A (Re)Insurance Perspective

UK MOBILITY AS A SERVICE (MAAS) READINESS AND EUROPEAN OVERVIEW

2025 Report

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Overview

Mobility as a Service

Mobility as a Service (MaaS) is driving a paradigm shift in urban transport, offering integrated, on-demand and sustainable alternatives to private car ownership. Today, in many countries, to navigate a city or even travel cross-country in one journey, commuters require not a vehicle parked in their driveway but rather simply a device with internet connection.

MaaS platforms connect multiple transport modes and providers in real time through data-sharing and APIs, combined seamlessly under one booking and, importantly, one payment. The burden of the manual administrative load is entirely relieved from the user, freeing them to travel flexibly. Reforging transport links in the image of the maturing subscription economy taps into a consumer base that is incessantly on the go, with a prevailing demand for the "right here, right now." With the rise of MaaS as a defining mechanism of the global behavioural and systemic transition from ownership to usership, the evolving risk landscape presents a new and compelling opportunity for the (re)insurance sector.

Building on the work of Guy Carpenter's sister companies, Oliver Wyman and Marsh, our report introduces the GC UK MaaS index to analyse which cities are poised to benefit most from the MaaS movement.

MaaS is a combination of many mega trends. For a global community facing accelerating threats posed by explosive population growth, urbanisation and resource scarcity, MaaS is positioned as a dynamic solution to many of these issues. Meanwhile, the imperative for sustainable transport solutions to combat climate change alongside the pervasiveness of smartphones and, more recently, AI, have been potent accelerants. In less urbanised areas, MaaS is still in its nascent phase. Indeed, the concept only entered mainstream discourse surrounding the future of the mobility industry in the last decade. Many still will have never even heard the term—but they certainly will recognise its permeation into numerous streams of urban transit.

In London, MaaS apps including Citymapper gain traction as a convenient provider of navigation services, ticketing and real-time updates. The shared bikes, which have become an emblematic feature of the London streets, are an essential component of multi-modal journeys. Ride-hailing giants Uber and Bolt are adopting increasing MaaS capabilities into their offerings. But while London, unsurprisingly, propels the momentum, the rest of the UK presents an equally interesting and diverse case study as an innovation zone for the development of MaaS. Besides enhancing accessibility, MaaS offers cities the promise of reduced congestion, improved air quality and more efficient use of public space. As cities across Europe race to meet the goal shared by the UK of carbon neutrality by 2050, MaaS has never been more pertinent and promising.

The potential of MaaS to entirely restructure the very architecture of urban mobility is exceptional and, in our view, underestimated. With steady investment into the service economy, transport providers are recognising the potential revenue streams from MaaS across the globe by embracing carsharing, ride-hailing and micromobility. The integration of MaaS as a ubiquitous medium of transport will be radical and disruptive in the mobility field, yet it presents an efficient and practical solution. This is where insurance will need to innovate to seamlessly provide solutions across different modes of transport for the end consumer.

Case Studies

Macro Landscape: MaaS Platforms

The utility of MaaS as a product lies in its versatility for the individual, with certain features that allow complete personalisation of each journey. We propose the following characteristics to define a MaaS platform:

1) Ticketing/common payment system or subscription

2) Multi-modes of transport

3) Real-time updates

4) Flexible preferences for user

5) Aggregation of public and private transport services

To contextualise MaaS, below is a table of various real-world examples with many, if not all, of these distinguishing features. These case studies contain brief explanations on a selection of the main MaaS apps or pilot schemes across the world but is by no means a comprehensive list.

Name, Domicile & Launch Year	Key Stats	Key Features
Whim **Helsinki (2017)**	Within first year of operation, over 2 million trips 6% of population in Helsinki was using the application in 2017, mainly the age group of 18-40 years old Attracted over EUR 149 million in investments from Toyota, Mitsubishi and BP Ventures	• Founded by Sampo Hietanen, regarded as the "Father of MaaS," CEO of the Finnish start-up MaaS Global • Since launching, Whim expanded to Turku, Antwerp, Birmingham, Vienna, Tokyo and Switzerland • Supported by Finnish legislation for transportation services to provide open data and interoperability; Whim utilizes data from Finnish public transport authority HSL • Blended pay as you go and fixed-price all-inclusive subscription • Combines bikes, scooters, taxis, hire cars, ferries, with public transport services • MaaS Global went bankrupt in 2024 due to post-pandemic cash shortages, nonetheless its success as a forerunner in the region demonstrates the potential of MaaS to reshape transportation habits
Trafi **Vilnius (2017)**	Used by 80% of all public transport users in Vilnius 500,000 tickets sold monthly via the app 4 million trips are planned every month	• Pool of different transport modes and intermodal routing with live directions • In-app ticket purchase • Real-time door-to-door journey planner provides personalised and multi-modal trip recommendations
Floya **Brussels (2023)**	1.5 million routes planned as of 2024	• Powered by Trafi software • 87 lines covering metro, tram and bus and 10 fully integrated mobility service providers (MSPs) • In-app ticket purchasing, contactless payment and automated driver's license ID verification
Jelbi **Berlin (2019)**	60,000 used the app for daily journeys in 2019 As of 2023, 500,000 downloads and 220,000 user registrations	• Powered by Trafi software and developed by Berlin's public transport operator, BVG • Incorporates Berlin's entire transport system and sharing services including bus, train, e-moped, e-scooter, bike, car and taxi

Name, Domicile & Launch Year	Key Stats	Key Features
Citymapper **London (2011)**	50 million users across 100 cities After launching in Paris in 2014, grew user base at an average of 55% per year for the next 5 years; in 2023, passengers planned an average of 3+ journeys a day using Citymapper	• Offers a Citymapper Pass in cities including London • Expanded to cover most US and European major cities and others around the globe • Acquired by Via (a MaaS platform which has provided 125+ million trips since its launch across 35 countries) • Aggregated user data is shared for real-time updates and to help cities with their planning
Moovit **Israel (2012)**	1.7 billion riders in 3,500 cities across 112 countries since launch	• Combines modes of public transit, local bicycle services, taxis, mopeds, ride-hailing (Uber/Lyft), scooters and Waze carpooling • Amasses up to 6 billion data points a day to compile its Data Repository, considered the largest in the world, holding information of: — 7,500 transit operators (lines, routes and timetables) to provide real-time arrivals — Service alert updates for more than 4,000 transit operators — 6 million+ stops & stations — Connectivity to 360 shared and micro-mobility service providers
Didi **China (2012)**	Used by over 550 million users across China as of 2025	• China's top MaaS app integrating ride-hailing, micro mobility and public transport, including cars, bikes, e-scooters, buses, ridesharing, private vehicles, chauffeuring and even delivery services • Expanded globally to Latin America, Japan and Australia; paused its Europe and UK expansion due to regulatory issues around passenger data handling • Acquired Uber China in 2016
Ola **India (2010)**	1 billion+ rides in 2024	• Covers at least 250+ cities across the world; undergoing significant expansion into Europe and the UK in 2025 (particularly London, Manchester and Birmingham) • Includes cabs, bikes, motorcycles and rickshaws, and offers services including a payment wallet, AI tools and car rental • Insurance included in the trip

It is worth noting there are other emerging technologies that will have an impact on the MaaS ecosystem in the not-too-distant future, such as air-taxis, autonomous drones and flying pods. These will enable point-to-point, fast, on-demand transit, adding another aerial layer alongside ground transport. We haven't considered the use of this technology yet, as it is still in a prototype stage.

GC UK MaaS Index

Local Level: Deep Dive into the UK MaaS Ecosystem

Measuring the development of a city's MaaS infrastructure provides a foundation for evaluating new risk landscapes and identifying emerging trends in the insurance and reinsurance domains. To provide a quantifiable and comparable assessment of MaaS readiness, we developed the GC UK MaaS Index, based on 5 key thematic categories, each comprising several individual metrics with a qualitative score. The selection of factors was based on a holistic view of what constitutes a robust MaaS ecosystem. These factors were grouped into 5 logical and strategically important thematic categories with measurable criteria within each category. Weights were assigned based on their importance to enable a future MaaS strategy. The full range of metrics, weights and selection criteria is shown below. See Appendix for further detail.

Category 1: Public Transport (20%)

Public Transport Modes (PT Modes Score) (50%)

0: Only Buses.
1: Buses + Rail (limited regional rail connections/basic national rail access).
2: Buses + Rail (good network) + Tram/Metro/Subway (presence of significant rapid transit, such as Tube, Metrolink, Midland Metro, Glasgow Subway, Edinburgh Tram, etc).

Integrated Ticketing (IT Score) (50%)

0: No integration (separate tickets for all modes/operators, cash-focused).
1: Basic integration (e.g., single smartcard for one operator's buses, very limited regional smartcard, or basic national rail + bus combo like Plusbus).
2: Good integration across major public transport modes within the city/region (e.g., bus, train, metro/tram on one widely used card/contactless, like Swift, Bee Network daily cap, Robin Hood Card, etc).
3: Advanced integration (e.g., London with Oyster), effectively unifying payment across extensive public transport/possibly extending to shared mobility services via a unified system.

Category 2: Shared & Micro-mobility (25%)

Bike Share Scheme (BS Score) (35%)

0: No public bike share scheme.
1: Small scheme (<2 bikes per 10,000 population or very limited fleet size for city population).
2: Moderate scheme (2-5 bikes per 10,000 population or significant fleet size for city population).
3: Medium scheme (5-10 bikes per 10,000 population or substantial city-wide presence).
4: High presence (10+ bikes per 10,000 population or extensive, well-used network).

E-Scooter Trial/Service (ES Score) (35%)

0: No public e-scooter trial/service (private e-scooters are illegal on public roads, and no authorized trial is running).
1: Limited trial (small fleet, restricted geographical area).
2: Established trial/service (significant fleet/coverage, possibly multiple operators).

Cycling Use (CU Score - Micro-mobility) (30%)

0: Very low/negligible cycling mode share (<1% of all journeys, or very low reported regular cycling).
1: Low (e.g., 1-2% mode share or few regular cyclists; some cycling activity).
2: Moderate (e.g., 2-5% mode share or growing regular cycling; good number of active cyclists).
3: High (e.g., >5% mode share or very active cycling culture; significant proportion of journeys by bike).

Category 3: Electric Mobility (10%)

EV Charging Infrastructure (EVCI Score) (30%)

0: Very limited/negligible public charging points.
1: Limited (few scattered points, often concentrated in central areas).
2: Moderate (growing network, some key hubs, becoming more accessible across the city).
3: Good (widespread and robust network of public charging points).

Private EV Adoption (PVEV Score) (30%)

0: Very Low (negligible private EV presence, low local incentives/support).
1: Low (some private EVs, but not widespread).
2: Moderate (growing private EV numbers, increasing visibility, some local initiatives for adoption).
3: High (significant private EV adoption, strong local support/incentives, high proportion of new registrations).

Public EV Adoption (Bus Fleet) (PBEV Score) (40%)

0: No/negligible electric buses in public fleet.
1: Pilot/very small electric bus fleet (<10% of total fleet, or <50 electric buses).
2: Growing electric bus fleet (10-30% of total fleet, or 50-200 electric buses, or significant planned rollout).

3: Substantial electric bus fleet (>30% of total fleet, or >200 electric buses, significant investment and visible impact).

Category 4: Tech & Digitalisation (20%)

MaaS App/Pilot (MA Score) (40%)

0: No dedicated MaaS app (only standard journey planners like Google Maps).
1: Basic journey planning across modes, limited real-time info (e.g., a simple public transport app with basic routes/timetables).
2: Planning + good real-time info + some booking/payment for *some* modes (e.g., core public transport tickets, or integration with one specific shared mobility provider).
3: Comprehensive planning, real-time, booking, and payment integration for *multiple public and shared mobility modes* within a single, mature app (e.g., Citymapper in its most advanced integrations).

Transport Open Data Policy (OD Score) (30%)

0: No discernible open data policies or data available.
1: Limited static data (e.g., PDF timetables, basic route maps).
2: Partial real-time data for some modes (e.g., bus location feeds via a basic API or app, or limited GIS data from local council).
3: Comprehensive real-time data across most public transport modes, accessible via well-documented APIs, promoting extensive developer access (e.g., TfL's robust API).

Contactless PT Payments (CP Score - % Adoption) (30%)

0: Not available/negligible adoption.
1: Available, but low adoption (e.g., new rollout, or limited to specific routes/operators).
2: Widespread availability, moderate adoption (e.g., ~30-50% of payments are contactless/digital on main PT modes).
3: High adoption (>50%) and/or advanced features like daily capping across multiple modes.

Category 5: Local Institutional Quality (25%)

Active Travel Infrastructure (AT Score) (25%)

1 (Poor): Fragmented, unsafe cycle lanes/pedestrian areas, minimal investment/poor quality.
2 (Below Average): Some efforts, but significant gaps, safety concerns, limited dedicated infrastructure.
3 (Medium): Some dedicated infrastructure, but still major gaps, ongoing investment, but not pervasive.
4 (Good): Growing network of dedicated and safe infrastructure, well-connected in key areas, clear investment strategy (often indicated by Sustrans Index participation and positive reports).
5 (Excellent): Extensive, safe, and well-connected segregated cycle and pedestrian networks, high, sustained investment, significant mode shift (e.g., London's Cycleways).

Local MaaS Strategy/Policy (LMS Score) (25%)

0: No mention of MaaS in official plans, or no clear, specific plan.
1: MaaS mentioned as a general concept/aspiration in a broader transport plan.
2: Defined strategy with concrete goals and initial projects/pilots, often part of a wider "Future Transport Zone" or regional transport plan.
3: Active implementation with dedicated funding, strong partnerships, and ongoing, measurable initiatives aimed at delivering MaaS.

Institutional Quality/Support (IQ Score) (25%)

0 (Poor): Disjointed local government, significant bureaucratic hurdles, little evidence of inter-departmental or public-private collaboration on transport initiatives.
1 (Limited): Some departments working on transport, but limited cross-cutting strategy; minor bureaucratic hurdles for new initiatives; ad-hoc public-private engagement.

2 (Moderate): Clear departmental responsibilities, some evidence of cross-departmental working; standard bureaucratic processes; established channels for public and private sector engagement.
3 (Good): Highly collaborative local government, streamlined processes for transport innovation; proactive engagement with private sector and public; evidence of strong leadership in sustainable transport.

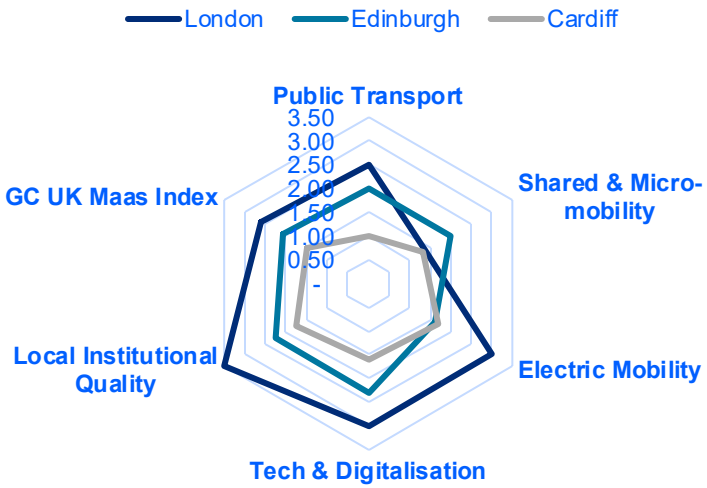
Regulatory Clarity & Risk Management Maturity for Shared Mobility (RC Score) (25%)

0 (Poor/Undefined): Unclear/conflicting regulations for shared mobility; significant legal uncertainty regarding liability (e.g., private e-scooters widely used but illegal on public roads); no explicit risk management collaboration.
1 (Emerging/Limited): E-scooter trials or bike-share schemes exist but regulatory framework for liability is still nascent or undergoing review; basic operator requirements for safety/maintenance.
2 (Defined/Developing): Clear regulatory framework for shared mobility operations, including some clarity on operator liability; evidence of city-operator collaboration on safety measures (e.g., geofencing, parking rules, rider education).
3 (Mature/Proactive): Comprehensive and adaptive regulatory framework for all shared mobility modes, with clear liability assignment and strong safety standards; active data sharing (privacy-compliant) with relevant bodies for risk analysis; proactive engagement with insurers on emerging risks.

Our analysis focuses on 19 major UK cities, selected based on their approximate urban area population plus any cities with notable transportation features. These cities represent a diverse range of sizes, economic outputs and existing transport infrastructures, providing a representative cross-section of urban environments across the UK. The GC UK MaaS Index is based on a calculation of the score for each city and summing each metric's score with its corresponding weight. Cities are then ranked based on these total scores. The results are presented in the table below.

Rank	City	Pop. (approx. urban area)	Area (km^2)	Public Transport	Shared & Micro-mobility	Electric Mobility	Tech & Digitalisation	Local Institutional Quality	GC UK Maas Index
1	London	9,000,000	1,572	2.50	1.40	3.00	3.00	3.50	2.63
2	Milton Keynes	280,000	308	2.00	2.35	2.60	2.70	3.25	2.60
3	Birmingham	1,100,000	268	2.00	1.70	2.70	2.30	3.25	2.37
4	Manchester	550,000	116	2.00	1.70	2.70	2.30	3.00	2.31
5	Coventry	362,000	99	1.50	1.70	2.70	2.30	2.75	2.14
6	Edinburgh	482,000	264	2.00	2.00	1.60	2.30	2.25	2.08
7	Brighton and Hove	276,000	83	1.50	2.00	2.00	1.90	2.50	2.01
8	Southampton	253,000	73	1.50	1.35	2.00	2.30	2.75	1.99
9	Wolverhampton	263,000	69	1.50	1.70	1.90	2.30	2.25	1.94
10	Nottingham	289,000	75	2.00	1.00	2.00	1.90	2.75	1.92
11	Bristol	470,000	110	1.50	1.65	2.00	1.90	2.25	1.86
12	Liverpool	552,000	112	1.50	1.35	2.00	1.90	2.25	1.78
13	Sheffield	518,000	368	2.00	1.00	1.30	1.90	2.25	1.72
14	Newcastle upon Tyne	268,000	114	2.00	1.00	1.70	1.60	2.25	1.70
15	Leeds	809,000	552	1.50	1.00	2.00	1.90	1.75	1.57
16	Glasgow	635,000	176	2.00	1.00	2.00	1.30	1.75	1.55
17	Cardiff	361,000	140	1.00	1.35	1.70	1.60	1.75	1.47
18	Belfast	280,000	115	1.00	1.40	1.70	1.30	1.75	1.42
19	Leicester	343,000	73	0.50	1.70	1.40	1.70	1.50	1.38

Here we compare the 3 capitals of the constituent countries.



The GC UK MaaS Index reveals distinct tiers of development among UK cities, with the following highlights:

London's Unchallenged Dominance

London has a unique combination of a vast, highly integrated public transport network (under TfL's unified control), extensive shared bicycle schemes and sophisticated digital platforms (Citymapper, TfL Go, comprehensive open data via APIs), all operating to offer an unparalleled MaaS ecosystem for its commuters. While the UK's legal framework currently restricts private e-scooter use, London's leadership in other MaaS pillars means it easily outpaces other cities. This indicates that while regulatory clarity for new modes is important, a strong foundation in traditional integrated transport and robust digital infrastructure is paramount.

Milton Keynes Is a Star in Planned Mobility

Milton Keynes, a relatively small but new town/city, emerges as highly prepared for MaaS, showcasing its strength as a modern urban planned centre. Its extensive redways network (200 miles of shared cycle paths), proactive stance on EV charging and involvement in e-scooter trials position it as a strong leader. The local council also have a clear and concise plan for future transport and key enablers for MaaS, including trials for autonomous shuttle routes through the city centre.

Regional Hubs Emerge as Strong Contenders

Manchester, Birmingham and Coventry form a second tier, largely owing to the strategic vision and coordination provided by their respective combined authorities. These bodies have actively pursued integrated transport initiatives, including franchised bus networks (Bee Network in Manchester), smart ticketing systems (Swift Card in West Midlands) and a commitment to electric public transport fleets. Their high scores in Local Institutional Quality underscore the critical role of strong, collaborative governance in driving MaaS development.

Tier 2 Cities: Diverse Strengths, Common Challenges

Cities like Edinburgh, Southampton, Brighton & Hove and Bristol show strong potential but with more varied profiles.

- **Active Travel Focus:** Brighton & Hove and Bristol excel in active travel infrastructure and usage, demonstrating a commitment to sustainable last-mile solutions.
- **Strategic Intent:** Southampton and Nottingham benefit from being part of Future Transport Zones, indicating a clear policy direction towards integrated mobility, even if full implementation is ongoing.
- **Specific Gaps:** Nottingham's lower score in shared bike schemes and Edinburgh's slower electric bus adoption highlight that even strong contenders often have specific areas requiring targeted investment.

The Mid-Tier and Impact of E-Scooter Legality

Lower-tiered cities from Wolverhampton (Rank 9) down to Belfast (Rank 18) represent a diverse mid-tier. A recurring theme here is the significant impact of the UK's legal stance on e-scooters. Cities like Glasgow (Rank 16) and Leeds (Rank 15), which lack legal e-scooter trials, see their Shared & Micro-mobility scores suppressed, despite possessing other foundational elements like metro systems (Glasgow) or strong regional transport bodies (Leeds). This underscores that fragmented national regulations can create significant barriers to certain MaaS components.

Foundational Gaps for Lower-Tier Cities

Derby, Bradford, Kingston upon Hull and Stoke-on-Trent generally face more significant challenges across multiple MaaS readiness pillars. They often lack comprehensive integrated ticketing, public shared mobility schemes, advanced digital platforms and explicitly defined MaaS strategies.

Overall Analysis Insights

1. **The Combined Authority Advantage:** The index strongly suggests that cities operating under well-resourced Combined Authorities have a structural advantage in advancing MaaS readiness. These integrated governance models facilitate cross-modal planning, coordinated investment and the necessary political will.
2. **Digital Integration Is Evolving but Uneven:** While basic journey planning apps are common, truly comprehensive MaaS platforms that seamlessly integrate booking and payment across all modes are still nascent outside London. The maturity of open data policies also varies significantly, directly impacting the ability of third-party developers to innovate.
3. **Shared Mobility as a Policy Lever:** The presence of legal e-scooter trials demonstrably boosts a city's Shared & Micro-mobility score. The current fragmented legal landscape for micro-mobility poses a national challenge to achieving consistent MaaS readiness.
4. **Active Travel Is Foundational:** Cities with strong active travel infrastructure and high cycling usage often exhibit a broader commitment to sustainable and integrated transport, suggesting a robust base upon which MaaS can be built.
5. **Electrification Is a Phased Transition:** While electric buses are becoming more prevalent, the pace and scale of public EV fleet adoption vary greatly. Similarly, the development of comprehensive public EV charging infrastructure for private vehicles shows significant disparities, indicating that the transition to electric mobility within MaaS is still in its early stages for many cities.

The GC UK Mass Index provides a granular quantifiable analysis of the MaaS readiness of UK cities.

GC European MaaS Index

Regional Level: Identifying European Cities with MaaS Potential

To provide a broader perspective on MaaS readiness, we extend our analysis to compare the top 3 UK cities from our study against leading cities in other major European countries and cities with notable MaaS capabilities. Roughly 70% of MaaS platforms are hosted in Europe, with EU support fulfilling a clear role in this successful adoption. This overview aims to offer high-level insights into commonalities, differences and standout performances across the continent.

Given the significant challenges in obtaining granular, consistently comparable data for individual metrics across multiple international urban contexts, this international comparison employs a simplified index assessing each city's maturity across the 5 main thematic categories identified in our UK study and using the same weights. We will provide a more detailed view in due course.

Each category for the international cities is scored on a 1-5 scale (1 = Very Limited, 2 = Limited, 3 = Moderate, 4 = Good, 5 = Excellent), based on a comprehensive review of their known initiatives, infrastructure and policy environments.

The results are shown below:

Rank	City	Public Transport (1-5)	Shared & Micro-mobility (1-5)	Electric Mobility (1-5)	Tech & Digitalisation (1-5)	Local Institutional Quality (1-5)	Weighted Score	Notes (Main Sources & Data Context)
1	Oslo, Norway	5	5	5	5	5	5	Ruter app (highly integrated, includes micromobility booking/payment), 85% electric bus fleet (2024), goal for 100% zero-emission PT by 2028, strong public-private collaboration (MOVE21). *Sources: Eurocities, Zag Daily, CityTransit Data*
2	Helsinki, Finland	5	5	4	5	5	4.90	Whim MaaS app (pioneer), extensive public transport, high shared mobility adoption, strong government support for MaaS. *Sources: https://www.google.com/search?q=Whimapp.com, MaaS-alliance.eu, Helsinki.fi*
3	Vienna, Austria	5	4	4	5	5	4.65	WienMobil app (public transport-led MaaS), excellent public transit, good shared bike/scooter integration, strong EV incentives. *Sources: WienMobil.at, Wienerlinien.at, Voi.com, Nextbike.at, Zoniq.io, Austriatech.at*
4	Amsterdam, Netherlands	5	5	4	4	4	4.45	High cycling culture, extensive public transport, various shared mobility options, smart city initiatives. *Sources: Amsterdam.nl, MaaS-alliance.eu, Glimble.app*
5	Berlin, Germany	4	5	4	4	4	4.25	Jelbi MaaS app (BVG-led), strong shared mobility market (bikes, scooters, car-share), good public transport, growing EV infrastructure. *Sources: Jelbi.de, BVG.de, MaaS-alliance.eu*

Rank	City	Public Transport (1-5)	Shared & Micro-mobility (1-5)	Electric Mobility (1-5)	Tech & Digitalisation (1-5)	Local Institutional Quality (1-5)	Weighted Score	Notes (Main Sources & Data Context)
6	Zurich, Switzerland	4	4	4	4	4	4.00	ZVV app (comprehensive PT ticketing), yumuv app (integrates PT, shared bikes, e-scooters), strong EV adoption/charging incentives in Canton Zurich. *Sources: ZVV.ch, Polis Network, Zoniq.io, Ampeco.com*
7	Copenhagen, Denmark	4	4	3	4	4	3.90	Excellent cycling infrastructure, integrated public transport, various shared mobility options, focus on sustainable urban development. *Sources: Copenhagen.dk, MaaS-alliance.eu*
8	Stockholm, Sweden	4	3.5	4	4	4	3.88	UbiGo MaaS app (integrates PT, car-share, taxi, bikes), strong EV adoption targets, government incentives for charging infrastructure, annual charging report. *Sources: MaaSification, Drive Sweden, Interreg Europe, Nimbnet.com*
9	Paris, France	4	4	3	3	4	3.70	Dense metro/bus network, Vélib' bike share, growing e-scooter market, significant investment in active travel. *Sources: RATP.fr, Velib-metropole.fr, Paris.fr*
10	London, UK	4	3	3	4	4	3.65	Extensive public transport (Tube, Rail, DLR, Bus, Tram) with Oyster/contactless, Santander Cycles, Citymapper/TfL Go apps. E-scooters only through trials. *Sources: TfL.gov.uk, Kingsbusinessreview.co.uk, Grow.london*
11	Antwerp, Belgium	3	4	3	3	4	3.50	"Smart Ways to Antwerp" initiative and app (multimodal route planner, integrates shared mobility), city supports shared mobility providers with data-sharing requirements. Significant investment in heavy-duty EV charging (Port). *Sources: limnaarantwerpen.be, Cities-today.com, Milence.com, Totalenergies.com*
12	Madrid, Spain	4	4	3	3	3	3.45	Extensive metro and bus, BiciMAD bike share, various e-scooter operators, focus on sustainable mobility plans. *Sources: EMTmadrid.es, BiciMAD.es, Madrid.es*
13	Barcelona, Spain	4	4	3	3	2.5	3.33	Integrated public transport (metro, bus, tram), Bicing bike share, active shared scooter market, smart city initiatives. *Sources: TMB.cat,Bicing.barcelona, Barcelona.cat*
14	Milan, Italy	4	3	3	3	3	3.20	Extensive metro, tram, bus network; ATM app for tickets; bike-sharing (BikeMi), car-sharing (Enjoy, Share Now); growing EV charging infrastructure. *Sources: ATM.it, BikeMi.it, Enjoy.eni.com, Share-now.com*

Rank	City	Public Transport (1-5)	Shared & Micro-mobility (1-5)	Electric Mobility (1-5)	Tech & Digitalisation (1-5)	Local Institutional Quality (1-5)	Weighted Score	Notes (Main Sources & Data Context)
15	Milton Keynes, UK	2	3	3	3	4	3.05	Extensive Redways for active travel, Beryl Bikes, Voi e-scooter trial, significant EV infrastructure and adoption. Future Transport Zone, "Get Around MK" app. *Sources: MK Council, Beryl.cc, Voi.com, Gov.uk, Getaroundmk.org.uk*
16	Lisbon, Portugal	3	3	3	3	3	3.00	Metro and bus with contactless payment, Gira bike share, multiple e-scooter operators, growing EV charging. MaaS platform "Pick" in development. *Sources: Metrolisboa.pt, Lisbonguru.com, Acciona.com, Electra.space, Ampeco.com, Urban-mobility-observatory.transport.ec.europa.eu*
17	Manchester, UK	3	2	3	3	4	3.00	Metrolink tram, Bee Network (bus/tram integration, rail planned), Beryl Bikes, Voi/Bolt e-scooter trials, growing electric bus fleet. Strong regional body (TfGM). Bee Network app with live tracking. *Sources: TfGM.com, Beryl.cc, Voi.com, Bolt.eu, BusAmbassador.co.uk, Play.google.com/store/apps/details?id=com.tfgm.beenetwork*
18	Hanover, Germany	3	3	3	2.5	3	2.90	GVH integrated public transport, Hannovermobil MaaS service (integrates car-sharing, taxi), Voi/Bolt e-scooters, growing EV infrastructure. *Sources: Researchgate.net (Hannovermobil), Voi.com, Bolt.eu, Visit-hannover.com*

The map at right shows the GC MaaS index score; the larger the bubble, the higher the score.

Nordic and Austrian Leadership

Cities like Oslo, Helsinki and Vienna demonstrate strong leadership in MaaS readiness, driven by comprehensive, public transport-led MaaS platforms (Whim, WienMobil, Ruter) that integrate a wide array of shared mobility services and advanced digital ticketing. Their institutional quality and clear strategic visions for urban mobility are significant enablers, with Oslo standing out for its deep integration of micro-mobility into its core public transport app and aggressive electrification targets, including Norway's 2025 ban on petrol car sales.

Integrated Ticketing as a Foundation

Cities with highly integrated public transport ticketing systems (e.g., Helsinki, Vienna, Amsterdam, Zurich, Stockholm, Milan) tend to score higher, as this forms a crucial backbone for seamless MaaS experiences.

Shared Mobility Maturity

European cities generally exhibit a more mature and legally established shared e-scooter and bike market compared to the UK, contributing significantly to their higher Shared & Micro-mobility scores. Antwerp is a notable example of a city actively encouraging and regulating diverse shared mobility.

Digitalisation as a Differentiator

The most advanced MaaS cities leverage technology not just for journey planning, but for integrated booking, payment and real-time data, often through publicly backed or strongly partnered apps. The level of integration within apps (e.g., Oslo's Ruter app) now serves as a key differentiator.

UK's Position

While London remains a global leader, the top UK cities (London, Milton Keynes, Manchester, Birmingham) generally fall behind the top European counterparts in this simplified comparison. This is primarily due to the UK's slower adoption and fragmented regulation of certain shared mobility modes (e.g., e-scooters outside trials) and, in some cases, less comprehensive integrated ticketing compared to the best European examples. However, the strong regional governance in UK cities like Manchester and Birmingham indicates a positive trajectory and their refined scores now better reflect their individual progress.

Emerging Players

Cities like Lisbon are actively developing their MaaS ecosystems, with efforts in integrated payments, shared mobility and strategic planning, indicating a clear commitment to future-proofing their urban transport. Vilnius did not make it into our index, but it stands out for its strong car-sharing market and electric public transport goals.

Overall Analysis Insights

This international comparison highlights that while UK cities are making progress, there is still a significant opportunity to learn from and implement best practices seen in leading European cities, particularly in areas of regulatory harmonisation for new mobility modes and deeper integration of digital services.

Application

(Re)Insurance Implications

The paradigm shift toward MaaS fundamentally alters the urban transport risk landscape, creating both significant challenges and substantial new opportunities for the insurance and reinsurance sectors. As car ownership declines while urban populations surge in numbers, the transformation of transport habits from ownership to usership is inevitable.

Rather than covering millions of individual cars, (re)insurers will turn their attention to solutions for fleets of shared vehicles, electric buses and complex digital platforms. Managing general agents (MGAs) play a key role developing mobility and tech solutions by designing flexible, usage-based insurance products that integrate with digital mobility platforms.

Impacts and New Risk Profiles

Shift in Risk Ownership & Liability

- **From Individual to Fleet/Platform:** As MaaS encourages a move away from private car ownership, the insured entity largely shifts. Instead of individual private vehicles, insurers will increasingly need to provide coverage for large fleets of shared cars, bikes and e-scooters operated by mobility companies, as well as the MaaS platform providers themselves. This demands a transition from traditional personal lines to complex B2B commercial liability and property solutions.
- **Vulnerable Road Users (VRUs):** The proliferation of e-bikes, e-scooters and increased cycling means more VRUs on urban roads. This leads to a higher frequency of incidents involving these modes and complex liability attribution in multi-modal accidents (e.g., an e-scooter, a car and a pedestrian). Determining fault and negligence across disparate transport modes and operators becomes a growing challenge.
- **Data-Driven Liability:** Accident reconstruction, claims processing and liability attribution will increasingly rely on telematics data collected from MaaS platforms and shared vehicles (e.g., speed, braking, location, user ID). Insurers will need to invest in sophisticated data handling, analytics and legal expertise to navigate these new data-rich, but complex, claims environments.
- **From Owning to Using:** Not owning the vehicle can give rise to moral hazard risks, such as misuse, damage, or improper disposal after use.

Emerging Perils from Electrification

- **Charging Infrastructure Damage:** The widespread deployment of public and private charging points creates new property and liability exposures. Damage can arise from accidents, vandalism, electrical faults, or even cyber-attacks disrupting energy flow. Business interruption coverage for charging network operators becomes a relevant product.
- **Different Repair Costs:** Electric vehicles often have unique repair profiles. Collision damage can lead to higher repair costs due to specialised components, and battery replacement can be a significant expense. (See Guy Carpenter's paper on EV frequency and severity analysis.)
- **Battery Fire Risks:** Electric vehicles, including e-bikes, e-scooters and electric buses, introduce new fire hazards associated with lithium-ion batteries.

Cyber Risks and Interconnectivity

- **Platform Vulnerabilities:** MaaS platforms are inherently interconnected, integrating payment systems, user accounts, personal data and real-time vehicle information. This creates substantial cyber risks, including data breaches (leading to privacy lawsuits and reputational damage), system outages (causing widespread disruption to urban mobility and significant business interruption losses) and fraudulent use of accounts or vehicles.
- **IoT Security:** The vast network of shared vehicles acting as Internet of Things (IoT) devices introduces new attack vectors. Compromised vehicle systems could lead to physical harm or widespread disruption, creating unprecedented liability exposures for operators and platform providers.

Operational Risks for Mobility Operators

- **Fleet Management Risks:** Shared fleets are exposed to higher rates of theft, vandalism, damage due to improper use and the complexities of rapid deployment and redistribution. Insurance products must address these unique operational challenges.
- **Regulatory Non-Compliance:** The regulatory environment for new mobility services (especially e-scooters) is evolving and often is fragmented across cities. Operators face risks of fines, operational restrictions, or even cessation of service due to non-compliance, requiring tailored legal and business interruption covers.

Opportunities for Insurance and Reinsurance

This changing risk profile ultimately may move risk from drivers to manufacturers. Insurance companies will need to adapt in their strategies to cater for this changing risk.

New Product Development and Market Segments

- Specialised shared mobility fleet insurance for all coverage types across multi-modal fleets.
- MaaS platform-specific insurance including cyber, professional indemnity and business interruption policies.
- Individual user micro-insurance, exploring short-term, granular policies for individual users of shared mobility.
- Property and liability insurance for the growing network of EV charging points.
- Parametric insurance solutions where policies are triggered by specific, measurable events that impact MaaS, offering immediate payouts based on predefined parameters.

Data-Driven Underwriting and Pricing

- **Telematics Integration:** MaaS data (e.g., trip duration, routes, average speed, hard-braking events, parking compliance) provides a rich source for highly granular Usage-Based Insurance (UBI) models for shared vehicles. This allows for more precise risk assessment and dynamic, personalised pricing, moving away from aggregated fleet-level assumptions.
- **Dynamic Pricing:** The ability to adjust premiums in real-time based on actual usage patterns, geographical risk (e.g., high accident zones), time of day, or even specific vehicle health data can revolutionise pricing.
- **Risk Mitigation Services:** Insurers can leverage their analytical capabilities to offer value-added risk management services to cities and operators, such as identifying high-risk areas for accidents, developing predictive models for vehicle maintenance needs, or promoting safer rider behaviour through data-driven insights.

Strategic Partnerships

- **Collaboration with MaaS Providers:** Direct partnerships with MaaS platform developers, mobility operators and urban planning bodies are essential. Insurers can co-create integrated insurance solutions embedded directly into the user journey, enhancing convenience and trust. Successful examples of pricing that incorporates insurance include apps such as Moovit and Uber.
- **Engagement with Cities and Regulators:** Proactive engagement with local authorities and government bodies is crucial to understand evolving transport strategies, influence regulatory frameworks and contribute to public safety initiatives.

Reinsurance Implications

There will also be reinsurance implications and potential change to the large and catastrophic claims profile. The following are some reinsurance implications.

- **Changes in Risk Category:** The move from personal lines to commercial lines will mean that the relationship between classes of business will need to be carefully managed.
- **New Accumulation of Risk:** Reinsurers must develop sophisticated models for new aggregation risks. A city could have hundreds of thousands of shared mobility vehicles and a single cyber event could lead to large, correlated losses across multiple underlying policies.
- **Catastrophe Models for Cyber/Urban Mobility:** The potential for widespread battery fires in depots, or large-scale cyberattacks bringing urban mobility networks to a halt, may necessitate the development of new, specialised catastrophe models distinct from traditional natural peril models.
- **Capital Allocation Adjustments:** Reinsurers must adapt their capital allocation strategies to account for these emerging, interconnected and potentially highly correlated risks.
- **Specialised Expertise:** A growing demand for dedicated actuarial, underwriting and claims expertise in new mobility, electrification and cyber risks will drive innovation.

Conclusion

The global transition to MaaS transforms urban transport. The GC UK MaaS Readiness Index offers a valuable framework for understanding the progress made and the challenges that lie ahead. While London continues to lead with its mature, integrated ecosystem, the strong emergence of regional hubs, driven by proactive governance, highlights a scalable model for MaaS development. At a European level, Nordic cities dominate, with high social consciousness, commitment to electrification and strong transport systems setting them apart from other continental hubs. The pervasive impact of national regulatory clarity, particularly concerning new micro-mobility modes, remains a significant factor influencing the pace of adoption. Support from public transport systems and regulatory bodies is essential, along with openness toward data-sharing and cooperation of interoperable systems.

For the (re)insurance industry, MaaS is not merely a technological shift; it is a fundamental reshaping of the risk landscape. It creates complex liability chains, introduces new perils associated with electrification and cybersecurity and demands innovative approaches to underwriting and product development. By embracing data-driven solutions, fostering strategic partnerships and continuously adapting to evolving mobility modes, (re)insurers can seize significant opportunities to become integral enablers of the sustainable, efficient and interconnected urban transport systems of the future. Continued collaboration between cities, mobility providers and the (re)insurance sector will be paramount in navigating this exciting, yet challenging, journey.

Appendix: UK MaaS Index Table

Category 1	**Public Transport**	**20%**
	Public Transport Modes (PT Modes Score)	**50%**
	0: Only Buses 1: Buses + Rail (limited regional rail connections / basic national rail access) 2: Buses + Rail (good network) + Tram/Metro/Subway (presence of significant rapid transit like Tube, Metrolink, Midland Metro, Glasgow Subway, Edinburgh Tram, etc).	
	Integrated Ticketing (IT Score)	**50%**
	0: No integration (separate tickets for all modes/operators, cash-focused). 1: Basic integration (e.g., single smartcard for one operator's buses, very limited regional smartcard, or basic national rail + bus combo like Plusbus). 2: Good integration across major *public transport modes* within the city/region (e.g., bus, train, metro/tram on one widely used card/contactless, like Swift, Bee Network daily cap, Robin Hood Card, etc) 3: Advanced integration (e.g. London with Oyster), effectively unifying payment across extensive public transport / possibly extending to *shared mobility services* via a unified system.	
Category 2	**Shared & Micro-mobility**	**25%**
	Bike Share Scheme (BS Score)	**35%**
	0: No public bike share scheme. 1: Small scheme (<2 bikes per 10,000 population or very limited fleet size for city population). 2: Moderate scheme (2-5 bikes per 10,000 population or significant fleet size for city population). 3: Medium scheme (5-10 bikes per 10,000 population or substantial city-wide presence). 4: High presence (10+ bikes per 10,000 population or extensive, well-used network).	
	E-Scooter Trial/Service (ES Score)	**30%**
	0: No public e-scooter trial/service (private e-scooters are illegal on public roads, and no authorized trial is running). 1: Limited trial (small fleet, restricted geographical area). 2: Established trial/service (significant fleet/coverage, possibly multiple operators).	
	Cycling Use (CU Score - Micro-mobility)	**30%**
	0: Very low / negligible cycling mode share (<1% of all journeys, or very low reported regular cycling). 1: Low (e.g., 1-2% mode share or few regular cyclists; some cycling activity). 2: Moderate (e.g., 2-5% mode share or growing regular cycling; good number of active cyclists). 3: High (e.g., >5% mode share or very active cycling culture; significant proportion of journeys by bike).	
Category 3	**Electric Mobility**	**10%**
	EV Charging Infrastructure (EVCI Score)	**30%**
	0: Very limited/negligible public charging points. 1: Limited (few scattered points, often concentrated in central areas). 2: Moderate (growing network, some key hubs, becoming more accessible across the city). 3: Good (widespread and robust network of public charging points).	
	Private EV Adoption (PVEV Score)	**30%**
	0: Very Low (negligible private EV presence, low local incentives/support). 1: Low (some private EVs, but not widespread). 2: Moderate (growing private EV numbers, increasing visibility, some local initiatives for adoption). 3: High (significant private EV adoption, strong local support/incentives, high proportion of new registrations).	
	Public EV Adoption (Bus Fleet) (PBEV Score)	**40%**
	0: No / negligible electric buses in public fleet. 1: Pilot / very small electric bus fleet (<10% of total fleet, or <50 electric buses). 2: Growing electric bus fleet (10-30% of total fleet, or 50-200 electric buses, or significant planned rollout). 3: Substantial electric bus fleet (>30% of total fleet, or >200 electric buses, significant investment and visible impact).	
Category 4	**Tech & Digitalisation**	**20%**
	MaaS App/Pilot (MA Score)	**40%**
	0: No dedicated MaaS app (only standard journey planners like Google Maps). 1: Basic journey planning across modes, limited real-time info (e.g., a simple public transport app with basic routes/timetables). 2: Planning + good real-time info + some booking/payment for *some* modes (e.g., core public transport tickets, or integration with one specific shared mobility provider). 3: Comprehensive planning, real-time, booking, and payment integration for *multiple public and shared mobility modes* within a single, mature app (e.g., Citymapper in its most advanced integrations).	
	Transport Open Data Policy (OD Score)	**30%**
	0: No discernible open data policies or data available. 1: Limited static data (e.g., PDF timetables, basic route maps). 2: Partial real-time data for some modes (e.g., bus location feeds via a basic API or app, or limited GIS data from local council). 3: Comprehensive real-time data across most public transport modes, accessible via well-documented APIs, promoting extensive developer access (e.g., TfL's robust API).	
	Contactless PT Payments (CP Score - % adoption)	**30%**
	0: Not available / negligible adoption. 1: Available, but low adoption (e.g., new rollout, or limited to specific routes/operators). 2: Widespread availability, moderate adoption (e.g., ~30-50% of payments are contactless/digital on main PT modes). 3: High adoption (>50%) and/or advanced features like daily capping across multiple modes.	
Category 5	**Local Institutional Quality**	**25%**
	Active Travel Infrastructure (AT Score)	**25%**
	1 (Poor): Fragmented, unsafe cycle lanes/pedestrian areas, minimal investment/poor quality. 2 (Below Average): Some efforts, but significant gaps, safety concerns, limited dedicated infrastructure. 3 (Medium): Some dedicated infrastructure, but still major gaps, ongoing investment, but not pervasive. 4 (Good): Growing network of dedicated and safe infrastructure, well-connected in key areas, clear investment strategy (often indicated by Sustrans Index participation and positive reports). 5 (Excellent): Extensive, safe, and well-connected segregated cycle and pedestrian networks, high, sustained investment, significant mode shift (e.g., London's Cycleways).	
	Local MaaS Strategy/Policy (LMS Score)	**25%**
	0: No mention of MaaS in official plans, or no clear, specific plan. 1: MaaS mentioned as a general concept/aspiration in a broader transport plan. 2: Defined strategy with concrete goals and initial projects/pilots, often part of a wider "Future Transport Zone" or regional transport plan. 3: Active implementation with dedicated funding, strong partnerships, and ongoing, measurable initiatives aimed at delivering MaaS.	
	Institutional Quality/Support (IQ Score)	**25%**
	0 (Poor): Disjointed local government, significant bureaucratic hurdles, little evidence of inter-departmental or public-private collaboration on transport initiatives. 1 (Limited): Some departments working on transport, but limited cross-cutting strategy; minor bureaucratic hurdles for new initiatives; ad-hoc public-private engagement. 2 (Moderate): Clear departmental responsibilities, some evidence of cross-departmental working; standard bureaucratic processes; established channels for public and private sector engagement. 3 (Good): Highly collaborative local government , streamlined processes for transport innovation; proactive engagement with private sector and public; evidence of strong leadership in sustainable transport.	
	Regulatory Clarity & Risk Management Maturity for Shared Mobility (RC Score)	**25%**
	0 (Poor/Undefined): Unclear / conflicting regulations for shared mobility; significant legal uncertainty regarding liability (e.g., private e-scooters widely used but illegal on public roads); no explicit risk management collaboration 1 (Emerging/Limited): E-scooter trials or bike-share schemes exist but regulatory framework for liability is still nascent or undergoing review; basic operator requirements for safety/maintenance. 2 (Defined/Developing): Clear regulatory framework for shared mobility operations, including some clarity on operator liability; evidence of city-operator collaboration on safety measures (e.g., geofencing, parking rules, rider education) 3 (Mature/Proactive): Comprehensive and adaptive regulatory framework for all shared mobility modes, with clear liability assignment and strong safety standards; active data sharing (privacy-compliant) with relevant bodies for risk analysis; proactive engagement with insurers on emerging risks.	

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