tactical
Urbanism
making it happen
Contents

04 Introduction
08 Unprecedented times
10 Common trends
12 COVID-19 response, solutions and benefits
14 What is happening elsewhere?
What could the future look like?

Six things to get right

Call to action

References

01_Engagement
02_Design
03_Making the case
04_Approvals
05_Delivery
06_Measurement
This framework has been created to help governments, practitioners and communities implement tactical urbanism installations more effectively to achieve positive community outcomes.
Introduction

This document sets out global examples to learn from and draws on these to define ‘six things to get right’ in the framework. It is intended to be used as a guide to prompt best practice throughout the process.

Whilst the United Nations Sustainable Development Goals are long-term goals, the role of tactical urbanism in achieving these should not be underestimated.

A well-designed, community-supported installation may be intended to be short-term in nature, but if it achieves measurable, much needed outcomes, it is likely to become a pilot and ultimately develop into a more permanent solution.

These measurable outcomes across many installations in the city may even change the way we undertake benefit analyses in business cases for the future.

Tactical urbanism encompasses changes and adaptations to our existing places and city systems in order to quickly meet the needs of communities.

It can range from using the space of our streets to prioritise walking and cycling to planting community gardens in empty plots and changing leases in empty retail properties to support new businesses.

These small and large actions – both from top-down policy and bottom-up intervention — represent a significant opportunity for our cities to meet the immediate needs of our response to COVID-19 and to implement lasting changes that contribute to meeting our Sustainable Development Goals.
The current crisis has led governments, businesses and communities everywhere to reflect on fundamental issues.

How we work, live, move around and socialise has changed forever, something that we could never have imagined just a few months ago. We all ask: what in our standard practices and methods should we retain or stop? At the same time we also ask: what do we do now to build a successful future in a much changed environment?

The agenda for all of us is as much about re-thinking as re-starting. About not just ‘bouncing back’ but ‘bouncing forward’.

At Arup we believe this era will be known as much for the collective innovation of governments and civil society in the face of crisis as it will be for the extraordinary fortitude shown by all in the face of this common threat.

Such innovation has taken many forms. At Arup, we are reflecting on a range of innovative initiatives through a series of thought leadership papers. Amongst the most immediate and impressive responses, great impact has been seen in what has become known as ‘tactical urbanism’. Although many of these kinds of initiatives and projects we are seeing under this heading originated before COVID-19 – from community activism, leading-edge local and national governments or progressive businesses – the crisis has dramatically accelerated their initiation, design and implementation, as well as their embrace by decision-makers, opinion-formers and indeed the wider community.

The moment for tactical urbanism – of initiatives which provide immediate and usually cost-effective but imaginative solutions to current urgent needs – has come.

In this document we identify some of the most exciting initiatives taking place globally and in Australasia where we are seeing exemplars of tactical urbanism happening. We celebrate this leadership but also do two things. Firstly, we share our ideas about best practice and useful ways of taking innovative ideas into reality.

Secondly, we stress the importance of linking the tactical and short-term with the strategic and long-term.

We have a unique opportunity – by showcasing the advantages and public benefits of tactical urbanism and by prototyping exemplary change, quickly and cheaply – to change behaviours and attitudes in a transformative way that becomes more permanently embedded and are not undone as we emerge.

Arup’s mission is to help shape a better world: for us tactical urbanism is a key step forward from this crisis to that aim.
The current time is the world’s largest natural experiment. We must take this immediate opportunity to achieve change and then reflect on the benefits in the short-term for longer-term strategic change and permanent benefits.
Unprecedented times

There is a window of opportunity for governments and communities to take back the streets overtly or by stealth through ‘tactical urbanism’, pushing against private car road space dominance to create more space for people to walk, cycle, live and play safely.

Through these unprecedented times there is a unique opportunity to establish and lock in behavioural changes and new daily routines to create longer-term benefit and reallocate land currently given over to road space.

With COVID-19, the world has gone into shock, resulting in travel and mobility patterns changing overnight. We are likely to emerge in the coming months to a very different way of living where many of us may not be able to go back to previous working styles and locations for some time to come.

This poses some interesting questions for our cities:

• Will social distancing require greater space for people to congregate safely within the public realm?
• Will we need to reallocate our streets in our suburbs for lives spent closer to home?
• Will we really shift to walking and cycling en masse?
• Will pre-assigned shift patterns in offices be needed to maintain social distancing?
• Will we have low demand on public transport modes as we choose ‘safer’ forms of transport?
• Will we need more facilities in our suburbs for greater levels of working from home?
Now that we are beginning to emerge and are looking to recover, we are observing common trends:

- Reduce cardiovascular disease, diabetes, stroke and some cancers
- Improve the immune system
- Improve quality of sleep
- Improve mental and emotional wellbeing
- Reduce risk of depression
- Improve air quality
- Reduce traffic noise
- Make streets more pleasant for active mobility (that includes walking, cycling and personal mobility devices).

Car use is returning faster than the use of other modes

Cycling and use of personal motorised devices (PMD) not shown in the Apple data, is becoming increasingly attractive as a viable and safe mode of travel

External spaces outside business premises are being used for queuing or as extension areas for customers to be able to socially distance

Offices are no longer operating at full capacity and shift patterns are being encouraged

Streets that have been quiet for months and used by communities are beginning to fill up with cars

Working from home is continuing and indications are that more than 70% of desk based staff may continue to work from home for 2-3 days a week going forward

Outdoor environments for gatherings and social interaction are being preferred over indoor environments
Australia

New Zealand

Singapore

Source: Apple COVID-19 mobility trends report
COVID-19 response, solutions and benefits

In recent months of lockdown we have experienced a time for understanding and adjustment to the virus threat that we face.

We must now understand how we have changed in our preferences, the challenges that these create and the potential solutions going forward.

There are preferences emerging from the trends that we are seeing as a result of COVID-19 that create many challenges for how our cities need to operate going forward.

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There are preferences emerging from the trends that we are seeing as a result of COVID-19 that create many challenges for how our cities need to operate going forward.
Most preferences contribute to numerous challenges, compounding their impact. This means that it is imperative we find increasingly integrated and clever solutions.

Solutions are numerous and can be infrastructure and service improvements as well as regulatory change.
What is happening elsewhere?

The rest of the world is already implementing great solutions successfully. Some examples are listed here.

**Boston, USA**

**Priority for public transport**

One lane of a primary road will be reserved for buses. Originally as a temporary measure, will now become permanent.

**Jakarta, Indonesia**

**Enhanced areas around public transport stations/stops**

Using low-cost materials like paint and planters to reclaim street space and improve safety and comfort for pedestrians and cyclists.

**Paris, France**

**New cycle lanes and cycle lane widening**

Paris is rolling out 650km of emergency bike lanes using semi rigid delineator posts and traffic barricades.

**São Paulo, Brazil**

**Suburban area improvements**

Urban redevelopment and road safety project that quickly transformed the precinct into a safe and secure area for pedestrians, completed in the space of one day.

**Brisbane, Australia**

**Safe routes to school**

Smart beacons to alert parents automatically when their child arrives at school plus an app to identify safe routes to school.

**Austin, USA**

**Pedestrianised streets**

Austin opens first batch of ‘healthy streets’ in response to coronavirus pandemic.

**London, UK**

**Pavement widening**

Wider pavement went in overnight in Brixton to help people maintain appropriate social distancing in busy locations.

**Vancouver, Canada**

**Shared space streets**

Permanent closure of certain roads to create a pedestrianised block that encourages arts and culture.
London, UK

**Full or half closure of streets**
Much of central London will be closed to vehicles each day to support an increase in the number of people walking and biking.

Brussels, Belgium

**Greenlights 30km/h zone**
The driving speed in the Brussels-Capital Region will be 30km/h from January 2021 and will apply to cars, PDMs, cyclists and public transport buses.

Cardiff, Wales

**Reallocation of road space**
Plans have been drawn up to remove car parking to ensure that the pavement can be safely extended into the highway for the public to use.

Suzhou, China

**Data gathering and analytics**
A smart bus transit platform analyses crowd distribution inside buses in near-real time and identifies the volume of passengers in each vehicle through smart transit cards.

Calgary, Canada

**Use of on street parking for local businesses**
Calgary has allowed for more pop-up patios to aid business recovery.

San Francisco, USA

**Enhanced public realm**
San Francisco Mayor says restaurants can take over city sidewalks, parking spots and streets.

Santiago, Chile

**Local treatments around public buildings and places of worship**
Creation of parklets and mini parks around the city that host pedestrians and small gatherings.

Tampa, USA

**Regulatory changes**
Tampa has temporarily suspended approval requirements for restaurants to expand operating space in designated areas.

Beijing, China

**Bike hire and other bicycle infrastructure**
Beijing cyclists now average 2.4 kilometres per ride, a 69% increase from pre-pandemic using bike sharing schemes.

California, USA

**Improved walking routes to parks**
A park plan has been developed that prioritises specific park improvements that residents wanted to see in the near-term and long-term.

Melbourne, Australia

**Play streets**
A community-led plan has been developed to make temporary play spaces by closing streets to traffic creating better connected neighbourhoods.
What could the future look like?
1. More people and less cars
2. Healthier people
3. Young and old out playing together
4. Office workers eating in outdoor areas
5. Dining areas in streets
6. Wider footways
7. More landscaping
8. Reduced road widths
9. Better air quality
10. Businesses using reallocated road space
11. Economically vibrant areas around bus and train stations
12. Cycle lanes and pedestrianised streets
13. Exercise class or play happening in the street
14. Additional connections and crossing points
tactical urbanism installations achieve positive community outcomes
Long-term strategic change means not just a response to manage lockdown, but a genuine attempt to harness behaviour change for the future and lock in the benefits.
Six things to get right

Our response to embrace change
Achieving long-term strategic change

Focus areas for government

- Engagement
- Measurement
- Design
- Delivery
- Making the case
- Approvals

This tool can be used as a framework to guide innovative thinking for your tactical urbanism locations and ideas.
Six things to get right

1. The residential and business community
The community may wish to hold events, group exercise or performances. These should be supported where possible.

Ask ‘how’ not ‘if’ an installation should occur and maintain open dialogue throughout the process.

Sometimes the community just needs to be given permission to do something for it to happen.

2. The most vulnerable first
Consider systemic inequities. Which communities are most vulnerable and at risk of exposure? Help these communities first.

3. A set of clear objectives
• For each tactical urbanism installation, be specific about the purpose, for example is it to provide additional space to alleviate over used parks, create additional space, or improve access for emergency services?
• For the broader set of installations, don’t do them in isolation and where possible use them to create much needed local connections or improvements.
• For the different lockdown phases that are likely to occur.

Support to citizens to be stewards and champions in their places
Establishing an individual or set of individuals across a community as champions for the installation is a proven method of retaining community support and getting it right. If created and supported from the outset, the process will be more effective in achieving community led outcomes.

Governments
Engaging with governments to promote in-house champions to collaborate widely across departments and agencies.

We are not just economies, we are communities.
Sometimes the community just needs to be given permission for it to happen.
Case studies showcasing successful Engagement

**Barcelona, Spain**

**Bruum Ruum! Interactive public lighting installation**

This dynamic installation responds to environmental sound by changing the shape and colour of LED arrays embedded in the street, allowing residents to interact with their city.

**Various cities**

**Annual ‘park(ing) day’ temporary public space initiative**

Critiquing a lack of urban public space, Park(ing) Day invites people to occupy metered parking spaces for a day, converting them into temporary parks or other public amenities.

**London, UK**

**Arup’s FitzPark**

Parklets can be retrofitted to suit the needs of their street type and context. Arup’s FitzPark is an example of a community street, inspiring ecology, meeting and dwelling.

**Santa Monica, USA**

**‘Dating app’ planning consultation tool**

A smartphone app that shows residents a series of images and asks them to ‘swipe’ yes or no answers to simplify and democratise planning processes in order to inform a community plan.
Six things to get right

1. The different phases of lockdown
   The design should consider the emerging phase (with different proportions of community emergence), recovery pre-vaccine and recovery post-vaccine.

2. The right behaviours
   Visual cues in the design to remind users that they cannot revert to behaving the way we always have in this new space – stickers or signs showing spacings or directions for movement are important.

3. Maximum benefits
   Consider the wide range of benefits that could be achieved and create designs that maximise these i.e. use landscaping wherever possible to improve air quality and contribute to mental health benefits.

4. Safety
   Include safety experts in all stages of design and delivery to speed up the process of developing acceptable solutions and gaining approval.

5. The night
   Use lighting and reflective material as a cheap and interesting way to deliver messages about the acceptable use of spaces and to provide visibility of the space at night.

6. Long-term behavioural change
   Consider training and educational areas to nudge continued positive behaviour change. Treat bike shops as essential services and create special zones around them for strong social messaging around ‘what others are doing’ i.e. bike safety training areas or maintenance areas.

The best designs are those that are creative in responding to the real needs of the area and result in longer term positive change – they will be talked about and copied.
### Case studies showcasing successful Design

<table>
<thead>
<tr>
<th>Case Study</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amsterdam, Netherlands</td>
<td><strong>Recycled plastic public bench</strong>&lt;br&gt;A prototype two-seater public bench, 3D-printed from waste consumer plastic, aims to encourage local recycling while creating useful public street furniture as part of a circular economy.</td>
</tr>
<tr>
<td>Cartagena, Colombia</td>
<td><strong>Community night-time lighting scheme</strong>&lt;br&gt;This urban lighting project developed a socially-engaged methodology to design night-time lighting, helping to build community connections and improve security while also responding to local characteristics.</td>
</tr>
<tr>
<td>Various Cities</td>
<td><strong>‘Railings’ public sound art project</strong>&lt;br&gt;This guerilla art project tuned the metal bars of sidewalk railings throughout several European cities to play ‘The Girl From Ipanema’ when a passerby drags a stick along them.</td>
</tr>
<tr>
<td>Toronto, Canada</td>
<td><strong>Modular street paving system</strong>&lt;br&gt;This prototype paving system explores the potential to rapidly adapt the function of city streets, with individual hexagonal modules allowing a range of uses, experimentation and adaptability.</td>
</tr>
</tbody>
</table>
Six things to get right

1. A senior champion
   With the support of a local politician or community leader, tactical urbanism is more likely to be successfully implemented and received.

2. Global evidence
   Tactical urbanism is not new – connect with other cities to find evidence that can be applied locally.

3. Local measurements
   All new installations should have benefit measurement plans as part of the design and delivery stages.

4. Community support
   No one knows the local issues more than the local community – their support is essential.
   Engage them from the start with a variety of methods including co-design and involving people of all ages, including children.

5. The broader context
   Understand and use the broader context such as the availability of open space, housing density, traffic levels, deprivation and pedestrian overcrowding.

Public health benefits must now be preferred over standard business case benefits – even if they cannot be measured or are hard to measure.
Case studies showcasing successful urban engagement projects

**Making the case**

**Gurugram, India**

Bike-for-car parking reclamation initiative

In the first initiative of its kind in India, four car parking spaces have been replaced with secure racks for up to 40 bikes, helping to support active transport and reduce congestion, pollution and road deaths.

**Bogotá, Colombia**

Emergency bike lane expansion

Bogotá has turned 76km of vehicle lanes into emergency cycle routes, increasing capacity by 14% in order to reduce public transport use, lower virus transmission rates, and improve air quality.

**Montreal, Canada**

Montreal ‘21 swings’ collaborative engagement project

This set of public swings play individual notes – users must collaborate to make music. The installation revitalised a disused area in the city centre, encouraging play and community interaction.

**São Paulo, Brazil**

Urban child engagement programme

Engaging underprivileged children in São Paulo with their community surroundings benefits the children involved and increases the safety of public space.
Six things to get right

1. Compelling community supported schemes

Compelling community supported schemes
Community support will help to secure the political mandate.

2. Existing schemes

Existing schemes
Where there are existing approved schemes or existing city initiatives to connect to, these should be brought forward and implemented as a pilot, perhaps pushing the boundaries of sustainability and accessibility further than originally envisaged.

3. Solutions to known problems

Solutions to known problems
Seek to create installations that connect up other pieces of infrastructure or public space and ‘fix’ aspects of the city that are well known to be inadequate.

4. Flexible solutions

Flexible solutions
Consider time limits on use if needed for approvals – installations do not necessarily need to be 24 hours, seven days a week, if weekday use needs to be different.

5. Changing the rules

Changing the rules
Where government rules and regulations act as blockers, be clear about this and promote advocacy to negotiate change for future initiatives.

Regulatory change as a consequence of high quality tactical urbanism, proving benefits beyond the norm, should be a long-term strategic change objective.
Case studies showcasing successful Approvals

01 02 03 04 05 06

**Tainan, Taiwan**

Abandoned shopping mall re-use scheme
A disused shopping mall has been partially demolished and ‘recycled’ as a public park, lagoon and play area, recognising the decline of physical retail spaces and their potential for civic re-use.

**London, UK**

Community supporting ‘meanwhile’ space
Contracts for the fixed-term use of vacant plots enable a culture of ‘meanwhile use’, replacing empty urban space with creative and community-engaged initiatives.

**London, UK**

Hackney play streets
Residents close off their streets to through traffic for a few hours weekly or monthly, so that children can play outside more safely and neighbours come together – making streets friendlier for all.

**Medellín, Colombia**

‘Library Parks’ education and community safe space initiative
A network of ten library parks provide inspiring and safe spaces for education and community engagement, as well as acting as a catalyst for social regeneration in the poorest areas of the city.
Six things to get right

1. Affordable
   - Inexpensive traffic cones, construction barriers and bunting have been used to great effect in some cities. Decking and tarmac are more robust materials being used for quick delivery.

2. Quick
   - Opposition is likely to reduce once an installation is complete and in use, and benefits can be seen.

3. Inclusive
   - Encourage community and local business involvement in the delivery – i.e. bike maintenance or hire areas for local bike shops.

4. Flexible
   - Flexibility can be spatial and temporal. This is the benefit of tactical urbanism – designs are not fixed. Installation ideas are not always perfect first time. It is important to take the idea, create it and then to iterate quickly if needed. High quality monitoring and evaluation of the design must be embedded.

5. Creative
   - Temporary materials could be used to provide artistic interest or new partnerships formed to create clever installations with little cost or time required.

6. Practical
   - Street furniture used must be durable and easy to clean.

7. Visible
   - It is important to have visible management of the street and an ability to adjust layouts if required. This can be through redeploying traffic wardens or other council employees or volunteers from local businesses and communities.

8. Clear
   - Messaging of intended use such as ‘streets for social distancing’ or ‘use this street to exercise’ will help to reduce inappropriate use and encourage self-monitoring of behaviour.

9. Clean and safe
   - Clear cleaning and sanitising procedures must be put in place.
Case studies showcasing successful Delivery

01 02 03 04 05 06

**Montreal, Canada**

Public realm light and sound installation
Impulse’s luminous, sound-emitting see-saws help to organise and activate a city-centre public space, encouraging footfall and community use throughout the year, regardless of weather.

**Surrey, UK**

Starpath UV illuminated sprayable coating
This sprayable coating of light absorbent particles harvests ultraviolet radiation during the day and provides an illuminated surface at night.

**London, UK**

Voice-activated laser spectacle
This laser-based light installation manifests people’s voices as colourful animations above and around them, encouraging collective design among groups of citizens and transforming public space.

**Bogotá, Colombia**

Children’s priority zone pilot project
Several urban interventions, including mural-painting events and traffic calming, are helping to create a safer and more child-friendly local environment.
Six things to get right

How to gather data

- Traffic wardens could be deployed to maintain temporary arrangements and to monitor use
- Existing cameras can be used to monitor installations and use
- Volunteers from the community can help to monitor use
- Tube counters can be used to gather data
- Data sets and feedback can be gathered from third parties or local businesses
- Sensors for noise and air quality
- Qualitative observations.

What to measure

Safety

- Ability for greater physical distancing to occur
- Road safety changes
- Air quality improvements
- Changes made to the installation by the public.

Comfort

- Noise level changes
- Time spent in the installation
- Temperatures experienced and different uses under different weather conditions.

Experience

- Feedback from residents and businesses
- Congestion reduction
- Changes in surrounding streets
- Activities held by community groups or businesses
- Response to the installation through social media feeds
- Opposition activity from business/car drivers/deliveries etc.

Culture

- Diversity of users
- Where users live and how they have travelled there
- Arts and culture activity occurring, formal or impromptu
- Regularity of visitor usage e.g. weekly or single use.

Activity

- Physical activity occurring
- Active mobility
- Uplifts in spend in retail areas
- Times of day and night most active and least active.

The importance of measuring the benefits of new installations cannot be overstated. With this local evidence, more can be done.

Longer-term measurement of benefits should also be considered such as property value increases, increased retail sales or new businesses.
Case studies showcasing successful measurement

**Brisbane, Australia**

*Walkable comic strip street art initiative*
Unoccupied shop fronts in Brisbane’s South Bank area are being transformed into a giant comic strip, temporarily improving the pedestrian façade and increasing local footfall.

**New York, USA**

*‘State of Place’ quantified urban data analytics platform*
This amenity-indexing algorithm attempts to quantify the ‘pedestrian appeal’ of given locations, using hard-data tools to present an economic case for prioritising walkability in new developments.

**Ottawa, Canada**

*Public ‘seniors’ exercise space*
A small park dedicated to older people – including exercise equipment, social seating areas and spaces for low-impact sports – helps to improve health, wellbeing and instil a sense of safety.

**Chicago, USA**

*‘The Power of Trees’ urban greenspace benefits research*
This academic study investigated the effects of greenspace on residents of urban centres, finding measurable benefits in wellbeing, socialisation and safety from regular exposure to nature.
We are not just economies – we are communities
Call to action

Ambitious targets are the best way to achieve sustained, significant and long lasting change in long-term strategic planning.

Think about the scale of your town or city and set some targets

A typical city might seek to achieve...

- 10% of streets to be pedestrianised or shared environments
- 100km of cycle lanes
- 10,000m$^2$ of new public space
Now is not the time to continue with the traditional ways of doing things.

If we don’t nudge behaviour, streamline our processes and develop stronger partnerships to remove barriers and achieve collective, inclusive benefit – generated by the people who live, work and play in our communities – then we will miss the best opportunity in decades to transform our cities.

Why not challenge Finland on the happiness index and Holland for cycling?

History will judge the cities that do embrace this change, and the cities that don’t.
References

1 / CDC (2019) Physical Activity Prevents Chronic Disease. page 9


9 / https://www.itdp.org/publication/walkability-tool/ page 11, 15

10 / NACTO: City Transportation Action Updates page 11, 12


12 / http://www.hackneyplay.org/playstreets/home/ page 29

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