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Mobility

Trend Report

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From Startup Scouting to Technology Discovery and Trend Intelligence, get ahead with **instant access to 9M+ Startups & Scaleups globally alongside 20K+ emerging technologies**. Our AI-powered Discovery Platform and Services enable you to engage with promising startups, technologies and trends, rather than searching for them. Get precise, AI-enhanced insights, driving informed, confident decisions that future-proof your business and foster strategic growth.

1500+ industry giants such as Samsung, Nestlé, and Magna spearhead industry trends, optimize operations, and uncover new market opportunities with ease thanks to StartUs Insights' unmatched innovation intelligence tools.

Executive Summary: Global Mobility Outlook

- **Industry Growth Overview**: The mobility industry shows mixed growth signals, with selective expansion in charging infrastructure and smart mobility.
- **Manpower & Employment Growth**: The industry employs approximately 94.9 million people globally, and added 14 300 employees last year.
- **Patents & Grants**: The sector holds around 2.9 million patents from 829 900 applicants, growing at 3.72% annually. This reflects sustained innovation despite slower company formation.
- **Global Footprint**: The US, India, Germany, the UK, and France anchor national activity, while London, Bengaluru, New York City, Berlin, and Dubai lead deployment at the city level.
- **Investment Landscape**: Mobility funding remains capital-intensive, with an average deal size of USD 93.8 million, over 140 100 funding rounds, and capital deployed across 50 600+ companies.
- **Top Investors**: Leading investors have deployed more than USD 155.1 billion, led by the European Investment Bank, BNP Paribas, Tencent, KKR, and SoftBank.
- **Startup Ecosystem**: 3169 total startups, highlights include CONIFER (modular powertrains), ev jungle (EV charging network management), iNGage SAS (inertial MEMS navigation sensors), MUB (connected electric cab), and InLights (AI-powered traffic management) - illustrate the sector's global reach and entrepreneurial momentum.

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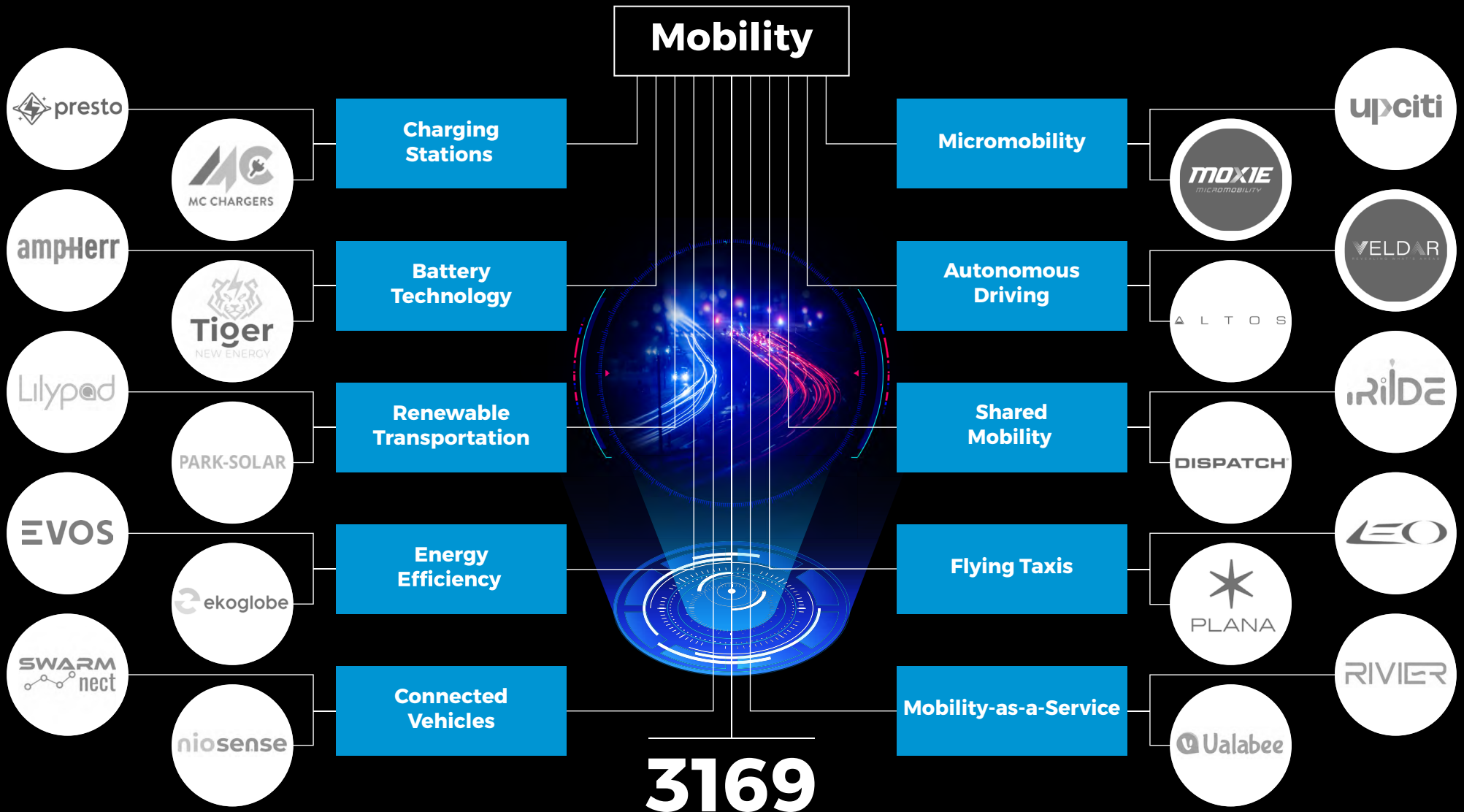
The mobility industry is experiencing a major shift driven by advances in technology and a focus on sustainability. Key global mobility trends include the rapid adoption of electric vehicles (EVs), shared mobility, and autonomous driving. Technologies like artificial intelligence (AI) and connected systems are making transportation smarter and more efficient, while developments in battery technology and renewable energy are reducing environmental impact.

Covering over 9 million startups & scaleups globally, we use our Big Data and AI-powered Discovery Platform to identify innovative applications, technologies, and companies impacting the Mobility Industry. This exhaustive, data-driven startup scouting pinpoints emerging trends and technologies in the Mobility Industry. For this research, we analyzed a sample of 3169 startups and scaleups and present the Top 10 Trends along with 20 highly relevant solutions.

In the Innovation Map below, you get an overview of the Top 10 Mobility Trends & Innovations that impact companies worldwide.

Top 10 Mobility Trends & Innovations



3169

Startups & emerging companies analyzed

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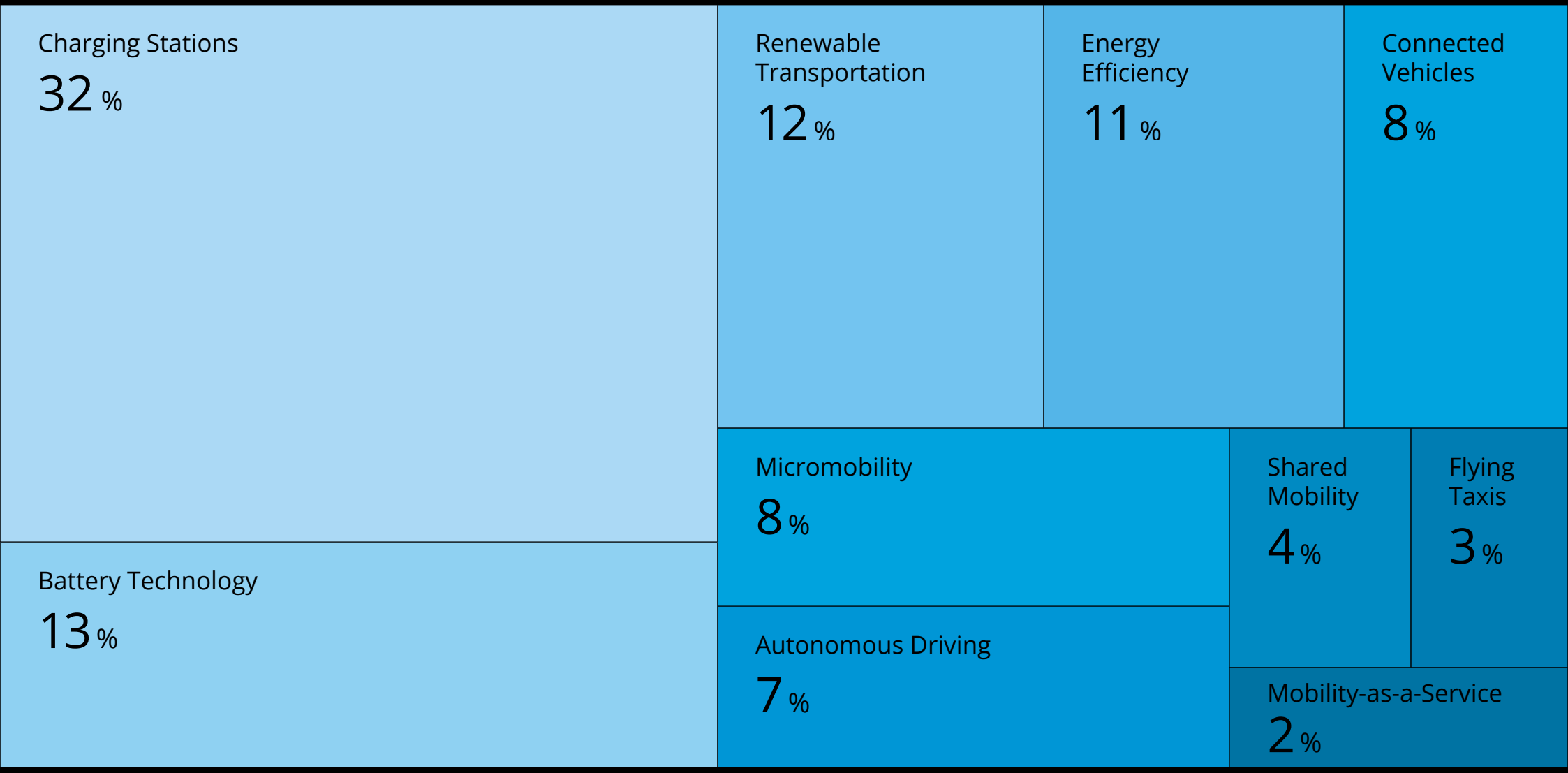
Tree Map reveals the Impact of the Top 10 Mobility Trends

The Tree Map below showcases the top mobility trends. EVs and advanced battery technologies drive sustainability and are supported by growing charging infrastructure. Connected vehicles and autonomous driving enhance safety and efficiency while shared mobility and MaaS solutions address urban challenges like congestion and first-mile/last-mile connectivity.

Top 10 Mobility Industry Trends & Innovations



StartUs insights | This tree map illustrates the top 10 innovation trends & their impact on the Mobility Industry

Global Startup Heat Map covers 3000+ Mobility Startups & Scaleups

The Global Startup Heat Map showcases the distribution of 3000+ exemplary startups and scaleups analyzed using the StartUs Insights Discovery Platform. It highlights high startup activity in Western Europe and the United States, followed by India. From these, 20 promising startups are featured below, selected based on factors like founding year, location, and funding.

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3169

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Global Startup Heat Map: Mobility

This Global Startup Heat Map illustrates the geographical distribution of 3169 startups & emerging companies we analyzed for this topic

Charging Stations

The development of charging infrastructure is making faster and more accessible charging choices available to tackle range anxiety, which is one of the main obstacles to EV adoption. It is promoting the switch to electric mobility for both individual and business users. Moreover, the charging-as-a-service (CaaS) model is becoming more popular. It enables companies to provide pay-per-use or subscription-based charging services in public areas. Similar to Airbnb for EV infrastructure, private owners are making money from their chargers by renting them out to the public. The demand for DC fast chargers continues to rise globally due to their ability to reduce charging times. For instance, ultra-fast chargers charge vehicles in as little as 10-30 minutes. Further, companies like Exicom and Hyundai are actively integrating renewable energy into EV charging infrastructure. This showcases innovations like solar-powered chargers and battery energy storage systems.

US-based startup Presto develops a platform that provides EV charging experiences for fleets, mobility providers, and businesses. Its platform utilizes machine learning to recommend charging stations based on proximity, availability, reliability, and speed. The startup offers a companion mobile app for fleet-specific branding, a dashboard for driver onboarding and spend management, and APIs and SDKs for integrating charging solutions into existing applications. Further, Presto partnered with EVCS, an EV fast-charging network operator on the West Coast of the United States. Through this partnership, fleets are able to find chargers, obtain real-time status updates, and start charging sessions by using EVCS's network of more than 1000 chargers in the Presto app.

Greek startup MC-Chargers manufactures EV charging stations for public and commercial applications. Its product lineup includes models such as ORION 7C, ORION 11C, ORION 22C, ORION 2×22 EV, and ORION 2×11. These are suitable for installation in gas stations, parking lots, and public charging points. The startup's stations feature IP55 protection and remote software upgrades, which ensures durability and adaptability. MC-Chargers offers a range of EV chargers and accessories to promote electromobility and contribute to environmental protection. Moreover, the first EV charger with integrated point of sale (POS) capabilities in Greece was introduced by MC Chargers in partnership with Nexi Greece and Printec. This innovation removes the need for apps or middlemen by enabling direct card payments.

Battery Technology

Solid-state batteries are anticipated to transform EVs by providing longer ranges of over 1000 kilometers, improved safety, and faster charging (80% in just 15 minutes). With major automakers like Toyota and Nissan aiming for launches, these batteries are getting close to commercialization. Additionally, cell-to-pack designs increase energy density while decreasing weight and cost, which improves EV efficiency and customer appeal.

German startup AMPHERR develops lithium-ion battery packs for various electric vehicle applications. It designs and manufactures energy storage systems utilizing multiple lithium-ion chemistries, including NMC, LTO, and LFP, to meet diverse power and energy requirements. The startup's products feature modular designs, efficient liquid cooling systems, and integrated battery management systems to ensure reliability and scalability. AMPHERR serves sectors such as buses, trucks, commercial vehicles, construction machinery, marine vessels, and rail systems. By providing application-specific battery packs, it supports the global transition to sustainable and efficient energy solutions.

To speed up its electromobility expansion, AMPHERR secured EUR 3 million in Series A funding. Atilla Tacir of Tacirler Asset Management (EUR 1 million) and Ahu Buyukkusoglu Serter of Fark Labs (EUR 2 million) headed the round. This funding supports AMPHERR's growth in the US and European markets.

Bangladesh-based startup Tiger New Energy builds battery solutions and operates a network of battery-swapping stations. They allow drivers to exchange depleted batteries for fully charged ones in less time. This minimizes downtime and enhances daily earnings. The startup's lithium batteries, integrated with GPS, ensure compatibility across vehicle models and facilitate efficient fleet management. Additionally, Tiger New Energy offers lead-acid batteries for motorcycles, uninterruptible power supplies (UPS), and solar applications. Tiger New Energy has secured USD 1 million in funding from ADB Ventures following its USD 2.5 million seed round led by Wavemaker Partners last year. It also collaborates with local communities and partners to reduce carbon emissions and promote sustainable transportation in emerging markets.

Renewable Transportation

By offering tax credits and incentives for domestic battery and EV manufacturing, the IRA drives the adoption of EVs. This has increased investments in clean transportation infrastructure. Further, the EU has introduced stricter emissions standards and trade policies favoring clean energy technologies to reduce reliance on fossil fuels. In addition, hydrogen and e-fuels are becoming more popular as alternatives for industries like aviation and maritime transportation that are less susceptible to electrification. For countries like India, the creation of green hydrogen is a major area of focus. As electric car inventories rise due to rising shares of renewable electricity, the majority of new renewable transportation demand in the US, Europe, and China is met by renewable electricity.

US-based startup Lilypad Labs designs and manufactures solar-powered boats that offer an eco-friendly water recreation experience. Its product, Lilypad, utilizes a 1640-watt monocrystalline solar array to harvest energy and power twin electric drives for quiet and emission-free cruising. The start-up's boat features an aluminum catamaran hull, reclaimed $LiFePO_4$ EV battery cells, and a digital control system with LTE and GPS connectivity. It accommodates up to six adults and provides a comfortable, café-like setting with soft lounges and a central table. Lilypad Labs eliminates the need for fuel or charging infrastructure and delivers a sustainable boating solution that enhances accessibility to water-based activities while minimizing environmental impact.

German startup PARK-SOLAR develops lightweight photovoltaic canopies that transform parking areas into clean energy sources. Its innovative structures, inspired by suspension bridge engineering, utilize minimal materials to cover parking spaces. This generates CO_2-free electricity while providing shade and weather protection for vehicles. The startup also offers services, including consultation, design, production, installation, and maintenance to ensure easy integration of their systems. PARK-SOLAR repurposes existing paved surfaces without additional land use enabling businesses to reduce energy costs, comply with renewable energy regulations, and enhance property value through sustainable infrastructure.

Energy Efficiency

Intelligent transportation systems (ITS), including AI-driven traffic management, are optimizing energy use and alleviating congestion. Electrification is further enhancing energy efficiency while reducing greenhouse gas emissions, which marks a crucial step toward sustainable transport systems. Innovations in vehicle design are also contributing to improved energy efficiency. Automakers are employing carbon fiber composites and aluminum alloys to reduce vehicle weight and enhance fuel efficiency. Many electric and hybrid cars now come equipped with regenerative braking systems, which further increase energy efficiency by converting kinetic energy into electrical energy for battery recharge. These developments highlight the progress being made in the direction of ecologically friendly and energy-efficient mobility systems.

Australian startup EVOS manufactures electric vehicle (EV) charging hardware and software solutions. Its products, such as the SB7 home charger and the Fleet22 AC charger, integrate with the MyEVOS App and the EVOS Energy Platform to manage energy consumption efficiently. The startup's SB7 charger offers 7.4kW single-phase charging, while the Fleet22 provides up to 22kW with single or three-phase options. Both chargers feature built-in Wi-Fi for remote management and real-time updates through the MyEVOS App, which allows users to start and stop charging sessions, set schedules, and monitor progress. Further, the EVOS Energy Platform enables businesses and fleet managers to monitor assets, manage energy consumption and costs, and perform analytics reporting. EVOS' solutions simplify EV charging and promote the adoption of zero-emission vehicles.

Tanzanian startup EKOglobe assembles electric vehicles and sustainable energy solutions, focusing on electric transportation and renewable energy. The startup offers solar-powered water pumps, refrigeration services, clean cooking technologies, and solar rooftop installations. Further, its electric three-wheelers, two-wheelers, and e-bikes provide eco-friendly alternatives for commuting and cargo transport. EKOglobe's battery charging and swapping stations are conveniently located within communities and powered by solar energy. It integrates clean energy with transportation and agriculture to equip energy-vulnerable communities with reliable and affordable services.

Connected Vehicles

The key factor driving this growth is the consumer's rising demand for technologies that improve driver convenience and functionality, like infotainment systems, real-time navigation, and over-the-air upgrades. Government initiatives are further accelerating the deployment of connected car technologies. The U.S. Department of Transportation recently announced a USD 40 million grant to promote V2X technology, aimed at enhancing transportation efficiency and safety. The impact of these technologies is demonstrated by research undertaken by the Tampa Hillsborough Expressway Authority (THEA), which found that in pilot deployments, V2X apps reduced travel time by 30%.

Turkish startup Swarmnect builds data acquisition and analysis solutions for connected vehicles. Its product, Welog device, integrates into the vehicle to capture and process sensor data through edge computing to provide real-time insights into vehicle networks. The startup's Infrastructure Management Platform utilizes a mobile app to detect road defects by processing images under various weather and lighting conditions and streamlines maintenance operations. In addition, its Hazard Warning Platform analyzes environmental and geographical data from connected vehicles to identify potential hazards and offers timely alerts to drivers. Swarmnect's solutions enhance road safety and optimize transportation efficiency through innovative connected vehicle technologies.

Canadian startup niosense develops tools that use AI to synchronize traffic lights and enhance traffic flow and safety. It utilizes GPS data from trucks to interact with existing traffic signals and adjust their timing to prevent unnecessary stops. This reduces fuel consumption, lowers greenhouse gas emissions, and decreases vehicle wear. The startup's tools require no additional onboard hardware and communicate with current traffic equipment to ensure compatibility across environments. niosense offers open and free tools for cities and governments to improve urban mobility. This results in time and cost savings for fleet operators and contributes to a safer, more economical, and less polluting world. Further, niosense raised USD 2.7 million to fund its operations and technological advancements. This funding is being used to scale their solutions across North America and Europe.

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Micromobility

Autonomous micromobility vehicles and AI-powered fleet management systems are increasingly essential for operational optimization. AI-enabled cameras and other emerging technologies are becoming more commonplace, improving productivity and safety. Companies such as Lime, Tier, and Voi are shaping the market by publishing operational data, achieving profitability milestones, and committing to sustainability. Moreover, the integration of micromobility into public transit systems has demonstrated tangible benefits. Cities adopting this approach report enhanced last-mile connectivity and reduced reliance on private vehicles. This highlights the role of micromobility in creating sustainable urban mobility ecosystems.

Indian startup Upciti creates products that support sustainable mobility. Its product Niya is a battery management system integrated with USB power delivery charging that allows users to charge e-bike batteries via a standard USB-C connector without dedicated chargers. Additionally, the startup's hyper-scale docking system features a universal step-through frame suitable for all age groups and a dual-mode locking mechanism that also serves as the e-bike's charging port. Upciti focuses on convenience, flexibility, and connectivity to make commutes safe and environmentally friendly, creating more livable cities.

Dutch startup Moxie Micromobility offers electric scooters for urban commuting. Its scooters feature ultra-silent 1400 W rear direct-drive motors that enable speeds up to 48 km/h and the ability to climb inclines up to 20 degrees. The 12" x 3" inflatable pneumatic wheels provide natural suspension and stability, while front and rear hydraulic four-piston disc brakes with enhanced cooling rotors ensure reliable stopping power. The scooters are handcrafted from aircraft-grade aluminum and carbon fiber components. By focusing on safety, performance, and sustainability, Moxie Micromobility offers responsible and personal electric mobility solutions for urban environments.

Autonomous Driving

High-resolution cameras and LiDAR innovations have produced notable advancements, such as the ability to achieve frame rates of 20 frames per second or more, which lower latency and improve safety in autonomous systems. Robotaxis is scaling operations at a remarkable pace, with companies like Waymo delivering approximately 150 000 paid trips per week across U.S. cities. These services are redefining urban mobility and showcasing the commercial viability of autonomous vehicles. Additionally, generative AI is playing an increasingly pivotal role, as noted in Deloitte's Tech Trends report. It is being used to simulate driving conditions and optimize algorithms, further advancing the capabilities and safety of autonomous vehicles.

US startup VELDAR develops radar imaging systems for autonomous vehicle applications. Its ViSight Auto radar employs W-band frequency-modulated continuous wave signals to produce detailed 4D point clouds and captures range, azimuth, elevation, and velocity data. The startup's ViSight-5 offers capabilities for satellite-radar architectures through GMSL2 and automotive ethernet interfaces. ViSight Auto, a software-defined radar, ensures high-resolution, low-noise imagery, high frame rates, and accurate elevation measurements, even in adverse weather conditions. Further, VELDAR's product range includes ViSight-3D for long-range freeway applications, ViSight-3C for balanced range and resolution, and ViSight-3B for wide field-of-view close-range scenarios.

US startup Altos Radar develops the Altos V2, a mass-produced 4-chip cascaded imaging radar based on TI's TDA4 platform. This radar achieves angular resolution with intrinsic antenna measurements of 1.38° in azimuth and 1.43° in elevation. It detects cars at distances up to 400 meters and pedestrians up to 200 meters to provide precise velocity detection without ambiguity in a single frame from -400 km/h to +200 km/h. The startup's system generates dense point clouds with up to 6000 points per frame at 15 frames per second, while maintaining low noise levels compared. The Altos V2 consists of a single PCB with three parts. Altos Radar accelerates the development and implementation of 4D imaging radar technology in driver-assisted and fully autonomous driving systems.

Shared Mobility

Increasing urbanization is fueling demand for affordable transportation solutions that alleviate traffic congestion and reduce parking requirements. Technological advancements, such as AI-powered fleet management and real-time app-based services, are further enhancing operational efficiency and user experience. Shared mobility also contributes significantly to sustainability. By 2035, widespread adoption in India could improve air quality by lowering the country's yearly transportation demand by around 1800 billion vehicle kilometers.

Swiss startup i-riide creates a centralized mobility hub that integrates delivery, parking, EV charging, and car-sharing services. Its application lets individuals and businesses manage these services efficiently and foster community support. The startup optimizes underutilized resources to reduce CO_2 emissions and offers cost-effective solutions for a sustainable future. Further, i-riide provides an API for easy integration with existing systems that allows real-time monitoring and efficient operations for shared mobility solutions.

Indian startup Dispatch develops electric scooters for shared and commercial mobility. Its scooters have strong suspension and chassis systems to handle tough urban conditions. The modular design lets users swap accessories for various uses, like ride-sharing, food delivery, and emergency services. Integrated 4G LTE connectivity and a smartphone dock improve functionality, while ergonomic designs ensure rider comfort during long use. Dispatch focuses on adaptability, reliability, and user comfort to provide mobility solutions for diverse business needs.

Flying Taxis

Electric vertical takeoff and landing (eVTOL) aircraft are central to the industry, offering zero-emission transportation solutions. Advances in battery technology, such as solid-state batteries, have improved energy density and efficiency to enable longer flight ranges while reducing operating costs. Further, air taxis are ideal for crowded urban areas because of distributed electric propulsion (DEP) systems, which improve safety, dependability, and maneuverability. To speed up commercialization, leading companies like Joby Aviation, Archer Aviation, Volocopter GmbH, Airbus SE, and Boeing are forming strategic alliances. Collaborations with major airlines like Delta Air Lines and United Airlines are facilitating the integration of flying taxis into the broader transportation ecosystem.

US-based startup LEO Flight develops electric vertical takeoff and landing (eVTOL) vehicles, including the LEO Coupe and LEO Solo, for personal air mobility. The startup's electric jet system allows vertical lift without propellers to enhance safety and compactness. The LEO Coupe carries multiple passengers and includes emergency glide capabilities and a ballistic recovery parachute. The single-seat LEO Solo features intuitive controls and does not require a pilot's license under FAA Part 103 compliance. By focusing on innovative design and user-friendly operation, LEO Flight makes personal air transportation accessible and practical. Moreover, LEO Flight will debut its new LEO Solo single-seat recreational eVTOL vehicle at CES 2025. The Indiana Economic Development Corporation (IEDC) supports this virtual event, highlighting Indiana's dedication to innovation and mobility leadership.

South Korean startup PLANA creates the CP-01, a hybrid-electric vertical takeoff and landing (HeVTOL) aircraft for advanced air mobility. The CP-01 uses a turbogenerator powered by sustainable aviation fuel (SAF) with electric motors and batteries for efficient propulsion and extended range. With six tilt rotors, the aircraft carries up to six passengers and flies up to 500 kilometers at 300 kilometers per hour. Its composite airframe reduces weight and improves performance. PLANA uses hybrid-electric technology and provides a fast, efficient, and eco-friendly transport solution for long-range air taxis and air ambulances.

Mobility-as-a-Service

The potential of MaaS to address urban mobility challenges is significant. A study found that increasing shared mobility services by just 20% could reduce urban traffic congestion by 10%, highlighting its capacity to create more efficient transportation networks. Additionally, it is anticipated that over the next five years, the incorporation of EVs into MaaS frameworks will increase by 25%, lowering carbon emissions and advancing sustainability objectives. Government initiatives and public-private partnerships are crucial in accelerating the deployment of MaaS. For MaaS-related projects, the US Department of Transportation has set aside USD 40 million with the goal of advancing multimodal and equitable mobility solutions. An example of how innovation and teamwork drive the future of mobility is ACO Tech's partnership with Geno and MARii in Malaysia to incorporate blockchain technology into EV infrastructure inside a MaaS framework. These developments highlight MaaS' potential to reshape urban transportation networks for increased sustainability and efficiency.

Dutch startup Rivier makes a B2B platform that links mobility providers and MaaS providers. The platform uses standardized APIs, like TOMP-API, for efficient data exchange. This setup lets mobility providers access new markets without separate connections for each MaaS provider. It allows MaaS providers to add multiple mobility services to their applications, which saves time and resources. The platform offers location and availability tracking, planning, booking, payment processing, ticketing, account management, and ID verification. Rivier improves transportation services' accessibility and efficiency to ease congestion and promote sustainable travel options.

Argentinian startup Ualabee creates a MaaS platform that integrates multiple transportation modes into one application. The platform combines routes and schedules for buses, trains, subways, public bicycles, and other services, enriched by real-time user reports. This crowdsourced approach provides updated information on costs, distances, and travel times, allowing users to plan efficient urban trips. Additionally, Ualabee offers Mobility Insights, a solution that uses anonymized and aggregated data to analyze mobility patterns. This enables governments and companies to optimize urban planning and transportation strategies. The startup integrates diverse transportation options and provides actionable data insights. It improves urban mobility, reduces environmental impact, and enhances the quality of city life.

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Discover all Mobility Trends, Technologies & Startups

The advances in battery technology and the spread of charging infrastructure are speeding up the shift to electric vehicles, cutting emissions, and promoting sustainability. Meanwhile, connected vehicle systems and AI-driven solutions enhance safety and efficiency to pave the way for intelligent mobility. These innovations are reshaping transportation and driving a transformative era in the mobility industry.

The Mobility Trends & Startups outlined in this report only scratch the surface of trends that we identified during our data-driven innovation & startup scouting process. Identifying new opportunities & emerging technologies to implement into your business goes a long way in gaining a competitive advantage.

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