



The future of mobility

*If the bus is to play a leading role in the long term future of urban mobility, we need to be **scanning the horizon now and sowing seeds of change** to ensure that a very different bus world stakes its claim to exist.*

*We shouldn't be spending time and energy implementing a retro 1980's governance model for yesterday's buses but be focused on **designing a new age of the bus looking toward 2030 and beyond.***

*This is the **second of fourteen weekly articles** on what different aspects of that new bus future could look like and the kind of things we need to be sowing seeds for now if we are to truly **ride the wave of future opportunity.***

*We need to **be bold if we are to shine** over the next 40 years and do more than invest in a zero emission fleet, tinker with governance and introduce the odd capped fare.*

Episode Two – Network Development

Once any Local Authority decides it is time to transition from a congested, car dominated environment to the cleaner, healthier, safer, liveable world of active travel and clean mass transit, **it will be necessary to fundamentally transform the local bus offer** to be fit for that purpose.

Today's bus networks are built around the dominance of the car and **play only a residual bit part in urban mobility** which fundamentally impacts on the scale, shape and quality of the network.

A significant proportion of the current bus offer across the UK presents as **suboptimal with the product compromised by traffic congestion, inherent unreliability, poor infrastructure and tight financial constraints on the ability to invest in quality and customer service.** Aside from a limited group of core high frequency routes, timetables can be unattractive and simply not fit for purpose.

Where excessive car use is tamed, it is necessary, and **perfectly possible, to deliver a transformed bus offer of which operators can truly be proud and customers will truly enjoy.**

That degree of **radical transition cannot simply be switched on overnight** and will need to be built up over time in **a staged transition from the status quo to a bold new world.**

We'll come to that transition later but let's first start by understanding **the 7 core components of those transformed networks** uninhibited by the dominance of the private car and the congested streets it creates.

1. Current Core Routes

The current limited volume of **core routes** in each town or city **can be robustly reinforced** in terms of speed, frequency, directness and span of operation, including through the night, and at a lower price point with higher quality **if freed from the costs of traffic congestion.**

They **simply get better and, potentially, more direct** as additional demand allows some routes to be split in two with each still able to deliver 'turn up and go' frequencies of at least 6 buses per hour.

Confront the tyranny of the car and this is the first easy win.

Urban traffic congestion **slows down buses and drives up cost** due to the requirement to employ more drivers and buy more buses to deliver any given timetable. The **slow journey times deter passengers as, also, do the higher fares operators require to charge to cover the higher costs.**

Removing the congestion speeds up buses, reduces costs and fares and leads to passenger growth instead of decline.

Like the sun emerging after a near 50 year thunderstorm.

2. Current Suboptimal Routes

The **suboptimal, compromised peripheral low frequency routes** in the major cities, and, in some smaller towns, the entire network simply **will not be fit for a place in the new bolder future for the bus** even when freed from the tyranny of the car.

With modal shift from car, **the relatively stronger ones will effectively upgrade to become part of the core network** with higher 'turn up and go'

frequencies, a wider span of operation and, again, at a lower price point with higher quality.

Where that does not make sense, some kind of Demand Responsive Transport (DRT) solution will be the most likely way to meet the absolute need for a bus offer which delivers on *frequency, speed, proximity, quality, style, simplicity and reliability* even in areas of relatively low demand.

It may also be that, in the daytime, 'turn up and go' frequencies will work but give way to a DRT option in the evenings, night and early mornings.

Those two categories can simply **evolve and blossom in the more benevolent operating environment and continue to grow naturally.**

3. Medium Distance Commuter Express

The **current levels of traffic congestion**, particularly in cities like Manchester, Leeds, Bristol, Cambridge, Cardiff and Edinburgh **are driven by cars from a much wider catchment area than the city boundaries** so the bus and rail mass transit offer needs to provide a genuine, high quality alternative to medium distance car commuting.

In some cases, the alternative may be the reinforcement of frequency and span of operation on the local rail network. Otherwise, the solution lies in **developing medium distance commuter express bus networks serving both the centres of major cities or mobility hubs and interchanges on the periphery to connect for destinations outside the core of the city.**

These would be two separate sets of services – **one arrowed direct to the city centre and the other to the mobility hubs and interchanges on the periphery.**

The urban bus network will **need to recognise the needs of non-city centre demand attractors** including schools and colleges, hospitals, leisure facilities, tourist attractions and retail centres.

A much more diverse network than either radials or a mix of radials and orbitals is required. A bespoke, curated network to uniquely suit each town or city **designed locally and evolving with the community.**

This is similar to **a solution currently being adopted in Paris with 25 new commuter express bus routes** being launched **alongside a major expansion of the Paris Metro with 68 new stations and three new RER lines** orbiting the city to supplement the core hub and spoke lines of the Metro.

Unlike the previous two categories, this will involve **significant upfront investment to underpin the growth period of the new Commuter Express routes**. It could take up to 3 – 6 years for them to reach revenue maturity and thrive commercially **as the community adapts to new travel habits and patterns**.

More will be said on this in **Episode 10 on Funding**.

4. Feeder Networks

Shorter internal feeder networks will be required to provide **connections between the city centre and the peripheral mobility hubs, interchanges and any rail or tram stations and significant demand attractors located outside the town or city centre**.

Some of this activity may also be delivered by DRT or, where physically appropriate segregation is possible, **autonomous shuttles**.

5. Interurban Express Networks

There will also be a growing market for **longer distance interurban express bus networks providing both inter city travel and commuter connections between towns and cities without adequate rail connections**.

They will be **fully integrated with the commuter and urban networks** of each of the towns and cities they serve **in terms of service integration, payment, ticketing and pricing and customer service support**.

As with new Commuter Express routes, they will **require upfront investment and financial support as they grow to maturity**.

6. The Night Economy

If we want the community to adopt a car free lifestyle, the **bus networks will all need to recognise the local night economy** creating significant demands from both workers and other consumers.

Society has changed dramatically since the early 1950's, when the bus was last a major urban mobility player, so **the bus renaissance will look fundamentally different** to that previous generation **and meet the needs of a more prosperous 24 hour economy**.

Urban and commuter bus services simply cannot switch off at midnight and switch back on at 5am. They will need to be present 24/7/365 as mobility is

an essential service. Frequencies may vary by time of day and night but **the ability to travel by bus must always be there in one form or another.**

7. Private, premium or bespoke shuttles

In addition to the core open public offering, if we are to truly replace the car in the urban environment, there **needs to be a 'safety valve' where common groups of people travelling to common destinations can procure or supply their own private, premium or bespoke routes.**

This will relate, for example, to **educational facilities, workplaces, sports and entertainment venues and other similar destinations.**

Those operations may be **more sporadic and timetabled in line with the needs of the groups**, perhaps without general public access and **restricted to employees, customers or people prepared to pay a premium for additional quality or facilities.**

So long as those operations are delivered reputably and carry material numbers of people in an environmentally sustainable way, they should **have access to the common bus infrastructure and facilities** including bus lanes, bus stations and technology.

So, if the standard network doesn't meet your needs, **you can, as a collective, design, provide and fund your own route.** Your route, your way.

Individuality and choice is one of the factors driving car use and there should be **no reason for those who wish to exercise individuality and choice not to do so** - so long as it is **in a mass transit format** and follows the core mass transit safety rules imposed with as light a touch as possible.

Commuting in 2050 should not resemble some kind of hair shirted soviet collective activity – it should be **desirable, comfortable, fashionable and convenient** and room exist for **innovation, initiative, flair and variety.**

If you want to pay a little bit more or make a little bit of effort to **make it more stylish and fun**, the option always needs to be there to do that.

Just don't try to do it in a single occupancy car or, indeed, a car of any sort.

Design yourself a bus and fill it up with your friends, colleagues or, simply, people who share your passion for whatever!

Transition

Aside from the political question of how a local authority initiates the move away from car dependency, **how does the bus industry, itself, sow the seeds of a bus renaissance?**

If we believe in a world of Active Travel and Mass Transit edging the private car out of its current comfort zone dominating our towns and cities, either stationary in traffic or stationary parked, **we need to deliver tangible evidence of what buses really can do** given the necessary road space, infrastructure and investment by both the public and private sector.

If we look **around the UK today, there are very, very few bus routes, if any, which we could hold up as shining lights of perfection.**

Routes which deliver all of *frequency, speed, proximity, quality, style, simplicity, reliability, value and 'always on!'*

Routes which can tick these 28 boxes –

At least 6 departures per hour between 5am and 1am daily

At least 2 departures per hour between 1am and 5am daily

Zero emission fleet

Separate doors for boarding and alighting to optimise speed.

No driver transactions to optimise speed.

Comprehensive bus priority measures along the full length of the route 24 hours per day to optimise speed.

Operating schedule customised to the time of day, day of week, season of year built using AI.

Ability to pay contactless by credit card, debit card, smartcard, or simply facial recognition.

Supported by 24 hour customer service online, by chat and by phone.

On street supervision and customer support 24 hours per day.

Shelter, seating and accurate, live real time arrival tracking at every stop.

CCTV on bus and at stops with emergency help buttons triggering live feeds to control room.

Light touch audio visual next stop and essential information announcements.

Clear journey tracking by app with personal stop alert.

App showing walking route to final destination.

Free wifi.

No quibble money back guarantee if journey is unsatisfactory.

QR codes for customer satisfaction survey at every seat.

Operating depot fully staffed with engineering and driving staff and a waiting list of potential employees.

Bus litter picked at every terminal.

All internal information clean, clear and accurate.

Clear customer contact information provided on bus and at all stops.

Paper timetables and fares information freely available on bus.

Up to date punctuality and reliability data published on bus.

Up to date customer satisfaction score published on bus.

Up to date staff satisfaction score published on bus.

Found Property digitally tracked at first terminal point after being found with data immediately available to the Customer Call Centre.

Manned replacement bus on standby at each depot 24/7

Apart from the one futuristic issue underlined, **none of those issues are rocket science and all can be delivered now.** Every single one of them will enhance the customer experience and customer satisfaction. If you are asking me **to give up the security of my private car and trust my mobility to a third party, I would expect a consistently high standard and quality of delivery.**

If we want the bus to become the pre-eminent means of urban mobility of the future, **we need to start there and accept this will be the minimum acceptable in the long run.**

If every major operator **identified its strongest current bus route and brought it up to this standard,** that would be a solid step forward in showing what bus travel can really be like.

And ***a clear statement of intent!***

When you're staking a claim for the bus, with its current, understandably tarnished image and reputation, to be the premium mode of urban mobility, **you need to put your credentials out front sooner rather than later as you have a LOT of persuading to do!**

That takes **more than fine words** – it needs hard, useable, demonstrable evidence and, **any operator afraid to do that should simply opt out of the game** as the next few years is ***'now or never crunch time'!***

We then **move forward, step by step,** with Local Transport Authorities to move toward cleaner, liveable cities freed from the tyranny of the car.

Culture

Over the last 8 decades, the bus industry has learned to 'know its place' in the mobility hierarchy and developed a culture to fit delivering **'reasonable services in the circumstances'** but, if it is to find a bold new role, it **needs to up its game substantially** and set and deliver much higher standards of customer service and consistency.

Moving from a 7% player in the mobility market to a potential 70% player opens up huge demand and revenue opportunities but they will only become a reality if the industry begins to **produce a suitable end product.**

We will discuss it further in *Episodes 10* and *11* on **Governance and Funding** for that new world but, of relevance to network design, we should acknowledge one key point here.

There are a **number of existing high quality iconic routes operating, almost at random, in various parts of the UK delivered by several operators.** They are all **the product of someone, somewhere at some time being prepared to work on them and invest in them.**

They are **significant by being by far the exception** and not the rule.

However, they **demonstrate, to a degree, what CAN be done** – but now the UK bus industry needs to **think hard about making something even better than them the norm and not the exception** if it is to earn the trust of local authorities brave enough to address the tyranny of the car.

In no particular order, and not the full list by any means, think –

The 36 between Ripon, Harrogate and Leeds

The Oxford Tube between London and Oxford

The 900 between Glasgow and Edinburgh

Citylink Air between Glasgow and Edinburgh Airport

The Airline between Oxford and Heathrow and Gatwick Airports

The Product Challenge?

If anyone thinks the current bus networks will go anywhere near persuading existing car commuters to embrace the bus by 2050, they are seriously deluded.

We talked last week about **'political courage'**.

Even the **most ruthless, hardened, dictatorship** would accept the need to **cast a significant number of sweeteners into the mix !**

Yes, mass transit may be the rational, environmental, ethical, moral choice for us all but we need to get real about how that works and ensure the product, itself, is compelling in its own right.

We know this will all cost money and we'll come to that in **Episode 11 on Funding** but, before we even get to Funding, we **need to talk about Fares and Pricing** and we'll open that conversation **next week in Episode 3.**