



Applying Business Models to Urban Challenges

The Exeter Story

A case study in the Breakthrough Cities series

Developed by Volans,
in partnership with Innovate UK
and Exeter City Futures



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Exeter City Futures (ECF) is an independent Community Interest Company bringing local government, citizens and the private sector together to tackle Exeter's transport and energy challenges in a way that reduces social inequality and contributes to economic growth.

At its core ECF offers a process for defining problems, building partnerships to find solutions, and managing and measuring progress.

ECF acts as a city programme office, owned by key stakeholders from across the City and supported by a network of businesses and community groups, to ensure that positive impact is delivered for the region.

Exeter City Futures Website:
<https://www.exetercityfutures.com/>

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Part 1: Introduction

Transforming our cities

Building a prosperous future will depend on our ability to transform our cities. Half the world's population currently resides in cities, and over the next 30 years an average of 1.5 million people per week will be joining them. Increasingly, and at an accelerating rate, cities will be where people's needs are met, economic value is created and where we churn through the planet's resources.

Luckily, cities are also our greatest engines of innovation. Unlike companies, which typically begin to favour efficiency over innovation as they scale, cities remain dynamic networks of action and agents of change. But where will the necessary transformation come from?

It's hard to ignore the role of technology. As we enter the digital economy, technology is allowing us to do more with less, and it's happening at an exponential pace. But technology alone will not create the transformations we need. It takes business models to connect what technology enables with what the marketplace wants; or, in the context of cities, what citizens want. In this sense, technology doesn't transform cities, but business models can.

Business models are reshaping our cities

If cities are where most of our needs are met, then it's no surprise that today we see many of the most disruptive business models playing out in cities. Take urban mobility as an example: from buses and cars, to bikes and scooters, organisations are finding ways to connect citizens with on-demand, connected transport in a way that creates better affordability and convenience. We are witnessing a boom in meeting individual needs, and it is reshaping our cities.

When a technology and business model converge, the resulting innovation often proliferates far quicker than anyone anticipates. In 2014, for example, the global fleet of bikes available for public use was less than 1 million; by 2016 there were over 2 million; today there is an estimated 18 million. It's incredibly difficult to predict this sort of growth, let alone plan for it.

Greater synergy needed in cities

Imagine being a city authority when, out of nowhere, a fleet of thousands of privately owned dockless bikes land on the pavements of your city. The new entrants appear to be meeting the travel needs of your citizens, but it's poorly managed and undermines existing infrastructure and policy.

What's worse, as city authorities begin to try and work with, and plan around, these new entrants, they are discovering that in some cases they can disappear just as quickly as they appeared.¹ These companies have relentlessly pursued meeting individual needs whilst overlooking the more complex and nuanced needs of the city. When building transformative business models, they are discovering that context matters.

¹ Helen Pidd, "Mobike pulls out of Manchester citing thefts and vandalism", *The Guardian*, 5 September 2018.

<https://www.theguardian.com/uk-news/2018/sep/05/theft-and-vandalism-drive-mobike-out-of-manchester>

The context for each city is different. But what is consistent is that they are each a complex, dynamic system. Designing a business model that generates a synergistic relationship with that system is no easy task.

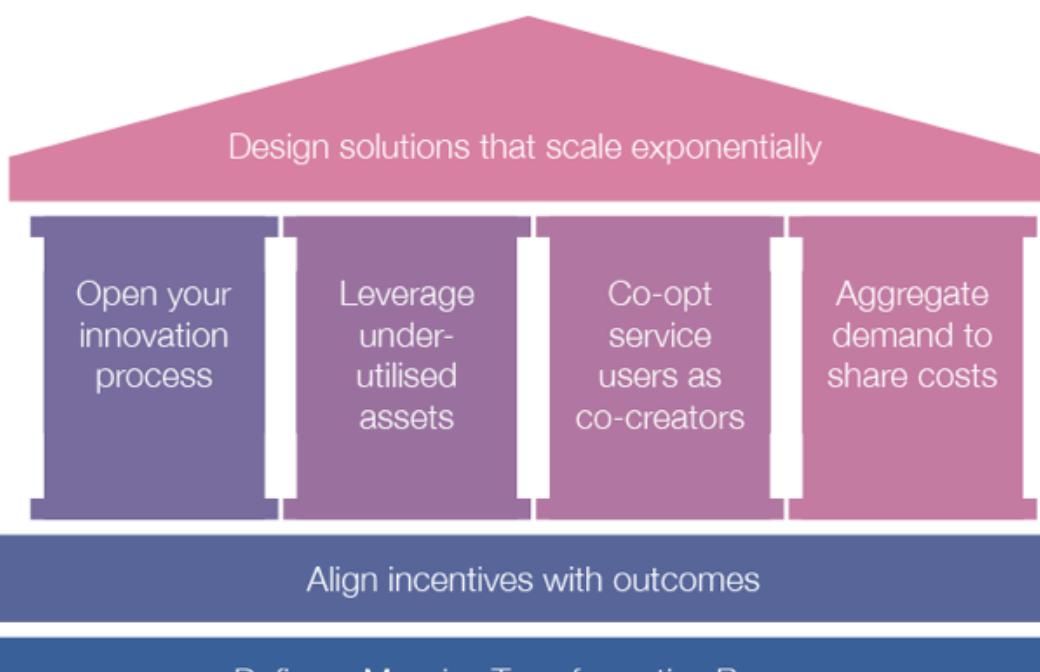
A city authority may have the best understanding of what the right thing for the city is — they might even have goals or a set of success indicators already in place — but often they struggle to keep up with new business models being deployed by players across the city. Conversely, it's evident that there are highly innovative startups who know exactly how to design business models that use resources efficiently to meet the needs of citizens; but in doing so are not necessarily achieving the right goals for the city.

Volans and Innovate UK have been exploring how city authorities and startups can collaborate to create business models that are both efficient and effective. Creating these business models will be critical to transforming our cities for the better.

Business Model Principles for Transformative Urban Innovation

In our 2018 report, *Business Models for Solving Urban Challenges: An Action Guide for City Authorities and SMEs*, we outlined seven principles that city authorities, startups, business innovators and other stakeholders can draw on to enable transformative change (see Box 1).²

Box 1: 7 business model principles for transformative urban innovation



Source: Volans & Innovate UK (2018). *Business Models for Urban Challenges: An Action Guide for City Authorities and SMEs*

² Volans, *Business Models for Solving Urban Challenges: An Action Guide for City Authorities and SMEs*, May 2018.
<http://volans.com/files/volans-innovate-uk-action-guide-business-models-cities.pdf>

We have since taken this work to the city of Exeter. Working with **Innovate UK, Exeter City Futures** and other local stakeholders including the **University of Exeter Business School** — our goal was to discover how these principles apply to the city's ongoing efforts to tackle congestion.

Part 2 of this report tells the Exeter story. To understand the city's experience, we held the a half-day workshop with a diverse group of 30 individuals representing the city council (and other neighbouring county and city councils), business (including many innovative startups) and civil society. We explored existing use cases where the principles have been applied, and uncovered future opportunities for further application of the principles. We also conducted interviews with key stakeholders of some of the use cases to learn about the process behind applying the principles — what helped, what worked, what remains a challenge.

In Part 3, we reflect on the Exeter experience, and outline next steps for city authorities and other stakeholders looking to collaborate and scale positive urban innovation as they implement these business model principles.

Part 2: The principles in action in Exeter

The challenge

Congestion costs Exeter up to £63m each year. In 2017, this translated to drivers sitting for an average of 24 hours in rush hour congestion, or £1,068 per year for each driver. And Exeter isn't alone. The UK is ranked the world's 10th most congested country — with drivers wasting an average of 31 hours in rush hour traffic last year.³ The impacts of congestion also extend to the health and wellbeing of citizens — both in terms of air quality as well as the dominance of traffic and parking in public spaces.

Exeter City Council partnered with other key city organisations and the private sector to create Exeter City Futures, a community interest company that is set to deliver 12 new transformational goals to make Exeter "congestion free and energy independent" by 2025 (see Box 2).

Box 2: 12 goals to help Exeter become congestion-free and energy independent by 2025⁴

- All residents will have access to locally generated renewable sources of energy.
- The overall energy consumption of residents and businesses in Exeter will be reduced.
- New building developments in Exeter will generate more energy than they consume.
- Residents and businesses will have access to the right tools to measure their energy use in order to reduce consumption and increase energy efficiency.
- All residents will be able to live in an affordable home which is energy efficient and healthy.
- The private car will no longer dominate the city centre and there will be networks of priority routes for active and public transport vehicles.
- Waste will be seen as a resource and recycled wherever possible.
- The number of residents living and working inside Exeter who choose to use active transportation over vehicles will be raised to 50 percent.
- Journeys in Exeter will be reliable and the transport network will be resilient to major incidents.
- Exeter will have clean air through the reduction of pollutants from private cars and fossil fuels.
- Exeter will have the finance and capability to develop the Greater Exeter region in a way that delivers affordable homes to everyone, reduces relative congestion and embraces the energy independence values of the city.
- Exeter will be an engaged data-aware and entrepreneurial city which has the skills to analyse and address the challenges that it faces.

³ Rom Preston-Ellis, "Congestion is now costing Exeter £63m every year, new figures show", *DevonLive*, 6 February 2018.

<https://www.devonlive.com/news/devon-news/congestion-now-costing-exeter-63m-1177063>

⁴ At our workshop, and in developing this report, we focused in on the goals that relate most closely to tackling congestion in Exeter — namely goals 6, 8 and 9.

In this section, we look at three examples in Exeter that demonstrate the business model principles in practice, uncovering the why, who and how behind the story, as well as remaining challenges and considerations.

Story 1: Exeter City Council and Exeter City Futures — Building a shared mission for the city

Background

In 2017, Exeter City Futures announced its vision to help the city of Exeter become “congestion free and energy independent by 2025”. In September 2018, it announced twelve transformation goals to make this vision a reality (outlined in Box 2). The goals are aimed at galvanising and aligning action by the various city-level stakeholders working to address congestion and energy dependency in city. To date, 60 organisations across Exeter have signed up to the goals. The goal is to have 500 organisations on board by the end of 2019, representing the wider ecosystem across the city.

In 2017, Exeter was named as one of the fastest-growing cities in the UK. Under its new strategic plan, the Greater Exeter region hopes to deliver up to 50,000 new homes over the next 20 years as the city attracts more investment in business and the city's expanding university. All this will place further pressure on Exeter's existing road infrastructure. Finding transformative mobility solutions is critical if the city is to continue its current growth trajectory.

In addition to the goal of becoming congestion-free, the city is also on a mission to become energy independent by 2025. Achieving the two goes hand-in-hand. Today almost half of the energy use in Exeter (10Twh annually) comes from fuel used in the city's cars. Reducing the number of cars in the city would simultaneously ease congestion and reduce energy consumption.

Define a Massive Transformative Purpose (Principle 1)

Prior to defining the city's shared vision to become congestion-free and energy independent, many organisations across the city were already separately directing efforts towards related agendas. Exeter City Council had committed to a carbon neutral target, and there were initiatives from **Devon County Council**, the **University of Exeter**, as well as engagement in nationwide schemes by **Low Carbon** and the **Met Office**. However, the city lacked a shared vision to focus and coordinate these efforts. In the months that followed, a Massive Transformative Purpose (MTP) for the city was conceived — for Exeter to become congestion-free and energy independent by 2025.

An MTP is not representative of what's possible today; it's aspirational and focused on creating a different future. First described in the book **Exponential Organizations**, co-authors Mike Malone, Yuri van Geest and Salim Ismail observed that all the fastest growing organisations they looked at had an MTP.⁵ The bold ambition of an MTP is what ignites passion in individuals and groups; it's what engages people's hearts and minds to work together to realise their goal; and it's what makes an organisation effective today and tomorrow.

⁵ Salim Ismail, Michael Malone, & Yuri van Geest. *Exponential Organizations: Why new organizations are ten times better, faster, and cheaper than yours (and what to do about it)*. Diversion Books, 2014.

In the context of Exeter, developing an MTP for the city has been critical to providing a common vision for stakeholders across the city that ignites excitement and a sense of shared purpose. Whilst the goals are co-owned by stakeholders across the city, there was a further need for a neutral body to provide robust, city-wide governance and keep track of whether the city is meeting the goals. ECF was established as a Community Interest Company (CIC) with this in mind. At its core, the role of ECF is to define problems, build partnerships and measure progress against the city's goals.

ECF's board comprises leaders of local authorities and major institutions within the city, including Exeter City Council, Devon County Council, the University of Exeter and **Exeter College**. (The **Royal Devon & Exeter Hospital** is set to join in early 2019). Together, they represent the major employers within the city, enabling an additional governance mechanism for overseeing progress against Exeter's goals. ECF also convenes a Partner Network which ensures business and residential communities are engaged in delivering the goals.

Opening up the innovation process (Principle 3)

ECF has successfully established an MTP that has been embraced by stakeholders across the city. Importantly they have also successfully put in place an inclusive and robust governance mechanism to track the achievement of the MTP.

However, achieving Exeter's new vision will require unprecedented levels of innovation. As ECF continues to engage stakeholders and promote innovation within the city, it will also have to begin engaging innovators from outside Exeter. Ensuring a common appreciation and engagement with the city's new vision will be crucial to achieving the 12 goals.

ECF has defined an approach to innovation that seeks to define clear pathways that translate concepts into solutions to the City goals. ECF's own innovation programme **Exeter Velocities**, supports startups and social enterprises to develop and validate new products and services that meet the needs of the City.

Co-opt service users as co-creators (Principle 5)

If the MTP is to successfully inspire individuals and groups to work together, it must be reflective of the needs of everyone in the city — from Exeter City Council, to businesses and organisations in Exeter, as well as individual residents of the city. Through a process led by Exeter City Futures, an extensive engagement campaign was launched with major employers, educational institutions, community groups and individuals in the city. The result of the engagement was a series of co-created goals that together would enable the city to tangibly achieve its MTP, whilst reflecting the contributions and interests from stakeholders across the city.

The engagement process also remains an ongoing one, with ECF given the scope to incorporate new feedback into the goals. For example, road safety had been absent from the initial set of 12 goals, but was recently worked in.

Another key to driving innovation is the opening of city data to enable entrepreneurs and others across the city to discover insights and develop solutions. Launched as a collaboration between ECF and Exeter City Council, **Exeter Data Mill** brings together different datasets across the city and seeks to break down long-standing silos, whilst providing ECF with the means to measure progress towards the city's goals. ECF is working with key partners to help drive skills across the city to access and analyse this data, supporting a goal to be an 'Analytical City'.

Story 2: Royal Devon and Exeter Hospital — Aligning incentives to drive and scale new outcomes

Background

The Royal Devon & Exeter Hospital (RDE) is part of the Royal Devon & Exeter NHS Foundation Trust. The Trust is the largest employer in Exeter, employing around 8,000 staff. It serves a core population of more than 460,000 people in Exeter, East Devon and Mid-Devon, admitting more than 120,000 patients and holding 450,000 outpatient clinics each year.⁶

RDE, located in Wonford at the heart of the city centre, is particularly affected by congestion. In late 2017, the Trust began to consider new solutions for the hospital aligned with Exeter's wider vision of eliminating congestion citywide. The Trust has secured £50m in funding and plans to begin testing solutions in 2019.

The high number of journeys made by staff, patients and visitors to the RDE has been a significant cause of congestion in the city. Congestion in the local area and limited parking facilities at the RDE has also meant inconvenience and delayed or missed appointments, not just for patients and visitors to the hospital, but for the staff who work there as well. This represents additional costs to an already stretched budget, not to mention the impact on the hospital's efficacy and the wellbeing of both patients and staff alike.

In trying to reduce the number of staff journeys to and from the hospital, RDE acknowledged that staff accommodation units at the Wonford site were underused, underfunded and poorly maintained — making it an undesirable choice. This has also contributed to the Trust's difficulty in attracting and retaining talent.

Align incentives with outcomes (Principle 2)

As a strong supporter of the city's mission, RDE does not wish to include the relative addition of new parking spaces as part of their development plans. This approach aligns with new planning guidance in Exeter, geared towards preventing more cars being added to the city's roads but also presents challenges in terms of the solutions design.

Core to ECFs approach to city change is the facilitation of partnerships to address the challenges faced by the city. To address the challenges faced by RDE, a partnership was formed with another of ECFs member organisations, **Global City Futures** (GCF), in order for RDE to access strategic advisory services and help to identify commercially viable solutions that align and contribute towards the city's congestion-free mission.

Whilst the Trust is primarily budget- and risk-driven in its approach, the RDE and GCF partnership project is working to define a business case that considers open innovation approaches to procuring solutions and also includes analysis of the social and environmental aspects of the solutions being sought (e.g. inclusivity).

Co-opt service users as solution co-creators (Principle 5)

In developing the business case, the joint team from RDE and GCF worked closely with the Trust's board executive team and heads of department, as well as with various service users including key workers and patients at RDE to build a clear understanding of the needs and ideas as to potential solutions.

⁶ Royal Devon & Exeter NHS Foundation Trust website: <https://www.rdehospital.nhs.uk/default.html>

Engagement activities and workshops were held with key RDE stakeholders including heads of estates, finance, business development and human resources to understand department objectives, constraints and desired outcomes for the project from the perspectives of each stakeholder. The team also conducted an in-depth survey with staff at the Trust regarding transport concerns, appetite for onsite accommodation and key features of a preferred solution. These activities were fundamental to shaping the eventual solution requirements.

Open up the innovation process (Principle 3)

Before the team began to identify solutions for the hospital, they carried out soft market testing of the types of solutions already user-tested and deployed by building developers, housing associations, transport technology firms and others. This provided useful intelligence and supplemented the knowledge they had gleaned from hospital users.

Drawing inspiration from other cities, as well as trends and intelligence around the global cleantech market, the various solutions that are being considered to reduce or streamline travel journeys to the hospital while improving air quality in the area include:

- A modern housing village for staff at the Trust that incorporates various amenities on-site along with integrated transport options for residents.
- Setting up multiple outpatient appointment sites to reduce the number of required travel journeys into the city centre.
- An electric bike share hub connected with a digital booking system.
- Electric car sharing technology, and potential integration with driverless cars.

As part of the deployment and testing phase, the team plan to track the companies and operators to identify the models with the highest uptake. The chosen solution must ease congestion on Exeter's roads whilst also being an affordable, convenient and desirable alternative to existing transport means for both patients and staff.

Design solutions that can scale (Principle 7)

RDE and GCF recognise the need to future-proof the solutions that are being put in place at the hospital. At the same time, it is also about ensuring that solutions being deployed at RDE are modular enough to be upgraded and adapted over time in line with other technological developments. Part of this is ensuring ongoing alignment with the wider work of Exeter City Futures and its member organisations, who are developing a city-wide transport solution. This is a key benefit of the collaborative governance structure of ECF; ensuring coordination and focus of the individual efforts across the City to work for the benefit of all.

GCF and RDE have yet to design the model to cover the operational costs of the new solutions, but envisage a partnership approach involving users, the local council and commercial partners. Ensuring affordability and accessibility of the solutions deployed will be critical in solving the hospital's — and city's — congestion challenges.

Story 3: Co-Bikes and Co-Cars – Building a web of partnerships that can collectively scale impact

Background

Co-cars is an on-demand car club for people, communities and organisations across Exeter and the wider South West; providing access to low-emission, hybrid and electric (EV) cars without the hassle of ownership. In Exeter, the company also runs **Co-bikes**, the UK's first on-street electric bike network. It currently serves 2,000 bike and car users.

Set up in 2005, the company operates as a not-for-profit cooperative that re-invests surplus revenue into improving its service for the local community.

The city of Exeter is the perfect location for Co-cars' shared mobility solutions. With a historic road network and limited space to build additional infrastructure, innovative new mobility solutions are essential for meeting the needs of residents as the city continues to grow.

Co-cars has been part of co-creating the city's new vision to be congestion-free and energy independent by 2025. They have built a close working relationship with Devon County Council and Exeter City Council as part of the process, and Exeter City Futures has been supportive in raising awareness of alternatives to private car ownership across the city.

Leverage under-utilised assets (Principle 4) and Aggregate demand (Principle 6)

Privately-owned cars are, on average, used less than 5% of the time and usage is falling. With its car-sharing model, Co-cars estimates each Co-car replaces 15 privately-owned cars on the road. Furthermore, Co-cars' pay-per-use, on-demand business model means they can provide affordable access to a more sustainable means of transportation for its members. Whilst EVs are still prohibitively expensive for most individuals to afford, Co-cars provides its members access to EVs for just £4.75 an hour.

For commuters who are underserved by the existing public transport network, Co-bikes' fully electric fleet of bikes offers a convenient way for residents to connect with the transport network by covering the first and last mile of their journeys.

Co-opt service users as solution co-creators (Principle 5)

Co-cars describes itself as a company "built on partnerships". To build a viable alternative to car ownership they have built partnerships with local authorities, housing developers, private businesses and rail operators.

For example, one of the biggest strains on the existing transport infrastructure is the need to service new houses being built for Exeter's growing population. New planning policy from Exeter City Council created a requirement for car clubs in new developments. Co-cars, in partnership with Devon County Council, are supplementing these with new car clubs and electric bikes in targeted locations across the city to grow the network and provide the foundation of a future citywide shared mobility offer.

An upshot of Co-Cars' approach to partnership building is that it is creating a sense of community ownership amongst different stakeholders in the city. For example, they are getting letters of support when a new car hub is announced for a housing development.

Design solutions that can scale (Principle 6)

Co-cars has been cautious about growing too quickly, introducing only a small fleet of shared bikes into the city. Instead, it has focused on validating its ability to meet the needs of its users whilst remaining financially viable and gaining buy-in from key partners. This approach is in stark contrast to many global shared-mobility startups who, backed by venture capital, have pursued growth at all costs; often failing to effectively meet the needs of the cities they enter, or prove their revenue models are financially sustainable.

With a proven model, Co-cars is set to undergo expansion in 2019. Working with Devon County Council, more than £500,000 is being invested to provide over a dozen cars and 100 new bikes. By expanding the network, the hope is to create more seamless transport options for its users. A sufficiently dense network of shared cars and bikes will be a key factor towards getting users to make the behavioural shift away from vehicle ownership.

The experience of other bike-sharing schemes across the world has shown that each time a network doubles in size, usage of the bikes increases by three times or more. Co-bikes is quadrupling the number of bikes on its network in 2019, which they hope will see an exponential growth in user journeys.

Other opportunities

Cities around the world are beginning to integrate various modes of transport into a single mobility service, referred to as Mobility-as-a-Service (MaaS). A leading example is **Whim**. Originating in Helsinki, Whim launched in Birmingham in 2018 bringing together existing public transport, taxis, car-sharing and bike hire all under one app.⁷ The platform aggregates demand across the different services via the app, integrating journey planning and ticketing for users who pay a monthly subscription.

City-wide adoption of a MaaS model is a great example of aggregating demand. These models aggregate demand across multiple mobility providers, who, alone may not be a viable alternative to car ownership, but together are. Co-cars would welcome a MaaS model in Exeter and has actively been building relationships with the city's public transport providers to explore this possibility. The next test will be how new entrants may collaborate with existing providers to bring exciting mobility solutions to the city.

⁷ "Whim brings 'mobility as a service' to Birmingham", *Metro Report*, 6 April 2018.

<https://www.metro-report.com/news/single-view/view/whim-brings-mobility-as-a-service-to-birmingham.html>

Part 3: Rewiring collaborative action in cities

Reflections from Exeter

The city of Exeter finds itself at the beginning of an ambitious journey. It has successfully established a city-wide Massive Transformative Purpose, demonstrating a shared vision between the council, Exeter City Futures, major employers in the city, and others. This process has already led to meaningful collaborations across the city.

The process of defining Exeter's new vision has also opened up new conversations around questions such as:

- Use and ownership of data: with urban technology and digital platforms on the rise, who should control the data, and how might the value associated with the data be distributed fairly?
- Exeter's future economy: as the city grows, how might the wellbeing of its residents remain a key priority?

Beyond having a shared vision, the Exeter experience also shows the importance of having an independent body to drive and coordinate efforts across stakeholders, alongside an inclusive governance mechanism to provide broader oversight and accountability towards achieving the goals. With potential changes in the city's leadership over time, continued buy-in to this vision and governance structure will be critical.

It's too early to know whether Exeter will ultimately achieve its vision by 2025. But having a shared vision to unite the city has already unleashed tremendous positive energy and a willingness amongst different stakeholders to start taking joint ownership and finding new solutions.

Applying the Breakthrough Business Model Principles to cities

It is no surprise then that the 7 business model principles outlined in *Business Models for Urban Challenges* begin with 'Define a Shared Massive Transformative Purpose'. Much of the change that needs to happen in our cities, from solving congestion and poor air quality, to getting citizens to adopt healthier and more sustainable lifestyles, all require a complete reimaging of what's possible.

In bringing about radical change, how do we engage not just key organisations across the city, but end users as well — not just as recipients of change, but as co-creators of change? How do we take collaboration from conversation to action, and create real value for everyone in the city? Solving today's problems does not guarantee success in the future. As new challenges arise, how might cities future-proof their business models, avoid unintended consequences and continue to adapt?

The further 6 business model principles outlined provide a steer as to how organisations across the city can find the answers to these questions. We outline below 4 key steps that anyone seeking to drive transformative change in our cities can take.

Box 3: 4 steps to applying Breakthrough Business Model Principles for Cities

Why?

Why is this problem worth solving, and from whose perspective? Why might other stakeholders want to be part of the solution? How might we inspire them with a radical, shared vision for change?

Who?

How might we involve a wider group of stakeholders in the solution-building process? How do we attract and involve the right stakeholders, utilising the experiences, competencies and assets they bring? How can we involve them as solution co-creators, as early as possible?

How?

Who else can benefit from the solution and how might costs be shared? How can we maximise the potential for scale using a combination of the appropriate technologies and financing mechanisms?

What?

Will the product or service being created deliver meaningful social and environmental impact — for the city as a whole — in the present and the future? Is the product or service accessible, affordable and desirable for residents of the city to adopt? What incentives might enable different stakeholders to embrace the same goals?

We hope the Exeter example, and the steps outlined here, will be useful in helping city authorities and startups to start the right conversations and collaborations. Transforming a city to be fit for the coming decade will never be straightforward, nor will it be achieved by ‘click and drag’ solutions. We have attempted to understand some of the underlying principles of successful efforts by cities across the UK, and provide a basis for others to follow their lead. Annex A provides a list of further resources.

ANNEX: List of Further Resources

Reports and other resources

- Apolitical, “Approaches to “Smart Cities” must get smarter — here’s 5 ways to improve”, an article by Marni Wilhite, 11 December 2018. https://apolitical.co/solution_article/smart-cities-must-get-smarter/
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Other organisations and collaboration platforms

Global / Regional

- Apolitical, a live, global platform with examples of multi sector policy innovation and a corresponding policymaker network: <https://apolitical.co/>
- Citymart, a platform that connects city government employees to solutions: <http://www.citymart.com/>
- EIT Climate-KIC, a European knowledge and innovation community that aims to accelerate the transition to a zero-carbon economy: <http://www.climate-kic.org/>

UK-wide

- GovTech Catalyst, a new service aiming to connect small, emerging technology businesses with new solutions to public services: <https://www.gov.uk/government/news/the-first-govtech-catalyst-competition-launches-today>
- Future Cities Catapult, brings together businesses, universities and city leaders to accelerate urban ideas to market: <http://futurecities.catapult.org.uk/>
- Innovate UK Small Business Research Initiative (SBRI), provides a process to connect public sector challenges with innovative ideas from industry: <https://sbri.innovateuk.org/>
- Knowledge Transfer Network, the network partner of Innovate UK, links new ideas and opportunities with expertise, markets and finance through its cross-sector network: <https://ktn-uk.co.uk/>
- PUBLIC, helps startups to transform the public sector: <http://www.public.io/>
- The Public Sector Transformation Academy, designs and delivers development programmes to build capacity to transform public services: <https://www.publicservicetransformation.org/>