



FUTURES

A Mott MacDonalD and UWE Bristol collaboration

An interactive guide

Future **U**ncertainty **T**oolkit for **U**nderstanding
and **R**esponding to an **E**volving **S**ociety



This guide is interactive. Click the home button in the top left corner at any point to get back to this page. Select the section tabs to the right to jump directly to specific content.

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Gearing up

Preferred future

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FUTURES

FUTURES is designed to help you:

- Pursue your purpose and fulfil your vision
- Address sustainability, resilience and drivers of change
- Define mutually desirable outcomes and objectives with your stakeholders
- Make robust decisions in the face of uncertainty

We have extensive experience of applying FUTURES tools and techniques, and can draw on our multi-disciplinary expertise to help you realise the potential of vision-led planning.



The world is changing – fast.

**The climate emergency.
Remote working. Digitalisation.
The need for resilience and
social transformation.**

**In the face of such uncertainty,
planning for the future by
looking in the rear-view mirror
is no longer adequate.**

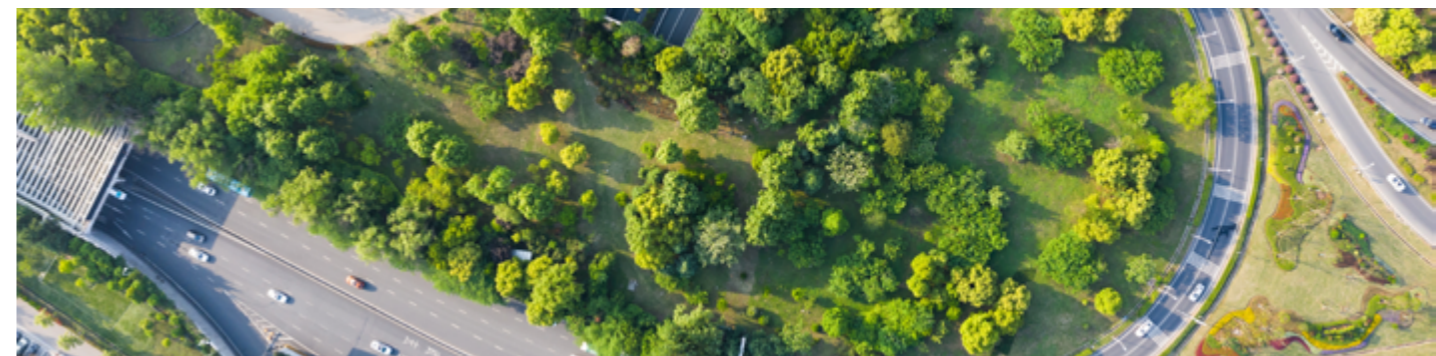
**We need strong, vision-led
planning to achieve more
robust decision making.**

We need FUTURES.



Six stages

FUTURES is a six-stage process. Depending on your objectives and your experience with this type of approach, you may need to use one, some, or all of the stages in this toolkit.



1.

Gearing up:

The first stage is designed to introduce the approach and its context. It is about allowing you and your stakeholders to tune in and to understand and gauge your appetite, readiness and needs.

2.

Preferred future:

The second stage is about co-creating with your stakeholders an expression of what characterises the preferred future – reconciling different values and preferences to converge on a shared vision.

3.

Opening out:

The third stage embraces and opens out uncertainty, surfacing drivers of change and homing in on critical uncertainties to develop plausible future scenarios with which your vision must contend.

4.

Options:

The fourth stage involves option generation – identifying ways to deliver your vision with some cognisance of the uncertainty that has been opened out and drawing on examples from elsewhere.

5.

Closing down:

The fifth stage focuses on the need to stress test options for their ability to negotiate uncertainty and remain aligned with your vision, helping you to choose from the options wisely and make robust decisions for your adaptive plan.

6.

Review:

The sixth stage is about helping you to set in place a plan for monitoring, review and adaptation as well as steps to ensure the approach and underlying philosophy become embedded.

Where to start?

To help find the right stage for you, select the statement that best describes you and your organisation.

We are new to FUTURES and using a vision-led approach that accommodates uncertainty.

We are ready to develop a vision of the future we want, and to translate it into clear objectives and outcomes.

We have defined our vision and objectives, and would like to explore the uncertainties that may impact our ability to deliver them.

We have defined our vision and objectives and have explored future scenarios. We now want to explore specific actions to move us down the right path.

We have defined our vision, objectives, and explored future scenarios and options. We now want to test how effective these options will be in the face of uncertainty.

We have a comprehensive strategy in place, and want to monitor its progress and ongoing suitability in a changing world.



Gearing up

Preferred future

Opening out

Options

Closing down

Review

Helping you plan for the future

FUTURES is an approach to strategic planning that enables you to decide on a direction of travel and navigate possible and probable obstacles.

It is designed to support decision making at the strategic planning stage.

It allows you to plan for the future you want and embrace and respond to uncertainty with the right policies, stakeholder engagement, technologies and organisational capabilities; helping you to secure investment and direct it to best effect, and maximising your chances of achieving success for your customers and for society.

The approach incorporates up to six stages, allowing us to work with you in a way that is tailored to your needs.

This interactive guide allows you to explore and understand the approach. We provide all the underpinning capability to work with you and your stakeholders to put FUTURES into practice.



Sound foundations

FUTURES is founded on leading international experience and academic rigour.

Conventional planning tools tend to look backwards, extrapolating past trends to guide future strategy. But, as globally disruptive events such as the COVID-19 pandemic have shown, this is an unreliable way of thinking about a changing world.

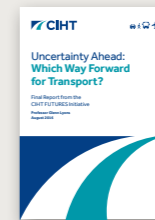
Using the FUTURES approach, you will be enabled to think positively about what you want to create and how to get there. Your vision will guide your policy decisions, shaping and supporting society and mitigating risks.



Find out more:



Guidance for transport planning and policymaking in the face of an uncertain future



Uncertainty Ahead: Which Way Forward for Transport?



Future demand: How could or should our transport system evolve in order to support mobility in the future?

Gearing up

This stage is appropriate for you if...
you are new to FUTURES and
its underlying philosophy

Future
uncertainty

Innovations

Behaviour
change

Features

Workshop-based participation to consider how prepared you and your stakeholders are for an uncertain future.

Benefits

A clear appreciation of how you can add resilience to your decision making and an ability to judge whether to proceed with other stages.

Outcomes

Familiarity with futures thinking, an ability to reappraise your infrastructure planning requirements, and a statement of shared commitment you can refer back to.

Rethinking
strategic
planning

Policymaking
pathways

Hype, bias
and wicked
problems

Appraisal
and guidance

Readiness
to engage



The **gearing up** stage is an important preparatory step. It helps you and your stakeholders to tune into the approach and its underlying philosophy.

The stage centres on a workshop format (extensible to suit your needs, budget and time) that can be run multiple times depending on the breadth of stakeholder engagement you are seeking.

We help you and your stakeholders step away from the immediate demands of your day jobs, enabling you to open your minds and determine whether you are willing and ready to engage in the process that follows.

As part of gearing up, we offer deeper dives into particular trends, technologies or behaviours that are likely to play a strong role in shaping your future.

This stage can be helpful to repeat over time – a follow-up session can consider more recent developments, refresh awareness and induct new colleagues and stakeholders into the approach.



Future uncertainty



You will be introduced to how change has occurred historically and continues to do so.

The stability of the era based on heavy infrastructure and the burning of fossil fuels is passing, with the arrival of the 'digital age' and the global push for net-zero. We are arguably in a period of regime transition towards new infrastructure systems that support future society.

As a consequence we are facing deep uncertainty around how we plan our infrastructure and systems for the future.

Innovations

You will be introduced to the array of technological innovations that are expected to transform infrastructure systems.

We will also explore behavioural and societal trends that may have a transformative impact.

Depending on your needs, you may find it helpful to engage in examining different innovations or trends.

There are multiple (inter-related) areas of innovation, each with opportunities, threats, hype and uncertainty.

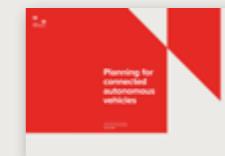
It can be important for you and your stakeholders to become more familiar with some of these territories as part of your overall 'decide and provide' forward planning.

Each area can also be treated in its own right with the FUTURES approach.

In either case we draw on our own connected thinking and relationships with academia to ensure you are in well-informed hands.



Read more:



[Planning for connected autonomous vehicles](#)



[The importance of user perspective in the evolution of mobility-as-a-service](#)

Behaviour change

Changes in people's lifestyles, circumstances and values are giving rise to new dynamics in attitudes and behaviour.

It is important that the significance of this is appreciated. We can pull in global multi-disciplinary expertise to share national and international insights related to your sector and geographic area.



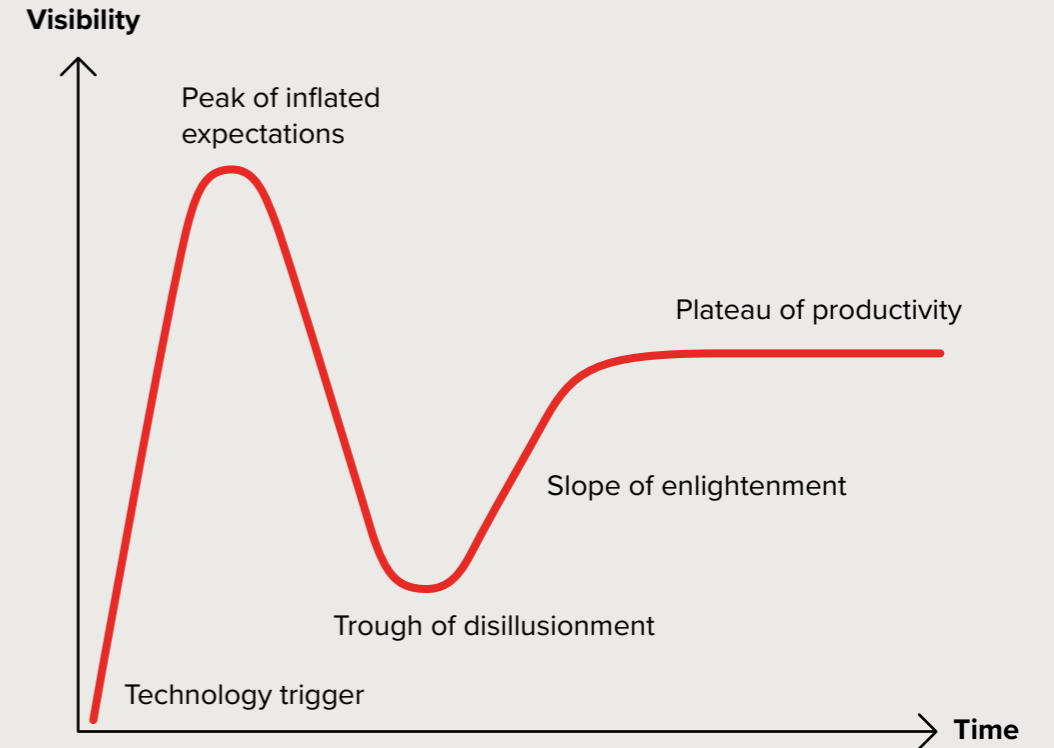
Hype, bias and wicked problems

Making sense of change and uncertainty is complicated by how we ourselves form, share and express our views and insights.

You will be introduced to the hype cycle that can ground our expectations on how far, how fast and in what direction innovations may take us.

Crucially, you and your stakeholders must be aware of and guard against the many unconscious biases we are prone to as individuals.

We will help you distinguish between complex and wicked problems. Wicked problems are not solvable due to divergence of values, lack of evidence and complex interactions with other issues. FUTURES is designed to help you negotiate wicked problems.



Source: [Gartner hype cycle](#)

Read more:



The Driverless Cars Emulsion: Using participatory foresight and constructive conflict to address transport's wicked problems

Polycymaking pathways

You will be introduced to two contrasting polycymaking pathways, and asked to consider if they are fit for purpose.

The regime compliant pathway (often seen as 'business as usual') culminates in predict and provide (demand-led supply).

The FUTURES approach is regime testing and culminates in decide and provide (supply-led demand).

Regime compliant

Predicted and practical outlooks

Transport – economy coupling

Weak planning

Concealed uncertainty

Justified decisions

Benefit-cost analysis

Predict and provide

Regime testing

Plausible and preferred outlooks

Access – economy coupling

Strong planning

Exposed uncertainty

Guided decisions

Real options analysis

Decide and provide

Rethinking strategic planning

There are well-established norms for what constitutes ‘robust’ strategic planning. You will be encouraged to question these.

For example, when developing a business case for a project or intervention, it is normal to compare its predicted outcomes with the outcomes if we do nothing. But if we are deeply uncertain about the future, how can we be sure that the ‘do nothing’ reference case we have chosen is correct?

You will be encouraged to consider the importance of proportionate analysis, recognising the value of breadth versus depth, acknowledging the distinction between accuracy and precision and the need for narrative as well as numbers in communicating analysis effectively as part of the decision-making process.

Such issues are crucial and the normative orthodox perspective on ‘robustness’ must be something you review.



Appraisals and guidance

Although there is a growing recognition of the value of approaches such as FUTURES, we understand this is being introduced into an orthodox strategic planning environment, with the related norms and expectations associated with project appraisal.

Through our own extensive experience of this environment we will help you recognise how FUTURES can complement existing guidance and practice.





Readiness to engage

The gearing up stage concludes by inviting you and your stakeholders to reflect on its coverage and come to a view about your readiness to engage with the FUTURES approach.

Do you have the appetite to proceed?

We will encourage you to draw up a statement of shared commitment, including a synthesis of your views about the approach, your hopes and concerns. This may prove to be an important point of reference as you move into the uncomfortable territory ahead.

Preferred future

Features

Examination of your past development of strategy and your motivations and views about the future, identification of drivers of change and achievable desired futures, and converging on a shared vision.

Benefits

Confidence in a grounded approach to decide the future you want, supported by a process that brings constructive challenge while engaging you and your stakeholders.

Outcomes

An overall shared vision, including objectives and outcomes, and an underpinning record of lessons, insights and rationale.

Hindsight

Scoping

Vision and outcomes

Drivers of change

Consensus building

This stage is appropriate for you if...
you are ready to outline a vision of the future you want, and to translate it into clear objectives and outcomes

The **preferred future** stage culminates in establishing your overall vision for a chosen future. It also establishes objectives and outcomes that reflect characteristics of this preferred future.

A vision's realisation depends on the support of those able to influence change, as well as external drivers.

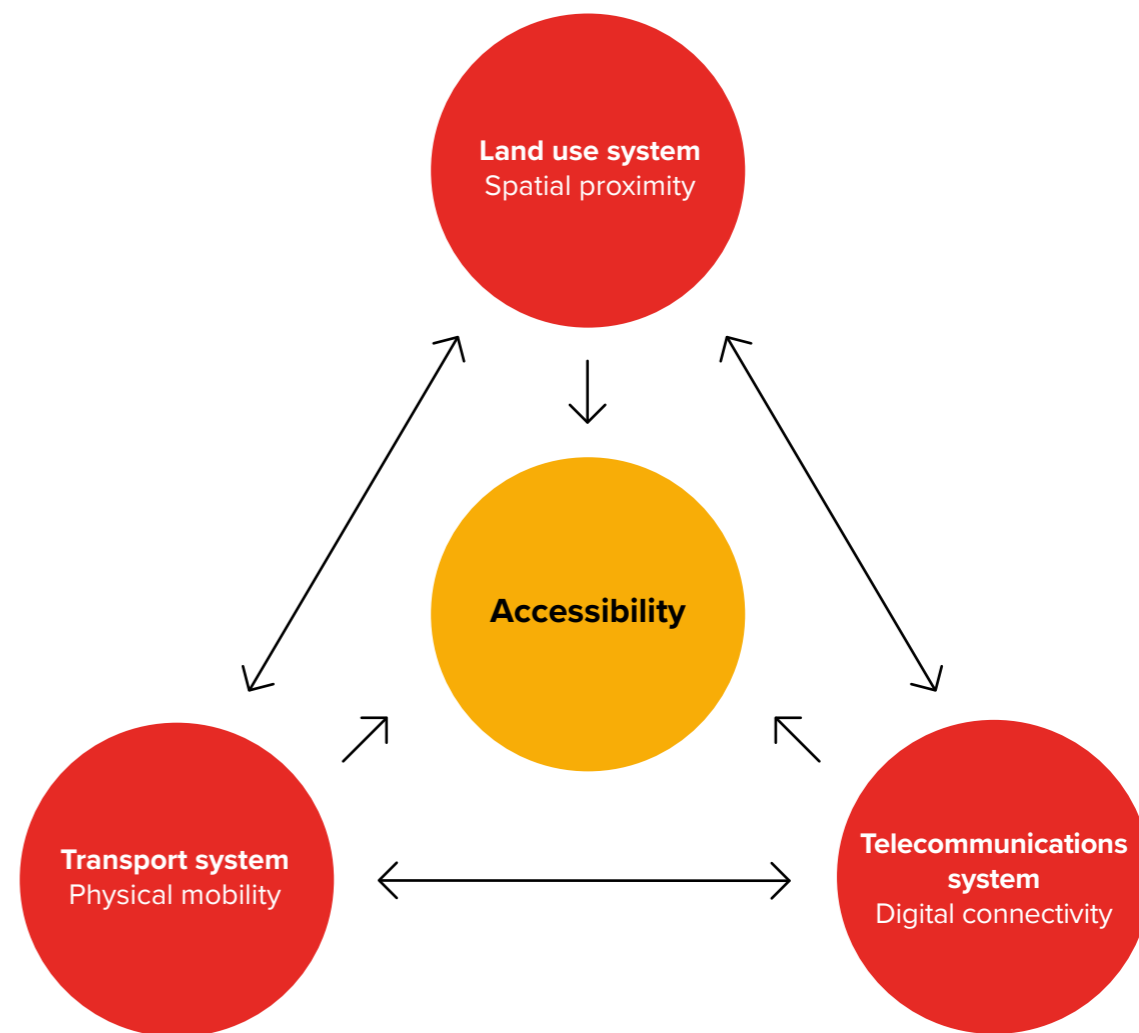
FUTURES is therefore designed to help you co-create your vision and build consensus around it. It also helps you consider how your vision will fit with current and prospective changes taking place in society.

We help clients to think beyond the traditional confines of their sector and to consider systems from the perspective of the user.

For example, in the transport sector we encourage you to be mindful of what we call the triple access system in articulating a preferred future for transport and society.

Transport is a means to an end – it derives from pursuit of access to people, goods, services and opportunities. Accessibility underpins economic prosperity and social wellbeing.

As with all stages, this one can be tailored to suit your needs, budget and timescale.



Hindsight

Although the future is ours to shape, some degree of path dependency is inevitable. At the outset of this stage, it is valuable to look from the past to the present.

What were the earlier visions and strategies?
 What progress was made against them?
 What challenges did you encounter?
 Were there unanticipated consequences?
 Are there lessons for the future?

What problems are now apparent that forward planning should seek to address?

A combination of two or more of desk research, interviews and workshops can help you to start looking to the future.





Scoping

An important preparatory step in working towards a vision is seeking to understand the motivations and views of stakeholders and the nature and extent of divergence across them.

One-to-one interviews can be helpful in this regard.

Meanwhile, horizon scanning is concerned with collating short accounts of recent and signalled potential future developments of relevance to your vision. This can involve desk study analysis and contributions from stakeholders and experts in building and sharing an understanding to inform the next steps.

Drivers of change

There are multiple drivers affecting how infrastructure and society evolve – within and beyond the immediate control and influence of you and your stakeholders.

Informed by earlier scoping work, PESTLE analysis is an opportunity for you and your stakeholders to surface a long list of drivers of change. These are then sorted according to their relative importance and uncertainty regarding the focus of your vision.

After a PESTLE analysis workshop, a summary paper of the first three steps in this stage can form the basis for guiding the development of your vision.



Vision and outcomes

Informed by the preceding steps, we'd advise arranging a visioning workshop with you and your stakeholders to identify desirable and realisable futures, and build consensus on one or more expressions of a preferred future.

Vision statements should be succinct and accompanied by objectives and outcomes that reflect the important dimensions and characteristics of the vision. Ideally, these would be developed as part of the workshop or can be produced after it.

A follow-up engagement with senior decision makers can then translate the work above into a proposed vision, setting out its objectives and outcomes with an accompanying rationale.





Consensus building

The steps within this stage are all designed to be participatory and engage you and your stakeholders. This provides strength through diversity for developing the vision and helps to build consensus.

To extend consensus entails reaching out to the electorate – the people and businesses that will be affected by pursuit of the vision. There are public engagement activities that can be undertaken during this stage to address this.

Your vision and its outcomes are critical reference points for what follows. Ensuring they are robust and widely understood and supported is key.

Opening out

Features

A participatory process to expose and understand future uncertainty and develop a set of plausible scenarios to capture that uncertainty.

Benefits

Confidence in coming to terms with the future circumstances affecting delivery of your vision and a shared appreciation of the critical uncertainties faced.

Outcomes

A set of plausible future scenarios you can sign up to that provide a basis to subsequently test your options for delivering your vision.

Drivers of change

Critical uncertainties

Scenarios

Credibility check

Narratives and pathways

This stage is appropriate for you if...
you have defined your vision and objectives, and would like to explore the uncertainties that may impact your ability to deliver them

Opening out – introduction

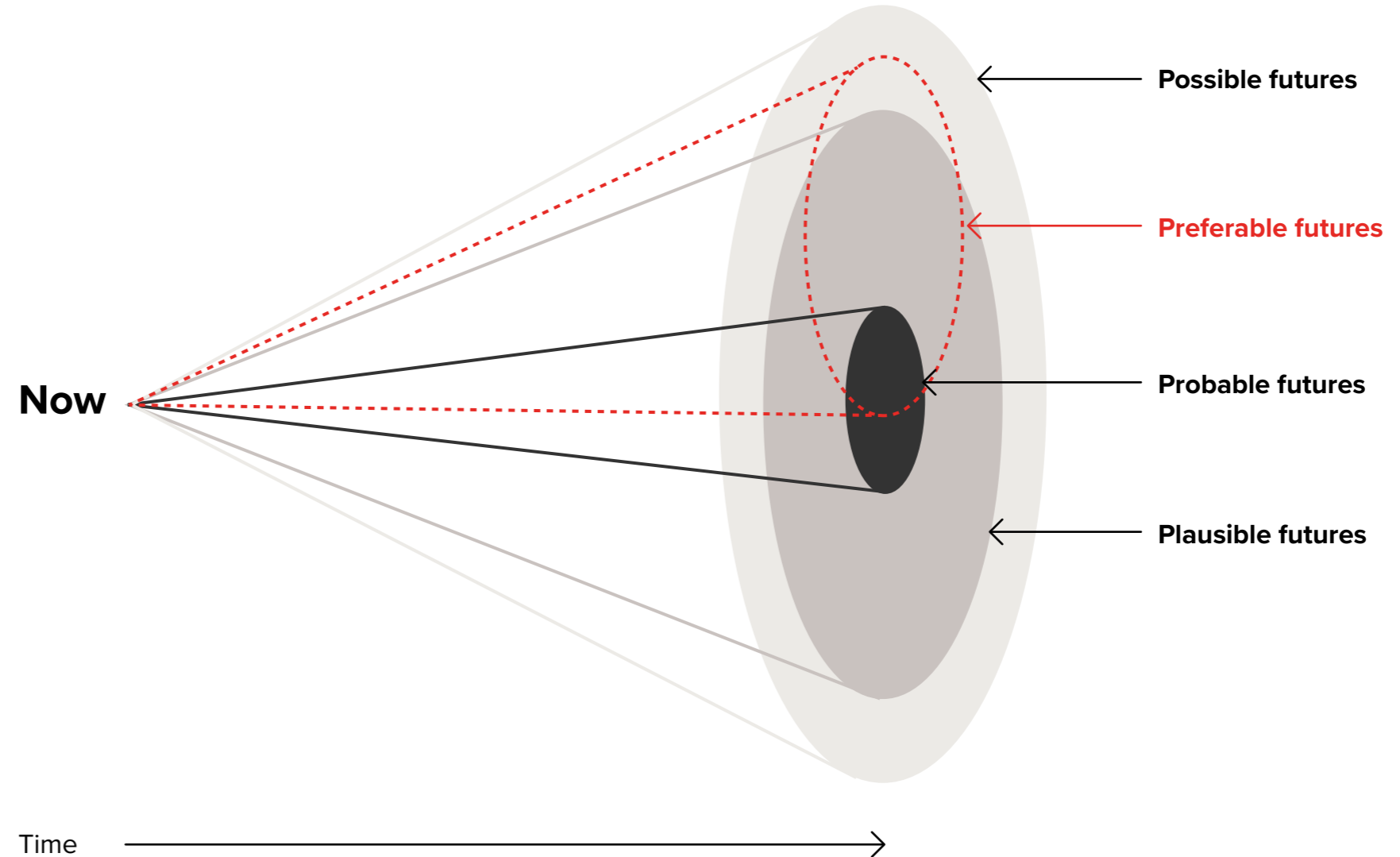
The previous **preferred future** stage helps you to produce a vision with associated outcomes.

In that stage you and your stakeholders will have given some attention to change and uncertainty.

The **opening out** stage addresses this in more detail. It involves exposing and embracing the extent of uncertainty faced – uncertainty that will significantly affect the robustness of your forward planning.

The FUTURES approach in this stage will guide you through a scenario planning exercise in which plausible future contexts are identified.

In the later **closing down** stage, these will be used to stress test the options you are considering to help you realise your vision.

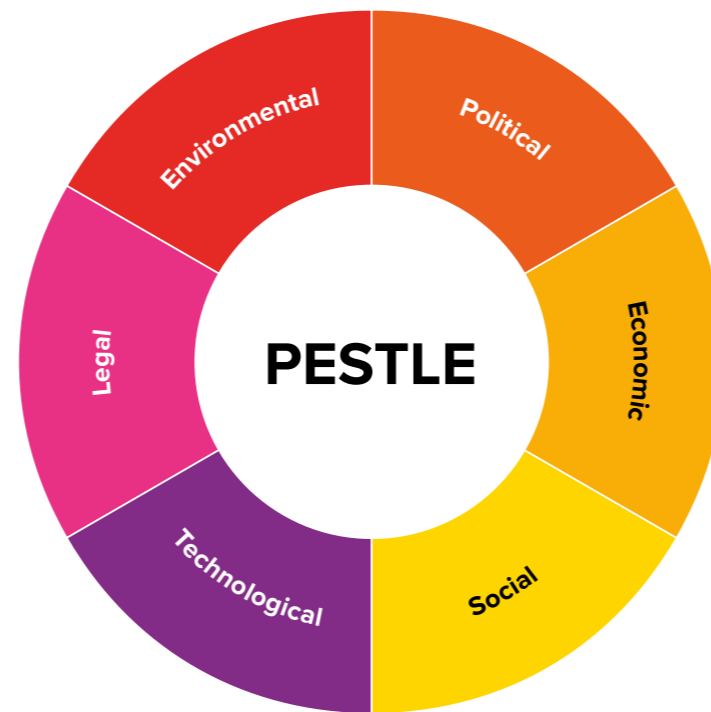


Drivers of change

This element also features in the previous steps. If the earlier stage has been completed you may already have what you need regarding this first step in opening out.

There are multiple drivers of change that affect how infrastructure and society evolve – within and beyond the immediate control and influence of you and your stakeholders.

A PESTLE analysis workshop or similar (informed by desk study work) is an opportunity for you and your stakeholders to surface a long list of drivers of change. This exercise would be framed by a summary of the previous steps you have engaged in from FUTURES.



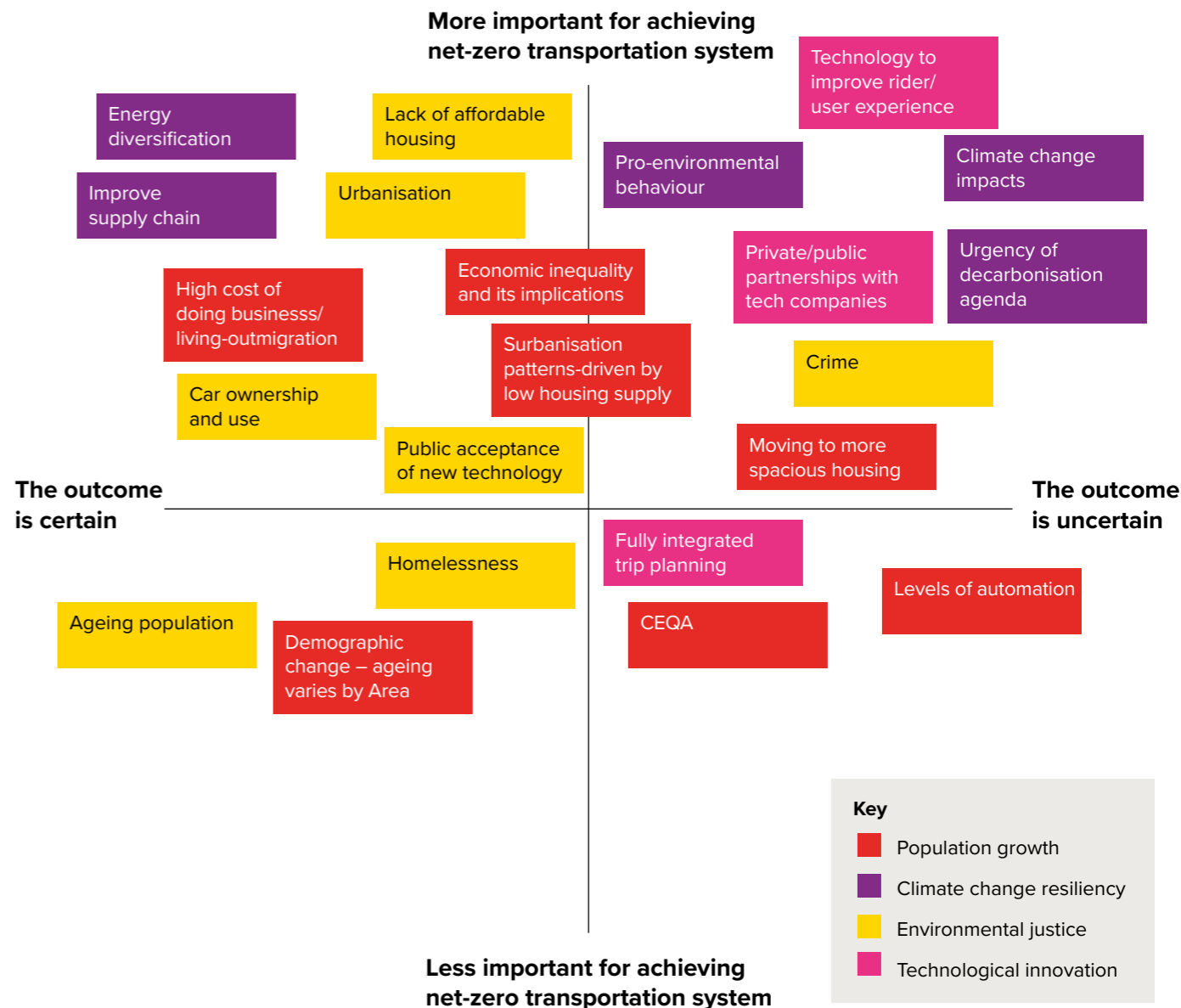
Critical uncertainties

We consolidate the long list of drivers of change to remove overlaps and duplications and refine the wording of the identified drivers where appropriate.

A stakeholder workshop will then be convened. As is the case across FUTURES, it is important that participants are mindful of unconscious bias in their deliberations.

The participants' task is to group the drivers of change according to how important they are (to the vision and outcomes) and how uncertain their state could be over time.

Working with you and your stakeholders, we identify the most important drivers and, in turn, determine the critical uncertainties that forward planning should account for.





Credibility check

It provides additional assurance in the process to sense check the critical uncertainties that have been identified.

In finalising the selection of critical uncertainties it is helpful to undertake further desk work to identify wider documented opinion and justification for the uncertainties in question.

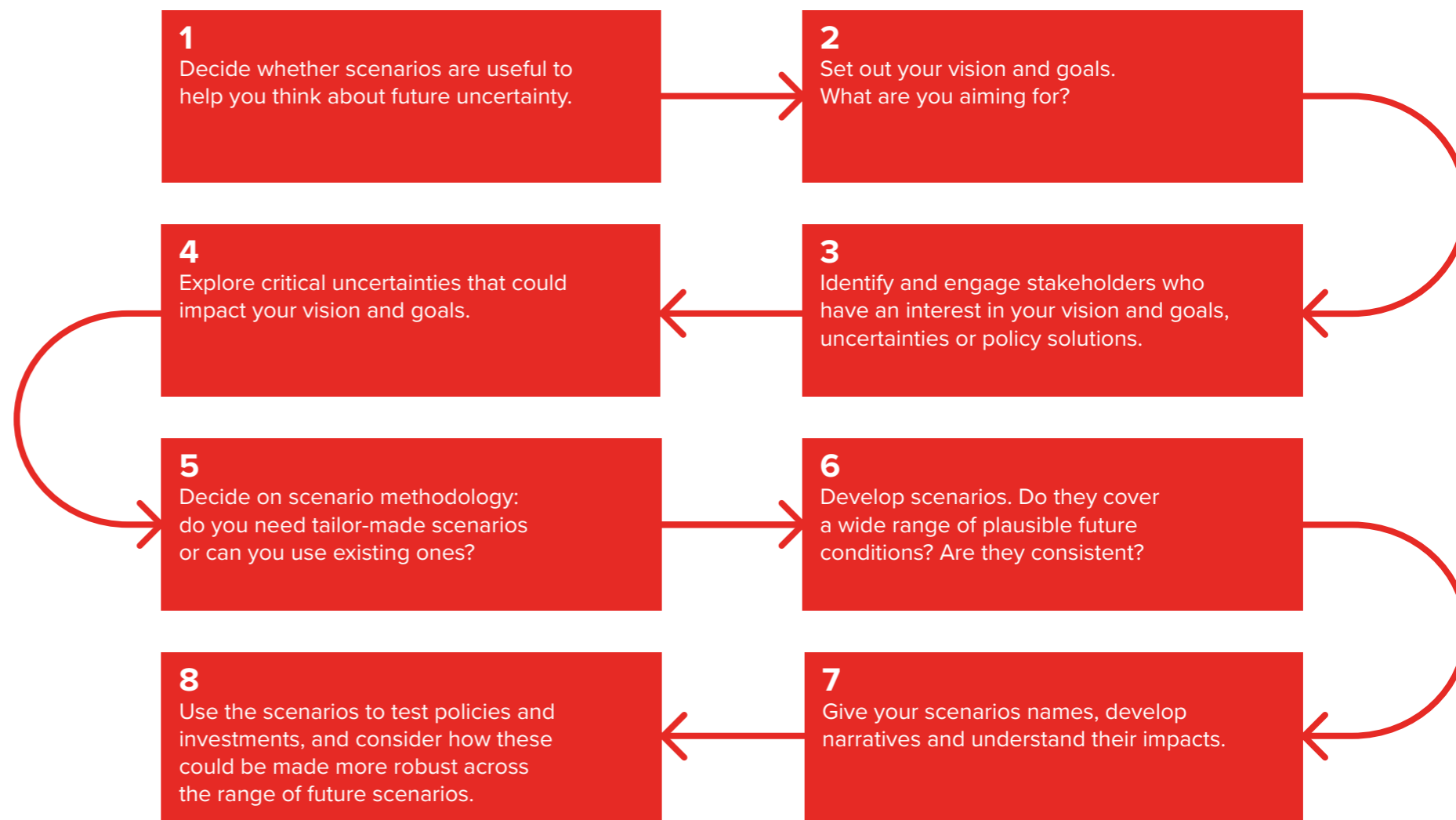
How the critical uncertainties play out (in combination) in different, plausible ways is used to determine the basis for various future scenarios.

Scenarios

Scenarios help us to plan. They help us to better understand how the future may unfold and how this may impact our aims and vision.

Scenarios can improve planning and policy making by helping decision-makers and analysts think through future opportunities and risks. They can be used to stress test policy and investment decisions to support development of policies and investments that are more robust across a range of future conditions.

Here is a rough guide to some of the decisions made during scenario development.

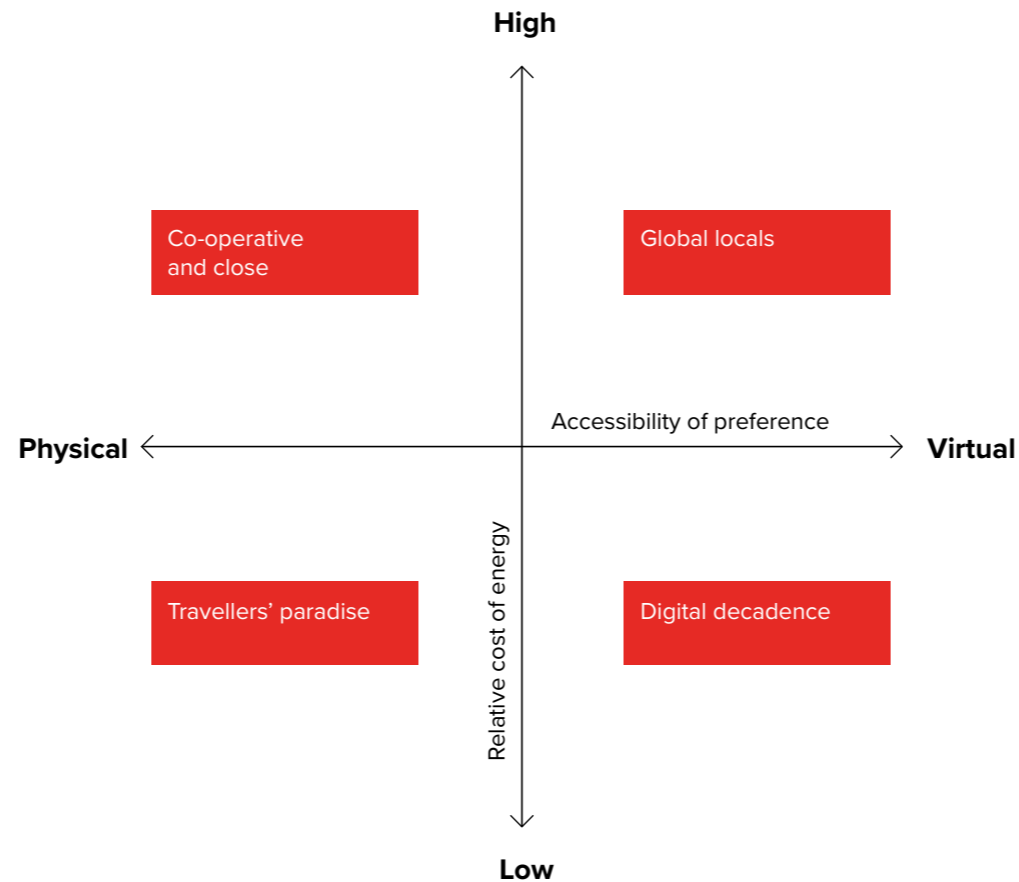


The example shown here is based on two critical uncertainties to create four scenarios. Other approaches can accommodate a larger number of uncertainties to produce multiple scenarios of plausible futures. Consistency between projections is a key concept when using a larger number of uncertainties.

Working with you and your stakeholders, we can name the scenarios and develop short narrative descriptions for them.

The process of creating and representing scenarios deepens an appreciation of uncertainty about the future. This allows planners and policymakers to better understand potential outcomes and challenges and determine how to address these.

Scenarios can also be used to identify and assess possible measures for influencing the infrastructure system, testing these against a range of uncertain future conditions. This helps to identify measures that together can help form a strategy that is more robust.



Narratives and pathways

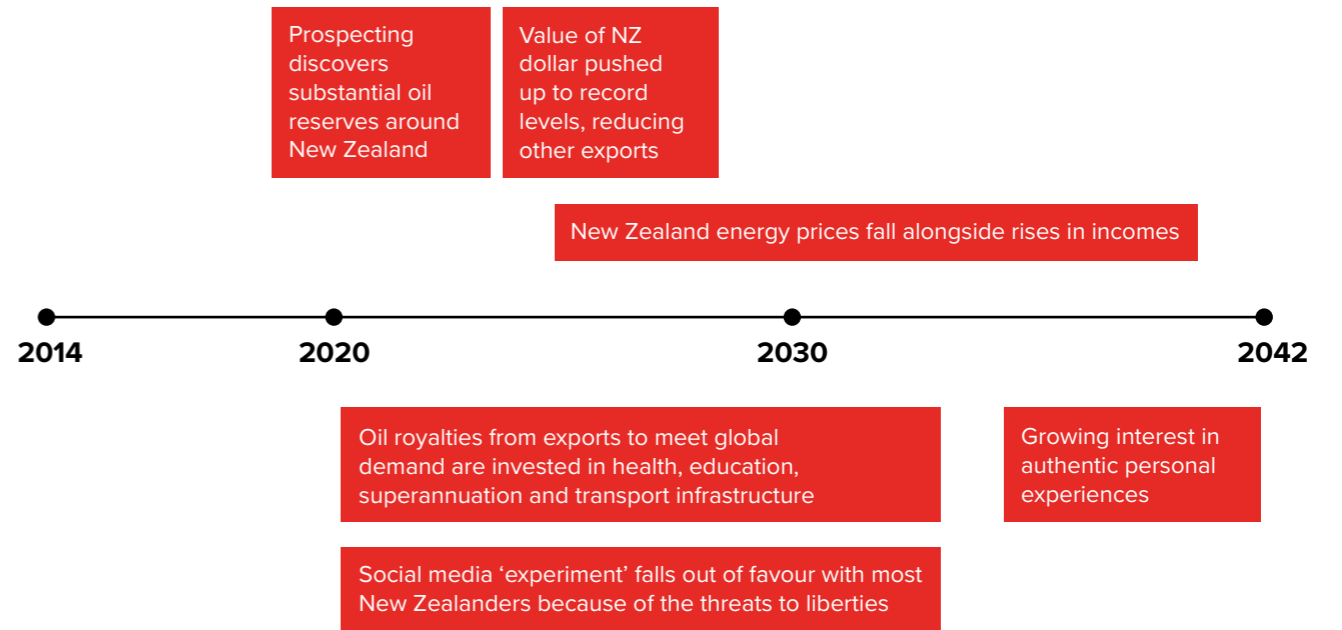
We work up narrative content based on the scenarios that emerged from the previous step. The depth of narrative developed for each scenario will depend on how you wish them to be used later.

If a vision and outcomes are agreed, the scenario narratives should reflect characteristics associated with those outcomes. This gives a sense of how closely the direction of travel from the present, implied by each future scenario, aligns with the direction of travel implied by the vision.

It can be helpful to illustrate 'plausible pathways' of development to understand the credibility of scenarios and how they could develop in future. You may also want to consider how your key stakeholders will be impacted by each scenario.

Getting from 2014 to Travellers' Paradise

Preference to physical access and low relative energy costs



Read more:



Future demand: How could or should our transport system evolve in order to support mobility in the future?

Options

Features

A scene-setting synthesis of earlier stages followed by, and informing the gathering, generation and sifting of options.

Benefits

An opportunity to draw upon our global activities to inspire and inform how we work together with you to identify credible means to deliver your vision.

Outcomes

A shortlist of promising measures that can be stress-tested in relation to future uncertainty.

Setting the scene

Generating options

Gathering options

Sifting options

This stage is appropriate for you if...
you have defined your vision and objectives and have explored future scenarios; you now want to explore specific actions to move you down the right path

The **options** stage helps you explore and shortlist possible measures that offer the prospect individually and/or in combination of helping to realise your vision. Option generation principles are set out in official appraisal guidance.

In the FUTURES approach we encourage unconstrained and diverse option generation. The stage's aim is to ensure you are mindful of possible options from elsewhere while generating your own with an appreciation of current socio-technical changes.

The outcome from this stage is a shortlisted set of options arranged in a consistent form suitable for subsequent stress-testing both from the perspectives of political appetite and future uncertainty.

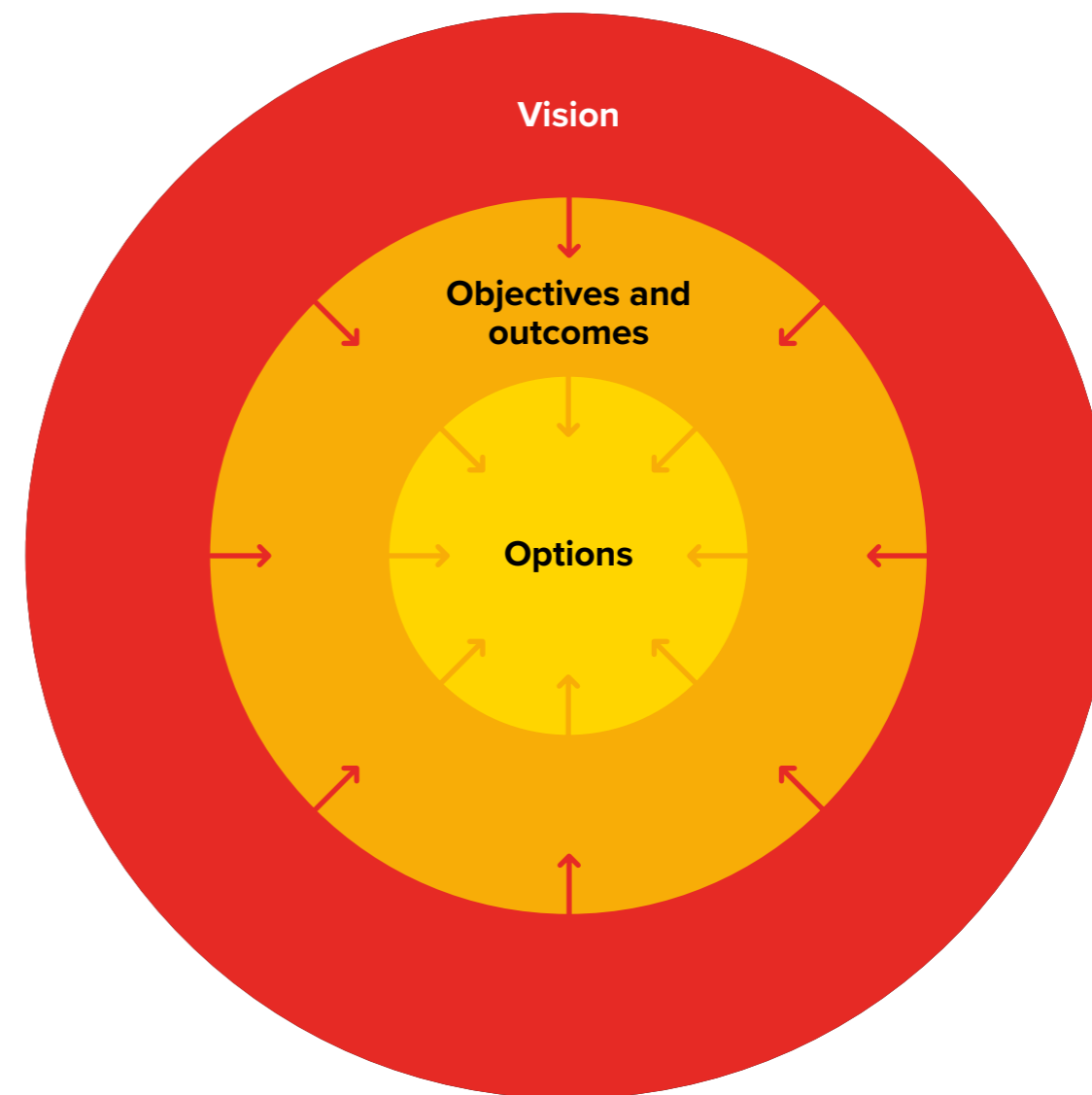


Setting the scene

As with other FUTURES stages, laying the groundwork is an important part of achieving effective results.

We work with you to prepare an initial scene setting paper. This includes a synthesis of the insights and outputs from preceding stages – notably the problems you face, the vision that has been agreed and its objectives and outcomes, and the scenarios that reflect uncertainties over the future.

It is important to be clear about the level and categories of option you want to consider. FUTURES is concerned in particular with helping you in your strategic planning. It is also beneficial to establish contextual factors that may have a bearing on option generation – such as acceptability, affordability and history.

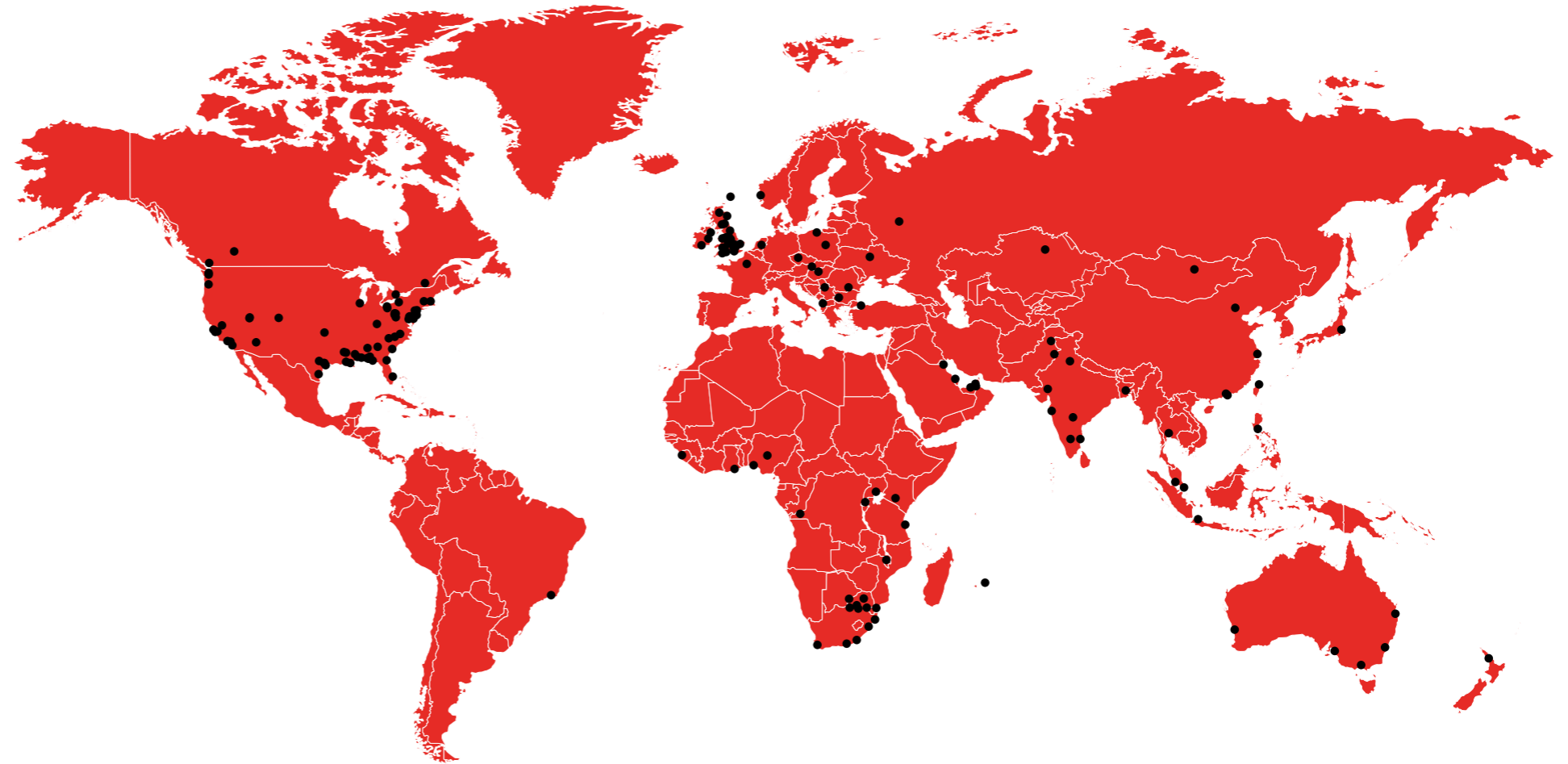


Gathering options

You and your stakeholders will ultimately determine a range of options that could be considered in supporting your vision.

We believe it makes sense to gather insights as a precursor to helping you explore your own ideas.

Drawing on our global reach of experience as a company we can crowdsource examples of options considered elsewhere, nationally and internationally, that may be relevant to you. This will be combined with desk work alongside an account of your own previously considered options.



Mott MacDonald offices

Generating options



Informed by the preceding steps, we work with you and your stakeholders to generate a broad range of options that could help achieve your vision.

A series of facilitated workshops and allied homework tasks can be used to draw out possible options. We would encourage a breadth of participation, reaching beyond your sector and engaging a diversity of individuals.

Participants are asked to consider how emerging options relate to the vision and to one or more of its objectives and outcomes as well as to uncertainty over the future.

Sifting options

The final step in the options stage is to reach the point where a clear shortlist of options has been identified and set out in an informative and consistent way.

An agreed template is used as the basis for documenting each possible option. It is then helpful to consider how these options might be grouped and to identify overlaps.

The option generation step should already have been mindful of option viability in terms of political and wider support. However, beware of shutting down options too early: political and public opinion may change in some of your future scenarios. Wider public engagement events may be necessary to inform sifting and shortlisting of the most promising options.



Closing down

Features

A process – flexible in terms of analytical depth – that helps you to examine the relative robustness and risk of your options in the face of different plausible futures.

Benefits

Confidence that you can produce a strategy to deliver your vision that has more robustness against future uncertainty.

Outcomes

A report accounting for the journey you have been on and its key insights, and a set of options that can form the basis for producing your strategy.

This stage is appropriate for you if...

you have defined your vision, objectives, and explored future scenarios and options; you now want to test how effective the options are in the face of uncertainty.

Scoping

Option testing tool

Communicating results

Option testing process

Roadmapping

Adaptive planning

Closure

The **closing down** stage concerns a reasoned approach to making sense of the set of options and the different plausible future scenarios in which such options could play out.

Crucially you will wish to avoid decision-making paralysis while ensuring your advice to decision makers highlights how different options may perform in terms of yield (achieving effects aligned to the vision) versus risk (the possibility that uncertain future circumstances could produce effects that are misaligned with the vision).

If you know that an option may fail under certain conditions, you can take action to mitigate those risks, think about how you would adapt your plan, or rethink it altogether.

We will support you in developing a tool and wider process for stress testing your options and communicating this analysis to decision makers.

Key



		Plausible future contexts							
		1	2	3	4	5	6	7	8
Option	A	✓	✓	✓	✓	?	✓	?	✓
	B	✗	✗	?	✓	✗	?	✗	?
	C	✗	✗	✗	?	?	✗	✗	?
	D	✓	?	✓	✓	?	✓	✗	?

Reviewing the stress-tested outcomes

Status 1 Positive in all scenarios	→	Proceed as planned
Status 2 Positive in more scenarios than not	→	Proceed but monitor and develop options for opt-out
Status 3 Negative in more scenarios than not	→	Ensure you have the means for opting-in
Status 4 Negative in all scenarios	→	Rethink option





Scoping

At the outset of this stage, we work closely with you to understand your perspective on analytical robustness – the nature and extent of rigour expected in the closing-down process.

Testing potential options against uncertainty is not an exact science and is uncomfortable.

Depending on your resources and the views of senior decision makers, we can tailor an approach to meet your needs – ranging from a single-day stakeholder workshop to qualitatively test options in different future scenarios to a more extensive process, including modelling, that can combine quantitative and qualitative testing.

Option testing tool

Models can help to test options across a wide range of scenarios, particularly for costly or significant investments.

We can work with you to develop a simple spreadsheet model that uses elasticities to relate important input drivers to output measures that reflect the outcomes for your vision.

This enables options to be represented and their influence on outcomes in different future scenarios to be estimated. Such estimates help highlight the degree of robustness of different options. In simple terms, this offers a RAG (red/amber/green) assessment of an option's performance across scenarios.



Read more:



Future demand: How could or should our transport system evolve in order to support mobility in the future?

Option testing process

Crucial to this stage and indeed the overall FUTURES approach is a recognition that the participants in the process – you and your stakeholders – are instrumental to the results.

The tools and methods we employ are enablers of participatory thinking, exchange of views, judgement and consensus building.

The process involves translating options into input assumptions for the option testing tool. The results are then used as a basis for considered debate and judgement over the relative robustness of your options.

It is important that assumptions and rationale are captured during the process so that the outcomes can be justified.



Communicating results



Conventional strategic planning can conceal uncertainty (and therefore risk) in the course of simplifying advice and recommendations to decision makers.

Experience shows that the FUTURES approach can cause cognitive overload as uncertainty is exposed. Options need to be considered in light of this.

To mitigate against this, communication is key. We will help you to document and present results from the closing-down process in an accessible way. This involves drawing on the philosophy and material spanning all of the FUTURES stages.

Roadmapping

Roadmaps are useful tools to provide information to help make better decisions.

The production of a roadmap involves a number of important considerations, such as:

- Setting the purpose and outcomes for the roadmap, as well as who will 'own' it
- Ensuring that a diverse range of people are engaged in creating a roadmap to avoid unconscious and optimism bias
- How to handle uncertainty outside the scope of the roadmap that you have no control over – which can be done through the scenario planning process
- How you create your roadmap in a way that stimulates investment and development in the focus area



Adaptive planning

Adaptive plans – that is, plans that can be adapted to work under a range of future conditions – are more robust against future uncertainty.

Through the FUTURES process we can test and identify vulnerabilities of policies and investments across a range of future scenarios, as well as identifying signposts to indicate under what conditions actions need to be taken and the actions to be taken to mitigate negative impacts.

You can create an adaptive, incremental strategy that maps a critical success pathway.

Monitoring and evaluation are key parts of the adaptive planning process; these activities support further learning around the system, including around uncertainties and potential solutions.

Adaptive planning, with monitoring and evaluation, allows learning and transformational change to be at the heart of your strategy.



Uncertainty is an uncomfortable position.
But certainty is an absurd one.

Voltaire



Closure

We aim to take you through a forward-planning process from which emerges a vision with objectives and outcomes, and a set of options that can take you towards that vision in the face of uncertainty. These will then inform your forward strategy.

We will prepare a final report for you that synthesises the approach that has been taken, its key milestones and outcomes. As part of preparing this, we would suggest including consultation with you and your stakeholders to capture lessons learned and commitment to shared ownership to take the plan forward.

This is, of course, the 'end of the beginning' as attention turns to launching and implementing your strategy.



Review

This final stage involves us helping you to draw up an in-house plan to ensure that you can build on what has been accomplished through the FUTURES approach.

The plan will be tailored to your needs and take account of the following:

The world changes and what we know about it changes, so strategic planning must be informed by ongoing monitoring. As such, you must be prepared to periodically review and, if necessary, revise your strategy accordingly. This may involve re-running parts of the FUTURES approach (perhaps in a lighter touch way).

Your staff and stakeholders will change over time. It is important that individuals new to this approach are helped to understand, engage with it and support your onward success.



This stage is appropriate for you if...
you have a comprehensive strategy in place, and want to monitor its progress and ongoing suitability in a changing world

Learning by doing

Innovative ideas can test an organisation's or individual's risk appetite. We understand this.

We have worked with others supportive of the need for change to strategic planning practice. We are like-minded in the need to adopt a learning-by-doing approach and to share the experiences of doing so.

We will share with you case studies in which 'decide and provide' has been applied.

Since its launch in 2019, the FUTURES approach has been used by government departments, city and local authorities, and infrastructure providers across the world. There is a growing community of practice.

The New Zealand Ministry of Transport and the UK Department for Transport were two early adopters of the methodology.

We have used FUTURES to help numerous international cities explore pathways to net-zero carbon emissions in the Global FUTURES Relay project.

We have run issues-based FUTURES workshops for clients on topics such as COVID-19, and on the future of freight, aviation and shipping.

By embracing FUTURES you will be in good company.



Our global reach

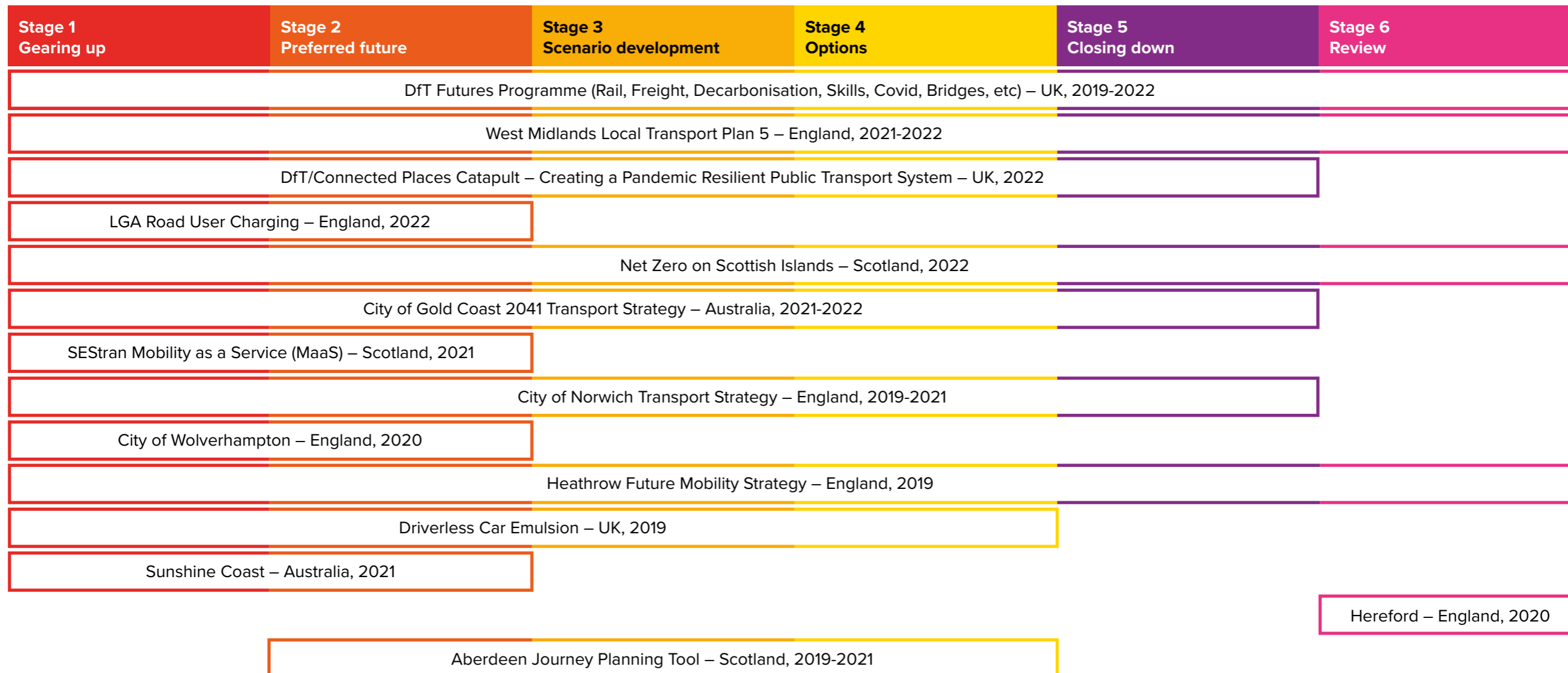
Cities, local authorities and infrastructure providers that have worked with us using the FUTURES approach include the City of Bandung (Indonesia), Vancouver (Canada), NEOM Festival City (Saudi Arabia), the Department of Transport and Main Roads, Queensland Sunshine Coast and Gold Coast Council (Australia) and Kiwi Rail (New Zealand); in the UK, clients include the Department for Transport, Transport Scotland, the Welsh Government, Transport for the North, Norfolk County Council, Aberdeen City Council, Liverpool City Region, RSSB, and City of Wolverhampton Council.

Learning by doing

In their own words

The Flexibility of FUTURES

The examples below show how, since the launch of FUTURES in 2019, clients have used some, or all, of its different stages to achieve their aims.



In focus



Travel Transitions: How Transport Planners and Policy Makers Can Respond to Shifting Mobility Trends, OECD International Transport Forum (2020-2021)

Professor Glenn Lyons was an international expert contributor and report co-author for this international examination of how mobility patterns have been changing and in turn disrupted by COVID-19, the limitations of orthodox transport planning to now cope with a changing world and an alternative ‘decide and provide’ paradigm to help better address the challenges and opportunities faced. The **report** includes guidance to the international transport planning community at a time when many countries are facing similar challenges and uncertainties, and brings FUTURES to the attention of a wider group of international policymakers.



Future Travel Scenarios, Transport for the North (2019-2020)

Professor Glenn Lyons was technical advisor and scenario planning expert in TfN’s development of a series of plausible scenarios for 2050 that will be used in a ‘decide and provide’ vision-led approach to planning for and investing in the future which is able to account for uncertainty and support business case submissions to the UK Department for Transport in line with evolving appraisal guidance and interpretation. Strongly reflective of the FUTURES approach, Lyons was invited by TfN to write the Overview and Insight section of the **final report**.



FUTURES support, UK Department for Transport (2020)

The UK Department for Transport (DfT) has become increasingly alive to the need to accommodate deepening uncertainty in its decision-making, thereby adding resilience to its strategic planning and investment decisions. Using a blend of transport expertise and future thinking, Mott MacDonald and its partners support the DfT in its efforts to bring about culture change within the organisation regarding its decision making. It is notable that the DfT has also now published its own **Uncertainty Toolkit**. This provides guidance on exploring, understanding and quantifying future uncertainties; modelling future travel demand; appraisal of transport policy and investments; and presenting outcomes to decision-makers.



Global FUTURES Relay (2021)

Recognising that cities across the world are facing the shared challenge of how to achieve net-zero carbon transport systems, we created the **Global FUTURES Relay** to help city authorities and stakeholders explore vision-led strategies to get there in the face of uncertainty. Delivered through online practical workshops that use each stage of FUTURES, the Relay demonstrates how the methodology can be applied to a specific topic and add value to strategic planning. Participating cities have so far included Glasgow, Dublin, San Francisco, Cagliari, Singapore, Sydney and Abu Dhabi. City authorities that have taken part in our Global FUTURES Relay have found it a valuable way to explore their net-zero transport strategies, as well as a teambuilding exercise that builds a sense of purpose.



In their own words

FUTURES has been a catalyst for the development of a guidance note on how to use TRICS in a decide-and-provide approach to transport assessments, which we see as critical to the future of development planning.

Nick Rabbets
Managing director, TRICS Consortium Ltd

In developing a guide for vision-led transport planning for island communities in the Pacific, we found FUTURES and its underlying philosophy both compelling and helpful, and welcomed the support provided by Professor Glenn Lyons.

Nicole Baker
Hope Road Consulting and author of 'Navigating Island Futures in Transport – A guide to developing national transport strategies for Small Island Developing States'

Inspired by the approach set out by Glenn Lyons in FUTURES, Transport for the North has embraced decide-and-provide in how it is now addressing strategic transport planning to help ensure we are making robust policy and investment decisions in the face of an uncertain future.

Simon McGlone
Senior planning and strategy officer, Transport for the North



Particularly in light of the COVID-19 pandemic, it is clear that transport planning needs to change and across our member countries there is a growing appetite for the sort of approach FUTURES represents as our recent Travel Transitions report, with input from Kiron Chatterjee, Glenn Lyons and others, reveals.

Steve Perkins
Head of research, International Transport Forum

Thinking about the future isn't a 'nice to have'; it's a critical need if we want to build an effective, efficient, and responsive transport system which drives change and can adapt to future uncertainty. With support from Mott MacDonald, the DfT's Futures team continues to embed 'futures thinking' into the strategy, policy and investment decision-making process, making our decisions more resilient to future uncertainty.

Leigh Hanby
Head of futures and innovation,
Department for Transport (DfT)

Having spanned the worlds of transport and land use planning for over 20 years (commonly characterised by predict and provide) I am now taking forward decide and provide with my clients – encouraging vision-led strategic thinking and introducing this into development planning. It's been a privilege to be part of the journey that now brings the FUTURES approach from Mott MacDonald and UWE Bristol to the market.

Lynn Basford
Co-founder, Basford Powers

CIHT FUTURES was an initiative with our members in 2015-16 which strongly endorsed the need for change in planning for the future – recognising the importance of shaping the future we want in the face of uncertainty. This has had a considerable impact on the way transport planning is being considered. We welcome the continuation of this work as it seeks to help us understand the complexities of responding to change.

Sue Percy
Chief executive, Chartered Institution of Highways & Transportation



Mott MacDonald and its partners have provided critical input to the Williams Rail Review in scanning the future horizon, exposing the uncertainties that contextualise a new white paper for rail, and enabling options to deliver the government's vision to be tested against plausible future scenarios.

Eleanor Saunders
Digital and innovation, Williams Rail Review, DfT

Having devoted my career to modelling and forecasting, I recognise the significant new challenges we face in the transport sector with new forms of uncertainty and risk. The approach pioneered by Glenn Lyons and others and now championed through FUTURES by Mott MacDonald is an important and essential contribution to strategic planning.

Luis (Pilo) Willumsen
Co-author of Modelling Transport and author of Better Traffic and Revenue Forecasting

The FUTURES approach expertly captures the 'decide and provide' approach we are taking to revising our National Transport Strategy in Scotland. We are in deeply uncertain times and our decisions must account for unknown change if we are to secure the outcomes we seek.

Fiona Brown
Head of strategic transport planning, Transport Scotland

Set against the social expectations to increase road capacity, the Ministry of Transport was wrestling with the uncertainty of changes to future demand created by new technologies, increasing urbanisation and the need to respond to climate change.

Its Future Demand initiative therefore explored whether the traditional approach of deciding how much to invest in road capacity based on the predict and provide model was still the best approach.

The initiative concluded that uncertainty over future demand meant that a change was needed to move to a 'decide and provide' model. Having chaired the OECD's International Transport Forum, I can attest to the timely global importance of the FUTURES approach being offered by Mott MacDonald that builds upon this MoT work.

Andrew Jackson
Managing director, Consulting Jackson and former deputy chief executive, New Zealand Ministry of Transport

Talk to us

Global and Europe



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Interested in taking FUTURES forward?

Please let us know. If you have questions or comments do get in touch with one of the team.

The latest version of this FUTURES interactive guide (and further related information) can be found at www.mottmac.com/futures

