

Redesigning the London Overground Map

Customer Research Debrief March 2023

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LONDON I LOS ANGELES I SAN FRANCISCO I SINGAPORE



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Background & methodology

Background & research objectives

TfL and the GLA are currently working on plans for the future development of London Overground maps and line names. This forms part of the Mayor's original manifesto commitment. There is a need for further research to test a map design proposition before it is submitted to the GLA.



Business question: To test proposed London Overground design options with customers and identify the preferred option

Research objectives:

- Is navigation currently an issue for London Overground customers?
- What customer pain points do the proposed design options address?
- Do customers understand the proposed design options?
 - Do they recognise the London Overground network vs the Underground/other Rail?
 - Do they recognise their London Overground line?
- What misunderstandings or confusions exist?
- How do they respond to the options in the context of 'working well' vs 'disruptions'?
- Do they like them more/less than what currently exists? What is the overall value to customers?
- What impact would the proposed changes have on customer journeys and decision-making?
- What are customers' suggestions for what will work better?

Methodology

1. In-person focus groups	 Rationale: To use a group setting to deliberate the design options and evaluate their pros and cons Allow us to use a sensorium gallery approach to test a range of stimulus Use the stimulus as a constant springboard for discussion Allow customers to discuss and deliberate over their preferred options Invite debate to uncover pros and cons of each design option
2. Online depth interviews	 Rationale: To ensure that the research is inclusive of the diverse London Overground customer base Engage customers with specific accessibility needs Ensure all customers of the London Overground are able to have their say Allow customers with impairments to share concerns in a safe environment Explore the pros and cons of each design amongst a more diverse audience Stress-test each design with those with accessibility needs

Research was conducted from the 28^{th} February – 8^{th} March 2023.

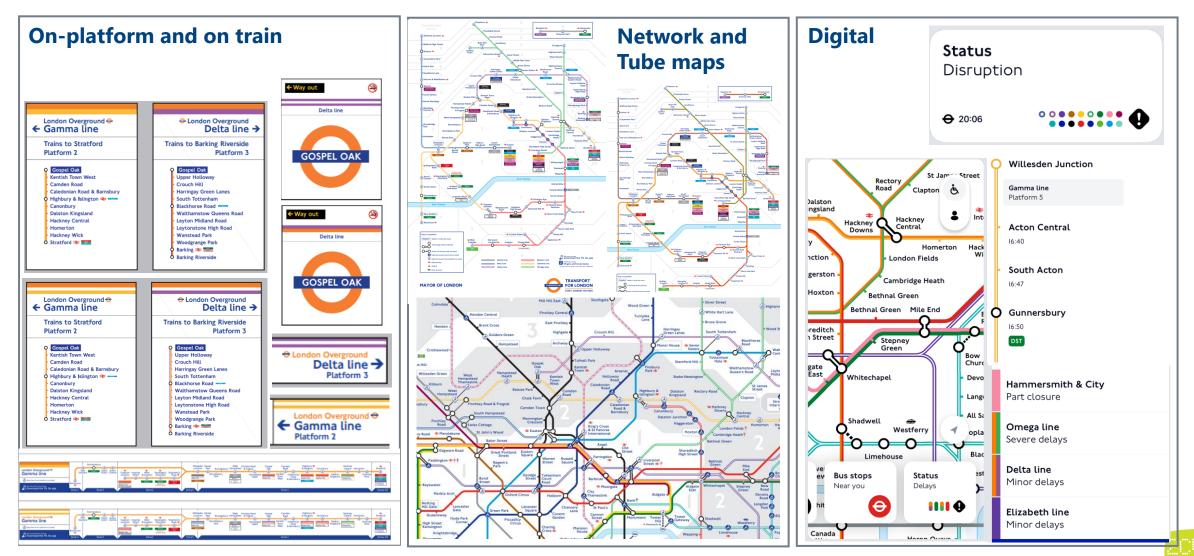
Sample

Focus Groups					
Group	Frequency of LO use	Age	Other criteria		
1	High* frequency	Younger – 18-34	Mix of transport modes used		
2	Medium** frequency	Older – 35+	No rejectors of LO		
3	High frequency	Older – 35+	No rejectors of TfL		
4	Medium frequency	Younger – 18-34	• Mix of reasons for travel and time of		
5	High frequency	Mixed – 18+	day/week		
6	Medium frequency	Mixed – 18+	 Mix of LO lines and parts of LO network Mix of journey planning habits Inner and Outer London boroughs 		
	Depth Interviews				
Depth	Impairment	Frequency	Age Other criteria		
1	Mobility	High	• Mix of transport modes used		
2	Mobility	High	40 Mix of		
3	Sensory (visual)	High	• reasons for travel and time of		
4	Sensory (hearing)	High	59 day/week		
5	Neurodiverse	High	• Mix of LO lines		
6	Neurodiverse	Medium	 68 Mix of journey planning habits Inner and Outer London boroughs No rejectors of LO No rejectors of TfL 		



Design options tested

Customers were walked through a range of stimulus for each of the three proposed designs





Executive Summary



Executive Summary (1)

It is essential that customers don't feel the London Overground will lose its distinct identity

- Overall, customers responded well to the Mayoral objective for making navigation on the London Overground simpler and easier to understand. While this isn't a highly salient pain point, navigation is tricky and greater distinction between line branches is welcomed.
- The new design changes are well received by customers, but need to achieve a balance of:
 - 1. Retaining a clear identity for the London Overground brand emotional attachment to 'the orange line' is strong, making it hard to envisage a world in which orange is wholly absent from the design
 - 2. Visual clarity and accessibility for all the other notable way customers recognise the London Overground is the white gap between two lines
- To achieve this balance, design changes would benefit from being channel-specific, for example:
 - Retaining orange at key touchpoints to give important reassurance (eg roundel on platform signage)
 - New branch line colours / gaps between lines to give greater confidence when journey planning

Executive Summary (2)

Future design change will take time for customers to get used to

- Future design changes have the potential to increase confidence while using and navigating the London Overground, and to increase motivation to use it more frequently
- Option A and Option B: At a conceptual level customers support the combination of orange and a new colour, but there are challenges in terms of visual accessibility and comprehension
 - Some feel it's hard to read (especially Option B) or misunderstand what they are looking at eg "Is it an interchange?" "Is it showing the two lines running alongside each other?"
- Option C: Many preferred this option for its ease of comprehension, especially on network and Tube maps
 - But customers did expect branch colours to be distinct from London Underground to avoid confusion (eg "Is this an extension of the District?") as well as retaining the London Overground brand identity at key customer touchpoints



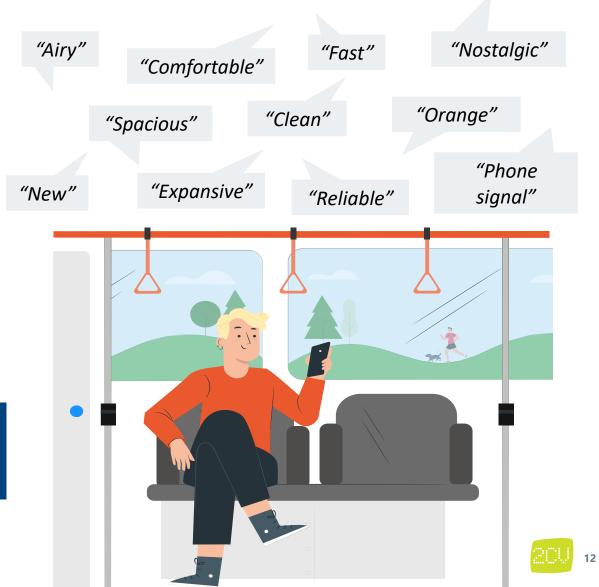
Contextualising the use of the London Overground



There is good affection for the London Overground – a brand and service distinct from the London Underground

- Spontaneous associations with the London Overground are mostly positive
- Customers note that the service stands out for its:
 - Comfort
 - Reliability
 - Connectivity to more widespread areas of London
- As a result, it feels distinct to the Underground it has its own brand identity that customers show affection for, and they want it to remain
- Customers recognise the London Overground is expanding – but they do not want to see it disappear or merge with the Underground

Future design changes need to reassure customers that the London Overground is here to stay and that its unique identity will not be compromised



Those with specific needs generally prefer to use the London Overground and consider it an easier journey than the Underground

- Those with impairments generally find the Underground to be more of a struggle than the London Overground – it is more chaotic, fastermoving, and not as friendly
- Those with neurodiversity, visual, or mobility impairments like that the London Overground is **calmer and more spacious** than other modes of transport
- Those with respiratory impairments value the **fresh air**
- However, the Underground is better for assistance, instation staff and station/train announcements
- Underground navigation is easier due to its distinctly coloured lines

They're nice and they're spacious and they're clean. I would much rather go on the Overground than in the dungeons of the Underground. I can't stand it. High frequency, 58, Mobility issue Because of my COPD and my heart pressure, I have collapsed twice on the Underground because it was too hot. High frequency, 59, Hearing and Respiratory impairment

The London Overground is easier to use because there's just one or two lines on the map. It's quicker, and easier to navigate than the Underground. High frequency, 24, neurodiverse

The Overground is generally quicker for me, but sometimes my journey depends on assistance, because I require assistance. So if some stations don't have staff members it's a big problem. High frequency, 32, Visual Impairment I must admit, I much prefer to travel on the Overground. It's so comfortable now, it's just a luxury now. And I feel like you have much more of a relationship with London than when you're using the Underground. Medium frequency, 68, neurodiverse

When I'm on the Underground it's so loud I have to remove my hearing aid. It makes travelling quite hard. High frequency, 59, Hearing and Respiratory impairment



There is some confusion as to what 'family' the London Overground belongs to – Rail or Tube?

While the London Overground feels distinct - customers can feel unclear as to whether it is rail, Tube, or something else

- Some see it as part of the National Rail family
- Others link it with the Elizabeth line/DLR services
- Some see it as one line "the orange line"

Most know 'their bit' of the London Overground, but are not knowledgeable about the rest of the service

This can lead to mixed expectations about the service eg journey times, wayfinding, frequency, space on the trains, ambience, etc

It can also lead to mixed expectations as to how it should be distinguished from other services on Network and Tube maps as the service expands

But if this [network map] has the Overground lines on it, why doesn't it have the trains lines too? Why isn't it just the Tube? Medium frequency, 18+

The Overground is part of different network, isn't it? Elizabeth Line, the trains maybe. It's a wider network. High frequency, 24, neurodiverse



Views as to whether the London Overground is a network of lines, or one consistent line, are mixed

One line

- Less frequent users, or using the London Overground just for one, regular journey
- Less likely to have an in-depth knowledge of the London Overground's more expansive network
- Many see their own 'branch' as the entirely of the network; other lines or branches are not on their radar
- Some refer to it as just one line, but with branches, due to the consistent orange colour

It's just one line, but it's got a few branches. High frequency, 18+

It's just one line – we know it as the orange line. High frequency, 18-34



A network of distinct lines

- More frequent users or those going further afield see the network as multiple lines/branches
- Even they only really register their own line or 'bit'
- More aware of the expanse of the London Overground, but few have used these other lines to travel
- Do not use separate names to split out lines/branches and no clear way to communicate this
- Could suggest the lack of separate line identities is limiting ability to verbalise how they see the network

It's multiple lines, multiple branches, it goes all over. It's a network. High frequency, 18-34

Customers are more likely to travel on 'autopilot' when using the Underground, compared to the London Overground

Turn up and go



London Underground

- Do not check the timetables
- Do not plan ahead
- Largely working on autopilot and relying on in-station 'touchpoints' to navigate
- Snap decisions made using visual cues
- Largely aware of where they can go using the network
- No confusion/difficulties



London Overground

- Check the timetables if at a more suburban station
- Rely more on apps to navigate over 'touchpoints'
- Spend more time journey planning
- Plan ahead for unfamiliar journeys
- Some knowledge of lines/branches
- Limited awareness of where they can go using the network
- Low confusion/difficulties



Advance planning

Mainline Trains

- Will always check the timetables
- Will always plan ahead
- No use of in-station 'touchpoints' to help with navigation
- No awareness of expanse of mainline train network
- Low familiarity
- Some confusion/difficulties

Better visual and distinct touchpoints to help customers make in-the-moment navigation decisions will aid confidence and familiarity with the London Overground.

Navigation on the London Overground can be a low-level customer pain point

Navigation

- Wayfinding is more difficult to follow than the London Underground, especially for those with accessibility issues
- Can be hard to differentiate between branches
- Line interchanges can be confusing and it not immediately obvious where to change

I should be able to see where I am just from being on the platform. Medium frequency, 18+

Delays and disruptions

- It isn't always clear which lines/branches a disruption impacts
- A perception that there are more delays on the London Overground than the Underground as a result
- Some say the London Overground is less reliable because of this

On the Tube if one line is down it doesn't necessarily impact the rest of the network, but on the Overground if one line is down then the whole thing is affected. High frequency, 35+

Journey Times

- There is some confusion around timetabling and how often trains come
- It is slower than the London Underground
- Trains do not come as frequently, impacting journey times
- Fewer station staff, making journeys longer/more complicated for those with accessibility needs



Initial reactions to the concept of design change

The Mayor's manifesto to give each London Overground route its own identity initially received a mixed reaction

Most felt the Mayor's manifesto was a brilliant initiative however others were more hesitant prompting multiple questions about the rationale and future plans



The converted (a majority)

- Immediately see the benefits of change
- Understand why it needs to happen
- Believe it is long overdue
- Can easily visualise how this may look
- Compares this to the Underground network spontaneously and positively

The hesitant (a minority)

- Are comfortable with the status-quo
- Do not initially believe it's necessary
- Do not initially believe it will make navigation easier/simpler
- Express some concerns on the cost implications
- Find visualising change more difficult



The London Mayor's manifesto states:

"TfL's London Overground network has grown considerably over recent years, and to reflect this I'll launch a programme to name individual routes, giving each its own identity."

The overall goal of differentiating between individual lines is to enhance the customer experience and make life simpler for customers. For example:

1. Making it simpler to understand and use the Overground network

2. Giving customers more confidence to use the Overground

3. Allowing TfL to provide more granular information about specific lines eg disruptions, delays

4. Making it easier to navigate around the Overground eg at interchanges and stations where there are multiple Overground lines and/or Tube/ other rail lines

5. Helping customers see the scale of the Overground <u>ie</u> the range of places it goes to and how it connects with the rest of the network

6. Helping customers understand service disruptions and delays on the Overground



Those who were hesitant were able to see the benefits after further context and reassurance



Those who were more hesitant were a minority, and this initial 'no' was more of a knee-jerk reaction; passengers were resisting the idea of change rather than the manifesto itself.

This group broadly followed the below thought-process; a majority concluded that design change is positive:

"I've never had any issues using the Overground map. Who said it was confusing? It is fine as it is."

"How much is this going to cost? I thought TfL didn't have money to spare."



"Looking at the map now, I can maybe see why some people would find it confusing, but mostly tourists. TfL are supposed to cater for Londoners!"

"I didn't realise other Londoners [those in my group] struggled sometimes, and I've never thought to use the Overground to travel there...maybe a new design could help."



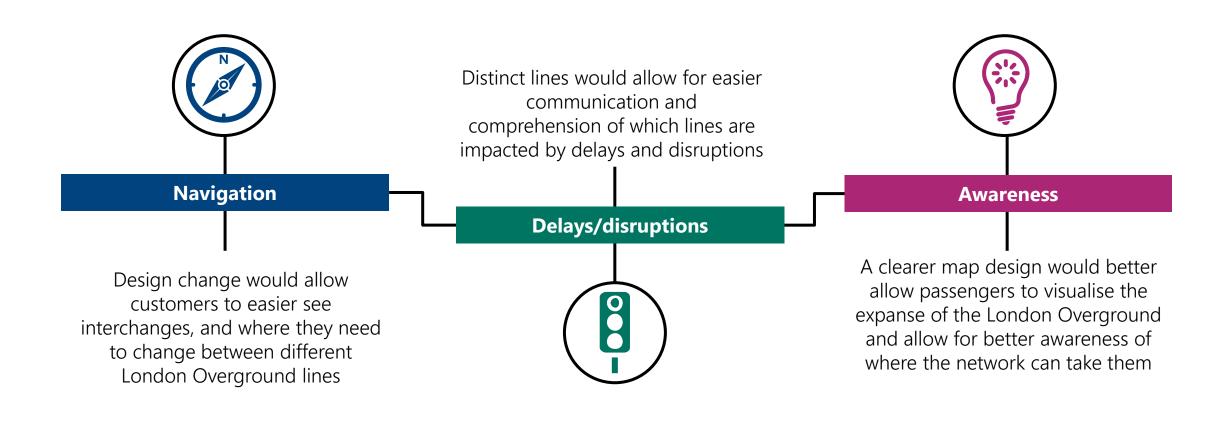
"Actually, sometimes I do find it difficult. It may be simpler if we could use names and colours to see where delays or disruptions are, and to help at the busier interchanges or on the platform."

"I can see now how the maps might work similar to the Underground, which I find really simple to use. And it would help with navigating the extended network. I would get used to it quickly!"

I'm trying to decide whether I don't like the idea or whether I just don't like change! High frequency, 35+

Most customers see the core benefits of the redesign as improving navigation and communicating delays

A secondary benefit was opening up London by illustrating a wider transport network



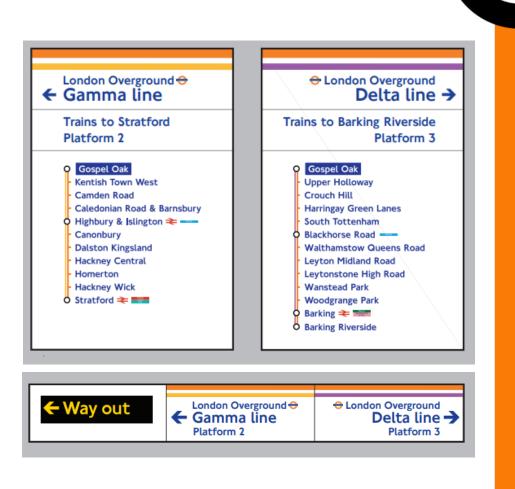


Evaluating the design options

Option A: What's working well

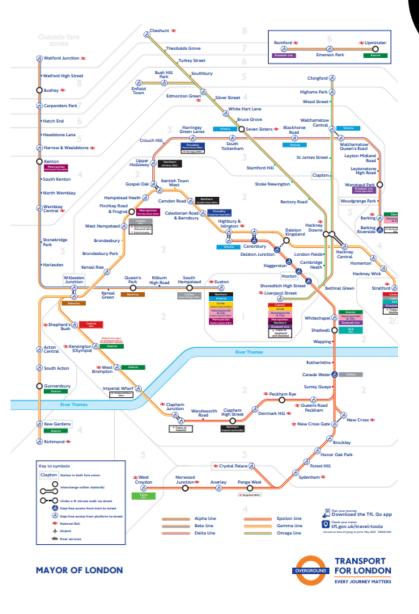
A small group chose this option as their preference.

- Retaining the distinct London Overground orange reassures customers they are still on this part of the network
- It also allows customers to feel that the London Overground has retained its distinct identity
- The introduction of **new branch line** colours helps distinguish between different lines and branches, helping with navigation
- The white gap visually indicates an Overground service, and is line with other TfL 'non-Tube' designs (DLR, Elizabeth Line, etc.)
- Works best for in-station and on-train wayfinding where just one line is shown simple to understand in this context and clearly shows the customer they are on a London Overground train/platform



Option A: Limitations and watch-outs

- Some confusion as to if it was showing two separate, parallel lines running alongside each other, or just one Overground line
- Some confusion at interchanges- not all respondents able to see which lines connect, and wayfinding exercises taking a long time
- Some difficulties in reading the maps and distinguishing between separate lines; more difficult for passengers using the Network map and Tube map, rather than the standalone line maps seen on trains and platforms
- Not all colours work with orange where the orange was similar to the parallel colour (i.e., red or yellow) then the line was less distinct



Option A

Positives

I quite like A, but it's something they could phase out in a few years once people get to know their colours and their lines. High frequency, 18+

> It connects to me visually, with the colour, I can see where I can go. I'm connecting the orange to the orange to the orange, and at the moment I'm following the colour and I can see where I can go. High frequency, 18-34

I would say C if it were just the map, but A is better [for in-station stim] where you can still see the orange. Medium frequency, 35+

I think A, because it's the most similar to what we already have. Medium frequency, 35+

You've still got the orange on the stations. I think having 2 coloured lines is a bit confusing. High frequency, 18+

Limitations

That gap, it makes it look like it's two different lines. High frequency, 18-34

It's busy, isn't it? Is there another option? Medium frequency, 35+, neurodiverse

These lines show the connections to Underground lines. So there I could change to Metropolitan lines [with a purple line]. Medium frequency, 35+, neurodiverse

Option A actually looks a bit confusing as well because it's got that white colour in the middle, so I'm not sure if it's one line or two. It's too much detail. High frequency, 18+

No, it's confusing. Is it green? Is it yellow? There's too much orange and from a distance – even with my glasses on I can't see it. Medium frequency, 18+

You'd have to know what the colours were for it to make any sense. Do the colours link into the Underground? Does this one link into the Metropolitan line? High frequency, 18-34



Option B: What's working well

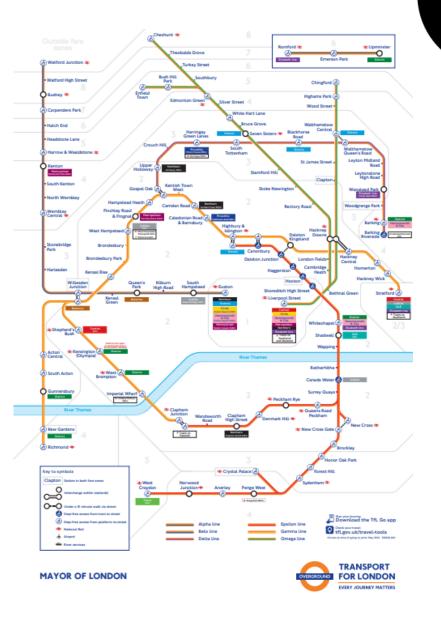
This design was not the preferred option for any respondents

- Like Option A, retaining the distinct London Overground orange reassures customers they are still on this part of the network, and allows customers to feel that the London Overground has retained its distinct identity
- The introduction of **new colours** helps distinguish between branches and lines
- The design works better for in-station and on-platform wayfinding where the colour distinction is easier to see, than on the Tube and network maps



Option B: Limitations and watch-outs

- No 'white gap' can confuse as this feels more Underground, than London Overground
- Confusion with the parallel colours many think that it shows the London Overground running alongside another line (e.g., the London Overground and district line)
- Confusion at interchanges and wayfinding; users need to concentrate, take their time, and trace their fingers to follow branch lines
- The **colours blend into each other** making it difficult for many to read and distinguish between the lines
- Usability is difficult across all formats but especially evident on the Tube and network maps







Positives

I actually don't mind it because you can clearly see the orange beneath it. Medium frequency, 18+

I prefer option B, because the gap makes it look like it's two different lines, but when it's together it's more obvious. High frequency, 18-34

> We know orange is the Overground. With Option C all the new colours would confuse me, so option B works best [in station stim]. Medium frequency, 35+

Having two colours is a bit confusing, you might think you're on the Underground, on the District line. High frequency, 18+

Limitations

It just looks like its parallel lines – that looks like the Overground running parallel to the metropolitan line. High frequency, 18+

What colour is that? Is it yellow and green? I can't see the colour, it's too blurred. Medium frequency, 35+, neurodiverse

There's too many different colours running side by side and I can't see them. It's too confusing. I never thought signage [digital reference] was so complicated! Medium frequency, 18+ It's the blending of the two lines. It's confusing. We've been looking at it for ages and we're confused. High frequency, 18+

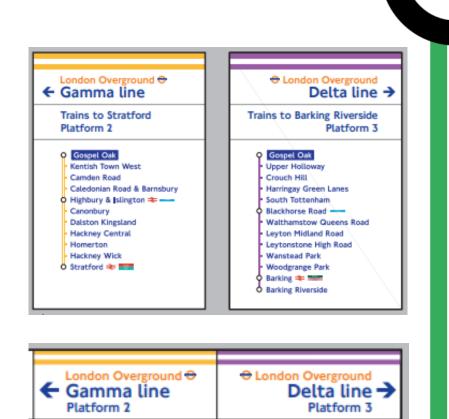
The colours just get lost here. If you look straight at it you couldn't spot the orange, or the lines [Tube map stim]. Medium frequency, 35+



Option C: What's working well

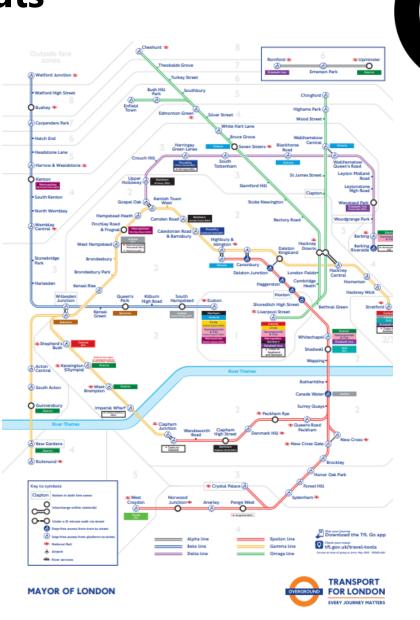
A majority settled on this option as their preference.

- Easy to follow and feels familiar, due to the single-colour design mirroring the underground maps
- The white gap still clearly denotes an Overground service, so the identity of the London Overground does not feel lost or diluted
- One consistent colour for each line easier for accessibility
- The design feels fresh, modern, clean, and intuitive/ simple to understand
- The introduction of **new line colours** helps distinguish between lines and branches, increasing navigability
- The design is the **easiest to use and follow on Network and Tube maps**; respondents responded quicker to wayfinding tasks using this option
- The orange is not missed as it is retained at other points of the customer journey i.e., on the roundel, on the trains, etc.



Option C: Limitations and watch-outs

- It can feel like a big change for customers- can result in a worry that the London Overground brand identity could disappear
- Relies on the new branch line colours to be distinct from London Underground colours there could be some confusion between certain branches if not



Option C

Positives

Getting rid of the orange would work because we've already had a bit of this with the Elizabeth line, so people are used to seeing that already. High frequency, 18+

They just need to keep it simple. If they're going to do it, they might as well do it properly, change it completely. High frequency, 18+

There's something about having the white space in the middle, it makes you think it's not a normal Tube line so not having the orange doesn't matter. High frequency, 18-34 It makes it much easier to follow the line when it's all one colour. Medium frequency, 18+

Option C is an easier style, it separates Overground and Underground and still uses clear colours. High frequency, 18+

You follow the colours! The colours are the most important bit so focus on the colours. Medium frequency, 18+

Oh I like that. That's much better. It stands out more, it shows you it's the Overground. We're so visually used to the Underground, it makes sense. And it makes it clearer. Medium frequency, 35+, neurodiverse It's easier to learn when you first see it, without the orange getting in the way. I don't think the orange needs to be there, does it? High frequency, 35+, mobility issue

This is still telling me it's an Overground train. It's very clear. It's an Overground London train. Medium frequency, 35+, neurodiverse

I don't think it would take me very long to get used to at all, and I think I'd feel more confident in getting around. High frequency, 18+

Limitations

If it's the London Overground, but in branches, then the separate colour makes it look different [than one Overground]. High frequency, 18-34

The problem is that you're going to have to make the colours so different visually, because otherwise people are going to look at blue and think Victoria line. High frequency, 18-34

The whole network operates on colours, so the northern line's black, the central line's red. So they've lost the orange, so you can't associate this with the orange line. High frequency, 18-34



Option C was also the overarching preference for those with impairments

Having just one colour was more accessible to those with visual impairments and neurodiversity

- This group specifically take the London Overground due to it's calmer/more spacious trains.
- They need the map to clearly differentiate between the Underground and London Overground services
- The simplicity of having just one colour was best for them
- Neurodiverse respondents stated that the design was a lot simpler for them to follow than other options less is more
- Feels similar to the current Tube map this helps as they already feel confident navigating the London Underground

Those with impairments like familiarity, but they need visual clarity.

Option C was clearer visually for them to use; and they liked that it followed the same logic as the Tube map, making the concept familiar to them.

That to me is nice and easy to look at [Option C]. I can look at Chingford and follow it down. Much easier to follow. I don't see why we need the orange there, we don't want to be overrun with too many colours. High frequency, 58, Mobility issue With my dyspraxia, the colour coordination system is easier for me to see and read that they use on the Underground. My dyspraxia makes it a bit difficult to read the screens [on the Overground]. Medium frequency, 68, Neurodiverse

I'd be thrilled to bits [if Option C was implemented]! I like that kind of change – I don't like change usually, but this is simpler, not so busy, easy to use. Less is more. Medium frequency, 68,

Neurodiverse

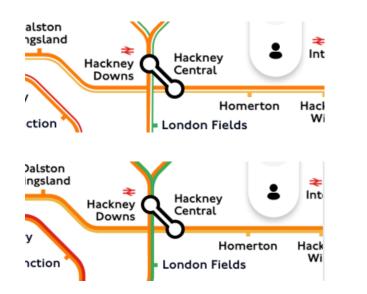
The one with one colour and parallel lines, it's clearer for people to see and travel around London. The one with two colours you can't see – it just looks like one colour. High frequency, 24, Neurodiverse

32

The positives and limitations of the map designs are mirrored in the evaluation of <u>digital assets</u>

Customers found the orange+colour design more difficult to use online

Orange+colour designs could look **as if the colours had blended together** making them visually more difficult to use, with option C considered cleaner and fresher



The online 'pill' designs for options A and B were visually difficult for respondents to see, as the **individual colours were too small** to identify which lines they refer to

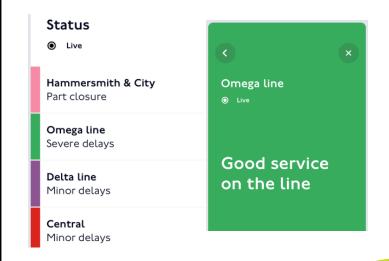
Hackney Downs 嵀

Willesden Junction 考

This was clearer to distinguish in Option C, though the colours will need to be distinct to the LU as there is no space for the distinguishing 'white line' in this format.

Willesden Junction 嵀

Some confusion where there was not consistency throughout the designs. For example, respondents queried why there was not the distinctive inbetween white line for option C below:





Overarching design and customer engagement principles



The design changes must achieve a balance: a clear identity for the London Overground, with visual clarity and accessibility for all

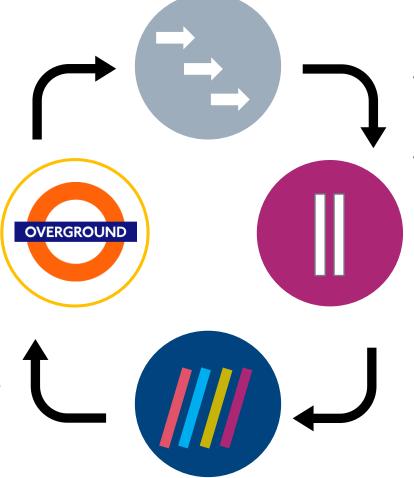
Ensuring that this balance is met may result in some design changes being channel-specific, but the below overarching design principles can ensure all channel designs work together

Don't lose the orange

 It's important and part of the London Overground brand identity; it must retain its strong presence

Ensure distinct 'new' line colours

- To avoid confusion with the London Underground
- To be distinct from each other and give each line its own personality (akin to the Tube and working in line with the name changes)



Think about all customer journey touchpoints

- Touchpoints important to reassure customers that they are on the right route and communicate delays and disruptions
- Consistent designs which bring together the London Overground brand across these touchpoints will help customers navigate new systems

Use the white gap

It helps differentiate the London Overground from the London Underground – important for managing customer expectations



Orange remains an important, strong part of the Overground's brand identity, but not at the expense of visual clarity

Problem

An emotional attachment to orange is not always compatible with the design being clear and accessible

- But initial reactions to orange+colour designs highlight visual accessibility and comprehension challenges.
- The familiarity and emotional attachment to the orange is strong, which makes it difficult for customers to initially envisage a world where orange is absent from the design.

Solution Using the orange at key touchpoints will reassure

customers and retain a level of consistency

• Customers instead need visual clarity and clear differentiation of lines to help quick and automatic processing (e.g. orange roundels/ platform signage/inside and outside trains)

It's important that the orange does not disappear, but customers do not think that is has to remain across all channels for the London Overground to retain this part of its brand identity.

Customer engagement will be a core part of ensuring the success of the design change

- Navigation of the current London Overground system is a low-level pain point change will be welcomed
- But customers will need to **buy-in to the change** to welcome it
- **Constant reassurances** that the London Overground is not losing its brand identity, disappearing, or merging into a larger network, will be key
- Framing change with a familiar concept will be easier for customers to visualise; comparing the new design, names, and navigation to the Underground system helps
- Customers like to be engaged; **constant consultation** throughout the process is recommended
- Any change to design will take customers some time to get used to, **increasing staff presence to help** with this is important
- Visual clarity across channels will be important for taking customers with you, and getting them used to understanding and navigating using a new set of tools

The redesign will be a big change for passengers; TfL must ensure staff are on hand to help with wayfinding queries, and ensure the service is not compromised

For those with impairments, design changes cannot compensate for in-station staff

Staff presence and support are key to ensuring customers with specific needs can travel with confidence



- While design change will make navigation easier, there is still a need for more assistance on the platforms
- Some believe that London Overground environments are "less manned" – fewer staff members, fewer announcements
- One participant with a visual impairment reported having to wait up to an hour before they could travel because of a lack of London Overground staff
- Others with neurodiversity need reassurance from staff that they are going the right way – this helps with their confidence when travelling

The biggest problem I'm facing is less and less staff. If there are no staff on the platform, if there is no assistance, I can't travel. The number one priority is staff. High frequency, 32, Visual Impairment

Travelling is so stressful, I need to plan everything in advance because I need to know where I can access a loo. I've got a special key to access staff toilets but I still need to know where they are. High frequency, 58, Mobility issue

The need for assistance will likely only increase as design changes are implemented, especially initially as people become used to the new names/colours







Let's talk.

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