

# Destination 2030

What will happen when users consume services rather than own vehicles?



# Are you ready for Mobility 2030?

We believe the ability to deliver services over products will be a key competitive driver for the future of mobility.

All organizations in the ecosystem will need to redesign and reorientate their services and value propositions to differentiate themselves in the future mobility ecosystem. Software services platforms will continue to drive a revolution across the entire mobility landscape, disrupting incumbents in all sectors and continuing to create opportunities for new entrants.

## To be able to compete and succeed in the 2030 Mobility Ecosystem you will need to deliver in these 5 areas:

- 1. Define the future business and operating models and the roadmap for getting there.**  
For both commercial and public sector organizations, it will be a period of reinvention and reorientation, and building new capabilities and new structures.
- 2. Develop the target experiences and journeys for your customers in the ecosystem.**  
The leading organizations will all offer customers and consumers clearly defined and differentiated value propositions that integrate multiple services and are increasingly centered around their specific needs.
- 3. Understand and organize the data you need to improve your analysis and decision-making capability.**  
The ability to access, own, leverage, protect and interpret data from multiple external and internal platforms, devices and systems will become one of the most critical success factors.
- 4. Increase your ability to forecast and optimize demand and supply of services.**  
All organizations will need to combine the ability to plan for and align services to mobility demand with the agility to react quickly to unplanned events or outages with alternate services or capacities.
- 5. Build sustainability objectives into every aspect of your business operations.**  
Consumers will increasingly make their mobility decisions based on environmental impact – and will expect government policies, public services and all aspects of mobility services provision and operations to be transparent and to make their commitments real.

” In 2030, 80% of survey respondents expected to be able to use a single app or platform for ALL mobility related services (billing, ordering, combining vehicle type e.g. car, bus, bike, train, plane.)

## Because CASE is driving the creation of new future Personal Mobility Ecosystems services.



### Connected

A passenger vehicle with an embedded mobile connectivity

*By 2030, the global automotive software and electronics market is expected to reach \$462 billion.*



### Autonomus

A self driving vehicle without any direct involvement from the driver

*By 2030, 85% expect mobility choices to benefit personal health and security.*



### Shared

Executing the reference to “renting” versus “ownership”

*By 2030, 50% will sacrifice vehicle ownership to improve sustainability.*



### Electric

Electric powered vehicles (E) lowering global carbon emissions

*By 2030, investment in sustainable power trains will be approx. \$1.2trn.*



**Half of the survey participants (50%) say that they would sacrifice vehicle ownership to reduce their environmental footprint by 2030.**



## Table of contents

Introduction. . . . . 2

Define the future business and operating models and the roadmap for getting there . . . . . 5

Develop the target experiences and journeys for your customers in the ecosystem . . . . . 8

Understand and organize the data you need to improve your analysis and decision-making capability . . . . 11

Increase your ability to forecast and optimize demand and supply of services. . . . . 14

Build sustainability objectives into every aspect of your business operations . . . . . 16

Conclusion: Are you ready for Mobility 2030? . . . . . 18

The study is based on BearingPoint’s research, the views from clients across all industry sectors, and input from sector and technology leaders from throughout the firm. It is part of a series of insights and research that are being published regularly.

## Are you ready for Mobility 2030?

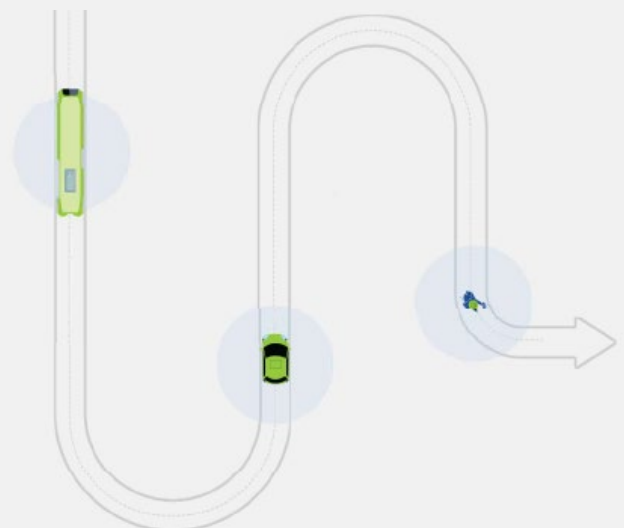
# Define the future business and operating models and the roadmap for getting there

For both commercial and public sector organizations, it will be a period of reinvention and reorientation, and building new capabilities and new structures.

The need for agility in today's fast-moving environment is widely understood, but the scale of change within mobility will require holistic transformation of whole organizations. How they respond and adapt will determine their success or failure.

By 2030, actors across the value chain will need different business and operating models, and face new competitive landscapes. The shift to mobility as a service will be creating new ecosystems, increasingly orchestrated and influenced by new entrants to the sector and big tech, offering combinations of journey provision and complementary services.

To prevail in these circumstances, organizations will need to re-examine their mission, restructure their operations, and ensure they have the right digital capabilities aligned with the right culture – whether they're a government agency, a public transport operator, an advanced manufacturer, an insurance provider, a utility company, an oil and gas company, or in another related sector.



## ● **Ask the right questions and keep asking them**

Importantly, organizations need to ask, and keep re-asking, key questions about their purpose and future amid unprecedented change.

First, they need to ask what they want to be famous for. Depending on the organization, this might involve facilitating journeys using different modes of transport – all supplied via a single technology platform in a single transaction, or using digital twins, or providing data to inform drivers, or solving capacity issues.

Second, they need to ask what they want to be an enabler for. This might, for example, involve linking vehicle manufacturers to insurance providers to help offer mobility as a service – which our

research suggests will increasingly replace vehicle ownership, with 49% of consumers [or car owners – CHECK; ALSO this 49% figure is in report, design assets says 50%] saying they will sacrifice vehicle ownership by 2030 to reduce their environmental footprint.

Finally, they need to ask what they want to provide expertise for. This might involve the provision of mobility in smart cities or developing insurance APIs to serve a changed mobility landscape.

## ● **Embrace an agile mindset, not just methodologies**

Organizations must fully embrace agile working. Research by Scaled Agile suggests this can slash time to market for products and services by up to 75% and increase productivity by as much as 50%.

However, achieving such gains requires not just the adoption of methodologies, but a shift in mindset. This, in turn, requires change programs tailored to the organization. Bespoke consulting and coaching are necessary for organizations and

their teams, and also for individual executives. This benefits the individuals' own work and also allows them to cascade understanding across the organization – bringing greater advantages and ensuring these are lasting and sustainable.

## Seize opportunities in technology and data

Making the most of the technological shifts re-shaping mobility will also be vital. As new ecosystems evolve, providing mobility as a service, companies and public-sector bodies will need to transform their use of technology and data.

The scale of change should not be underestimated. In our research, 80% of consumers said that by 2030 they will prefer to use a single app to order and pay for all mobility services, including car, bus, train, and plane.

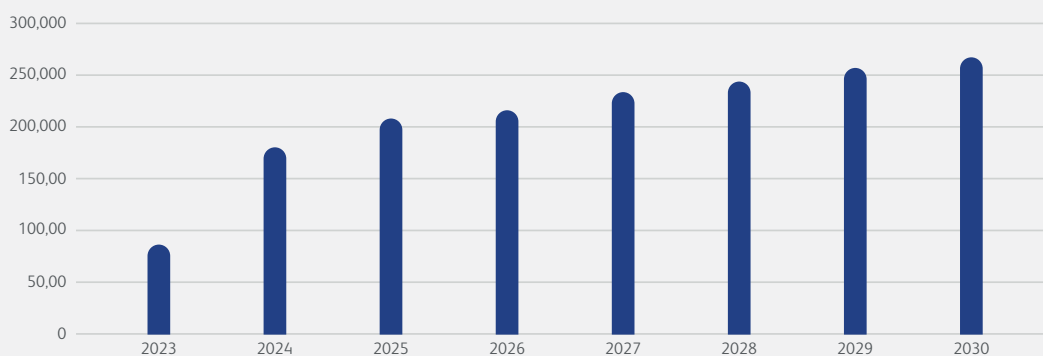
Cross-sector insights, allowing lessons learned elsewhere to be applied to mobility, will be particularly valuable, especially as big tech enters the sector and orchestrates new ecosystems for consumers. Such learnings can inform and guide organizations and help them avoid mistakes made elsewhere. Advisers and colleagues with cross-sector experience have an important role to play.

In addition, CIOs will require the right services to support them, including expertise to help envision, plan, and execute journeys to achieve sustainable business advantages, and ensure their organization is well placed to overcome challenges and seize opportunities ahead. It is a big challenge for all organizations to attract the right competencies and talent, especially software engineers and data scientists.

Our research also suggests that the number of full-time employees in software development within automotive manufacturing will increase dramatically.

### Global Software Development FTEs in automotive OEMs will more than double by 2030 as they transform themselves into technology and software businesses

Global OEM Software Development FTEs



**By 2030, 50% of our survey respondents say they will sacrifice vehicle ownership to improve sustainability.**

## Are you ready for Mobility 2030?

# • Develop the target experiences and journeys for your customers in the ecosystem

The leading organizations will all offer customers and consumers clearly defined and differentiated value propositions that integrate multiple services and are increasingly centred around their specific needs.

As the mobility landscape transforms, organizations must keep customers at the center of their strategies. This, however, will be more complex than it sounds.

Huge shifts in the ways that companies and other organizations interact with consumers will clearly impact public transport providers and automotive manufacturers. Insurers, energy and fuel suppliers, and a whole range of other companies, as well as government bodies that manage, regulate, and invest in transport infrastructure and equipment, will also be impacted.





## ● Place customers at the center of value propositions

To succeed, players in the new mobility ecosystem will need to focus relentlessly on the needs of customers, and these are likely to evolve, both in terms of how people use mobility, and what they use it for.

In our research, for example, 81% said that by 2030 they will take significantly fewer business trips compared with 2019, and 87% said they will commute less frequently.

Identifying drivers of change can help. Customer-led drivers will include demand for seamless travel user experiences involving different modes of transport and using multi-energy cards instead of petrol-only fuel cards, to give two examples.

Public-sector drivers will include plans to connect mass and personalized transport, rethinking aviation strategy, investment in public mobility and electrical charging infrastructure, road user charging, and carbon pricing incentives.



**By 2030, 81% of survey respondents expect to take significantly fewer business trips compared with 2019, and 87% said they will commute less frequently.**

## ● Evolve your customer engagement

Organizations will also need to reevaluate how they engage with consumers. By 2030, there will be a convergence of mass transit, private vehicles and personal wellbeing experiences, and our research reflects this. For example, 85% of respondents in our survey expect future mobility choices to benefit personal health and security.

As people increasingly consume mobility as a service, rather than own vehicles, organizations will need to make better use of digital assets to grow revenues and increase loyalty. This could involve widening their product range or transforming their approaches to digital marketing and CRM.

Using data effectively will be crucial, not just in targeting and converting customers, but also in providing insights at the strategic level. For example, if mobility is accessed via software platforms, demand can be steered via flexible pricing packages and peak-pricing, changing the nature of engagement with customers.

There will also be an increased focus on the use of travel time, whether that is for entertainment, work, household administration or even sleep on the move.

## Beware your customers may change

To address such changes, organizations must focus not just on current customers, but also think deeply about who their customers might be in 2030 and beyond.

Scenarios for automotive manufacturers provide an example. As consumers move away from car ownership to consuming transport as a service, electric vehicle and traditional car makers may find themselves providing fleet vehicles to technology-based platforms that meet customers' needs, and so increasingly serving a B2B market.

In this scenario, premium vehicle producers would still have a niche in the high-end market for those still wanting to own cars, but consumers generally may be far less concerned with vehicle brands, instead focusing on offering services for a specific journey or time period.

In another scenario, big tech companies might supply their own branded vehicles, using their software but with the hardware manufactured by third parties. There has been speculation, for example, that Apple will launch a car. In this scenario, some automotive manufacturers might increasingly supply "white label" products to tech companies, while others might be in direct competition with the tech companies.

It is easy to see how such scenarios would impact other types of companies, too. Insurance providers might find themselves providing far more insurance on a per-journey basis, while energy companies might increasingly sell electricity and fuel to fleet operators rather than directly to travelers. Either way, we expect higher levels of investment in software capabilities to improve how vehicles operate and interact with customers and transport ecosystems.



**By 2030, 85% of survey respondents expect their mobility choices to benefit their health and security.**



## Are you ready for Mobility 2030?

# • Understand and organize the data you need to improve your analysis and decision-making capability

The ability to access, own, leverage, protect and interpret data from multiple external and internal platforms, devices and systems will become one of the most critical success factors.

There will be an exponential increase in data and the use of it in mobility by 2030. Organizations must maximize value from both internal and external data to help provide products and services, make strategic decisions, and differentiate themselves in the market.

This will become increasingly important as mobility evolves. As big tech enters the sector, increasingly providing transport as a service and orchestrating ecosystems, it will bring vast expertise in data use and also the use of data from other sources. For example, data from mobile devices and from apps such as those providing online maps might be used. Regulatory changes, such as those aimed at encouraging data sharing and re-use, will also play a role in transforming the landscape. A whole range of organizations will be affected. For example, public-sector bodies and transport providers will increasingly use data to understand cities' mobility systems, while related companies, such as those in insurance, may use data from mobility ecosystems and other data sources to inform decision-making and marketing.

The resulting opportunities are numerous: fleet operators using data for predictive maintenance, transport service providers using data to set peak-hour pricing, or energy companies using data to predict and meet demand, to give three examples. Companies may also want to monetize data or use it to sell additional services, to help drive revenues. For example, data relating to journeys might be used to sell additional services such as accommodation or in-journey entertainment.

## Overcome the challenges and reap the rewards

However, amid the opportunities there will be challenges. First, there may be so much data that it becomes difficult to manage. Second, big data projects are notoriously difficult, and too many fail. Finally, data may hand advantages to the companies that access and use it best, altering the competitive landscape.

Therefore, it is vital that organizations:

1. Reevaluate their data analytics strategy, architecture, segmentation, and management to help understand the quantity, quality, and availability of data to maximize its value!
2. Develop a data integration platform to ready the data for monetization.
3. Understand how to reconcile ecosystem-generated data with their own data, and so derive maximum value from it.
4. Use data analytics and AI to improve strategic decisions, cost savings and understanding of commercial forces.
5. Use their data analytics to increase productivity and empower people to adopt risk-mitigation planning.

To take these actions successfully, organizations also need to address the management dimensions. They must ensure smooth, effective, and progressive change of operating models with the clear objective of making the most of data availability and innovative technology.



Effective people management is also needed to create a “data culture”, with supportive upskilling and understanding of technologies including AI, and clear roles and responsibilities between and within teams. Together, these activities can increase not just performance, but resilience.



### Data Culture

People involvement, upskilling and culture are fundamental to change the way business objectives are pursued in a data driven environment.



### Roles & responsibilities

To ensure efficient working processes it is mandatory to clearly define a roles and responsibilities dedicated to data management in order to follow on task owners.



### Methodologies & processes

Define and/or update business processes to embrace the change triggered by data exploitation. This is the only way to guarantee coherence in the approach, effectiveness on the results and efficiency in the execution.



### Data understanding & management

Working with data means, at the very atomic level, understanding its very meaning. Define proper data model, data glossary, data transformation are then the enablers for business value creation.



### Data Quality

Reliability and accuracy of information is a must have for any data centric initiative, so a structured approach to data quality is essential, in particular with an effective remediation process.



### Data architecture

If data are at the very centre of new business processes, the underlying IT architecture must guarantee effective data management and enable data analytics.

## Are you ready for Mobility 2030?

# ● Increase your ability to forecast and optimize demand and supply of services

All organizations will need to combine the ability to plan for and align services to mobility demand with the agility to react quickly to unplanned events or outages with alternate services or capacities.

As mobility networks become more integrated, with transport consumed as a service and more journeys combining multiple modes of transport, effective forecasting will be vital. There will be more data to process especially given growing use of software platforms and sensors in infrastructure, and more technology to drive insights, including AI and machine learning. This will increase the potential and complexity of forecasting.

At a day-to-day level, unplanned changes in demand, events or outages across the network will pose increasing challenges for transportation scheduling, safety, and security, given the growing interconnectedness within transport ecosystems. At the longer-term strategic level, forecasting will also play a growing role. For example, it will help those supplying energy and transport services anticipate surges in demand, conduct predictive maintenance, and determine when and where energy will be needed. This can bring benefits in terms of efficiency and environmental benefits.

There will also be important developments for forecasting in manufacturing and infrastructure. If automotive manufacturers increasingly supply fleet operators, as people consume transport as a service rather than own vehicles, they will need to reassess their use of forecasting in relation to manufacturing capacities and supply chains. For public-sector organizations, forecasting will play a crucial role in planning and investing in transport systems and infrastructure. It will also help policymakers tackle climate change and other environmental issues.

## ● Execution will be key

Crucially, organizations will need to not just identify strategies to address challenges and opportunities, but to execute them swiftly and effectively, too. One key area will be increased use of predictive AI tools and algorithms to provide always-on transport within interconnected transport networks. Another will be the adoption of digital twin technology to understand better how infrastructure, energy, and consumer goods suppliers can respond to issues across the network including traffic jams, road work and rail repair. This includes using techniques such as event modelling to redirect supply and minimize impacts.



**By 2030, the global automotive software and electronics market is expected to reach \$462 billion.**

## ● Be sure to consider the context

To use forecasting effectively, organizations will need to set it in context. The three Ps of future mobility – Planning, Promotion and Programs – provide a framework that can help.

- Planning includes elements such as influencing and steering demand, predicting potential network outages, and understanding a city's mobility through data.
- Promotion involves marketing the customer journey, creating demand for mobility as a service and creating platforms to compare emissions for different journey options.
- Programs are used to drive change in areas such as knowledge management, the transferring and leveraging of insights, or exchanging data. Examples are facilitating data exchange between insurers and companies supplying cars to consumers.



**By 2030, investment in sustainable power trains will be approx. \$1.2trn.**

## Are you ready for Mobility 2030?

# ● Build sustainability objectives into every aspect of your business operations

Consumers will increasingly make their mobility decisions based on environmental impact – and will expect government policies, public services and all aspects of mobility services provision and operations to be transparent and to make their commitments real.

Steps to reduce climate change will have a major impact on mobility. As we noted in our previous paper, consumers will increasingly choose journey options based on their environmental impact. Governments will continue to create regulatory frameworks for our sustainable future, influencing investment in low- and zero-impact modes of transport and infrastructure. Furthermore, transport capacity will be used more efficiently with better use of available vehicles, and AI-driven software and a wider range of vehicle types will help reduce congestion.

For these reasons and others, there will also be greater energy efficiency. In this context, organizations will need to transform their approaches to tracking, reporting, and delivering sustainability. All mobility players will need to meet the demands of shareholders and regulators as well as communicate transparently with customers while delivering on environmental business performance.





## Act now and plan for the future

Broadly, there are three steps organizations need to take. First, they should act now and plan for the future. Companies that operate vehicle fleets provide a good example. Most fleets operate with a five- to seven-year replacement cycle. So, if a company has a goal of being carbon-neutral by 2030, they need to think now about the kind of vehicles they will use, since whatever they purchase in the next two years will still be operating at that time.

Second, they need to develop real-time sustainability reporting. Too many businesses still only report carbon emissions annually, typically in their annual report. This might help meet today's regulatory requirements, but the data itself has little value. Mobility players will need to focus on improving granular data collection, analysis, and modeling to identify where carbon reduction efforts might be focused and broader improvements in performance could be made. Real-time reporting allows progress to be tracked to ensure regulator and stakeholder engagement.

Third, organizations need to consider their place in the wider transport ecosystems, where customers use mobility as a service, with combinations of transport modes. They may need to provide data to allow partners to calculate scope three emissions – those outside an organization's own operations, such as those within supply chains. Also, they may need to acquire and incorporate

data from partners, or their own upstream and downstream supply chains. In addition, firms will increasingly need to provide data to help consumers make informed choices that take environmental impact into account. Mobility organizations will need to prepare for increased demand for environmental reporting from regulators, governments, investors, and NGOs. The appetite for information from these stakeholders will increase, whether to help inform investment decisions, strategic planning, or infrastructure development.

Finally, companies need to think about sustainability data in the context of their brand. Customers increasingly expect brands to be global citizens, take a stance on issues, and ensure their strategy and operations reflect their values and beliefs. Authentic communication and collaboration with partners will be vital in this context, and accurate data has a critical role to play, both in helping to communicate transparently and credibly, and in improving environmental performance.



# Conclusion: Are you ready for Mobility 2030?

The future of personal mobility will be radically different. All organizations in the mobility ecosystem must adapt to survive. We believe large technology firms will disrupt incumbents leading to a refocus of competition and collaboration within and between new ecosystems. Software solutions will create mobility platforms that deliver end-to-end service for travelers, e.g., tailored journeys based on a tiered system of travel. While some consumers will demand a superior service and will potentially own premium branded cars, others will use multi modal transport regulated by public sector agencies.

This will be interlinked with consumer technology combined with big tech ecosystems that deliver sophisticated services, including infotainment and vehicle performance software, via automatic updates. This will encourage traditional and non-traditional financial services companies to join ecosystems to provide finance and insurance bundles. Meanwhile, automation, artificial intelligence and advanced sensors will enable sophisticated infrastructure planning, meeting power needs and the logistical delivery of consumer products and services.

**Any organization in this new mobility ecosystem will need to play to their strengths and execute in these five areas:**

1. Define the future business and operating models and the roadmap for getting there.
2. Develop the target experiences and journeys for your customers in the ecosystem.
3. Understand and organize the data you need to improve your analysis and decision-making capability.
4. Increase your ability to forecast and optimize demand and supply of services.
5. Build sustainability objectives into every aspect of your business operations.

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## About BearingPoint

BearingPoint is an independent management and technology consultancy with European roots and a global reach. The company operates in three business units: Consulting, Products, and Capital. Consulting covers the advisory business with a clear focus on selected business areas. Products provides IP-driven digital assets and managed services for business-critical processes. Capital delivers M&A and transaction services.

BearingPoint's clients include many of the world's leading companies and organizations. The firm has a global consulting network with more than 13,000 people and supports clients in over 70 countries, engaging with them to achieve measurable and sustainable success.

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