 'Guide' – it was changed to 'Principles and Rules' in June 2017 to better reflect its contractual status as part of the Network Code.

The DAPR (and supporting Process Guides) are there to advise Industry on the correct attribution of Delay Codes and allocation of Responsibility.

Since its introduction the DAG / DAPR and supporting documents have grown to manage (and restrict) continued Industry challenges around interpretation and application.

The DAPR Statement of Good Practice sets out: -

*“For all parties to **work together** to achieve the core objective of delay attribution – to **accurately identify the Prime Cause** of delay to train services **for improvement purposes**”*

# Performance Data Accuracy Code

The Performance Data Accuracy Code provides governance and mechanisms for maintaining (and improving) reporting accuracy in TRUST by agreeing and notifying changes in standards, including the characteristics of Recording Points.

The aims of the PDAC are:-

- To define the standards of Measurements and Recording required for the Performance Monitoring System (TRUST); and
- To provide a process for managing the changes and alterations in measurement and recording.

# For Your Consideration...

When is attribution inaccurate or 'wrong'?

- When it goes against the Contracts or the Principles and Rules; or
- When it goes against common sense, opinion or when it's not fair?

Is capturing accurate data for improvement purposes top of parties' priorities given what other mechanisms the data is used for?

What does Industry actually want from the data – by its nature it cannot be everything to everyone and requirements often conflict.

Does Industry really want attribution to be consistent and accurate?

If so, should there be improved control and assurance for attribution to ensure we maintain accuracy and national consistency – and who should provide / enforce it?



# Systems and process

*Alex Kenney (Network Rail)*

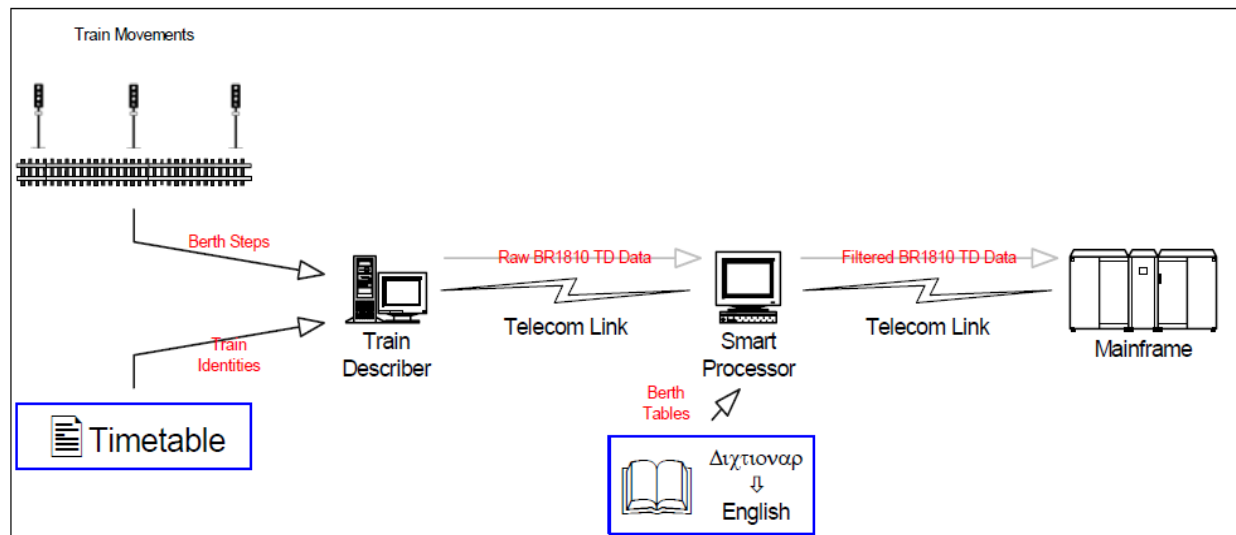


# **ORR Delay Attribution Workshop**

**Tuesday 19<sup>th</sup> February 2019**

**Alex Kenney - Network Rail Performance Process &  
Controls Manager**

## SMART- Signal Monitoring and Reporting to TRUST



- Train describers on the signalling panel transmit movement data as trains pass signals.
- The movement data is translated into a format that can be combined with the timetable data.
- The SMART processor then sends an input message to TRUST containing a time and the location it relates to.

## TRUST & TRUST DA

- **TRUST** – “Train running system TOPS” (TOPS – Total Operating System) - Live mainframe system which holds train running data and compares actual to timetable. (Holds full details for 8 days, then only incidents in dispute. Feeds most of the industry systems (PSS, BUGLE etc).
- **TRUST DA** - Delay Attribution application linked to TRUST
- Industry system which Network Rail manages on behalf of the industry
- Real time alerts (list of delays) of 3 minutes\* or more automatically populate on the TRUST DA Screen for the area staff are logged onto.
- Sub-threshold delays (below 3 minutes) will be investigated and attributed to explain above threshold delays.

\*Some Routes/operators alert delays of 2 Minutes but only 3 minutes and above are used in the Performance Regime.

Incident list - all zone/areas							
nc no	Heading	Del	Area	TRUST section			
105611	0z57 late start crewcsfl	MU	R10	CREWE			
105722	1b28 add ledburn jn ufl	M2	R06	LEDBURNJN	TRING		
104892	Lul bakerloo lates/capes 14/05	TX	R05	ELE&CASLT	QUEENS PK		
103388	1h35 w/screen wiper flt bcs	M8	R01	BICESTINTH			
097529	1e95 overtime carlisle	M8	R10	CARLISLE			
075528	T2008/69573 ql react 75524	QL	D12	STOKEWKJN	ABBOTWDJN		
105684	5m84 pantograph fault 313104	TB	H03	RICHMNDNL			
104878	Lorol nll ecs delays 14/05/09	TZ	H03	WILSDNJHL			
105579	Bdgc 100b bashed hart'bry srct	XP	R18	DROITWICH	KIDDERMIN		
105733	2h87 regd for 1s45 lancaster	ZZ	R10	LANCASTER			
105734	1j10 3 lost madeleyjn wellingt	TO	R03	MADELEYJN	WELLINGTN		
105735	6z09 caped prstndkst	MV	R10	PRESTNDKS			
105676	2c20 unit swap bsw	MS	R18	BHAMSNOWH			
105677	6m31 wtg docs banburyrs	AB	R01	BANBURYRS			
105728	6z14 late start crewe cs	AC	R10	CREWE			
105725	1g20 foll late 1m34 to ban	ZZ	R01	AYNHO JN	BANBURY		
105720	Item 36 possession preston	I6	R10	EUXTON JN	PRESTON		
105374	Bump reported up rd four ashes	IT	R03	STAFFORD	BUSHBURYJ		
104313	4l71 wtg driver ss north	FE	R10	WEAVER JN	BASFDHALL		
105528	1b21 3 lost kirkhmnjn preston	OC	R10	KIRKHMJN	PRESTON		
104782	Crcftgw ecs shunts ban 14/05	PL	R01	BANBURY			
053002	2w69 wtg guard wolvhmptn	OQ	R03	WOLVHMPTN			
050107	2w69 wtg guard wolvhmptn	OQ	R03	WOLVHMPTN			
105706	4m44 overtime kingmoor upl	Fw	R10	GRETN A JN	CARLISLE		
105664	2k11 download plt 7 new st	TB	R04	BHAMNEWST			
105703	0v60 caped wruis dep	FL	R01	WRUIS DEP			
Click on incident to select, double click to amend							
Delay list							
Train	Date	TRUST section	Report	U/a	Del	Description	Area
2D83	14	WILSDNJLL	HAR&WLDDC	1131	U	004	R05
1G21	14	STAFFORD	BUSHBURYJ	1130	U	006	R03
1M53	14	CARLISLE	PENRITH	1130	U	003	R10
1G18	14	DORRIDGE	TYSELEY	1129	U	002	R18

## Investigating & Attributing Delay

- 198 Train Delay Attributors (TDA) staff working 24/7 at 14 locations across the country.
  - TDA staff undergo 3 month training programme to become competent.
- Delay Attribution Principles and Rules is the 'rule book' for attribution.
- Alerts must be investigated to identify the cause before the delay is attributed to reason code and a responsible party.
- Attribution to 263 delay codes and 3160 Responsible Manager codes.

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105722	1b28 add ledburn in ufl	M2	R06	LEDBURNJN	TRING		
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105676	2c20 unit swap bsw	MS	R18	BHAMSNOWH			
105677	6m31 wtg docs banburys	AB	R01	BANBURYRS			
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053002	2w69 wtg guard wolvhmptn	OQ	R03	WOLVHMPTN			
050107	2w69 wtg guard wolvhmptn	OQ	R03	WOLVHMPTN			
105706	4m44 overtime kingmoor upl	FW	R10	GRETNA JN	CARLISLE		
105664	2k11 download plt 7 new st	TB	R04	BHAMNEWST			
105703	0v60 caped wruis dep	FL	R01	WRUIS DEP			

Click on incident to select, double click to amend

Delay list							
Train	Date	TRUST section	Report	U/a	Del	Description	Area
2083	14	WILSDNJLL	HAR&WLDDC	1131	U	004	R05
1621	14	STAFFORD	BUSHBURYJ	1130	U	006	R03
1M53	14	CARLISLE	PENRITH	1130	U	003	R10
1618	14	DORRIDGE	TYSELEY	1129	U	002	R18

## Investigating & Attributing Delay

Investigations include;

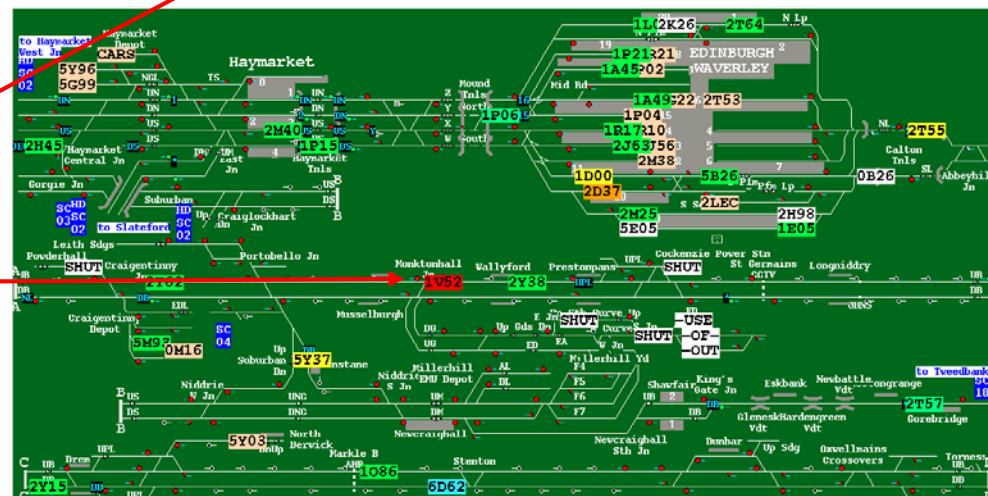
- **Replay CCF, interrogation of TRUST, Tyrell, information from Controllers and Signallers, Train diagrams and Train Operator personnel.**
- **Responsible Manager reviews attribution, carries out further investigation and determines whether to accept or dispute.**

16 minute late start at Edinburgh alerted to TDA - due to late inward stock

5 minute loss in running also alerted – due to losing path and following on time 2Y38

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TCTRW87  T R U S T  TRJE Enquiry Output  15/02/19  13:26  Page 1..
COMMAND ==>
TRUST Report for Train 041V52M615  Recvry  Minutes  Delay  exp  Unexpl
Delay Status at 13:25 15/02/19      Time    Late    mins  -----
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```

Station	Time	Event	Time	Minutes Late	Delay mins	exp	Unexpl
EDINBURGH	04303	at EDINBURGH	04303	16	16		
EDINBURGH	04303	to MNKTNHALJ	04730	18	2	16	2
MNKTNHALJ	04730	to DREM	04821	1	22	5	
DREM	04821	to DUNBAR	04827	22			
DUNBAR	04827	to GRANTSHSE	04834	21			
GRANTSHSE	04834	to MARSHALLM	04838	1	20		
MARSHALLM	04838	to BERWICK	12001	21	arr	1	1
BERWICK	12001	to BELFORD	12106	21			
BELFORD	12106	to ALNMOUTH	12112	21	arr		
ALNMOUTH	12112	to MORPETH	12132	22	arr	1	1
MORPETH	12132	to HEATONSJN	12710	1	22		
HEATONSJN	12710	to NCASTLCEN	12931	22	arr		

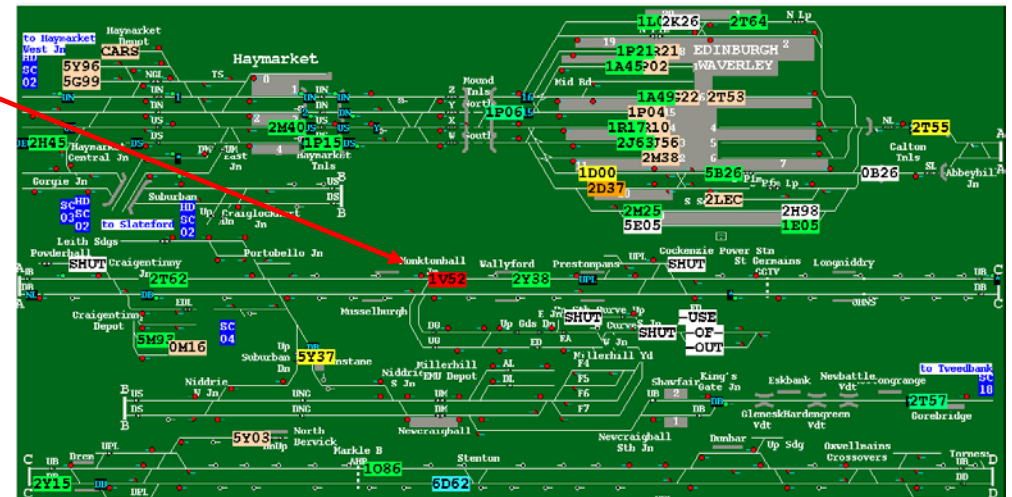


## Investigating & Attributing Delay

2 Minutes unexplained would not be alerted but if investigated would be due to following on time 2Y38

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TCTRW87  T R U S T  TRJE Enquiry Output  15/02/19  13:26  Page 1..
COMMAND ==>
TRUST Report for Train 041V52M615  Recvry  Minutes  Delay  exp  Unexpl
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EDINBURGH	04303	to MNKTNHALJ	04730	18	2		2
MNKTNHALJ	04730	to DREM	04821	1	22	5	5
DREM	04821	to DUNBAR	04827	22			
DUNBAR	04827	to GRANTSHSE	04834	21			
GRANTSHSE	04834	to MARSHALLM	04838	1	20		
MARSHALLM	04838	to BERWICK	12001	21	arr	1	1
BERWICK	12001	at BERWICK	12001	21			
BERWICK	12001	to BELFORD	12106	21			
BELFORD	12106	to ALNMOOUTH	12112	21	arr		
ALNMOOUTH	12112	at ALNMOOUTH	12112	22		1	1
ALNMOOUTH	12112	to MORPETH	12132	22	arr		
MORPETH	12132	at MORPETH	12132	25		3	3
MORPETH	12132	to HEATONSJN	12710	1	22		
HEATONSJN	12710	to NCASTLCEN	12931	22	arr		



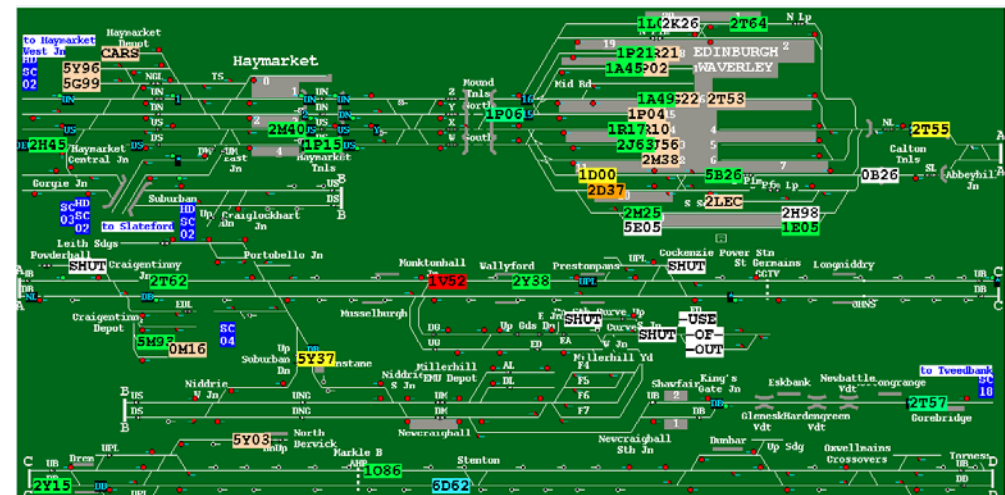
## Investigating & Attributing Delay

- Other 1 minute unexplained delay again not alerted.
  - Possibly station dwell time issues.

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TCTRW87  T R U S T  TRJE Enquiry Output 15/02/19 13:26 Page 1..
COMMAND ==>
TRUST Report for Train 041V52M615 Recvry Minutes Delay exp Unexpl
Delay Status at 13:25 15/02/19 Time Late mins -----
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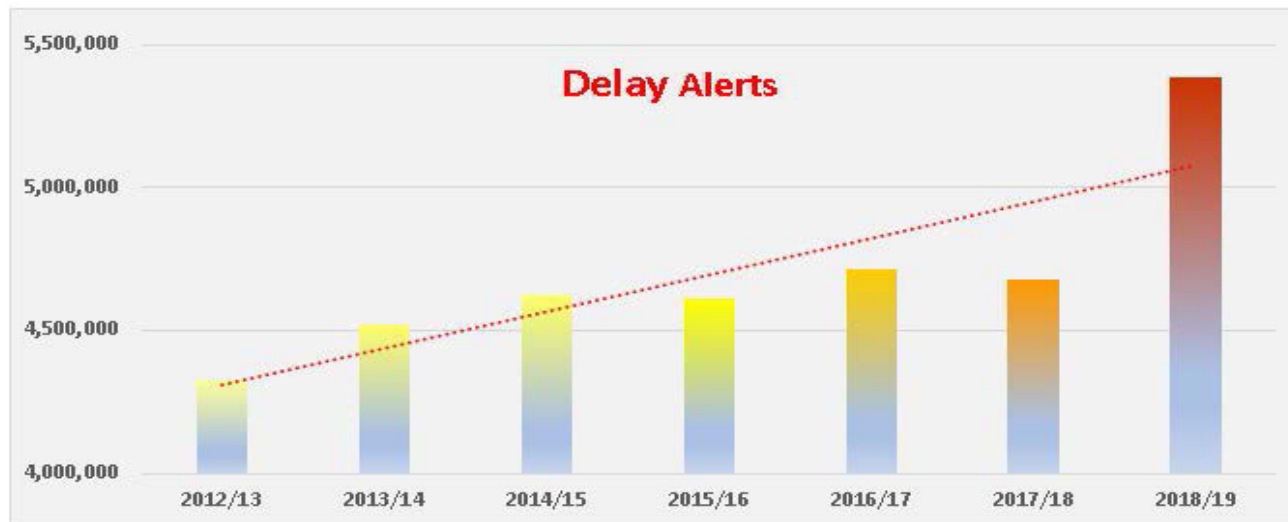
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DUNBAR	04827	to GRANTSHSE	04834	21			
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MARSHALLM	04838	to BERWICK	12001	21	arr	1	1
BERWICK	12001	at BERWICK	12001	21			
BERWICK	12001	to BELFORD	12106	21			
BELFORD	12106	to ALNMOUTH	12112	21	arr		
BELFORD	12106	at ALNMOUTH	12112	22		1	1
ALNMOUTH	12112	to MORPETH	12132	22	arr		
ALNMOUTH	12112	at MORPETH	12132	25		3	3
MORPETH	12132	to HEATONSJN	12710	1	22		
HEATONSJN	12710	to NCASTLCEN	12931	22	arr		

- Un-investigated and Unexplained delay is an industry wide issue which has received negative publicity in recent weeks.



## Workload

- **5,384,092 Delay Alerts in the 13 Periods up to P10 2018/19**
  - Over a million more than 6 years ago
  - A 24% Increase nationally with some Routes experiencing much higher increases
  - 75% of delay alerts are reactionary delays

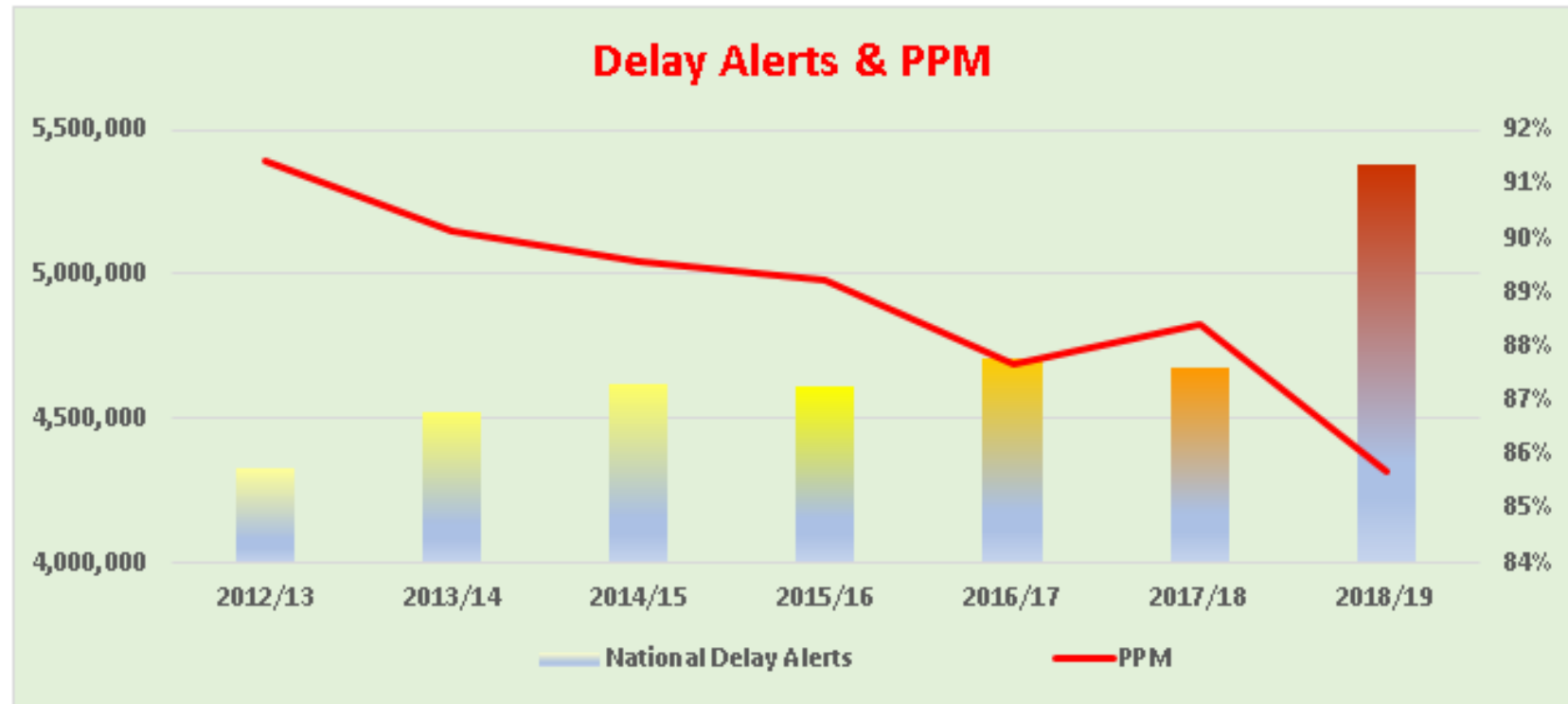


- Important to remember that it isn't a uniform increase across the Routes and on any given day.
  - **Also that it isn't Delay Attribution that is driving this – Delay Attribution isn't to blame!**

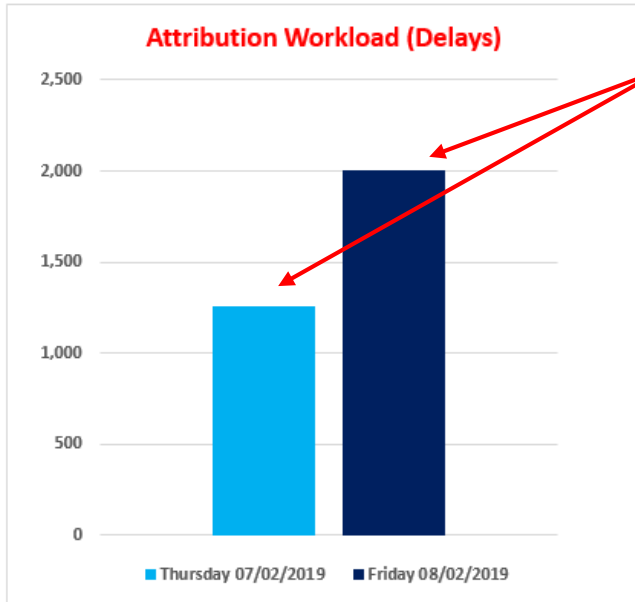


## Delay Alerts & Performance

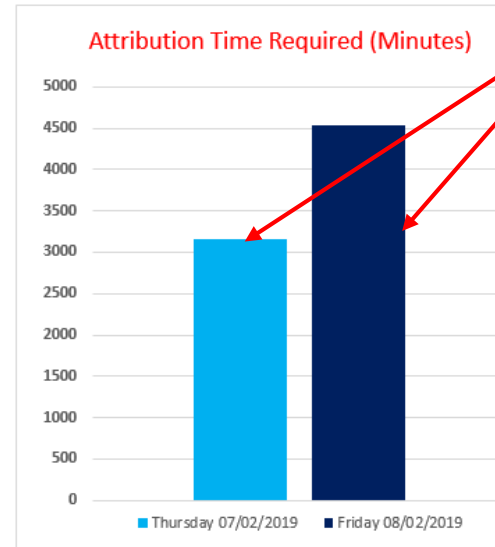
There is a clear correlation between Delay Attribution & Performance.....



## Route Workload – 7<sup>th</sup> and 8<sup>th</sup> February 2019

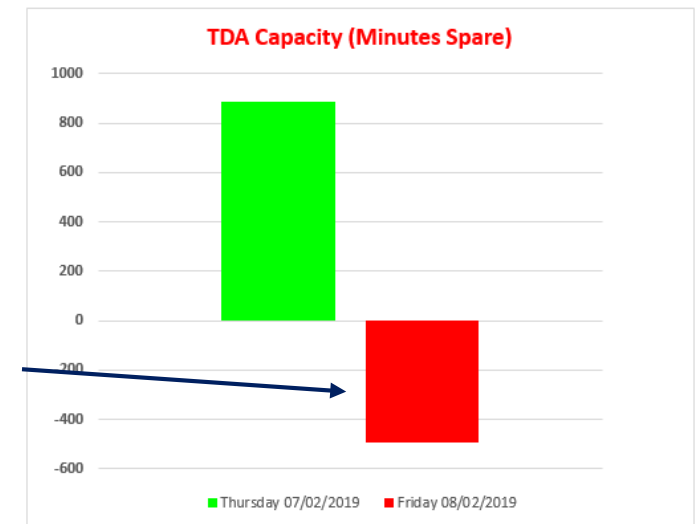


**A 59% increase in workload when comparing Friday 8<sup>th</sup> February to the previous day**



**Unsurprisingly there is a corresponding increase in the time required to attribute the delay. (The increase is slightly less at 44%)**

**DA capacity (the amount of time rostered v's the volume of work) moves from being in surplus on the Thursday to a deficit on the Friday....**



# Summary

- TRUST has worked well since privatisation.
- Volumes of delay alerts and incidents are at an all time high.
- There has been a linear increase in the number of disputes – they too are at an all time high.
- Not all disputes should be seen as a negative but as a means of data quality and assurance.
- More staff isn't necessarily the answer.
- DA gets a lot of bad press but its not all bad!

We can and should improve areas such as....

- Information flows and communication.
- Remove nuances in the DAPR – the size of a bird!
- How we allocate delay, particularly reactionary delays. For example..
  - Automation and hard coding resulting in...
    - A huge reduction in workload & therefore pressure on personnel.
    - A reduction in disputes.
    - More sub-thresholds delays attributed.

Finally, we need to maintain accurate DA to drive performance improvement.



# An operator's perspective

*Jim Pepper (LNER)*



# Breakout sessions

# Breakout session discussions

## Governance

This covers governance structures, including ownership of delay attribution systems and dispute resolution powers and procedures.

## Principles and rules of delay attribution

This area covers issues with specific rules and definitions.

## Processes, systems and ways of working

This is related to the processes and systems used to measure delay on the network and provide information underpinning the delay attribution process.

### Questions to consider

- What do you want out of delay attribution? How well does the current framework meet those objectives?
- If there was one DA rule you could change, what would it be?
- How satisfied are you with the existing dispute resolution procedures?
- Do you consider the current delay attribution systems to be sufficiently accurate?
- Do you consider the resources allocated to delay attribution to be proportionate to industry benefits?
- Can you tell us of any specific proposals that you believe would improve delay attribution?



# Round-up and next steps

*Pedro Abrantes (ORR)*

# Next steps

- Below sets out the immediate next steps in the delay attribution review.

