# North East urban platformisation case study

# 1. North East urban platformisation summary

Over the 10 years, the North East has been characterised by episodic and modular mobility platformisation, primarily operated by private providers with very limited public control or coordination. This has been concentrated in the urban core of Tyne and Wear, with very limited platform activity in the rural areas of Northumberland and Durham.

Key examples of this modular platformisation include the entry of Uber in 2015 and Bolt in 2021; Mobike in Newcastle between 2017 and 2019; shared e-scooter trials with Neuron in Newcastle (2021 – present) and Sunderland (2021 – 2022) and Zwings in Sunderland (briefly in 2023); and social enterprise car club Co-Wheels since 2008. Google, Citymapper and Moovit all offer private journey-planning services in the region. There was also a fairly speculative proposal for MaaS platform/experiment in the centre of Sunderland as part of an urban development project around 2022, which has not been progressed.

The key digital infrastructures in public control are the Nexus (Tyne and Wear PTE and Metro operator) owned Pop smart ticketing system (launched in 2011), which partly integrates the publicly owned Metro (and ticketing) with commercial bus networks, and two legacy ITS UMTC systems for road management located in Newcastle and Durham. Digital strategy is very underdeveloped at all scales and mostly limited to improving the quality of transport open data for use by private app developers, along with some piecemeal projects around integrated ticketing and fares across different commercial bus operators. Integration which includes price capping beyond the Metro has largely been unsuccessful in the deregulated and fragmented context of commercial bus provision.

Public authority capability with respect to digital platformisation is both limited and fractured, heavily constrained by the problems of devolution and only recently resolved political split between the North of Tyne and North East Combined Authority, which left the region without a dedicated metropolitan transport authority. Transport North East has remained largely a placeholder organisation since 2015, which sets regionwide strategy but with extremely limited powers and resources, where the two areas come together via a joint committee of local politicians.

# 2. North East governance context

Platformisation in the North East has been heavily constrained and shaped by its unstable territorial and governance arrangements. Transport North East (TNE) was created in 2016 as the transport authority of the North East Combined Authority (NECA) and amalgamating the transport authorities of Tyne and Wear with Northumberland and Durham. NECA was formed in 2014 mapping onto the North East LEP, but split in two over disagreements over a devolution deal for a mayoral combined authority in 2018. TNE has since operated as a brand name and placeholder organisation under the North East Joint Transport Committee (JTC) – which brings together the members of the (mayoral) North of Tyne Combined Authority (NoTCA) and southern remnant of NECA. NoTCA includes Newcastle, North Tyneside and Northumberland councils; NECA is comprised of Gateshead, Sunderland, South Tyneside and Durham councils. To further complicate the region’s governance, Nexus (the Tyne and Wear PTE and Metro operator) covers the urban area across both CAs. The North East had already undergone change with the creation of the Tees Valley Combined Authority in 2016.

As a result, the region’s governance arrangements and coherent strategy making have been highly fractured and constrained – and a source of tension with national government. TNE has no devolved powers and is ineligible for major sources of funding, especially CRSTS. It has therefore remained extremely limited in terms of capability and resources – during fieldwork TNE only employed 30-40 staff – to shape the transport landscape. This exacerbated the problem of shrinking capability within constituent authority transport departments, which have been hit badly by austerity since 2008. These combined pressures were the overriding conditions shaping platformisation in the North East – namely the very limited capacity to engage, coordinate or exercise control over platformisation by TNE or other public authorities.

During fieldwork, there were ongoing negotiations within the region and with national government over a new devolution deal. Despite some ongoing frictions and Durham exploring a separate ‘county’ deal, this was eventually agreed and signed in late 2023, with a mayoral election to be held in May 2024. The deal will involve considerable devolution of transport powers and £900m allocated for transport (including £563m of CRSTS funding). The mayoral election was held in May 2024, with the Labour candidate Kim McGuinness beating Jamie Driscoll (running as an independent).

# 3. North East transport strategy and funding context

## NECA manifesto (2016)

In December 2016 and prior to its fracturing, NECA and TNE produced a 24-page ‘Transport Manifesto for the North East Combined Authority’ [link]. This was a short, broad brush vision document and first step in developing a regionwide strategy, but was the first to cover this particular geography intended to supersede the separate 2011 LTPs for Tyne and Wear, Northumberland and Durham [links]. However, a full-length transport strategy was delayed until 2021 by the breakdown of the devolution process, and produced via the North East JTC instead of NECA.

## Transport North East strategy

The ‘North East Transport Plan 2021-2035: Moving to a green, healthy, dynamic and thriving North East’ [link] was published in 2021 – in the middle of the pandemic. Our analysis of this strategy was that it was primarily a product of the region’s unstable governance arrangements, reflected in a lack of a coherent spatial imaginary or overall territorial vision for the future. Its key concerns were around poor connectivity and fragmented provision constraining the region’s growth, productivity and efforts to tackle poverty and social inequalities. Its focus in terms of projects was on funding for schemes for maintaining or upgrading existing infrastructure (especially roads and rail) in a context of limited resources and long-term underinvestment and deindustrialisation. See summary from late 2021/early 2022 [link].

In terms of digital strategy, the plan was very limited and undeveloped, but was informed by ‘Connected North East’ [link]. This document was published in 2020 and prompted by the pandemic, focusing on the increasingly important interlocking of transport and digital infrastructures – reflecting on COVID-19’s impacts on travel behaviour, patterns of work and how uneven and unequal access to high quality digital infrastructure had become a critical aspect of regional connectivity. While platforms are highlighted as providing certain opportunities (e.g. new services, better integration, real-time information) there is little strategic vision.

## Other strategy docs

There are a number of sub/supplementary strategies produced by TNE and attached to the North East Transport Plan, including:

* North East Bus Service Improvement Plan (2021) [link]
* North East Rail and Metro Strategy (2022) [link]
* North East Active Travel Strategy (2023) [link]
* Making the Right Travel Choice (2022) [link]
* North East Zero Emission Vehicle Strategy (2023) [link]

Still to be published (as of Feb 2024) are:

* Ticketing, Pricing, and Information Strategy
* TNE Engagement Strategy
* Customer Experience Strategy

## Funding context

TNE had limited funding during the period of study, primarily due to its devolution status which made it ineligible for various funding streams and at odds with central government/MHCLG (now DLUHC).

* Its main source of funding was through the Transforming Cities Fund – £10m in Tranche 1/2019 [link] and £198m in Tranche 2/2020 (to cover three years) [link]
* In 2022 TNE received £163m over three years to deliver its BSIP
* Active Travel Fund: TNE received £2.2m received in Tranche 1 (emergency projects during lockdown in May 2020) and £9m in Tranche 2 (November 2020), then won £17.9m in Tranche 3 (May 2022) – the largest allocation in the country – and £17.7m in Tranche 4 (May 2023)
* Covid relief funding for Metro (£69m) and buses (unknown)
* Other sources of funding unknown (e.g. local authorities, BSOG)
* TNE submitted an unsuccessful bid for Future Transport Zone funding in 2019 [link]
* As a result of the devolution deal signed off in 2023, £900m will be allocated for transport (including £563m of CRSTS funding which was previously unavailable)

# 4. North East’s geography and existing public transport system

The geography of the new North East Combined Authority area and Transport North East is marked by the divide between its polycentric urban core of Tyne and Wear and two large and mostly rural counties of Durham and Northumberland. The region has a population of around two million people, but while Tyne and Wear is relatively well integrated and served by public transport, the rest of the region suffers from poor and declining public transport provision, and a heavy reliance on its roads and private car use. Combined with high levels of transport poverty (party a function of high levels of poverty and chronic underinvestment in infrastructure), this contributes to a broader sense of geographical fragmentation – exacerbated by political fracturing and repeated altering of administrative boundaries.

Overall, there has been a strong inclination and efforts to bring core public transport systems under public control and ownership within the urban core (though less in the county transport authorities due to cost implications), but this been constrained to date by legislation and limited powers, austerity, central government and legal challenges by operators.

## Metro and local rail

At the centre of the region’s public transport network is the urban light rail Metro, which is publicly owned and operated by Nexus, serving the Tyne and Wear urban region since 1980. Between 2010 and 2017 the Metro was operated by DB Regio under contract, following a deal with national government to secure its operational subsidy and modernisation investment. Nexus opposed but was forced to accept the deal in the context of austerity. Nexus did not renew the contract in 2017 citing poor performance and took Metro back under full public ownership. Interviews revealed there is strong political backing and within Nexus to maintain municipal ownership as a prerequisite for delivering public service outcomes. The Metro remains loss-making and reliant on local and national subsidies, and finding investment to maintain and upgrade its core infrastructure has proved challenging. During the pandemic, Nexus was allocated around £69m (estimate based on press releases) in covid relief funds between 2020 and 2022 to keep the system afloat in the context of significantly reduced fare income.

To improve the region’s fragmented rail connectivity there are ambitions to extend and integrate Metro with local rail (see above), alongside projects to extend and reopen local rail lines, including: (i) the reintroduction of passenger services on the Northumberland Line connecting Newcastle with Blythe and Ashington, set to open in 2024; and (ii) the ongoing campaign to reopen the Leamside Line for passengers and freight.

## Bus networks

In Tyne and Wear, Go North East and Stagecoach dominate commercial bus networks, with Arriva more prominent in the two rural areas of Durham and Northumberland. Governance has been mediated through an Enhanced Partnership created in 2021. Bus operators also work together through a local trade association called NEBus, and the Network One system brings them together with Nexus and Metro in a multi-operator ticketing scheme. Between 2013 and 2015, Nexus unsuccessfully attempted to bring local services under franchise control – the first transport authority to try using the Quality Contract Schemes section of the Transport Act (2000). The private bus companies spent significant money and legal means to block the proposals which were eventually rejected by the Quality Contracts Board – technically on economic grounds of upsetting the commercial market. Several interviewees described the struggle as a test case and key factor (combined with Andy Burnham’s negotiations around the first devolution deal) in franchising powers being strengthened in the Bus Services Act (2017). Several of those involved with Nexus at the time described being ‘scarred’ by the experience, but incumbents were still committed to franchising once a devolution deal was completed. In May 2024, Labour candidate Kim McGuiness won the first metro mayoral election, and announced she had instructed TNE to immediately begin the process of bus franchising.

The North East has been one of the most profitable regions in the country for the big operators, but bus use and service provision has been in decline for many years, with rural services especially degraded and fragmented (see Northumberland and Durham interviews). According to Campaign for Better Transport data, bus service miles in the wider North East region (including Tees Valley) fell 15 percent (2010/11-2018/19), and a further 13 percent (2018/19-2020/21). Data from the Transport Commissioners recorded a 50 percent drop in registered bus routes in the region 2010-2023. As in other areas, bus networks were hit hard by the pandemic which saw more routes cut and heavy reliance on bailout money from central government. With the end of this funding in mid-2023, TNE expected to lost 10-20 percent more bus miles and were forced to allocate £12.2m of its Bus Service Improvement Plan money earmarked for network improvements and to save those routes.

Public authority officials described a more collaborative approach from commercial operators in the post-covid context, through the Enhanced Partnership and the region’s successful Bus Services Improvement Plan (BSIP) funding bid, which allocated £163m over three years from 2022 – though the original plan/bid was for £808m. Of the funding, £74m was earmarked to improving bus infrastructure and just under £90m for improved fares and services. It includes plans for multi-operator fare-capping, investigating DDRT and new digital systems and services (e.g. real-time information, journey planning apps). While important, interviewees described the challenges and contradictions of the limited BSIP settlement, which for example allowed new night services to be funded (for the period of the funding) while the daytime route was under threat due to a government imposed network review.

# 5. North East platformisation and public transport development over time

## Integrated ticketing

### Pop Card (2011)

* Physical ITSO smartcard launched in 2011, funded by central government via the North East Smart Ticketing Initiative (NESTI). NESTI was led and delivered by the PTE Nexus in collaboration with North East councils (including Tees Valley) to create a common smartcard infrastructure – a process prefigured/already underway through the development of regional infrastructure for ENCTS (national concessionary scheme) smartcards.
* Described as one of the most successful systems outside London, integrating ticketing across Metro, bus networks and Shields Ferry, across Tyne and Wear and the wider North East region. It combines various products including concessionary ticketing, pay-as-you-go, season tickets for individuals and corporate employees. There were some early discussions and trials for it to function beyond transport (e.g. library card, student card) but these were shelved. A key element was persuading all the smaller bus operators to install Ticketer machines (leased by Nexus) for ease of integration across different networks. This meant all the bus operators in the region other than Stagecoach using the same ticketing system.
* Pop first introduced capped pay-as-you-go services in 2015, supported by central government Smart Cities Partnerships scheme. However capping remained only on Metro – Nexus were not able to negotiate fare-capping with the commercial bus operators (due to both competing interests and complexity/fragmentation of system). During fieldwork, one Nexus interviewee told us the introduction of an integrated contactless system with fare-capping capability would cost £15m and was not an immediate priority/obvious value for money for North East local authorities to fund. A 2018 report suggested introduction of integrated contactless and Account Based Ticketing for the region would cost at least £27.5m. As a result of all these limitations, Nexus get relatively limited data about transport users and their behaviour compared to those with more developed ABT-style systems (e.g. Swift).
* Key contractors on the system were Scheidt & Bachmann and Rambus Ecebs providing technology for ticketing, payment and back office. The Tyne and Wear Metro Map app is provided by Mapway – map and journey planner created in 2013; Tyne and Wear Metro app provided by Hacon (now owned by Siemens) which has journey planning and live info, launched in 2016. There is also a Pop Nexus ticketing app, launched in 2020 by local app developer Nebula Labs, in partnership with Yotra Ltd (ITSO Ltd company – provides mobile ticketing), Scheidt & Bachmann and Google Pay – includes live info, journey-planning, booking. Pay-as-you-go on Android (i.e. Pop Card with PAYG capability loaded into Google Wallet on mobile) was launched in 2022.
* In 2024, it was announced that the reopened Northumberland Line would include integrated fares through PAYG on Pop Card. Nexus officials hope that the devolution deal will ultimately facilitate the integration of other rail services too. Further integration (funded through BSIP) was mooted for early 2025, when testing of the ‘tap on tap off’ (TOTO) system on buses would commence. It was later announced that an account-based ticketing upgrade to ‘Pop 2.0’ would be operational in Autumn 2024 – offering TOTO fare capping across bus, Metro, Ferry and some local rail services. This did not seem to include Durham

### BSIP and zonal ticketing and fare-capping through Network One Travel

* Network One is a private entity and multi-operator partnership set up in 1988, now between Nexus, the Metro, Go North East, Stagecoach North East, Arriva North East, Sunderland to Blaydon rail line and the Shields Ferry. It offers a variety of zonal day/week/month/annual travel tickets across Tyne and Wear or the whole North East (including Tees Valley) on these networks – with mobile ticketing available through different operators (including Pop). Fares and distribution of revenue made through ticket sales are negotiated through Network One.
* Through BSIP funding, TNE introduced zonal tickets across the North East in 2022-23, managed and delivered through Network One – seen as the easiest/established/trusted organisation. This fare-capping scheme was mooted to launch with paper day tickets initially as the easiest way to get it off the ground, but the ambition is to move first to mobile ticketing and ultimately digital fare-capping – but this has some compatibility issues across Metro and Stagecoach, and will also require a new back office system to operate. There were also difficulties in governing the process where tickets crossed borders (e.g. into Tees Valley) where TNE jurisdiction and funding doesn’t apply.
* In addition, TNE had ambitions integrate other modes through a Travel North East branded ticketing app, with other functionality (e.g. journey planning, DDRT) potentially added later. They had pitches from Urban Things and Trapeze (who already provide some back-office services for Nexus and Durham as well as bus franchising services) but were not in a rush.

## Mobility-as-a-service

### Future Mobility Zone bid (September 2019) and other MaaS exploratory work

* MaaS was part of unsuccessful Future Mobility Zone proposal [link] in 2019 included the ambition/vision of creating a mobility-as-a-service platform for integrating ticketing, booking and payment across all modes, and enabling incentive/nudge-based mechanisms to encourage sustainable transport choices. It was mentioned in interviews that Citymapper and other platform operators were involved in discussions that fed into that bid – and it will be interesting to see if there is development of the relationship with Citymapper in the next phase of platfomisation in the North East.
* TNE was not interested at the time of fieldwork in any publicly controlled MaaS platform given lack of resources and in-house capability. The key work was described as improving data standardisation and quality of RTI for buses and road management which undergirds any potential MaaS system – narrative very much about providing high quality and reliable open data for a private provider. Similar comments were made in relation to journey-planning apps for Travel North East (see above in Integrated Ticketing section).

### Sunderland MaaS proposals (2022)

* Sunderland City Council were attempting to build/procure MaaS system as part of an urban development project (including 5G area, housing expo, mobility hub, car club, micro-mobility) in Sunderland city centre, led by the city council with some capital funding through MHCLG. They spoke to private providers including Mobilleo/Fleetondemand and Moovit, but this element of the project does not appear to have been progressed.

### Other commercial MaaS/journey-planning platforms operating in the North East

* Google Maps launched public transport links to its app in 2014, and multi-modal journey-planning app now includes shallow integration of Neuron e-scooters (i.e. location, journey-planning). The PAYG Pop Card can now loaded onto Android Google Wallet, though it can only be used to pay for Metro.
* Citymapper launched around 2015 (date unverified) and offers multi-modal mapping and journey-planning available across Newcastle/Tyne & Wear. The platform was mentioned in a couple of interviews about being part of discussions when putting together the Future Transport Zone bid, and also in terms of a platform that required higher quality data in the region.
* Moovit also provides a MaaS and multi-modal journey-planning app available across Tyne and Wear, and now includes shallow integration with Neuron e-scooters (i.e. location). Moovit was involved in some preliminary discussions about providing a product for Sunderland City Council’s local MaaS app.

## Micro-mobility

### Scratch Bikes (2010-11)

* SMS-based bike-hire scheme and company launched through Newcastle University Civil Engineering department students. Company later funded by local BID company Newcastle NE1 Ltd and relaunched citywide – appears to have existed between January 2010 and November 2011, with the scheme launching in summer/autumn 2010.
* The founders went on to create Grand Scheme Bike Share Ltd, which got a few contracts in the UK including Oxford, before folding in 2013. Robert Grisdale then became MD of Nextbike UK (2014-16) when they launched in the UK.

### Mobike scheme (2017-19)

* Free-floating dockless bikeshare scheme operated by private Chinese operator Mobike, launched in Newcastle as third UK city in October 2017 – initially with 450 bikes, 500 more in February 2018 and another 200 in June 2018 when expanding into Gateshead.
* The scheme was partnered with/promoted by British Cycling, but privately operated and financed by Mobike (i.e. no cost to the council). Newcastle City Council signed up to the scheme as a trial with principles set out in an MOU. Mobike pulled out in May 2019 for ‘financial reasons’ after gradually downsizing operation during 2018 amid reports of vandalism, theft, etc.

### Neuron Mobility and Zwings e-scooter trials (2021 – present)

* Separate trials began operating in Newcastle and Sunderland with Neuron Mobility, selected in the context of rapidly put together DfT trials during COVID-19. The schemes operate(d) as non-subsidised commercial operations, with local councils putting out for tender to different operators. The trials were extended by 12 months extension in April 2022, followed by another 18-month extension in Autumn 2022 (which led to re-procurement process). Each scheme had an operations centre and warehouse with vans for managing and rebalancing the fleets in each city. Via a portal local authority officials can view the real-time status of scooters and access usage data.
* The Newcastle trial was supposed to include Gateshead but they dropped out of the process late on – apparently due to perceived political risk after Mobike experience (NE9). In Newcastle, Neuron won a competitive tender of 18 applications (including Lime, Tier, Bird, Bolt). The scheme launched in February 2021 during lockdown, and almost shut down in Newcastle after a week due to drink-riding incidents. DfT permit allows for 1050 scooters in Newcastle – NCC start with 200 or 250 (depending on source), then 400, up to 900 by October 2022. Newcastle operates free-floating dockless scheme, but geofenced in terms of where scooters can be ridden, which is largely restricted to Newcastle city centre, Jesmond, High and South Heaton and the southern part of Gosforth. Newcastle CC was looking to introduce more restricted parking model – in Jesmond area in consultation with RNIB, TPT – and following concerns and complaints about street clutter, safety and accessibility – e.g. NFBUK.
* Neuron also won the Sunderland tender and launched in March 2021. Initially just covering the city centre, the scheme tripled its service area after 12 months to cover 6.2km2. By July 2022, Neuron was operating 250 scooters in Sunderland – just below an anticipated 300. In November 2022 however, when the scheme came up for renewal, Neuron decided against retendering – citing financial viability of scheme as unworkable in context of cost-of-living crisis and high electricity bills. From January 2023 Sunderland trial relaunched under new operator Zwings – launching with 100 scooters and parking bays and expecting to more than double in 2023. Zwings cancelled the scheme in April 2023 citing vandalism and financial losses leaving Sunderland without an e-scooter trial.
* Since February 2022, Neuron scooters were visible through a shallow integration with Google Maps.
* As part of its wider lobbying, Neuron released a ‘Prosperity Report’ in October 2022 claimed its e-scooters were adding £14.9m of value/£11,500 per scooter to UK economy each year.
* The North East Active Travel Strategy published in June 2023 noted that, following the trials, TNE will explore opportunities for regulated e-scooter schemes in the future – but is waiting for DfT legislation and guidance on e-scooter rental licensing agreements before being “able to develop a meaningful regional policy”. It also noted that managing street clutter and access needs on pavements has been a key issue and source of tension around the e-scooter trials

## Other modular mobility platforms in the North East

### Ride-hailing (2015 onwards)

* Uber and Gett entered core of city region in 2015. Uber remains dominant without major challengers until Bolt in 2021.
* Shapes wider platformisation of taxi market – sees new software companies such as iCabbi, Autocab (now owned by Uber) and Karhoo providing equivalent platforms for traditional firms.
* Governed with limited oversight, but licensed through local authorities.

### Car-share and car clubs (late 2000s onwards)

* Some small car clubs operated by local social enterprise Co-Wheels and major provider Enterprise dispersed around urban centres (including Durham) and around rail hubs. Contracted by/partnered with local authorities. Co-Wheels also has a partnership with Go North East through its ‘Flexibility’ smartcard.
* Various carpooling/lift-sharing platforms (e.g. BlaBlaCar, Liftshare, Jambusters) also available, but very marginal.

## Public transport platforms

* Existing public transport networks have also been gradually digitised/platformised since the late 2000s – but in a fragmented way across different operators. The below is from the online-based platform mapping work in early 2022 and may not all be accurate – some cross-referencing with bus company interviews could be helpful.
* Commercial bus companies use Vix Technology (Stagecoach) and Ticketer (the rest) for ticketing, including mobile ticketing. Corethree has also provided a mobile ticketing platform for Arriva. Cityswift has been used by Go North East for RTPI. Stagecoach uses Optibus for network development and smart timetabling. Arriva uses HaCon software for journey-planning within its app, while Go North East has developed an app for journey-planning and timetabling through its own subsidiary OnTrack Retail.
* Various platforms underpin the digital infrastructure of the Pop Card system and Metro (see above), while Trapeze also provides back office software to Nexus.