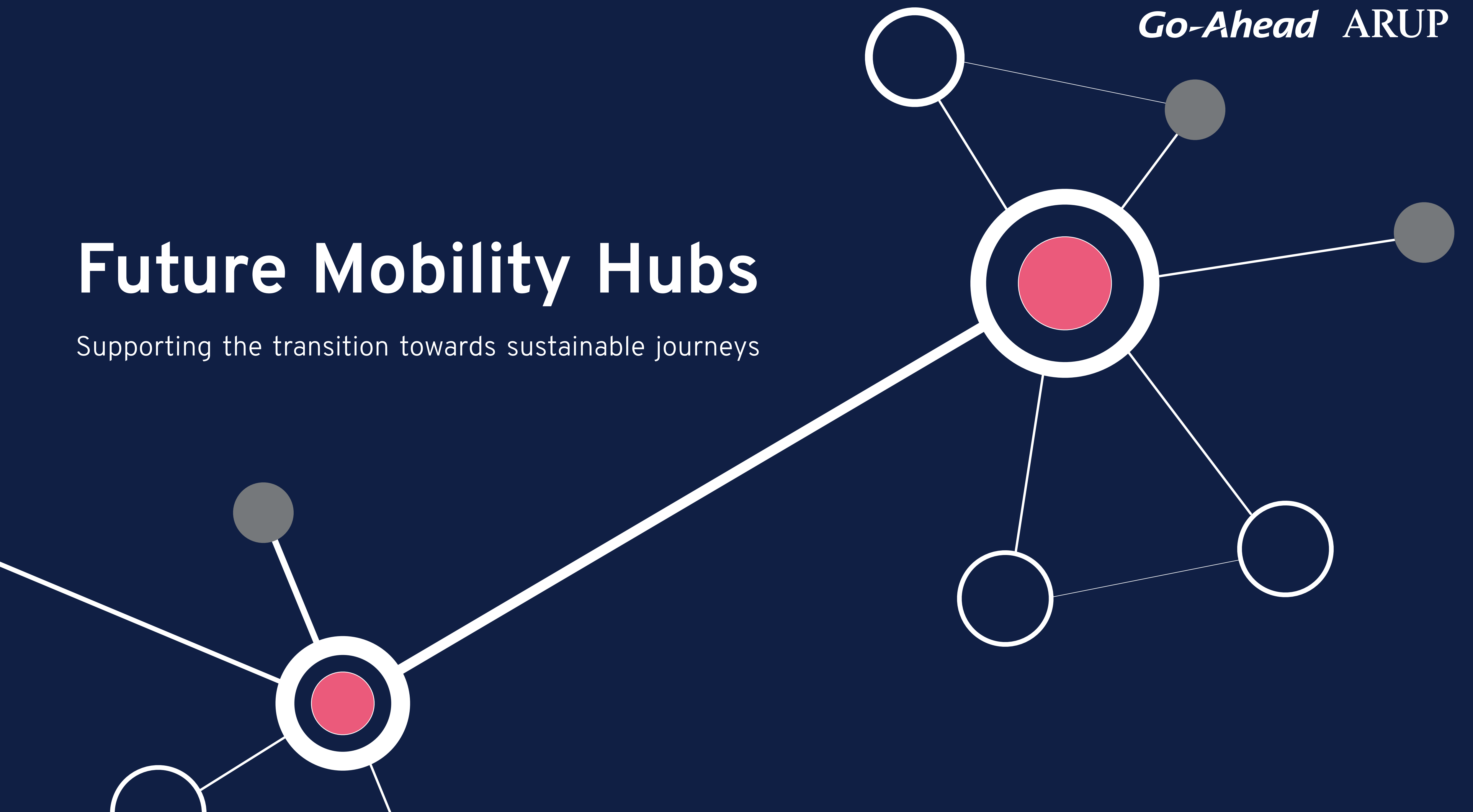# Future Mobility Hubs

Supporting the transition towards sustainable journeys

Executive Summary

Future Mobility Hubs will involve rethinking our journey ecosystem in order to create inclusive mobility, healthy streets and vibrant neighbourhoods.

Our towns and cities will undergo immense structural changes as we tackle issues such as net zero carbon, inclusivity and health. Future Mobility Hubs will provide a high-quality and low compromise framework around which to arrange our day-to-day lives. They will form a network of structures that cluster together a full suite of complementary transport modes. They will be distributed throughout urban, suburban and rural areas enabling access to, and interchange between, a choice of sustainable mobility options to suit individual user needs. Concentrating mobility into these locations also unlocks other opportunities, whether they are localised public realm enhancements, commercial uses or community provision.

The purpose of this document is to share Go-Ahead's and Arup's vision for how Future Mobility Hubs can be developed for different contexts within the UK. Diagrams and sketches in this document should not be read as resolved designs but instead be seen as illustrations outlining key design principles which explore scalability, adaptability and potential uses.

ARUP

Mobility is changing – with new ways and models of travelling around our towns and cities, we need to rethink how we provide transport services to our customers. Whilst public transport will always be the backbone of our transport networks, the ability to connect and move seamlessly between different transport services, including shared and micromobility, will make it easier for people to make better choices about what mode of transport they use. This will support our shift towards more sustainable travel patterns. Mobility hubs are a way of bringing together all of these transport services in a highly integrated and connected way.

— **Richard de Cani,
Global Planning Leader**

Go-Ahead

The experience of our customers is key to every journey we provide. Future mobility hubs are key to improving the customer journey and delivering seamless connectivity across transport modes. It's our responsibility to guide stakeholders on the possibilities, demonstrating how improving our waiting areas with links to active travel will create integrated transport solutions. More people choosing public transport and active travel is vital to achieving our carbon targets as a nation and creating a holistic approach to mobility is key.

— **Mark Anderson,
Customer & Commercial Director**

A Healthy Future

Transport options within our towns and cities can be **fragmented** and do not align with our complex lives. Multiple modes, each with their own operator, payment platforms, service arrangements and locations can make it difficult to complete our journeys, making the private vehicle the mode of choice (at the point of use) on the basis of simplicity, cost and convenience. The negative externalities of private vehicles are well known - congestion, poor air quality, severance and safety implications.
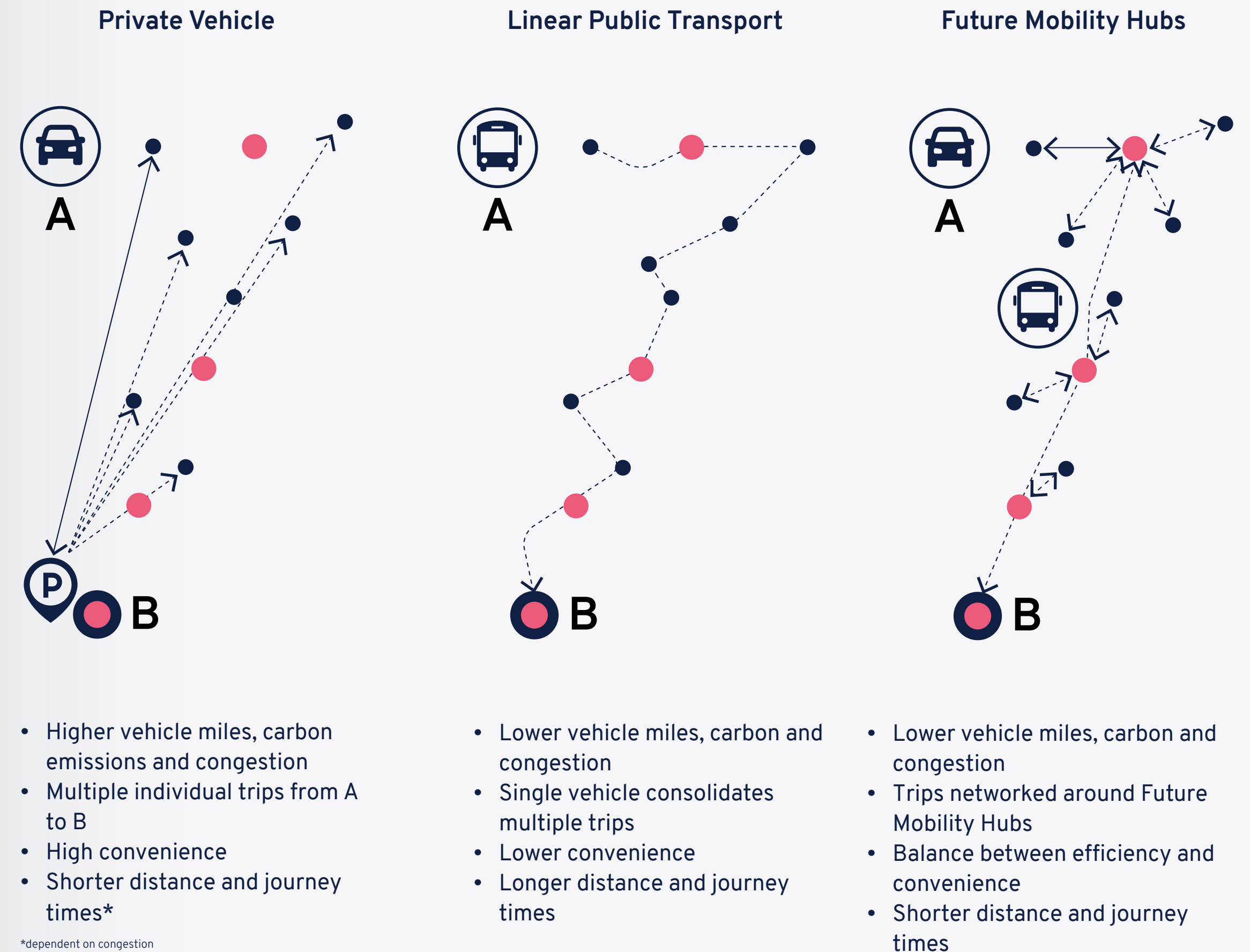
The **surface transport sector is the UK's highest emitter of carbon emissions** and the only sector where emissions are still rising. Meeting the pledge for the UK to become overall net-zero directly implies the need for a fundamental change in this sector, by delivering infrastructure which provides us with a sustainable choice to enable us to shift our behaviour. This includes **integrating existing and emerging modes** including: walking, cycling, micromobility, buses and shared electric vehicles — all underpinned by the appropriate **digital infrastructure**.

Increasing numbers of local authorities are examining the state of their public transport networks and how people access and consume travel within their local areas. Re-thinking our future approach towards sustainable transport will create places that are healthier, more liveable and create choices which facilitate a reduction in our carbon footprint.

We believe that Future Mobility Hubs are part of this change.

Over the past year, more journeys than ever have been undertaken on foot or by bicycle and this has highlighted the deficiency of our active travel infrastructure.

Private vehicles use street space inefficiently, resulting in congestion and poor air quality. Linear public transport systems can present a significant time penalty over the private vehicle due to multiple stops and longer distances, limiting their reach to their fixed routes. Future Mobility Hubs could offer a new, low compromise solution to meet all our mobility needs in a sustainable, efficient and convenient way.

Private Vehicle

- Higher vehicle miles, carbon emissions and congestion
- Multiple individual trips from A to B
- High convenience
- Shorter distance and journey times*

*dependent on congestion

Linear Public Transport

- Lower vehicle miles, carbon and congestion
- Single vehicle consolidates multiple trips
- Lower convenience
- Longer distance and journey times

Future Mobility Hubs

- Lower vehicle miles, carbon and congestion
- Trips networked around Future Mobility Hubs
- Balance between efficiency and convenience
- Shorter distance and journey times

What are Mobility Hubs?

Future Mobility Hubs are a network of structures which **cluster together** a full suite of complementary transport modes allowing people to switch easily between one mode and another. Different **operators collaborate** to offer services such as **integrated information**, payment platforms and passenger facilities. They empower people to plan and choose the most suitable modes to complete their journeys in a convenient, efficient, sustainable and cost-effective way.

Future Mobility Hubs will **develop around existing transport** nodes, such as bus stops, railway stations and car sharing hubs, expanding their reach through improving the provision of active travel. The increased throughput of people through Future Mobility Hubs will open new opportunities to **assemble commercial and community assets** close by, strengthening local neighbourhoods and creating new revenue streams. For the delivery of goods, they offer the potential to act as convenient collection points, providing an alternative to last-mile delivery.

Local and city-wide **public realm infrastructure improvements** will accompany the deployment of Future Mobility Hubs. These will consist of providing additional street crossings, shared surfaces, new areas of public realm and better walking and cycling routes.

Future Mobility Hubs can **adapt over time** as new modes and services become available with the potential to accommodate demand responsive buses, autonomous electric vehicles and drone deliveries. Modal shift away from the car will create further opportunities to repurpose excess road capacity to enhance public realm, improve active travel provision and provide better public transport service levels.
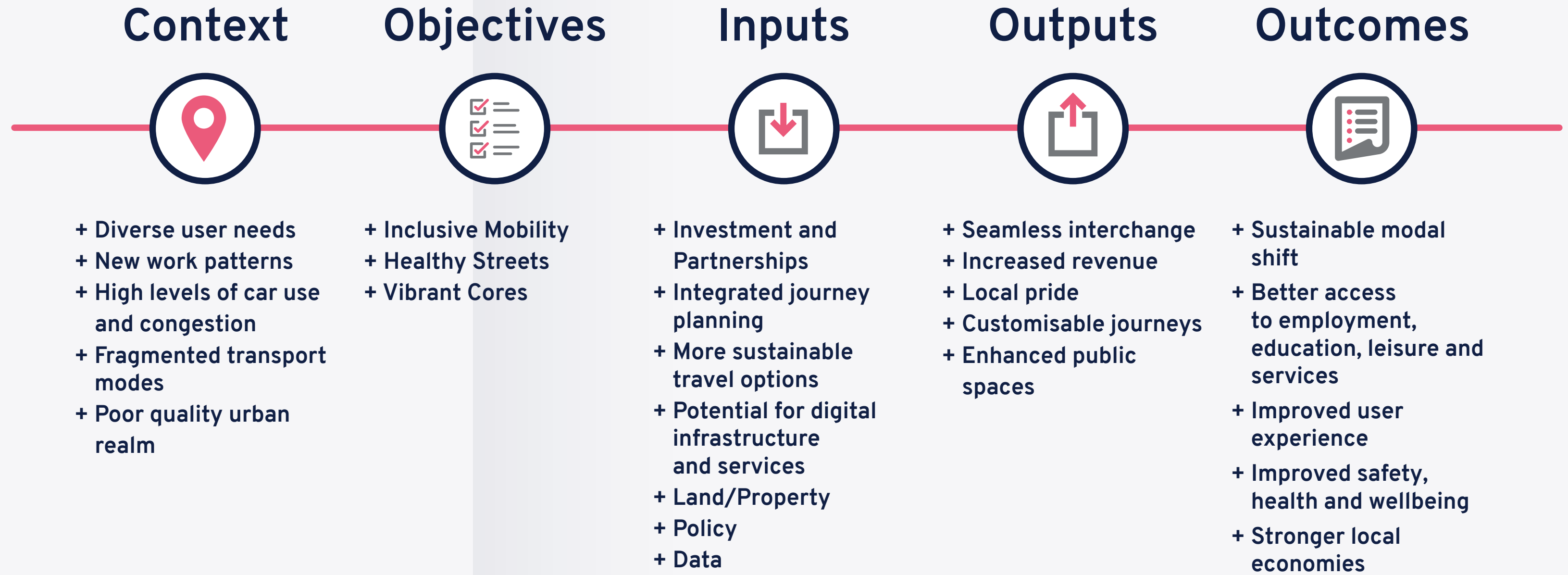
A mobility hub is a place where people can switch from one mode of transport to another with convenient facilities designed for a low-carbon society.

Context

+ Diverse user needs
+ New work patterns
+ High levels of car use and congestion
+ Fragmented transport modes
+ Poor quality urban realm

Objectives

+ Inclusive Mobility
+ Healthy Streets
+ Vibrant Cores

Inputs

+ Investment and Partnerships
+ Integrated journey planning
+ More sustainable travel options
+ Potential for digital infrastructure and services
+ Land/Property
+ Policy
+ Data

Outputs

+ Seamless interchange
+ Increased revenue
+ Local pride
+ Customisable journeys
+ Enhanced public spaces

Outcomes

+ Sustainable modal shift
+ Better access to employment, education, leisure and services
+ Improved user experience
+ Improved safety, health and wellbeing
+ Stronger local economies

The case for Future Mobility Hubs centres around reducing the compromises people need to make when deciding to switch to more sustainable transport modes.

Objectives

In order to maximise the benefits created by Future Mobility Hubs, it is imperative that they address all the different contexts they will influence – transport, place and societal.

The primary objective of Future Mobility Hubs will be to facilitate improvements to **how we access and use existing and new modes** for sustainably moving around our towns and cities. This includes the ability to customise journeys for **different customer segments** catering for the ways they wish to travel, such as multipurpose trips which include multiple breaks, and **unlocking fully accessible journey options** for those with disabilities.

Space in and around Future Mobility Hubs presents an additional opportunity to positively influence **local urban realm** to improve crossings, footways and cycle routes as well as creating green infrastructure. Furthermore, the use of Future Mobility Hubs provides additional opportunities to **bring local communities together and encourage economic growth.**

Inclusive Mobility

Unlock an attractive range of sustainable, low-carbon journey options, persuading people out of their private vehicles, and embedding the principles of Mobility as a Service (MaaS). They must connect multiple modes seamlessly and enable journeys to be customised to meet different individual needs.
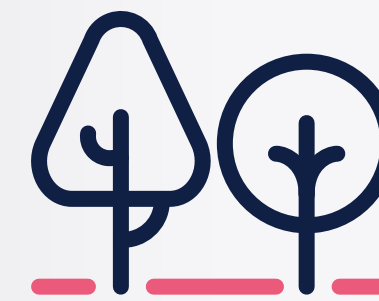
Healthy Streets

Facilitate the creation of safe, clean, high-quality places by making local improvements to public realm, reducing severance, enhancing accessibility to mobility, and providing wayfinding to local destinations by active travel. This opportunity will grow as modal shift allows excess road capacity to be repurposed.
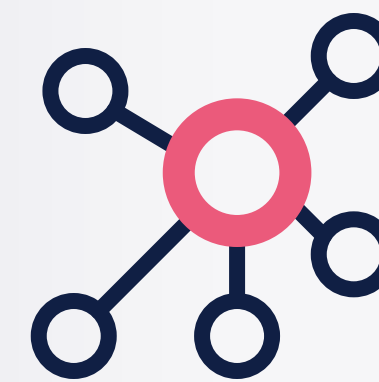
Vibrant Neighbourhoods

Reflect local contexts by providing gateways into local communities. They will offer new places for people to gather, support innovative ways of delivering local services and provide access to jobs, education and leisure.

Key Design Principles

The following conceptual diagrams articulate the key design principles which will shape Future Mobility Hubs and show how different modules can be combined to suit varied contexts. These diagrams should not be read as resolved designs, but more as ilustrations to explore scalability, adaptability and potential uses.

1. Adaptability and Function

Future Mobility Hubs create a comfortable, safe and inclusive space. They use a kit-of-parts system that is designed to be adaptable to spatial constraints and mobility requirements. Additional services can be plugged-in to complement the core functions.

2. Identity and Integration

Through a common design language, the Future Mobility Hub brings together multiple modes and services. A local identity is created through the selection of materials and colours.

3. Sustainable Growth

The kit-of-parts system ensures a flexible and sustainable growth over time. Starting with the core mobility services, to supporting the local community and being a catalyst for inclusive growth.

The Future Mobility Hub grows from a bus shelter module to incoporate a range of other modes and services in response to local contextual needs.
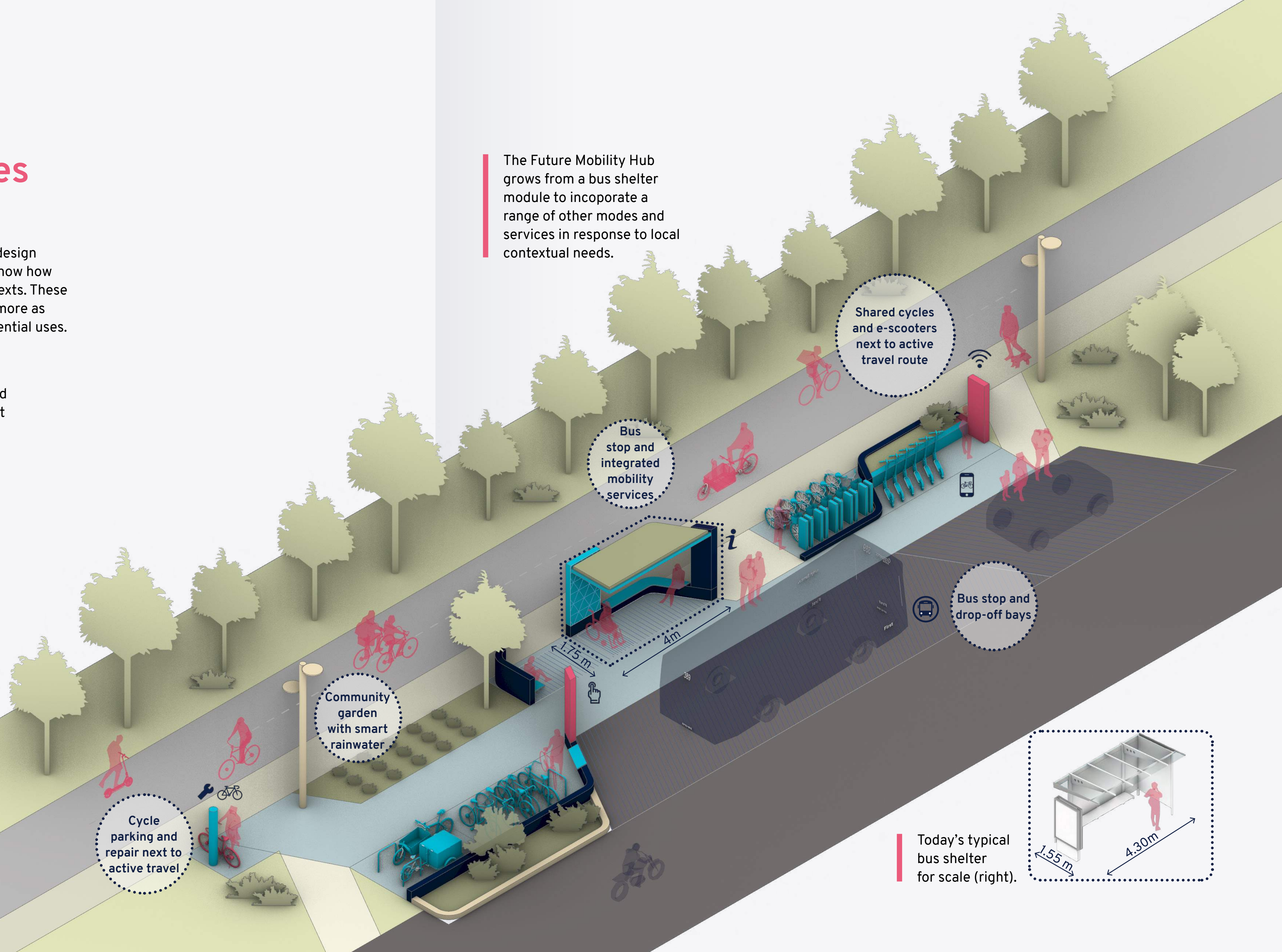
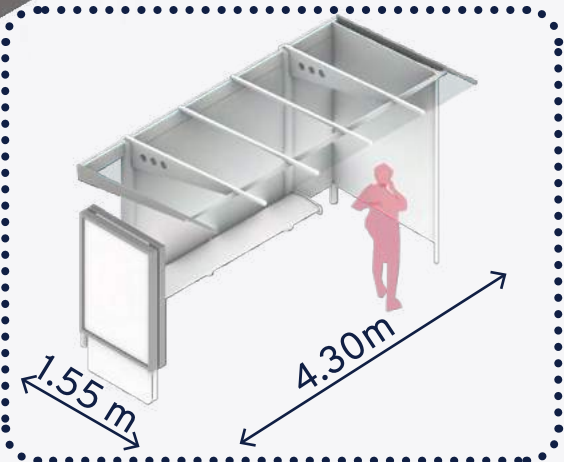Shared cycles and e-scooters next to active travel route

Bus stop and integrated mobility services

Bus stop and drop-off bays

Community garden with smart rainwater

Cycle parking and repair next to active travel

1.75 m

4m

Today's typical bus shelter for scale (right).
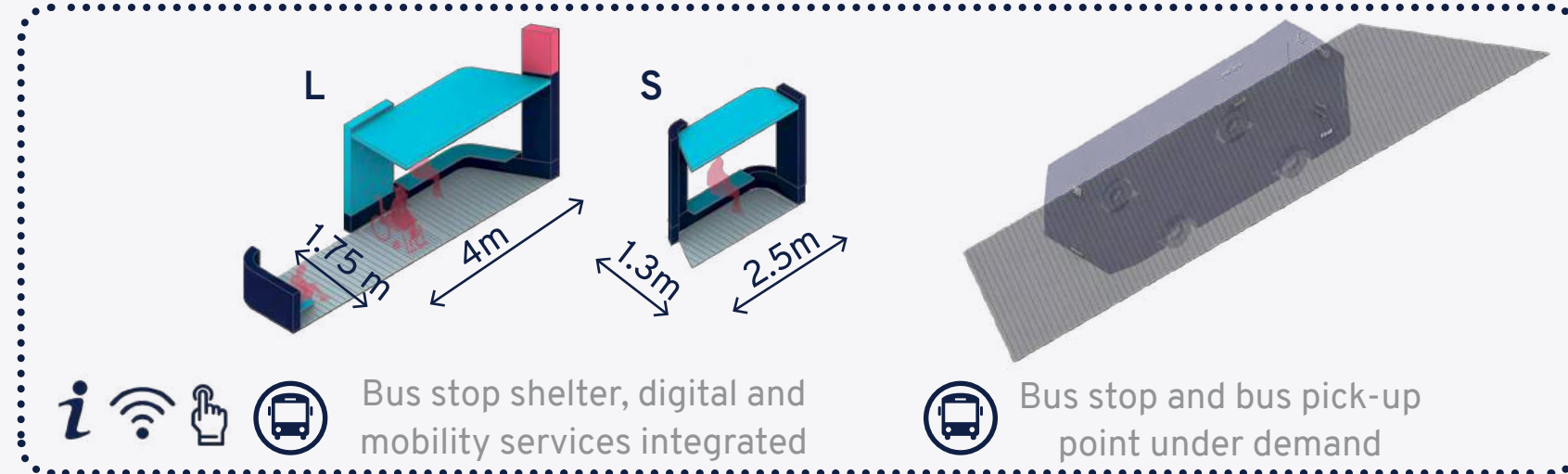
1.55 m

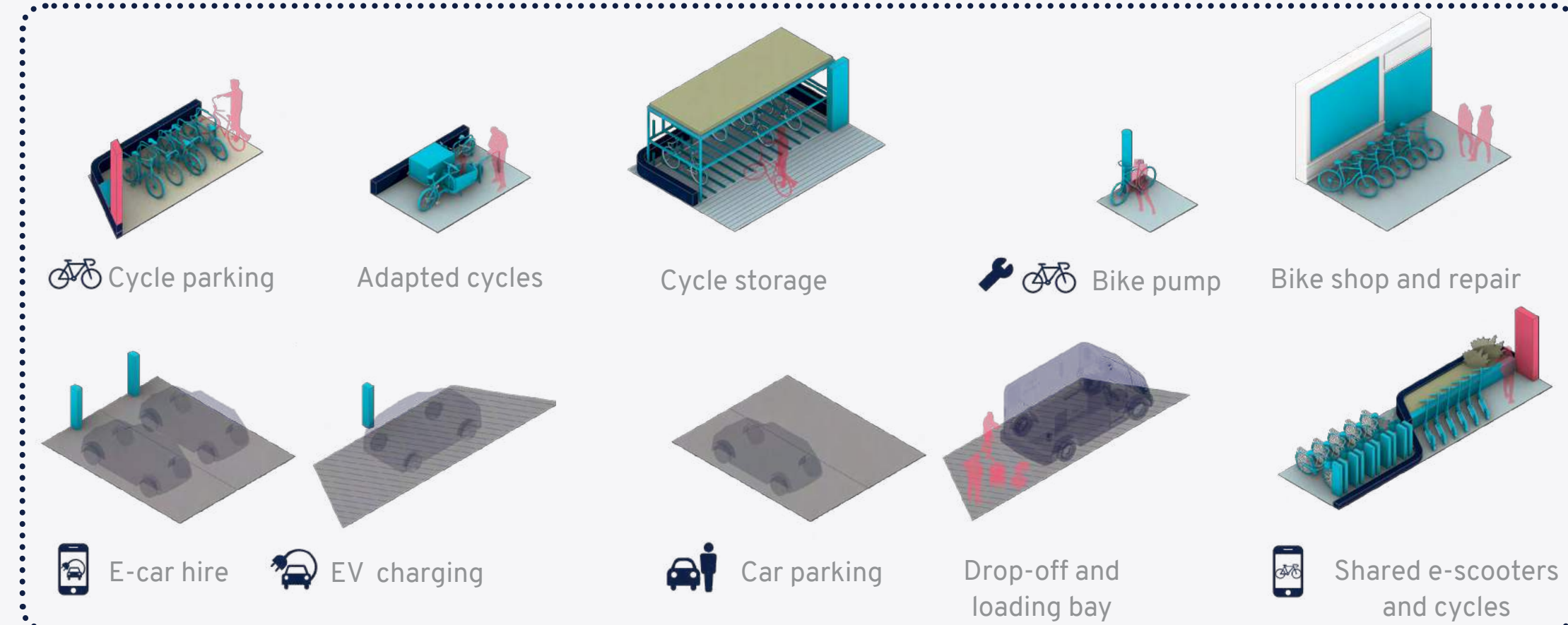4.30m

6

Design Strategy: Kit of Parts

Mobility Modules

Mobility Modules respond to current and future mobility demands. They include shared services and units that promote active travel and electric transport, facilitating interchange.

Core Modules

L   S

1.75m   4m   1.3m   2.5m

Bus stop shelter, digital and mobility services integrated

Bus stop and bus pick-up point under demand

Extra Mobility Services

Cycle parking   Adapted cycles   Cycle storage   Bike pump   Bike shop and repair

E-car hire   EV charging   Car parking   Drop-off and loading bay   Shared e-scooters and cycles

Community Components

Community Components react to the neighbourhood's needs supporting the mobility modules and creating a sense of place in the hub. These are community influenced projects that can seamlessly integrate with the Future Mobility Hubs.

Mural, art   WC and baby change   Playground   Food truck, pop-up market

Delivery lockers and vending machines   Co-working spaces   Smart street lighting
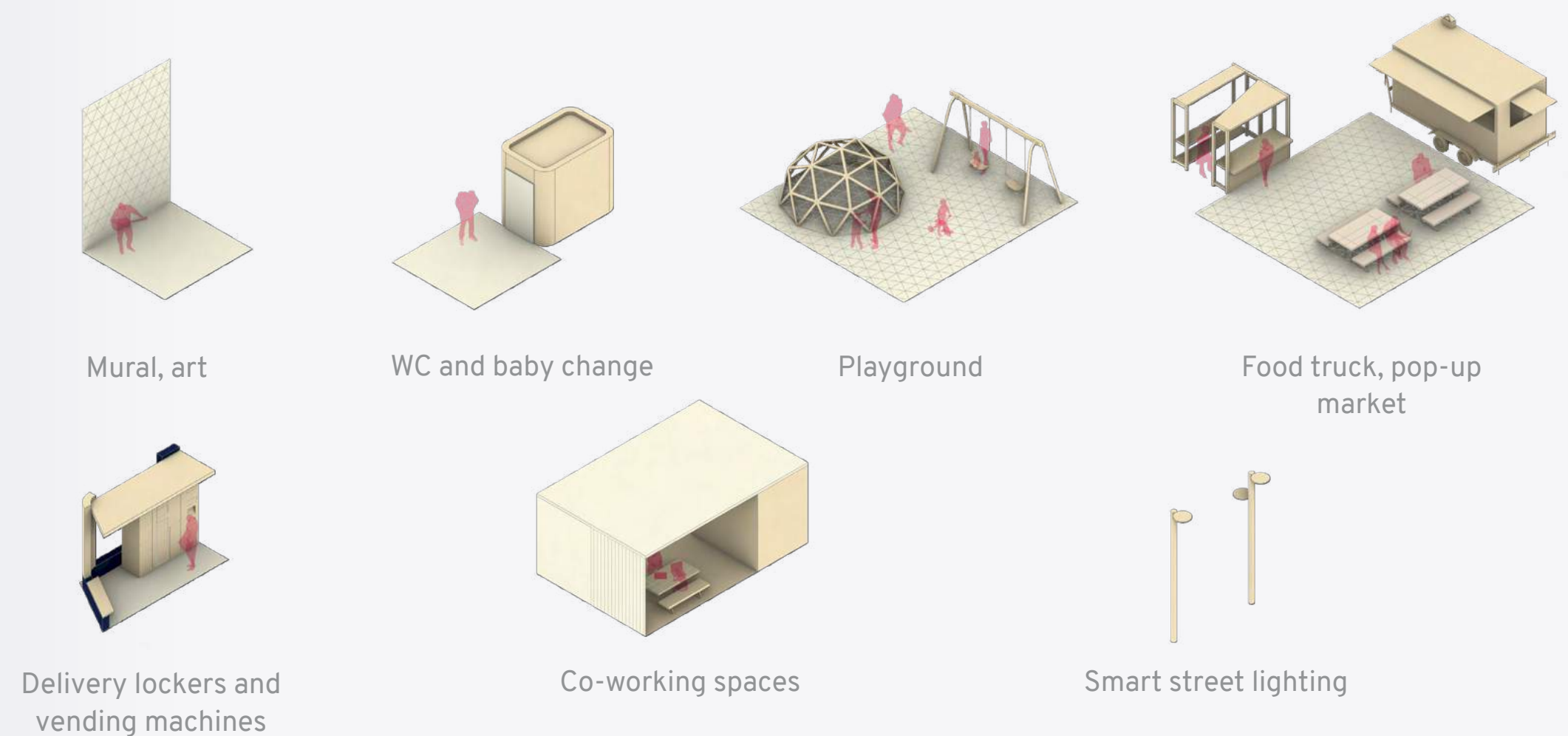
Environmental Elements

Environmental Elements are interventions that allow the Future Mobility Hubs to integrate with their surrounding environment to create healthy places.

Planters and green pockets   Community garden with smart rainwater features   Pocket parks, space to gather and community seating

How to Build a Future Mobility Hub

Future Mobility Hubs should be flexible, allowing them to grow and adapt over time. Flexibility ensures that Future Mobility Hubs remain attractive and can maximise their impact through being responsive to new funding streams, changes in policy and emerging trends, as well as allowing the delivery of new services through future partnerships.

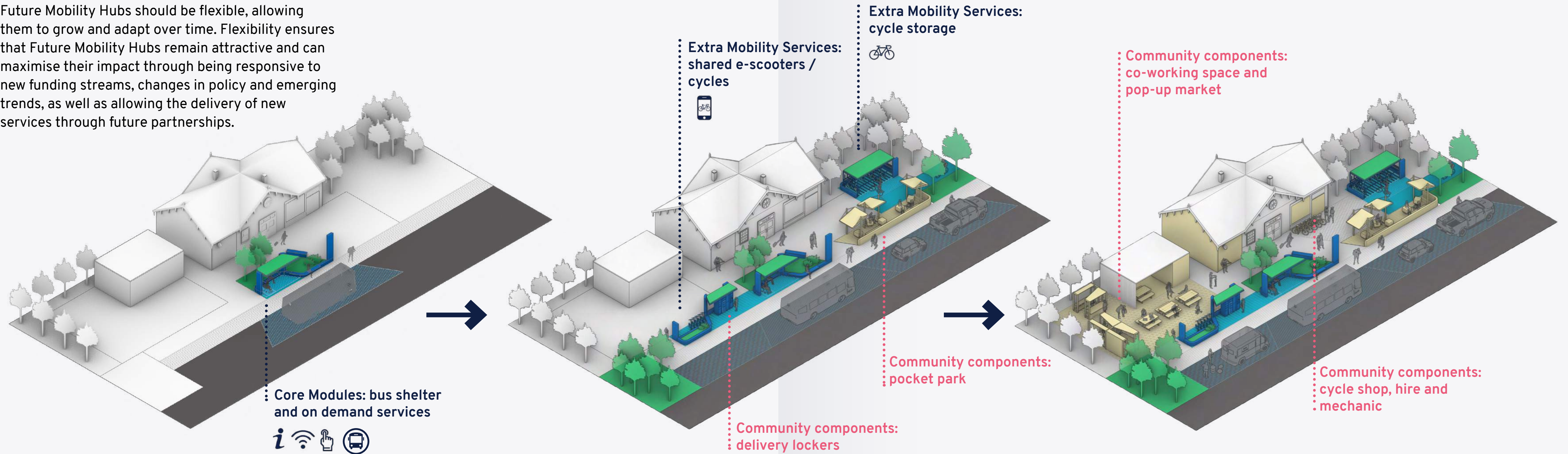**Core Modules: bus shelter and on demand services**

Extra Mobility Services: shared e-scooters / cycles

Extra Mobility Services: cycle storage

Community components: delivery lockers

Community components: pocket park

Community components: co-working space and pop-up market

Community components: cycle shop, hire and mechanic

Phase 1: Core Mobility Modules

- The initial phase will focus on the delivery of **core mobility needs.** A spacious bus stop providing shelter, seating, information and access to digital services

- Making public transport more inclusive

- Creating a beacon in the landscape and becoming a catalyst for modal shift and healthy places.

Phase 2: Expansion of Mobility

- Over time there is an **expansion of mobility modules** responding to new collaborations, increases in demand and additional funding streams

- Encouraging active travel, shared services and healthier lifestyles

- Attracting development of community components such as pocket parks or playgrounds.

Phase 3: Completed Hub

- Final completed hub to **serve local communities needs**

- The Future Mobility Hub becomes a vibrant place in the neighbourhood to gather, dwell and meet

- More than mobility: the Future Mobility Hub has a positive impact on the local community, helping create a better place to live.
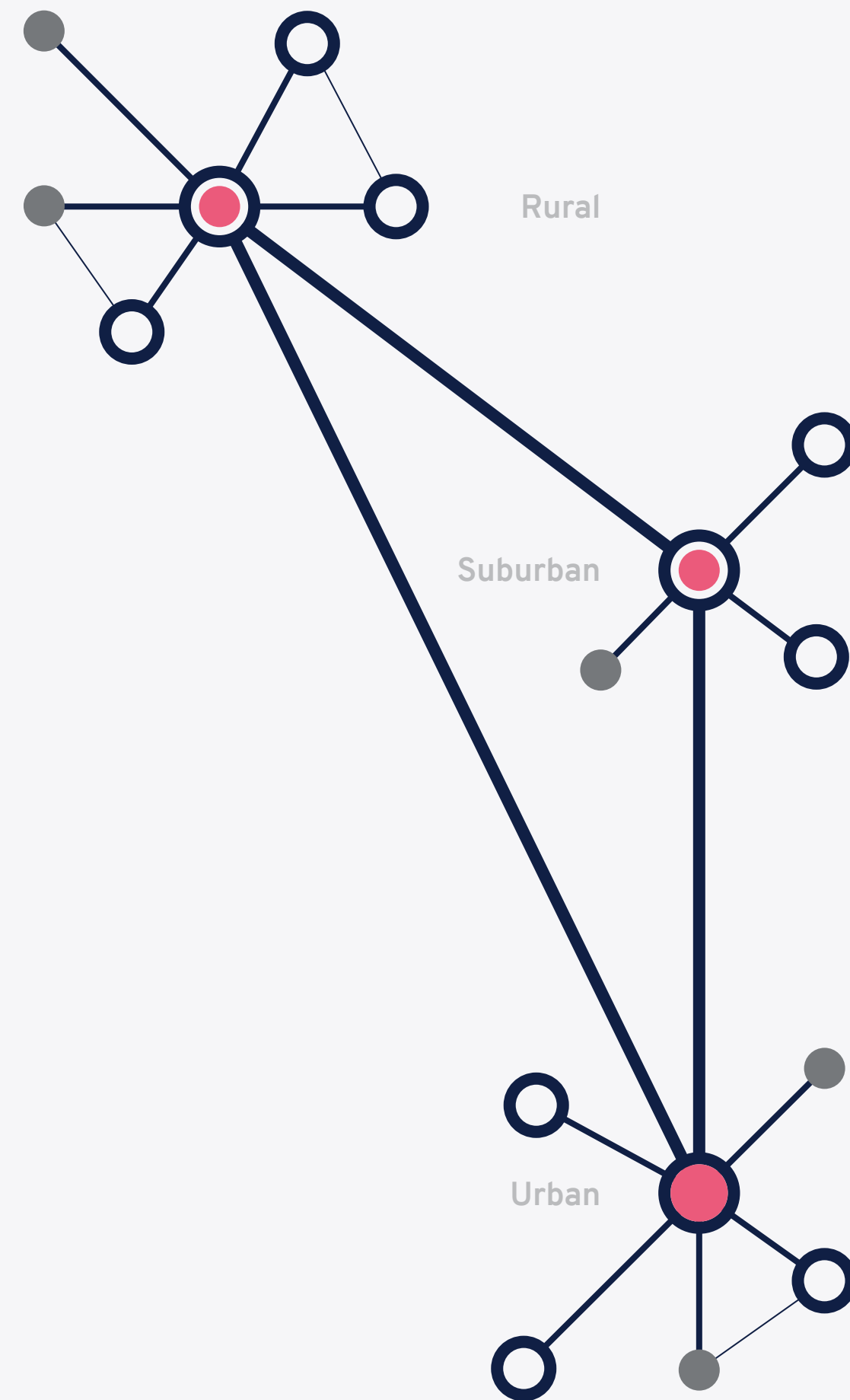
Movement Framework

Future Mobility Hubs will form a mobility network within our towns and cities, spawning from urban centres, connecting suburbs and reaching into urban fringes and rural areas, and as a result, they will need to be **flexible to meet changing requirements** and contexts. Different scales of Future Mobility Hub will form a framework to **accommodate different journey types**, starting and finishing in a range of locations.
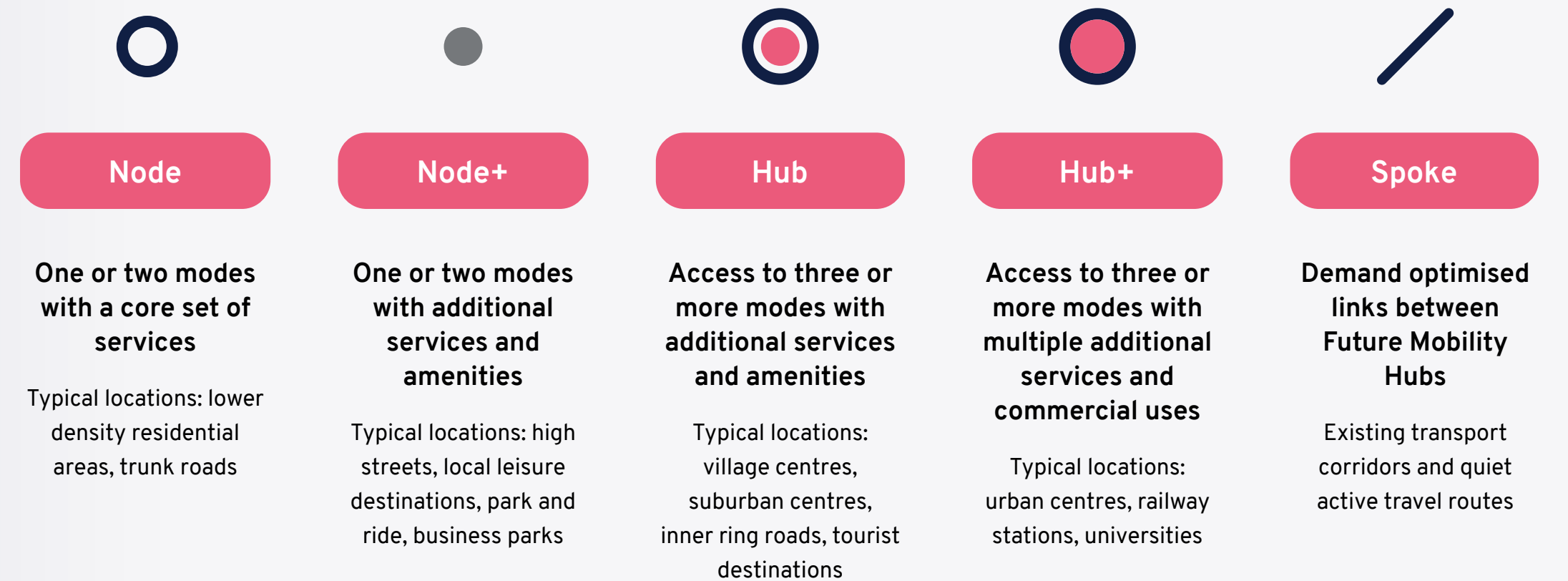
A hub, node and spoke approach optimises the provision of transport options, building around the existing urban plan, emphasising **existing transport corridors** whilst opening **new quiet routes** along desire lines for walking and cycling. This approach will not only accommodate local journeys but also **extend the reach of Future Mobility Hubs** and their role as collectors for higher capacity transit.

Hubs provide, **flexible interchange** options with a choice of appropriate modes to reflect journey demand. These will have regular, timetabled services for journeys where demand is high and more bespoke, on-demand services between suburbs and in rural locations. Nodes serve local areas with lower levels of demand.

This approach will allow people to travel between different origins and destinations efficiently and without the need to travel long distances to interchange.

Rural

Suburban

Urban

Proposed Hub, Node and Spoke Model

Node	Node+	Hub	Hub+	Spoke
One or two modes with a core set of services	One or two modes with additional services and amenities	Access to three or more modes with additional services and amenities	Access to three or more modes with multiple additional services and commercial uses	Demand optimised links between Future Mobility Hubs
Typical locations: lower density residential areas, trunk roads	Typical locations: high streets, local leisure destinations, park and ride, business parks	Typical locations: village centres, suburban centres, inner ring roads, tourist destinations	Typical locations: urban centres, railway stations, universities	Existing transport corridors and quiet active travel routes

Digital Framework

Increasingly, a person's journey and journey experience starts when they pick up their phone, access an app, receive real-time information to decide which mode or make a mobile payment. With the widespread proliferation of data, smartphones and mobile internet, the addition of the **Digital Framework could complement and expand the functionality of Future Mobility Hubs**.

The Digital Framework enables a series of services to create a fully integrated, inclusive and accessible transport network. These could be **optimised to individual travel needs**, whether this includes defining a journey that is fully step free, or focused on maximising the step count. In order to be fully inclusive, the Digital Framework must cater to those who do not own, or are unable to use smartphones and other digital devices by **providing services across a range of different platforms**.

From augmented reality for indoor navigation, Internet of Things (IoT) sensors and analytics for operational efficiency, digital technologies, the Digital Framework will need to have the flexibility to **accommodate advances in technology** which will unlock new ways of navigating our surroundings, providing services or enhancing journey experience. There is even the possibility of introducing additional tools such as dynamic pricing and loyalty rewards to drive behavioural change towards more sustainable modes.

The Digital Framework should be flexible and designed to accommodate a range of digital technologies and services which support and enhance the role of Future Mobility Hubs.

Demand Responsive Infrastructure

Utilizing IoT and real-time data, can provide the basis for demand responsive transport. With the rise of electric vehicles, energy consumption can also be regulated against supply for charging.

Smart Environments

Deploying IoT and smart infrastructure enables environmental monitoring which can optimize performance and enable customisable experiences (for example, for those with specific needs or to facilitate user engagement).

Enabler of Mobility as a Service (MaaS)

Future Mobility Hubs bring together various transport services and modes. They have the potential to act as the digital enablers of MaaS through the facilitating real-time journey information and integrated payments.

Advanced Mobility

The Digital Framework can act as a foundation for trials for new modes such as autonomous vehicles and e-Scooters.

Connectivity

Physical assets and infrastructure, such as fibre and WiFi, will be the foundation for Future Mobility Hub services, amenities and commercial opportunities.

User Journeys

We have developed three characters and their user journeys to show how people will interact with the Future Mobility Hub Framework. These begin to explore the users' specific requirements and how each mobility hub needs to respond to context, scale and opportunity.

Rita's Profile

Rita is a retiree and lives on her own in a small, rural village. She doesn't have a car and relies heavily on the public transport network to get around. She is an anxious traveller and has a mobility impairment which limits her to walking short distances and avoiding stepped routes.

Ash's Profile

Ash is a single father with two children, and lives in the leafy suburbs. He works flexibly to enable him to successfully juggle his personal and work life commitments. He is always short on time, so he values efficiency and often undertakes multiple tasks and daily errands within one trip to save time.

Charlie's Profile

Charlie is a university student. She shares a house close to her campus with other students. She often makes multiple trips per day between home, university, her job and social activities, so convenience and flexibility are really important to her when choosing transport options.

Ash's journey

Charlie's journey

Suburban

Rural

Suburban

Urban

Suburban

Urban

Suburban

Rural

Rita's journey

Map data ©2021 Google
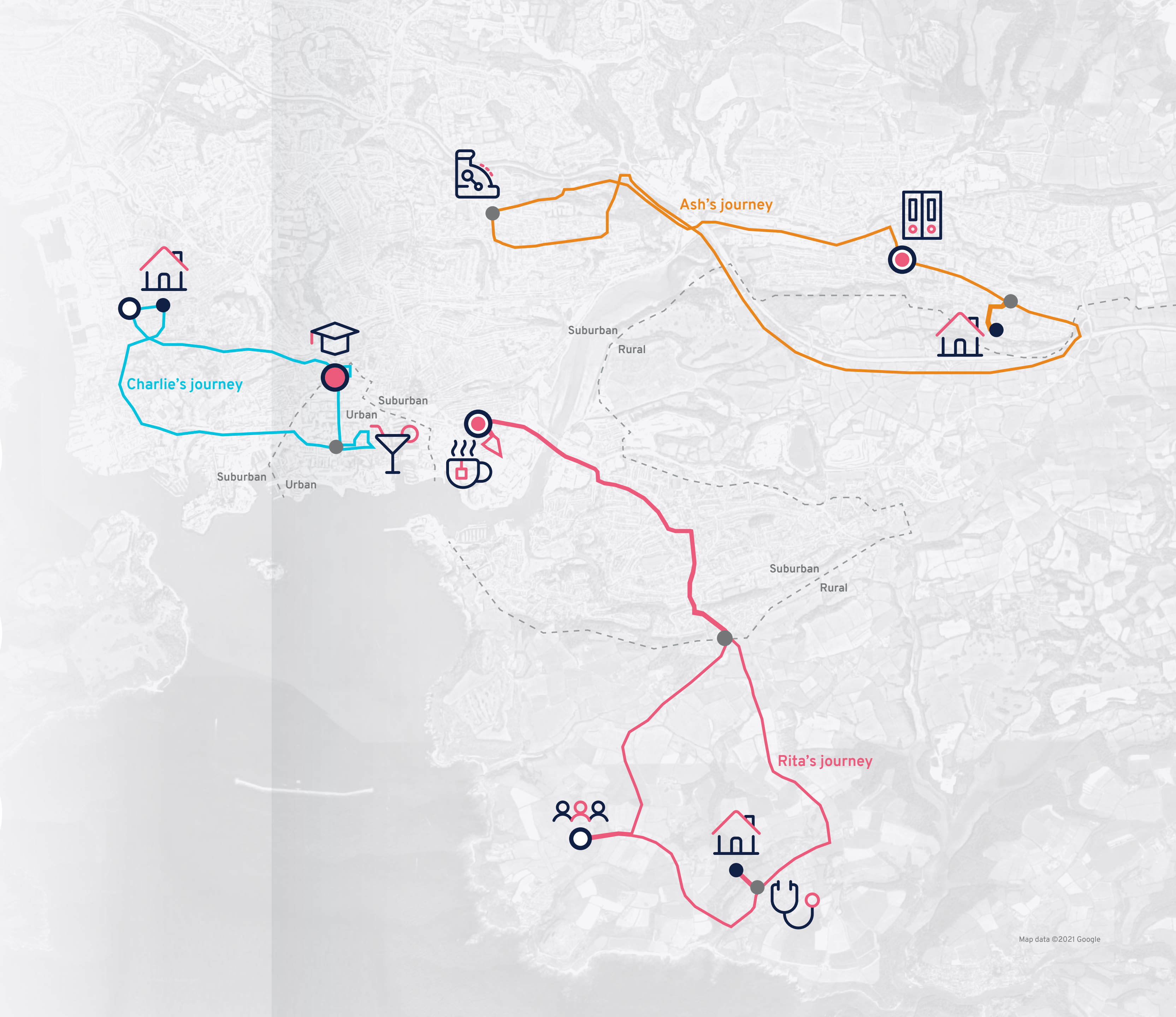
Rita's Journey

Accessibility

As Rita has got older, her mobility has reduced and she has become increasingly aware of how difficult it is to get around when you require assistance. However, since the mobility hubs have been installed around her local area, she has noticed a big improvement to the infrastructure and facilities that are provided. It is clear that they have been designed to accommodate the needs and requirements of all users. Rita now feels much less anxious about travelling and is confident that the hubs can meet all of her mobility needs.

Comfort

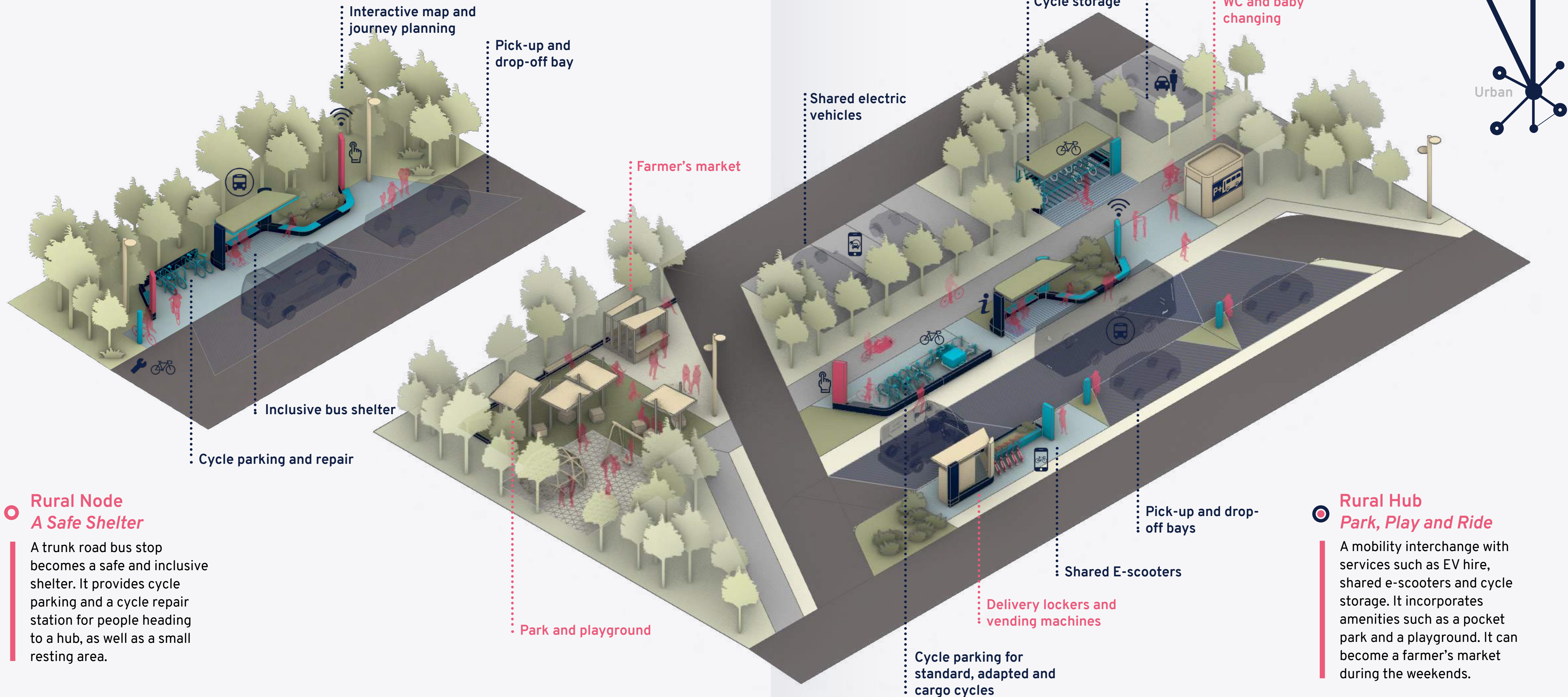The comfort and shelter aspect of mobility hubs has a big impact on Rita's travel choices. For example, the flexible shelter space at her local hub has been such a blessing, particularly on cold and rainy days. Previously, she would avoid catching the bus as she got too cold and distressed while waiting at the stop. However, now that she can wait inside the comfort of a heated shelter, she feels enabled to catch the bus in all types of weather conditions.

WELCOME home.

NHS MOBILE DOCTOR'S SURGERY

08:00

USES TABLET TO BOOK APPOINTMENT AT NEW MOBILE SURGERY

COMMUNITY NOTICEBOARD

NEW MOBILITY HUB

INCLUSIVE + ACCESSIBLE

I WONDER WHAT UPCOMING EVENTS THERE ARE IN THE CITY NEXT WEEK. I MUST GET DOWN THERE MORE OFTEN, ESPECIALLY NOW THAT IT'S SO ACCESSIBLE!

12:30

RURAL HUB+

MOBILITY HUB 3

CATCHING UP WITH MARGARET HAS BEEN THE HIGHLIGHT OF MY DAY. NEITHER OF US OWN A CAR, BUT IT'S SO CONVENIENT THAT WE CAN MEET AT A LOCATION THAT BOTH OF US CAN EASILY REACH BY BUS.

08:15

IT'S SO COLD AND RAINY TODAY. I LOVE THAT I CAN SIT INSIDE THIS HEATED SHELTER WHILST I WAIT FOR MY BUS.

MOBILITY HUB 1

ENCLOSURE

COMFORT

VISIBILITY

MOBILE PLUG-IN

RURAL NODE

I DON'T GO INTO TOWN OFTEN, SO I GET ANXIOUS ABOUT MAKING THIS JOURNEY. MY WEARABLE CARE DEVICE MAKES THE TRIP MUCH LESS STRESSFUL - AND THE BEST PART IS IT'S ALL PRE-PROGRAMMED AND CONNECTED WITH THE BUS STOP AND ITS SERVICES.

WEARABLE CARE DEVICE

VIBRATES AT STOP

DEMAND RESPONSIVE

URBAN NODE+

CLEAR DIGITAL SIGNAGE...

08:45

CITY CENTRE

MOBILITY HUB 2

Rural Mobility Hubs

Interactive map and journey planning

Pick-up and drop-off bay

Electric vehicle parking

Cycle storage

WC and baby changing

Shared electric vehicles

Farmer's market

Inclusive bus shelter

Cycle parking and repair

Park and playground

Pick-up and drop-off bays

Shared E-scooters

Delivery lockers and vending machines

Cycle parking for standard, adapted and cargo cycles
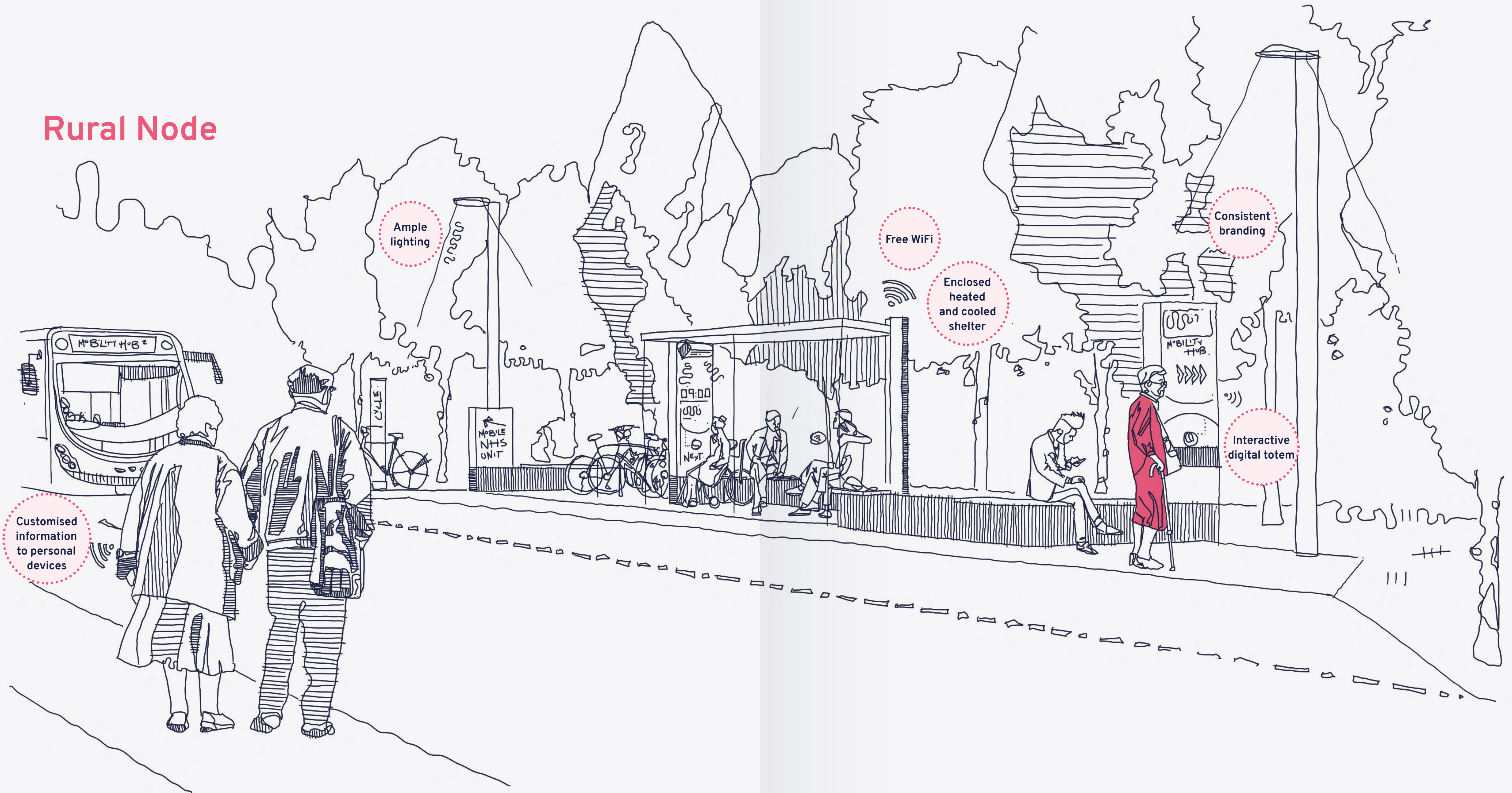
Rural

Suburban

Urban

Rural Node
A Safe Shelter

A trunk road bus stop becomes a safe and inclusive shelter. It provides cycle parking and a cycle repair station for people heading to a hub, as well as a small resting area.

Rural Hub
Park, Play and Ride

A mobility interchange with services such as EV hire, shared e-scooters and cycle storage. It incorporates amenities such as a pocket park and a playground. It can become a farmer's market during the weekends.

Rural Node

Customised information to personal devices

Ample lighting

Free WiFi

Enclosed heated and cooled shelter

Consistent branding

Interactive digital totem

MOBILITY HUB²

MOBILE NHS UNIT
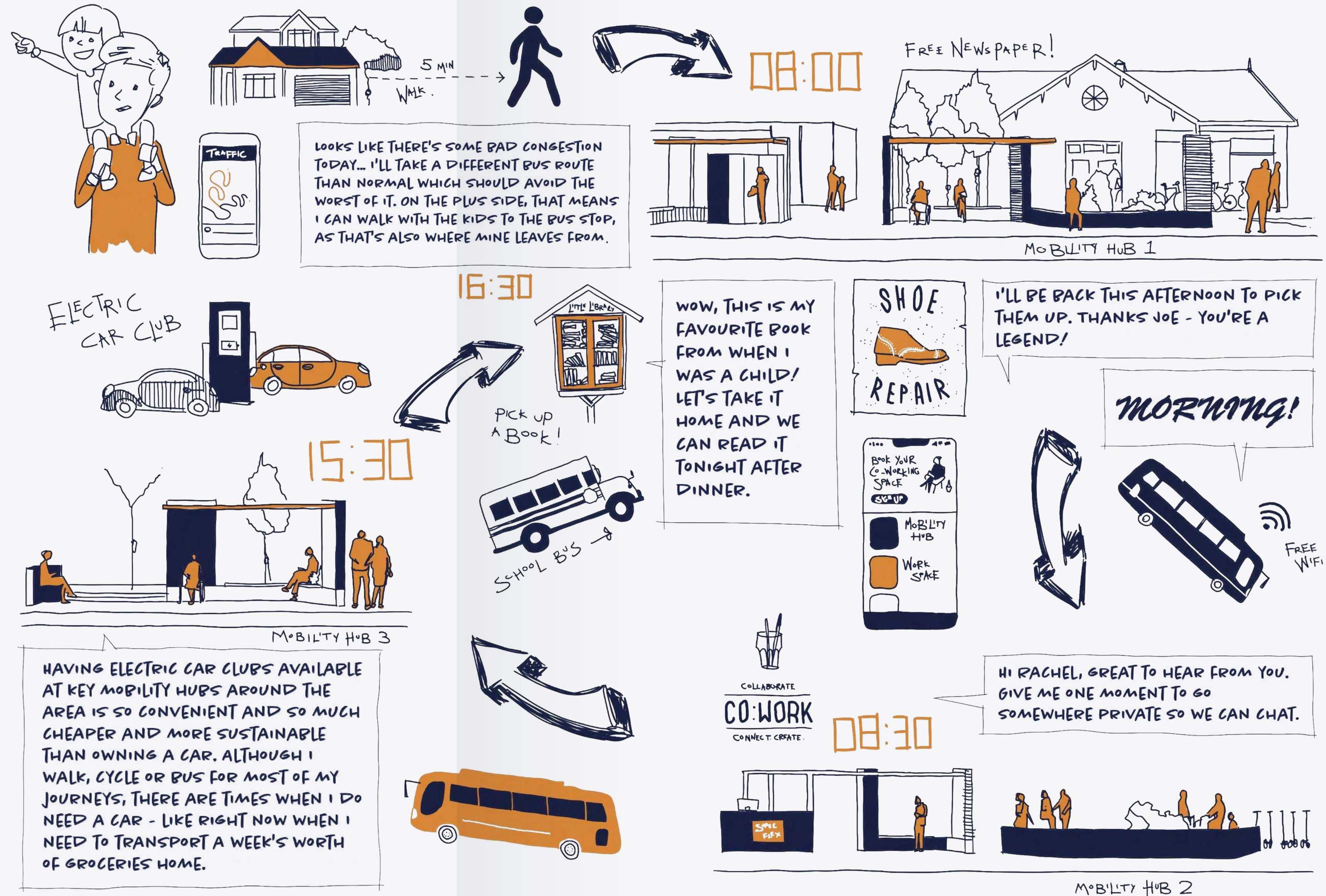
CYCLE

MOBILITY HUB.

09:00
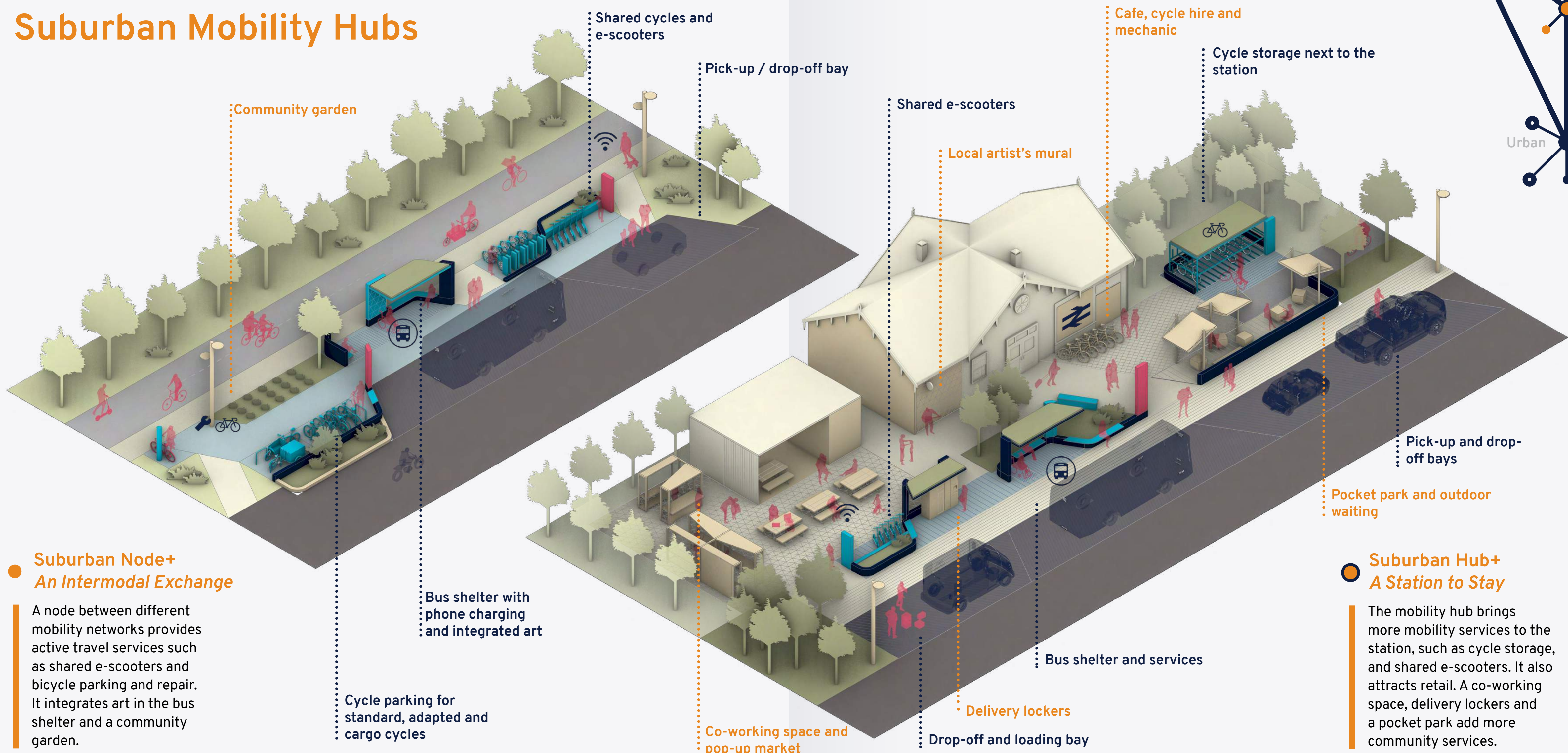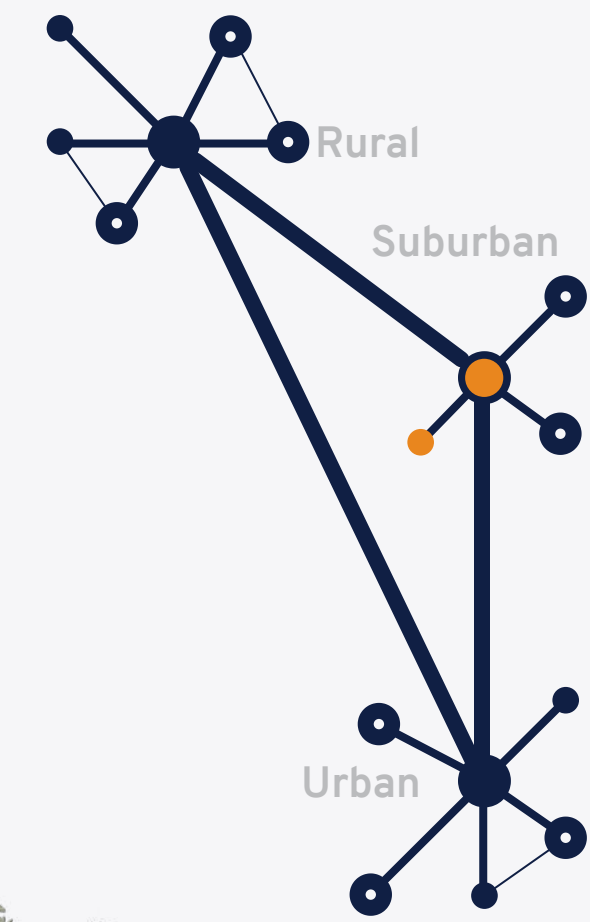
NExT.

Ash's Journey

Convenience

Being a single father to two children who works a full-time job, Ash highly values convenience and anything that saves him time and makes his life easier. Having multiple services in one location saves him a lot of time and stress travelling between places. He loves having the option to work flexibly from a co-working space where he can also meet clients, eat lunch, and have access to a variety of transport options all within the click of a button.

Sustainability

Living sustainably is really important to Ash. He knows that transport is a big contributor to greenhouse gas emissions, so he tries to take sustainable modes wherever possible. Ash doesn't own a car as the mobility hubs in his local area offer a suite of sustainable transport modes to meet his everyday needs. On the occasions when he does need a car, he opts for an electric hire car which is convenient and far cheaper than owning a car.

5 MIN WALK.

08:00

FREE NEWSPAPER!

TRAFFIC

LOOKS LIKE THERE'S SOME BAD CONGESTION TODAY... I'LL TAKE A DIFFERENT BUS ROUTE THAN NORMAL WHICH SHOULD AVOID THE WORST OF IT. ON THE PLUS SIDE, THAT MEANS I CAN WALK WITH THE KIDS TO THE BUS STOP, AS THAT'S ALSO WHERE MINE LEAVES FROM.

MOBILITY HUB 1

ELECTRIC CAR CLUB

16:30

LITTLE LIBRARY

WOW, THIS IS MY FAVOURITE BOOK FROM WHEN I WAS A CHILD! LET'S TAKE IT HOME AND WE CAN READ IT TONIGHT AFTER DINNER.

SHOE REPAIR

I'LL BE BACK THIS AFTERNOON TO PICK THEM UP. THANKS JOE - YOU'RE A LEGEND!

MORNING!

BOOK YOUR CO-WORKING SPACE
SIGN-UP
MOBILITY HUB
WORK SPACE

FREE WIFI

15:30

PICK UP A BOOK!

SCHOOL BUS

MOBILITY HUB 3

HAVING ELECTRIC CAR CLUBS AVAILABLE AT KEY MOBILITY HUBS AROUND THE AREA IS SO CONVENIENT AND SO MUCH CHEAPER AND MORE SUSTAINABLE THAN OWNING A CAR. ALTHOUGH I WALK, CYCLE OR BUS FOR MOST OF MY JOURNEYS, THERE ARE TIMES WHEN I DO NEED A CAR - LIKE RIGHT NOW WHEN I NEED TO TRANSPORT A WEEK'S WORTH OF GROCERIES HOME.

COLLABORATE
CO:WORK
CONNECT. CREATE.

HI RACHEL, GREAT TO HEAR FROM YOU. GIVE ME ONE MOMENT TO GO SOMEWHERE PRIVATE SO WE CAN CHAT.

08:30

SPACE FLEX

MOBILITY HUB 2

Suburban Mobility Hubs

Community garden

Shared cycles and e-scooters

Pick-up / drop-off bay

Cafe, cycle hire and mechanic

Cycle storage next to the station

Shared e-scooters

Local artist's mural

Pick-up and drop-off bays

Pocket park and outdoor waiting

Bus shelter with phone charging and integrated art

Cycle parking for standard, adapted and cargo cycles

Co-working space and pop-up market

Delivery lockers

Drop-off and loading bay

Bus shelter and services

Rural

Suburban

Urban

Suburban Node+
An Intermodal Exchange

A node between different mobility networks provides active travel services such as shared e-scooters and bicycle parking and repair. It integrates art in the bus shelter and a community garden.

Suburban Hub+
A Station to Stay

The mobility hub brings more mobility services to the station, such as cycle storage, and shared e-scooters. It also attracts retail. A co-working space, delivery lockers and a pocket park add more community services.

Suburban Hub+

Pop-up market provides opportunities to local creators

Co-working space provides a flexible working environment

Suburban station

Integrated ticketing and payment

Square to meet and gather

Dockless micromobility options

Green pockets and gardens

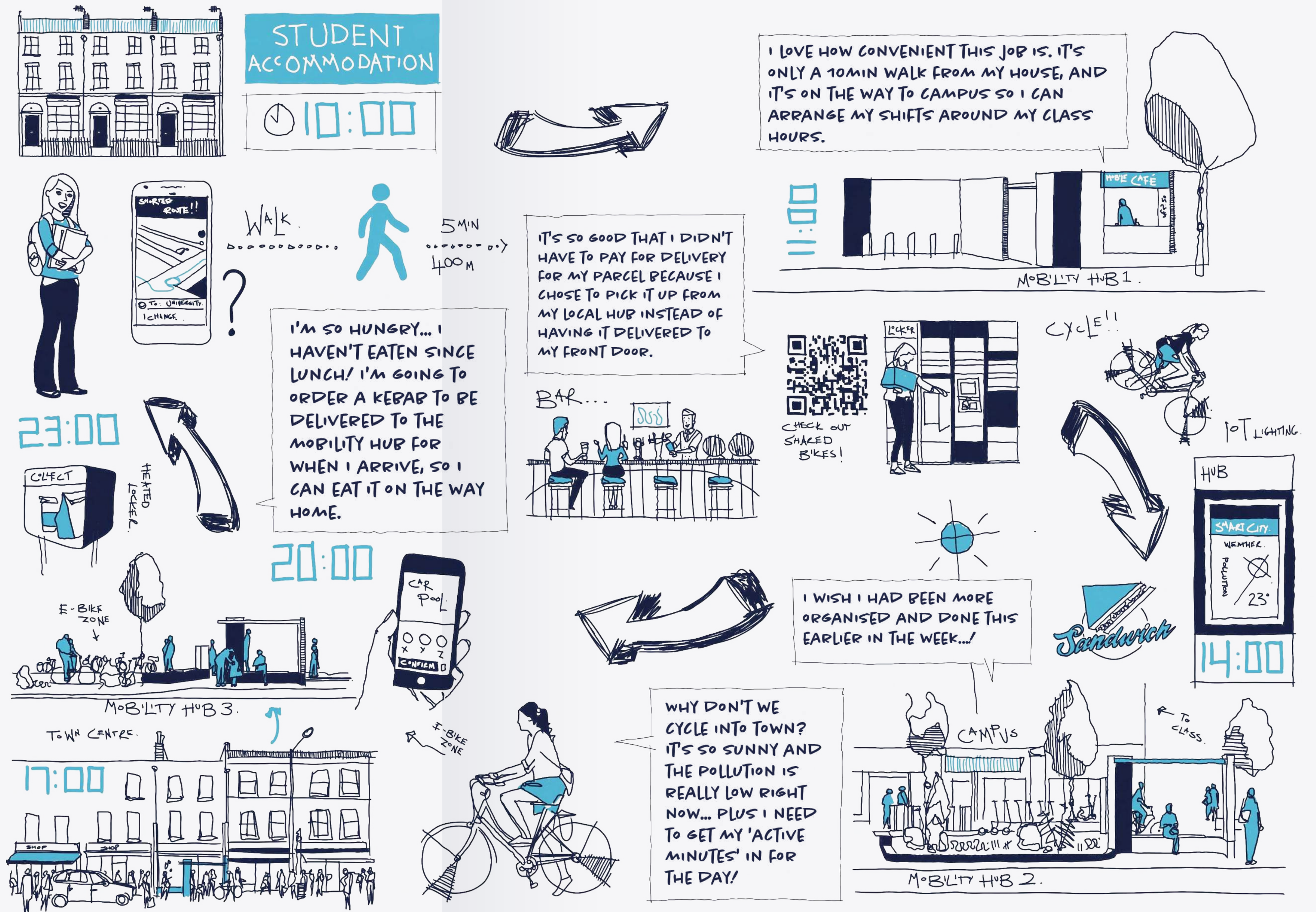Co-location of public and shared transport to enable seamless transfers
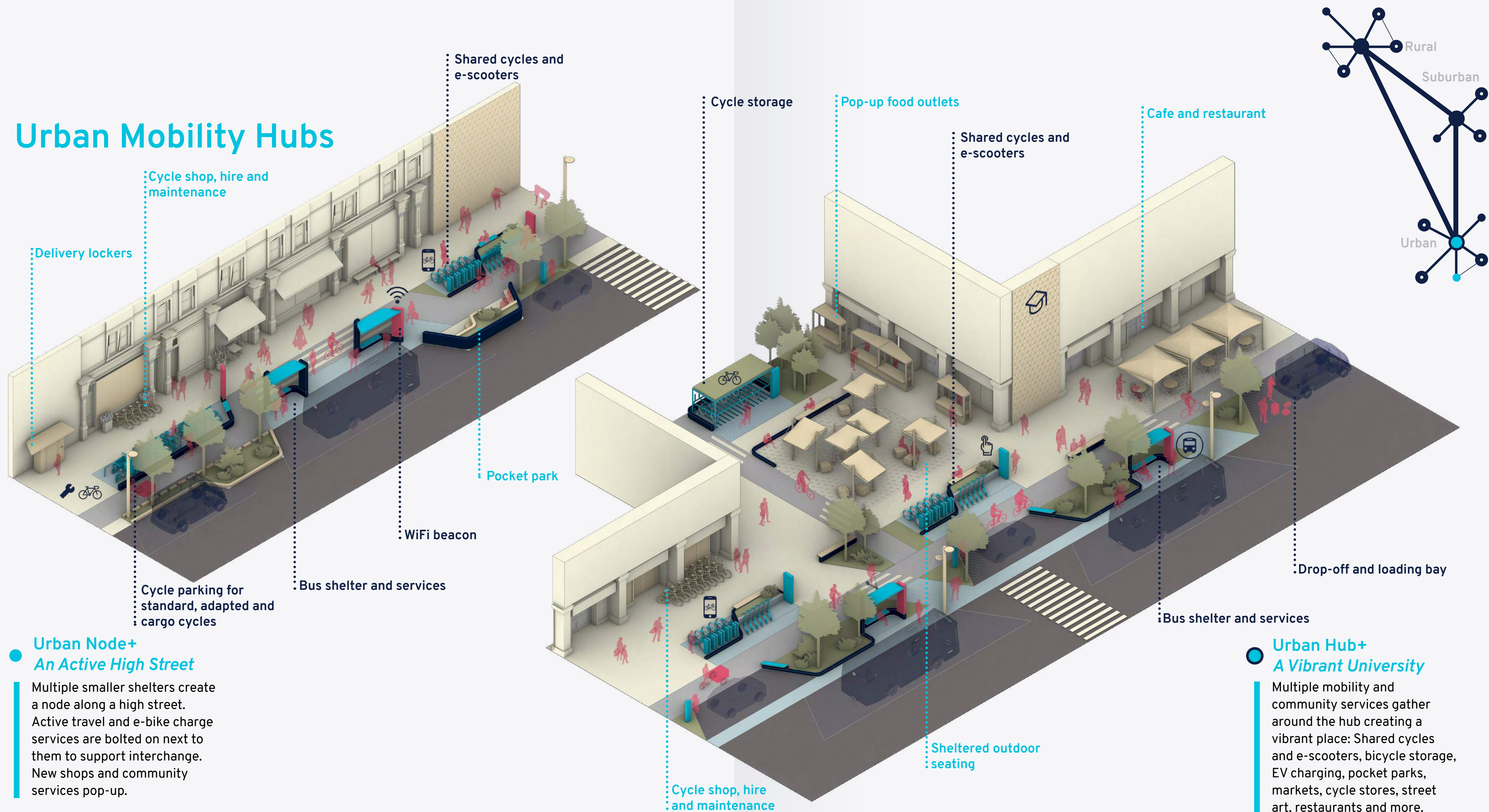
Charlie's Journey

Flexibility

No two days are the same for Charlie – between university, her job, sports and socialising with friends, she is always on the move. The variety of mobility options available at each of the hubs around the town means that she can always be flexible when travelling between places. Previously, she had to drive everywhere but now she is able to tailor her journey to respond to time, cost, weather and how she's feeling at the time. The hubs are located all across town, meaning there's always one nearby.

Safety

Chalie wants to feel safe and secure when returning from a late shift at work or after a night out with friends. Being able to plan and monitor her journey on the go with access to live information keeps her mind at rest, knowing precisely when her chosen mode of transport will arrive and the safest routes to walk to the mobility hub. There are almost always other students at the hubs. Good sight lines, ample lighting and help points mean that her concerns about personal safety are reduced significantly.

STUDENT ACCOMMODATION

10:00

WALK. 5 MIN 400 M

SHORTED ROUTE!!

TO. UNIVERSITY. CHANGE.

23:00

COLLECT

HEATED LOCKER.

20:00

E-BIKE ZONE

MOBILITY HUB 3.

TOWN CENTRE.

17:00

SHOP

CAR POOL

CONFIRM

E-BIKE ZONE

I'M SO HUNGRY... I HAVEN'T EATEN SINCE LUNCH! I'M GOING TO ORDER A KEBAB TO BE DELIVERED TO THE MOBILITY HUB FOR WHEN I ARRIVE, SO I CAN EAT IT ON THE WAY HOME.

IT'S SO GOOD THAT I DIDN'T HAVE TO PAY FOR DELIVERY FOR MY PARCEL BECAUSE I CHOSE TO PICK IT UP FROM MY LOCAL HUB INSTEAD OF HAVING IT DELIVERED TO MY FRONT DOOR.

BAR...

WHY DON'T WE CYCLE INTO TOWN? IT'S SO SUNNY AND THE POLLUTION IS REALLY LOW RIGHT NOW... PLUS I NEED TO GET MY 'ACTIVE MINUTES' IN FOR THE DAY!

I LOVE HOW CONVENIENT THIS JOB IS. IT'S ONLY A 10MIN WALK FROM MY HOUSE, AND IT'S ON THE WAY TO CAMPUS SO I CAN ARRANGE MY SHIFTS AROUND MY CLASS HOURS.

11:00

MOBILITY HUB 1.

LOCKER

CHECK OUT SHARED BIKES!

CYCLE!!

IOT LIGHTING.

HUB

SMART CITY

WEATHER.

POLLUTION

23°

14:00

I WISH I HAD BEEN MORE ORGANISED AND DONE THIS EARLIER IN THE WEEK...!

Sandwich

CAMPUS

TO CLASS.

MOBILITY HUB 2.

Urban Mobility Hubs

Shared cycles and e-scooters

Cycle shop, hire and maintenance

Delivery lockers

Cycle parking for standard, adapted and cargo cycles

Bus shelter and services

WiFi beacon

Pocket park

Cycle storage

Pop-up food outlets

Shared cycles and e-scooters

Cafe and restaurant

Drop-off and loading bay

Bus shelter and services

Sheltered outdoor seating

Cycle shop, hire and maintenance

Rural

Suburban

Urban

Urban Node+
An Active High Street

Multiple smaller shelters create a node along a high street. Active travel and e-bike charge services are bolted on next to them to support interchange. New shops and community services pop-up.

Urban Hub+
A Vibrant University

Multiple mobility and community services gather around the hub creating a vibrant place: Shared cycles and e-scooters, bicycle storage, EV charging, pocket parks, markets, cycle stores, street art, restaurants and more.

Urban Hub+

Vibrant spaces adjacent to the hub

Cycle pumps and repair station

Free WiFi and phone charging points

Public artwork by local artists

Opportunities for commercial uses and revenue generation

Real time passenger information

Ample waiting and resting space

Safe and accessible pedestrian and cycle infrastructure

UNIVERSITY

BIKE STORAGE

COMMUNITY GARDEN

NEXT B'S 15:25

21°C

Existing Research

Mobility hubs are increasingly becoming an operational reality in several European cities, with working examples being seen in Belgium, Austria, Germany and Norway. The emphasis and offer of these hubs varies, ranging from **integrating existing bus and tram services with active travel**, through to introducing focused spaces for car clubs. Sweden is considered an exemplar country with successful implementation of mobility hubs with varied scales and design models applicable to the UK context (e.g. near urban rail stations and business parks).

There is also a wide body of research which sets out the case for mobility hubs together with components and typologies, user requirements and necessary elements, implementation strategies, and development frameworks. Arup's collaboration with Research Institutes of Sweden (RISE) analysed the role of mobility hubs in transitioning towards sustainable transport systems of the future. This emphasises the need to give equal consideration to **services complementary to mobility hubs, amenities and the public realm**. All examples highlight the importance of integration and collaboration to bring transport operations with recognisable branding.

Work to date currently has limited applicability to the UK context. Further examination of suitable **delivery, implementation strategies and operational strategies** is required, as well as consideration of complementary policies to facilitate seamless integration and incentivise behavioural change. The integration of public realm and related transport infrastructure, and how mobility hubs can be a catalyst to create a **fully inclusive and accessible network** also require further investigation.

CoMoUK's Mobility Hub Guidance, SEStran's Strategic Study Report (2020), and Plymouth City Council's Project Initiation Document emphasise the importance of flexibility in accommodating different contexts and scales, with services and amenities to match different contexts based on whether they are vital, recommended or optional.
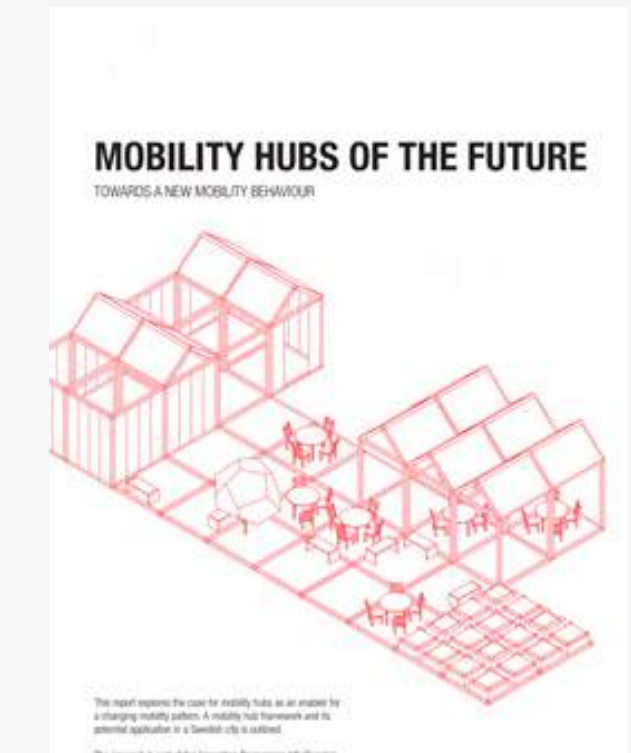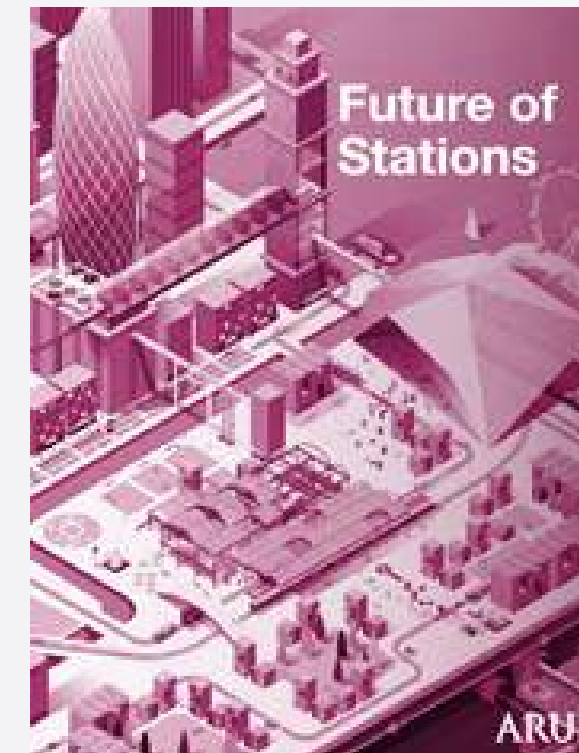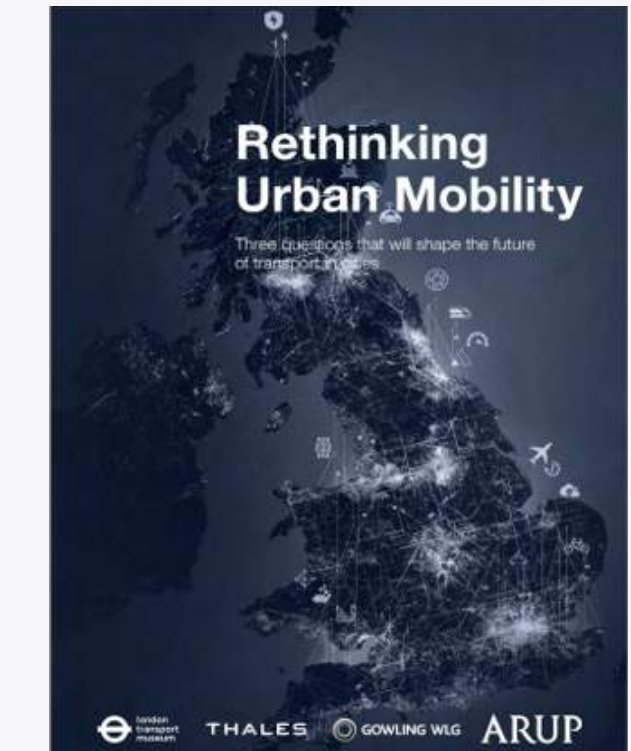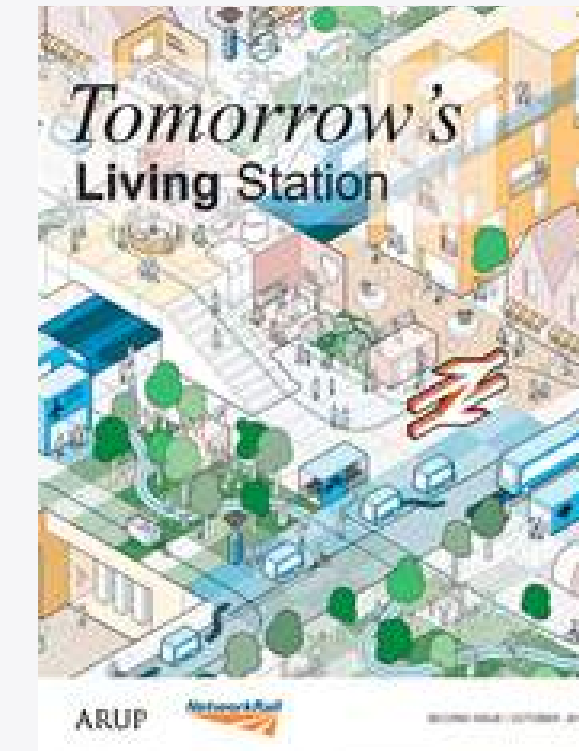
Future Mobility Hubs will involve rethinking our journey ecosystem in order to create inclusive mobility, healthy streets and vibrant neighbourhoods.

Next Steps

This prospectus is a showcase of Go-Ahead's and Arup's vision for creating a network of Future Mobility Hubs and should be seen as a catalyst for further conversation and collaboration.

Future Mobility Hubs offer a solution to encourage more people to switch their journeys from the private vehicle to more sustainable modes through an optimised Movement and Digital Framework designed to make these modes convenient, efficient and inclusive. This is not only about how each Future Mobility Hub functions in isolation, but also about the role a network of hubs and nodes plays in delivering benefits to our urban and rural areas.

There isn't a one-size fits all approach that will work for every context. Future Mobility Hubs will need to be flexible in responding to a broad variety of local user needs, locations and demographics. They will also need to offer a range of delivery and business models which are tailored to meet the specific governance and operational requirements of different local and regional authorities.

Together, Go-Ahead and Arup are leaders in mobility, and our aim is to support you on your journey. Contact us to discuss Future Mobility Hubs for your city or region.

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