

COMMUNICATING DIGITAL SIGNALLING

A RESEARCH STUDY CONDUCTED FOR TRANSPORT FOCUS

24/07/2023





WHAT THIS REPORT INCLUDES

1. RESEARCH OBJECTIVES AND METHODOLOGY
2. A REMINDER OF PASSENGER EXPECTATIONS OF DISRUPTION COMMUNICATIONS
3. COMMUNICATING THE “WHAT, WHEN, WHY” OF DIGITAL SIGNALLING
4. HOW TO LAND THE MESSAGE
5. APPENDIX



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Signalling a new era of train travel.

The East Coast Digital Programme is delivering the next generation of train travel – creating a better performing East Coast Main Line for passengers and everyone else who uses and depends on it

ECDP / ECML



Recapping the objectives

At its heart, this project is about understanding how much information, and what type of information is valued by passengers in relation to the planned upgrade work required as part of the transition to digital signalling

More specifically, there is a need to understand:

- To what extent passengers understand the changes that are taking place and how these might benefit them
- How these benefits should best be communicated to them
- Their perceptions on whether there any downsides to this transition
- To what extent they do, or need to, differentiate between wider engineering work on the East Coast Main Line
- How they would assess progress given it's not customer facing in nature, and how much they want to know about the progress taking place

6X 90-MINUTE FOCUS GROUPS AND 6X 60-MINUTE TELE-DEPTHS WITH THOSE WHO ARE DIGITALLY EXCLUDED / DIGITALLY DISENGAGED

Specification

- **Travel frequency:** participants ranged from the frequent to less frequent travellers
- **Age:** younger and older travellers
- **Journey purpose:** a mix of commuters, business and leisure passengers
- **Journey length:** research included those travelling on both short and longer journeys
- **Usage:** all use the ECML
- **Small/large stations:** research included both small and large origin/destination stations

Logistics

- All depth interviews were conducted via phone
- All focus groups were conducted online via the “Incling” platform
- All fieldwork was conducted between **Wednesday 28th June 2023 and Monday 11th July 2023**

Type	Operator	Journey purpose (most frequent journey)	Other factors to be included
6x Focus groups	LNER, Lumo, Grand Central, Hull Trains	x2 Leisure (x1 Longer Distance / x1 shorter distance) x1 Business/Commuter	<ul style="list-style-type: none"> • Long and short distance journeys • Mix of travel frequency • x6 to have a disability (cognitive, sensory and mobility) • A range of different socio-economic groups • Ethnicity
	Great Northern, Thameslink	x1 Commuter x1 Leisure x1 Business/Other	
6x depth interviews	Mixture	Mixture	<ul style="list-style-type: none"> • 6x less digitally confident including those digitally disengaged and digitally excluded

01

Once explained, Digital Signalling sounds like a “no brainer” or a “game changer”

Although passengers initially had low to no awareness of the digital signalling programme, once it was explained to them it became “obvious” that the system needs to be upgraded

Passengers assume that the signalling and driver information is digital in “this day and age” and there is a need to bring the system up to international standards

02

Upgrade works of this scale are expected to result in disruption over a long period

There is an acceptance that large scale upgrade works will take months, if not years, to complete

Passengers make parallels with other recent projects e.g. Elizabeth line, Thameslink restructure through the core, HS2 as examples of the length of time and disruption expected

03

Passengers want to know how the upgrade works will benefit them, not just the driver

The driver having additional information has clear benefits but it is less clear how these benefits will translate to the passenger

Improved punctuality and reliability make intuitive sense to passengers as a benefit of an improved information system for drivers. In addition, reliability and punctuality are key benefits that passengers want to see on the train network

04

Safety, more efficient trains, and job creation are secondary benefits

These additional benefits are important, but they are not immediately obvious or clear how they relate to improved digital signalling

These benefits require additional explanation to ensure passengers understand and, in some cases, can raise additional questions and concerns about the existing system and the new digital signalling



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Delays and disruption are almost a cultural expectation when travelling by train in Britain with regular periods of disruption

Passengers expect a degree of disruption when travelling by rail, whether that is planned disruption or unplanned

Whether traveling primarily for leisure or business, almost all passengers claim to have experienced some degree of disruption recently with a wide range of reasons given for such disruption:

- Planned closures due to upgrade or engineering works
- Faulty trains
- “Signalling issues”
- “Shortage of train crew”
- Fatalities on the track or passengers taken ill
- Strike action

There is some data to support this perception of frequent disruption, with 68.2% of recorded station stops in Great Britain arriving “on time” in Q1 ‘23, which is 4.3% lower than Q1 ‘22, in addition to days of strike action

There is a degree of reluctant acceptance that “it is what it is” and that it is the responsibility of the passenger to check ahead or leave a considerable “margin of error” when travelling by rail

As such, awareness of disruption due to *planned upgrade* or planned engineering works can be lost in the wider context of disruption and cancelled trains and passengers are not always sure as to the reason for their disruption

“The impression I get is that there’s always something being done that impacts where I want to go”
LNER, Shorter Distance,
Leisure

“It’s to be expected these days”
Great Northern/Thameslink,
Leisure

Passengers were unclear on exactly what had caused their recent experiences with *planned* disruption

Few claim to know exactly what is happening behind planned disruption or engineering works and the specific work that is being done – especially when there are no visible changes at stations

There can be an understanding that work is “going on” and know where it’s focused e.g. the nearest main station, but not always exactly what the upgrade work is or why, or if it is “standard repairs”

Passengers can “join the dots” between their experiences of delays and issues, to a need to upgrade systems and improve infrastructure. In addition, there is an expectation that there is an on-going workflow of upgrade, repairs and improvement works on the railway

As such, there is an acceptance of the need to upgrade the track and improve systems to try and improve punctuality and reliability of the service. Passengers can appreciate there is a need for upgrade and improvement works

The lack of information about how improving punctuality and reliability is being addressed can be frustrating. Passengers claim there would be greater acceptance and understanding of planned disruption if they knew why it was happening and for how long

“There’s often planned engineering works but I’m never sure what they’re doing or why they’re doing it”
Great Northern/Thameslink,
Commuter

“I never know what the reason is. If it was communicated more effectively, I think it would be easier to cope with those delays”
LNER, Business/Commuter

Although the majority of upgrade, improvement and infrastructure work is unknown, some programmes are known to passengers but this is limited

Only four programmes were spontaneously mentioned and named: HS2, Thameslink Core, Elizabeth line, and EastWest Rail including new stations at Cambridge

There is a potential implication here: if the context for “branded” upgrade works and large-scale infrastructure changes are at this scale, passengers anticipate a similar level of disruption

Any improvement works “smaller” than this, might be expected to be part of general “improvements” to the line and the network

These upgrades have been heavily publicised in national media, online, through TV news and local news, radio, announcements, at station posters and information, potentially due to the scale of the upgrade works, and the long period of time for the works to be completed

This sets expectations for how they will hear about the Digital Signalling upgrade and the scale of coverage about the works and demonstrating the value of the project to passengers



“I’ve heard of HS2 but I’m not sure where it’s got up to”

LNER, Shorter Distance, Leisure



“I heard of some a while ago, but I don’t know if it’s a line. There’s works near Cambridge and near Huntingdon as well... There’s a lot of planned works at Cambridge”

LNER, Shorter Distance, Leisure

PASSENGERS GET INFORMATION IN A MYRIAD OF WAYS

As we have seen and heard in previous research, many passengers use multiple channels to find out about potential disruption and information

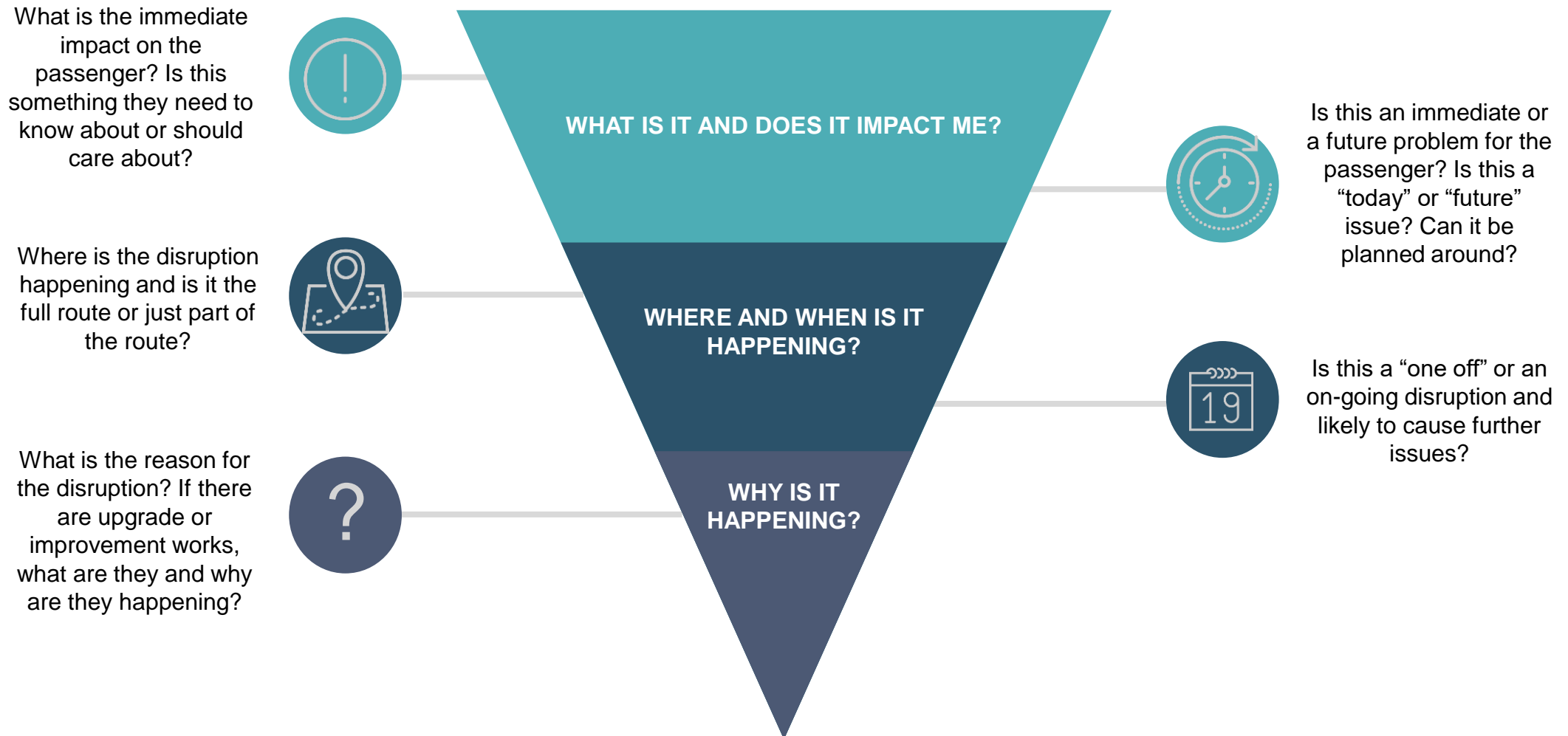
	Ahead of travel	Day of travel
At the station	<ul style="list-style-type: none"> Information provided minimum of 1 – 2 weeks ahead of time via posters and displays Advised of upcoming disruption when purchasing same day tickets as part of their routine (“did you know next week...”) 	<ul style="list-style-type: none"> Staff members on the platform, in the ticket hall/ office <ul style="list-style-type: none"> Posters or notices at ticket machines Route advice on a ticket machine <ul style="list-style-type: none"> Announcements Posters Adverts/ videos/ digital displays
Outside of the station	<ul style="list-style-type: none"> National and local media (depending on scale) including newspapers, local news, TV Email alerts and advance warning Advertising e.g. targeted adverts on YouTube/ Social media/ OOH posters “Warning” or alerts when booking via app/ online and alternative routes suggested 	<ul style="list-style-type: none"> Push notifications via apps (Network Rail, LNER, TfL, Trainline) <ul style="list-style-type: none"> Text message alerts Email alerts and reminders if ticket already booked “Warning” or alerts when booking via app/ online and alternative routes suggested Local radio alerts/ traffic updates/ local news reports or TV news

“I would like to see information on a screen at the station and joined up across the network”
LNER, Shorter Distance, Leisure

“It’s better to have alerts and things to your phone, not just a poster at the station”
Great Northern/Thameslink, Commuter

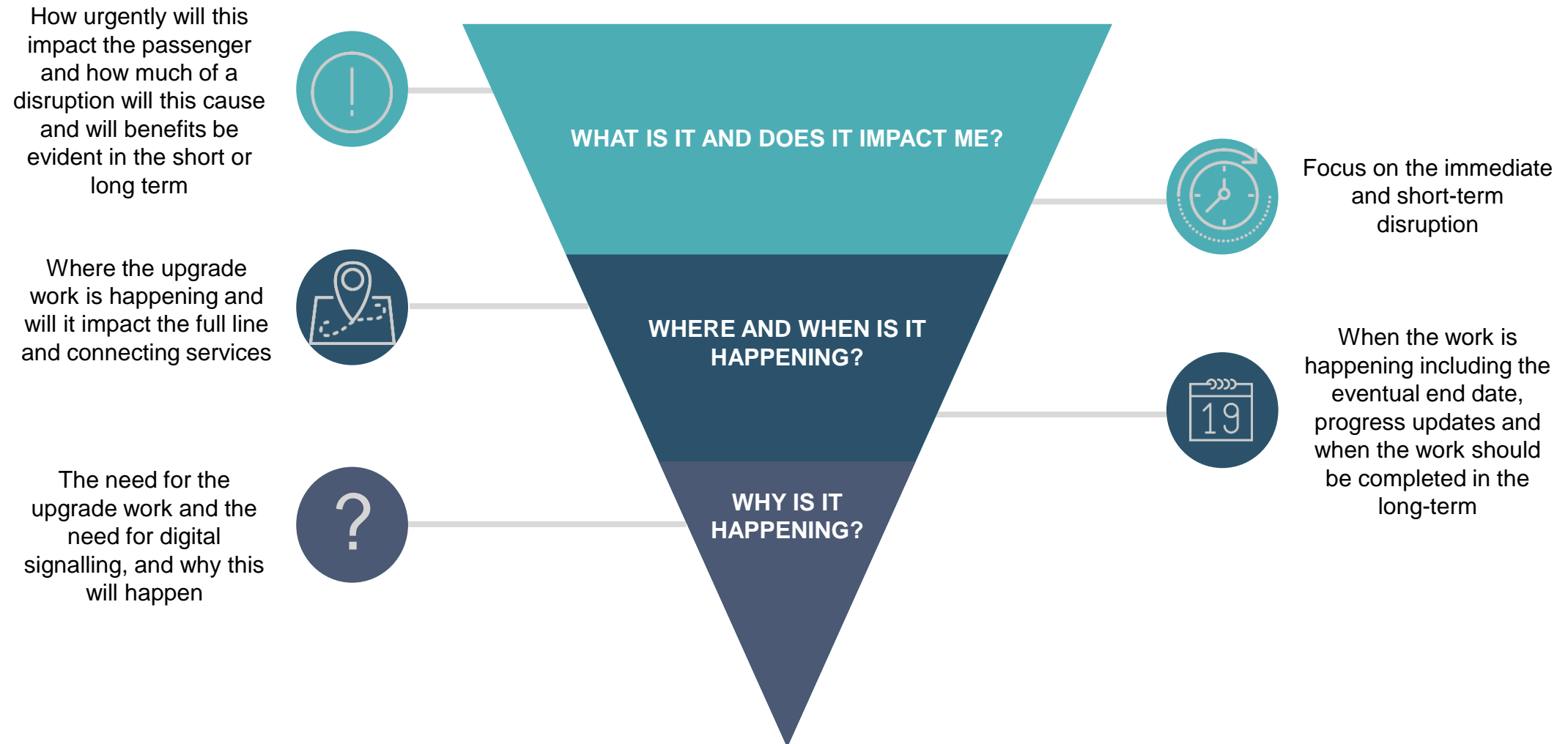
THERE IS AN ESTABLISHED HIERARCHY OF “NEEDS” FOR DISRUPTION COMMS quadrangle

The first priority for passengers is the immediate impact on them, and their journey. Once that has been understood and resolved, additional information about *why* the disruption is occurring can be considered



WE NEED TO CONSIDER HOW DIGITAL SIGNALLING FITS INTO THIS HIERARCHY quadrangle

Communicating to passengers about the upgrade works needs to fit within this hierarchy and highlight the important and key information





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Digital signalling is a new topic for passengers with very low prior awareness which presents both an opportunity to set expectations, and a challenge to create awareness

There is a strong desire from passengers to avoid the “nasty surprise” of disruption when arriving for their train; knowing if they will be impacted is the first question passengers have about digital signalling

At present, and despite the recent 24th and 25th June closure of Kings Cross and work at Potters Bar, few if any passengers were already aware of the digital signalling upgrade programme

It is a challenge to engage “cold” passengers and to ensure they understand; the majority of passengers are not technically minded or engaged in the nuances of train travel, railways and how the system works

In addition, passengers are busy people, and have low mental bandwidth to take on and take in new information on a topic that can instinctively feel technical and that “doesn’t matter” to them – such as the intricacies of exactly how the rail network works and the nature of engineering works

The name and logo can present a challenge to awareness and understanding as there is the potential for miscommunication. “Digital signalling”/ “digital programme” and the “Wi-Fi” style logo can imply the programme will be about improving digital connection on trains or providing Wi-Fi to the passenger

There is a need to ensure that any use of “digital signalling” is included with context, rather than isolation

DOES IT IMPACT ME?

“I didn’t really understand it, I thought it was about improving signals to passengers at first”
Great Northern/Thameslink,
Leisure



“Digital could be about anything. It looks like a Wi-Fi signal”
Great Northern/Thameslink,
Commuter

In addition to the basic level of engagement with Digital Signalling, we observed differences between audiences and their immediate, and more considered, reactions:

DOES IT IMPACT ME?

<h3>Age of passenger</h3> <p>A minority of older audiences expressed confusion, distrust and uncertainty with the idea of digital signalling, with younger audiences typically more open to change and have benefitted from other infrastructure improvements</p>	<h3>High confidence and familiarity with technology</h3> <p>Those working in the technology industry, IT or engineering expressed concerns over the amount of “checks” and security that would be in place, querying if back-ups would be in place and how the system would be checked and maintained</p>	<h3>Low confidence and familiarity with technology</h3> <p>Digitally excluded audiences and those more digitally disengaged due to low confidence have an inherent distrust of technology and consider it hard to understand, taking away jobs and causing more problems than it solves</p>	<h3>Frequency of travel on the line</h3> <p>High frequency travellers appear to be more concerned and engaged in the topic, especially those who have experienced long periods of upgrades due to the Elizabeth line and Thameslink improvements over the last five years</p>	<h3>Type of journey</h3> <p>Commuters were concerned about the impact if works would take place during the week, however, with enough notice, many could work from home. Those travelling for leisure believed they would need to alter their plans and potentially be more disrupted</p>
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“Maybe I’m ignorant, but I think a lot of people my age wouldn’t understand it either”

LNER, Shorter Distance, Leisure

“I know about tech so I don’t trust it because I know these things. Will there be a back up or a failsafe? How rigorously will it be tested?”

Great Northern/Thameslink, Commuter

“I’m not very techy I don’t really know about these things or understand them”

LNER, Longer Distance, Leisure, Digitally Excluded

“But this is my line! Wait, what is going on?”

Great Northern/Thameslink, Commuter

“I was only going to see a mate so I just didn’t go and I’ll see them another weekend”

LNER, Longer Distance, Leisure

Although passengers question if they will be impacted *now* they also want to know if that will change in the future and have on-going information

As the upgrade programme is on-going, passengers expect to receive regular updates on progress and additional information

Even if the work does not immediately impact them, if there is the *potential* for the work to impact them in the future, passengers want to know well in advance

In addition, these regular updates could help to make passengers feel more engaged with the work and feel that this is something they should know about and care about

Passengers suggested several ways they would want to receive these on-going progress updates and information:

- Tactical information at ticket offices and at ticket machines (or when purchasing online) with the next dates of disruption and alternative routes or alternative transport outlined
- Posters at the station including photos from the latest upgrade works, a map showing the location of the last and the next upgrades
- A timeline and where the upgrade works are on the timeline – and ideally showing the works ahead of schedule or an explanation as to why they are behind schedule
- TV, local radio and local press with updates and information
- Animations and videos at stations on CIS or advertising spots

This would help passengers to understand what works are happening, when and what the impact on them is in both the short and long term

DOES IT IMPACT ME?

“I’d like to know where they’ve got to and where on the line they are upgrading next”
LNER, Business/Commuter

“It should be on the radio, we have it on all the time at work so you hear about things happening through that”
Great Northern/Thameslink, Leisure, Digitally Disengaged

“Keep announcing it as well, don’t just do it once and think ‘Oh, that’s it’ they need to give us constant reminders that this is happening on the line and maybe do a big rollout as well, put it on TV”
LNER, Longer Distance, Leisure

This is when their mental processing starts to move to the next two layers of the funnel: what is the short-term impact, and the long-term?

THE SHORT-TERM IMPACT

What is happening, and can I complete my journey?

- The impact in the short term can be highly emotional and even stressful if it is unexpected, it triggers System One thinking and immediate processing of the problem in front of them
- Passengers in a highly emotional and stressed state are likely to struggle to take in and retain information – their immediate mindset is resolving the problem in front of them rather than the deeper reasons and rationale as to why the situation has occurred
- Passengers want basic questions answered in the short term:
 - Will it impact me the next time I travel?
 - How can I complete my journey if so?

Once these are resolved, passengers can shift to System Two thinking and start to take in additional information

DOES IT IMPACT ME?

THE LONG-TERM IMPACT

Why is this happening, and when will it end?

- Once the immediate questions and problems are resolved, passengers shift into System Two thinking and are in a frame of mind to take in new and additional information about why the upgrade works are needed and the potential long-term impact
- Understanding the long-term impacts enables passengers to plan ahead and avoid a “nasty surprise” at the station
- Knowing the upgrade works are continuing for the long-term helps to create a habit of checking that trains are running before leaving for the station
- When in this more rational and considered frame of mind, passengers are open to bigger questions:
 - What are the upgrade works and why does the railway need them?
 - What will be the long-term benefits?

This context is important to build acceptance and understanding of the need for disruption

THERE IS AN EXPECTATION DISRUPTION WILL BE AT WEEKENDS

Passengers believe that the majority of planned engineering work currently happens as weekends. Therefore, weekend disruption is expected, even if it is not always preferred

Passengers understand that either weekday or weekend will be inconvenient to someone, even if not them. Overall, there was a small observed preference for weekday disruption, but this would need to be validated quantitatively

WHERE AND WHEN IS IT HAPPENING?

	Weekday disruption	Weekend disruption
Perceived benefits	<ul style="list-style-type: none"> • Many, but not all, passengers can work from home given enough notice • More likely to have alternative transport running or possible e.g. local bus services, Overground / Underground services in London 	<ul style="list-style-type: none"> • Leisure travel is often discretionary and can sometimes be rearranged, but this is not always the case • Minimises impact to commuters and those traveling for business – especially those who are unable to work from home e.g. retail workers, NHS, teachers
Perceived downsides	<ul style="list-style-type: none"> • Potential for disruption to overrun • Alternative routes are busier and not always available • Cost implications / loss of value in pre-booked tickets or season tickets • Can disrupt leisure travellers and business travellers travelling during the week 	<ul style="list-style-type: none"> • Disruption does not always finish on time and can cause unexpected delays and problems on Monday morning • Can start on Friday evening/ disrupt last trains unexpectedly causing passengers problems getting home

“Either weekday or weekend so long as I know. If it’s in the week I can work from home that day”
LNER, Business/Commuter

“There is never a good time for engineering works. Even if they happen over the weekend, they can be extended into Monday and affect people’s morning commute”
Great Northern/Thameslink, Business/Other

This is a large-scale programme that passengers expect will take a long time to implement and deliver from start to finish

WHERE AND WHEN IS IT HAPPENING?

Based on the wider context of other upgrade works, there is an expectation that the work will take “months and years”

Passengers can appreciate and understand that this is a long process and will take time to complete

There is a begrudging acceptance of this but passengers still express frustration that the work cannot be completed faster or with less on-going disruption

Older passengers in particular reference past works completed “overnight” or with “whole lines closed” and question why this work cannot be completed this way

“First trains...in 2025”

Can sound relatively soon and close, however, this is just “phase one” and as such, passengers question if the work will only really be “getting started” in 2025

2025 is sooner than many passengers expect and it is a pleasant surprise to hear that at least *some* progress will be made in that time frame

Again, the context of other long delayed works (e.g. HS2) can make this timeframe sound quick – potentially quicker than is realistic for the rail network to achieve

“The timescale of 2025 is surprising as it’s so close to now”

LNER, Longer Distance, Leisure

“End of the decade”

In contrast, “end of the decade” sounds like it is further away than seven years and a considerable length of time to endure disruption

Passengers suggested using alternative language such as a “10-year plan” or “by 2030” as an alternative way of communicating the same time frame but in a “softer” and more approachable way

In addition, “decade” is not always quick and easy to understand – passengers have to do the “maths” of when, and how far away it is

“End of the decade? Which decade?”

Great Northern/Thameslink, Leisure

Passengers question the rationale for why only part of the East Coast Main Line and not the full line

WHERE AND WHEN IS IT HAPPENING?

Passengers do not always realise they are travelling on the East Coast Mainline and it can take time to realise that their route will be potentially disrupted due to the works

Once that is understood, the question remains about why it is *only* happening on the Southern section of the line rather than the full line, especially for those who live North of Peterborough and use the line less frequently e.g., occasional business travellers or leisure travellers using long distance LNER services

Any communications will need to include maps of which routes will be potentially impacted by the upgrade works, even if their “start point” is not near to Kings Cross

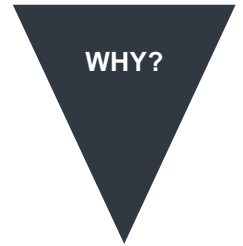
Passengers who are benefiting from improvements to City Thameslink as part of their commute or from the opening of the Elizabeth line recognise that these large infrastructure projects do bring passenger benefits in the long term that is “worth” the level of disruption. However, both of those improvement works are seen as having had problems opening on time and with subsequent delays, closures and issues. There is perhaps some “upgrade fatigue” from these passengers anticipating “yet more” disruption to their lines

Ideally, communication needs to be targeted, personalised and localised so that it is clear what the impact will be, both in terms of disruption and potential benefits

“The improvements to Thameslink have been a gamechanger but are we about to be disrupted again?”
Great Northern/Thameslink, Commuter

“I travel down from Edinburgh to see friends, I’d need to know if I couldn’t get into London or if we were going partway the line would be shut”
LNER, Longer Distance, Leisure

NOT ALL DETAIL IS NEEDED, DIGITAL SIGNALLING IS A “NO BRAINER”



There is broad acceptance of the need for digital signalling to be installed once the rationale is explained

Of that rationale, there are four key things that stick in passengers' minds about digital signalling including how to explain and describe it to others



MANY PASSENGERS ARE SURPRISED THE SYSTEM IS NOT ALREADY DIGITAL

The fact that signalling still uses a system of trackside “traffic lights” rather than constant in-cab communication is a surprise to many passengers

The fact the system is not digital surprises, especially when considering the improvements to communication with other forms of transport such as smart motorways and in-car Sat-Nav

When explained, and combined with the key statement that the system is over 100 years old, the current system is clearly outdated and requires modernisation

Passengers expect that there is ongoing upgrade work happening that they do not normally hear about, and they understand that the network is at a point where it needs to be fully updated rather than just continue to “patch up” the existing system for longer term stability

Using language like “state-of-the-art” or “a new era” is, however, contradicted by the fact that the system is in place already in Europe and if it will not be implemented until 2030, by then it is unlikely to be “state-of-the-art”. Language such as “up to date” could be a better fit and match expectations

In addition, the fact that the trains are enabled for digital, but the track is not can appear to be “a waste” and evidence that the system needs to be “joined up” otherwise the investment in digitally enabled trains will have been wasted

Passengers claim they do not need to know the detail of how digital signalling works or how it will look in the cab, all they need to know is that the system **is over 100 years old, outdated and needs to be upgraded**

WHY?

“I had no idea the system was so archaic”

Great Northern/Thameslink,
Commuter

“Trains will be better, everything is moving towards a digital way of working and trains should be no different. I’m hoping this should create a more efficient railway for the future”

LNER, Shorter Distance,
Leisure

VISUALS HELP EXPLAIN THE CURRENT SYSTEM AND THE NEED FOR CHANGE

WHY?

Participants were asked to watch “The Time is Now” video ahead of their session. Passengers claim that this video makes it clear and easy to understand how the signalling system works now, and how digital signalling would be different

Visually showing how the signalling system works now using coffee, sugar, milk and stirrers makes it easy to understand

The majority of passengers only really hear the term “signalling” in the context of delays: “held at a red signal”, “signalling problems”, and very few know how the current system works or why it needs upgrading

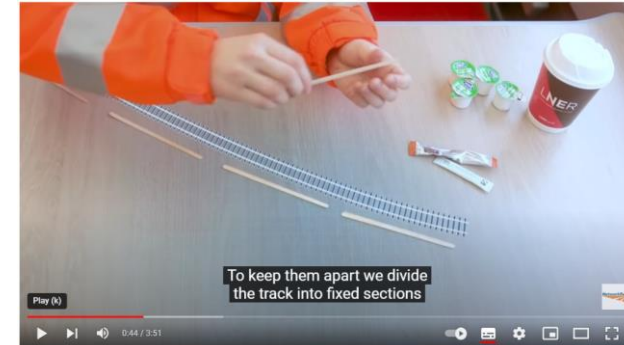
The visuals help to explain what the current system is and support passenger understanding by making the current system clear without feeling technical or complicated:

- There are fixed points and an inflexible system
- Signals are only available by having lights at staggered points.
- Limitations of the information available to the driver

It is worth noting the majority of passengers claim to not need a level of detail about the current system beyond this visual explanation. It makes the problem clear: **an outdated, inflexible system that is not up to date with modern technology**

Using a similar visual or system in future communications can help to clearly explain in essence, what the system is now and why it needs to change. Understood in this way, it becomes obvious that there are more modern and up-to-date ways of trains communicating with the track and with other trains

Given this context, the majority of passengers agree with the need for “modernisation” and upgrading the system to provide more information to the driver



THE BENEFITS THAT RESONATE RELATE TO THE PASSENGER EXPERIENCE

Improved punctuality and reliability are the key benefits that passengers want to see from upgrade works. The current service is not considered to be reliable or punctual and so any improvement here is a benefit

Although most of the immediate benefits of digital signalling relate to the driver, passengers want to know about why they should care – what’s in it for them

Passengers’ attention was grabbed by goals and benefits focused on improved reliability and a more punctual service. This addresses a current pain point and issue with train travel, improving this aspect can be worth the disruption if it will genuinely lead to a better service. However, the idea of a more “resilient” system is harder to understand and communicate, and for many, is part of offering a “more punctual and reliable” service

There is a danger that it can sound “too good to be true” and passengers question why if these benefits can be delivered, why hasn’t digital signalling happened sooner

In addition, it can feel like an acknowledgement that the current service is not reliable and punctual and that the train operating companies have identified this as a problem and are looking for a solution. This is a positive message for passengers

Passengers want to know that the “why” isn’t just about improvements to the line, but improvements to their journey and their experience as well

Combining this with the key information about the upgrades could have potential: **the current system is outdated which can cause delays, upgrading to digital signalling will improve punctuality and reliability**

WHY?

“The parts about it being more punctual and reliable stand out to me”

LNER, Longer Distance, Leisure

“Punctuality with trains has been an issue for a long time, this would create a lot more positivity about the train system”

LNER, Shorter Distance, Leisure

SECONDARY BENEFITS RELATE TO THE DRIVER AND THE WIDER WORLD

WHY?

Improved safety on the track, job creation, better access for freight and greener trains are all appreciated but are secondary considerations and benefits compared to punctuality and reliability

Improved safety on the track

More information earlier about dangers on the track can clearly lead to a safer system. Passengers appreciate that the track is safe, but systems can always be improved and made safer

However, mentioning safety can remind passengers of past tragedies and issues e.g. derailments, crashes, fires, which causes concern

How this could improve safety for the passenger themselves *on the train* was less clear and less convincing

Job Creation

In the current economy and with strikes over pay deals, fears over job losses and recession, anything that offers job creation is a benefit. There can be some questions about what sort of jobs and for how long

There is also a watchout that mentioning jobs can make passengers question if those currently involved in signalling or drivers will lose their jobs due to the changing technology. Reassurance is required that jobs *will not be lost* as well as *jobs created*

Green, efficient, and sustainable

Passengers require additional explanation as to why digital signalling will be greener and cleaner. The links to better braking/ acceleration and emissions is not clear and can feel overly technical and complicated

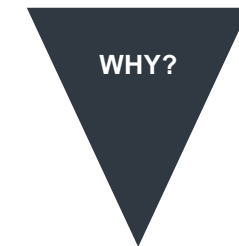
There can be concerns over “greenwashing” and there is a desire for any “green” claims to be substantiated. Overall, although this is an important message, it is a secondary message for most passengers

Freight and other track users

Passengers are aware that freight services use the track, but it is not high on their radar and does not strongly resonate as a benefit. It’s a “nice to know” rather than a “must know”

A small minority of passengers expressed concerns that additional freight services could cause congestion or potential delays, especially on busy or “bottle neck” points

A MINORITY HAD CONCERNS ABOUT DIGITAL SIGNALLING



Although the majority feel positively towards digital signalling, some fears and concerns emerged that would need to be addressed through an FAQ, supporting information or as part of a communications campaign

Why make changes for the sake of it?

Challenge: to convince and persuade that the disruption will be worth it for the improvements

Countered by: evidence of inefficiency, how other infrastructure has changed since the Victorian times and how the system is overwhelmed

What if the technology fails?

Challenge: passengers see and experience issues and problems with technology in their daily lives

Countered by: evidence of how well the system works in other markets and how it will make the system more reliable compared to how often there are failures now

What if the system can be “hacked”?

Challenge: fear of security problems from individuals who seek disruption

Countered by: reassurance of how well tested the system is, the codes it meets and standards, if there is an equivalent e.g. “even more secure than...”

Will people lose their jobs?

Challenge: the cultural expectation is that technology removes jobs, especially in blue collar roles

Countered by: claim that the signalling upgrades will increase jobs including how many, for how long, and where. Reassure drivers will still be required

Will it cost more?

Challenge: backdrop of rising costs and inflation with the expectation that “the public” will have to “foot the bill”

Countered by: reassure that the budget for works is not connected to ticket prices and where the funding for the work will come from

“I think some technology is going too far and they are making changes because they can”

Great Northern/Thameslink, Leisure, Digitally Excluded

“What if there’s a glitch?”

LNER, Longer Distance, Leisure, Digitally Excluded

“There must be a risk of the technology being hacked or coming down, there’s always an element of risk”

Great Northern/Thameslink, Commuter

“People might lose their jobs, like the signallers and people on the system now”

Great Northern/Thameslink, Commuter

“What you haven’t said is how much this is going to cost us”

Great Northern/Thameslink, Business/Other

Their concerns appeared to be rooted in two main issues: concern over the encroachment of technology, and potentially finding it harder to access information about upgrade works and disruption

THE ENCROACHMENT OF TECHNOLOGY

Do we really need it?

- There can be a perception that “the internet” and “technology” is “taking over” almost all parts of everyday life – whether they want it to or not
- This can also lead to a concern that technology in some instance is “going too far” and is not always a force for good, causing problems for individuals and society at large
- There is a distrust in the reliability of technology, whether from it failing due to “glitches”, “something going wrong” or simply becoming out of date and no longer working
- Considering the drivers are trained on the current system and will need to be retrained, some of these passengers questioned if all train drivers will be able to retrain to use the new system
- In addition, as the system has been working relatively well for many years, they can question if the conversion to digital signalling is really needed or if an alternative could be that the current system is maintained and repaired

ACCESS TO INFORMATION

How will I find out and be informed about the works?

- These passengers referenced the importance of information at the station, whether via members of staff (whether on the concourse or at a ticket office), via CIS, or with posters
- QR codes to “find out more” or “plan your route” are not suitable for them and can feel like additional barriers to information that are being put in place
- More likely to reference word of mouth as a way of finding out about upcoming engineering works or disruption, as well as local radio and news services

COMPARISON AND PARALLEL EXAMPLES CAN HELP EXPLAIN THE BENEFITS

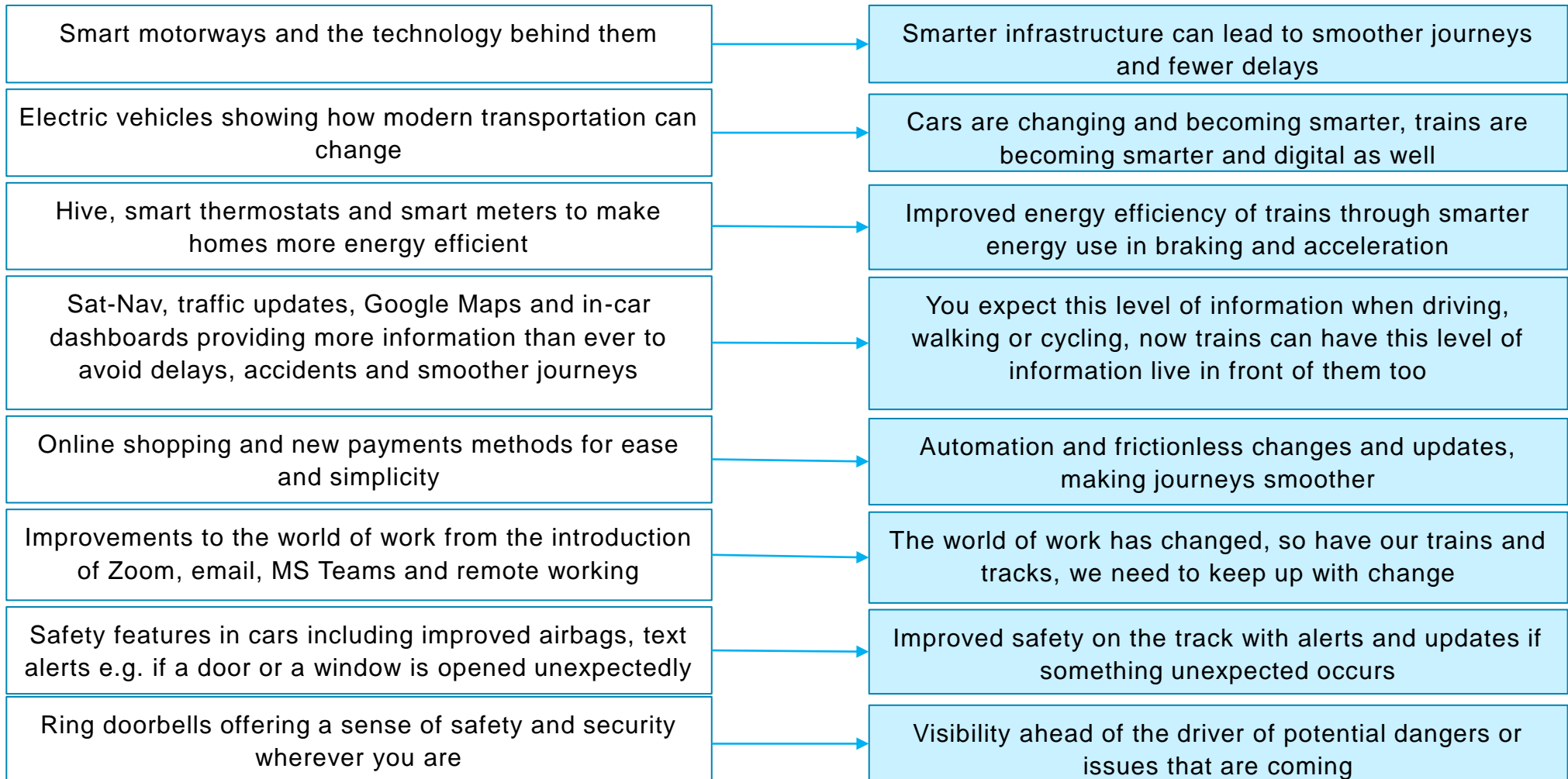


Making comparisons to how technology and infrastructure makes life simpler and easier can help to put the need for Digital Signalling into greater context

Passengers gave spontaneous examples of how technology and infrastructure has changed their lives for the better

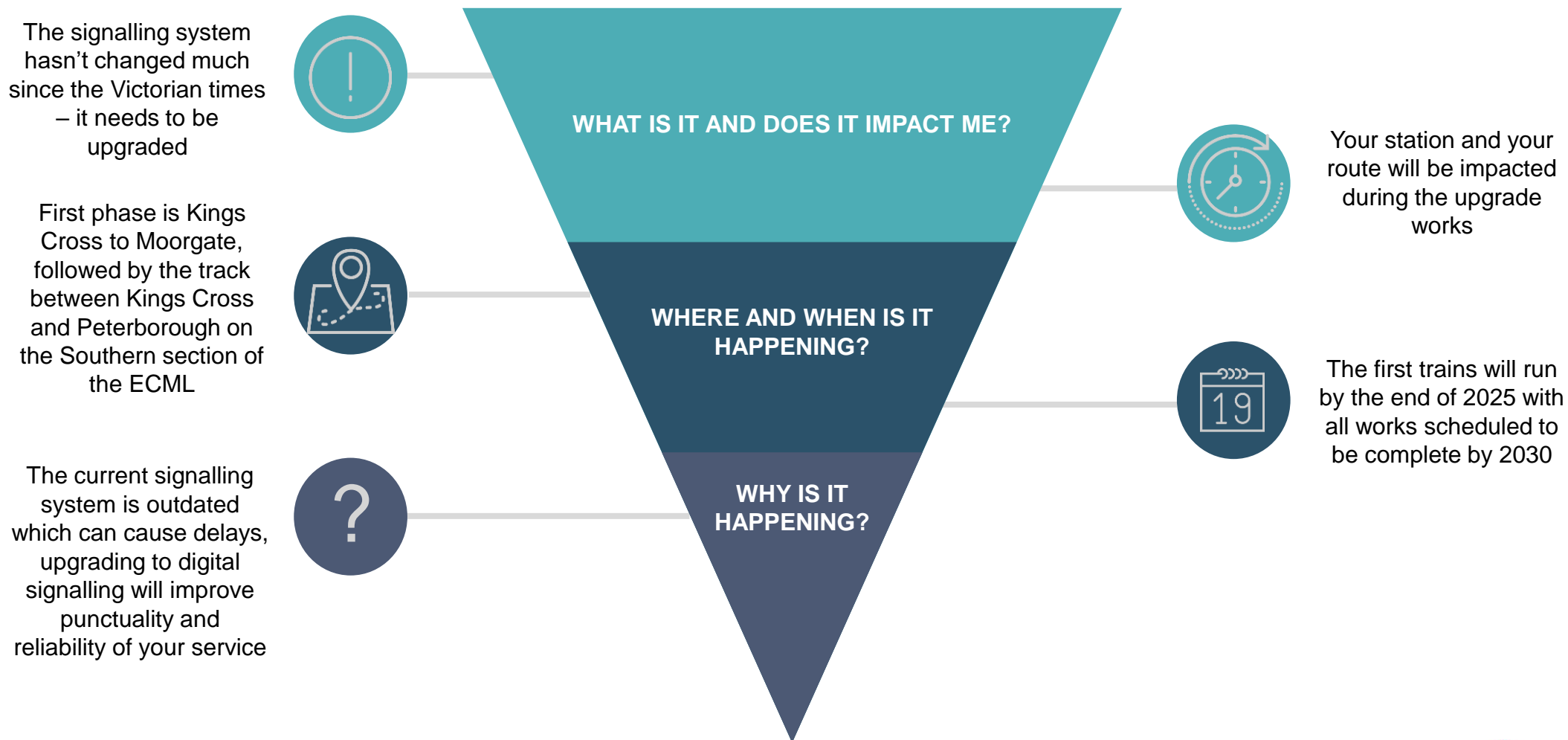
REAL WORLD EXAMPLE

DIGITAL SIGNALLING PARALLEL



BRINGING IT ALL TOGETHER: A POTENTIAL MESSAGING HIERARCHY

A “starter for ten” to discuss, focusing on distilling each layer down to the one or two really key messages and information that passengers want to know and hear about





WHAT THIS REPORT INCLUDES

1. RESEARCH OBJECTIVES AND METHODOLOGY
2. A REMINDER OF PASSENGER EXPECTATIONS OF DISRUPTION COMMUNICATIONS
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- 4. HOW TO LAND THE MESSAGE**
5. APPENDIX

Although this was not a “copy test” or a creative testing exercise, looking at past communications can give pointers for development of future communications

LANGUAGE AND WEB COPY

Signalling a new era of train travel

The East Coast Digital Programme is delivering the next generation of train travel – creating a better performing East Coast Main Line for passengers and everyone else who uses and depends on it.

Digital signalling will help the East Coast Main Line deliver on its goals of boosting reliability, delivering a punctual service and reduce carbon emissions.

As part of the programme, traditional lineside signals will be replaced with state-of the art digital signalling to improve the reliability of the train service.

The new technology continuously communicates with each train, providing signalling information directly to a computer screen in the driver’s cab. It boosts reliability, reduces carbon emissions and provides a more punctual service for customers.

It is expected that the first trains to run on the East Coast Main Line using digital signalling technology will run in 2025, with all improvements expected to be completed by the end of the decade.

As a result of this programme, the East Coast Main Line will be Great Britain’s first intercity mainline to be upgraded to digital. It lays the foundation for further improvements across the network, creating a more efficient railway fit for the future.

DISRUPTION POSTERS

VIDEOS

30 second animation



The time is now



Please note, this video was shared with participants to watch as a pre-task before joining their session

Focusing on the future and how and why change is being made is a positive message for passengers. The goals feel appropriate and are the right sort of goals for the network to be striving for

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WHAT'S WORKING...

- There is a wide appeal for the term 'next generation' as it symbolises a modern, forward-thinking, new way of travel for people but care must be taken it is not an overclaim, especially when considering the system is in place elsewhere and will not be fully delivered before 2030
- The three goals of 'boosting reliability, delivering a punctual service and reducing carbon emissions' resonate and work well

WHAT'S NOT...

- There is some confusion about what 'everyone else' means as there is a perception that passengers are the only ones using the line
- There were concerns about the name of the programme – 'digital programme' – that it sounded like it was to do with upgrading the Wi-Fi on trains and this came up again when looking at the logo on another piece of stimulus

WHAT THIS MEANS FOR DIGITAL SIGNALLING

- The overall ethos of future focused is strong and should be included throughout communications
- Communications should focus on this specific upgrade, helping to make the phrase "digital signaling" is more tangible to passengers rather than confusing with multiple names and language – consistency is key
- The hierarchy of needs should be considered; the benefits for and the impact on passengers should be at the core of communications

"A new era of train travel' keeps it punchy"

LNER, Short Distance, Leisure

"It's a long time coming, it's about time"

Great Northern/Thameslink, Commuter

The text contains a significant amount of information, but passengers consistently focused on punctuality, reliability, new technology, and the timeline as the key messages

As part of the programme, traditional lineside signals will be replaced with state-of the art digital signalling to improve the reliability of the train service.

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WHAT'S WORKING...

- Again, there is a consensus on the appeal of 'boosts/improve reliability' and 'more punctual' and 'more efficient' as key points of communication
- The future focused elements received a positive response

WHAT'S NOT...

- There are concerns about the length of time it will take to complete – 'end of the decade' indicates a longer period of time and people feel that '2030' frames it more positively and closer to now
- People are quick to ask, "what's the catch?" and question the cost to passengers, the impact on safety, and disruption impact

WHAT THIS MEANS FOR DIGITAL SIGNALLING...

- Passengers grasp what the changes are, but the stimulus raised questions on how it will impact them
- Communications should look to provide a tangible narrative on:
 - Timeline – type of delays, how long, alternative travel
 - Punctuality – what is meant by this and details on what improvement will look like for passengers
 - Safety – current state is safe so how will this be maintained during and after improvements
 - Cost – if there will be an impact for customers on ticket prices as a result of the upgrade

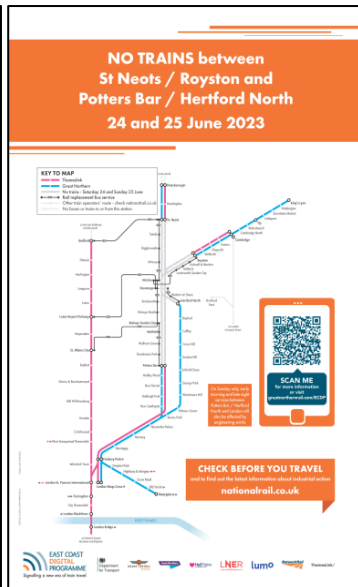
"Just tell me you have a 100-year-old system that needs bringing up to the 21st century and it will make it safer and the journey quicker"

Great Northern/Thameslink, Business/Other

"Everything is moving to a digital way of working and the trains are no different"

LNER, Longer Distance, Leisure

There was limited spontaneous recall of the recent posters at the stations with passengers gravitating towards the key dates and blunt “no direct trains” message



WHAT'S WORKING...

- The clear and direct message of “no direct trains” with the dates in a “pull out” helped to grab immediate attention and focus attention
- The maps provide a visual of impacted and alternative routes which is highly useful to passengers to work out if their route is impact.
- The “no direct trains” map was preferred and is considered simpler and easier to read at a glance

WHAT THIS MEANS FOR DIGITAL SIGNALLING...

- Maps should be used over text-based communications where possible. Maps should particularly be used in areas where passengers won't have long to read them
- Stronger colour-coding could be used to ensure the message is considered as an alert
- Text included should include a focus on the consumer benefit
- A clearer logo and programme name will make the “why” easier to identify for passengers without additional text to explain
- QR codes and websites can be alienating for some passengers, a consumer benefit should be included on the poster not only available by accessing a website

WHAT'S NOT...

- The use of the colour orange was polarizing as it did not stand out to people as a warning/alert message and could be confused with TfL/ London Overground comms
- There was concern that older people may not be able to interact with the QR code as confidently as others, and those digitally excluded and disengaged felt it was not accessible to them

“The colours don't make sense to me and should stand out more. No direct trains is the important bit”
 LNER, Business/Commuter

“You need a strapline or something to say ‘why’ so there's a brief understanding of why they're doing it”
 Great Northern/Thameslink, Business/Other

Passengers could imagine the animation playing on CIS boards in the station, on advertising boards or as targeting advertising online through social media to raise awareness and give top-line information

WHAT'S WORKING...

- For most, there is strong appeal for this animation as it indicates a fast-paced improving railway that will be fit for the future

WHAT'S NOT...

- Whilst some liked the lack of depth, others argue that this would not bring them 'on board' with the idea
- Speeding train in the background was distracting for a few and was having to compete for their attention against the information about the upgrade
- Again, there were mixed views on the colour orange as it represented existing brands and their associations with their colours

"It looks futuristic. It gives the impression that it's a fast paced system compared to what we have now. It's eye-catching"

LNER, Longer Distance, Leisure

WHAT THIS MEANS FOR DIGITAL SIGNALLING...

- Increasing the size and location of the text could balance out the visual distraction of the speeding train
- The animation includes the web address, an explicate call to action to visit it could enable those who felt they needed more information to use the site to find out more



01

Communications need to stand out to avoid becoming “wallpaper” at the station

“Alert signals” or “warning triangles” could be ways to visually indicate to passengers they need to pay attention to the posters and animations

The current orange colour scheme could be mistaken for posters for the Overground due to the similar colour scheme and so ignored as passengers could assume it will not impact them and their journey

Having specific branding for the upgrade works was accepted but needs clearer stand out

02

Visual maps help to support understanding and get attention

Passengers want to know immediately and instinctively if they are impacted by the planned disruption

Unless the origin and end stations are the stations the passenger is starting from, they may not recognise the names and have to do considerable mental processing to work out if they are impacted

Maps and visuals can help aid this processing quickly

03

Communications should include a passenger benefit – even if it is long-term

Passengers do not expect to be told what is happening and why, but they appreciate it when they are informed

Providing the wider context and information is appreciated as a secondary level message

Only making this “why” information available online or via a QR code can alienate some passengers and could limit the reach of the information

04

Future focused communications can help to keep an end to the disruption in sight

Passengers on these routes have experienced recent additional disruption and there is a degree of “disruption fatigue”

Including the long-term benefits, the “why” behind the disruption and the end date or future focused language e.g. “signalling a new era”, can help to reassure that the disruption has a process and timeline in place and will, eventually, come to an end



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Video link: The Time is Now

<https://www.youtube.com/watch?v=ue6Na6ZOhwc>

Video link: 30 second animation

<https://www.youtube.com/watch?v=ZvdQrrcinSw>

The East Coast Digital Programme is upgrading the signalling on the track. The line was built in Victorian times and the trackside signalling hasn't changed all that much and operates with a system of lights every few miles that tell the driver how far apart they are from the next train.

Digital signalling means that instead of looking for a lineside signal every couple of miles or so, the driver has an always-on indication in their cab of the line ahead and whether it is clear for them to continue at full speed.

And when there is any obstruction ahead, the driver is alerted well in advance and can plan when to start braking. The driver isn't suddenly faced with a signal at danger and rapid braking. It's this knowledge of the line ahead that means they can drive more efficiently and smoothly without constant braking and acceleration and makes for a more sustainable use of energy

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ROUTE THAT WILL BENEFIT FROM THE UPGRADE WORKS



In the first stage, digital signalling will be introduced on the Northern City Line between Finsbury Park and Moorgate.

In stage two, digital signalling will then be progressively rolled out on the southern section of the East Coast Main Line, between London King's Cross and Peterborough.

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More reliable and improved punctuality

Greener and reduced carbon emissions

Creating jobs

Even safer on the track

More efficient

State-of-the-art

Improved passenger and in-train crew safety

A more resilient network

No direct trains to or from London King's Cross

24
June

25
June

As part of the East Coast Digital Programme, major upgrade works are taking place in the Hitchin area on **Saturday 24** and **Sunday 25 June**, meaning there will be no direct trains to or from London King's Cross.

A good service is scheduled to operate on the rest of the East Coast Mainline however we recommend you plan ahead and check your entire journey before you travel.

A reduced rail service will operate between Peterborough and St Neots, where customers can board a replacement coach service to Bedford and continue their journey by rail to or from London St Pancras.

For the latest travel information visit National Rail Enquiries at nationalrail.co.uk



— Good service
— Reduced service Check before you travel
— No service Check your travel options

Find out more about the East Coast Digital Programme nextgenerationrailway.co.uk

NO TRAINS between St Neots / Royston and Potters Bar / Hertford North 24 and 25 June 2023

KEY TO MAP

- Thameslink
- Great Northern
- No trains - Saturday 24 and Sunday 25 June
- Rail replacement bus service
- Other train operators' route - check nationalrail.co.uk
- Station Name
- No buses or trains to or from this station



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