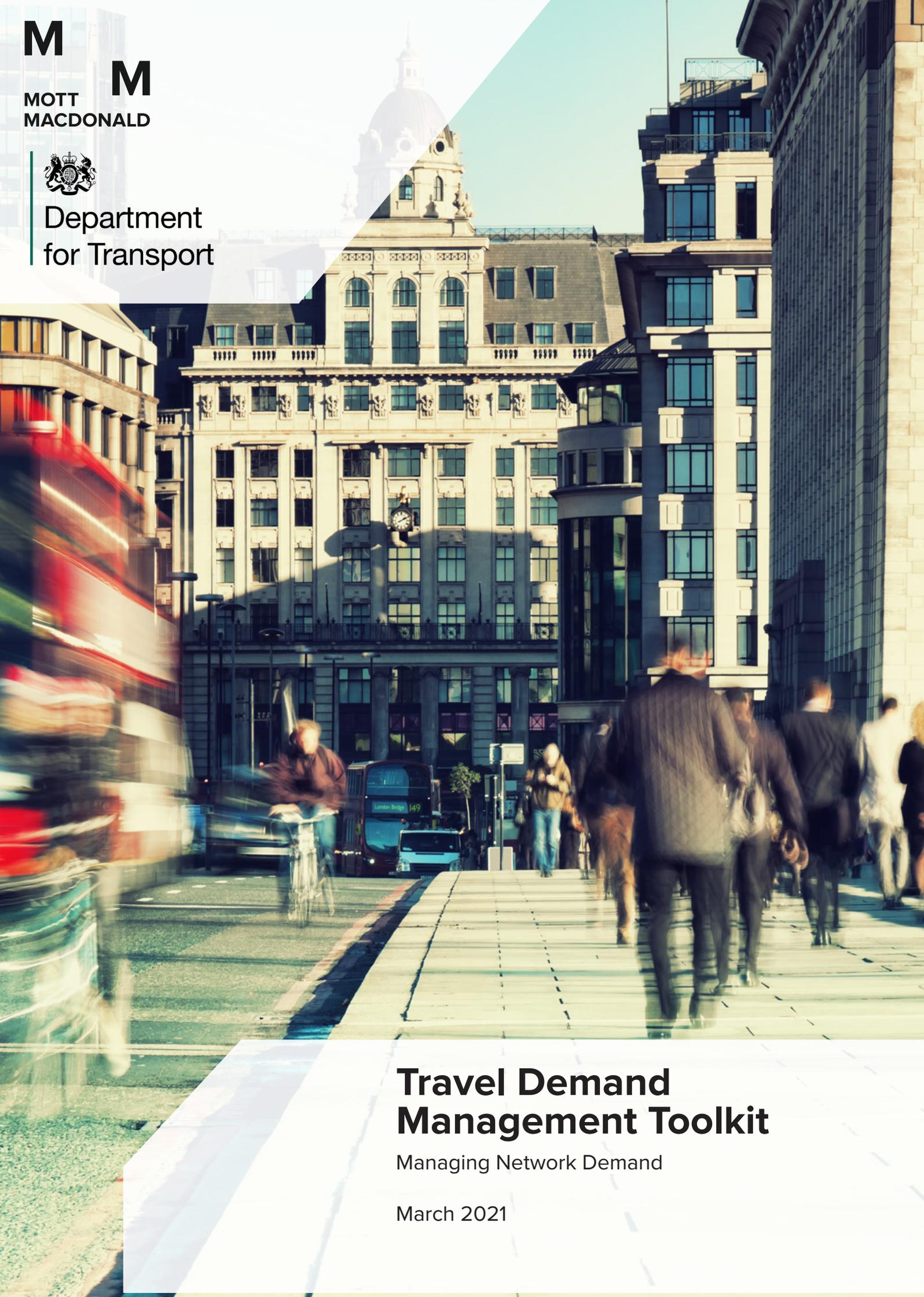




Department
for Transport



Travel Demand Management Toolkit

Managing Network Demand

March 2021



Image showing a bike share scheme in Brighton

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Revision	Date	Originator	Checker	Approver	Description
1.0	05/03/2021	AG/FI	CH	RM	Final



Image showing pedestrian and cycle route through a park

The image features a minimalist design with large, overlapping curved shapes in a dark green color against a white background. The shapes are positioned in the upper and middle sections of the frame, creating a sense of depth and movement. The bottom section is a solid dark green field.

Toolkit Overview

Toolkit Overview

This report was produced by Mott MacDonald for the Department for Transport in December 2020. Since the report was written, there have been a number of further changes to COVID-19 restrictions and guidance. However, this does not affect the function and role of the toolkit.

Context

This Travel Demand Management (TDM) Toolkit sets out a framework for Combined and Local Transport Authorities (LTAs) in England to develop and implement effective TDM plans.

This is a standalone document which should be used to help you navigate the effects of the COVID-19 pandemic on the travelling public and your transport networks. Crucially, it is a tool to help you manage a range of scenarios that may happen as a result of the pandemic, including where pressures on the transport network mean there is a need to manage a mismatch between supply and demand.

The need for English LTAs to develop strategic TDM plans was first acknowledged in response to the Secretary of State for Education's announcement that all education facilities in England would reopen to all year groups at the start of the new academic year in September 2020. This followed a period of lockdown due to COVID-19. Since the issuing of the first iteration of this toolkit in July 2020, a tiered system has been adopted across England to control the virus, which means that demand and pressures for travel both within and between different local authorities has varied.

Whilst this TDM toolkit has drawn upon lessons learnt from TDM plans rolled out to support the return of trips for education during the COVID-19 pandemic, this new guidance has been prepared as a standalone document. It has been designed to provide LTAs with a suggested framework for managing transport demand during times of uncertainty and change. Therefore, it can be applied more widely than the previous version to cover all trips for all journey purposes and to help address specific transport challenges. This will help to create a legacy of TDM activity that can be applied when different disruptions or pressures occur on the transport network. The lessons

learned from existing plans should be used as these will be a good starting point to consider the effects of other disruptions that will happen as we move through our response to the pandemic.

This toolkit should be read in conjunction with the latest Government's COVID-19 national guidance for transport and travel.

As we go through the winter months, and as the weather conditions and light deteriorate, we face the normal reduction in active travel. At this point in a typical year, public transport operators would experience a spike in demand, but from our engagement with all LTAs across England we know this not to be the case, and that public transport usage continues to be low. The expectation is that this will change when employees begin a return to their place of work, however there is a very real possibility that private vehicle usage will increase and public transport use will stay low leading to prolonged and additional network congestion. This presents a challenge of needing to actively promote and capitalise on the emergency and more recent active travel funded schemes as well as promote public transport as a safe and reliable means of travel.

The application of social distancing measures on public transport continues to cause a significant reduction in effective capacity, and habitual shift towards private vehicles provides a challenge in daily transportation of the population to education, employment, leisure and healthcare.

As such this second iteration of the TDM Toolkit has been developed to assist LTA's in managing the demands posed on the transport network caused by these new outcomes of the pandemic and the further uncertainties that are faced when travel and movement picks up again as more commuter and leisure trips are made.

Some examples of the uncertainties currently faced by LTAs include:

- Continuation of social distancing measures for the foreseeable future, including on public transport.
- Changing Government COVID-19 response Tiers that the LTA falls into, and impacts of if / when these change.
- Poor weather and darker evenings driving up demand for both public transport and car use and the reduction of walking and cycling.
- A phased return to work for employees that are currently continuing working from home.
- Potential increase in staff absenteeism and the ability to maintain service levels.
- Continuation of the requirement to travel for education and university.
- Uncertainty over the future of capacity creation funding.
- Continued implementation of COVID-19 related schemes such as emergency active travel fund (EATF) which may cause network disruption through road reallocation
- The return of sporting events
- Implementation of low traffic neighbourhoods

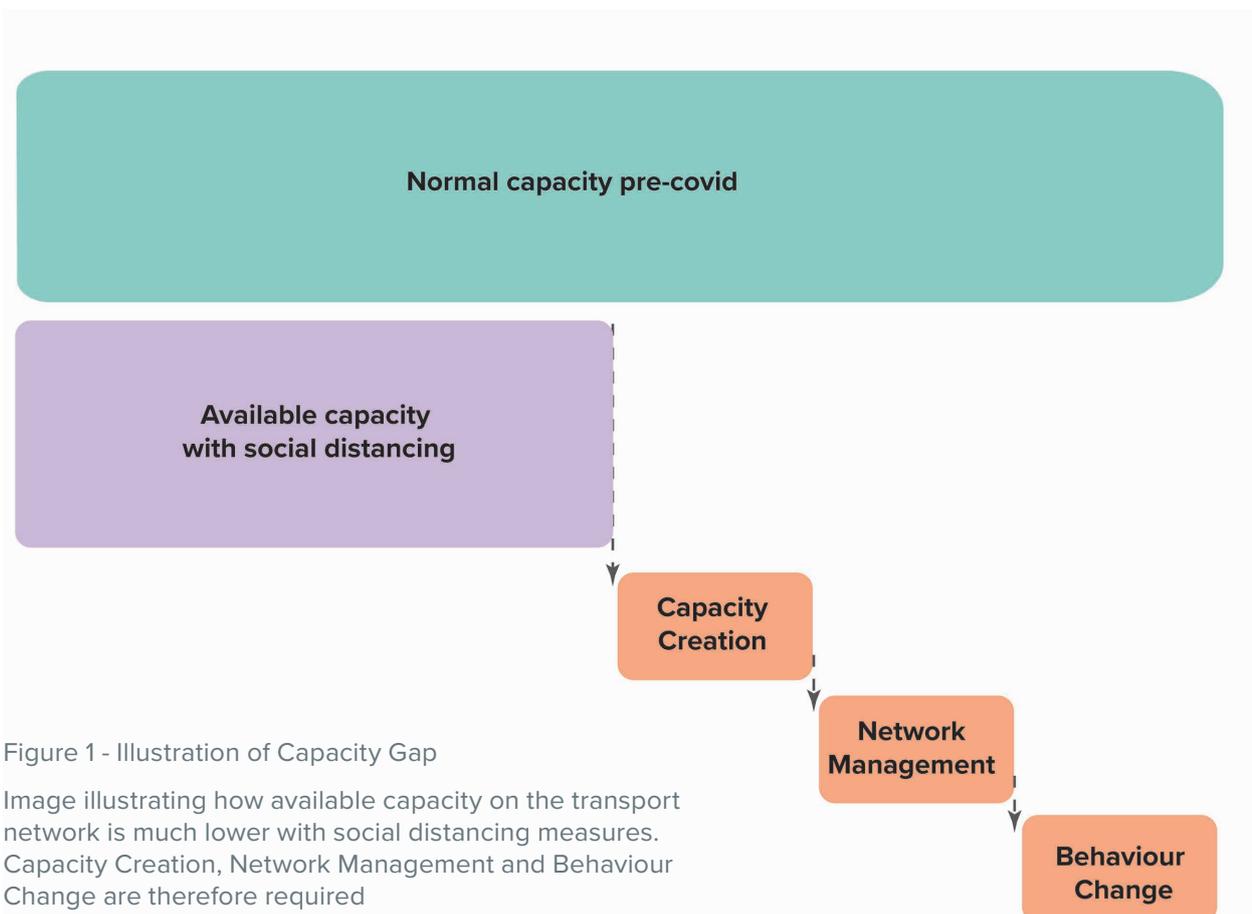


Figure 1 - Illustration of Capacity Gap

Image illustrating how available capacity on the transport network is much lower with social distancing measures. Capacity Creation, Network Management and Behaviour Change are therefore required

The issues will vary not just across the country but also within LTA areas. TDM plans should be developed and implemented to reflect your local area, ensuring that education, work and leisure trips can all be accommodated on the network as trips continue to increase when elements of society reopen and return to ‘the new normal’.

It is therefore essential that measures to reduce the impacts of lower public transport capacity, changes in travel behaviour and changes to your transport systems are planned, implemented and communicated to support the smooth operation of your transport networks.

We anticipate the need for you to work closely with transport, education, business and leisure stakeholders developing your plans, in order to consider the impact of any future increase in transport demand. We acknowledge that you may already have significant experience of TDM work and so may well be familiar with the concepts covered, but this toolkit could still serve as a useful checklist for what you need to cover.

What is TDM?

Travel Demand Management ‘TDM’ is an umbrella term for the application of strategies and policies to reduce travel demand, or to redistribute this demand in space, mode or in time.

An effective TDM plan is based around three key pillars: the creation of capacity, network management and travel behaviour change solutions (see Step 2 for more details).

Developing and implementing a TDM plan will clearly require resource to undertake. When considering the scale of travel behaviour change required, especially in short timescales, it is important that resources are allocated efficiently to achieve maximum impact. When delivered well, TDM plans are proven to be very effective in managing travel demand during periods of additional stress on the network. For example, 14% of drivers changed their behaviour as a result of a TDM project supporting the major reconstruction of the A406 in north London. The City of Sydney achieved an absolute 11% mode shift of private vehicle movements as a result of a TDM project that was introduced to mitigate the impacts of long-term redevelopment of the city centre.

Aim of this Toolkit

The aim of this TDM Toolkit is to provide you with a framework to deliver an effective TDM plan to support network resilience in times of heightened demand, stress and uncertainty. The plan will help you influence the travel behaviours of all transport users in order to address gaps not only in capacity due to social distancing and related COVID-19 measures, but also beyond that once restrictions become fully lifted. This Toolkit contains:

- Step by step guidance on what tasks should be undertaken to develop and implement a TDM plan, including the development of the ‘core narrative’ which is the data driven central messaging of the TDM strategy.
- A template for a TDM Plan (see Appendix A), which you can use as the basis for designing a tailored Action Plan for your LTA.
- Some practical worked through examples on how to develop a TDM plan are located in Appendix B, reflecting likely scenarios that LTA will face over the coming months.

Five Steps for an effective TDM Action Plan



Figure 2 - The five steps required for an effective TDM action Plan. This document is structured around these five steps

Timetable

Winter 2020/21

- LTAs record any lessons learned from TDM plans used to support the return of trips for education
- LTAs use lessons learned to develop TDM plans to manage all network users through periods of uncertainty
- LTAs implement, monitor and evaluate progress on TDM plans.
- LTAs maintain the momentum of communication campaigns.
- LTAs adapt their approach if problems arise. This will require ongoing engagement with delivery partners to ensure that the transport networks are sufficiently resilient, that the communication channels you have chosen are the right ones and that supply is matched with demand across your networks.

Legacy into 2021 and beyond

LTAs continue implementation of TDM plans to manage supply and demand and adapt as circumstances change.

How to use this Toolkit

The toolkit is split into a number of key steps - with specific guidance and advice on what to do at each step.

- **Step 1: Collect and Analyse Data:** This step sets out guidance on how to collect information to understand the key transport capacity issues and to address any gaps in data if there is insufficient

information. It will also be useful to understand what the key uncertainties are to help with planning. This step also sets out guidance on identifying the transport user groups in your area who will need to adapt their travel behaviours. It is an essential building block of the core narrative for the TDM Plan which will be developed and addressed throughout the following steps. The core narrative forms the central 'story book' for the TDM plan. It uses the main objectives, the main facts and figures that underpin these objectives and sets the framework for reaching the right solution. The core narrative - that consistent set of messages – is built upon and informed by the available data.

- **Step 2: Identify Possible Solutions:** This step sets out a long list of solutions that could be considered for your LTA. For ease, these are framed around the three pillars of TDM – capacity creation (such as the provision of additional vehicles; network management (such as creating exclusion zones around education facilities to restricting private car use drop off) and behaviour change (such as campaigns around agile working and re-timing journeys to work). Measures should be considered for all network users. It is important to keep in mind that the TDM plan should have measures that influence all trips where appropriate. This step sets out how to identify and prioritise solutions which best address the issues identified in step 1. The appropriate set of solutions is informed by the data collected in step 1. You will be encouraging the target

audience to make use of these solutions through the messaging in the core narrative.

- **Step 3: Implementation of Solutions:**

This step sets out how to identify and work effectively with your delivery partners to implement the required solutions. Delivery partners will play a critical role in delivering and monitoring the solutions required for an effective TDM plan, as well as delivering the key messages to transport users. Key to this step is ensuring that all key stakeholders are bought in to the overall approach to tackling the network challenges. At this stage you will also be working closely with your marketing and communication colleagues to identify the channels that can be used to communicate with the travelling public. You now have the three key elements to create the core narrative: data to inform the required level of behaviour change; a set of solutions to deliver that change and a framework for implementing interventions with all key stakeholders.

- **Step 4: Implementation of Marketing and Communications:** Once the solutions have been identified and are ready for delivery, it is essential to communicate the plan to deliver behaviour change in accordance with meeting the desired objectives. This step outlines how to develop a communications plan to ensure your audiences are reached at the right time, with the right message through the right channels so they can make the right decision. This step is the creation and dissemination of the narrative which has been informed by steps 1, 2 and 3. You need to work with all your stakeholders to ensure you can access their communication channels to push your behaviour change messages out. Step 4 is the outward facing articulation of the plan and therefore is tied inherently to

the identified measures and key objectives, based on that initial data collection.

- **Step 5: Monitor, Evaluate and Adapt:**

This step sets out the important role of how to quickly and successfully monitor and evaluate the effectiveness of your TDM plan. If the TDM plan is not meeting the desired objectives then it may need to be adapted. This step sets out how to monitor and evaluate, as well as when and how to adapt and change the message to be responsive to those uncertainties. Monitoring provides the loop back to the initial stages and informs if, and when, these need to be reviewed and updated. You will need to look at how your network is performing and if there are still problems occurring, try to address these by either strengthening your core narrative messages, use more communication channels or provide more transport capacity.

What are the key success factors for an effective TDM?

10 Critical Success Factors for an Effective TDM Plan

- Level of support and endorsement from all agencies in your LAs (leadership).
- A clear definition of the problem (the size of your challenge).
- Having a range of alternative travel options available.
- A strength of message to enable you to influence travel.
- Saturation and reach of message across all audiences (communication channels).
- Having a focused approach (audience and mode segmentation).
- Quality of information provided to the audience (trust and credibility).
- A consistent message given out by all stakeholders (based on the core narrative).
- Time and resources available to implement the programme.
- The ability to track and monitor your impact.

Continuous improvement

The process for developing, implementing and reviewing your TDM plans should accord with quality assurance processes in place in local government. This can be illustrated by the Deming Cycle in the figure below or the 'Kaizen principles'.

The Deming cycle is a continuous improvement and problem solving model made up of 4-steps:

PLAN: Design or revise the process components to improve results

DO: Implement the plan and measure its performance on a small scale

CHECK: Assess the measurements and identify their meaning

ACT: Decide on changes needed to improve the process

By way of example, the Check and Act stages of this aligns with TDM Step 5 which is focussed on monitoring, evaluating and updating TDM plans.

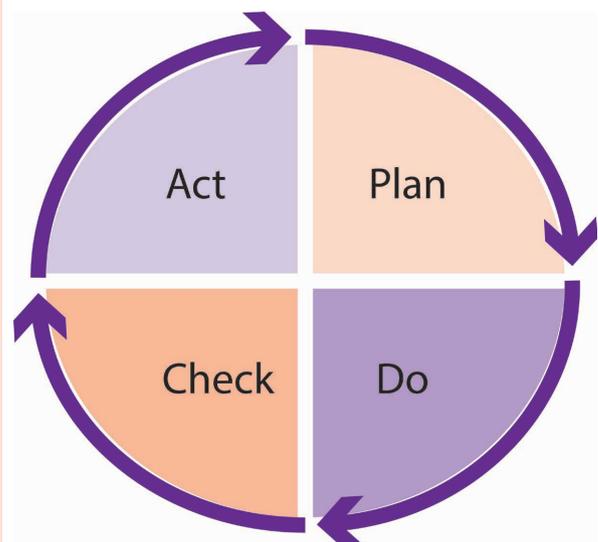




Image showing cars driving on the highway



Step 1: Collect and analyse
data

Step 1: Collect and analyse data

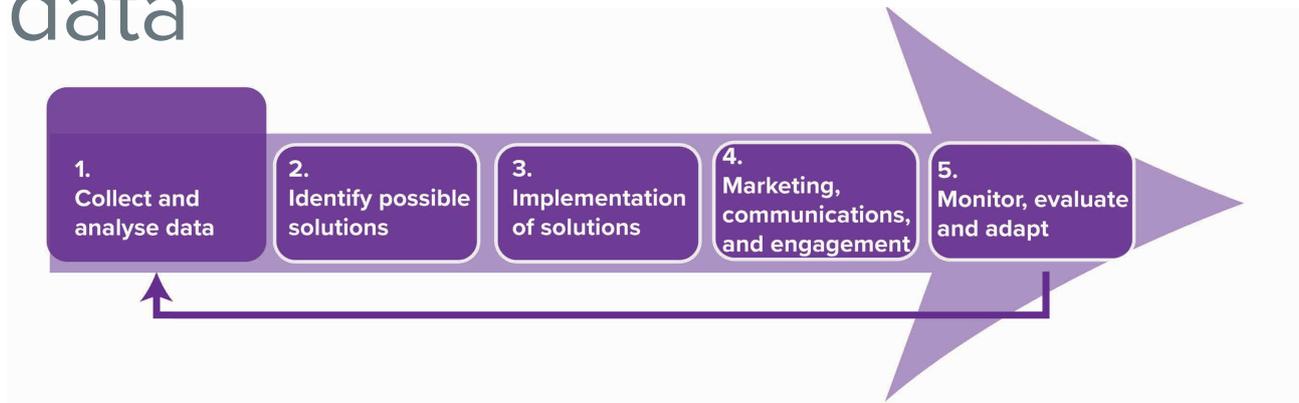


Figure 3 -The five steps for an effective TDM Action Plan - Collect and analyse data.

Introduction

Step 1 is about getting to the crux of the transport issues and understanding the shortfall in capacity locally as journey needs and modes change in the winter months and beyond. The guidance for this step sets out what sources of qualitative and quantitative data you may find useful to make this analysis.

You will know your local context better than anyone else and may already be planning for this time. The more you can understand about who uses what type of transport, where your pressures will be and how much transport capacity will be reduced the more effective your TDM plan will be. As part of this stage it will be useful to consider what the key disruptors are likely to be over the coming months in your area, even if these are uncertain at this stage – whether this is an anticipated phased return to employment for people that are currently working from home, capacity grant uncertainties or the

continuation of issues caused by education and higher education trips by students. Figure 4 illustrates some examples of potential disruptors to the transport network.

The data you collect will help decide the scale of the solutions that may be required and the strength of messaging that needs to go out to specific audiences to influence a change in travel behaviour. Essentially you are trying to influence people to travel in the way you know will keep your networks moving and you should establish objectives that reflect your local situation.

It is understood that there may be time and resource constraints for developing your TDM plan. If that is the case, then your focus should be on confirming what quantitative data and supporting qualitative information is already available or easily obtained.

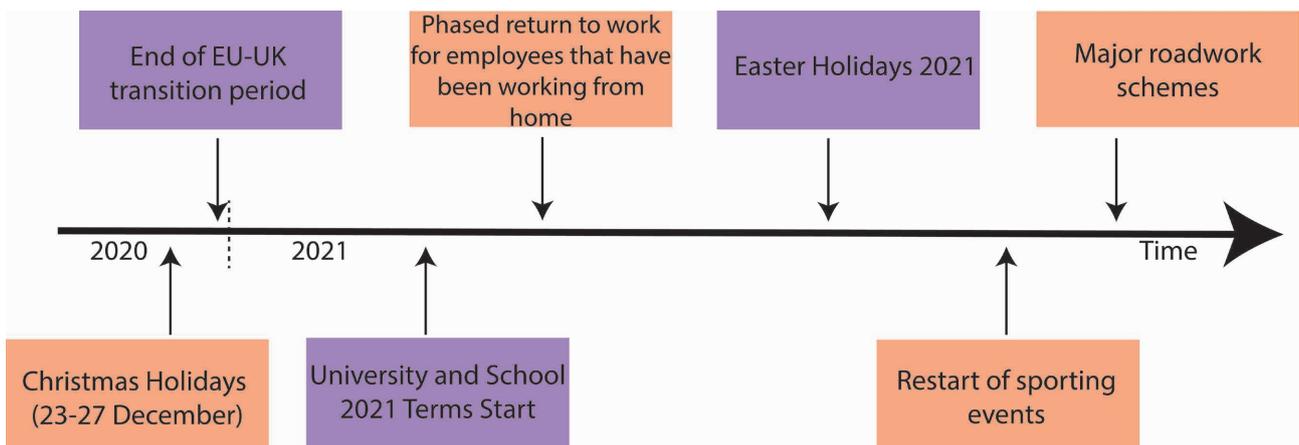


Figure 4 - Illustrative timeline of possible disruptors to the transport network

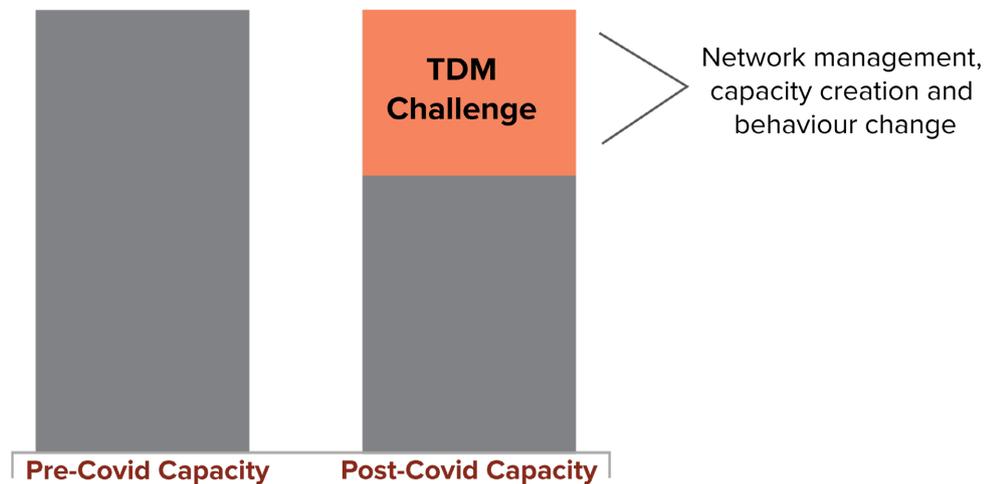


Figure 5 - Capacity Constraints - How TDM can address the shortfall between pre-COVID capacity and post-COVID capacity

Analysis is required to determine what solutions will address the shortfall in capacity, that may be realised from people shifting towards greater car use and reduced capacity on public transport.

This is shown illustratively in Figure 5. References to post COVID-19 relate to the impacts of COVID-19 reducing capacity on the public transport network.

The outcome of this step should show you what you need people to do to address the capacity shortfall or demand surge. This direction will then enable you to develop core travel advice through your narrative which is then added to throughout the following steps. The core narrative provides the single source of truth for all stakeholders so that all actions and outward messages are based on the same common advice. Having this at the heart of the TDM plan means that you balance your network, maintain consistency and create trust in your associated plan.

Understanding the constraints in your LTA

Get the relevant stakeholders together from your LTA and externally and pool their knowledge to map and sketch out the challenges that are specific to you. Some basic key questions you will want to ask are:

- Where are the typical congestion and overcrowding hotspots, by mode and time?
- What issues/areas may be particularly exacerbated by social distancing for example how will the capacity of the network be affected, how will demand have changed?

- Where are the clusters of education facilities, employment centres and other trip attractors?
- What are the key travel patterns and what travel options and provision are available for your LTA?
- What additional measures to support capacity and behaviour change are already being put in place (such as (emergency) active travel measures, capacity creation grants, and road reallocation).

Whilst a lot of this will be already core knowledge to you, setting it out like this helps to establish the basis for the core narrative and to identify the level of required behaviour change. It will help pinpoint and articulate the challenges and possible approaches.

The next step should be to locate sources of qualitative and quantitative information where possible to build up this understanding. This can then be used to confirm or amend the stakeholder insights and to add detail. It can also help prioritise and focus. Attitudinal surveys may also help (if time permits). They can show you where you may have future problems if your population are saying they will drive more

Have you thought about?

Partnering with neighbouring authorities to develop a joint approach

when they return to work or if they have low confidence in public transport.

A data checklist is set out in Table 1-6, which could be useful starting point. This has been produced to help visualise simply the impact that returning trips will have on your network and what level of effort will be needed to balance transport supply with demand.

It may also be appropriate to engage with wider stakeholders to obtain additional data. It is never too late to gather data which can then help you refine your plans.

For example, you may require supplementary information from education, business facilities or transport operators in your area to understand if there are any localised issues.

General	Population (e.g. Census 2011)
	Public Transport Mode Share (e.g. Census 2011)
	What are the key trip attractors that may cause pressure on the network – e.g. employment, education, retail and leisure sites.
	What are the key data sets such that will help understand where capacity will be constrained – e.g. traffic counts, mode share data for different groups, public transport usage data.
	What measures are already being implemented in your LTA in light of social distancing – such as active travel emergency measures and road space reallocation.

Table 1 - General data checklist

Number of Businesses	How many businesses?
Number of Employees	How many employees?
	Are there part time employees?
Business Related Travel	Is there a travel plan in place?
	Are there shift patterns?
	What are the peak travel periods?
	Is there flexible / agile working?
	Travel for work needs

Table 2 - Business data (business parks, industrial estates, office clusters etc) checklist

Education Institutions	How many nurseries are there in your LA?
	How many primary schools are there in your LA?
	How many secondary schools are there in your LA?
	How many further education colleges are there in your LA?
	How many universities are there in your LA?
Number of Children in Education	Nursery school pupils
	Primary school pupils
	Secondary school pupils
	Further education pupils
	Higher education students
Education Related Travel	What are the term dates as well as start and finish times for education facilities in your area?
	Do you collect or have access to the main mode of travel to education data? You may have a school / education travel planning team or Modeshift STARS scheme which may hold this information
	Which education facilities in your area provide a dedicated bus service?

Table 3 - Education data checklist

Number of individual retailers	How many different stores?
	Type of retail (furniture, appliances, clothes, food)?
Numbers of employees	How many employees?
	Are there part time employees?
	Peak time of day?
Number of visitors	Weekday average number?
	Weekend average number?
	Which education facilities in your area provide a dedicated bus service?
Employees travel needs	Is there a travel plan in place?
	Are there shift patterns?
	What are the peak travel periods?
	Is there flexible / agile working?
	Travel for work needs
Visitor travel needs	What is the modal split?
	Are there facilities in place to allow for all modes of travel (cycle parking, taxi drop off etc)
	Are there allowances for home delivery?
Freight and Deliveries	Can freight and logistics movements be quantified?
	Have these movements increased?

Table 4 - Retail (high streets, retail parks, shopping centres, supermarkets, markets etc) checklist

Type of trip generator	What is the purpose of the trip generator?
Number of Employees	How many employees?
	Are there part time employees?
Number of visitors	Weekday average number?
	Weekend average number?
	Peak time of day?
Employees travel needs	Is there a travel plan in place?
	Are there shift patterns?
	What are the peak travel periods?
	Is there flexible / agile working?
	Travel for work needs
Visitor travel needs	What is the modal split?
	Are there facilities in place to allow for all modes of travel (cycle parking, taxi drop off etc)
	Are there allowances for home delivery?
Freight and Deliveries	Can freight and logistics movements be quantified?
	Have these movements increased?

Table 5 - Large trip generator data checklist

Public Transport	Do you know the capacity of the public transport network in your area pre COVID-19? Such as the number of buses/trains/trams per hour serving each school
	Do you/ your local transport operators know the capacity of the public transport network in your area with the need to observe social distancing requirements?
	How likely are you to have a shortfall in capacity on public transport in your area when there will be peaks in demand?
	Do you understand the likely new level of demand on public transport, taking into account wider background changes in travel patterns such as home working?
Highways Network	Do you already know where road congestion normally occurs on your network?
	Do you have access to traffic counts, a highway traffic model that can tell you this information?

Table 6 - Travel demand data checklist

Communication	Do you have dedicated Travel Demand Management and/or communications teams that already communicate travel messages?
	Are you engaging with education facilities across your local transport area to communicate about travel?
	Are you engaging with businesses and large trip generators and travel in your local transport area?
	Do you run any annual national / global events such as 'European Mobility Week'?
	Are there any campaigns being led through partners such as public health?

Table 7 - Travel campaigns data checklist

Understanding the transport users

This step is also about understanding which transport user groups (i.e. the audience) need to adapt their travel behaviours to accommodate the increase in trips on the network. For example, is there a particular target in one area which can be associated with congestion, are students the only group that need to affect a change in the traditional network peak, or do other groups need to change behaviour as the economy reopens, such as businesses? It may be that commuting trips on certain modes may need to be reduced or retimed to increase the capacity at school opening times to allow students to get to education facilities on time. Therefore, you should consider what range of transport users may need to change travel behaviours including:

- Students, parents and staff;
- Commuters;
- Users requiring travel for other reasons such as retail, leisure and health; and
- Freight, deliveries and servicing

This will then enable you to start considering what messages may be appropriate for these different users in step 4.

Have you thought about?

Contacting marketing and communications teams early to keep them in the loop with findings and develop a messaging and communications schedule.

Set local objectives

It is advised that LTAs establish objectives, based on what the key local challenges are. A key way to frame any local objectives will be to articulate what level of travel behaviour change is required, by whom, by what mode, and when. For example reducing background demand on the rail network by 30% to facilitate sport supporters attending a game before a match or reducing background demand on the road network by 30% during planned roadworks allowing for public transport to continue running to schedule during the changes. This will help with developing the core narrative which will need to be communicated to different transport users (detailed in step 4) as well as the monitoring and evaluation of your TDM Plan (detailed in step 5).

To help you develop Step 1, please refer to Appendix B for some illustrations of particular transport network disrupters that might be relevant to you and how to plan for them.

– such as the phased return to work

Key risks

It is prudent to establish a risk register at this point, to capture the key risks which are likely to affect your LTA. This should be kept up to date throughout the duration of the TDM Plan.

Where Step 1 should lead you:

- Understanding what parts of the transport network will be over capacity – where there will be congestion hotspots at certain times, what public transport capacity issues will arise.
- Understanding which locations will be affected - for example are there any particular clusters where there are likely to be particular concerns, or are there particular public transport or road corridors that are heavily congested.
- Understanding the background demand and how other users could adapt their travel behaviours (e.g. commuters work from home or use alternatives).
- Understanding who the key transport users are.

- What measures are being rolled out locally already.
- What data gaps exist and can they be addressed quickly and easily.
- Your key objectives to underpin the plan.
- Completion of the first part of your TDM Plan which will set out the size of the travel behaviour change required in your LTA, where, by whom, by what modes and what times.

Step 1 will lead to the development of the initial core narrative which forms the central ‘story book’ for the TDM plan. It builds on the main objectives, the main facts and figures that underpin these objectives and the framework for reaching the right solution. By having a core narrative, you ensure that all stakeholders are aligned, using the same messages. The data collection step is the first building block of the core narrative.

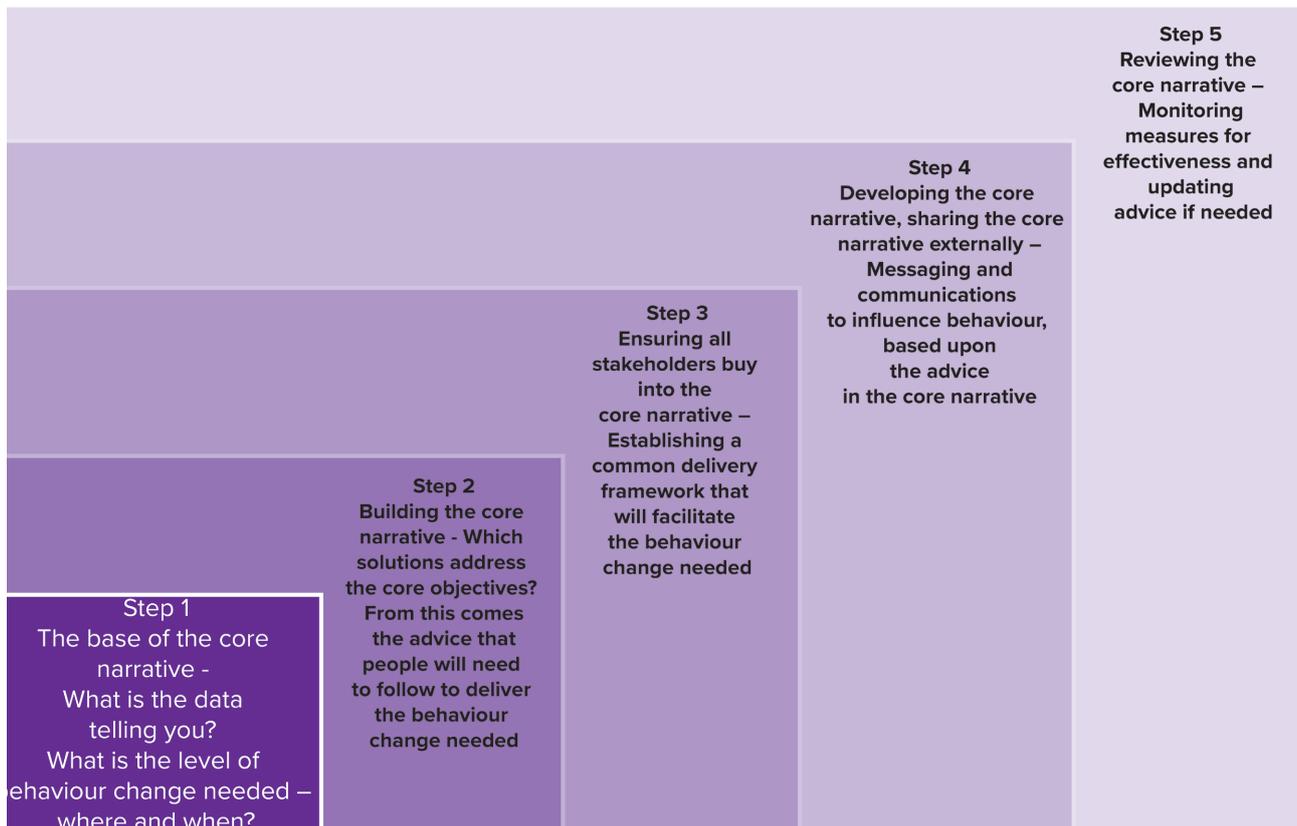


Figure 6 - Five steps of the core narrative for a TDM Plan. First step is data collection.



Image showing vehicle traffic



Image showing a rural bus stop



Step 2: Identify Possible Solutions

Step 2: Identify Possible Solutions

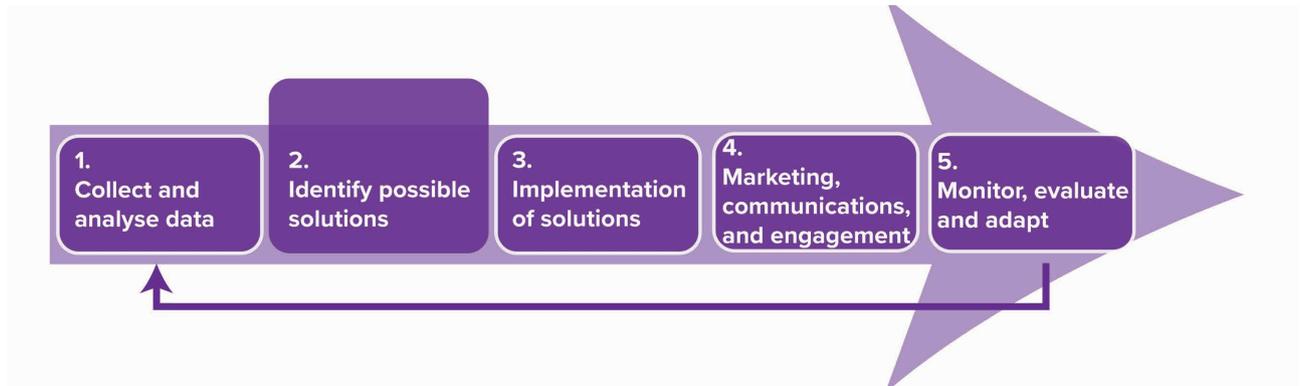


Figure 7 - The five steps required for an effective TDM Action Plan with step 2: Identify possible solutions.

In step 1 you have identified the transport and travel issues that are likely to arise, the transport users that need to adapt their travel behaviour, and what you need these users to do differently. This should be a quantifiable level of mode shift or specific groups in specific locations.

Step 2 is about identifying the range of solutions that are available to achieve this mode shift, and to prioritise them.

The outcome of Step 1 is likely to show there will be some demands on the transport network that cannot be met, and a strain on operations to ensure compliance with COVID-19 restrictions.

Solutions should be defined and implemented as soon as possible to test the effectiveness in alleviating problems in the build-up to the increased stress on the network. Solutions that influence a number of target audiences’ travel can be implemented earlier to lock-in necessary behaviour change and release valuable capacity.

You will need to plan ahead and develop a framework of transport solutions for a range of trip purposes, including:

- Education (student, parents and staff) related travel
- Workplace and employment related travel
- Retail related travel
- Other major trip attractor / leisure related travel
- Travel related to freight, deliveries and servicing

The Three Pillars of Travel Demand Management

Figure 8 shows the three pillars for a successful TDM Plan (Capacity Creation, Network Management and Behaviour Change). An effective TDM Plan should include a range of solutions from each of the three pillars. Without one or more of these components TDM plans will be less effective.

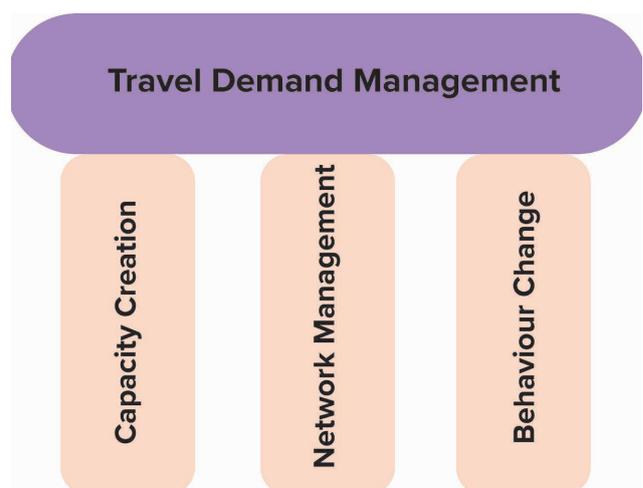


Figure 8 - The Three Pillars of Travel Demand Management: Capacity Creation, Network Management and Behaviour Change

A number of possible solutions under each pillar have been identified below. These solutions may well overlap and this is by no means an exhaustive list – as you know your LTA and the likely issues, there could be location specific solutions which are most suitable.

1. Capacity Creation

- **Additional roadspace for Buses** – Consider converting roadspace for dedicated bus lanes or extending the hours of existing bus lanes (where capacity allows).
- **Reserving capacity on public transport for students and staff** – Work with public transport operators to reserve public transport capacity (for example, a particular train carriage / bus service) at particular times of days when public transport services are shown to be over capacity.
- **Work with public transport operators to review routes and capacity** – Work with public transport operators to review routes and determine whether additional services / routes could be put on or if existing routes can provide a more effective service. Consider if timetables can be amended to suit any shift patterns, school start or finishing times or high demand on the network. Consider if additional services can be procured in the time frame and whether vehicle types are appropriate (for examples if single decker buses can become double decker buses).
- **Contracting additional coaches** – If your data analysis is showing that there will be particular public transport services over capacity, then procuring additional coach capacity or repurposing vehicles on routes with lower demand may be appropriate.
- **Contract Demand Responsive Transport (DRT) services** – If your data analysis is showing that there will be particular

public transport services over capacity, then procuring DRT services may be appropriate to provide additional capacity.

- **Emergency Active Travel Measures** – You may have recently implemented a range of active travel emergency measures to facilitate the increase in active travel during lock-down and to enable social distancing in the street environment. Re-moding 50% of all trips under two miles from public transport to cycling and walking may create needed capacity on the public transport network. As such, additional walking and cycling infrastructure that will encourage people to walk and cycle more could be implemented.

Have you thought about?

Have you thought about partnering with different departments, such as Public Health so TDM and travel can be incorporated into their initiatives and outreach, especially, in this example, with regards to active travel

2. Network Management

- **Temporary ticket and timetable changes** – After analysing your data, you may also find that you will need to work with local transport providers to revise their service plans and ticketing options, taking into account the needs of passengers using public transport. For example carnet ticketing options may need to be considered instead of season tickets, or ‘part time’ direct debit discounts. Some of the questions to consider include whether you need to re-time existing services. Do you need to re-route existing services? Do you need additional services running in certain areas or times?
- **Low Traffic Neighbourhoods** - An increase in car use is expected to be a consequence of social distancing, particularly for longer journeys that cannot be accommodated on public transport or be made by walking and cycling. This may result in some pressure points around local neighbourhood facilities such as education sites and high streets. It may be appropriate to set up a vehicle exclusion zone around schools and implement ‘low traffic neighbourhood’ initiatives to restrict congestion and deter private car use. Could a Traffic Regulation Order (TRO) be put in place in time? If appropriate, ‘Park and Stride’ sites could be established to school. Could this also be set up near workplaces to avoid congested areas?
- **Traffic signals management** – Review signal timing to consider increasing green time for public transport and active travel modes. Review signal management and Urban Traffic Control (UTC systems) for optimal network and junction operation.
- **Public transport facilities management** – Consider the management of facilities at public transport stops and stations, in particular. Additional space may be required for queuing at bus stops.
- **Temporary zebra crossing / crossing patrols** – Consider the introduction of additional crossing points or patrols to facilitate safe crossing in close proximity to large trip generators, especially those where young people could travel.
- **Use of temporary traffic management measures** – This could include access restrictions in certain areas for cars, HGVs etc. to support public transport, active travel and low travel neighbourhoods. It could also include temporary signage encouraging drivers to reroute or retime journeys.

3. Behaviour Change

As part of your TDM plan, you should consider developing the solutions in the context of the 'Four R's' of travel behaviour change (Reduce, Re-time, Re-Route and Re-mode), which was pioneered during the London 2012 Olympics and is now a standard principle of any TDM plan. Tailoring the type of behaviour change required around the Four Rs will help to reflect on any locally specific objectives you may need to achieve as well as being easy terminology for audiences to understand.

A list of high-level solutions using the Four R's approach is outlined in Tables 8-11. Depending on the issues you have identified in Step 1, some of these solutions will be more appropriate than others. It is based on a core menu of options that TDM practitioners will be familiar with, alongside some specific measures that reflect travel in a post-COVID world. It is by no means exhaustive but helps to illustrate the range that could be applied where appropriate. It contains solutions that are beneficial to consider in depth for all settings, whilst others are more effective for specific trip purposes.

Have you thought about?

Other complementary measures which would boost the confidence in public transport use – such as the enhanced cleaning regimes in place and enforcement of the wearing of face coverings?

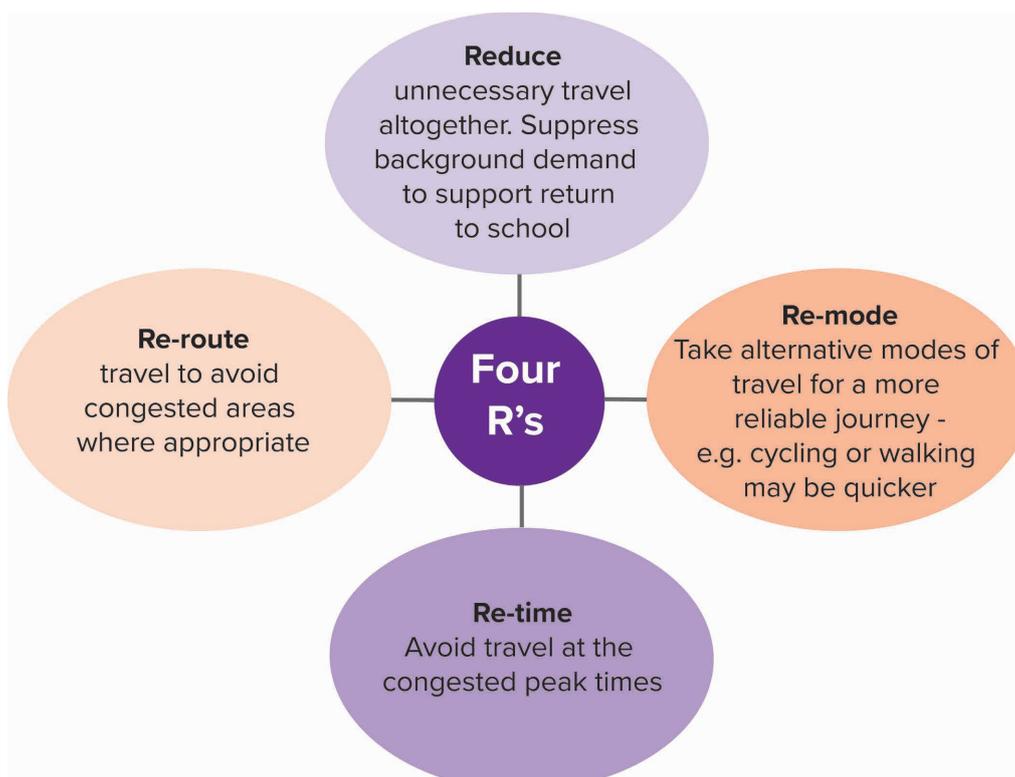


Figure 9 - The Four R's, these are; Reduce, Re-mode, Re-time and Re-route.

Action	Education Related Travel	Employment Related Travel	Other Travel	Retail	Large Trip Generators
Enable and encourage businesses to continue to allow their staff to work from home	No	Yes	No	No	No
Enable and encourage businesses to have remote meetings via conference calls, web conferencing, video conferencing to avoid the need to travel	No	Yes	No	Yes	Yes
Encourage and facilitate businesses to allow their staff to work from a different location	No	Yes	No	Yes	Yes
Encourage businesses to allow staff to work compressed weeks (i.e. the same number of hours over four longer days)	No	Yes	No	No	No
Encourage businesses to manage annual leave of staff to coincide with the reopening of education facilities	No	Yes	No	No	No
Encourage the rescheduling of non-essentials trips until restrictions are further lifted	Yes	Yes	Yes	Yes	Yes
Identify any deliveries that are not essential which can be rescheduled after the restrictions are lifted	Yes	Yes	Yes	Yes	Yes
Encourage talks with suppliers about fewer but larger deliveries	Yes	Yes	Yes	Yes	Yes
Collaborate with local establishments to combine deliveries	Yes	Yes	Yes	Yes	Yes
Encourage the consolidation of non-perishable goods to reduce the frequency of deliveries.	Yes	Yes	Yes	Yes	Yes
Encourage establishments to recycle to minimise waste and rubbish collections	Yes	Yes	Yes	Yes	Yes

Table 8 - A list of high-level solutions using “Reduce” one of the Four R’s.

Action	Education Related Travel	Employment Related Travel	Other Travel	Retail	Large Trip Generators
Identify whether businesses could encourage staff or specific operations to be temporarily relocated to less busy locations e.g. out of town offices.	No	Yes	Yes	No	No
Offer travel planning advice to encourage establishments to avoid busy locations	Yes	Yes	Yes	Yes	Yes
Encourage options for ‘Park and Stride’ for those that have to drive	Yes	Yes	Yes	Yes	Yes
Keep the community updated on the latest information and resources available to help them plan alternative routes on their journeys	Yes	Yes	Yes	Yes	Yes
Encourage the identification of alternative locations for drop offs and collections of deliveries	Yes	Yes	Yes	Yes	Yes

Table 9 - A list of high-level solutions using “Re-route” one of the Four R’s.

Action	Education Related Travel	Employment Related Travel	Other Travel	Retail	Large Trip Generators
Encourage walking, scooting and cycling for those who live within 2 miles of their trip destination	Yes	Yes	Yes	Yes	Yes
Enable and encourage those to re-mode based on local transport constraints	Yes	Yes	Yes	Yes	Yes
Encourage the use of public transport options with high capacity and ask the public to avoid those with low capacity	Yes	Yes	Yes	Yes	Yes
Share information on the changes to public transport with COVID-19 restrictions in place	Yes	Yes	Yes	Yes	Yes
Make the public aware of the transport challenges that they may face with COVID-19 restrictions in place	Yes	Yes	Yes	Yes	Yes
Encourage transport users to avoid crowded locations, by getting off at an earlier / later stop or / and walking the remainder of their journey	Yes	Yes	Yes	Yes	Yes
Prioritise capacity on local transport for school travel at key times	Yes	Yes	Yes	Yes	Yes
Encourage provision of on-site facilities such as showers, lockers and cycle parking to encourage walking and cycling	Yes	Yes	No	No	No
Provide cycling or walking maps to encourage walking and cycling	Yes	Yes	Yes	Yes	Yes
Deliver cycle training / maintenance sessions to encourage cycling	Yes	Yes	No	Yes	Yes
Provide temporary loans of pool bikes	Yes	Yes	No	No	No
Encourage the use of local suppliers and support those that use alternative travel modes such as cargo bikes.	Yes	Yes	Yes	Yes	Yes
Encourage the use of delivery companies such as bicycle couriers, which may find the restrictions easier to navigate	Yes	Yes	Yes	Yes	Yes
Enable and encourage car sharing for those within the same 'social bubble' if practical	Yes	Yes	Yes	Yes	Yes

Table 10 - A list of high-level solutions using "Re-mode" one of the Four R's.

Action	Education Related Travel	Employment Related Travel	Other Travel	Retail	Large Trip Generators
Staggering start and finish times for education facilities – Education facilities may be already considering changing start and finish times, but this could be an effective measure to alleviate any capacity constraints on the transport network to support reopening	Yes	Yes	Yes	No	No
Encourage the alteration of core hours of operation to times when the transport network is less constrained whilst ensuring needs are met	Yes	Yes	Yes	Yes	Yes
Encourage those undertaking journeys during the peak hours to stagger their trip start and finish times	Yes	Yes	Yes	Yes	Yes
Encourage trips to be scheduled at less busy locations and times of day	Yes	Yes	No	Yes	Yes
Encourage deliveries at quieter times	Yes	Yes	Yes	Yes	Yes

Table 11- A list of high-level solutions using “Re-time” one of the Four R’s.

Try to follow the 'EAST' behavioural change framework (Easy, Attractive, Social and Timely) in identifying measures:

- Easy – keep measures simple and reduce the hassle factor of choosing an option.
- Attractive – attract attention through the use of images, colours and personalisation of communications, and create incentives where possible.
- Social – use social networks to engage and show that most people undertake the desired behaviour.
- Timely – Behaviour is generally easier to change when habits are already disrupted, as is the case with social-distancing. You could also outline the immediate benefits that a change in behaviour can bring and help people plan their response to plans.

Effective Travel Demand Management Plans

Figure 10 shows example solutions framed around the three pillars and how they can overlap.

Prioritisation

The long-list of potential solutions could be extensive, and a straightforward exercise would be to prioritise these on the basis of locally specific criteria, for example:

- Level of behaviour change needed – Consider which of the solutions will address the level of behaviour change you need to achieve in your local area by mode and time.
- Deliverability – Consider which of the solutions can be delivered within the timeframe required.
- Reach – Consider how many individuals could be targeted.
- Influence – Consider how many individuals could change their usual travel behaviour with the solution.
- Cost – Consider whether the solutions are affordable and represent a good return on investment.

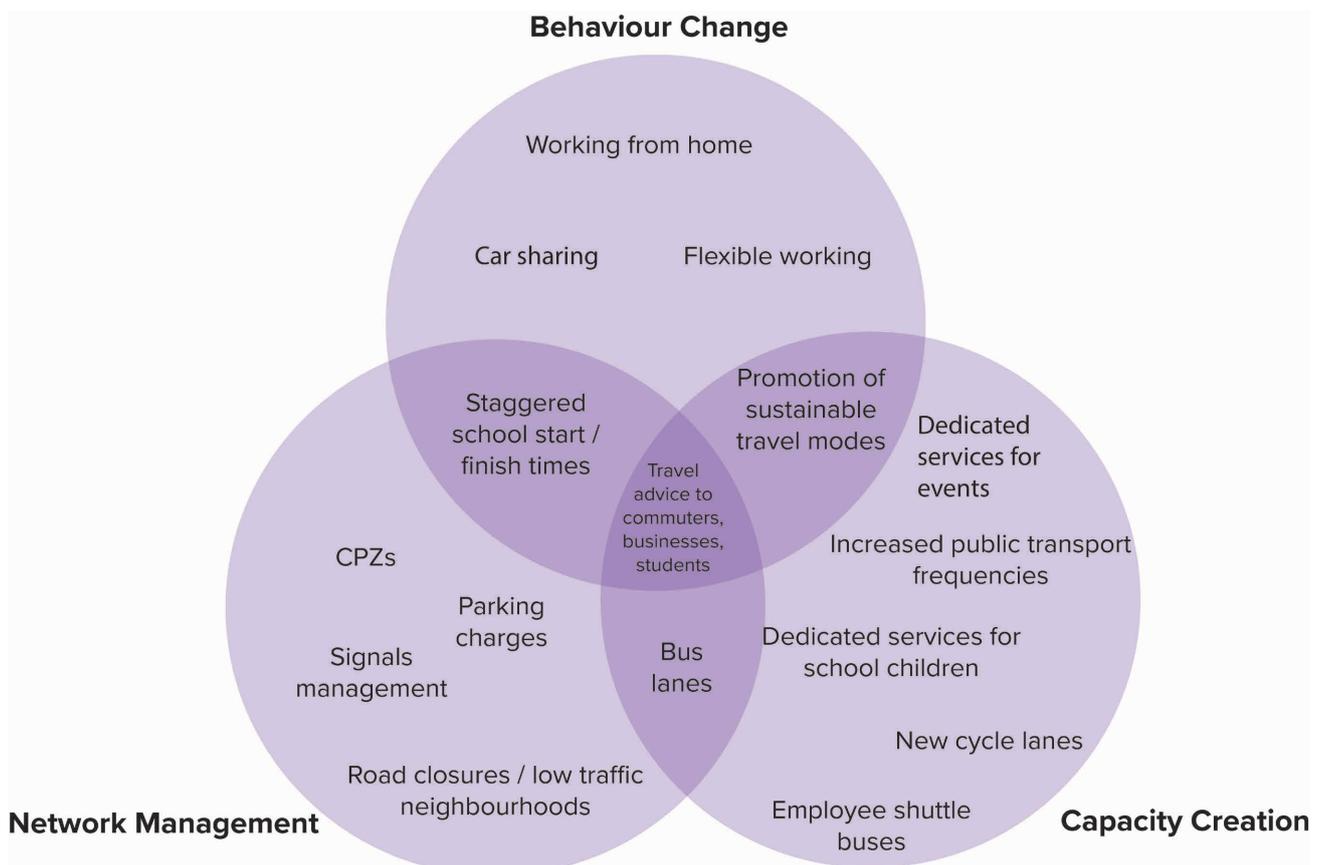


Figure 10 - Three pillars of TDM and related example solutions.

We recommend that you determine and prioritise which of the solutions can be delivered in advance the predicted stress on the network (e.g. those that will influence behaviour change around commuting journeys and education journeys) rather than all of the measures going live on the date of the return. Given the short time frames this could be defined as:

- What needs to be delivered in advance of the disruption causing network stress (1 month prior)
- What needs to be delivered once the disruption is underway

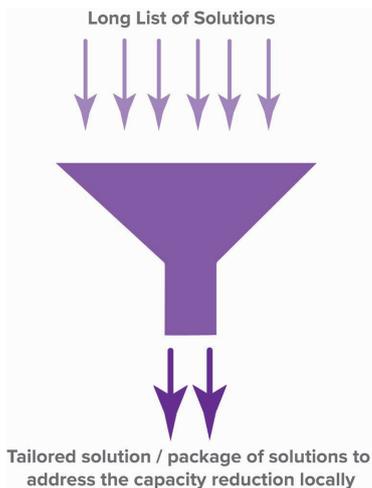


Figure 11 - Prioritisation of solutions.

Where Step 2 should lead you

- Understanding the range of solutions available to your LTA
- Understanding the prioritised shortlist of solutions or package of solutions that are most appropriate for your area to address the shortfall in capacity and when they can be delivered.
- A package of measures that are ready to be communicated

Completion of the next part of your TDM Plan, which includes confirmation of the core measures that will deliver the level of behaviour change identified in step 1 and continue to build towards the development of the core narrative.

To help you develop Step 2, please refer to Appendix B for some illustrations of particular transport network disrupters that might be relevant to you and how to plan for them.

– such as the relaxation of COVID restrictions over the festive period.

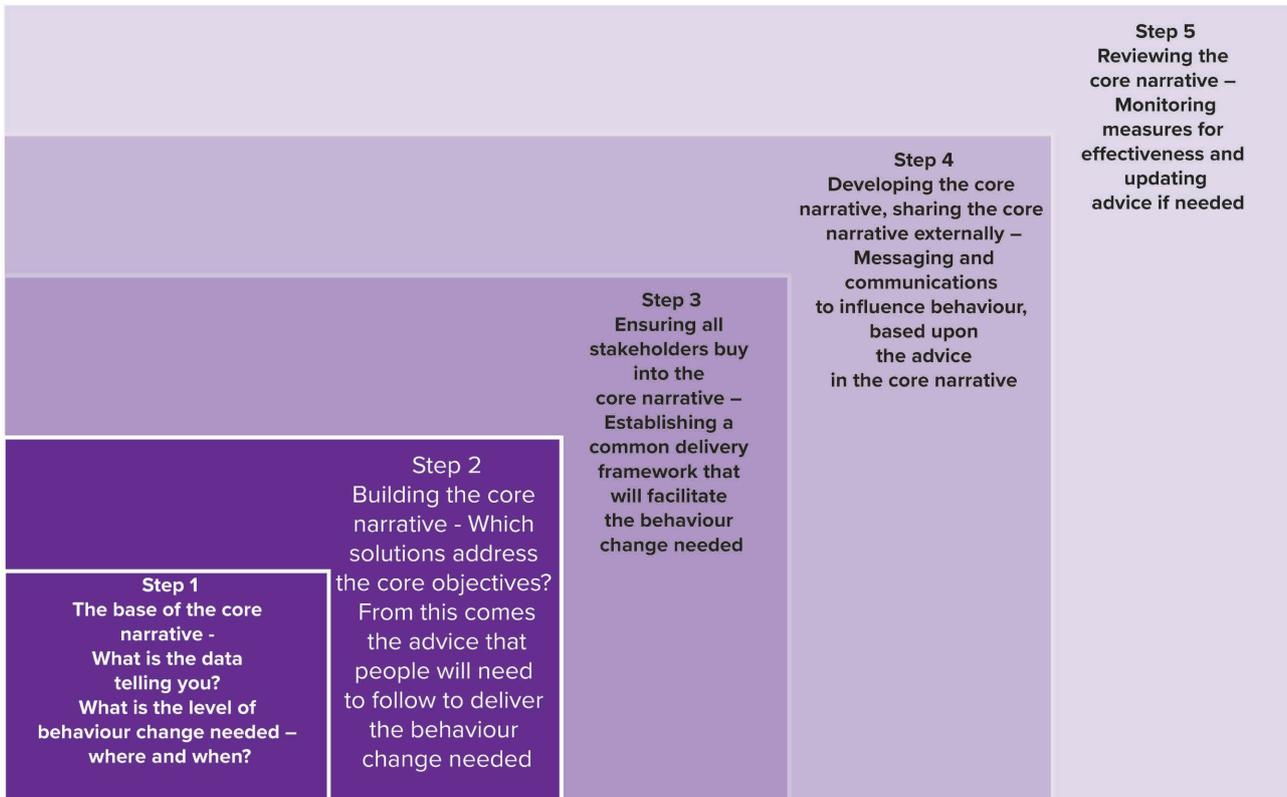


Figure 12 - Five steps of the core narrative for a TDM Plan. Second step is development of the core narrative.



Image showing a commuter cycling



Step 3: Implementing Solutions

Step 3: Implementing Solutions

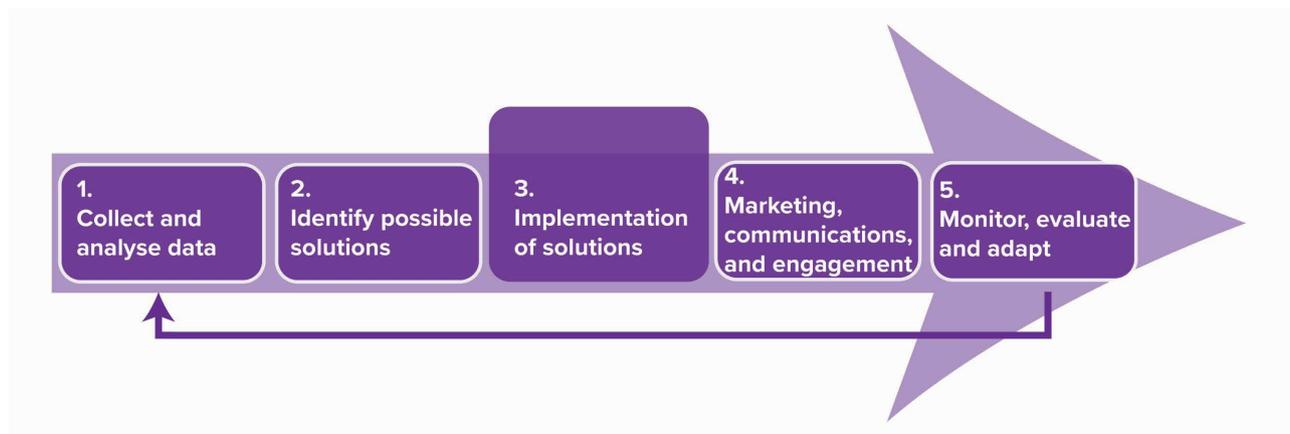


Figure 13 - The five steps for an effective TDM Action Plan - Implementation of Solutions.

In the previous steps you will have identified and quantified the specific transport problems in your LTA that you need to mitigate (step 1). You will have also identified the types of solutions that will be appropriate (step 2) to create additional capacity, improve the management of the transport network and other behaviour change solutions to influence travel demand. Step 3 is focused on developing the implementation framework for the identified solutions.

Identifying the key stakeholders

The involvement of key delivery partners from an early stage is critical. They are pivotal to the implementation and communication of any increased capacity, network management or behaviour change. This may include:

- Communication teams;
- Education Facilities;
- Local Authority departments – e.g. school / education transport, network compliance, health and safety, emergency planning, active travel emergency measures teams, TDM staff, Modeshift STARS team; business engagement; highways; development planning;
- Local bus operators;
- Education bus operators;
- Dedicated coach operators brought in to deliver additional capacity;
- Rail operators;
- Walking and cycling organisations;

- Business Intermediaries / Networks (business districts; business parks; local enterprise partnerships);
- Large employers; and
- Adjacent Local Transport Authorities.

The duration of their involvement may be dependent on the duration of the capacity issues on the transport network.

Ongoing engagement with delivery partners

Setting up effective lines of communication with these delivery partners is essential for the delivery of the required solutions, and it is recommended that a stakeholder engagement plan is prepared to capture this. It may also be appropriate to set up working groups for areas of specific concerns comprised of these delivery partners.

The delivery partners will be crucial for disseminating the key messages developed in step 4 to the different transport users, your core narrative will ensure that these are clear and consistent messages.

The stakeholders will also be crucial for understanding whether the solutions are having the desired effect on adapting travel behaviours (step 5).

Have you thought about?

Involving data analytics teams to the stakeholder sessions. Their insight on the network will ensure that the stakeholders are aware and can react quickly to network changes.

Deliver the Solutions

Once you have identified and engaged your delivery partners, you need to start implementing the solutions.

Contingency Planning

It is advisable to establish a contingency plan with your delivery partners to plan out key actions that may need to be put in place to allow for additional resilience if issues arise. You should ensure there is not just enough capacity in the system but also some additional resilience built in. For example, bus operators could introduce duplicate buses (“hot spares”) on the system which can address any live crowding issues if required. Working with neighbouring LTAs may be particularly useful if there is any sharing of available capacity in the system.

To help you develop Step 3, please refer to Appendix B for some illustrations of particular transport network disrupters that might be relevant to you and how to plan for them.
 – such as the return of sporting events

Where Step 3 should lead you:

- Understanding who your delivery partners are.
- Establishing an effective engagement plan with the delivery partners.
- Ongoing engagement with the delivery partners throughout the duration of the TDM plan.
- Establish a contingency plan with delivery partners.
- Final key building block of the core narrative – agreement on the delivery framework for your solutions that will help deliver the behaviour change needed. This will include any new capacity or services that have been made available.
- At this stage you will also be working closely with your marketing and communication colleagues to identify the channels that can be used to communicate to the travelling public.

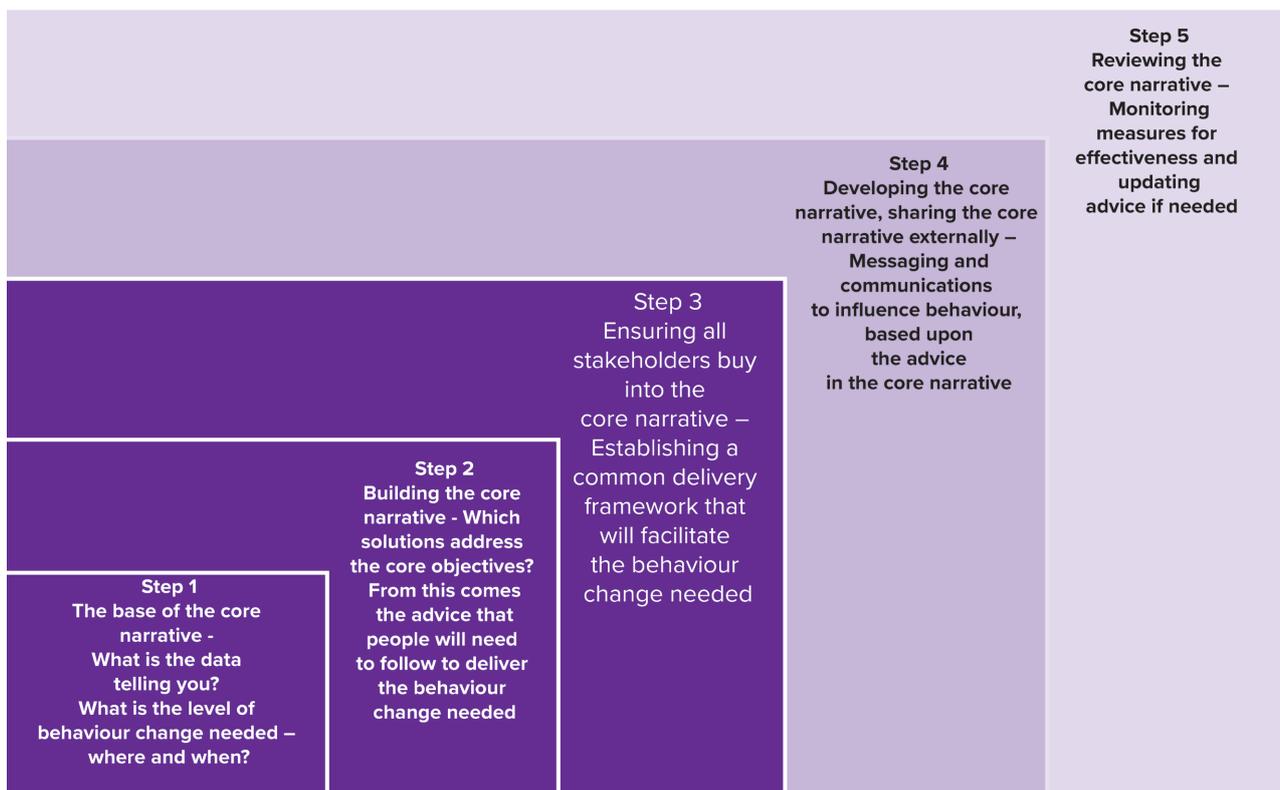


Figure 14 - Five steps of the core narrative for a TDM Plan. Third step is stakeholder buy in.



Image showing passengers on a bus



Step 4: Marketing, Communications and Engagement

Step 4: Marketing, Communications and

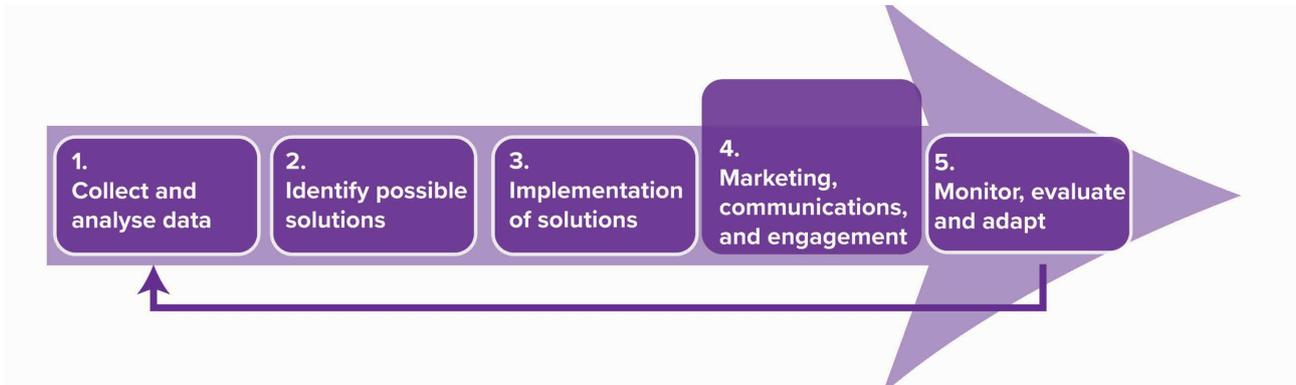


Figure 15 -The steps required for an effective TDM Action Plan - Marketing, Communications and Engagement.

Alongside identification of the issues, solutions and delivery partners, as well as the development of your strategy and implementation of measures, you need to communicate to the people in your area. To enable effective communication, the following needs to be identified:

- Your Messages (Your Core Narrative);
- Your Audiences;
- Your Communication Channels (Best way to communicate with the audience(s) you wish to reach);
- Your Communications Champions; and
- Timing of Messages

Once identified, a Communications Plan needs to be developed to ensure the **right** audiences are reached at the **right** time, with the **right** message using the correct channels so they can make the most appropriate decisions. This is where you develop and disseminate the narrative to encourage people to change their typical or intended behaviour.

You will need to engage with your marketing and communications team who will be able to support, guide and lead this step.

Have you thought about?

Engaging with other similar LTAs on what TDM marketing campaigns they have introduced?

Your Message

Your message needs to be clear and compelling and easy for the audience to understand and follow. There needs to be no ambiguity with messages, and they should ensure a single source of truth. Different messages will need to be developed for different audience groups based on the behaviour you want them to adopt, their travel habits and their inclination to respond to certain message types. Messages need to be relevant and appropriate to the group, but it is important that there is continuity across the messages.

Different messages will need to be developed for different communication channels based on the type and format of the message which the channel can support.

In developing your key messages for your TDM Plan, you should consider overarching Government guidance and messaging, including messages from the Safer Transport campaign (<https://extranet.dft.gov.uk/safertransport-campaign/>). These will be regularly updated so will be responsive to any changes in Guidance.

Key messages should also be focussed on maintaining confidence in using public transport, supported by enforcement of the wearing of face coverings and enhanced operator cleaning regimes.

Your Audience

Different audience groups need to be identified, and you will have started to identify these in step 1. These are the people

you are trying to reach with your message. Identifying them and understanding them will help to prioritise communications and help with creating messages that target and connect with specific audiences, utilising channels where they are most active. Audience groups (and sub-groups) are likely to link to trip types and locations and may include:

- Education related travel;
- Employment related travel;
- Retail / Leisure related travel;
- Location specific travel;
- Mode specific travel;
- For mode specific messages, they need to reach those you are trying to influence to use a new mode, as well as existing users;
- Deliveries and servicing related travel; and
- Everyone - some messages may be for all audiences and therefore there should be a group encompassing everyone.

Bear in mind that people are likely to be in more than one group.

Your Communications Channels

Different communication channels will need to be utilised to communicate your message with different audience groups, in order to reach as many people as possible. There are probably several appropriate communications channels for each audience group. Many of the channels used will be ones you already utilise and your marketing and communications team are likely to be able to advise on relevant communication channels.

Potential communication channels are identified below; however, this is by no means an exhaustive list. Channels have been split into:

- Above the line: Broad reach and largely untargeted;
- Through the line: Social and semi-targeted; and
- Below the line: Targeted.

A combination of all three types should be used. There are pros and cons to all communication channels and the ones you

decide to use will vary depending on your audience, your message and availability of channels.

Above the line: Broad Reach / Untargeted

- Email Communications.
- Online (Website) Communications – Having a campaign site with a single source of truth to direct everyone to for further information is critical.
- Print Media / Traditional Advertising – This can be printed messaging with publications such as local newspapers or billboard advertising / posters (such as at public transport stops / stations). In addition, this could include printed messages within existing publications / communications such as Council Tax letters. These communications channels often require a lead in time and therefore may be less appropriate in this context.
- Podcast / Radio advertising.

Through the line: Social and Semi-targeted

- Social Media – your LTA, LA and partners will have numerous – so feed them all.
- Local Networks Communications – Trusted local networks such as business intermediaries or neighbourhood networks could be utilised. Using these networks can be a good way of going to a few to reach many.
- Stakeholder Communications – Utilise stakeholders identified in step 3 and their communication channels.
- Road Signage / Variable Messaging Sign (VMS).

Below the line: Targeted

Target communications through stakeholders own specific channels can be very important:

Education facilities typically include website, social media, newsletters, noticeboards, parent text alert system, staff (virtual) meetings and parents' (virtual) meetings. Induction days (if appropriate) and new starter packs can be a good time to try to encourage specific travel behaviours at the outset and take advantage of the fact that people are more likely to change

their behaviour when making a life change such as starting a new school / college. Additionally, promoting sustainable and active travel can form part of the curriculum – although this will play a greater role in the legacy impact of this activity rather than the initial return to school. Utilise the knowledge that schools have for getting messages to students, parents and staff.

Local businesses and employers

engagement – Engage with the local business community to utilise their communication channels to communicate messages to their employees. It will be important to use your business networks to get messages to staff such as continue to work from home or to stagger start and finish times.

Retail and leisure engagement – Engage through specific area channels, such as community forums, retail district newsletter, social media, ‘what’s on’ webpages. The target audience for retail and leisure is likely to be the visitors, who create more demand on the network than the employees. However, working with the sector on potential retiming of deliveries and freight would be beneficial.

Consider widely available demographic data to choose the best channels for your purposes and your audience. For example, around 60% of 18-29 year olds have Instagram accounts whereas less than 10% of those aged over 65 use the social media platform.

Due to the COVID-19 pandemic some forms of communications such as print media

(e.g. standalone flyers) and face-to-face communications will not be appropriate, this would naturally also be difficult during winter months. As well as identifying your communication channels it is also important to understand how each channel can work for you and the audience groups most suited to target through particular channels. Putting together a channel directory will help and should include:

- Channel Name
- Type / Format of Message
- Channel Owner (Including how to secure use of channel)
- Lead in Time
- Monitoring
- Audiences

The directory will be utilised when developing the communications plan and can be a particularly important resource when a message needs be disseminated quickly.

Your Internal Communications Champions

Appoint a communications champion(s) from within the LTA who has responsibility for developing and delivering communications. These might be individuals who already work within the marketing and communications team and therefore are likely to have knowledge of the available communications channels and prior experience in using them.

Your External Communications Supporters

As well as utilising internal communication champions, local stakeholders will be useful in acting as external communications supporters. These might be individuals who already work with the LTA, for example local business networks or local newspapers. Utilising these individuals and their knowledge of the local area and their networks will help disseminate messages faster and to a wider audience.

Your Communications Plan

Your communications plan simply draws together your message, audience and communication channels with a timeline / frequency and owners. The plan needs to be simple to understand and implement and be adaptable - should there be a change such as the need to strengthen a message to a particular audience as the desired outcomes aren't being achieved.

Timeline

The timing of messages is important. Where possible, background travel messages should be delivered one month in advance to enable some reduction in demand in advance of the predicted disruption on the network. This will also give an opportunity to test the behaviour change response and therefore the plan can be adapted as required.

In addition, where possible, coinciding the timing of messages with any national campaigns, for example from the DfT or regional policies, such as a launch of a clean air zone will have further reach and stronger impact.

Frequency

The frequency of messages is also important. Frequency needs to be sufficient to remind audiences of the travel behaviour you want them to adopt whilst not overly frequent to saturate the message.

Learning Lessons from COVID-19 Communications Campaigns

As a result of COVID-19, there have been a series of recent communication campaigns asking us to change our behaviour. These have been directly transport related, for example not to travel unless absolutely necessary, and wider – e.g. wear face coverings on public transport, maintain social distancing or shielding if you are vulnerable etc.

Lessons can be learnt from these campaigns and if you ran these in your local area they should be reviewed to get an understanding as to how effective they were, what their reach and influence was. These learnings should be applied to your communication plan as they are likely to be highly relevant.

If you have a travel behaviour change campaign running in your area, involve the team behind the campaign from the start as you develop your approach. You will need to work with them to ensure that the messages you develop as a result of identifying the gaps in your transport provision are used throughout any future campaign.

Significant behaviour change has already occurred over a short period of time and some of this - such as working from home and increased walking and cycling - should

Audience	Message	Communication Channels	Owner	Frequency of Message	Messaging Start Date	Messaging End Date

Table 12 - Example Communications Plan

be continued to reduce additional pressure on the transport network where possible.

Where Step 4 should lead you

At the end of this step, you will have developed a communication plan which when implemented should ensure the right components of your audiences are reached at the right time, with the right message through the right channels so they can make the right decision.

Further development of the core narrative that highlights how the measures to address specific objectives will be communicated. It continues to develop and demonstrate that linkage between data – objectives - identification of solutions - delivery of solutions – messaging externally of the solutions.

This step is the development and dissemination of the core narrative which has been built up from step 1, 2 and 3. You need to work with all your stakeholders to ensure you can access their communication channels to push your behaviour change

messages out. The core narrative should be used to guide every message. Step 4 is the outward facing articulation of the plan and therefore is tied inherently to the identified measures and key objectives based on that initial data collection.

To help you develop Step 4, please refer to Appendix B for some illustrations of particular transport network disrupters that might be relevant to you and how to plan for them.

such as when you might be implementing major road closures

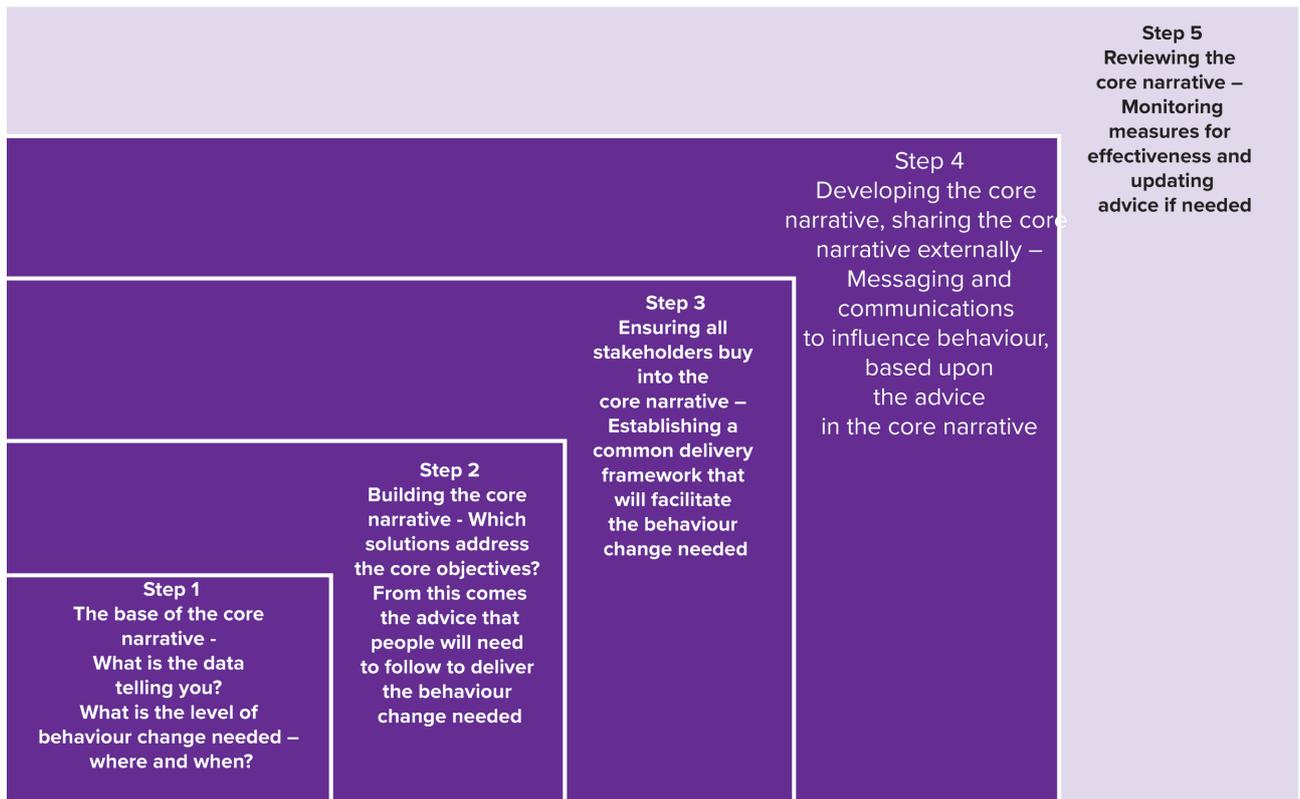


Figure 16 - Five steps of the core narrative for a TDM Plan. Fourth step is developing a communication plan.

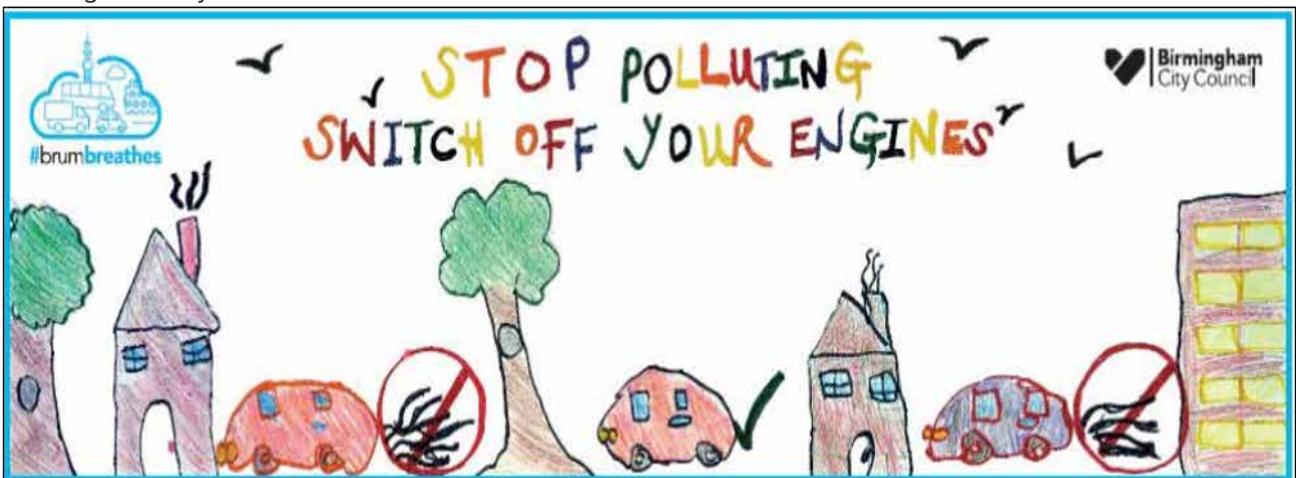
Examples from Local Authorities

A series of communication materials from local authorities to encourage safe and sustainable travel behaviour.

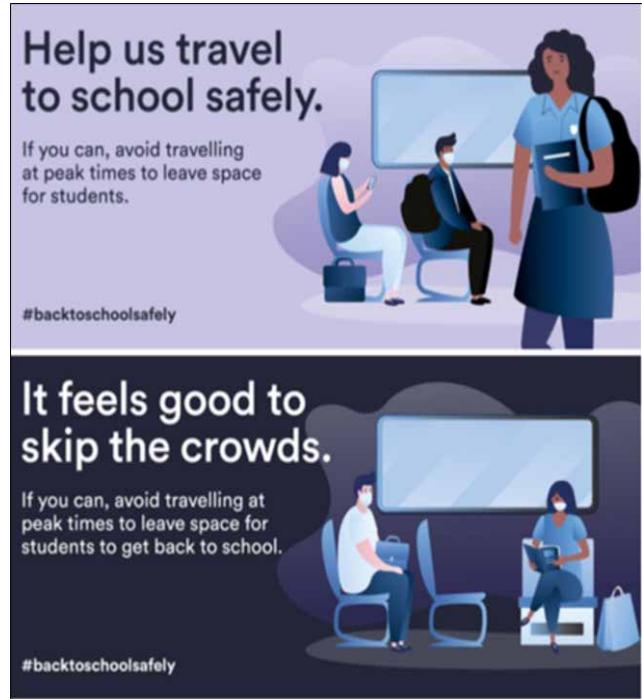
Transport for Greater Manchester



Birmingham City Council



Norfolk County Council



Devon County Council





Image showing bicycle traffic light



Step 5: Monitor, Evaluate and
Adapt

Step 5: Monitor, Evaluate and Adapt

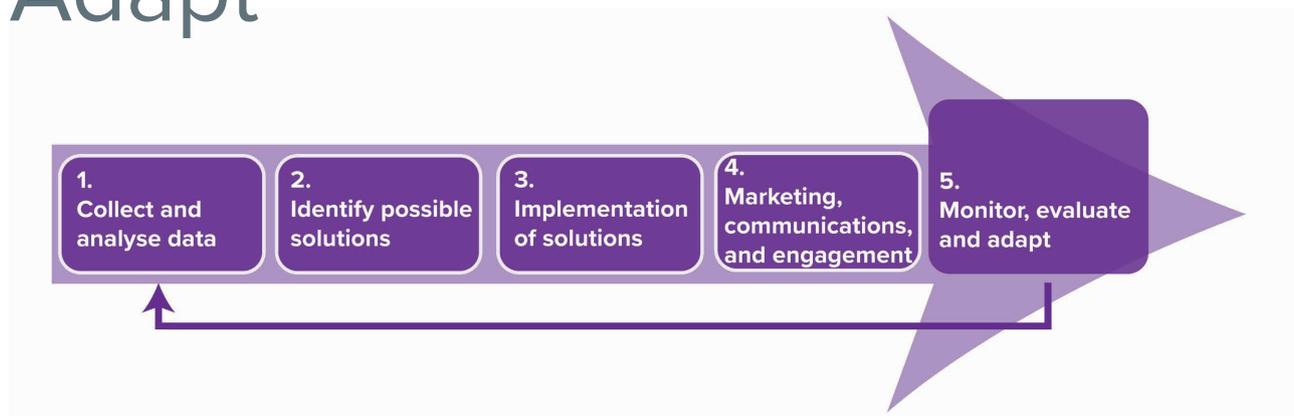


Figure 17 - The five steps required for an effective TDM Plan: Monitor, evaluate and adapt.

Following implementation of your TDM plan, it is important to monitor and evaluate its effectiveness to ensure your plan is meeting the desired objectives and achieving the required behaviour change. It is also important to monitor any identified risks or issues. This step sets out how to monitor and evaluate your plan. In addition, it sets out how and when to adapt your plan. Should your evaluation show that the desired objectives are not being met then the plan (and its narrative) or strength of the message should be adapted or amplified.

How to monitor and evaluate

A clear monitoring and evaluation programme should be established to ensure the TDM plan is meeting the desired objectives. The programme should include the when, what and who.

- When – when monitoring and evaluation will occur.
- What – what monitoring information will be needed to be collected and what evaluation criteria will be.
- Who – who is responsible for monitoring and evaluation.

And then the what next. Amending the plan to reflect feedback from the monitoring.

When

Monitoring and evaluation is not a one-off activity and should continue throughout the lifetime of the plan. It should take place regularly to assess the effectiveness of the plan. Initially this is likely to be very frequently. After a period of time the frequency and / or depth of formal

monitoring and evaluation may be able to be reduced. There should be a monitoring approach for each solution to measure its effectiveness. There should also be a mechanism to collate monitoring feedback to understand how the objectives are being met.

What – Monitoring Information

To monitor the plan, different sources of monitoring information should be collected to enable a full evaluation of the plan's effectiveness. Sources of monitoring information may be data which is already collected / available or new data collection may be required.

The below is by no means an exhaustive list and you may have other relevant information which can be used for monitoring. Monitoring should consider both the reach and influence of the plan. Reach includes information like the number of visits to your website; the number of businesses and employees you are communicating messages to or the number of followers on your social media accounts. Influence includes information like traffic flow and mode share data.

Quantitative monitoring information is likely to include:

- Network Operation Data;
- Traffic Flow Data;
- Journey Time Data (Public Transport and Road Network);
- Public Transport Usage on specific routes / services;
- Mode Share Data;

- Public Perception Surveys;
 - Messaging Read / Click Through Rate;
 - Website Reach (Number of visits, clicks, time spent on website etc.);
 - Social Media Reach (Number of followers, likes, reads etc.); and
 - Stakeholder Sharing Reach (Reach of messaging undertaken by stakeholders).
- In addition to these more qualitative data sources can be equally as useful and may include:
- Feedback from Education Facilities, Business Networks, Stakeholder Groups etc; and
 - Public Perception (Complaints / Issues).

Technology should be used to aid monitoring and save time. For example, there are several tools for social media monitoring which can track followers, likes, mentions and shares. Your marketing and communications team are likely to already use these tools.

What – Evaluation Criteria

To evaluate the plan, the monitoring information needs to be assessed against the following:

- Are objectives of the plan as identified in step 1 being met?
- Is the transport network performing optimally?
- What is the reach of messaging? Are all audiences being reached?
- What is the influence of messaging?
- What is the public perception? Is there an increased amount of complaints or issues about the transport network?

When setting the evaluation criteria, trigger points should be set for when the plan may need to be adapted. For example, if 4 out of 5 evaluation criteria are being met then that may not require any further adaptation. Alternatively, if a single criteria is crucial then not meeting that may require an adaptation of the plan.

What – Risks and Issues

As well as monitoring to assess the effectiveness of the plan, it is also important to monitor any risks and issues identified in step 1 and reviewed throughout the development of the plan.

Who - Monitoring Champion

Monitoring and evaluation is essential to assess the effectiveness of the plan. Therefore, you should appoint someone to own the monitoring and evaluation process. This person would be responsible for ensuring monitoring and evaluation is being undertaken as well as identifying when the plan may need to be adapted and agreeing with the senior responsible owner.

How and when to adapt

When

If the monitoring and evaluation process indicates the evaluation criteria (and trigger points if set) are not being met, then the plan will need adapting.

How

The plan can be adapted in a number of ways depending on the change required. This includes small scale changes (related to encouraging behaviour change) including:

- Strength of Messaging – Messaging can be heightened to send a stronger or weaker message. For example, “Try not to travel between 7am and 8am” can be changed to “Don’t travel between 7am and 8am unless absolutely necessary.”
- Add Detail to Messaging – As network operation data begins to be reviewed, messaging can become more detailed highlighting particularly busy routes, services, areas or times.
- Increase Frequency of Messaging – The frequency of messaging can be increased to reach a wider audience and reiterate messages.
- Amend or Add to Communication Channels – Messages can be sent out to different or additional communication channels.

These changes can be planned in advance with alternative plans for messaging created as back-up.

Should larger scale changes be required, particularly to network management and capacity creation elements, the plan may need be adapted further, revisiting some of steps 1, 2, 3 and 4. This may include:

- Step 1: Confirming the problem (which may have changed) and level of behaviour change needed
- Step 2: Revisiting possible solutions to identify where additional or different solutions are required
- Step 3: Implement additional solutions
- Step 4: Adapt your core narrative messaging and associated communication plan

Local TDM plans should link in with Local Resilience Forums (LRF) should there be an escalation of problems which requires Category 1 responders (such as emergency services, local authorities and the NHS) and Category 2 responders (such as Highways England and utility companies).

The adaptation of the plan may also link to the contingency planning undertaken as part of step 3 and require the implementation of the contingency planning solutions identified.

Have you thought about?

Applying any lessons from your TDM plan rolled out to support the return to education?

Where Step 5 should lead you

- Identifying what data and intelligence you need to monitor, and when monitoring should take place
- Establishing evaluation criteria to determine effectiveness of the TDM Plan
- Understanding when and how messaging needs to change or be amended as issues arise
- Review of the core narrative based on outcomes from the monitoring process. Does the core narrative still hold true or does it need to be updated? This fulfils the final link in the chain of building the core narrative: data collection and analysis + objectives + identification of solutions + delivery of solutions = messaging externally of the solutions + review of effectiveness and updating where necessary.

Monitoring provides the loop back to the initial stages in the build-up of the core narrative and informs if and when these need to be reviewed and updated. You will need to look at how your network is performing and if there are still problems occurring, try to address these by either strengthening your message or using more communication channels or adding in more capacity.

To help you develop Step 5, please refer to Appendix B for some illustrations of particular transport network disrupters that might be relevant to you and how to plan for them.

– such as the continuation of the education trips

– such as when you might be implementing major road closures

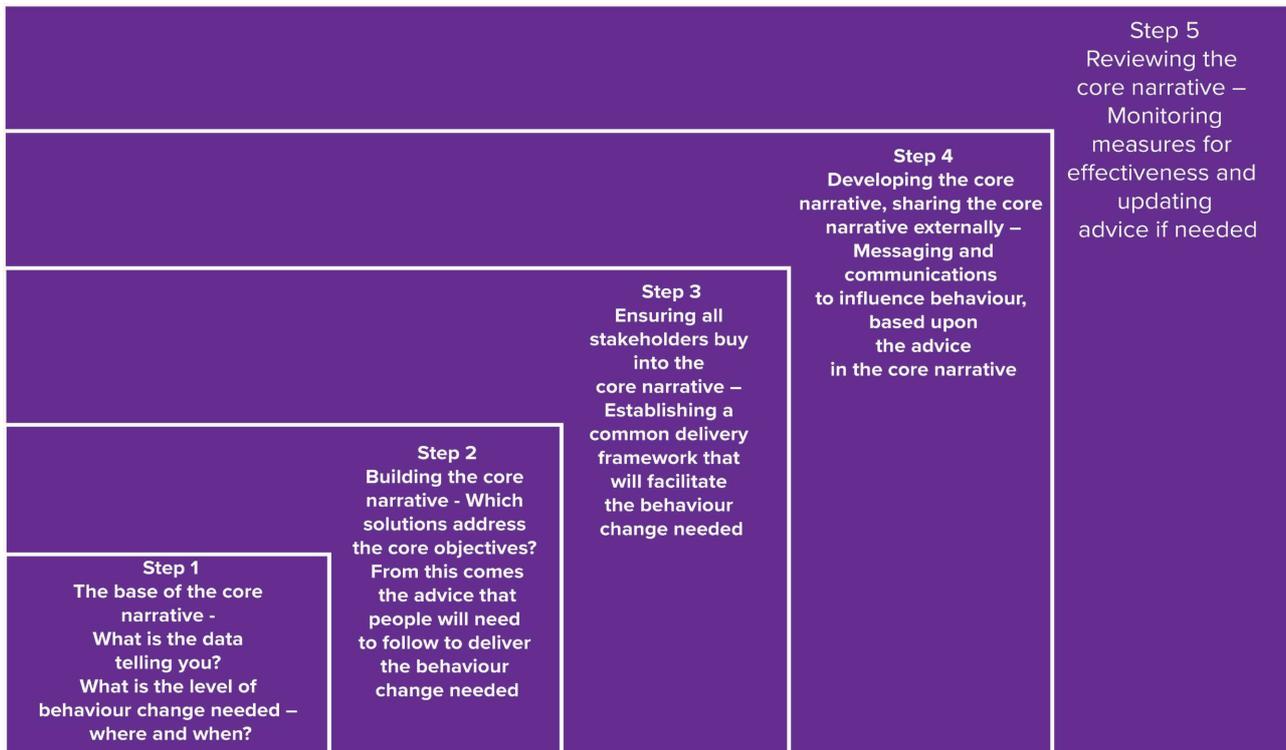
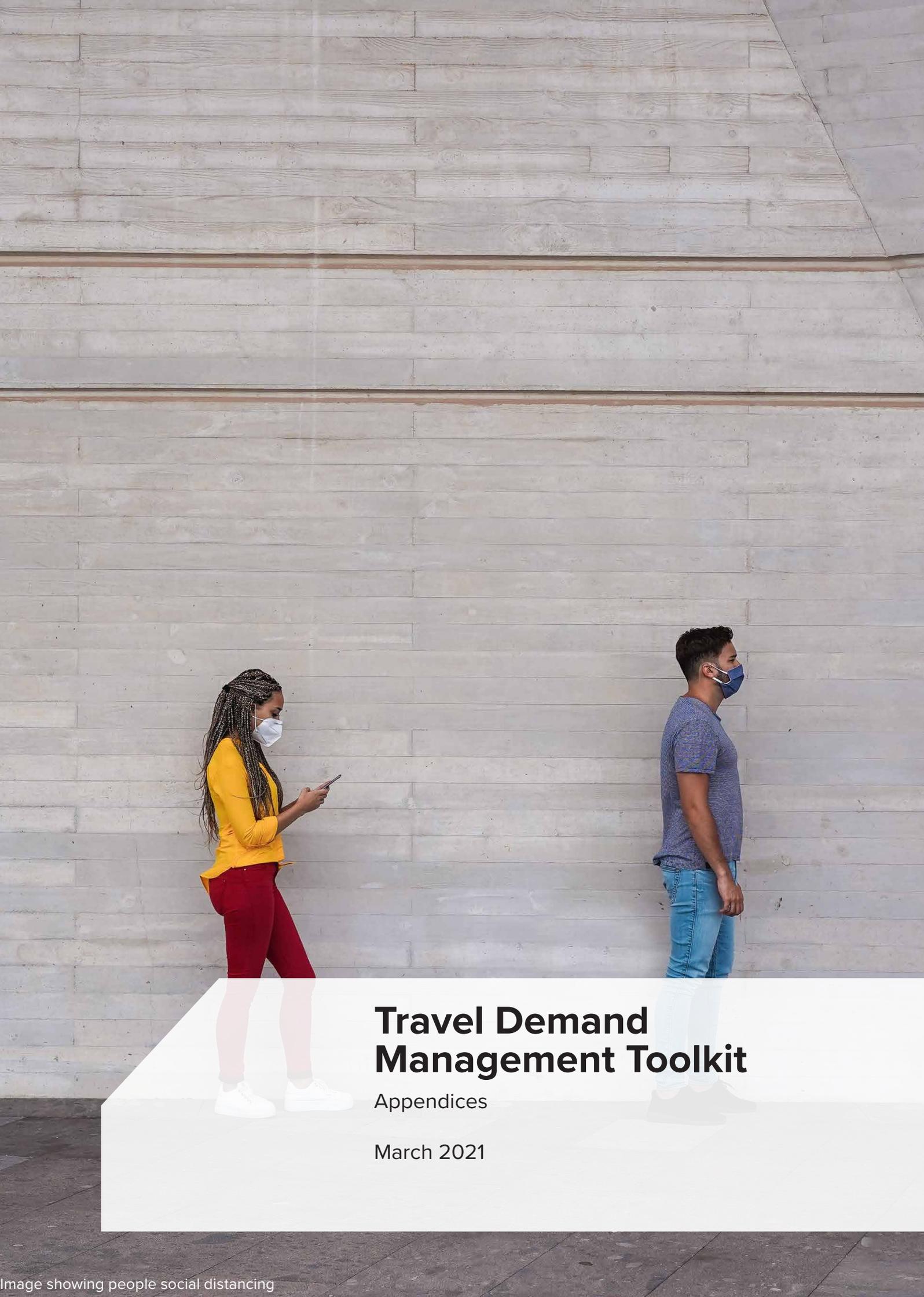


Figure 18 - Five steps of the core narrative for a TDM Plan. Fifth step is reviewing and monitoring.



Travel Demand Management Toolkit

Appendices

March 2021



Appendix A - TDM Action Plan Template

Appendix A: TDM Action Plan

Introduction

This section sets out a template for completing a TDM Action Plan. The text below sets out some key questions to help develop a TDM Action Plan and examples.

What are the key issues?

- What are the key travel disruptors in your area over the coming months?
- What are the key issues that you have identified from your analysis?
- What is the capacity shortfall?
- What modes of transport are affected?
- Which specific locations are affected?

Who is the target audience?

- Who are the transport users that will be affected by the issues?

Examples:

- Local businesses
- Local residents
- Universities
- Leisure users
- Students
- Commuters
- Transport staff

What are the solutions that best address the issues?

- What are the tailored transport solutions for your local area?
- When will they be delivered?

Who are the delivery partners and when should they be engaged?

- Who are the key stakeholders that will support the delivery of the solutions?

Examples:

- Transport operators
- Employers
- Education Facilities
- LA departments
- Contact points

What are the key messages?

- What are the key messages that need to be communicated to each of the target audience?

Communication channels

- What communication channels can be used to get the messages out (Step 4)?
- Which local stakeholders are important to involve getting this message out?
- Which local stakeholders need to be engaged?

Monitor, Evaluate & Adapt

- What monitoring information is available?
- What is the Strength / Focus of the Message if issues persist?
- Who will provide this information?

Examples:

- Transport operators
- Traffic Control Centre

Key Questions	What are the key issues?	Who is the target audience?	What are the solutions that best address the issues?	Who are the delivery partners and when should they be engaged?	What are the key messages?	Communication Channels	Monitor, Evaluate & Adapt
Toolkit Step	Step 1 – Collect and Analyse Data	Step 1 – Collect and Analyse Data Step 4 – Marketing, Communication, Engagement	Step 2 – Identify Possible Solutions	Step 3 – Implementation of Solutions	Step 4 - Marketing, Communication, Engagement	Step 4 - Marketing, Communication, Engagement	Step 5 – Monitor, Evaluation and Adapt
General							
Location Specific							
Bus							
Rail and Underground							
Light Rail/ Tram							
Walking							
Cycling							
Private Car							
HGVs/LGVs							

Table 13 - showing TDM Action Plan template

Appendix B - Scenarios



Image showing pedestrians crossing the road

Appendix B: Scenarios

Introduction

This section sets out some practical worked through examples of how a TDM plan could be developed depending on the particular challenges facing the transport network.

These scenarios have been selected as they may best represent the type of travel and transport disruptors which may occur in your area. These include disruptors which may occur as a result of the relaxation of COVID restrictions, or for other reasons entirely.

The five scenarios are:

- Scenario 1: Commuter journeys returning to normal levels following relaxation of COVID restrictions
- Scenario 2: Temporary lifting of lockdown measures around Christmas holidays
- Scenario 3: Planned disruption to the transport network – Implementation of Low Traffic Neighbourhoods
- Scenario 4: Planned disruption to the transport network – The return of sporting events and major roadworks.
- Scenario 5: Public transport capacity reduction due to economic pressures

Scenario 1: Commuter journeys returning to normal levels following relaxation of COVID restrictions

Once lockdown measures are lifted or gradually phased out, it is anticipated that employees who have been required to or been able to work from home will start to resume their typical pre-COVID commuting journeys. This could happen whilst social distancing requirements remain for public transport.

This is likely to create a surge in demand on your transport networks. These networks may already be operating at quite a high capacity due to more people driving because of an (unfounded) lack in confidence in the safety of public transport, less people using active travel due to darker nights and colder weather as well as more people choosing to drive as the roads have been quieter and traffic levels have not been

such a deterrent. These commuter trips will be on top of education journeys which are already taking place, and the likely linked increase in leisure trips happening around the same time. This could be coupled with the ongoing capacity constraints if there is still a requirement to undertake social distancing on public transport.

It is unlikely that all commuter trips will return as normal, as working from home has become a more formal part of peoples working patterns, and there have been some really good instances of more people continuing to travel using active modes due to the implementation of emergency active travel schemes. This hypothetical scenario explores the potential actions that could be considered to help develop a tailored TDM plan using the five steps of the TDM process.



image showing girl using a hire bike in the city

TDM Step	Proposed Actions
<p>Step 1: Collect and analyse data</p>	<p>Identify gaps in knowledge and understanding:</p> <ul style="list-style-type: none"> • Observed changes to traffic flows and specifically any increases in car use by time and area. • Where employment clusters are located in your area. • Where the typical congestion and overcrowding hotspots are, by mode and time. • The key travel patterns and what travel options and provision are available • What social distancing measures still need to be applied on transport and in workplaces. • What additional measures to support capacity and behaviour change are already being put in place (such as active travel emergency measures, capacity creation grants, and road reallocation). <p>Where there are gaps in knowledge the local business community may be able to advise further. Firstly identify relevant local employers and business intermediaries in the area – such as chamber of commerce, business improvement districts, business parks, large employers, SME intermediaries.</p> <p>Then engage with and survey the local businesses and business intermediaries to understand:</p> <ul style="list-style-type: none"> • The number of businesses in your area • The number of employees • Timelines and phasing for when employees will be returning to workplaces • The proportion of employees that will likely continue to work from home in either a part time or full time capacity • Typical shift patterns anticipated • Typical mode of travel to work • Where employees are coming from • Communication channels used to reach out to employers and employees <p>Analyse this information to understand where the key constraints will be in time, location and mode.</p> <p>This hypothetical scenario has shown that:</p> <ul style="list-style-type: none"> • There will be spike in the return to workplaces for staff that have been previously working from home in March 2021 once all social distancing measures are lifted • 10% of business park employees will continue to work from home in a part time capacity • 20% more people will drive than used to use public transport • There is a much higher level of background demand trips using the road network in the PM peak • Car use mode share will be lower than before COVID.
<p>Step 2: Identify possible solutions</p>	<p>Examples of solutions may include</p> <ul style="list-style-type: none"> • Encouraging use of new cycle routes implemented as part of emergency active travel fund • Marketing campaign targeted at commuters and employers before they go back to work • Promote the safety and cleanliness of public transport as a very wise return to work option • Re-opening dedicated employee shuttle buses from rail stations to business parks • Working with operators to develop new public transport ticketing allowing discounts for part time home working employees and direct debit • Flexible start times

Step 3: Implementing solutions	<p>Engage with relevant stakeholders that are critical to the delivery of these solutions:</p> <ul style="list-style-type: none"> • Local authority marketing and communication teams • Local authority transport teams • Transport operators • Local business community • Active travel partners • Business park managers • Town centre managers • Business intermediaries
Step 4: marketing, communications and engagement	<p>Example Messages:</p> <ul style="list-style-type: none"> • Continue to work from home where possible • If you live within 2km of your workplace why not walk • If you live within 5km of your workplace why not cycle and use the new cycle lanes introduced on the High Street • Employee shuttle buses will be in operation between the main rail station and the business park • The bus/train is back – travel safely with us • Avoid travelling on the road network between 7:30-8:30 as this coincides with school travel • Avoid High Street location between 8:00-9:00 as this has been identified as a congestion hotspot at this time, use an alternative route or mode if you can. • Share your car journey to work with a colleague. <p>Key audiences the messages should be directed at will include:</p> <ul style="list-style-type: none"> • Commuters • Employers • Business park manager • Business intermediaries <p>Communications Channels:</p> <ul style="list-style-type: none"> • Email: LTA Email Newsletter (Using Existing Broadcast List) • Website: LTA Website (TDM Page), LA websites • Social Media: LTA Facebook / Twitter / Instagram, Stakeholder Social <p>Media Accounts</p> <ul style="list-style-type: none"> • Local Networks: Business Improvement Districts, • Transport Operators: Bus Operators, Rail Operators • VMS: Utilise VMS boards on approaches to Urban Centres
Step 5: monitor, evaluate and adapt	<p>Monitoring Information Sources:</p> <ul style="list-style-type: none"> • Network Operation and Traffic Flows • Public Transport Usage from Operators • Employer perception survey • Social media

Table 14 - Scenario 1: Commuter Journeys

Scenario 2: Temporary lifting of lockdown measures around Christmas holidays

A major disruptor to the transport network will result from the temporary lifting of lockdown measures in England (and the wider UK) between the 23rd and 27th December, whereby up to three households will be able to meet. As with any previous Christmas holiday period, this will result in particular capacity constraints due to the mass movement of people during this time.

Because of the short window of time that restrictions are lifted all modes of travel could be exacerbated more than usual, and the strategic transport networks could be particularly affected.

This scenario explores the potential actions that could be considered to develop a tailored TDM plan for the holiday period using the five steps of the TDM process. This could be equally applied to future holiday periods.



Image showing traffic in a city centre during the festive period

TDM Step	Proposed Actions
Step 1: Collect and analyse data	<p>Identify gaps in knowledge and understanding:</p> <ul style="list-style-type: none"> • Where and when the typical holiday congestion and overcrowding hotspots are. • Which modes are affected. • What travel options and provision are available over this period. • What social distancing measures may still need to be applied on public transport. • What additional measures to support capacity and behaviour change are already being put in place. • When schools and university terms will end and resume. <p>Analyse this information to understand where the key constraints will be in time, location and mode.</p> <p>This hypothetical scenario has shown that:</p> <ul style="list-style-type: none"> • The key problems will be congestion hotspots on the road network at XYZ junctions. • The 24th and the 27th December has been identified as being a particular issue for the entire day. • This will have a significant effect on bus and coach services accessing the motorway network, and the main railway station • The motorway network will be exceptionally busy on this day. • Demand from university students to travel at this time is expected to be lower as they have been encouraged to travel home earlier in December.
Step 2: Identify possible solutions	<p>Examples of solutions may include</p> <ul style="list-style-type: none"> • Marketing campaign targeted at all travellers during the festive period with the objective of spreading this peak demand over this time to avoid the anticipated congested times. E.g. travel on the morning of the 25th December. • Signal time changes to avoid gridlock at the peaks. • Rail operators will be introducing enhanced service frequencies and longer trains. Services will be closed on 25 and 26 December • Bus operators will be introducing peak time frequencies for the entire period, but will be closed on 25 December • Flexible working to enable remote working in the three household bubble.
Step 3: Implement solutions	<p>Engage with relevant stakeholders that are critical to the delivery of these solutions:</p> <ul style="list-style-type: none"> • Local authority marketing and communication teams • Local authority transport teams • Transport operators • Local business community • Active travel partners • Universities

<p>Step 4: Marketing, communications and engagement</p>	<p>Example Messages:</p> <ul style="list-style-type: none"> • Avoid travelling on the 24th and 27th December where possible • Avoid travelling between xx times on the Motorway network where possible • The bus/train are operating enhanced capacity over the holiday period –book in advance <p>Key audiences the messages should be directed at will include:</p> <ul style="list-style-type: none"> • All user groups <p>Communications Channels:</p> <ul style="list-style-type: none"> • Email: LTA Email Newsletter (Using Existing Broadcast List) • Website: LTA Website (TDM Page), LA websites • Social Media: LTA Facebook / Twitter / Instagram, Stakeholder Social <p>Media Accounts</p> <ul style="list-style-type: none"> • Transport Operators: Bus Operators, Rail Operators • VMS: Utilise VMS boards on approaches to Urban Centres
<p>Step 5: Monitor, evaluate and adapt</p>	<p>Monitoring Information Sources:</p> <ul style="list-style-type: none"> • Network Operation and Traffic Flows • Public Transport Usage from Operators • Social Media • National and local media

Table 15 - Scenario 2: Christmas Holidays

Scenario 3: Planned disruption to the transport network – Implementation of Low Traffic Neighbourhoods (LTN)

This hypothetical scenario explores the potential actions required when there are significant disrupters to the local transport network that can be planned for in advance.

Planning LTNs has been fast paced and controversial in some areas, due to the potential enforcement of behaviour change through infrastructure changes. LTNs can be developed in areas where a lot of through traffic is used to escape the congestion on main arterial routes or corridors, making residential streets quieter and safer and bringing many benefits quieter and safer

streets bring with them. However, by re-routing the through traffic back onto the main arterial routes / corridors, there may be adverse impacts on what could potentially be existing congested roads.

This scenario explores the potential actions that could be considered to help develop a tailored TDM plan using the five steps of the TDM process, for the closure of a city centre road.



Image showing girl cycling on a quiet street

TDM Step	Proposed Actions
Step 1: Collect and analyse data	<p>Identify gaps in knowledge and understanding:</p> <ul style="list-style-type: none"> • Where will the LTN be implemented - which specific roads • What features will be included? - filtered permeability, one way streets, road closures at one end etc • Which modes are affected • Has modelling been undertaken to understand where the key impacts will be. • Who is visiting the area and why? • Who is passing through this area and why? • What stakeholders may object to the plans? (businesses in the area, deliveries etc) • What alternative travel options and provision are available for localised journeys • What additional measures to support capacity and behaviour change are already being put in place. <p>This analysis has shown that the LTN will affect general traffic movements into and out of the local area (likely high street), bus routes and bus stops will not be affected. Footways will remain open and potentially increase in residential roads. Car parking opportunities could be removed.</p> <p>The LTN will be permanent</p> <p>Modelling has predicted that general traffic will adopt the one main arterial route into the city centre.</p>
Step 2: Identify possible solutions	<p>Examples of solutions may include</p> <ul style="list-style-type: none"> • Explore opportunities for bus lanes and cycle routes along the main arterial route. • Remove background demand on the main arterial route by encouraging retiming of unnecessary journeys, retiming deliveries and freight movements to local businesses to avoid peak periods. • Encourage public transport alternatives for commuters who are using the route to get to the city centre. • Encourage local journeys to be made actively • Significant marketing campaign focussed on all affected transport users - with the key messages of advising of alternative routes (re-route message) to avoid the closure and what other modes are available (re-mode message).
Step 3: Implement solutions	<p>Engage with relevant stakeholders that are critical to the delivery of these solutions:</p> <ul style="list-style-type: none"> • Local Authorities • Businesses (local and in final destinations) • Local neighbourhood campaign groups • Transport operators • Local ward councillors

<p>Step 4: marketing, communications and engagement</p>	<p>Example Messages:</p> <ul style="list-style-type: none"> • Focus on re-timing and re-moding options to avoid heightening congestion at peak times • Advising on walking and cycling mode share options for local residents • Messages to local (potentially independent) businesses about economic benefits of LTNs • Messages to local businesses about retiming deliveries • Messages on re-moding to public transport for through traffic <p>Key audiences the messages should be directed at will include:</p> <ul style="list-style-type: none"> • Local residents • Local businesses • Commuters to the city centre <p>Communications Channels:</p> <ul style="list-style-type: none"> • Social Media: LTA Facebook / Twitter / Instagram, Stakeholder Social Media Accounts • Email: LTA Email Newsletter (Using Existing Broadcast List) • Website: LTA Website (TDM Page), LA websites • Billboards on main arterial routes • Local campaign groups • Residents associations • Local ward councillors • Transport Operators: Bus Operators, Rail Operators • Posters/ advertising/radio • VMS signs
<p>Step 5: monitor, evaluate and adapt</p>	<p>Timing:</p> <ul style="list-style-type: none"> • Pre-road closure • Day 1 • Weekly for 6 weeks • Monthly for 1 year <p>Monitoring Information Sources:</p> <ul style="list-style-type: none"> • Network Operation and Traffic Flow Summary from TCC / TMC • Public Transport Usage from Operators • Public Perception Survey (Knowledge of TDM and LTN Campaign) • Newsletter Read and Click Through Rate • Social Media (Followers, Likes, Comments and Shares) • Feedback from local stakeholders • Travel related complaints / issues from ward councillors

Table 16 - Scenario 3: Planned Disruptions

Scenario 4: Planned disruption to the transport network – The return of sporting events and major roadworks.

This hypothetical scenario explores the potential actions required when there are significant disrupters to the transport network that can be planned for in advance.

This may include planning for relatively short term disrupters such as the return of major sporting events in 2021, or those that have more prolonged impact on the network such as major roadwork schemes or new development sites require longer term street closures.

This scenario explores the potential actions that could be considered to help develop a tailored TDM plan using the five steps of the TDM process, for a town that is restarting its sporting events calendar, and is also subject to a major town centre road closure.



Image showing event signage

TDM Step	Proposed Actions
Step 1: collect and analyse data	<p>Identify gaps in knowledge and understanding:</p> <ul style="list-style-type: none"> • Where and over what duration will the road closure take place • What is the sporting event calendar and are events being consolidated to reflect on missed events from 2020. • Where are the sports venues located • What is the expected capacity of the venues, including spectators, workforce and sports teams. • Which modes are affected • Has modelling been undertaken to understand where the key impacts will be. • What alternative and additional travel options and provision are available • What additional measures to support capacity and behaviour change are already being put in place. <p>Analysis for this hypothetical scenario has shown that the road closure will affect general traffic movements into and out of the town centre area, bus routes and bus stops, cycle lanes in both direction. Footways will remain open. The closure will be for a period of 6 weeks.</p> <p>Modelling has predicted that general traffic will adopt one of three alternative routes to avoid the closure. One of the three alternative routes modelled has higher capacity than the other two.</p> <p>The sporting events calendar will be slightly enhanced compared to the previous year owing to events that have been postponed. 20 football matches will be held in the town centre stadium, and 10 horse races will be taking place at the edge of town race course.</p>
Step 2: identify possible solutions	<p>Temporary road, bus route and cycle lane diversions will put in place during the roadworks for 6 weeks</p> <p>The town centre sporting venue will be operating transit services between a park and ride site situated on the edge of town, and will additionally limit car parking on-site during the six week road closure. The local authority will enhance enforcement of the controlled parking zones on event days.</p> <p>Marketing campaign focussed on all affected transport users- with the key messages of advising of alternative routes (re-route message) to avoid the closure and what other modes are available (remode message).</p> <p>Marketing campaigns focused on spectators travelling to the venue, to avoid driving directly to the site and to use the park and ride site instead if other public transport is not available.</p>
Step 3: Implementing solutions	<p>Engage with relevant stakeholders that are critical to the delivery of these solutions:</p> <ul style="list-style-type: none"> • Local authority marketing and communication teams • Local authority transport teams • Transport operators, including park and ride operators and those providing dedicated services for the • Sporting venues • Local business community • Active travel partners

<p>Step 4: marketing, communications and engagement</p>	<p>Example Messages:</p> <ul style="list-style-type: none"> • Focus on re-routing options to avoid the road closure • Advising on walking mode share options • Dissuading spectators using private car travel to venues <p>Audiences:</p> <ul style="list-style-type: none"> • Employers located in the area • Commuters to the town centre and sporting venues • Other trip attractors in the area (e.g. retail, leisure) • Freight and logistics operators • Spectators attending sporting events <p>Communications Channels:</p> <ul style="list-style-type: none"> • Email: LTA Email Newsletter (Using Existing Broadcast List) • Website: LTA Website (TDM Page), LA websites • Social Media: LTA Facebook / Twitter / Instagram, Stakeholder Social Media Accounts • Transport Operators: Bus Operators, Rail Operators • Sporting venues/ sports team supporter networks- e.g. season ticket holder mailing lists • Posters/ advertising/radio • VMS signs
<p>Step 5: monitor, evaluate and adapt</p>	<p>Timing:</p> <ul style="list-style-type: none"> • Pre-road closure • Day 1 • Weekly for 6 weeks • Re-opening • Pre- each sporting event • Ad-hoc on the event days <p>Monitoring Information Sources:</p> <ul style="list-style-type: none"> • Network Operation and Traffic Flow Summary from TCC / TMC • Transport Usage from Operators • Public Perception Survey (Knowledge of TDM Campaign) • Newsletter Read and Click Through Rate • Social Media (Followers, Likes, Comments and Shares) • Feedback from local stakeholders • Travel related complaints / issues

Table 17 - Scenario 4: Events

Scenario 5: Public transport capacity reduction due to economic pressures

This hypothetical scenario explores the potential actions required if economic pressures result in a reduction in the availability of public transport capacity through operators reducing capacity.

A reduction in public transport capacity will impact on all journey types - leisure, shopping, health, commuting and educational journeys - and so it is important to ensure those impacted are able to continue their journeys. Without any action,

this may result in a loss in confidence and convenience of using public transport, leading to an increase in private car journeys which will have a knock on effect of road network congestion. It may also lead to a lack of accessibility to key services for vulnerable groups. A reduction in public transport capacity may also lead to an increase in active travel journeys.

This hypothetical scenario explores the potential actions that could be considered to help develop a tailored TDM plan using the five steps of the TDM process.



Image showing two public buses

TDM Step	Proposed Actions
Step 1: collect and analyse data	<p>Identify gaps in knowledge and understanding.</p> <p>In particular an understanding of where the existing high usage is on the routes potentially impacted by a loss of capacity.</p> <ul style="list-style-type: none"> • Assess the existing and future levels of capacity on bus and rail routes • Understand where and when the users of the service are boarding and alighting • Identify what alternatives serve the origins and destinations of the routes. • Assess if there is any free capacity on the alternatives available • Identify if there will be a gap in the network if capacity is reduce • Understand the existing communication mechanisms in place in the area at risk of lower public transport capacity. <p>In this hypothetic scenario, this analysis has shown that two major bus routes serving the area will be operating reduced frequencies for the foreseeable future.</p> <p>Analysis has also identified that there is a lot of through traffic on the potential reduced capacity route.</p> <p>The area the route serves has low car ownership and high public transport mode share. There is the potential that the reduction will limit access to employment and leisure areas. For those who have access to a vehicle there is the risk that there will be a modal shift back to private car use in an already congested area.</p>
Step 2: identify possible solutions	<p>Encourage a number of alternatives such as cycling to work, facilitate and encourage working from home, encourage the use of dedicated school coaches for educational trips, and encourage car sharing on journeys</p> <p>Active travel infrastructure improvements, to encourage active travel along the routes for journeys where possible.</p> <p>The analysis showed that an alternative close bus route in a different area of the LTA has spare capacity and so there is the possibility to adapt the bus routes to better service clusters of demand</p> <p>Engage with operators to communicate messages around the alternative options and changes to the network in advance to the reduced capacity.</p> <p>Encourage travel outside peak periods to spread demand.</p> <p>Distribution of maps showing the alternative options available</p>
Step 3: Implement solutions	<p>Engage with relevant stakeholders that are critical to the delivery of these solutions:</p> <ul style="list-style-type: none"> • Local authority marketing and communication teams • Local authority transport teams • Transport operators • Local business community • Active travel partners • Education establishments

<p>Step 4: marketing, communications and engagement</p>	<p>Example Messages:</p> <ul style="list-style-type: none"> • Retiming journeys to avoid times when public transport frequencies are reduced • The benefits of active travel • The benefits of working from home • Information on the changes to the network • Information of the alternative options available. <p>Audiences:</p> <ul style="list-style-type: none"> • Residents that live in the vicinity of the routes • Businesses – to disseminate to commuters • Existing public transport users • Education establishments along routes <p>Communications Channels:</p> <ul style="list-style-type: none"> • Email: LTA Email Newsletter (Using Existing Broadcast List) • Websites: LTA Website (TDM Page), Education establishments, Leisure facilities, Businesses (intranet) • Letter drop (to residents in areas impacted by lower capacity) • Social Media: LTA Facebook / Twitter / Instagram/ Stakeholder Social Media Accounts/ community sites such as 'Next-door' • On public transport posters, bus stop posters • Community halls • Local ward council meetings (to disseminate to residents) • Broadcast advertising: radio, Spotify advertising
<p>Step 5: monitor, evaluate and adapt</p>	<p>Timing:</p> <ul style="list-style-type: none"> • 2 months pre changes (establish a baseline) • Onset of change (identify if behaviours are beginning to change) • One month post change • Six months post change <p>Monitoring Information Sources:</p> <ul style="list-style-type: none"> • Bus boarding and alighting data • Purchasing of monthly direct debits on a particular route • School and business modal travel surveys • Public transport usage from operators • Newsletter Read and Click Through Rate • Social Media (Followers, Likes, Comments and Shares) • Communications with local ward councillors – travel related complaints relating to route

Table 17 - Scenario 5: Economic Pressures



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