

ARUP



A New Rail Strategy for Surrey

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March 2021





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Executive summary

A New Rail Strategy for Surrey was commissioned by Surrey County Council in April 2020; this builds on the 2013 strategy and subsequent update in 2016. This new strategy sets out how rail can contribute to a greener future, growing a sustainable economy, empowering communities, and tackling health inequality.

The strategy begins by setting out the baseline position of rail use in Surrey in terms of the network, stations, the operators and services and journeys currently undertaken. This baselining exercise was the basis for our stakeholder engagement, which encompassed the boroughs and districts of Surrey and key stakeholders in business, user groups, organisations representing disabled people and relevant transport bodies such as Transport for the South East and Network Rail.

The Strategy acknowledges that significant challenges have emerged since the previous 2013 Strategy; including slowing growth in passenger demand, changing government policy, developing technology, and – most challenging of all – the emergence of COVID-19 and its unprecedented impact on the transport sector.

We have identified five strategic aims which the rail network can assist in delivering over the next 30 years:

- Achieving transport decarbonisation
- Responding to change in the rail sector
- Encouraging good growth and a sustainable economy
- Increasing access for all
- Developing an attractive, high-quality rail network

These strategic aims – combined with an assessment of feasibility and acceptability – have been used to identify a core set of interventions which Surrey County Council can support through developing the case, influencing stakeholders, directly supporting schemes and monitoring delivery.

There are a number of key developments in policy, society, and the pipeline of investments, the key example being the government's decision alongside TfL to discontinue the development of Crossrail 2. This means that alternative approaches will have to be found to continue to increase capacity and improve performance on the south western corridor. This will require a greater focus on maximising upgrades to the existing railway infrastructure, and progressing with projects such as digital signalling and capacity improvements at Woking and Guildford.

In the east of Surrey a number of major infrastructure projects are being developed. The Croydon Area Remodelling Scheme will increase capacity and reliability on the Brighton Main Line which together with improvements to Reigate station will allow more frequent and higher capacity services. Surrey County Council will continue to make the case for better services on the Tonbridge to Redhill line with potential for direct services to Gatwick Airport and to additional stations in Kent.

Connectivity to airports remains an area where progress has been mixed. To improve access to Gatwick Airport, Network Rail is delivering improvements to the North Downs Line with new rolling stock and higher frequencies being delivered. Despite being identified in the 2013 rail strategy, the planning of a new Southern Rail link to Heathrow has not progressed and continues to be a gap in the region's strategic rail connectivity. Surrey County Council will continue to make the case for direct connections to Heathrow by rail from the south, given the huge potential benefits for modal shift, congestion reduction, and economic performance of the region.



Introduction

The Strategy has identified a need for a renewed focus on improving stations to benefit local communities and utilise their potential for supporting sustainable local economic growth. Improvements should not be limited to the larger stations, such as Woking and Guildford (although both have well developed and important plans) or those serving new housing developments; there is an opportunity for new models of community investment in rural and suburban stations. Improvements to stations must be combined with improved access by public transport and active modes, some of which is already being delivered via the support of the Government’s cycling and walking investment strategy, which will continue. Surrey and its partners have developed and delivered a number of improvements to step-free access and will continue to work with Network Rail and partners to develop and deliver further Access for All schemes.

Adapting the rail network for new sets of challenges will be key over the short term as the railway enters a post-COVID-19 era, with a new operating model and responses to the impact of the COVID-19 pandemic. Concerns on overcrowding may recede and instead passengers may need to be attracted back to the railway. To achieve this, new ticketing models may be needed, which are better suited to passenger needs and new work patterns, accompanied with a greater focus on service quality and reliability, and a plan to grow new markets such as leisure and tourism. Surrey County Council will ensure, through consultation with Government, that these reforms benefit rail passengers in Surrey.

Decarbonising the transport network is the key priority for Surrey County Council; over 40% of carbon emissions in Surrey are from surface transport, significantly higher than the UK average of 22%. Surrey County Council is working with Network Rail to make the case for electrification of the remaining network. However, this alone will not achieve decarbonation; it is key that rail’s share of local trips increases, and that it helps reduce emissions further by working with its partners in delivering the network and connectivity improvements, and delivers improvements in accessibility by walking, cycling, and public transport.

This new rail strategy has a strong evidence base, with clear aims and identified priorities. It will enable Surrey County Council to articulate to government and the rail industry a case for change, whilst identifying the improvements to services and infrastructure required to support residents and businesses and deliver our strategic ambitions.

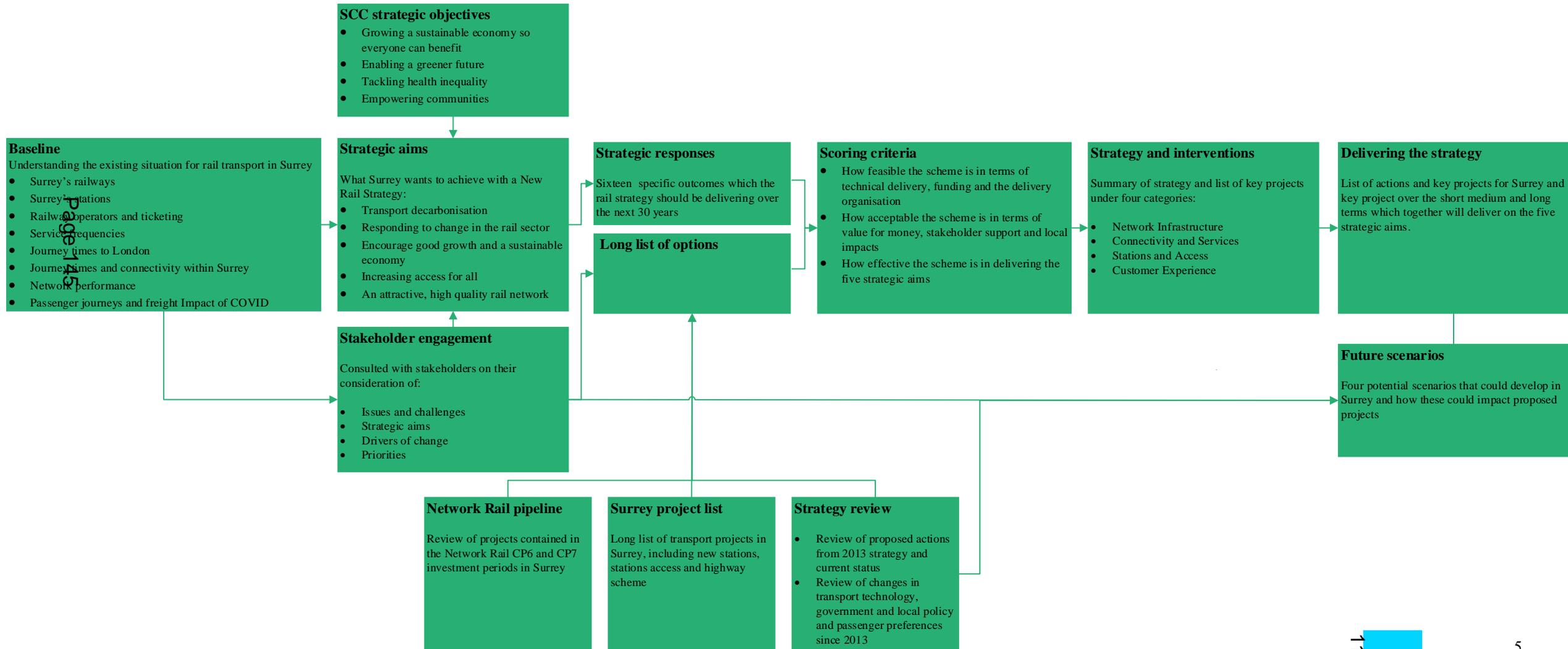
The process map showing how the strategy was developed is set out on the following page.



Engineering work during Redhill platform 0 construction , Arup

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Developing the New Rail Strategy for Surrey – Process Flow Chart



Surrey Context

Surrey County Council (SCC) has a set of strategic priorities for the next five years which we have used to guide the rail strategy development.

SURREY COUNTY COUNCIL STRATEGIC OBJECTIVES

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Growing a sustainable economy so everyone can benefit

Support people and businesses across Surrey to grow during the economic recovery; and re-prioritise infrastructure plans, to adapt to the changing needs and demands of residents at a time of financial challenges.

Enabling a greener future

Build on behaviour changes and lessons learnt during lockdown, to further progress work to tackle environmental challenges, improve air quality, and focus on green energy, to make sure we achieve our 2030 net zero target.

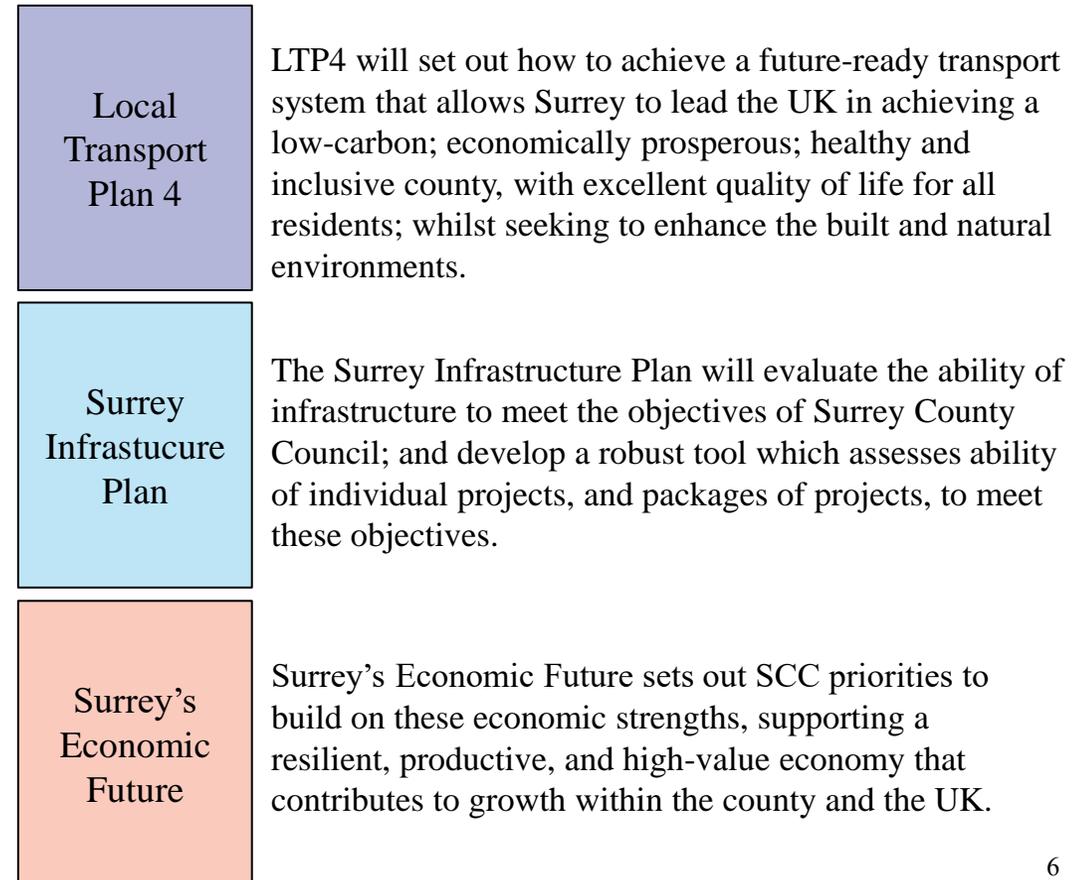
Tackling health inequality

Drive work across the system to reduce widening health inequalities; increasing our focus on addressing mental health, and accelerating health and social care integration, to reduce demand on services while improving health outcomes for residents.

Empowering communities

Reinvigorate our relationship with residents, empowering communities to tackle local issues and support one another, while making it easier for everyone to play an active role in the decisions that will shape Surrey's future.

The New Rail Strategy for Surrey will sit alongside other key documents related to transport and economic strategy in Surrey.



Baseline



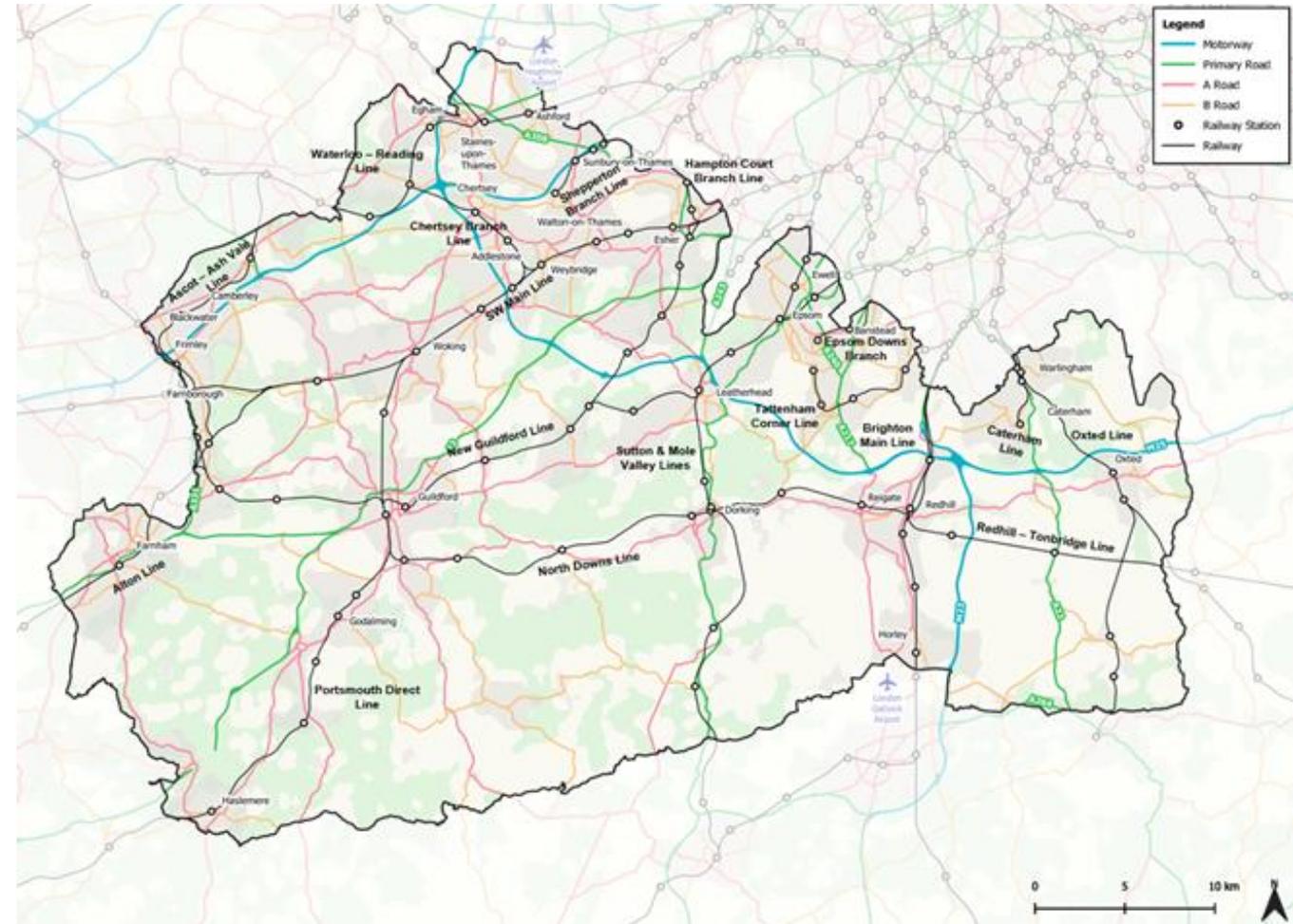
Surrey's railways

Surrey's position on the southern edge of London means it benefits from a strong radial network into the capital, with the South West Main Line (SWML) and Brighton Main Line (BML) corridors passing through the county. These corridors are marked by very high frequency services, up to 24 trains per hour, and are served by high capacity rolling stock.

The radial network not only connects to London but also provides connectivity to the neighbouring counties of West and East Sussex (via the Thameslink and the Oxted Line) and Hampshire (via the SMWL). To the north of the county, the London Waterloo to Reading line and Windsor lines connect the boroughs of Spelthorne and Runnymede to London to the east and Berkshire to the west.

The North Downs Line is the primary orbital route running through the county, running west to east from Reading (providing connections to the Great Western Main Line), connecting to the SWML at Guildford and terminating at Redhill which also has connections to London, Kent, and to Gatwick Airport via the BML.

Most of the network in Surrey is electrified with 750V DC third rail. The North Downs Line is only partially electrified. The sections between Wokingham and North Camp, and between Shalford Junction and Reigate are not electrified; requiring the route to be operated using diesel traction (at least when on those sections). The Uckfield branch is also not electrified.



Rail infrastructure in Surrey

Surrey's stations

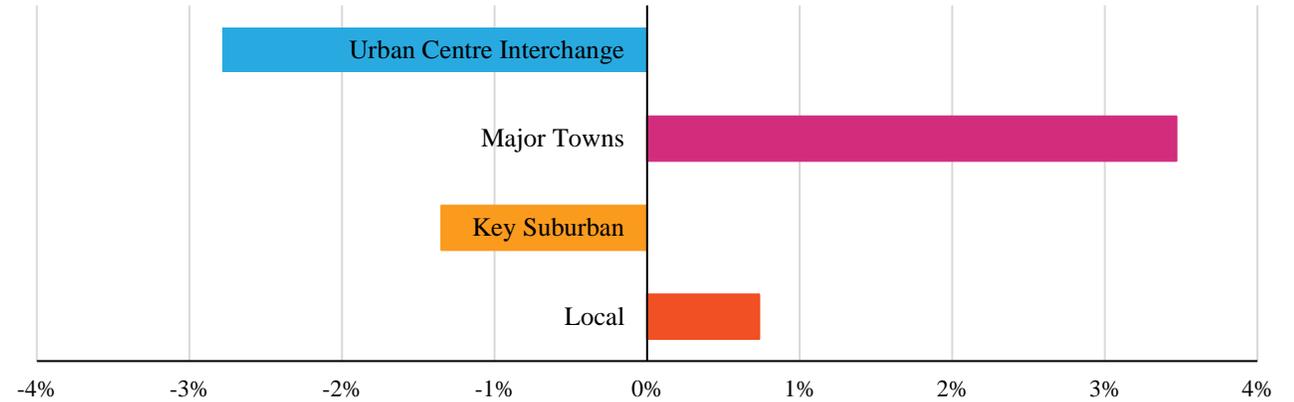
In 2018-19, there were 77 million journeys to and from the 84 stations in Surrey. Its two busiest stations are Woking and Guildford, each of which serve over 7 million passengers per year¹ (our analysis focuses on 2018-19 to exclude any COVID-related impacts from the data).

Stations in the county vary significantly in terms of the facilities provided, although 79% offer dedicated parking options and all stations have some cycling facilities, varying from secure parking with CCTV (such as Guildford and Woking) to providing simple bike stands. All stations are within reasonable walking distance of at least one scheduled bus service.

We have identified four classes of station within Surrey from which we will identify wider trends and adopt appropriate strategies.

- **Urban Centre Interchange (>4m annual users):**
Large stations with connections between lines and a range of express local services, interchange between lines.
- **Major Towns (1m – 4m annual users):**
Serves a commuter market and local town centre.
- **Key Suburban (1m – 4m annual users):**
Stations located on the Surrey/London fringe.
- **Local (<1m annual users):**
Stations serving orbital routes within Surrey and smaller settlements.

5-year growth in entries and exits by station class

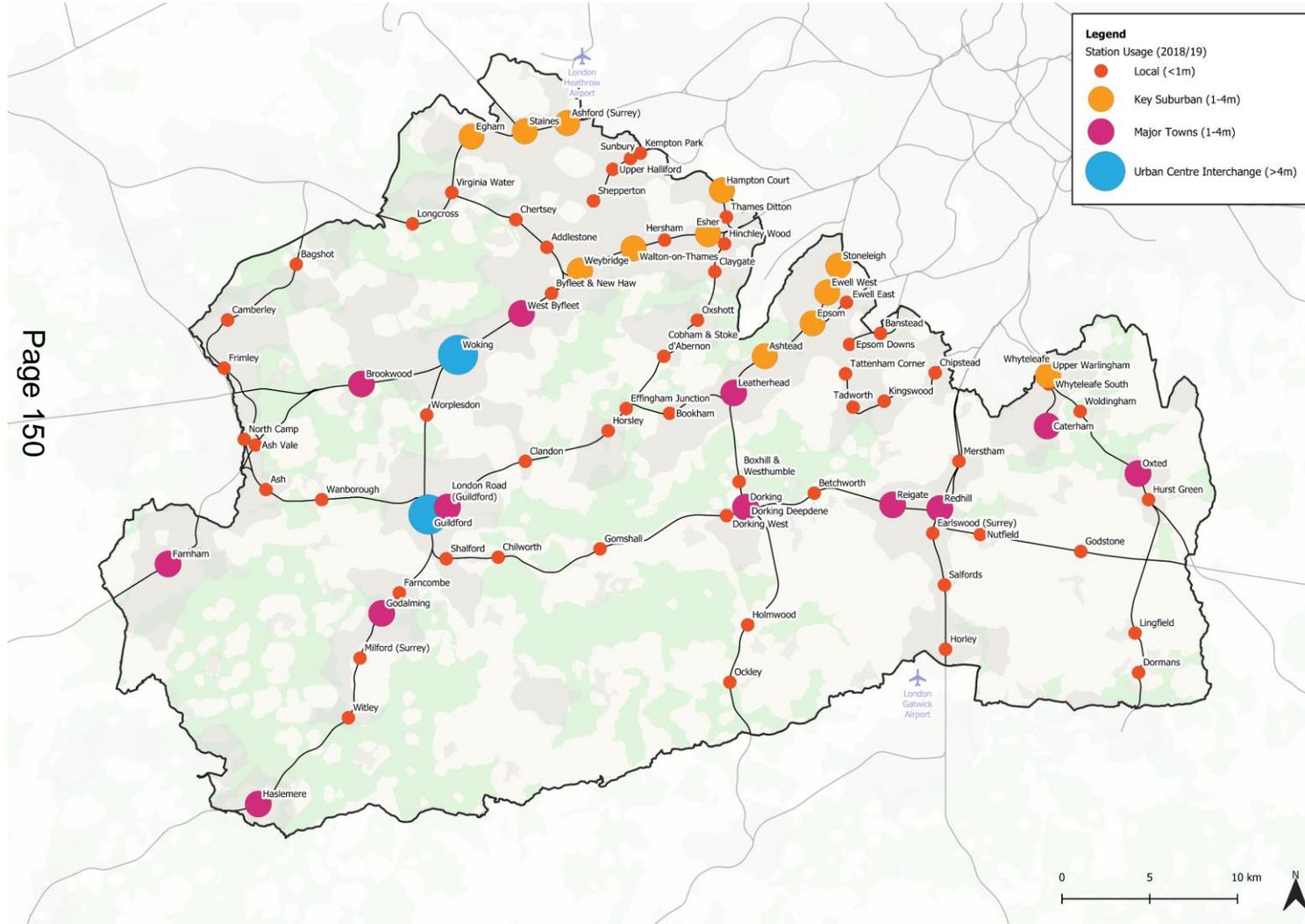


Ten busiest stations in Surrey, 2018-19

Rank	Station	Total entries and exits 2018-19 ¹	Interchanges	5-year growth (entry and exit)
1	Woking	7,729,100	1,424,174	0%
2	Guildford*	7,494,002	991,689	-6%
3	Epsom (Surrey)	3,981,152	284,449	0%
4	Redhill	3,787,090	917,907	6%
5	Walton-On-Thames	2,932,472	-	4%
6	Staines	2,867,034	359,965	1%
7	Weybridge	2,383,624	671,436	-3%
8	Egham	2,072,838	-	-1%
9	Leatherhead	2,062,214	54,551	-2%
10	Haslemere	1,840,386	102,039	6%

1 – ORR <https://dataportal.orr.gov.uk/statistics/usage/estimates-of-station-usage/>

*ORR may have made adjustments to change the of split of passengers between London Road (Guildford) and Guildford



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The map shows Surrey’s stations in terms of the volume of entries and exits in 2018-19, based on the Office of Rail and Road (ORR) station usage data.

Typically, the most well-used stations are located in the larger towns on the main lines and stations closer to London, where journey times and frequencies are most competitive for commuting, but also attract leisure and other trip types.

Further from London station densities are lower, therefore stations will attract passengers from a wider catchment, particularly those with fast journey times to London.

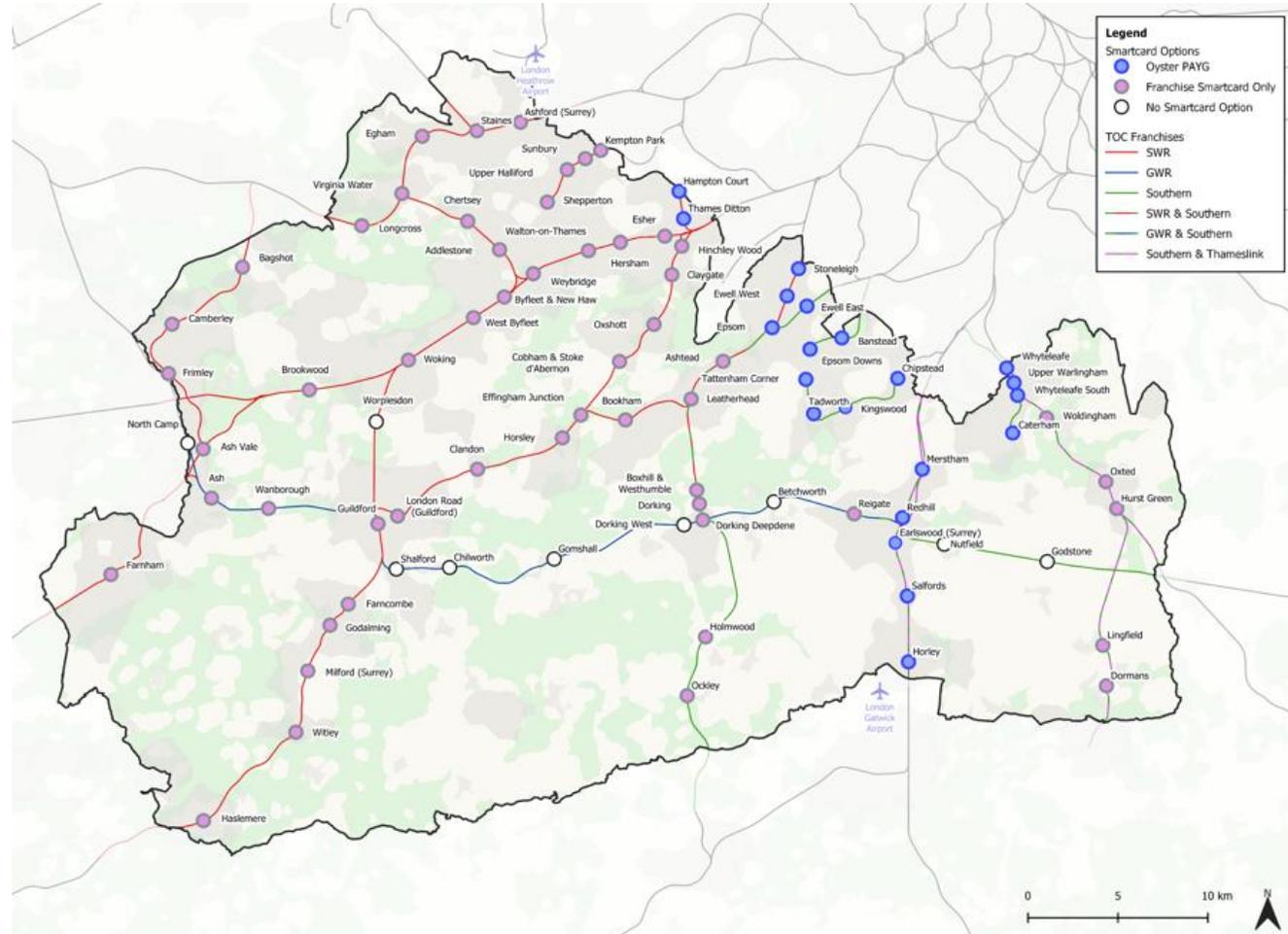
Station demand in Surrey

Railway operators and ticketing

The majority of rail services in Surrey are operated by South Western Railway (SWR; a consortium of FirstGroup and Hong Kong’s MTR) who have operated the current franchise since 2016. Services on the BML are operated by Govia Thameslink Railway (GTR) under the Southern and Thameslink brands, and Great Western Railway (GWR; FirstGroup) operate services on the North Downs Line.

The railway itself is maintained and renewed by Network Rail who are also responsible for delivering upgrades to the network. Network Rail’s revenues are generated from track access charges paid by operators and from grants from national government. It delivers maintenance and renewals activities in defined Control Periods which run for five years. The latest, Control Period 6, runs from 2019 to 2024. Network Rail divides services in the county into Wessex (services in the west of Surrey covering the SWR franchise network) and Sussex (services in the east on the southern and Thameslink networks) with the North Downs Line running across both areas.

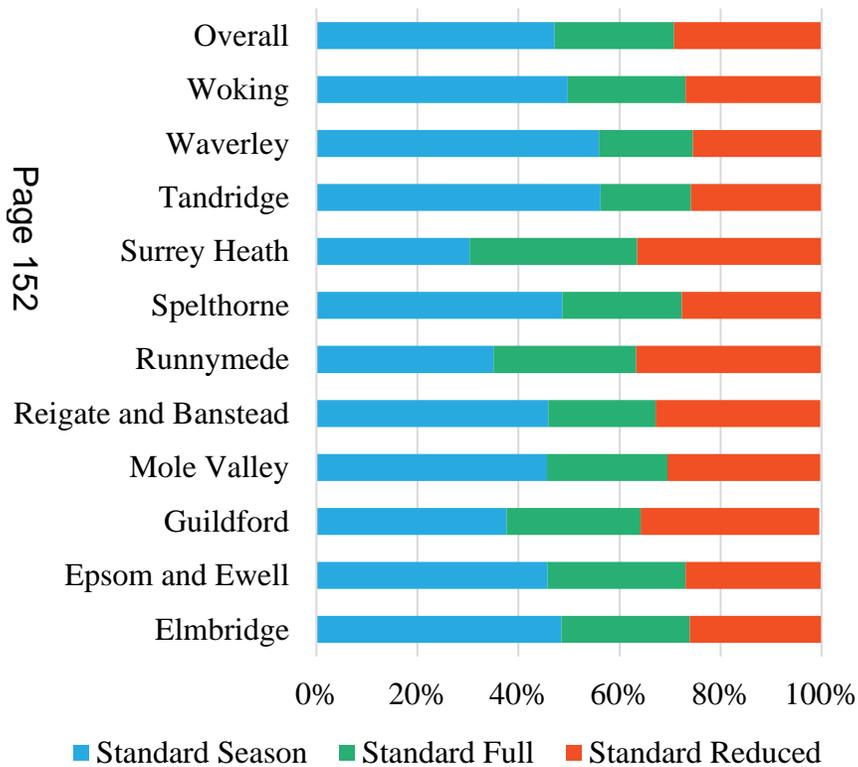
Passengers can purchase paper tickets for all types of fare, including season tickets which cover a specific route. Operators SWR, GWR, and GTR have their own smart cards, which can be used on each other’s networks for pre-purchased tickets, but not pay-as-you-go and not to stations operated by other bodies (e.g London Underground or Overground) within the Transport for London (TfL) travel zone. The TfL travel zone now includes fourteen stations in Surrey, and separate pay-as-you-go Oyster fares now extend to stations between Redhill and Horley.



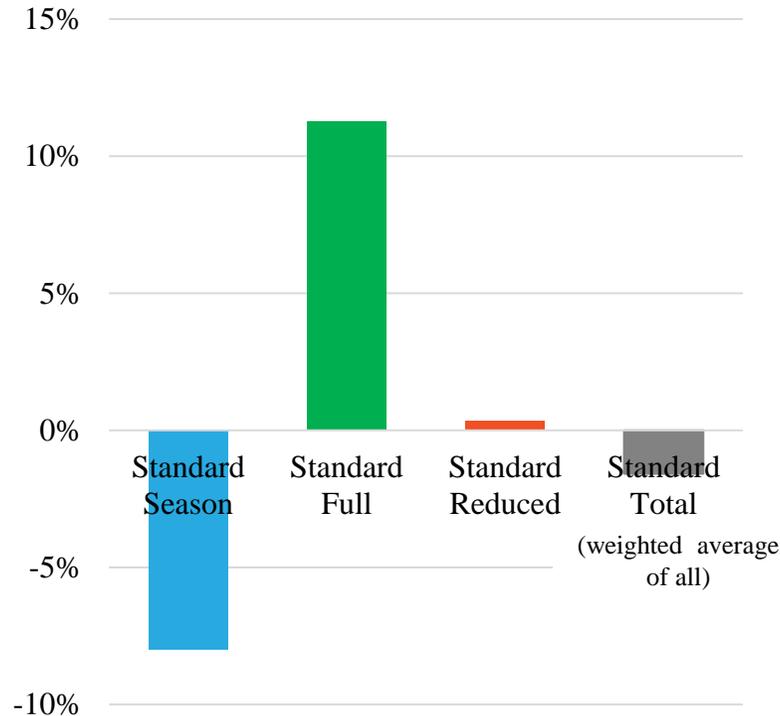
Smart card acceptance within Surrey



Proportion of 2019 journeys by ticket type and local authority



% Change in total journeys by ticket type (2015-2019)



The government launched a consultation on the topic of comprehensive pay-as-you-go ticketing in the south east in 2019¹ and its introduction (including contactless bank card) was included in the 2019 Conservative party manifesto².

Nearly half the journeys from the county in 2019 were undertaken using a season ticket; however, this had fallen 8% since 2014 indicating a growing commuter preference for fewer trips per week. It is likely that season ticket use will have reduced significantly in 2020 as working from home has increased, and commuting to London has fallen as a result of COVID-19.

The majority of fares in the county have been rising in line with the Retail Price Index (RPI) measure of inflation measure over the last five years, as rises in season tickets and anytime fares are capped at that level by the UK Government. In 2021 government is raising regulated fares by RPI+1% (2.6%).

1 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/776998/payg-rail-consultation-doc.pdf

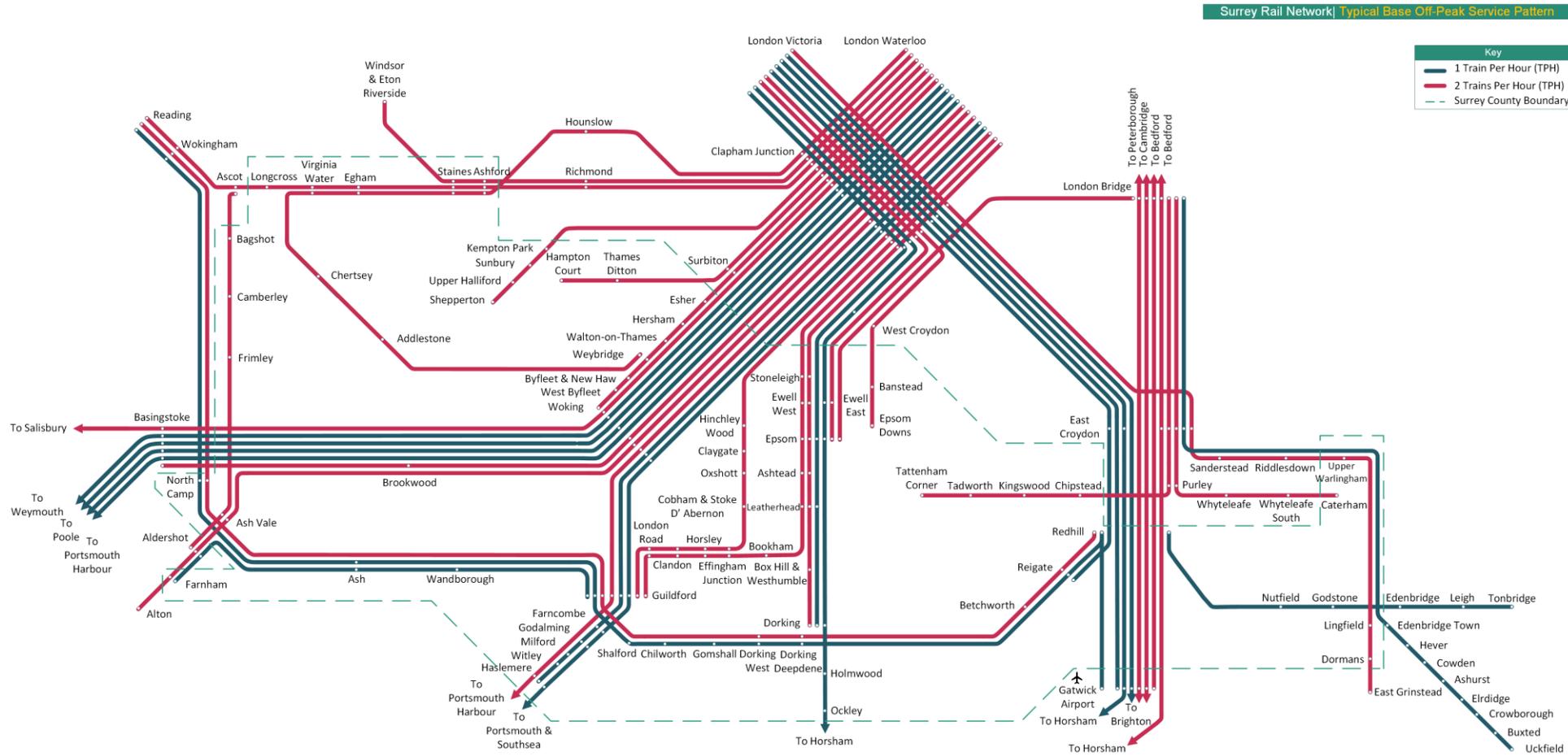
2 https://assets-global.website-files.com/5da42e2cae7ebd3f8bde353c/5dda924905da587992a064ba_Conservative%202019%20Manifesto.pdf

Service frequencies

Surrey has high frequency trunk routes with a mix of high speed and stopping services on the SWML and BML. This offers frequent connections for stations on the suburban fringes of London, and express services to Woking, Guildford, and outer areas of the county.

Thameslink offers a high frequency service on the BML, but many of the express services bypass stations in Surrey (with the exception of Reigate). Most radial routes in the county are achieving a good frequency of at least 4 trains per hour (tph).

Currently the North Downs Line is being increased to 3tph, however the full introduction of higher frequencies will not happen until 2021.



Train frequencies in Surrey (services correct as at October 2020)



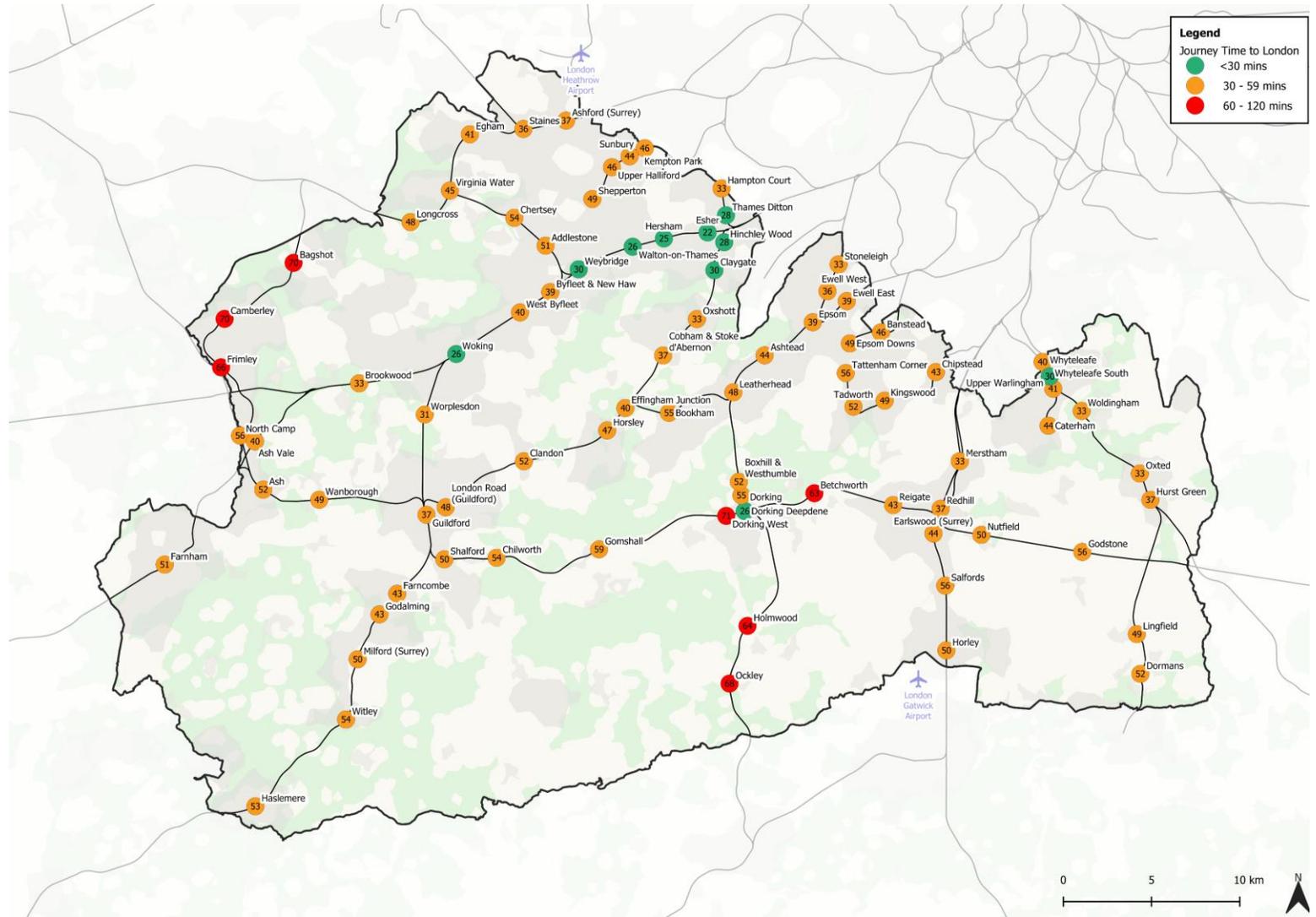


Baseline

Journey times to London

Surrey has excellent connections to London, with an average fastest journey time from Waterloo to Woking of 28 minutes, and from Waterloo to Guildford of 38 minutes. On the BML, Redhill is 31 minutes from London Bridge and 46 minutes from St Pancras International.

Despite its location just outside of the county, connections to Heathrow Airport are indirect or require a change to bus or coach, at either Staines (20 mins), Woking (55 mins), or Guildford (65 mins); or travelling via central London. Connections to Gatwick are direct from Guildford to Gatwick only taking 42 minutes; or 56 minutes from Woking to Gatwick via a single interchange.



Fastest journey times to Central London

Journey times and connectivity within Surrey

Connection times for the largest station of each district or borough in Surrey are shown below. Many of the internal connections within Surrey are longer than connections to London, especially where there is no direct connection.

Fastest journey time between stations (in minutes) during the morning Direct service Changes required

		Destination									
		Woking	Guildford	Epsom	Redhill	Walton-on-Thames	Leatherhead	Staines	Camberley	Oxted	Haslemere
Origin	Woking		7	50	61	10	42	43	44	67	22
	Guildford	7		34	32	28	26	93	51	84	24
	Epsom	54	37		43	50	7	67	100	64	67
	Redhill	57	35	42		65	33	70	93	36	69
	Walton-on-Thames	11	26	56	66		64	34	67	75	47
	Leatherhead	51	29	8	34	59		83	109	78	59
	Staines	54	70	65	73	33	73		42	74	85
	Camberley	42	48	104	95	58	94	39		109	75
	Oxted	63	76	66	43	73	79	74	123		91
	Haslemere	25	14	60	61	45	52	105	71	107	





Baseline

Network performance

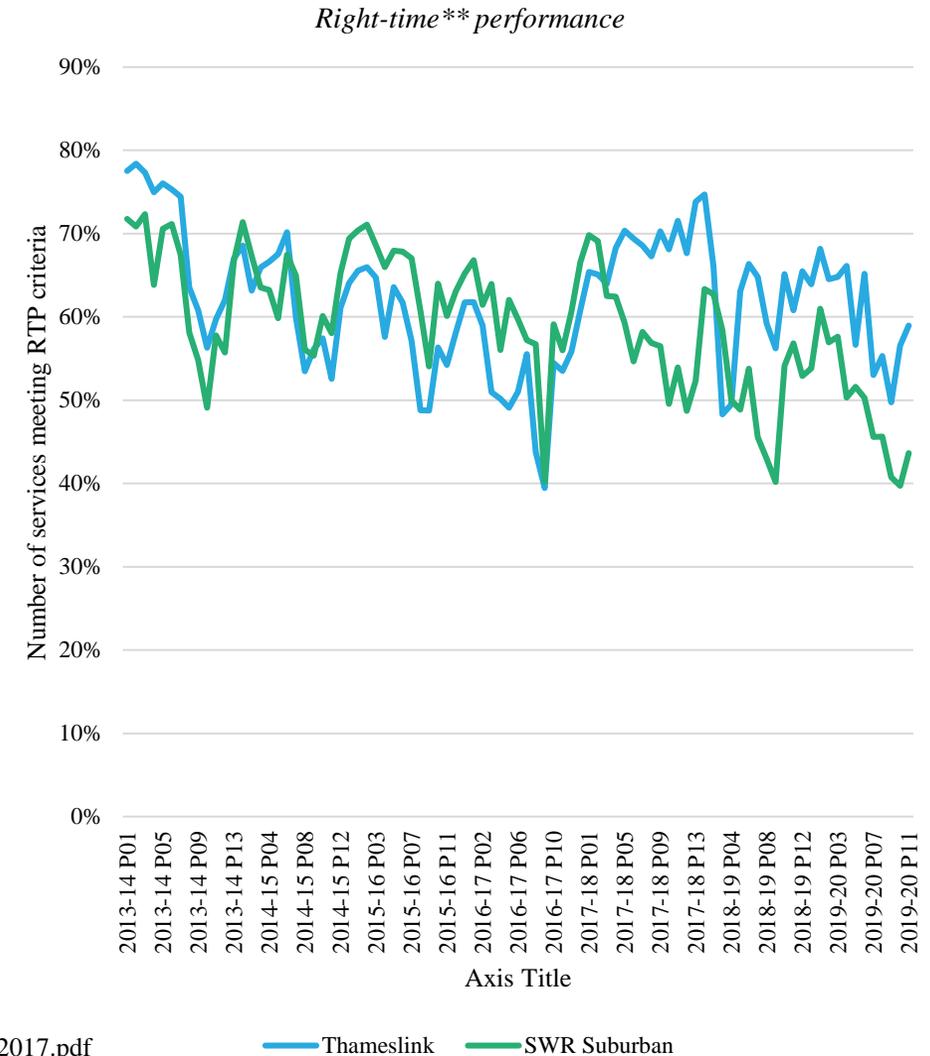
Since 2013 there have been significant challenges to the Surrey rail network in terms of performance and reliability. Studies¹ have shown that lower reliability results in fewer passengers on the railway network, and that disruption has a negative view on passengers' perception of the railway.

Thameslink has experienced a particularly challenging period following the May 2018 timetable change, with its public performance measure (PPM)* falling to 73% and right time performance (RTP)** to 50%. Services on Thameslink have now improved and returned to PPM of over 85% in 2020 and RTP of 65%.

On the SWR network reliability has also fallen, with disruption arising from the engineering works at London Waterloo and the impacts of industrial relations disputes. This caused a reduction of PPM to below 80% and right time of 40% in 2016.

Another challenge has been overcrowding, where high demand and limited capacity results in less attractive services, especially where the railway is competing with private car. Three services operating in Surrey (two from Woking and one from Uckfield but passing through Surrey) have been consistently listed in the top 10 most crowded routes in the country².

Low frequency is also a challenge, especially on orbital routes where some services are half hourly; evidence from other operators shows the benefits for passengers of moving toward 'turn up and go' frequencies, this is considered to be above 4tph, where intervals are consistent³.



1 - <https://catalogues.rssb.co.uk/research-development-and-innovation/research-project-catalogue/T1134>

2 - https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729221/top-10-overcrowded-trains-2017.pdf

3 - <http://content.tfl.gov.uk/strategic-case-for-metroisation.pdf>

* PPM – Public Performance Measure: The percentage of trains which arrive at their terminating station within 5 minutes of the planned arrival time

** Right Time Performance: The percentage of recorded station stops arrived at early or less than one minute after the scheduled time

Passenger journeys and freight

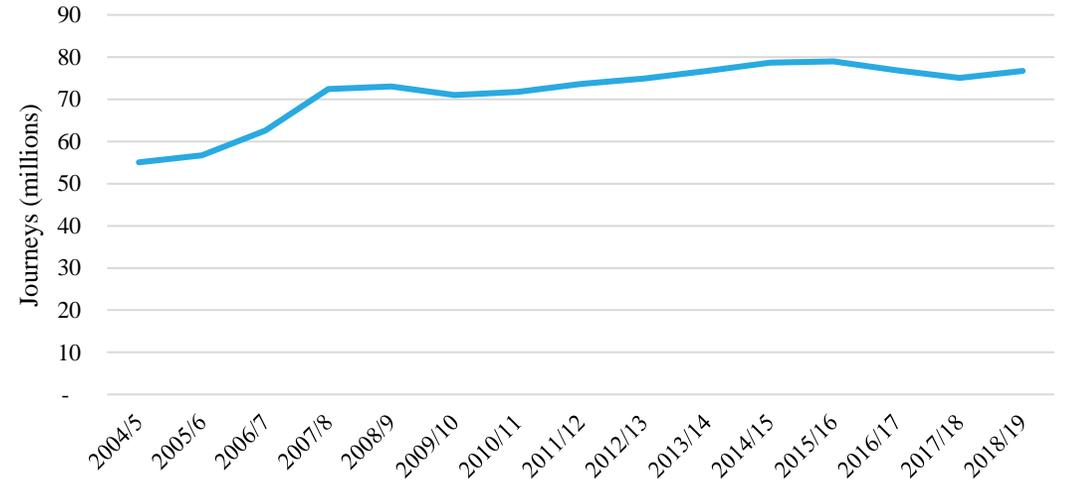
The main driver of demand for rail travel in Surrey is for commuting for work, given the attraction of higher wages in the capital, and the relatively cheaper house prices and excellent quality of life available in Surrey. Ticketing data from 2019 shows 85% of trips from Surrey start or end outside the county, with 62% starting or ending their journey in central London.

Outside London there are significant flows to Gatwick Airport (570,000 journeys to/from per year), Brighton (250,000), and Portsmouth (146,000). To the west there is a significant flow to Reading (430,000), but rail demand to Heathrow is lower at less than 10,000 passengers per year.

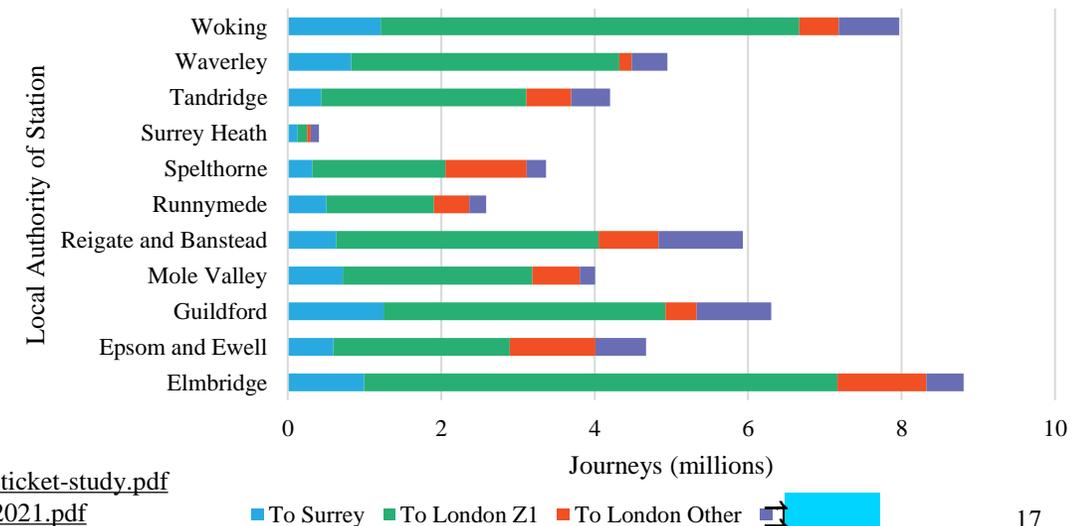
Rail demand in Surrey will change through a combination of population change, employment growth and pattern (within and outside Surrey), and rail trip rates (for work and leisure). The government is proposing a housing target of 6,750 additional dwellings per year, which is almost double the current completion rate. This would result in a forecast 9% increase in population by 2031¹.

Commuter travel patterns are changing, even before the COVID-19 pandemic, as rail commuters were increasingly taking fewer trips per week², with a growing likelihood that many workers will now not return to commuting five days a week³. The trend for lower trip rates has the potential to lessen the impact of increased population on rail demand in the medium and long term. Previous Network Rail forecasting⁴ had predicted long term growth of 40% on the services into London Waterloo by 2043, but the pandemic is challenging the basis for these projections.

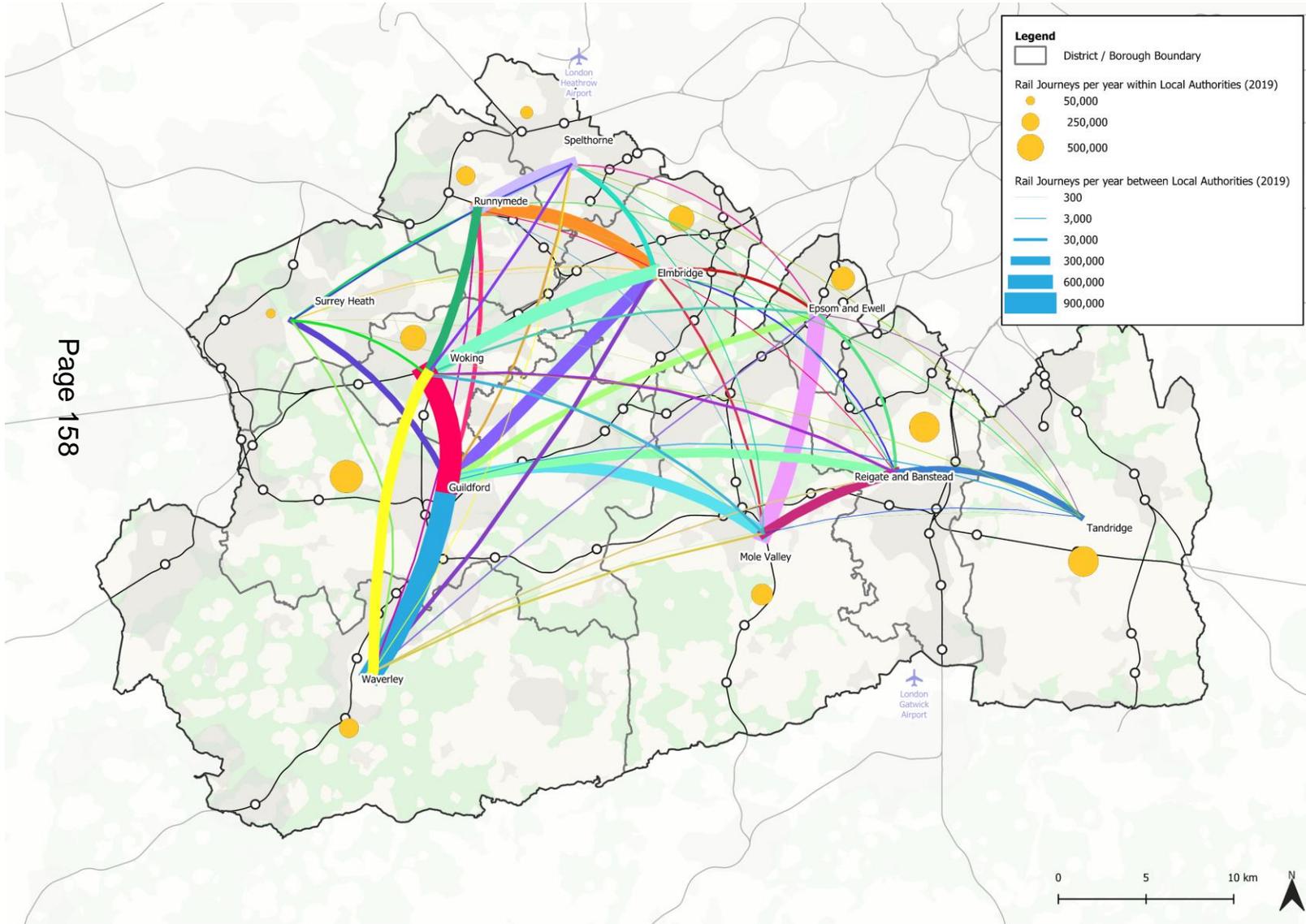
Total rail demand from Surrey Stations



Destination of Passengers Boarding at Surrey Stations



1 - https://www.surreycc.gov.uk/_data/assets/pdf_file/0004/201874/Surrey-Place-Ambition-Version-1-July-2019.pdf
 2 - https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790966/journeys-per-season-ticket-study.pdf
 3 - <https://d3cez36w5wymxj.cloudfront.net/wp-content/uploads/2021/02/12115246/Travel-during-Covid-19-survey-12-February-2021.pdf>
 4 - <https://www.networkrail.co.uk/wp-content/uploads/2016/11/Network-Specification-2016-Wessex-1.pdf>



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The key journey attractors within Surrey are Guildford, Woking, Epsom, and Reigate; representing the key employment hubs, and large retail and leisure sectors. Journeys tend to follow the key radial links, but are also influenced by orbital connectivity such as the North Downs between Mole Valley and Guildford; and Chertsey Branch Line between Runnymede and Elmbridge.

Currently there are limited strategic freight routes through Surrey, with some services timetabled on the SWML, and on the Tonbridge to Redhill line to London via Kent. There are also freight movements from aggregate terminals at Tolworth, which run on the Chessington Branch Line and SWML.

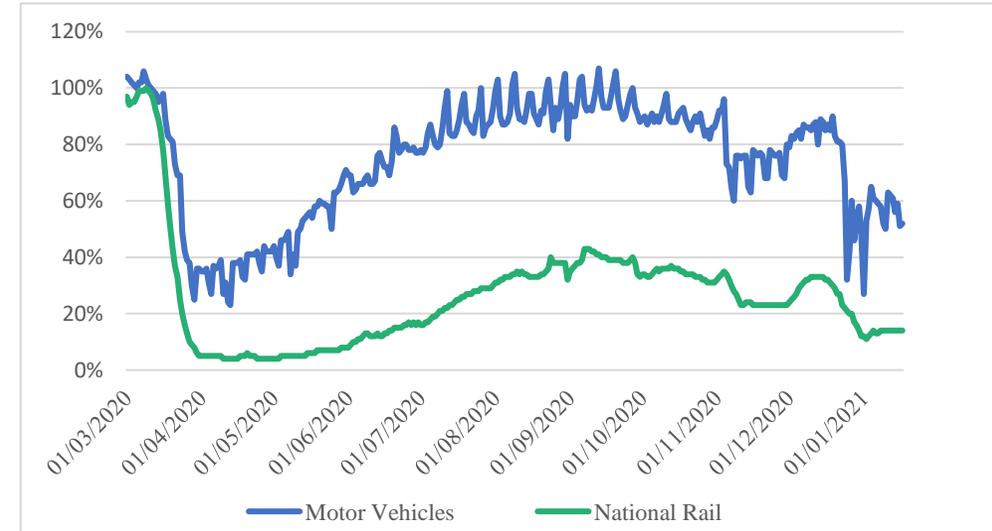
Impact of COVID-19

COVID-19 has led to the biggest demand shock to railways since the Second World War, and saw passenger demand drop by over 90% across the network. The government has asked the UK population not to make unnecessary journeys, and for workers to work from home, which significantly reduced demand on commuter routes. In addition, the corresponding collapse of air travel has impacted on employee and passenger trips in Surrey, to Gatwick and Heathrow airports. The government has been forced to suspend the established franchising model in favour of emergency contracts, in order to keep railways operating for passengers who need them.

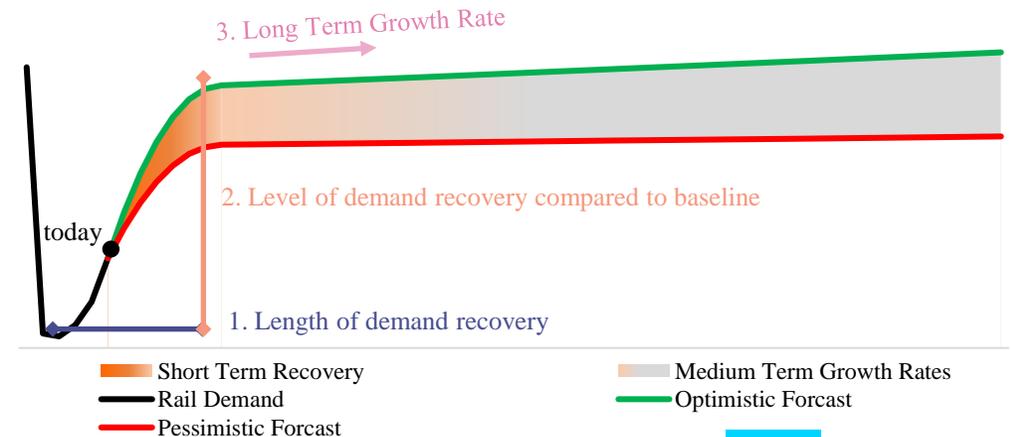
In addition to its short-term impact, COVID-19 may be acting as an accelerator to existing trends for increased remote working and reduced commuting to offices; which could have a profound impact on the demand for rail travel in Surrey and the UK. Rail demand has previously fluctuated with economic activity, and the economic fallout from the pandemic may mean a slower than expected recovery in rail use, even after risks of transmission from using public transport diminish. The combination of these effects is having a large impact in the short term. Recovery from COVID-19 will rely on a number of unpredictable factors: in the short term, the speed of vaccination programme and its effect on opening up sectors of the economy will be likely to dictate usage; but in the medium and long term, the rate of economic growth, and changes to working and social patterns will have far more of an impact on the pattern of rail usage.

COVID-19 may also impact the financing of railway infrastructure, with government investment constrained (£1bn was removed from the Network Rail CP6 budget in the November spending review), and with uncertainty over the strength of existing business cases when demand is uncertain, balanced against the desire to boost economic activity in the short term as the the economy recovers.

Motor and rail demand the pandemic relative to 2019¹



Forecasting challenges

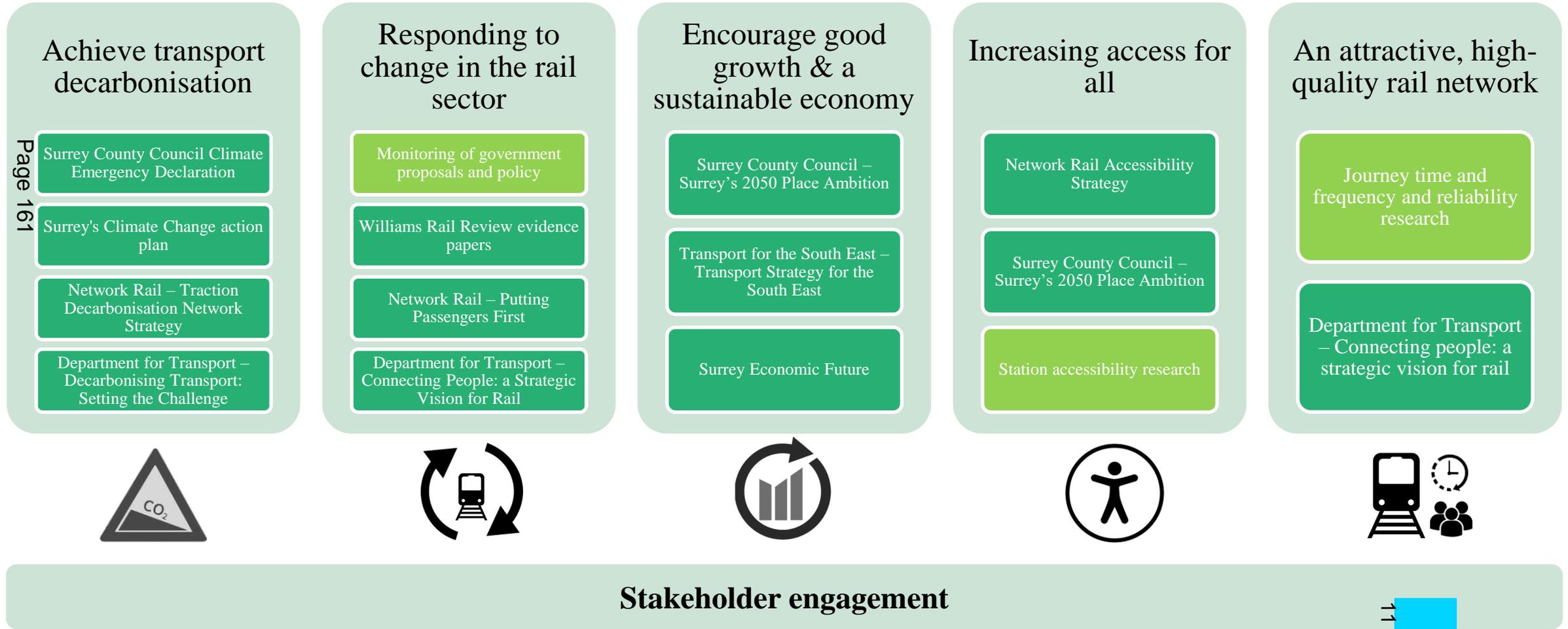
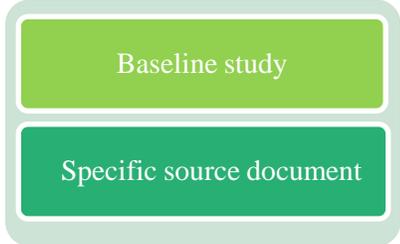


1 - Source: <https://www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic>

Strategic aims and responses

Developing strategic aims

We used the following sources to develop the strategic aims – based on plans for the GB rail network, and specific policies and outcomes Surrey County Council is looking to achieve



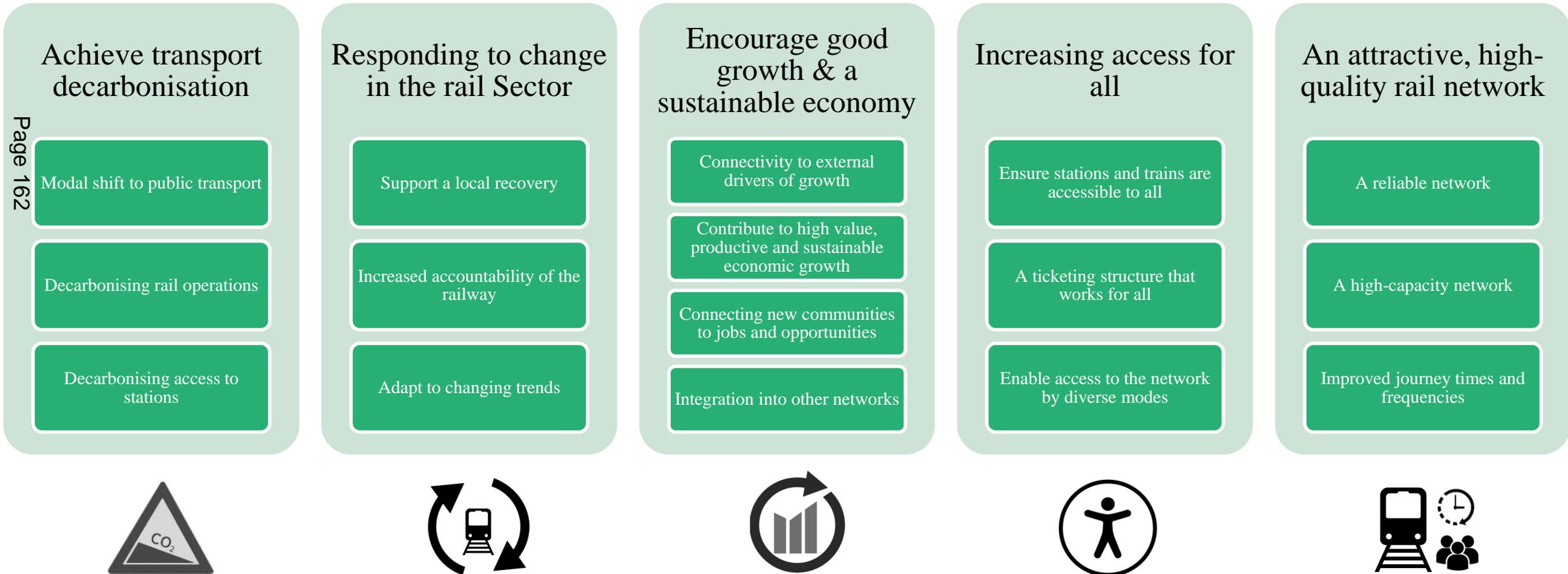
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Strategic aims and responses

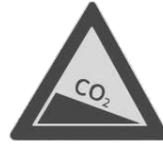
Developing strategic responses

These are specific objectives we seek to achieve and will be used to assess interventions

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Achieve transport decarbonisation



Surrey has matched the UK government’s net-zero carbon target for 2050. Within Surrey, transport comprises more than 40% of CO₂ emissions and 2.3 tonnes of carbon per person per year. Without interventions, no reduction is forecast from the transport sector by 2050 in Surrey, increasing its share of emissions to 48% as emissions from other sectors decarbonise.

Surrey’s Climate Change strategy sets a target of 60% reduction in transport emissions by 2035 via a three-pronged approach: reducing journeys, shifting to an increase use of public and active transport modes, and developing zero emission vehicle options (avoid-shift-remove).

Continuing to maintain spare capacity and increase performance on the radial links to London will be vital in maintaining current rail mode shares. However, there is the most scope for change in the journeys within Surrey and neighbouring boroughs (as mode shares for rail are lower), and encouraging improved services within Surrey will be a key component of modal shift, but requiring a different set of policies to radial demand.

Whilst rail produces significantly less carbon emissions per mile (at average passenger loadings) than road-based transport overall, emissions on different parts of the network vary. Diesel traction can produce twice the carbon emissions of electric trains¹, in addition to having local

air quality impacts. Additionally as power generation decarbonises (Network Rail already procures electricity from renewable and nuclear power) this gap will further increase².

Strategic Response 1 - Encourage modal shift

Improvements in rail should result in modal shift, however a particular focus made on interventions where modal shift to rail from private car is highest can reduce emissions fastest.

Strategic Response 2 - Decarbonising rail

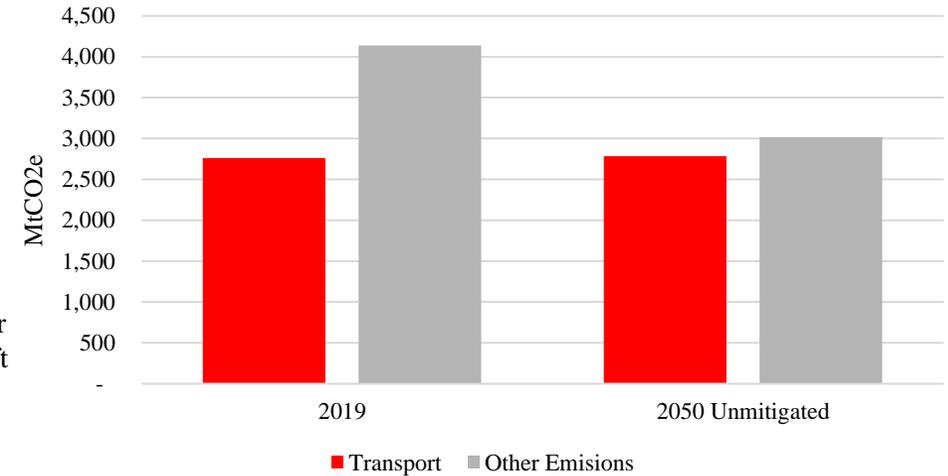
Support the adoption of low emissions technology, for rail with diesel traction replaced by low- and ultimately zero-emissions vehicles.

Strategic Response 3 - Decarbonising access to stations

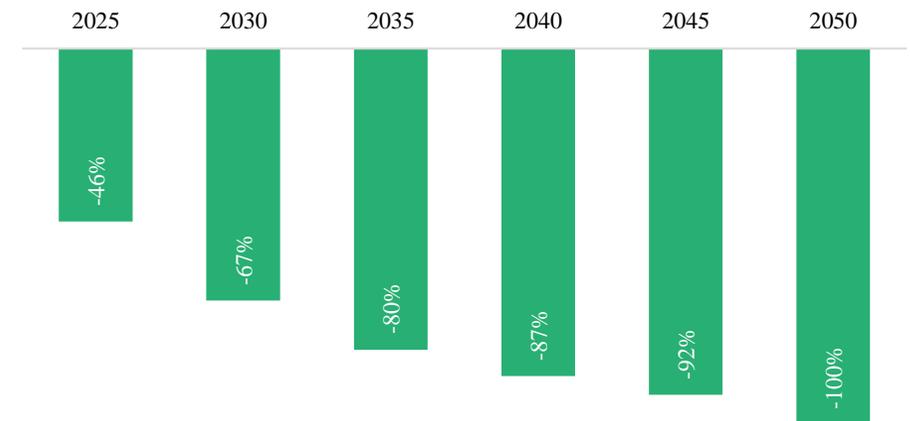
A rail trip is only ever a component of a journey and passengers have to access stations by other mode of transport, or by foot or bike. These linked trips create emissions and by encouraging access by low- and zero-emissions modes, not only public and active transport but also low and zero emissions vehicles, emissions can be lowered.

1 <https://www.rssb.co.uk/en/Research-and-Technology/Sustainability/Decarbonisation/Decarbonisation-our-final-report-to-the-Rail-Minister>
 2 <https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-Technical-report-CCC.pdf>

Surrey’s GHG emissions



Surrey's Carbon Zero Targets





Strategic aims and responses

Responding to change in the rail sector



Since the privatisation of the railways in the mid-1990s, the passenger rail network in Surrey has been operated under franchise arrangements, where operators bid to run train services and stations for a defined period of time, making commitments to deliver a set of improvements plus an agreed financial transfer to/from the government. Operators are allowed to set some fares, although many (such as season tickets and some walk-up fares) are regulated by the government. Investments in the network are delivered by Network Rail who also undertake maintenance and renewals, receiving funds from the train operating companies in the form of track access charges.

The traditional rail franchise model has had some successes, but in recent years it has also become clear that there are many areas where it has struggled to meet the needs of passengers and taxpayers. The Williams Rail Review was commissioned in September 2018 to propose solutions to some of these problems. That review is yet to be published, government is now progressing with a programme of reform which is expected to deliver a new industry structure and contractual model for passenger services.

The significant reduction in demand during COVID-19 combined with need to continue to provide capacity for socially-distanced journeys for key workers has meant the government has stepped in to fund the rail network during the pandemic, as operating on commercial terms became unviable.

Strategic Response 1 - Increased accountability to passengers

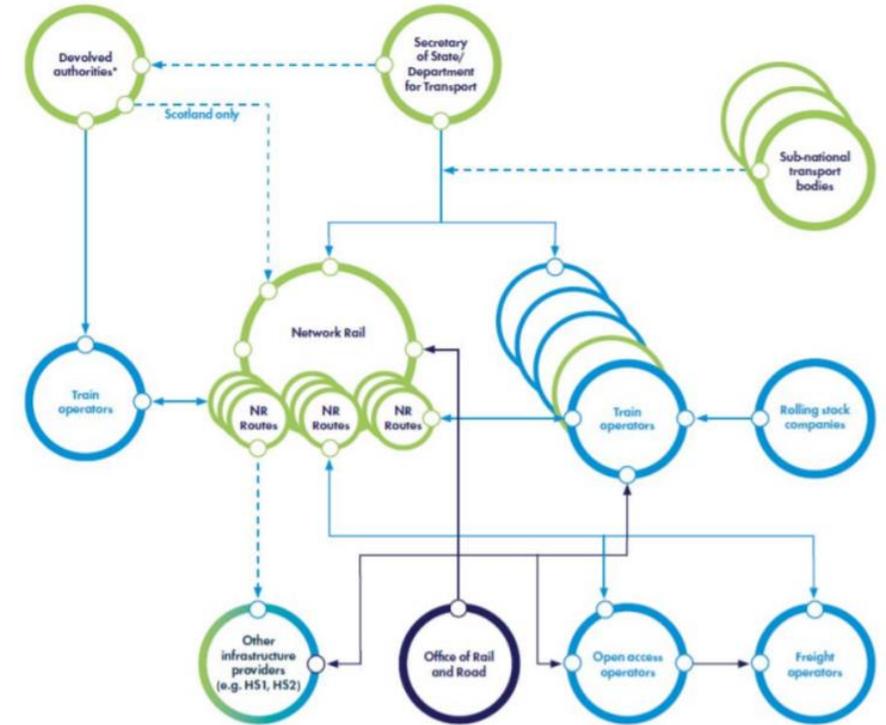
Rail users can feel that the operations and planning of the railway is remote to the needs of the local population, and Surrey will support policies which increase local accountability to the areas and people the railways serves.

Strategic Response 2 - Adapt to changing trends

A focus on interventions which can adapt to trends, and improve the flexibility of rail network and stations to new technology and changing trends. The type of demand may also change, and Surrey will need to support a diversification of trip, away from commuting and towards increasing leisure trips were this to develop.

Strategic Response 3 - Support a local recovery

Interventions which can be delivered in the next two years are key to boosting economic growth in the recovery period. This could include infrastructure projects or supporting projects such as reforms to ticketing or timetables.



Current GB railway organisation (Williams Rail Review)

Encourage good growth and a sustainable economy



The Surrey 2050 Place Vision and Economic strategy sets out clear goals for the county, centred around delivering sustainable growth.

Transport has the potential to help maximise the potential of Surrey to grow, prosper, and attract new businesses to move to the county to take advantage of its skilled workforce and excellent transport connections. By providing local opportunities accessible by sustainable transport, Surrey can minimise the need for long commuting journeys and dependency on growth in London.

Surrey benefits from its close links to the London job market as well national connectivity. In order to connect to all areas of the UK and the global economy, strong connectivity to key transport infrastructure such as international airports, high speed lines (HS1 and HS2) will be vital.

Surrey also has long term goals to deliver new housing and this will need to be supported by improved transport capacity, including rail. This will ensure that residents can access local jobs, those in central London and neighbouring areas, and employment hubs such as airports. This could be supported by developing sites close to existing stations; constructing new stations; or improving links between new housing and nearby hub stations by public transport, active transport, and improved road capacity.

Strategic Response 1 – Connectivity to external drivers of growth

Ensure Surrey is connected to national and international markets through connections to Central London and key transport nodes such as key mainline and HS2 stations, and Heathrow and Gatwick airports.

Strategic Response 2 - Enable and influence economic growth

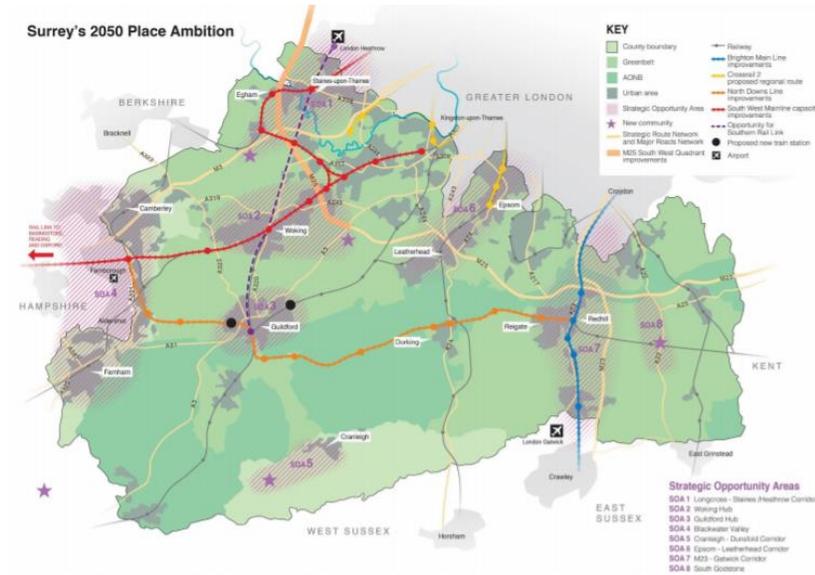
Increase the accessibility of Surrey’s opportunity areas across the county, maximising agglomeration opportunities and influencing opportunities across the county including its smaller towns.

Strategic Response 3 – Connecting new and exiting populations to jobs and opportunities

Utilise rail to increase the connectivity of new housing, enhance existing and new employment opportunities, and encourage whole placemaking.

Strategic Response 4 - Integration into other networks

Ensure that the transport network is sufficiently coordinated to provide complete journeys, and sufficient capacity and accessibility to opportunities across the county.



Source: Surrey’s 2050 place ambition





Strategic aims and responses

Increasing access for all



Access to the railway network can create opportunities for residents by opening up access to employment, amenities, and improved wellbeing. Access for all can be ensured not only by providing level access to board trains, but can also be supported with the provision of safe and secure walking and cycling facilities, and by addressing financial barriers to public transport use.

Only 18% of Surrey's stations are fully accessible and without this, the benefits of any improvements to trains cannot be maximised. Each increase in step free provision and station accessibility unlocks further journey opportunities.

Access for all should also include improving access for those unable to drive, by providing stations integrated into public transport, walking and cycling networks, or utilise the potential for new Mobility as a Service (MaaS)* technology. Integration is multi-faceted, including provision of integrated information, easy and quality interchanges, and ticketing to ensure journeys are seamless.

There are also financial barriers to using the network, particularly as many workers are increasingly no longer required to physically attend the office five days a week and others work part-time. These groups face higher average fares than full time workers, with only a choice of season tickets or walk-up fares. There is a growing need to ensure there are the types of ticket available which maximise potential users whilst still ensuring the financial sustainability of the railway.

Strategic Response 1 - Ensure stations and trains are accessible to all

Increase the number of step-free stations and support interventions which improve all types of accessibility within Surrey.

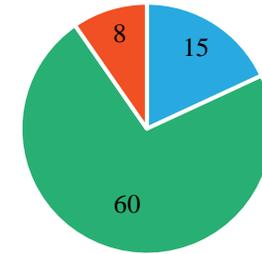
Strategic Response 2 - A ticketing structure that works for all

Support a simple and fair ticketing and fare structure that does not penalise groups such as part-time workers and those taking one way trips.

Strategic Response 3 - Enable access to the network by diverse modes

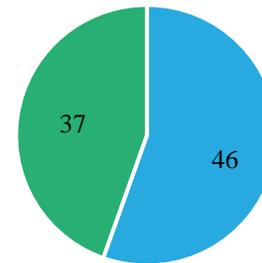
Support interventions to increase accessibility of stations to their local communities by walking, cycling, and other forms of public transport.

8 Surrey stations still have a Category C rating for step free access



- Category A - Step-free access to all platforms
- Category B - Step-free access to at least one platform
- Category C - No step-free access to any platform

Over half of Surrey stations have ramps to help disabled passengers board trains



- Ramp Access
- No Ramp Access

Source: National Rail website

*Mobility as a Service (MaaS) is the integration of various forms of transport services into a single mobility service accessible on demand.

An attractive, high-quality rail network



In the 2013 Surrey Rail Strategy, the main focus was on delivering the large increase in capacity needed to meeting the projected 40% growth in commuter demand. However, passenger growth has slowed over the last five years, and there are other developments in passenger behaviour and the economy which suggests that demand for commuter travel to and from London may not increase as strongly as predicted, even after pandemic risk reduces. Maintaining a highly attractive network will be important in attracting users (both new and old) to the network.

Whilst the lower commuter demand presents a challenge in terms of funding the railway, it presents opportunities to focus on delivering improved reliability, and a reorganisation of services in both local and longer distance travel, which could support demand in the long run.

Targeted capacity increases and journey time improvements will still have a role to play in allowing more passengers to travel; facilitating journeys which are more attractive to new users.

There are likely to be challenges to the reliability of the network in future, for example extreme weather events; and the railway will need to adapt to prevent these from disrupting passenger experience.

Strategic Response 1 – A reliable network

Support projects which deliver reliability improvements to rebuild confidence in the railway network.

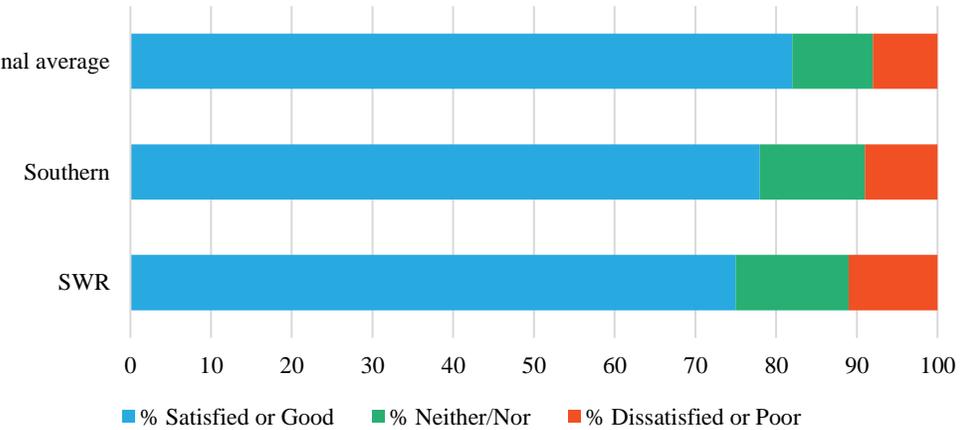
Strategic Response 2 – A high capacity network

Support increased capacity on both radial and orbital routes to give passengers a better travel experience and unlock new journey opportunities.

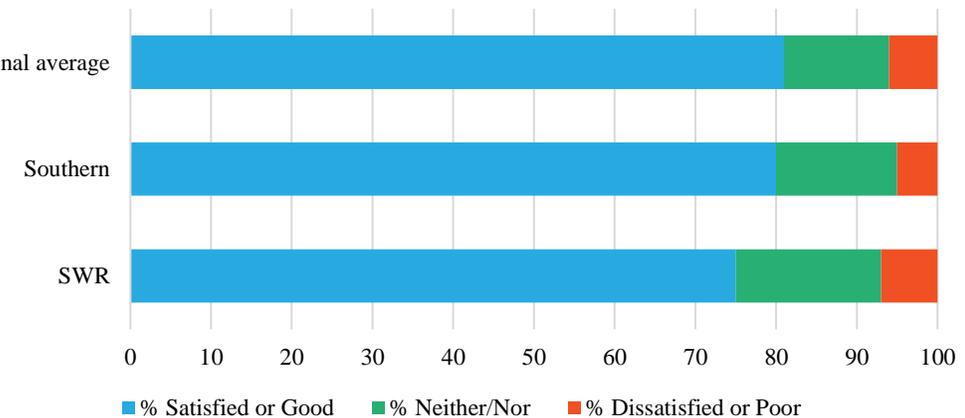
Strategic Response 3 – Improved journey times and frequencies where required

Continuing to support journey time improvements and better frequency, to improve passenger journeys.

Overall satisfaction with the journey



Overall satisfaction with the station



Source: National Rail Passenger Survey

Strategic aims and responses

A New Rail Strategy for Surrey, LTP4, and Surrey Infrastructure Plan

Surrey's Local Transport Plan 4 (LTP4) will set the policies and strategies, including investment, across all modes in the county; with the aim of achieving specified objectives. Rail is a part of LTP4.

A New Rail Strategy for Surrey, through its objective setting and policy areas, will feed into LTP4. However, the inter-connected nature of rail travel, and its use for travel out of the county, mean many projects which are key for developing the Surrey rail network require investment outside the county, funding from central government, and working with partners.

Projects which require investment locally will be assessed as part of the Surrey Infrastructure Plan, where they will be reviewed against other transport investments and those outside transport.

		Local Transport Plan 4 – outcome objectives			
		To rapidly reduce carbon emissions, ensuring that Surrey is on track for net zero emissions by 2050 or earlier	To support thriving communities with clean air, excellent health, wellbeing, and quality of life	To support Surrey’s growth ambitions, and enable businesses and people to prosper sustainably	To provide well connected communities that encourage social mobility and ensure no-one is left behind
A New Rail Strategy for Surrey strategic aims	Achieve transport decarbonisation	✓✓			
	Responding to change in the rail sector		✓	✓	✓
	Encourage good growth & a sustainable economy		✓	✓	
	Increasing access for all	✓	✓		✓✓
	An attractive, high-quality rail network	✓	✓	✓	✓✓

Stakeholder engagement





Stakeholder engagement

Approach to engagement

As part of the strategy development process, Arup undertook a range of engagement activities, to capture the issues and investment priorities of key stakeholder groups and organisations.

Virtual interviews were held with primary stakeholders between September and October 2020, to gain a deep understanding of the issues which need to be addressed on the County’s rail network, and the investment priorities for the delivery of rail infrastructure and services. The interviews provided high level detection of the strategy and a number of core themes intended to give shape and focus to the strategy.

Questionnaire surveys were also issued to a selected number of stakeholder groups and organisations, believed to have a significant interest in the County’s rail network. The questionnaire survey was designed to follow a similar structure to the interviews, allowing selected stakeholders to express their views on specific issues and themes, and make further comments or points for consideration. A copy of the questionnaire can be found in Appendix A.

The engagement approach, and the list of stakeholders, was defined and agreed with Surrey County Council prior to commencing engagement. Stakeholder groups and organisations were first invited, and then prompted, to participate throughout the engagement period by email, to encourage participation.

Surrey County Council, districts and boroughs	Strategic delivery partners
Interview: <ul style="list-style-type: none"> • Surrey County Council • Elmbridge Borough Council • Epsom and Ewell Borough Council • Guildford Borough Council • Mole Valley District Council • Reigate & Banstead Borough Council • Runnymede Borough Council • Spelthorne Borough Council • Surrey Heath Borough Council • Tandridge District Council • Waverley Borough Council • Woking Borough Council 	Interview: <ul style="list-style-type: none"> • Network Rail • Transport for the South East • Heathrow Southern Railway • Heathrow Strategic Planning Group Survey questionnaire: <ul style="list-style-type: none"> • Heathrow Airport Limited • Gatwick Airport Limited
Neighbouring authorities	Rail user groups
Survey questionnaire: <ul style="list-style-type: none"> • West Sussex County Council • Hampshire County Council • RB of Windsor & Maidenhead • Bracknell Forest Borough Council • Kent County Council 	Survey questionnaire: <ul style="list-style-type: none"> • Railfuture • RRDRUA • Guildford Rail Users • Guildford Bicycle User Group • Southeast Communities Rail Partner • Sussex Community Rail Partnership
Civil Parishes and residents’ associations	Disability representation
Survey questionnaire: <ul style="list-style-type: none"> • Buckland Parish Council • Sanderstead Residents Association • Salfords & Sidlow Parish Council 	Survey questionnaire: <ul style="list-style-type: none"> • Surrey Coalition of Disabled people
	LEPs and businesses
	Survey questionnaire: <ul style="list-style-type: none"> • Coast to Capital • Enterprise M3 • Business Leadership forum

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Issues and challenges

Respondents were asked to comment on what they believed to be the main issues and challenges for the County’s rail network.

Respondents recognised that there were many issues and challenges with the County’s rail network. Station connectivity was the most frequently cited, with respondents acknowledging the importance of providing integrated connections to, from, and between stations. Service frequency, reliability, and ticketing structure were also considered as being key issues particular amongst rail user groups, possibly reflecting poor service performance in recent years.

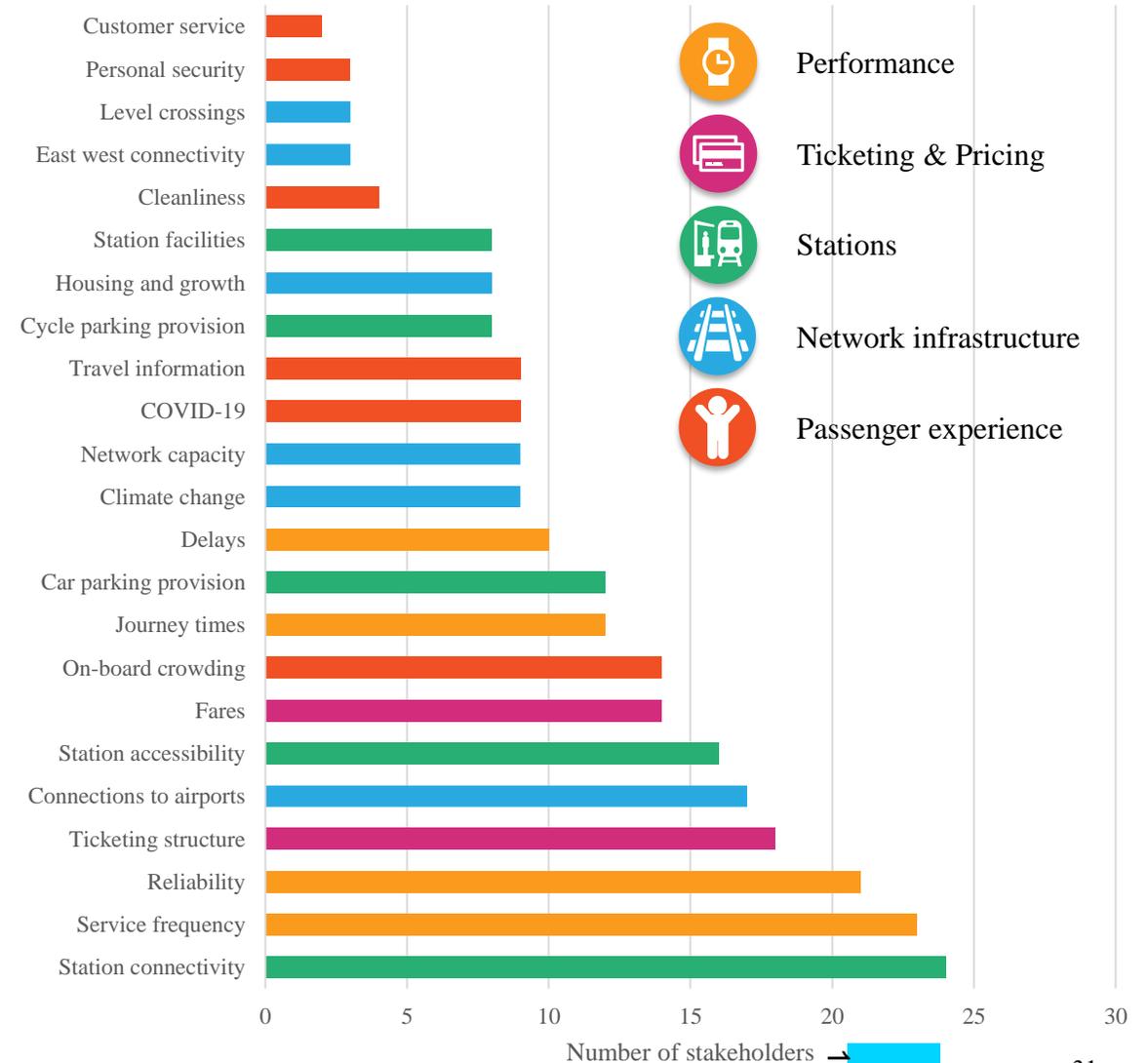
Respondents frequently cited the poor rail connections to both Heathrow and Gatwick airports as a key issue in the County. Station accessibility was also considered to be a key issue amongst respondents, with some referencing specific stations where step-free access is still an issue.

On-board crowding on peak hour train services, and long journey times on certain branch lines, were also noted as being key issues for the County. Insufficient car parking provision at stations was also viewed as an issue for some respondents, referring to the overspill and rail heading which occurs in certain areas within the County.

Respondents recognised the significant challenge of climate change for the County’s railways, with certain district and borough councils referencing the need for infrastructure to be resilient to more frequent, extreme weather events.

COVID-19 was considered to be a challenge for the rail industry by some respondents, while others believed the pandemic impact to be more short-term. Housing growth and network capacity were also mentioned as being key challenges for the County, with some respondents recognising the need to provide additional infrastructure capacity to support housing and growth.

Issues and challenges



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Stakeholder engagement

Strategic aims

Respondents were presented with the proposed strategic aims of the Rail Strategy, and were asked to indicate the extent to which they agreed or disagreed with each.

There was a high level of support for the strategic aims, with respondents agreeing that the aims set out the right direction for the future rail system in Surrey.

There was strong support and recognition for the need to **respond to the climate emergency** by almost all participants, with some borough and district councils highlighting recent declarations for a climate emergency. There was also favourable support for increasing **access for all**, particularly once assured that the theme not only just considers disabilities and mobility restraints, but also wider connectivity to the rail network.

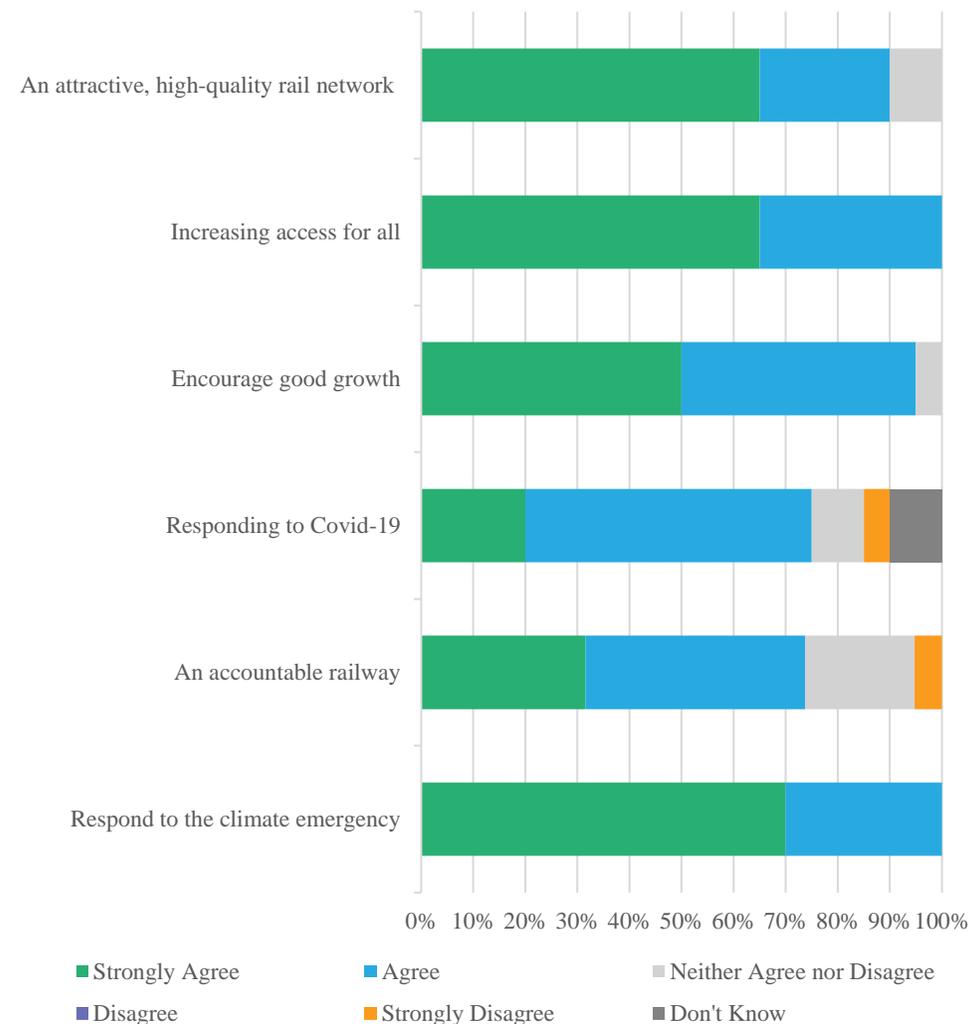
Respondents supported the aim of **encouraging good growth**, recognising the role of rail connectivity in supporting new homes and supporting growth through creating connectivity, but emphasised the need to provide additional capacity to support more trips on the network.

Respondents agreed with the aim of achieving **an attractive, high-quality rail network**, seeing this as key to providing a viable alternative to car travel, therefore reducing climate emissions.

The aim to have **an accountable railway** was generally supported, however some respondents were unclear as to what an accountable railway meant in practical terms. Most respondents supported the aim of **responding to COVID-19**, recognising the significant impact the pandemic has had on passenger demand and the structural changes. However, some participants believed that the strategy should focus on longer term issues, referencing that the virus situation continues to evolve. As result we have merged these strategic aims to **responding to change in the rail sector**.

Similarly we have changed ‘respond to the climate emergency’ to **achieve transport decarbonisation** to provide a more focused strategic aim.

Level of agreement with strategic aims



Drivers of change

Respondents were asked to comment on what they considered to be the key drivers of change, both positive and negative, shaping the County and its rail network.

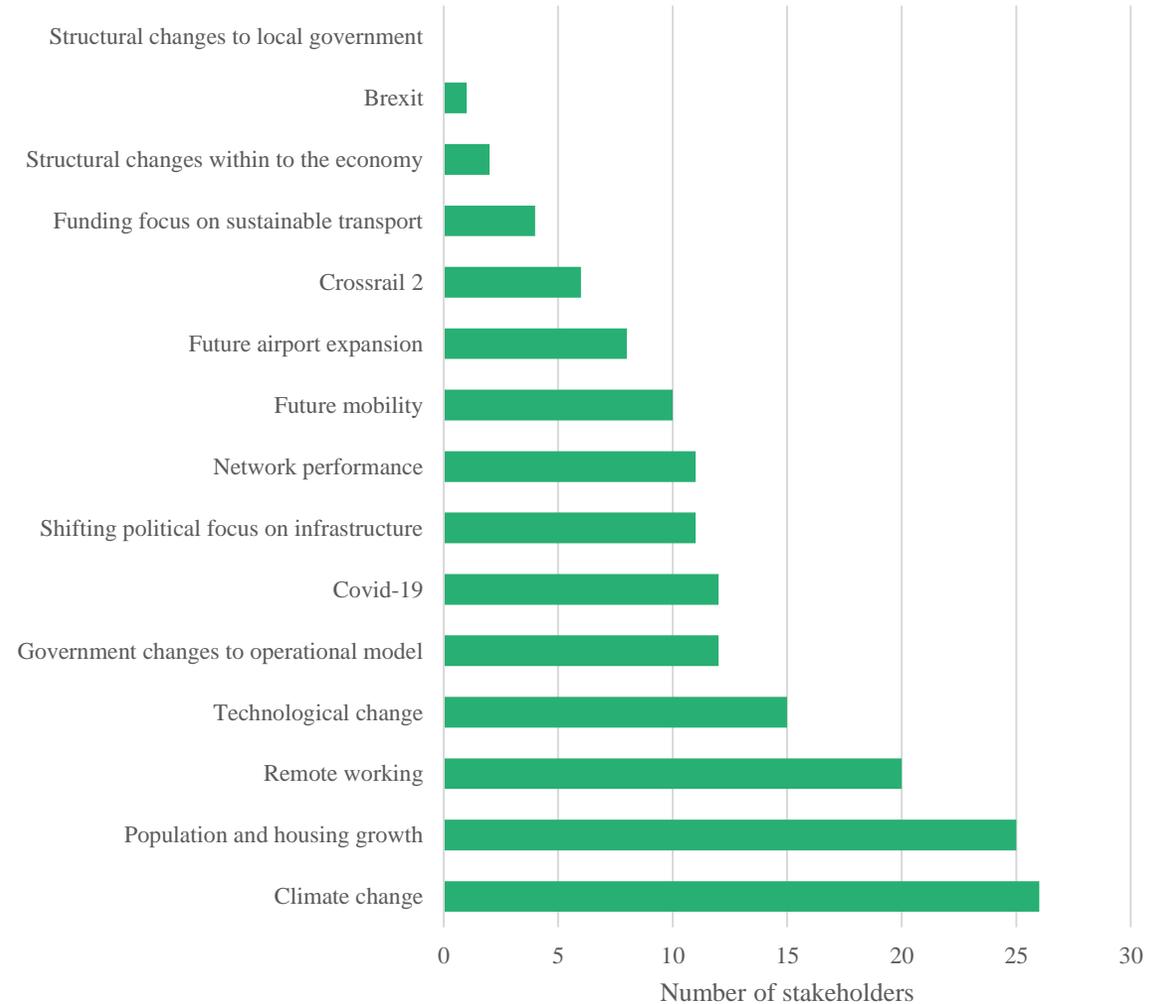
Respondents recognised that there were likely to be a number of key drivers of change that will impact and shape the County and its rail network over the short, medium, and long-term. Climate change was the most frequently cited, with respondents commenting on the wide reaching impacts which climate change will have in the future. Population and housing growth was also mentioned by most stakeholders, understanding the pressures to deliver housing targets in a sustainable way.

Respondents recognised the impact that COVID-19 has had on accelerating flexible working arrangements, and suggested that remote working is likely to continue to significantly shape travel demand and movement patterns to, from, and within the County. There was also an appreciation by most stakeholders of the likely changes to the operational model of the railway in light of the COVID-19 pandemic and the Williams Rail Review.

Technological change and future mobility innovations were believed to be important considerations for the County's rail network by stakeholders commonly stating the need to accommodate Mobility-as-a-Service and electric vehicle charging infrastructure at stations.

Future airport expansion at both Heathrow and Gatwick was considered to be a driver of change within the County by some stakeholders, referencing the significant movement demands which both airports generate and the need to improve connections to both hubs. Stakeholders were less confident that Crossrail 2 will be delivered in the short to medium term, and subsequently drive change within the County.

Drivers of change





Stakeholder engagement

Priorities

Respondents were asked to indicate their top five focus areas and investment priorities, for improving the County’s rail infrastructure and services. It is important to bear in mind that respondents were asked to rank these criteria in terms of their priority for improvement rather than overall importance. So a lower score does not necessarily mean that something is unimportant.

Reliability and punctuality was rated as the highest priority for improvement with 22 respondents. This is followed by station accessibility and faster journey times with 14 and 13 respondents respectively. In fact when taken collectively, improvements at stations are highly important for stakeholders, with an aggregate total of 55. This can be seen in the chart where each of the 22 priorities is grouped into five broad categories: performance, ticketing and pricing, stations, network infrastructure, and passenger experience.

Electrification of existing rail lines and the construction of new rail lines were selected by 13 and 12 respondents respectively, with stakeholders commonly citing the electrification of the North Downs Line and Heathrow Southern Rail Access as key infrastructure improvements for the County’s rail network.

Two of the top five priorities for improvement are performance based; clearly emphasising the importance of delivering a good, reliable core service. Four of the bottom five priorities are what might be considered experience based; suggesting that stakeholders place greater emphasis on overall service performance than what could argued are ‘nice-to-have’ aspirations.

Respondents were more concerned about integrated and smart ticketing (11) than value for money (6), suggesting the importance of ease and convenience when travelling within and through the County.

Priorities for improvement



Emerging themes

The stakeholder engagement found that there is strong support for the scope and direction of the new strategy; in particular, the expansion to consider wider transport and environmental concerns beyond those set out in the 2013 Rail Strategy.

Stakeholder responses highlighted the importance of station connectivity and achieving equitable access to the rail network. Passengers require travel choices that are an attractive and viable means of assuring seamless end-to-end access. Stations need to be integrated into high quality local walking, cycling, and public transport networks to encourage modal shift and promote a positive passenger experience.

Main service performance is a theme which featured throughout engagement, with stakeholders emphasising the importance of delivering a **good, reliable, and frequent service**.

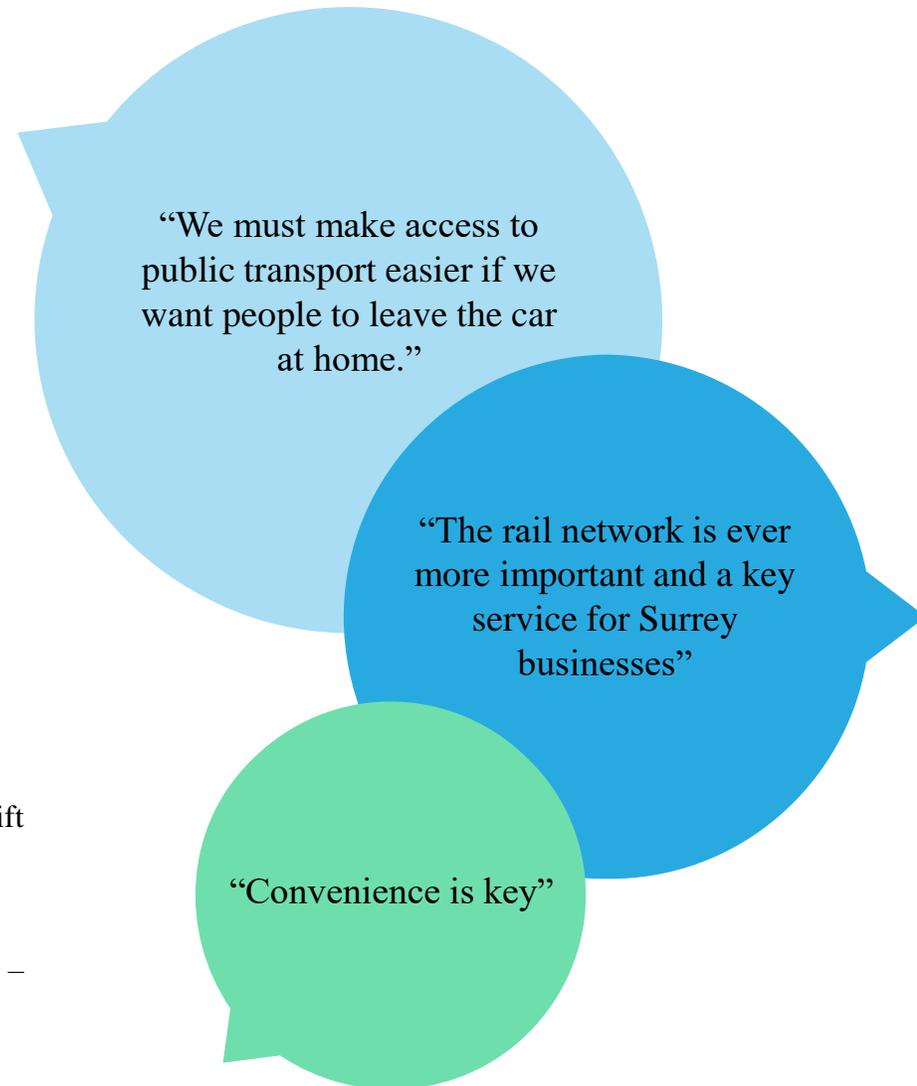
Rebuilding passenger confidence in the railway network will be important in light of Covid-19 and poor service performance in recent years.

Access to both Heathrow and Gatwick airports is an important consideration which has been advocated throughout the engagement, with stakeholders keen to see improved rail connections to both airports throughout the County.

Climate change is considered to be a significant challenge, with the need to take rapid action to encourage modal shift and reduce carbon emissions recognised and supported by stakeholders. Promoting and decarbonising rail will be important to responding to the climate emergency. Increased resilience from climate change impacts was also raised.

Access for all communities was key concern and stakeholders want Surrey rail network to be as assessable as possible – not only step free but inclusive station design and onward between networks.

Stakeholder engagement highlighted the growing pressures for local authorities to **deliver housing targets**. Ensuring good and equitable growth will be an important consideration through which this strategy will support.



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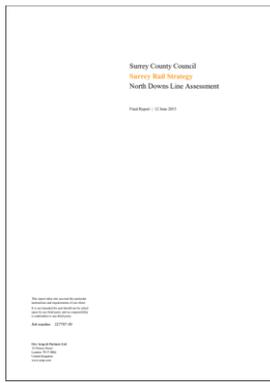
Strategy review

Development of Surrey's position on rail

This rail strategy builds on previous documents in relations to rail transport in the county



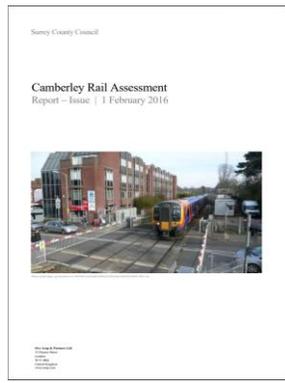
2013 Surrey Rail Strategy



North Downs Line Assessment



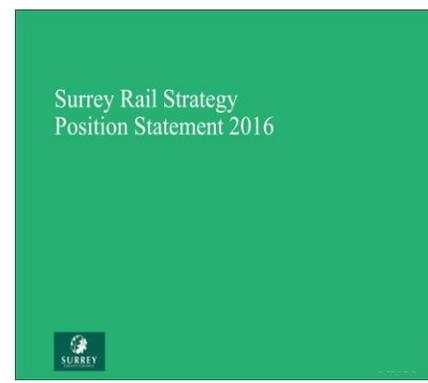
Crossrail 2 Assessment



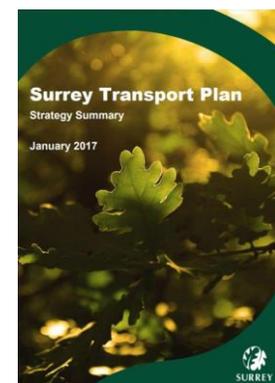
Camberley Rail Assessment



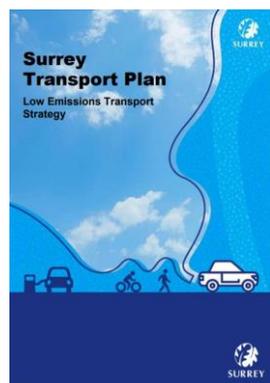
Southern Rail Access to Heathrow



Surrey Rail Strategy Position Statement (2016)

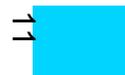


Surrey Transport Plan (2017)



Low Emissions Transport Strategy (2018)

————— Further rail assessments (2013 – 2016) —————



Key changes since the 2013 strategy

Carbon Zero declaration and impact on transport policy

Both Surrey County Council and the UK government have committed to net-zero carbon emissions by 2050, a change from the previous national strategy of 90% reduction from 1990 levels. The government is developing a plan for transport to reach zero emissions, and transport interventions such as Heathrow expansion and HS2 have been challenged over their impact on the UK government's commitment to meeting its carbon targets.

Changing patterns of demand

As identified in the baseline chapter, passenger demand growth in Surrey has slowed in the period from 2013 to 2019, with some stations seeing declining patronage even prior to the dramatic drop in ridership in 2020. The reasons for this may vary between areas, but a combination of changing trip rates as technology allows increased home working, changing retail patterns, and performance on the network may also have contributed to the lower levels level of demand.

Government rail policy

Since 2013 the government has significantly revised its rail policy, at least partially as a result of the significant disruption caused by the implementation of a fundamentally different timetable in 2018, and the challenging market for train operating companies. The 2020 COVID-19 pandemic hastened the need to intervene, as the Department for Transport (DfT) suspended rail franchising in order to keep the railways operating with reduced passenger numbers as people were asked to work from home. The Williams Rail Review is to set out how rail will be operated in the future, and the government has committed to rail reform. Most recently, TfL has stopped work on Crossrail 2 as part of its government funding deal.

Devolution agenda

Since 2013 the government has embarked in significant changes to the development of local transport policy, with the establishment of new **sub-national transport bodies** as part of the Cities and Local Government Devolution Act 2016. The local sub-national body for Surrey is TfSE who are seeking formal statutory status.

Emerging technology

There has been significant emerging technological change including:

1. App-based travel planning tools and travel services such as Uber
2. New payment technology such as mobile payments and contactless card payment
3. Increasing sales of electric vehicles
4. New and highly valued passenger amenities such as Wi-Fi and at seat USB charging

Proposed housing growth

The government housing building target has increased to 300,000 houses per year, which results in a proposed increase in new housing in Surrey of up to 6,315 additional homes per year which should result in increased population and travel demand.

Economic and placemaking policy

Surrey has reformed its economic development and placemaking policy based on the following priorities:

- Growing the leading edge: supporting the growth of Surrey's innovation economy
- A 'whole place' approach to growing and sustaining quality places
- Maximising opportunities within a balanced, inclusive economy
- Capturing the potential of a greener economy .

Scenario planning and uncertainty

In addition to the changes highlighted since the previous rail strategy there is also uncertainty in how transport demands may change in the short medium and long term.

Housing growth and populations

There are a number of factors which may make population forecasts less reliable over the short term, as COVID-19 changes people’s preferences on where they live and work; and as the premium on commuting distances is reduced. There is also uncertainty over the local targets for housebuilding in Surrey, with the planning reforms yet to be agreed. Surrey has also had net positive international migration and this may change with the British exit from the European Union. Higher population growth will also increase the demand for transport.

Local and regional job growth

Prior to the COVID-19 pandemic, job demand in Surrey was projected to grow around 1% per year; but it is not only volume of job growth which is a key impact on demand, but also the spatial distribution as city centre jobs in particular are more accessible by rail. Lower job growth in central London would also significantly impact forecast commuter demand.

Consumer preferences on sustainability

Currently transport decisions are considered to be driven largely by economic and journey factors such as price, frequency, and journey time; however there is emerging evidence that many people are considering their carbon footprint when making decisions that could result in increased demand for active and public transport.

Commuter and leisure trip rates

The greatest impact on rail demand would be a rapid decline in commuter trip rates; where passengers who used to travel to work 5 days a week move to more frequent home working. This could impact the demand forecasts for business cases of some projects, dependant on high levels of commuter growth. However reduced trip rates could be offset by increased total commuters, as office space in London is released. In addition, two-way commuting could increase if job growth in Surrey attracts more London workers.

Central Government priorities

The government has promoted the use of transport infrastructure spending as a key tool in ‘levelling up’ the economic performance of the UK. This may make the case for spending in the south east where wages and productivity are higher on average, more challenging.

However, the government will also want to use infrastructure spending to boost economic growth in the short term, and in promoting sustainable transport in order to meet its Carbon emissions targets. Other policies, such as ending diesel and petrol car sales, may increase the cost of motoring as an alternative to public transport encouraging greater use. Overall spending on rail improvement over the parliament has been decreased by £1bn, but no specific projects have been publicly identified to deliver this saving.

Summary

As result of these uncertainties, rather than focus on meeting a specific capacity target, we have set the assessment criteria to support schemes which deliver against the strategic aims. We have assessed how different scenarios may alter future requirements qualitatively on page 78 and 79 – but the results of these developing trends is greater level of uncertainty on the future of transport demand than previously considered.

2013 action plan review – short term

These proposals were developed as recommendation of 2013 Surrey rail strategy

2013 proposal	Current status	Notes
Support committed train lengthening schemes on the SWML and Windsor Lines	Achieved	New rolling stock (701/0 & 701/5) to be introduced 2020
Continue to work with Network Rail on level crossing issues along the Windsor Lines	Achieved	Safety improvements and monitoring by Network Rail and has developed new level crossing policy 2019
Commence strong lobbying for further development of the Crossrail 2 regional scheme to deliver more capacity on the SWML, working closely with TfL and other key stakeholders	Suspended	Surrey County Crossrail 2 Study and response to 2016 consultation, Scheme no longer has development funding through TfL agreement with DfT
Explore options to reduce journey times between Camberley and London	Achieved	Camberley Rail Assessment found no short term options for improving services with a positive business case
Support committed additional platform at Redhill	Achieved	New platform 0 opened in 2018
Lobby for train lengthening on the North Downs Line	Progressing	New higher capacity rolling stock due in 2021
Proactively engage with the Davies Commission on airport capacity	Achieved	Surrey has response to the Davies commission and Heathrow Expansion consultations . LHR was paused through 2020 but has recently won its appeal to the high court over the legality of the National Policy statement
Support committed schemes that will benefit Gatwick Airport	Progressing	Ongoing aspiration
Work with Kent County Council to consider the feasibility of a Tonbridge-Gatwick service	Progressing	2020 Kent Rail Strategy and 2020 Transport Strategy for the South East both support a Gatwick service on Tonbridge Line when capacity can be delivered
Improve road-based access to Heathrow Airport	Achieved	Guildford RailAir operating from 2019
Lead the development of the station access and station facilities improvement programmes, as well as the standard rail service specification for Surrey	Not achieved	Station improvements continue to be led by station asset owners Service frequencies set through the franchise programme
Lead review, and where appropriate, the development of rail improvements to support developments	Progressing	Significant ongoing work with district councils to develop stations proposal at development sites

2013 action plan review – medium term

Proposal	Current status	Notes
Work closely with Network Rail to support the effective use of committed funding to deliver capacity improvements at London Waterloo	Delivered	Waterloo platforms in international terminal and existing platform layout upgraded
Lobby for additional train lengthening on the SWML, particularly its inclusion in the next South Western franchise specification	Delivered	Train lengthening delivered
Proactively lobby for the inclusion of Surrey County Council and partners in the development of the Crossrail 2 scheme	Suspended	Scheme paused
Promote the Sturt Road Chord scheme as an effective use of future additional capacity on the SWML	Assessment completed	Business case developed but found to low value
Monitor actual demand growth on SWML Inner Suburban and Windsor Lines	Delivered	
Support committed schemes on the BML and monitor the construction impacts of the Thameslink Programme	Delivered	Upgrades delivered
Work with Network Rail to develop further BML capacity improvements	Delivered	Upgrades delivered
Lead development of the improvement schemes for the North Downs Line, working closely with the Department for Transport and Network Rail	Delivered	Case developed and 1 st phase in progress
Develop options that will benefit Gatwick Airport in future	Delivered	North Downs line proposal for 2tph to Gatwick Airport
Engage with all options which seek to address access to Heathrow	Delivered	Heathrow Southern Rail assessment
Raise Crossrail extension option in discussions on Airtrack Lite	Delivered	
Confirm the business case for Guildford local access schemes, including 2 tph Alton-Guildford, and new stations at Park Barn and Merrow	Stations progressing	Guildford progressing Park Barn station with Network Rail Merrow station being developed by the housing developer
Engage with the rail industry on demand management measures	Not delivered	

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2013 action plan review – long term

Proposal	Current status	Notes
Identify further capacity upgrades on the SWML and enabling schemes for Crossrail 2	Progressed	Identified in 2016 Crossrail assessment and in NR Strategic Plan
Secure policy support for a southern rail access to Heathrow Airport through the rail industry long term planning process for delivery in CP6 (linked to expansion at Heathrow Airport, if granted through the Airports Commission)	Not progressed in CP6, strategic planning interrupted by Heathrow decision and COVID-19	Strong support among neighbouring authorities for southern and western access to Heathrow. DfT produced new strategic objectives for SATH in 2019. No single option selected by DfT
Develop the concept of a new, possibly high speed, rail link across Surrey from Heathrow to Gatwick Airport and possibly beyond	Not progressed	S4Air HS rail service rejected by DfT
Develop the business case for the Clapham Interchange	Not progressed	Network Rail progressing stations design as part of CR2. Separate housing lead proposal for station submitted as a market-led proposal to the DfT

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Future scenario development

The issues and challenges facing rail have changed enormously over the last five years, as previous certainties have been challenged by emerging trends. New rail priorities such as decarbonisation and good growth are emerging, requiring a new operating model just as a new ways of working are developing, accelerated by the 2020 COVID-19 pandemic.

Setting a 30-year strategy with this level of uncertainty requires a flexible view of how the future may develop, not a fixed view reliant on the indefinite continuation of passenger demand growth.

Transport for the South East's (TfSE's) Transport Strategy initially developed four potential futures, and we have used these to evaluate how each intervention might perform. Interventions that achieve high scores across the four scenarios are likely to be more resilient and less dependent on the continuation of a single trend. As of November 2020 they have chosen a combination of sustainable future and central scenario as their central forecasting case.

	Key transport trend	Key economic trends	Key impacts on rail in Surrey
Scenario 1: The London Hub	Increased radial demand	Concentration of productivity gains in London	<ul style="list-style-type: none"> Increased rail demand to London High demand for access to station across all modes Stable orbital demand
Scenario 2: Digital Future	Growth in connected and autonomous (driverless) vehicles technology	Digitalisation of work normalises remote working	<ul style="list-style-type: none"> Reduced demand for rail from commuters radially and orbitally Increased local leisure demand
Scenario 3: Route to Growth	Growth in local transport demand	Higher productivity growth in South East	<ul style="list-style-type: none"> Increased demand for local and radial rail trips Lower growth in London commuter market
Scenario 4: Sustainable future	Lower demand for transport but modal shift from private car	Focus of government policy toward the environment and sustainability	<ul style="list-style-type: none"> Growth in demand for active modes at stations High demand for EV charging Increased demand from leisure trips Increased multi-modal trips Stable radial and orbital commuting
Central Scenario: Sustainable route to Growth	Modal shift to public transport and growth in local regional travel demand	Focus on developing sustainable transport that supports growth	<ul style="list-style-type: none"> Growth in demand for active modes at station Growth in local commuting Increased demand from leisure and orbital trips Increased multi-modal trips Lower growth in radial demand

Strategy development

Developing and delivering improvements

In the issue and baseline chapters, the report set out the current status of the railway, and the challenges we want to address with this New Rail Strategy for Surrey. In this section we look at the ongoing changes that are being undertaken, and future interventions which could improve the rail network in Surrey.

Interventions

These are specific projects which will materially impact the operation of the railway through the delivery of new infrastructure or new operations. The majority of rail interventions will not be funded directly by Surrey County Council but by DfT, Network Rail, or other organisations. This does not mean Surrey cannot play a role; it has previously played a significant role in developing projects through supporting projects by funding the development of plans, or lobbying the government and transport bodies to consider the benefits of schemes.

Policy changes

Whilst interventions change the infrastructure that the railway uses there are also policy changes which can encourage the maximisation of the railway. Most rail policy is controlled by central government, however Surrey County Council will work with local politicians, Local Enterprise Partnerships, and TfSE to ensure that future government rail policy reflects the needs of Surrey residents, passengers, and businesses.

How can Surrey deliver improvements?

Working with strategic partners to develop the case

Surrey County Council will look to work with its strategic partners to make the case for these investments by developing evidence, lobbying government, and working with Network Rail, TfSE, and neighbouring local boroughs and counties.



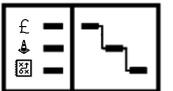
Influence government on national and regional rail policy

Surrey County Council will develop the evidence base to support changes to the railway policy and priorities which support Surrey in achieving its objectives.



Directly supporting delivery of schemes

Surrey County Council could fund, develop, or manage specific schemes either directly or as part of partnerships with districts and boroughs or other transport organisation such as Network Rail or the DfT.



Monitoring delivery

Surrey County Council will monitor projects to ensure commitments are delivered to timescale, and deliver required impact. For some schemes Surrey will benefit from monitoring impacts to better make the case for subsequent investments.





Categorising interventions

The four categories highlight the main areas of intervention and policy in the rail network –
Project scheme list developed in consultation with Surrey existing scheme list, Network Rail plans and consultation with Districts and Boroughs

	Network infrastructure	Connectivity and services	Stations and access	Passenger experience
Description	Upgrades to existing infrastructure which increase capacity and improve reliability.	New infrastructure or new services operating on existing lines.	Interventions and policies which improve the accessibility of the railway and the stations on the network.	Changes which impact how the railway is operated to encourage better services and the how journeys are paid for.
Core scheme List	Croydon Area Remodelling Scheme Redhill to Tonbridge line Weather Resilience Oxted Line Electrification New Platform 3 at Reigate Station and SWML digital signalling North Downs Line electrification Guildford Platform Capacity Scheme Woking Rail Capacity Improvements	North Downs Line service improvements Increased frequency Redhill to Tonbridge line Gatwick/Kent connection Southern Rail Access to Heathrow: Waterloo Link via Staines Southern Rail Access to Heathrow: Regional Rail	New Rail Station: Meroo New Rail Station: Park Barn Dorking Deepdene Lift Access Godstone Station Redevelopment Longcross Station Redevelopment Stoneleigh station step-free access Ash Vale station step-free access Guildford Station Upgrade Esher station step-free access Walton station step-free access Staines active travel enhancement Woking active travel enhancement West Byfleet active travel enhancement	Zonal Ticketing Structure journeys within the south east with fare capping Adoption of ‘Delivering fares for All’ Integration of bus and rail ticketing Comprehensive smart ticketing

Scoring the interventions

In order to develop a list of supported schemes a scoring system was used with a range from 0-3 against 3 subcategories for feasibility and acceptability. Suitability was scored against each the strategic aims with the same 0-3 scoring range. A minimum score of 4 was required for feasibility and acceptability to be included in the strategy as a core scheme, and each scheme had to be achieving at least 3 for one strategic aim.

Feasibility (/9)

- Technical Delivery
- Funding Agreement
- Delivery Organisation

Acceptability (/9)

- Value for money
- Stakeholder support
- Local Impacts

Suitability (/15)

- Achieve transport decarbonisation
- Responding to change in the rail sector
- Encourage good growth & a sustainable economy
- Increasing access for all
- An attractive, high-quality rail network

The interventions have also been categorised into deliver time periods of short term (less than 5 years), medium (between 5 and 10 years) and long term (10 – 30 years)

The following chapters include a interventions summary

Radar charts showing the score against each sub-criteria

Organisation expected to deliver project

Delivery Period indicating whether the project is short (S), medium (M) or long term (L)

Surrey County Council role in the project



Develop the case



Influence others

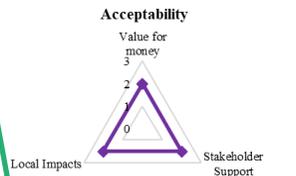
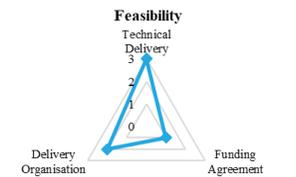
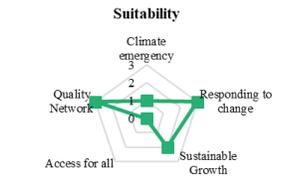


Support Delivery



Monitor Delivery

Intervention		Croydon Area Remodelling Scheme		
Delivery Organisation		Network Rail		
Delivery Period		S	M	L
Surrey CC Involvement				
Score	Suitability	11		
	Feasibility	6		
	Acceptability	6		
Description: By moving East Croydon station and adding additional platforms combined with remodelling the track this scheme would increase the track capacity on a key constraint on the BML allowing more trains, increased reliability and better journey times to stations in east Surrey.				



Score by category

Brief description of the project

Network infrastructure - Strategy and interventions

Network infrastructure

Radial infrastructure - Wessex Corridor

Network Rail has a long-term ambition to increase capacity on the SWML, which links a number of capacity increases to deliver a potential 30tph service, compared with 24tph today. The justification for this is the high level of peak-time crowding and projected growth of demand for services, based on projections for jobs growth in London and housing delivery and population growth in the south east.

The SWML is one of the country's most commuter-dependent main line services. With uncertainty over the level of commuter demand in the future required at the peaks, it may be that in the short term there is less need for congestion relief schemes; and the government is currently reviewing its transport investments in light of the economic and transport changes. However, in the long run there is also a significant probability that demand will return and if investments in capacity are not made that crowding and reliability issues return.

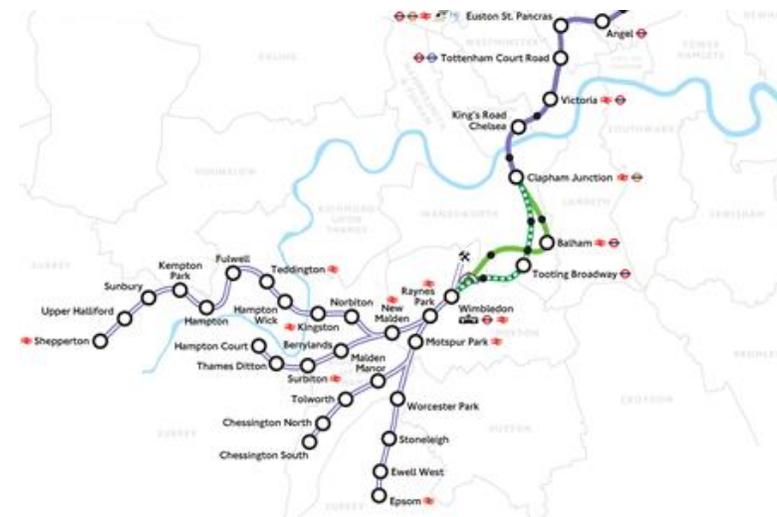
The key interventions to achieving the aspirational 30tph and improving the SWML are:

- Clapham Junction headway improvements
- Changes in line configurations between Clapham Junction and London Waterloo
- Crossrail 2
- Working Capacity Improvements

There is currently a government review of investments in the rail network pipeline, in light of changes due to COVID-19. These upgrades are even more significant in light of the decision to pause work on Crossrail 2 as there will be no major capacity increase on the horizon; marginal increases in capacity will be required to increase frequency, capacity and deliver reliability.

Crossrail 2

Crossrail 2 is the most significant infrastructure capacity proposal. It could increase the capacity on the SWML by removing stopping services from the main line, in addition to increasing the connectivity to central London on commuter lines. Currently, work on Crossrail 2 being undertaken by TfL has ceased as part of the TfL funding agreement with the DfT as of November 2020. The route has been protected meaning other schemes cannot use the proposed alignment, but the schedule of delivery will now be significantly delayed and there is increased risk it may never happen, with TfL not seeking further development funding over the remainder of this parliament (2020–2024). For this reason this New Rail Strategy does not include Crossrail 2 as it is unlikely to be operational even in the long term despite the clear benefits it would bring to the region.



Crossrail 2 regional map southern section (crossrail2.com)

Network infrastructure - strategy

Radial Infrastructure - Sussex Corridor

The BML has seen significant increases in capacity through the delivery of the Thameslink programme, intended to help accommodate increased passenger demand up from 45 million in 2005 to a projected 90 million by 2030. This has included increasing frequency and longer, higher capacity trains.

Key to delivering further capacity will be the Croydon Area Remodelling Scheme (CARS), which will provide more reliable and more frequent services by moving East Croydon station further south, and changing the track layouts at Selhurst Triangle. This investment is awaiting a Transport Works Act and funding from government. This scheme potentially opens the opportunity to reintroduce direct services on the Tonbridge line.

Station upgrades at Reigate are planned which will allow 12-car trains to terminate, with platform lengthening and a new platform 3 which will increase capacity by opening Reigate to Thameslink services, and removing the need to split Southern services from London Victoria at Redhill. Reigate has significant issues with level crossing performance which is being assessed by Network rail in 2021.

In the longer term the BML2 project, to the east of the Surrey, would reduce congestion on the BML and increase the connectivity to Brighton and the south coast Tandridge district stations such as Oxted, however the lack of a business case and high costs presents a significant barrier to delivery.

Electrification

The vast majority of operated mileage within Surrey are undertaken on electrified trains running on third rail electrification; ensuring rail offers low-carbon transport (and zero local emissions) for most journeys. The use of direct current (DC) third rail creates challenges for expanding the network as DC expansion has not been the preference for electrification, and the alternative of installing overhead electrification (OHLE) would lead to a requirement for dual-voltage trains, to allow services to switch between OHLE and the third rail to maintain through journeys. There are two lines where diesel services operate, set out below.

Uckfield Branch Line

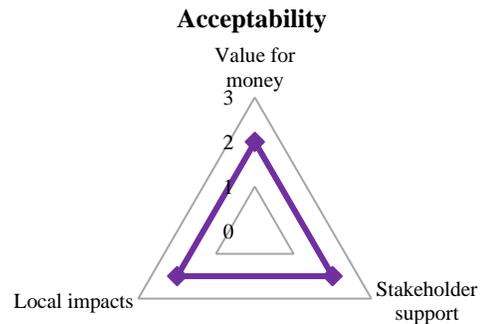
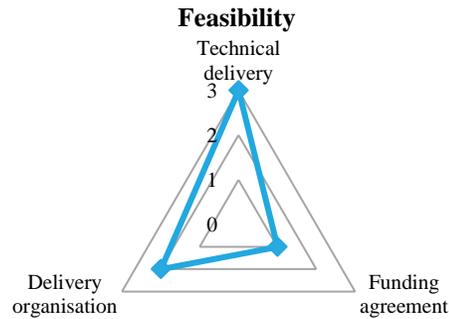
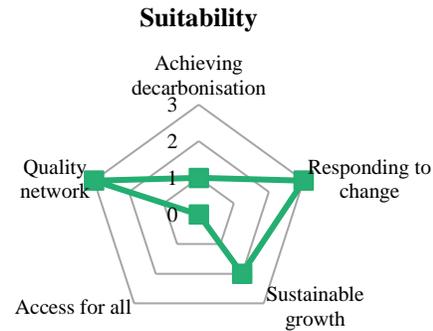
The Uckfield branch of the Oxted line's lack of electrification mean diesel trains operate between London Bridge and Uckfield, the only diesel services remaining into London Bridge station.

North Downs Line

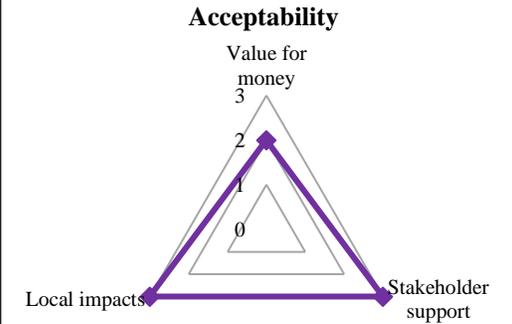
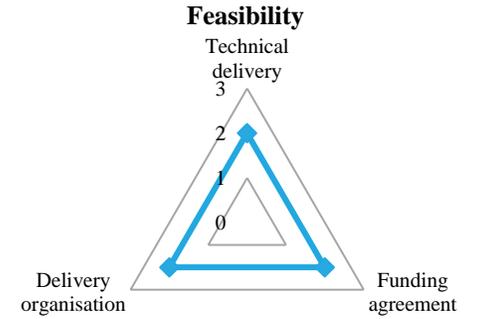
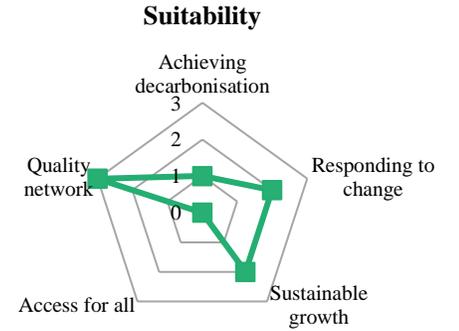
The North Downs Line has two unelectrified sections which means it has to be operated by rolling stock with alternative traction, currently transitioning to new tri-mode class 769, which have the potential to operate using electric traction where the infrastructure is in place.

Network Rail's Traction Decarbonisation Network Strategy (TDNS) suggested that both these routes could be served by multiple electrification options. Surrey County Council have in previous strategies estimated the huge benefits electrification would bring, as the electrified sections currently used by diesel trains can be fully utilised. The Rail Safety and Standards Board (RSSB) is currently investigating whether third-rail DC infill could be an option as the current policy is for using overhead wires. Network Rail have indicated that both Uckfield branch and the North Downs would be a priority for electrification in the medium term, should the safety scale be approved, given the potential to totally electrify the wider route.

Intervention		Croydon Area Remodelling Scheme		
Delivery Organisation		Network Rail		
Delivery Period		S	M	L
			✓	
Surrey County Council Involvement				
Score	Suitability	11		
	Feasibility	6		
	Acceptability	6		
Description: By moving East Croydon station and adding additional platforms combined with remodelling the track this scheme would increase the track capacity on a key constraint on the BML allowing more trains, increased reliability and better journey times to stations in east Surrey.				



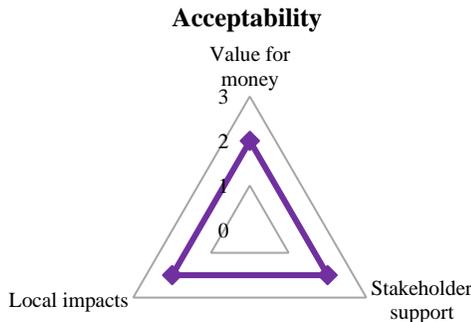
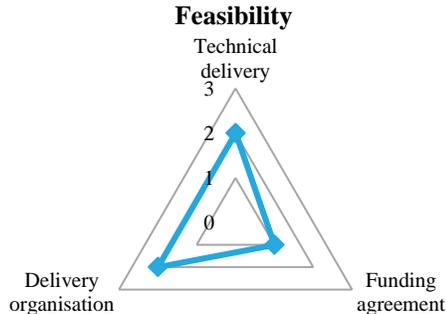
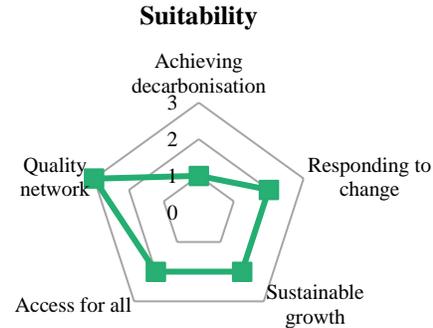
Intervention		Redhill to Tonbridge Line Weather Resilience		
Delivery Organisation		Network Rail		
Delivery Period		S	M	L
		✓		
Surrey County Council Involvement				
Score	Suitability	8		
	Feasibility	6		
	Acceptability	7		
Description: To improve the resilience of railway infrastructure against extreme weather events and climate change on the Redhill to Tonbridge line, reducing the likelihood of long closures due to landslips and flooding similar to that in 2019.				



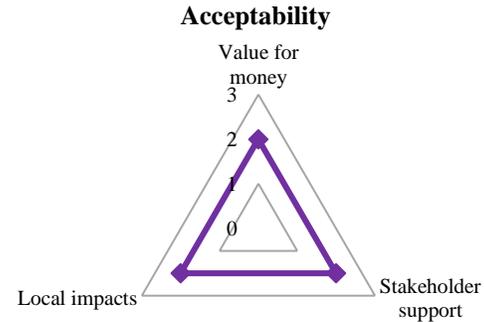
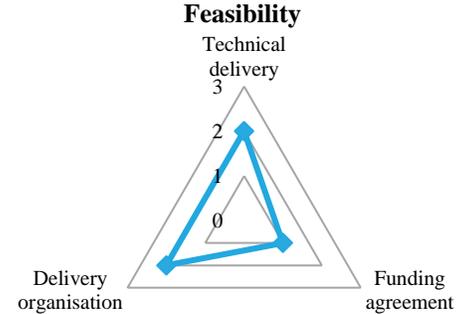
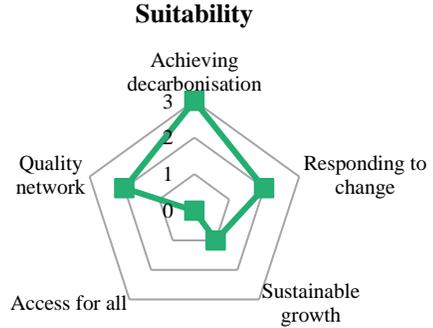


Network infrastructure - interventions

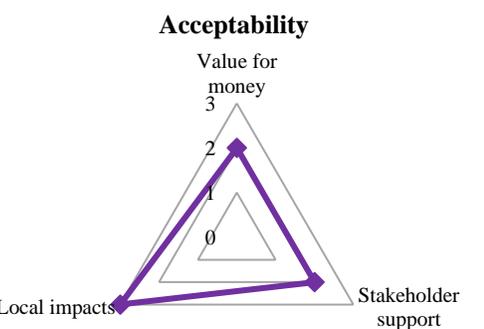
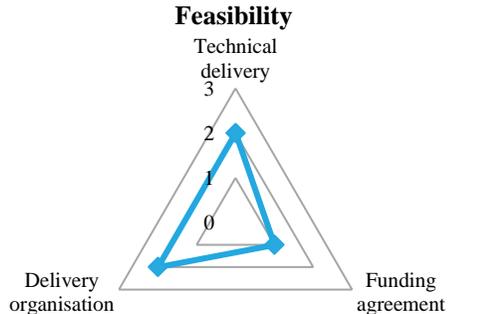
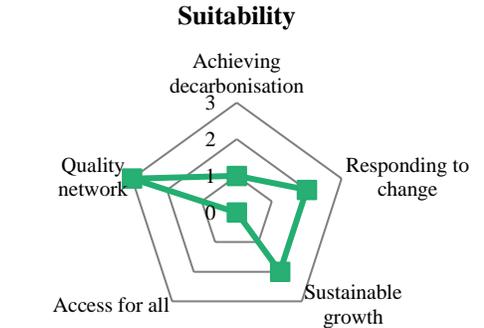
Intervention		New Platform 3 at Reigate Station and platform lengthening		
Delivery Organisation		Network Rail		
Delivery Period		S	M	L
		✓	✓	
Surrey County Council Involvement				
Score	Suitability	10		
	Feasibility	5		
	Acceptability	6		
Description: New platform 3 and an extended platform 2 at Reigate station to accommodate up to 12-car trains, providing greater capacity, a more reliable service, and improved connections to Thameslink destinations in London and beyond. Project includes proposals for improving the level crossing operations.				



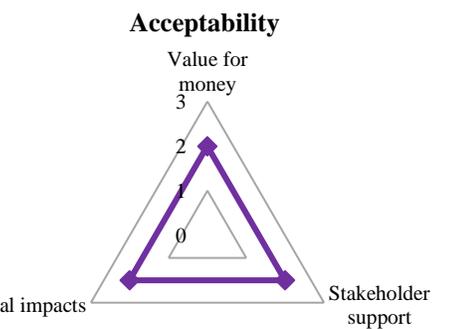
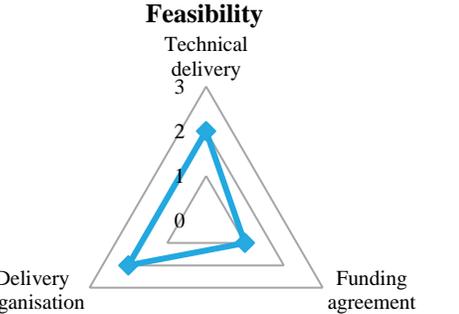
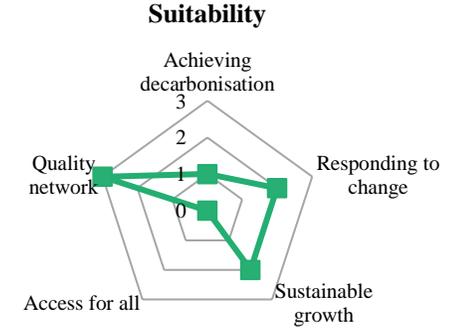
Intervention		North Downs Line electrification		
Delivery Organisation		Network Rail		
Delivery Period		S	M	L
			✓	
Surrey County Council Involvement				
Score	Suitability	8		
	Feasibility	5		
	Acceptability	6		
Description: Electrifying the North Downs Line between Wokingham and Ash, and Shalford and Reigate, to provide greater capacity, improve journey reliability and reduce carbon emissions.				



Intervention		SWML Digital Signalling		
Delivery Organisation		Network Rail		
Delivery Period		S	M	L
			✓	
Surrey County Council Involvement				
Score	Suitability	8		
	Feasibility	5		
	Acceptability	7		
Description: Digital signalling on the SWML between Woking and London Waterloo to accommodate extra capacity, improve performance, and reduce headways.				



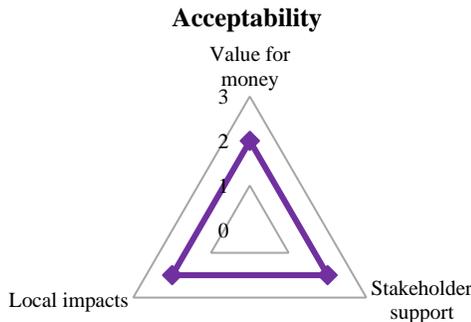
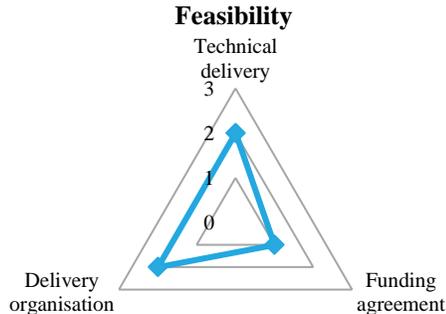
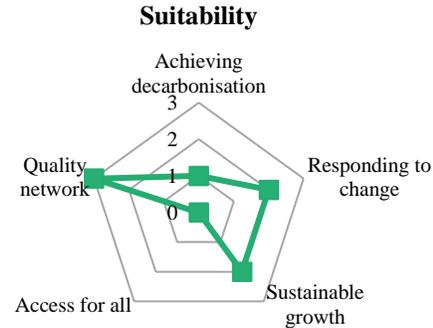
Intervention		Guildford Platform Capacity Scheme		
Delivery Organisation		Network Rail		
Delivery Period		S	M	L
			✓	
Surrey County Council Involvement				
Score	Suitability	8		
	Feasibility	5		
	Acceptability	6		
Description: Additional infrastructure at Guildford station in the form a new platform, track, and crossovers, serving the west side of the station to provide more platform capacity and accommodate planned future uplifts in service frequencies on the Portsmouth Direct Line and the North Downs Line.				



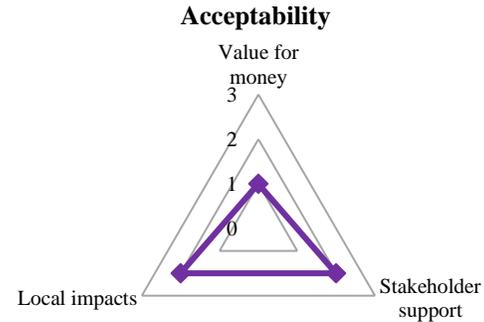
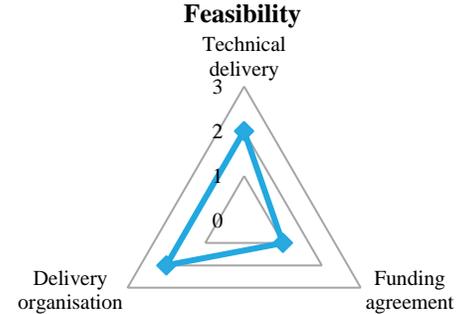
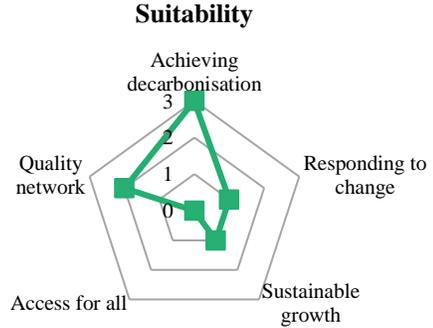


Network infrastructure - interventions

Intervention		Woking Rail Capacity Improvements		
Delivery Organisation		Network Rail		
Delivery Period		S	M	L
			✓	
Surrey County Council Involvement				
Score	Suitability	8		
	Feasibility	5		
	Acceptability	6		
Description: Grade separation of the Up Guildford line over Woking Junction, replacement of Victoria Arch and potential extension of Platform 6 to a through-platform to increase capacity, improve performance, and reduce journey times.				



Intervention		Oxted Line Electrification		
Delivery Organisation		Network Rail		
Delivery Period		S	M	L
		✓	✓	
Surrey County Council Involvement				
Score	Suitability	7		
	Feasibility	5		
	Acceptability	5		
Description: Electrifying the Oxted Line between Hurst Green and Uckfield, to provide greater capacity, improve journey times, and reduce carbon emissions				



Connectivity and services – Strategy & interventions

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Connectivity and services

Radial services

High frequency train services already operate on the mainline to meet the large commuter demand. If further capacity is realised through the **network infrastructure strategy**, we should continue to deliver enhanced express services through Surrey to meet demand.

North Downs Line

The main orbital railway in Surrey is the North Downs Line which is currently undergoing an increase in frequency from 2tph off peak to 3tph via the addition of a new Reading to Reigate service, and improvements to the weekend service. The 2015 North Downs line assessment recommended further improvements on the North Downs Line to 4tph in the long term, of which the two express services would continue to Gatwick Airport; that remains the long term aspiration for Surrey.

In addition, in 2021 there will be new rolling stock in operation when Class 769 fleet will begin operating the service; this should increase capacity and improve the passenger experience, with refurbished trains including Wi-Fi and at-seat charging.

Tonbridge Line

To the east of the county, the Tonbridge Line has the opportunity to increase frequency via a potential Gatwick Airport to Canterbury service, and return to providing a direct service to London. A 3tph peak and 2tph off-peak service would reduce passengers' wait times significantly, and greatly increase the direct connections from the east of the county. This would support the delivery of South Godstone development and linked station upgrade.

Other orbital services

In the west of the county there remains a significant challenge in providing direct services to London from the Ash Vale Line without significant infrastructure spend, or complex timetabling which would reduce other services. If Network Rail can develop a scheme which would not result in reduced service levels, and could be operated reliably, Surrey County Council would then be able to support this pattern. Similarly on the Chertsey Branch Line, there are significant challenges in increasing frequency, and serving Woking directly via the Addlestone Link. The most likely long-term solution would be part of a Southern Rail access to Heathrow scheme.

Connections to Heathrow

Heathrow is the UK's largest airport with 82 million passengers prior to the COVID-19 pandemic, and is located to the north of Spelthorne Borough on the northern edge of Surrey. Despite its proximity to Surrey there is no direct rail connection to Heathrow, with passengers having to travel via central London or use one of the direct bus and coach connections. There is significant demand to and from Surrey to Heathrow of over 1.3 million passengers per year and over 10,000 employees; despite this passengers (90% mode share) and employees (80%) overwhelmingly travel by car or taxi.

There have been a number of schemes proposed over the last 30 years to connect Heathrow to Surrey via a link to the south. Despite support from local authorities, central government, and Surrey County Council there has not been significant progress in agreeing a preferred alignment or delivery mechanism.

Direct access to Heathrow

The strategy has reviewed the three main options for providing access to Heathrow; whilst they have strengths and weakness in terms of strategic fit, a connection via Staines and the regional rail scheme which connects Guildford and Woking, would have the greatest connectivity benefits both to Heathrow and within Surrey, by directly connecting Woking and Guildford to stations on the Chertsey Branch line, the Thames Valley, and Old Oak Common for HS2. However, there is a need for an agreed approach with all stakeholders to progress any options, and further engagement and evaluation is required. These were evaluated as part of the 2016 Southern Access to Heathrow reports.

Surrey hopes to work with the Heathrow Strategic Planning Group, the airport, and the DfT to develop a further evaluation of the rail options which meets the DfT objectives as set out in the SATH¹ report and local requirements.

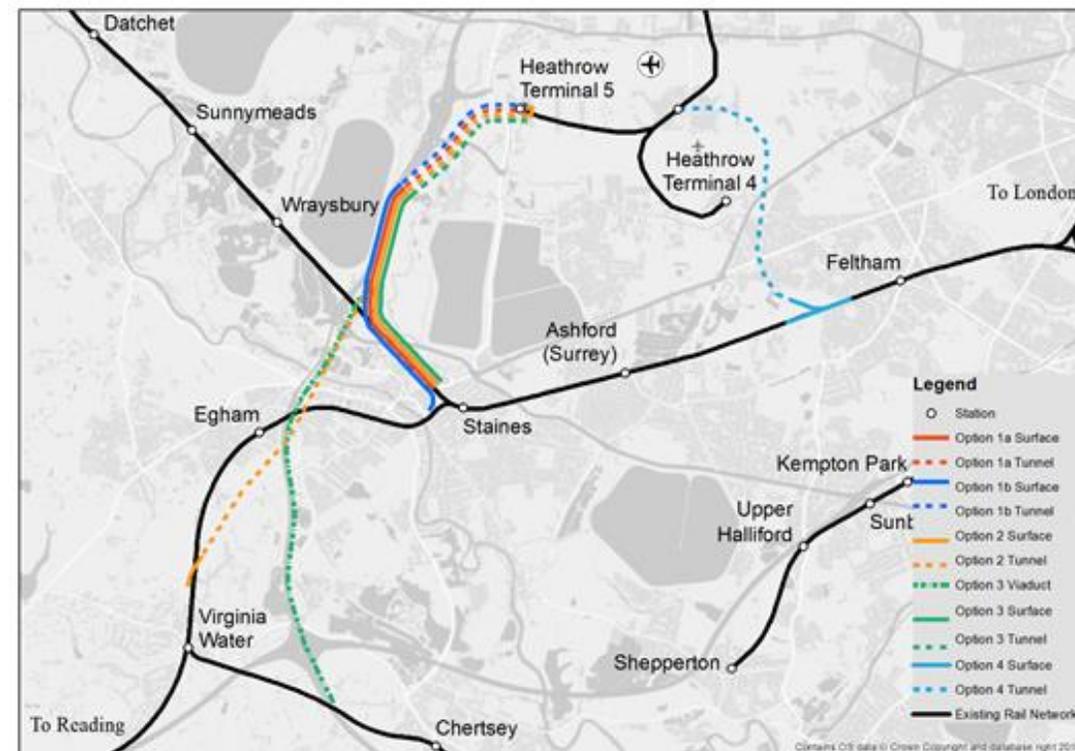
Southern Access to Heathrow: strategic objectives

1. Encourage modal shift and reduce road congestion
2. Reduce environmental impacts
3. Connect communities
4. Boost economic growth and encourage regeneration
5. Enhance our global competitiveness by making Britain a more attractive place to invest

<https://www.gov.uk/government/publications/southern-access-to-heathrow-strategic-objectives/southern-access-to-heathrow-strategic-objectives>

https://www.surreycc.gov.uk/data/assets/pdf_file/0008/109718/Surrey-SRAth-Final-Report-Dec-2016-part-1.pdf

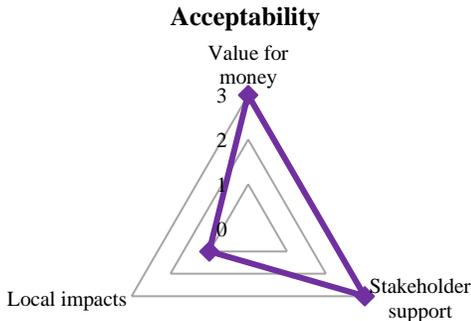
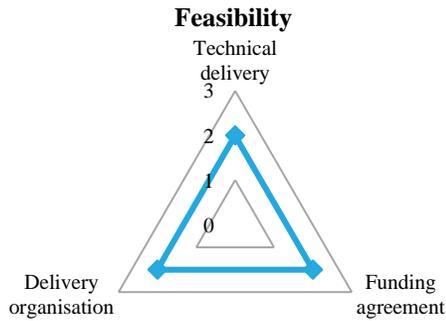
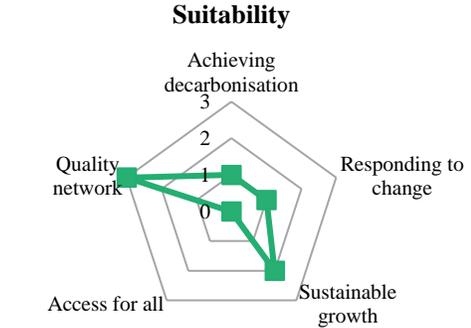
Heathrow Southern Rail Schemes assessed as part of 2016 option review



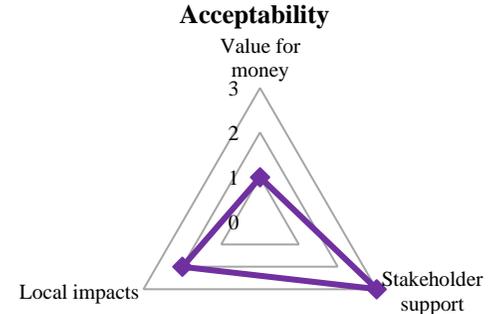
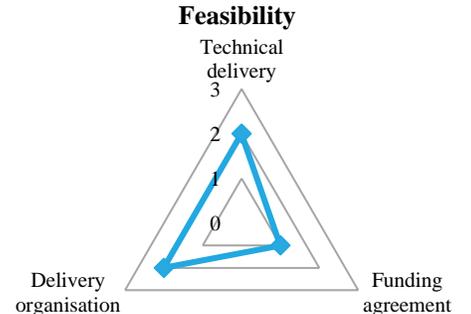
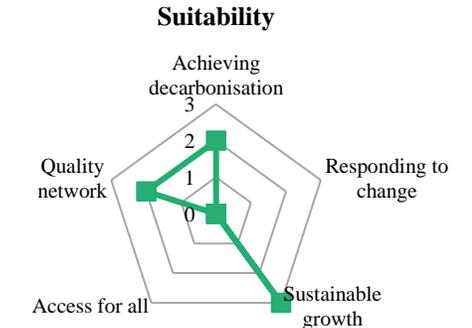
Connectivity and services - interventions



Intervention		North Downs Line service improvements		
Delivery Organisation		Network Rail		
Delivery Period		S	M	L
		✓		
Surrey County Council Involvement				
Score	Suitability	7		
	Feasibility	6		
	Acceptability	7		
Description: Increase service frequencies along the North Downs Line to an all-day 3tph timetable with faster journey times to increase the lines attractiveness and reduce congestion on M20 and M25.				



Intervention		Increased Frequency Redhill to Tonbridge line inc Gatwick/Kent connection		
Delivery Organisation		Tandridge DC /SCC/KCC		
Delivery Period		S	M	L
			✓	
Surrey County Council Involvement				
Score	Suitability	7		
	Feasibility	5		
	Acceptability	5		
Description: Increase service frequencies along the Redhill to Tonbridge Line, and the introduction of a new regional direct rail service between Kent, Gatwick Airport, and Reading: improving orbital connectivity and reducing congestion on M20 and M25.				



Intervention		Southern Rail – Waterloo Link		
Delivery Organisation		DfT / Network Rail / HSPG/HSR		
Delivery Period		S	M	L
			✓	
Surrey County Council Involvement				
Score	Suitability	8		
	Feasibility	5		
	Acceptability	6		
Description: Direct rail connection to Heathrow Airport from London Waterloo, via Clapham Junction and Staines; improving connectivity and journey times to and between intermediate stations.				

Suitability

Feasibility

Acceptability

Intervention		Southern Rail Access to Heathrow: Regional Rail Option		
Delivery Organisation		DfT / Network Rail / HSPG/HSR		
Delivery Period		S	M	L
				✓
Surrey County Council Involvement				
Score	Suitability	10		
	Feasibility	4		
	Acceptability	5		
Description: Direct rail connection to Heathrow Airport from Surrey, connecting Woking and Guildford to stations on the Chertsey Branch line, the Thames Valley and Old Oak common for HS2; transforming connectivity and journey times within the South East.				

Suitability

Feasibility

Acceptability

Stations and access – strategy & interventions

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Stations and access to the rail network

New stations

New stations can deliver improvements to rail accessibility for communities and workplaces, enhance the attractiveness of an area to businesses, and encourage modal shift away from cars. These benefits have to be weighed up against the disbenefit of a new station on journey times for existing passengers.

Two new stations are proposed in Guildford at Park Barn and Merrow. These were interventions included in the 2013 Rail Strategy, and remain supported by Guildford Borough Council. The new Park Barn station will unlock significant rail commuting opportunities, with access to key employment hubs such as the University, sports park, research park and hospital (providing an additional benefit to visitors and patients), and access to the hospital either directly via the North Downs Line or a single interchange at Guildford; which is progressing to GRIP 4 stage where a funding application to Network Rail can be made. The station at Merrow remains at an earlier stage of development, having been through GRIP 1 and GRIP 2 stages by the property developer, and would improve the public transport connection for new and existing stations.

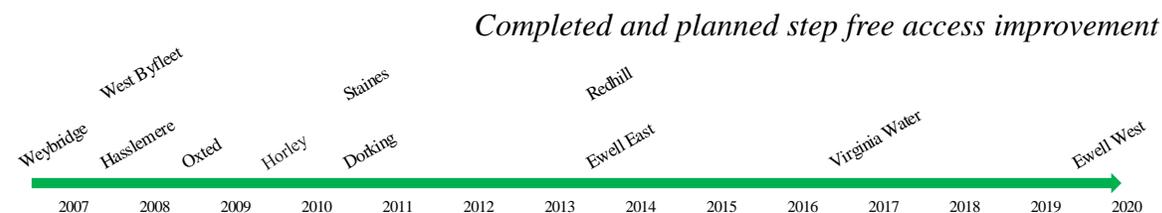
Improvements to existing stations

Step free access

Network Rail's CP6 Access for All programme of improvements to increase the number of stations which are fully accessible, which includes the following stations:

- Leatherhead
- Stoneleigh
- Walton-on-Thames

This is further to the upgrades already completed. Surrey will continue to support stations applying for station access improvement as part of this programme and develop a further set of station priorities for step free access in the medium and long term.



New developments

There is strong demand for new housing in Surrey, and where possible local authorities are working with developers and the railway sector to improve existing stations. There are currently four large new housing developments we have assessed as having strong case for transport improvements:

- South Godstone – Godstone station on the Redhill – Tonbridge line
- Longcross – Longcross station on the Waterloo – Reading Line
- Dunsfold Park – (near Cranleigh – no rail connection, alternative required)
- Wisley – At an early stage of development but will require station connectivity to Effingham and Horsley stations

In addition, there is significant projected development in the vicinity of Guildford and Woking, both of which are utilising local development to fund significant improvements to these stations. There might be further opportunity to create an enhanced interchange at Dorking which would allow level access between the two stations serving different lines. This project has previously approached Network Rail for Access for All funding, and would increase interchange opportunities on the North Downs line, the stations have already seen active travel enhancement delivered by Surrey County Council in partnership with Mole Valley District Council subject to a business case being developed.

Station development policy

Currently stations within Surrey are managed and operated by the Train Operating Companies (TOCs) (with the exception of Guildford which is managed by National Rail) and upgrades are made via a number of methods:

- TOC commitments as part of a franchise agreement
- Network Rail station improvement programme
- As part of development plans through section 106 agreements
- Local government funding.

The local highway, cycling network and facilities, along with the pedestrian networks outside stations are largely the responsibility of the county council. Local bus services are provided commercially by private bus companies or by the county council through contracts with bus companies. Borough and District council are the local Planning Authority. Outside of major station upgrades, this creates a complex set of incentives, ownership, and ambition that can limit the development of stations plans and their synergy with local planning. The aim across stations are the following:

Increase public transport accessibility

Within Surrey, local authorities are using the planning system to deliver station-orientated developments at larger stations, which improve the accessibility. Surrey will continue work with Network Rail, TOCs, and local bus operators to develop schemes which make the stations more accessible by bus.

Increase active transport accessibility

Surrey has supported interventions which have promoted active travel options, for example at Dorking, Horley, and Redhill stations, and are delivering active travel corridor improvements boosted by the 2020 Active Travel Fund; which link to stations at Woking and Staines. Improving access to railway stations should be included in any future schemes assessment, and where possible be included as a core component of station upgrades.

Increase electric vehicle provision

Currently investments in electric vehicle charging have been undertaken by the main TOCs at: Haslemere (8 proposed), Dorking (8 delivered), Whyteleafe (2 delivered), and Redhill (4 delivered).

There is a significant opportunity to improve the amount of electric vehicle opportunities in Surrey, as the government moves away from the franchising model of operations for the railway. Many of the passengers are commuters, and Surrey has a large proportion of high income commuters. Surrey should ensure that electric vehicle charging provision is included as a component of parking policy, and places where on-street charging is developed nearby stations as complimentary locations.

Station proposals by stations type

Surrey has a diverse range of stations, and there will need to be different priorities for different station sizes and needs, so policy can be prioritised as below:

Urban Centre Interchanges

These comprise the two largest major stations at Woking and Guildford. Both councils have supported significant opportunities in both housing and commercial development.

These stations should also be accessible primarily through sustainable modes; with infrastructure which maximises the opportunity for interchange to bus and coach, and high quality cycle storage and safe access to support a high volume of cycling and walking. Both stations have already progressed towards this aim with new cycling facilities which, prior to COVID-19, had significant usage.

The plans for Guildford station are key to achieving more sustainable stations access with a new entrance, bus interchange, and active transport facilities. In Woking, there are plans for an improvement to the southern entrance to expand integration with bus services, and to the north to provide better passenger facilities, and better connection with bus services. Surrey County Council, Woking Borough Council, and Network Rail have plans to improve the Victoria Arch bridge which will improve access to the stations by walking and cycling, whilst also reducing severance and providing congestion relief for the A320.

With the continued growth of housing and commercial development in Woking town centre, Surrey County Council and Woking Borough Council should continue to develop plans for a solution which integrates the northern entrance into the town centre, and provides an enhanced gateway for the town.

Key Suburban Stations

Stations on the edge on London have a smaller catchment and denser public transport network than those in more rural locations. At these stations there are significant opportunities to improve active transport integration to local housing. There may also be opportunities to develop new mobility services such as the Demand responsive transport (DRT) schemes already trialled by TfL in Sutton and at Longcross in Surrey by Runnymede borough council, which offer passengers on demand services within local areas to key commuter stations.

Major Town Stations

There are two key developments for stations further from London. Firstly, improved walking and cycling links to high streets and local housing, which can widen the access options for commuters and leisure users. Secondly, where there is higher demand for rail heading to these stations there could be more focus on provision for electric vehicles, to encourage uptake of electric vehicles including electric cycles. There are significant opportunities to develop wider commercial offers at these stations, such as providing personal click and collect delivery lockers, with opportunities for local business to provide innovative services.

Local stations

Currently proposals for stations focus improvements on stations where there is either significant demand, or proposals for new housing development. However, rail reform has the potential to open up opportunities for a new way of delivering station improvements at smaller stations including:

- Increased opportunities for local businesses to provide services at stations
- Addressing delivery traffic through provision of lockers and freight hubs
- Improved interchanges with bus transport, integrated facilities, and real time information
- Encourage car sharing and electric vehicle use through parking policy
- Develop last-mile on demand transport solutions to improve non-car access
- Integrate local active travel schemes into station infrastructure
- Improve access to stations for pedestrians through better pavements and road design.

Station and access - strategy

Surrey can develop and support these interventions by working with local partnerships such as community rail groups, district, and borough councils and integrate these proposals in its infrastructure plan. This can play a particularly useful in developing stations to encourage use for leisure and tourism use (see the case studies below).

Data collection and target setting

Surrey should also be developing its data collection on station access in particular; utilising new data sources such as mobile phone data and automatic number plate recognition (ANPR) to set realistic targets for increasing both public transport use and active modes. This will also help to understand which policies are most successful in delivering modal shift and prioritise further investments.

Surrey should also continue its work in supporting step-free access projects, working with the Surrey Coalition of disabled people, Network Rail, station operators, and districts and borough councils with a target of achieving a higher degree of fully accessible stations.

Intergrating rail into wider transport plans

These policies will be included in Surrey LTP4, where Surrey will set out its policies in regards to all local transport projects and the Surrey Infrastructure Plan.

Station Design principles

Surrey will support design principles for stations which make the network accessible for all, this will include support for ramp access to stations, dropped curbs allowing access to station forecourts. Surrey also support greater consistency in use of tactile pathing at stations.

Surrey recognises the train boarding process is a deterrent for many potential passengers and will support interventions to rectify this in stations within the county and those used by Surrey residents. This will include advocating level boarding in new rolling stock and the reduction in non-compliant step-gaps between the train and platform.



Dorking Station Credit: Willy Barton / Shutterstock.com

Surrey case studies

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Box Hill & Westhumble Station is located in the Surrey Hills, on the scenic North Downs. The station is home to a small independent bicycle shop and café; providing cycle repairs and light refreshments to the thousands of visitors who enjoy the good walking trails and cycle routes within the area. In 2017 the station was named in The Guardian’s ‘10 of the best railway stations in Britain’.

Source: <https://bookman.se/blogs/news/the-hot-5-uk-cycle-cafes>



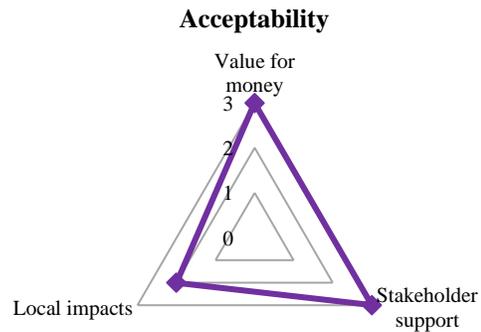
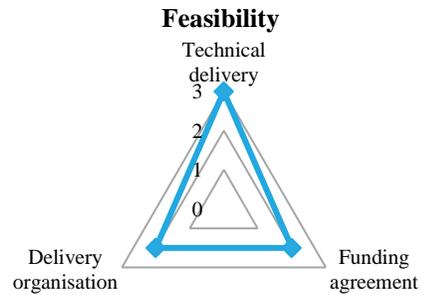
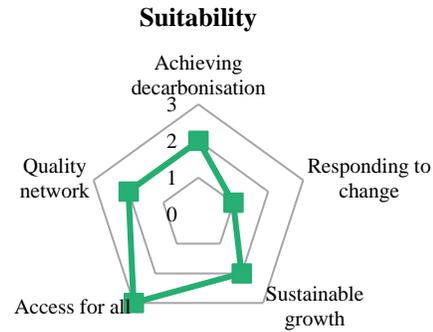
Haslemere station was shortlisted for ‘Station of the Year’, as part of the National Rail Awards in 2020. The local station adoption group worked with SWR to install new flower displays, a defibrillator, and artwork produced by local schoolchildren. They also received funding and assistance from SWR to completely refurbish the Information Hub, which offers tourism advice and public information to visitors, passengers, and the local community. The facility is leased on a peppercorn rent.

Source: <https://www.haslemereinfohub.co.uk/>

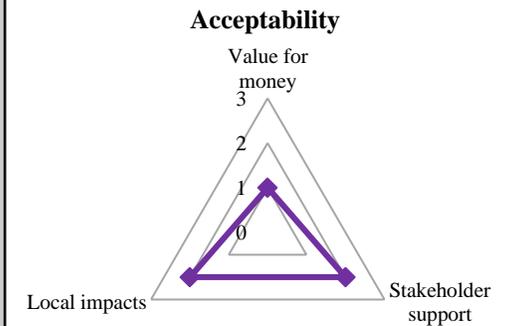
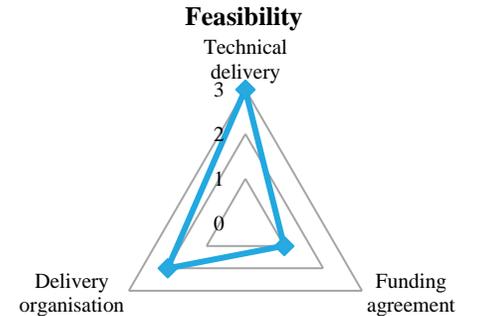
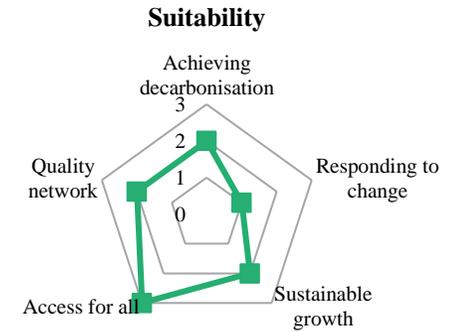
Stations and access - interventions



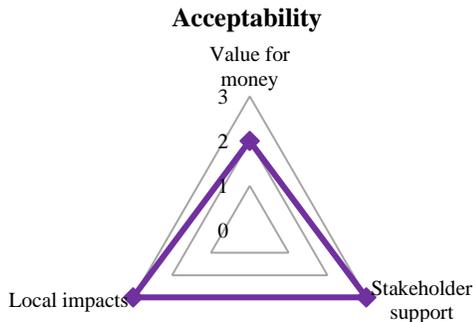
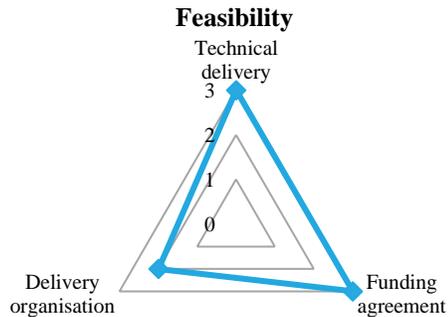
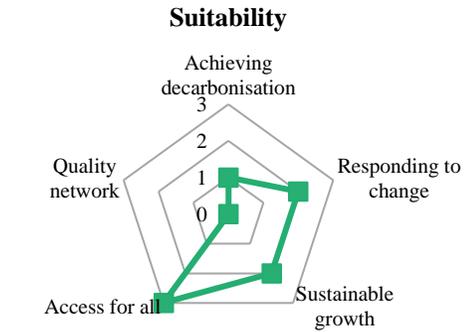
Intervention		New railway station at Park Barn (Guildford West)		
Delivery Organisation		Guildford BC Network Rail		
Delivery Period		S	M	L
		✓		
Surrey County Council Involvement				
Score	Suitability	10		
	Feasibility	7		
	Acceptability	8		
Description: A new railway station in Guildford at Park Barn on the North Downs Line. The new station will help improve rail access to key employment hubs such as the University, Sports Park, Research Park, and Hospital.				



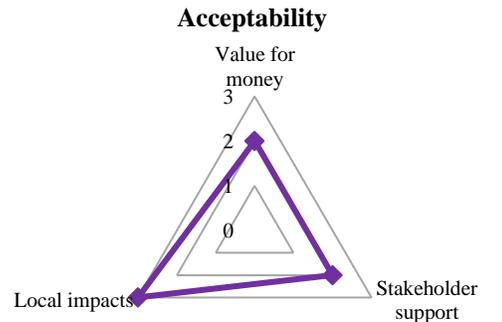
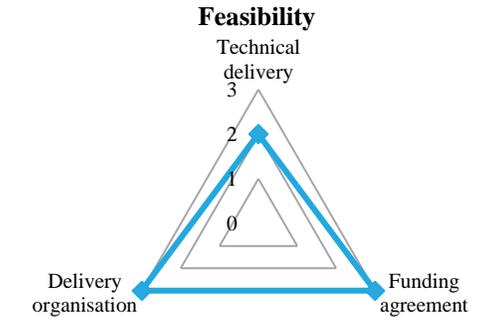
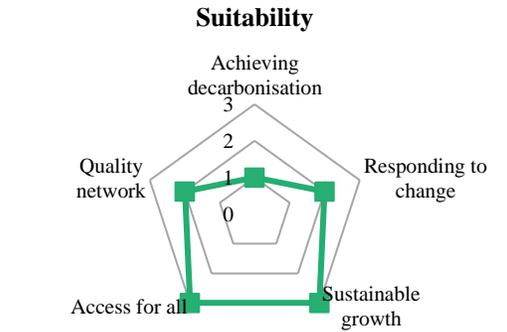
Intervention		New Rail Station: Merrow (Guildford East)		
Delivery Organisation		Guildford BC Network Rail		
Delivery Period		S	M	L
			✓	
Surrey County Council Involvement				
Score	Suitability	10		
	Feasibility	6		
	Acceptability	5		
Description: A new railway station in Guildford at Merrow on the New Guildford Line. The new station will help deliver housing growth and encourage sustainable transport journeys.				



Intervention		Committed Step-Free Access Schemes		
Delivery Organisation		Network Rail		
Delivery Period		S	M	L
		✓		
Surrey County Council Involvement				
Score	Suitability	8		
	Feasibility	8		
	Acceptability	8		
Description: Step Free Access Schemes which have been included in the programe to be completed by 2024: <ul style="list-style-type: none"> • Stoneleigh • Leatherhead • Walton-on-Thames 				



Intervention		Guildford Station Upgrade		
Delivery Organisation		SCC/Guildford BC/ Network Rail		
Delivery Period		S	M	L
		✓	✓	
Surrey County Council Involvement				
Score	Suitability	11		
	Feasibility	8		
	Acceptability	7		
Description: Increase capacity and improve interchange experience at Guildford rail station through the provision of additional platforms, layout changes, bus interchange hub, cycle hub, and new improved footbridge.				



Stations and access - interventions



Intervention		Godstone Station Improvements		
Delivery Organisation		Network Rail		
Delivery Period		S	M	L
		✓	✓	
Surrey County Council Involvement				
Score	Suitability	7		
	Feasibility	5		
	Acceptability	5		
Description: Upgrades to Godstone station to support the proposed garden community at South Godstone, including a new and enhanced station entrance to the south of the existing platforms, as well as an improved frequency of service.				

Suitability

Feasibility

Acceptability

Intervention		Longcross station improvements		
Delivery Organisation		SCC/Runnymede / Network Rail		
Delivery Period		S	M	L
		✓	✓	
Surrey County Council Involvement				
Score	Suitability	7		
	Feasibility	5		
	Acceptability	6		
Description: Upgraded rail station and enhanced rail service to support the development of the proposed Longcross Garden Village, including improved station facilities and access provision.				

Suitability

Feasibility

Acceptability

Intervention		Esher Step-Free Access		
Delivery Organisation		Network Rail		
Delivery Period		S	M	L
			✓	
Surrey County Council Involvement				
Score	Suitability	8		
	Feasibility	6		
	Acceptability	4		
Description: Delivery of Esher station step-free access and improvements to make the station easier to use for passengers with mobility impairments, small children, heavy luggage or shopping, and some elderly people.				

Suitability

Feasibility

Acceptability

Intervention		Ash Vale Step-Free Access		
Delivery Organisation		SCC/Guildford BC/ Network Rail		
Delivery Period		S	M	L
			✓	
Surrey County Council Involvement				
Score	Suitability	8		
	Feasibility	6		
	Acceptability	4		
Description: Delivery of Ash Vale station step-free access and improvements to make the station easier to use for passengers with mobility impairments, small children, heavy luggage or shopping, and some elderly people.				

Suitability

Feasibility

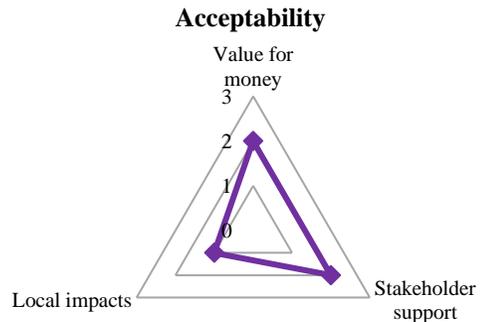
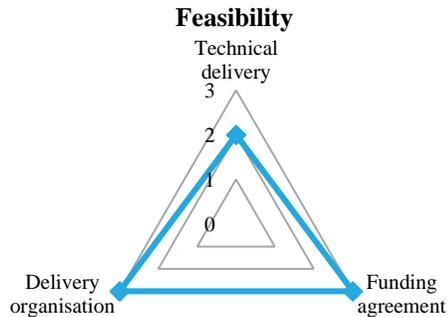
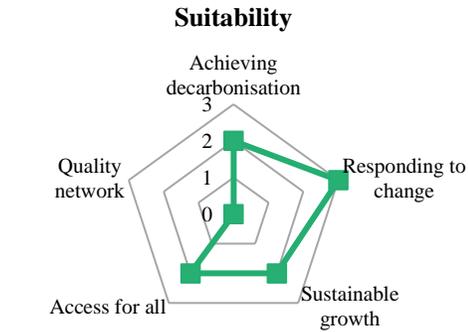
Acceptability

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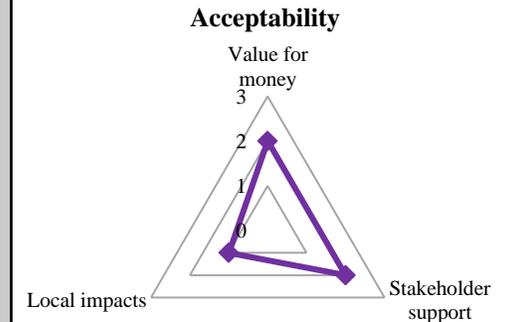
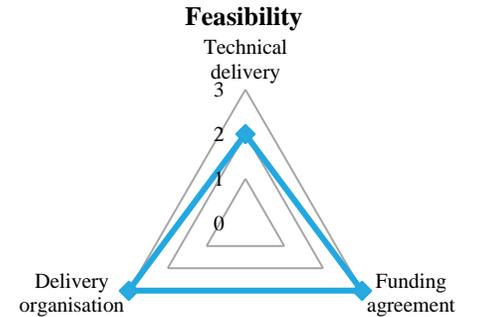
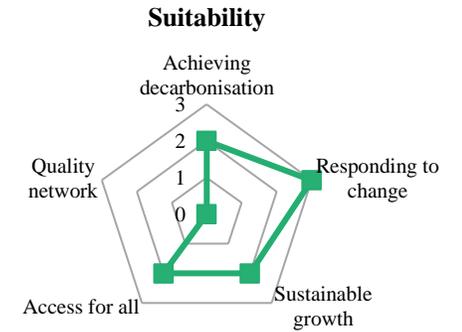
Stations and access - interventions



Intervention		Staines active travel enhancement		
Delivery Organisation		Surrey County Council/ Spelthorne BC		
Delivery Period		S	M	L
		✓		
Surrey County Council Involvement				
Score	Suitability	9		
	Feasibility	8		
	Acceptability	5		
Description: An active travel scheme which improves safe access to Staines Station on Gresham Road by providing a segregated cycle lane and footway widening as traffic is reduced from two way to a one way system. Other proposals include reduced speed limits.				

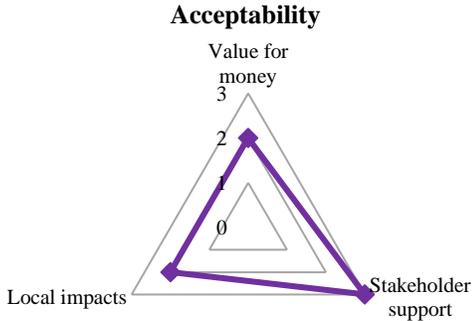
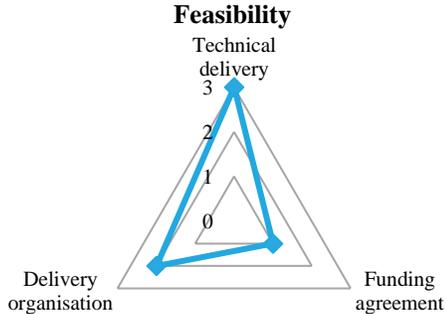
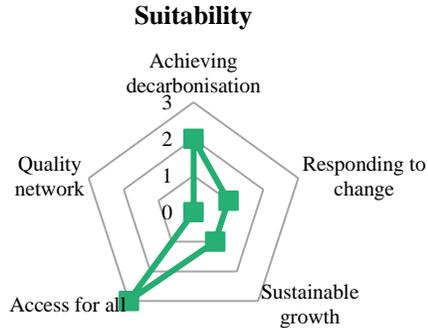


Intervention		Woking and West Byfleet active travel enhancement		
Delivery Organisation		Surrey County Council/ Woking BC		
Delivery Period		S	M	L
		✓		
Surrey County Council Involvement				
Score	Suitability	9		
	Feasibility	8		
	Acceptability	5		
Description: Permanent cycle way developed as part of Woking local walking and cycling schemes to better segregate existing cycle paths. The new cycle lane run close to West Byfleet stations on Madeira Road and will better protect cyclists on Maybury road on the approach to working from the east.				



Stations and access - interventions

Intervention		Dorking Deepdene Lift Access		
Delivery Organisation		Network Rail/ SCC		
Delivery Period		S	M	L
			✓	
Surrey County Council Involvement				
Score	Suitability	7		
	Feasibility	6		
	Acceptability	4		
<p>Description:</p> <p>Install lifts at Dorking Deepdene station to improve accessibility for passengers with limited mobility, as well as those with small children, heavy luggage or shopping.</p>				



Passenger experience

- strategy & interventions

Passenger experience

Optimising ticketing and fares

Surrey's position at the edge of London has meant some users are now able to travel using TfL's Oyster Card system, and others are using the National Rail ticketing system. As Oyster ticketing has expanded it has seen increasing calls for new stations to be added to the Oyster network. While other operators have begun to introduce smart ticketing, this is often replicating the original ticketing structure but in digital form rather than offering a truly 'pay-as-you-go' ticket.

Ticketing and fares reform will form a key component of the strategy to achieve modal shift; however rail needs to adapt to passenger needs. In light of the COVID-19 pandemic, the established pattern of five days commuting to a single location may no longer be the norm, and rail needs to adapt to these trends. In the short term there may be the need to encourage people back to railway (as COVID-19 transition concerns reduce); this could be managed through short term policies such as the temporary suspension of peak time fares, or other incentives to return to rail travel.

A new ticketing structure may also need to be accompanied by a review of fares, which have retained a broadly unchanged structure (albeit with fare annual fare rises) for the last 20 years. This would be an opportunity to simplify many of the complexities and potentially reduce the financial barrier for many short trips, which could also encourage modal shift from cars. For example, an 11-mile journey from Willesden Junction to Stratford across north London on London Overground currently costs £1.50 one way off-peak; whereas an equivalent journey on the North Downs Line, Guildford to Dorking, costs £6.90 off-peak. In the medium term the high cost of season tickets for London commuting may also need to be reviewed; the annual rise in fares for commuters may now be unsustainable as passengers may instead choose to work from home.

Ticketing Proposals

Zonal ticketing structure for the South East (with fare capping)

A zonal ticketing structure would remove some of the complexity of rail fares by moving to a system focused on single journey legs and the zones passengers pass through, using a smart card or contactless payment method. This could also be accompanied by a cap similar to that used by the Oyster system in London, which would limit the total cost.

Integrating bus and rail ticketing and fares

Bus and rail ticketing integration would mean passengers could pay for all their travel using the same ticketing medium; and could potentially offer the user better value by using a combination of services rather than being forced to use a single public transport mode. There are significant challenges to delivering this, with commercial interests of the private operators of both bus and rail cooperating on an appropriate mechanism to share passenger income. The regime that replaces franchising and Government's Bus Recovery Partnership could be useful levers of influence and direction to make this happen quickly and comprehensively.

Expansion of Oyster and Contactless network

Further expansion of Oyster networks and zonal system have been proposed particularly those boroughs bordering London. There are significant technical challenges, with further expansion of Oyster (less so than contactless), TfL for example has not included Oyster acceptance on all its Crossrail stations to Reading. There would be benefits to those areas where the zonal system expanded through ticket integration with London Buses, lower fares and simpler ticketing. However the ticketing solutions for the region need to be broad and comprehensive rather than expanding an existing London focussed structure. Any change to zones would need to be agreed with TfL and the DfT which adds additional political complexity.

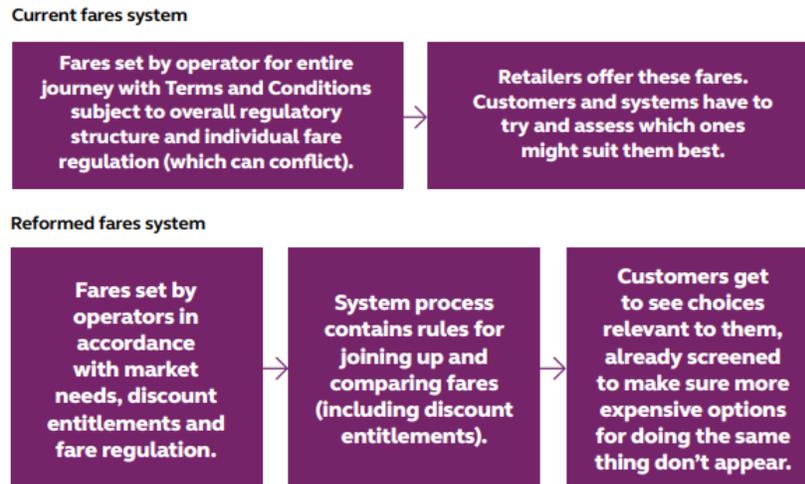
Passenger experience - strategy

Rail Delivery Group – Easier Fares for All

The Rail Delivery Group (RDG) proposal is based around the principle of a single journey leg, and removing the range of different season tickets and return fares. This would be complemented by a capping system on commuter routes which means frequent users are protected from price variations, whilst remaining economical and competitive with other modes. RDG propose this system would recover some of the distortions between peak and off-peak services which create fluctuations in demand.

The move to new technology over traditional season tickets would also increase the automation of refunds for passengers, further encouraging service operators to focus on delivering reliable services. It would also encourage a wider financial incentive for commuters to travel off-peak, potentially reducing crowding without requiring significant investment.

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A new railway operations model

The government is currently developing a new structure of organisation, which could have a significant impact on how services are planned and operated.

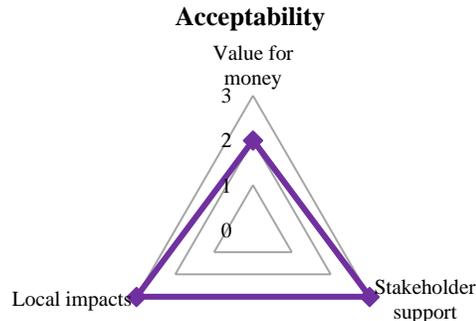
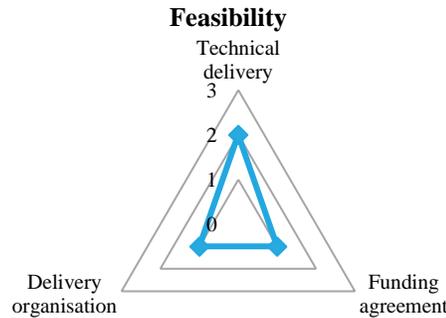
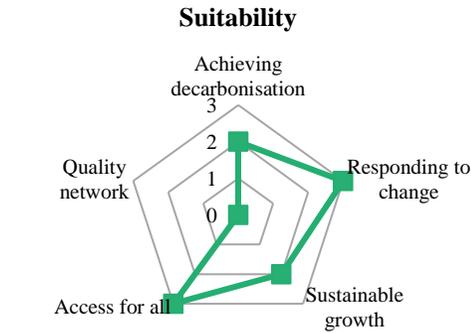
For passengers, the key outcomes Surrey County Council is seeking through the reorganisation are the following:

- Increase reliability of services by placing greater incentive on operators to run a more reliable service
- Improve the user experience for passengers
- Increased accountability between operators and the Network Rail for delays
- Increase opportunities to integrate the rail network with other forms of public transport
- More opportunities for local government and community rail partnerships to maximise the use of local stations.

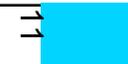
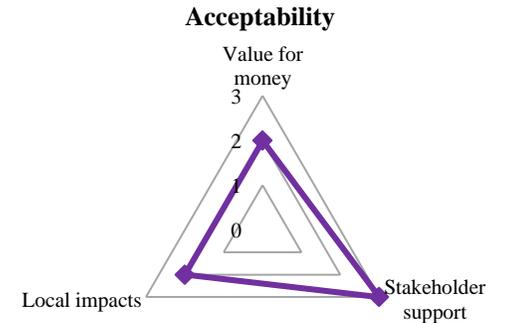
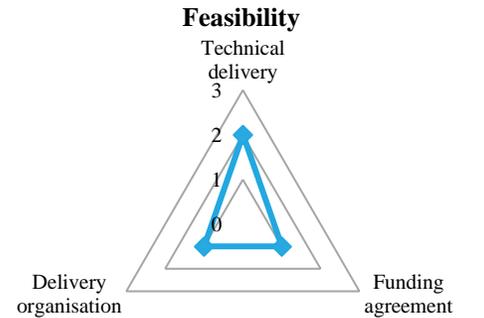
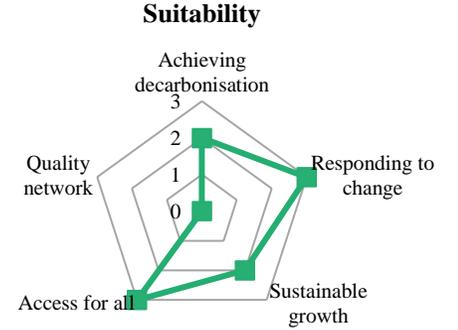
It is expected that the Williams Rail Review will recommend a move to a system closer to the concession-type model which operates on the London Overground. This means removing TOCs from the revenue risk which they currently assume when operating a franchise. Instead, HM Treasury is likely to take on the revenue risk, with TOCs being paid a fee to operate services, with additional performance incentives. There is also likely to be a reduced role for TOCs in terms of planning the timetable with an independent contracting body which would provide a ‘guiding mind’.

When national government has made a decision on how it wants to develop the system of rail organisation, Surrey County Council will need to review the proposed organisational policy and Williams Rail Review recommendations, to understand its impacts for Surrey’s railways. If there is an opportunity for consultation, Surrey County Council will need to develop an early assessment of the proposed organisational policy, to understand its impact on delivering the strategic aims.

Intervention		Zonal Ticketing Structure with fare capping for journeys within the south east		
Delivery Organisation		DfT/Rail sector		
Delivery Period		S	M	L
		✓		
Surrey County Council Involvement				
Score	Suitability	12		
	Feasibility	4		
	Acceptability	8		
Description: Introduction of a zonal ticketing structure in the south east which offers easy and flexible PAYG single journey legs and fare cap; reducing complexities and the financial barrier for many short trips, which could encourage modal shift from cars.				

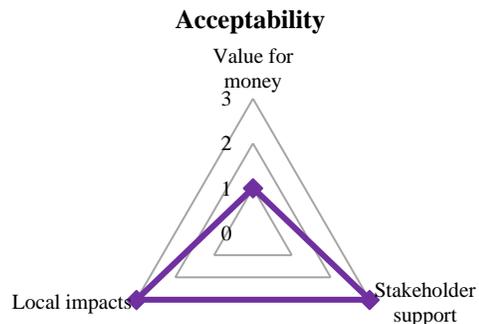
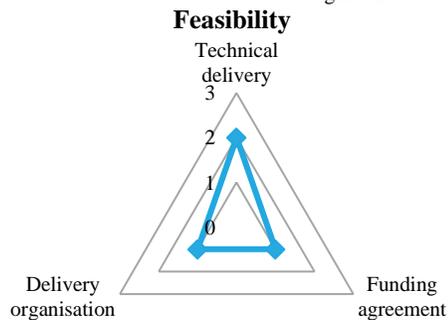
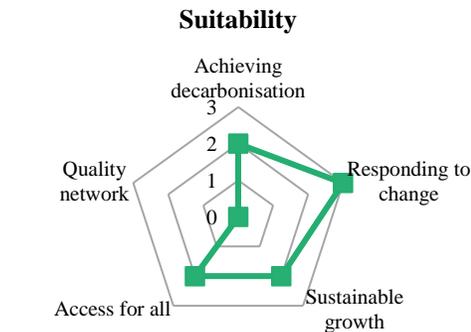


Intervention		Integration of Bus and Rail Ticketing		
Delivery Organisation		DfT/transport sector		
Delivery Period		S	M	L
			✓	
Surrey County Council Involvement				
Score	Suitability	9		
	Feasibility	4		
	Acceptability	8		
Description: Work with the transport industry to provide cross mode, cross operators, standardised smart ticketing, and payment services which will enable seamless travel across the network; improving convenience and attractiveness.				

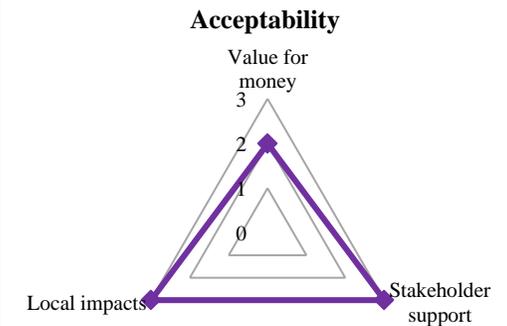
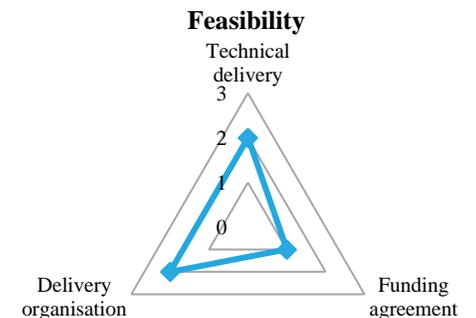
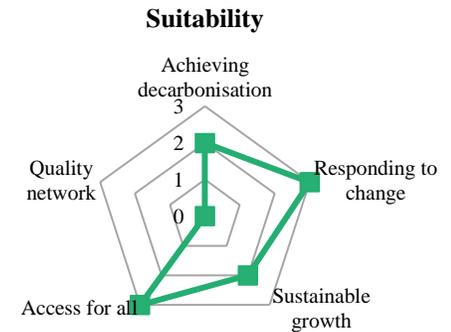


Passenger experience - interventions

Intervention		Comprehensive smart ticketing for commuters		
Delivery Organisation		DfT/Rail sector		
Delivery Period		S	M	L
		✓		
Surrey County Council Involvement				
Score	Suitability	12		
	Feasibility	4		
	Acceptability	7		
<p>Description:</p> <p>Cross mode, cross operators, standardised smart ticketing, and payment services which offers commuters seamless end-to-end travel across the network; improving convenience and attractiveness.</p>				



Intervention		Adoption of RDG 'Easier fares for all'		
Delivery Organisation		DfT/Rail sector		
Delivery Period		S	M	L
			✓	
Surrey County Council Involvement				
Score	Suitability	12		
	Feasibility	5		
	Acceptability	8		
<p>Description:</p> <p>Work with the transport industry to provide an attractive fare structure which removes the range of different season tickets and return fares, and caps prices on certain commuter routes.</p>				



Delivering the strategy

How we deliver the new strategy

Focus on delivering against the Strategic Aims

The following section includes a summary of actions required to deliver strategic aim and the projects in the short, medium, and long term which will help deliver the actions that have been identified.

Responding to developing scenarios

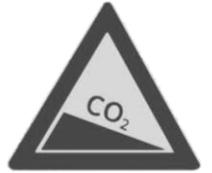
The supported schemes were designed to meet and support the sustainable route to growth scenario set out by TfSE but given the high level of uncertainty a short evaluation of the impact of all four scenarios follows. It is important that as trends become clearer (for example upon the impacts of greater working from home) Surrey County Council can be flexible its strategy and has a range of potential projects which could be proposed, and are aware of risks to existing projects and plans.

Set out the requirement for a successful rail operating model

As set out in this document, Surrey has ambitious plans for the rail network to deliver more for the county over the short, medium, and long term; improve the lives of its residents; and create a resilient and sustainable economy. The COVID-19 pandemic has accelerated the need for the government to find a new model for operating the railway across the UK. The need for a new model is not only for the medium and long term; the current model has left short term challenges in developing schemes in collaboration with the rail sector, with train operating companies facing few incentives to invest in local schemes.

Without a rail sector that is encouraged to work with local government, share risk and support funding of schemes which improve the service for passengers (and their customers), and grow demand, Surrey will not be able to deliver the improvements it needs.

This model needs to quickly grapple with the short term challenges and deliver the change passengers want to encourage them back to the railway. Surrey hopes that the current proposals will deliver a dynamic and collaborative sector, where investment is incentivised, and bottom up localised planning with local users is as important as top down strategy. The sooner this is established the quicker local schemes can be delivered particularly for station improvements that have been identified.



How we achieve transport decarbonisation

Action plan

Timeframe	Key projects
Short	<ul style="list-style-type: none"> Oxted Line Electrification Park Barn Station
Medium	<ul style="list-style-type: none"> North Downs Electrification Merrow Station Heathrow Waterloo Link (via Staines)
Long	<ul style="list-style-type: none"> Heathrow Regional Rail (via Guildford/Woking)

Strategic Response 1 – Encourage modal shift

- Lobby government to ensure the investment pipeline of upgrades is maintained.
- Work with government to ensure Williams Rail Review delivers an improved service for passengers.
- Work with regional partners to improve the better integration of public transport networks and rail operators.

Strategic Response 2 – Decarbonising rail

- Continue to make the case nationally for electrification of the North Downs Line, when the RSSB 750V DC study and Network Rail tractions report is complete.
- Continue to make the case for electrification of Uckfield Branch of the Oxted Line, when the RSSB study on DC safety and Network Rail tractions reports are complete.

Strategic Response 3 – Decarbonising access to stations

- Develop and deliver local station improvements with local partners and Network Rail.
- Increase links between active networks at stations by including access to rail in the assessment of cycle schemes.
- Deliver high quality cycle storage at core stations by working with railway organisation and local groups.
- Establish best practice for Surrey on electric vehicle station charging and work with partners to deliver a step change in provision and incentives at part of LTP4.

Delivering the strategic aims

How we respond to change in the rail sector

Action plan

Timeframe	Key projects
Short term	<ul style="list-style-type: none"> Rail operations reform Ticketing reform in the south east Improve monitoring of passenger demand trends in Surrey
Medium Term	<ul style="list-style-type: none"> Update strategy as impacts of COVID-19 and new rail operating model develop

Strategic Response 1 - Support a local recovery

- Promote existing schemes which can be delivered in the short term, such as North Downs Line electrification, capacity schemes, and Woking and Croydon upgrades.
- Support interventions which encourage more journeys by rail when it is safe to do so, to boost economic activity in Surrey.
- Encourage government to enact reforms which increase investment in local stations and access in Surrey
- Improve collection of demand data and trends, to understand impacts on economic performance and analyse investments.

Strategic Response 2 - Increased accountability of the railway

- Response to government plans for railway operations promote accountability to passengers as a key issue for changes to address.
- Develop a response to proposals to change the railway operations model when Williams Rail Review and government proposals are released for maintaining high quality rail links to London
- Support reform to the fares model which supports simpler refunds and rewards operators for running a reliable service.

Strategic Response 3 - Adapt to changing trends

- Work with government and regional bodies to reform the way the railways operate; to adapt to the changing demand pattern in Surrey with a focus on reliability, flexible fares, and better integration between modes.
- Monitor changes to satisfaction demand and performance to evaluate how the network is changing.

How we encourage good growth and a sustainable economy

Action plan

Timeframe	Key projects
Short	<ul style="list-style-type: none"> Ensure delivery of North Down Line services to Gatwick Park Barn and Merrow Station improvements Godstone and Longcross station improvements
Medium	<ul style="list-style-type: none"> Heathrow Waterloo Link (via Staines)
Long	<ul style="list-style-type: none"> Heathrow Regional Rail (via Guildford/Woking)

Strategic Response 1 – Connect to external drivers of growth

- Work with Heathrow strategic planning group (HSPG) to agree a framework for selecting a single option which can be promoted to DfT to improve connections to Heathrow.
- Monitor the improvements to the North Downs Line and evaluate its role in increasing modal shift to Gatwick Airport.

Strategic Response 2 – Contribute to high value productivity and sustainable economic growth

- Deliver improvements to existing stations with partners.
- Support Guildford in the development of Park Barn Station.

Strategic Response 3 – Connecting new communities to jobs and communities

- Work with the districts and boroughs to provide support for stations, which open opportunities for connectivity at new developments in town centres and garden communities.

Strategic Response 4 – Integration into other networks

- Include access to stations in the framework of assessing active transport schemes going forward, and combine these schemes with funding improved cycling facilities.
- Set a target for increasing cycling to stations where projects are delivering improvements.



Delivering the strategic aims

How we increase access for all

Action plan

Timeframe	Key projects
Short Page 222	<ul style="list-style-type: none"> Stoneleigh Step Free Access (SFA) Leatherhead SFA Walton-on-Thames SFA Guildford Station Schemes Ticketing Reform
Medium & Long Term	<ul style="list-style-type: none"> Ash Vale SFA Esher SFA Futher SFA schemes for 2024 funding Woking station access

Strategic Response 1 – Ensure stations and trains are accessible to all

- Ensure committed step-free access schemes are delivered by 2024.
- Establish viability and options for further step-free access projects such as Ash Vale and Esher, and support further schemes through application.
- Agree a target on delivering full step-free access to more stations in Surrey.
- Develop a priority list with stakeholders to deliver the next wave of station upgrades.
- Promote design standards which increases usability and safety of stations

Strategic Response 2 – A ticketing structure that works for all

- Promote a new fares structure which provides greater fairness and supports changing commuter patterns and greater local use of the railway.
- Hold government to account in delivering smart ticketing in the south east

Strategic Response 3 – Enable access to the network by diverse modes

- Include access to railway network as core component of assessing active schemes and link to at station infrastructure improvements.
- Work with government to include greater local control of stations in the re-organisations of the railway.



How we deliver an attractive, high-quality rail network

Action plan

Timeframe	Key projects
Short	<ul style="list-style-type: none"> Tonbridge Line resilience Develop Tonbridge service plans North Downs Line improvements
Medium	<ul style="list-style-type: none"> Woking Flyover Guildford Capacity Scheme Croydon area remodelling
Long	<ul style="list-style-type: none"> Heathrow Regional Rail Scheme

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Strategic Response 1 – A reliable network

- Surrey will work with Network Rail to promote schemes which encourage reliable service and investment; which promotes resilience from the impacts of climate change.
- Surrey will support railway reorganisation where it will incentivise operators to run a more reliable service

Strategic Response 2 – A high capacity network

- Surrey will continue to promote central government investment in the main line capacity schemes on the core commuter network, and monitor demand levels on these services.
- Surrey will support orbital rail capacity and frequency, where it can support sustainable growth of housing and employment and value for money demonstrated.

Strategic Response 3 – Improved journey times and frequencies where required

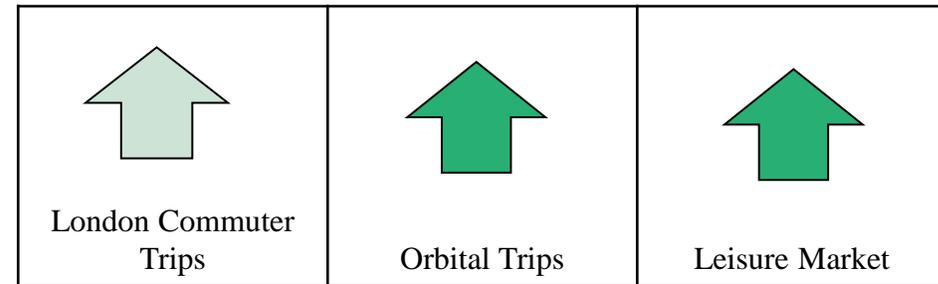
- Support development of Southern Access to Heathrow through working with HSPG and the DfT to create a viable scheme over the medium term including a link to the wider Surrey network
- Work with government to ensure increased services on the mainline services such as Thameslink and the south west mainline are delivered.
- Continue to develop and study proposal for improvements on its commuter and in particular radial links such as the North Downs and Tonbridge lines.

The Core Scenario: Sustainable route to Growth

Key impacts:

- Strong growth in regional economy supported by ongoing investment in the rail network
- Modal shift to rail delivered within Surrey through improvements to services, new stations and better customer services and ticketing
- A decarbonised railway in Surrey through full electrification of the railway and better station access by active and public transport
- Improved connections across the wider region delivers more rail journeys to neighbouring regions and large transport generators such as Heathrow and Gatwick airports
- Improvements in reliability and customer experience to radial services to London to encourage passengers to return
- Sustainable population growth supported by improved access to the rail network for new housing developments
- Improvements in accessibility of stations to support greater rail use across all communities

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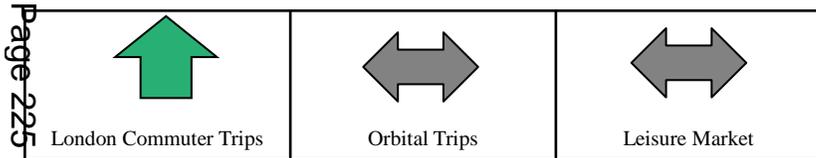


Alternative long term scenarios

Scenario 1: The London Hub

Key impacts

- Return to pre-COVID-19 levels of radial growth
- Low demand for orbital travel
- High investment required in network infrastructure

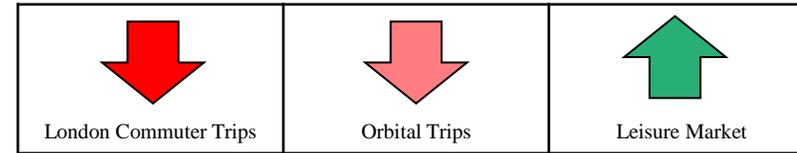


Rank	Strengthened interventions
1	Croydon area remodelling
2	Woking Flyover
3	Digital Signalling on SWML
Risk	Significant investment required to meet demand on main lines without Crossrail 2 and deliver increased station access capacity

Scenario 2: Digital Future

Key impacts

- Lower demand for peak hour rail commuting
- High levels of Mobility as a service (MaaS) and connected and autonomous vehicles (driverless cars)
- Focus on integrating rail with on-demand modes and access to leisure



Rank	Strengthened interventions
1	Integrated ticketing
2	Station hubs
3	New operational model
Risk	Lower rail demand from increased competition from driverless cars makes operating the rail network less financially viable.

Delivering the strategic aims

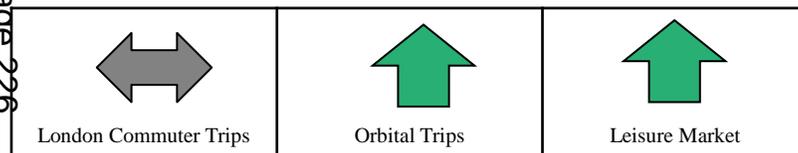
Alternative long term scenarios

Scenario 3: Route to Growth

Key impacts

- High demand for commuting into regional centres
- Integrated networks become important to prevent congestion
- More even flows between London and Surrey, and between regions

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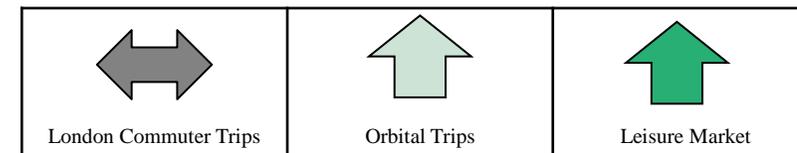


Rank	Strengthened interventions
1	Regional smart ticketing
2	North Downs Line services
3	Heathrow Southern Rail
Risk	Low frequency and capacity on orbital rail services makes rail less attractive and mode shift potential unmet.

Scenario 4: Sustainable Future

Key impacts

- Government policy directed towards sustainability over economic growth
- Green investments prioritised and more taxation and regulation of carbon emissions
- Lower fares to encourage mode shift



Rank	Strengthened interventions
1	Station hubs and EV installation
2	Electrification of North Downs Line
3	Electrification of Oxted Line
Risk	Lack of rail connectivity in the short term to support these aims across Surrey..

Appendix



Appendix A

Acronym Glossary

BML – Brighton Main Line

COVID-19 – Coronavirus

CP – Control Period

DC – Direct Current

DfT – Department for Transport

DRT – Demand responsive transport

ETR – Govia Thameslink Railway

GWR – Great Western Railway

HS1 – High Speed 1

HS2 – High Speed 2

LENNON - Latest Earnings Networked Nationally Over Night

LTP – Local Transport Plan

MAAS – Mobility as a Service

NR – Network Rail

ORR – Office of Rail and Road

OHLE – Over Head Line Equipment

PPM – Public Performance Measure

RDG – Rail Delivery Group

RPI – Retail Prices Index

RTP – Right Time Performance

SATH – Southern Access To Heathrow

SCC – Surrey County Council

SIP - Surrey Infrastructure Plan

SWML – Southwest Main Line

SWR – South Western Railway

TfL –Transport for London

TfSE – Transport for the South East

TOC – Train Operating Company

TPH – Trains Per Hour

Stakeholder Engagement

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Surrey Rail Strategy Consultation Survey – October 2020

Arup has been appointed by Surrey County Council to update and refresh the County’s Rail Strategy.

The current Rail Strategy was prepared in 2013, with a partial update through the 2016 Surrey Rail Strategy Position Statement, and subsequently needs a refresh to respond to growth patterns in the County and future challenges.

The updated rail strategy will form part of the emerging fourth Surrey Transport Plan (LTP4) and will form a framework through which Surrey County Council can:

- Develop future rail policy, service and infrastructure initiatives;
- Respond to consultations (e.g. rail franchises, aviation reviews);
- Lobby to influence national rail/government;
- Policy and planning; and support wider council growth initiatives.

The Rail Strategy will be centred around six key strategic themes for rail in Surrey:

- Theme 1: Addressing the climate emergency;
- Theme 2: Changing shape of rail industry;
- Theme 3: Covid-19;
- Theme 4: Good Growth;
- Theme 5: Access for all;
- Theme 6: An attractive, high-quality rail network.

We would like to know more about some of the issues which you face whilst using the County’s rail network and your views on investment priorities for the delivery of rail infrastructure and services.

Your responses will help us to develop the Rail Strategy and shape the future for rail in Surrey.

Please return this survey by 14th October 2020 to Alexander Skill at Arup via Alexander.Skill@arup.com.

Privacy: All data collected in this survey will be held anonymously and securely. No personal data is asked for or retained. We will not share any information with any third parties without your consent, as required by law.

1

Surrey Rail Strategy Consultation Survey – October 2020

1. Are you completing this questionnaire on behalf:
Please select the option from the list below that most closely represents how you will be responding to this consultation.

Yourself as a member of SCC Council

A Parish / Borough / District Council

A Charity, Voluntary or Community Sector Organisation (VCS)

Other, please specify:

2. If you are responding on behalf of a Council/Business/VCS Organisation, please tell us the name of the organisation:

3. The Rail Strategy will be centred around six strategic themes. How important do you think these themes are for rail in Surrey?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
Theme 1: Support the response to the climate emergency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Theme 2: An accountable railway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Theme 3: Responding to Covid-19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Theme 4: Encourage Good Growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Theme 5: Access for all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Theme 6: An attractive, high-quality rail network	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2

Surrey Rail Strategy Consultation Survey – October 2020

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A Charity, Voluntary or Community Sector Organisation (VCS)

Other, please specify:

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3. The Rail Strategy will be centred around six strategic themes. How important do you think these themes are for rail in Surrey?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
Theme 1: Support the response to the climate emergency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Theme 2: An accountable railway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Theme 3: Responding to Covid-19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Theme 4: Encourage Good Growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Theme 5: Access for all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Theme 6: An attractive, high-quality rail network	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2



Stakeholder Engagement

Surrey Rail Strategy Consultation Survey – October 2020

 **SURREY COUNTY COUNCIL** **ARUP**

8. What do you consider to be the key drivers of change – both positive and negative - shaping the County's rail network in the future?

<input type="checkbox"/> Network Performance	<input type="checkbox"/> Government changes to operational model	<input type="checkbox"/> Brexit
<input type="checkbox"/> Remote working	<input type="checkbox"/> COVID-19	<input type="checkbox"/> Population and housing growth
<input type="checkbox"/> Shifting political focus on infrastructure	<input type="checkbox"/> Structural changes to local government	<input type="checkbox"/> Climate change
<input type="checkbox"/> Technological Change	<input type="checkbox"/> Future Airport expansion	<input type="checkbox"/> Crossrail 2
<input type="checkbox"/> Other, please specify:	<input type="text"/>	

9. Please add any further comments below:

Thank you for completing this survey, please return using the email provided.

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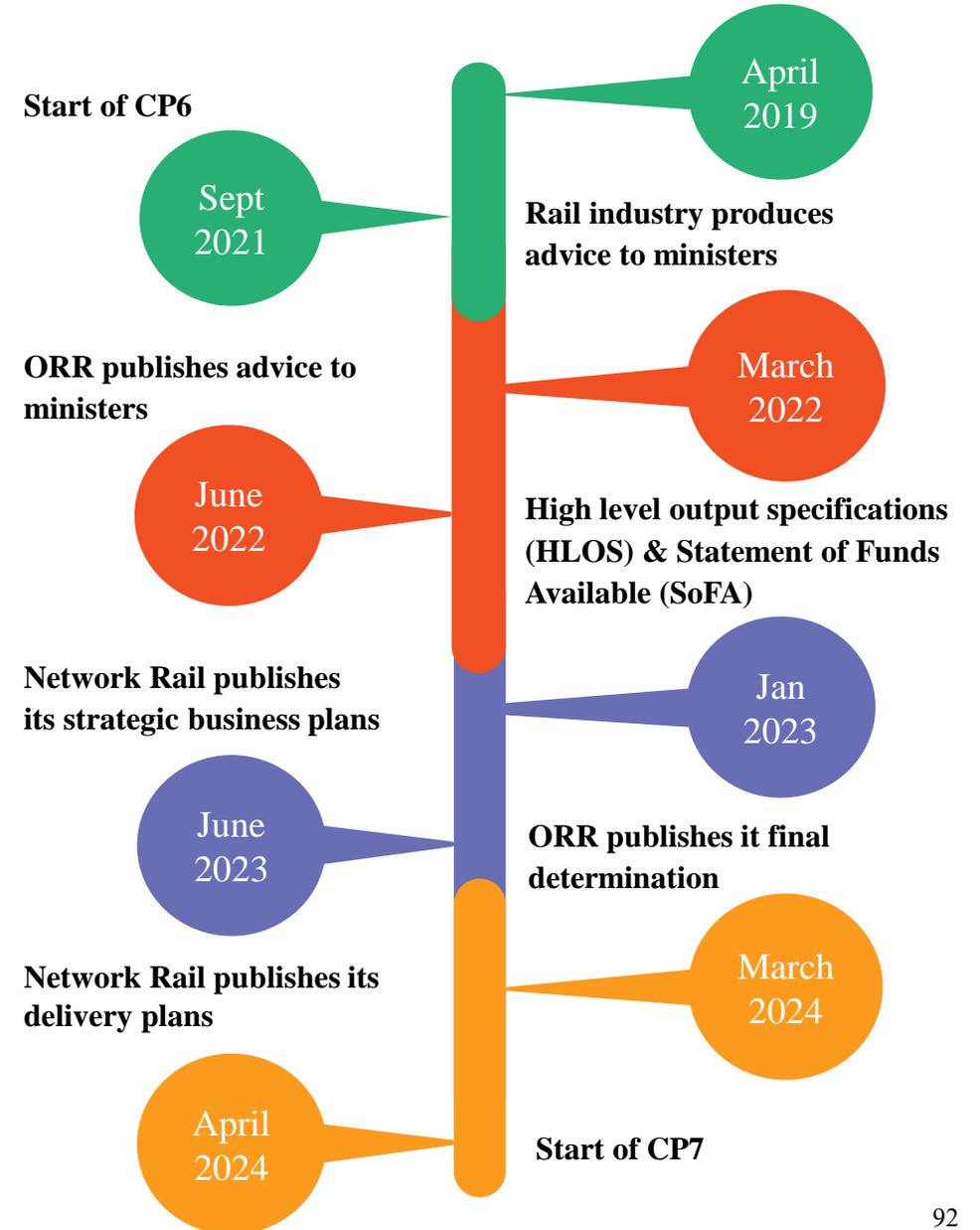
Network Rail investment plans

Rail planning process

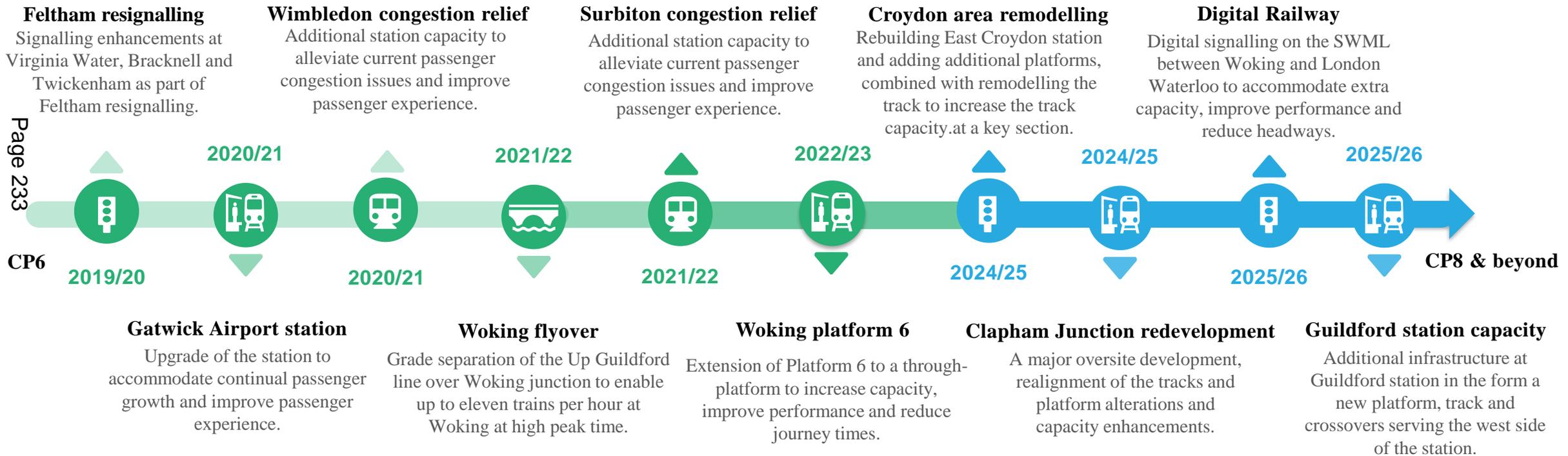
Network Rail adopts a five-year Control Period (CP) planning process in which maintenance and renewals are planned and delivered and enhancement milestones are set, reviewed, and achieved. Each CP consists of: expected regulated output expected to be delivered by Network Rail; indicators to monitor progress; and enables to assess short and long-term capability. The current CP6 runs from April 2019 to March 2024. Approximately £7bn is planned to be invested over CP6 in operating, maintaining, and renewing the railway in the Southern region, which covers Surrey.

Shaping investment through the periodic review

Surrey County Council has the opportunity to comment on what Network Rail should deliver in respect of its role in operating, maintaining, and renewing its network in CP7, and how the funding available should be best used to support this through the Periodic Review (PR). An indicative timeline of what PR23 will most likely look like and the key milestones is shown (see right).



Key network enhancements



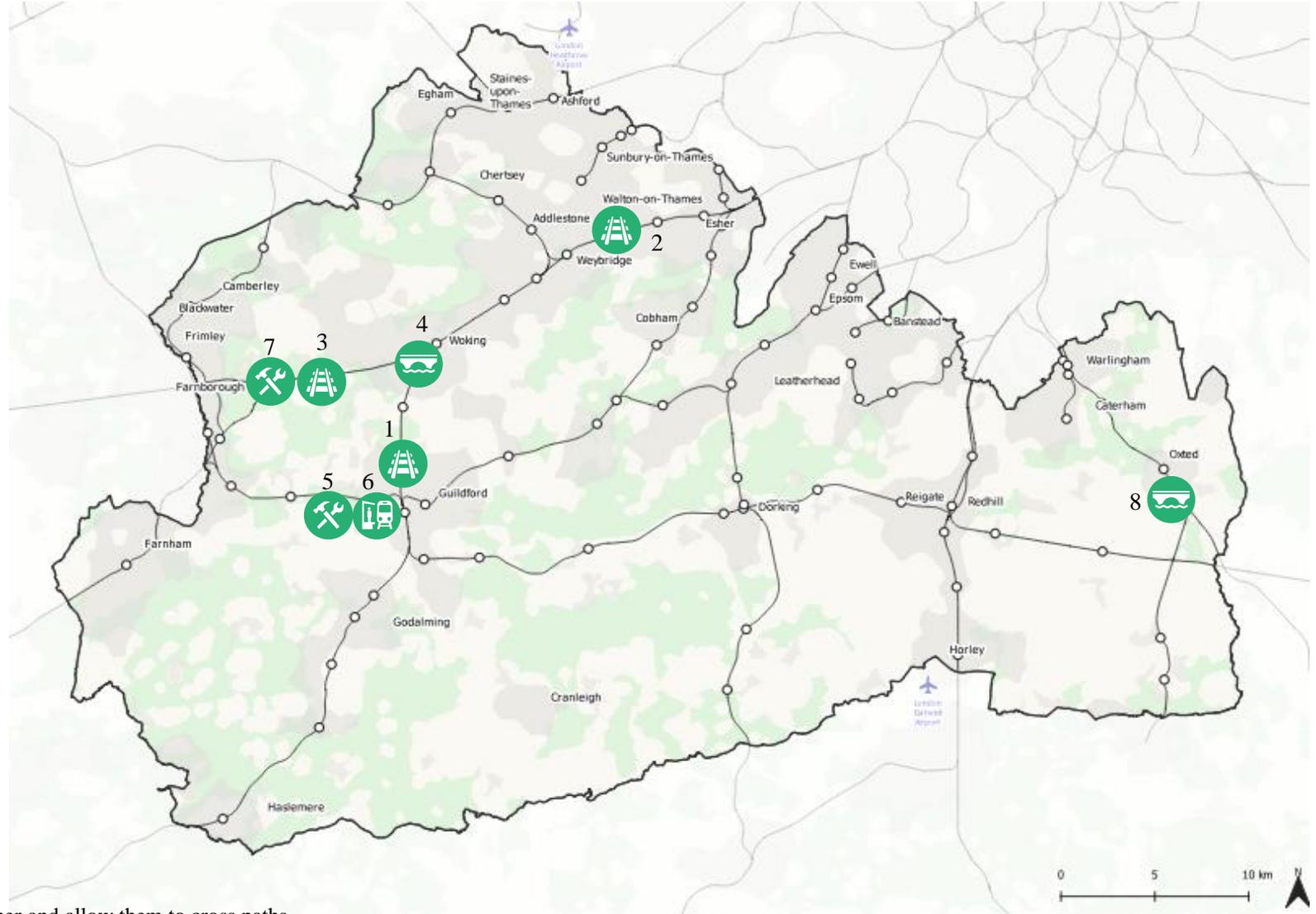


Appendix C

Key targeted renewals

Network Rail plans to carry out several key targeted renewals and upgrades on the county's rail network during CP6 (see right) including:

1. Switches & crossings¹ (S&C) Guildford L. End
2. S&C Weybridge
3. S&C Brookwood
4. Victoria Arch bridge
5. Guildford drainage
6. Guildford Passenger/Train Interface (PTI)²
7. Pirbright embankment
8. Oxted viaduct



1 - these are moveable sections of track that guide trains from one track to another and allow them to cross paths.

2 –the section of the platform where passengers board or alight the train

Schemes Long List

Network infrastructure	Connectivity and services	Stations and access	Passenger experience
Croydon Area Remodelling Scheme	North Downs Line service improvements	New Rail Station: Merrow	Zonal Ticketing Structure journeys within the south east with fare capping
Redhill to Tonbridge line Weather Resilience	Increased Frequency Redhill to Tonbridge line inc Gatwick/Kent connection	New Rail Station: Park Barn	Adoption of NR "Delivering fares for All"
Oxted Line Electrification	Southern Rail Access to Heathrow: Waterloo Link via Staines	Dorking Deepdene Lift Access	Integration of Bus and Rail Ticketing
New Platform 3 at Reigate Station	Southern Rail Access to Heathrow: Regional Rail	Dorking Station Upgrades	Comprehensive Smart ticketing
SWML Digital Signalling	Chertsey Line Improvements	Godstone Station Redevelopment	Spelthorne Oyster Card Travel Card Extension
North Downs Line electrification	Southern Rail Access to Heathrow: Waterloo Link (via bedfont)	Longcross Station Redevelopment	
Guildford Platform Capacity Scheme	User Addlestone Link for passenger services	Stoneleigh station step-free access	
Woking Rail Capacity Improvements	Southern Rail Access to Heathrow: Spelthorne Light Rail	Ash Vale station step-free access	
Smart Road Chord	Re-open Guildford to Cranleigh Line	Guildford Station Upgrade	
Crossrail 2	Guilford via Ash Vale line to Waterloo Service	Esher station step-free access	
Crossrail 2 - Dorking extension	Increase frequency on the Ash Vale line	Staines active travel enhancement	
Crossrail 2 - Woking extension	BML 2 proposal	Woking and West Byfleet active travel enhancement	
Platform ext at Ewell East, Ewell West and Stoneleigh		Dorking (Main) Station Car Parking	
Virginia Water Curve		Farnborough Station Car Parking	

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