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 UCL



# Opportunities of MaaS for the urban transport system and value to the customer

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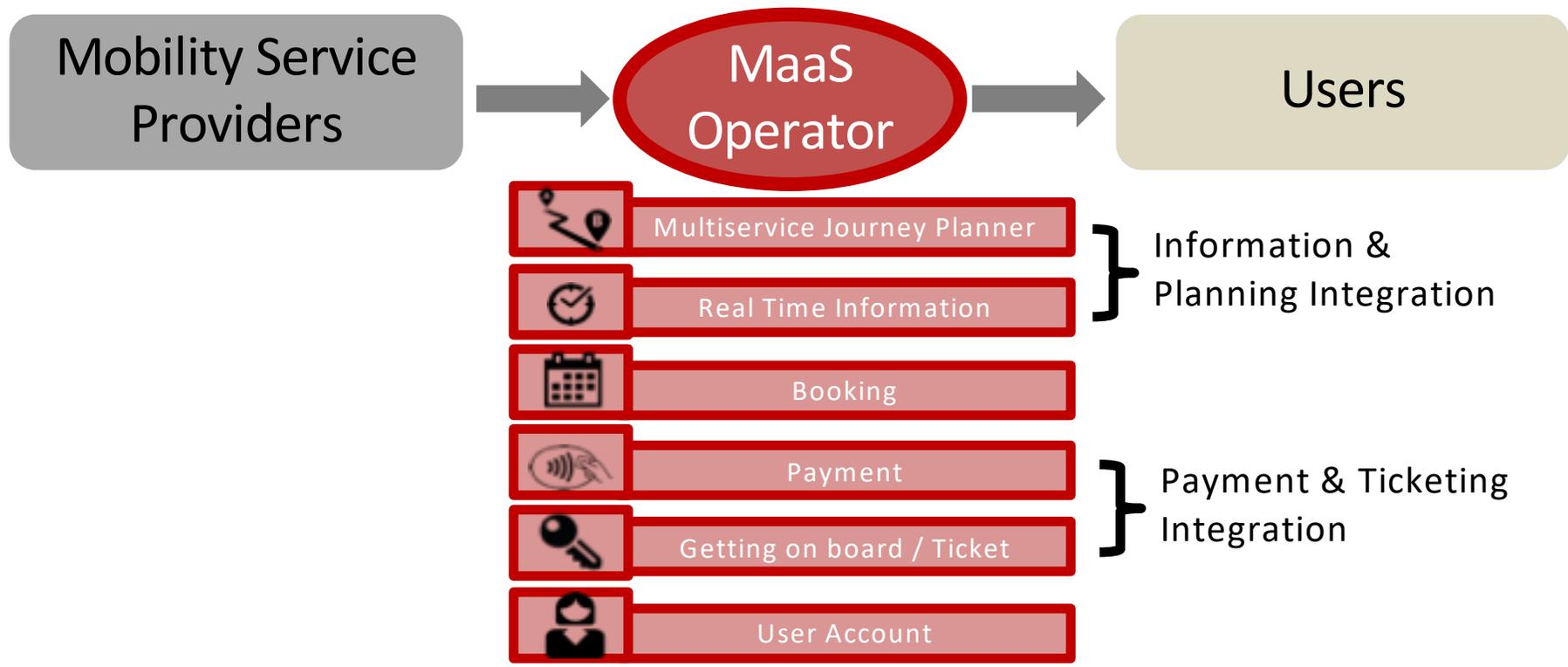
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# The MaaS Concept

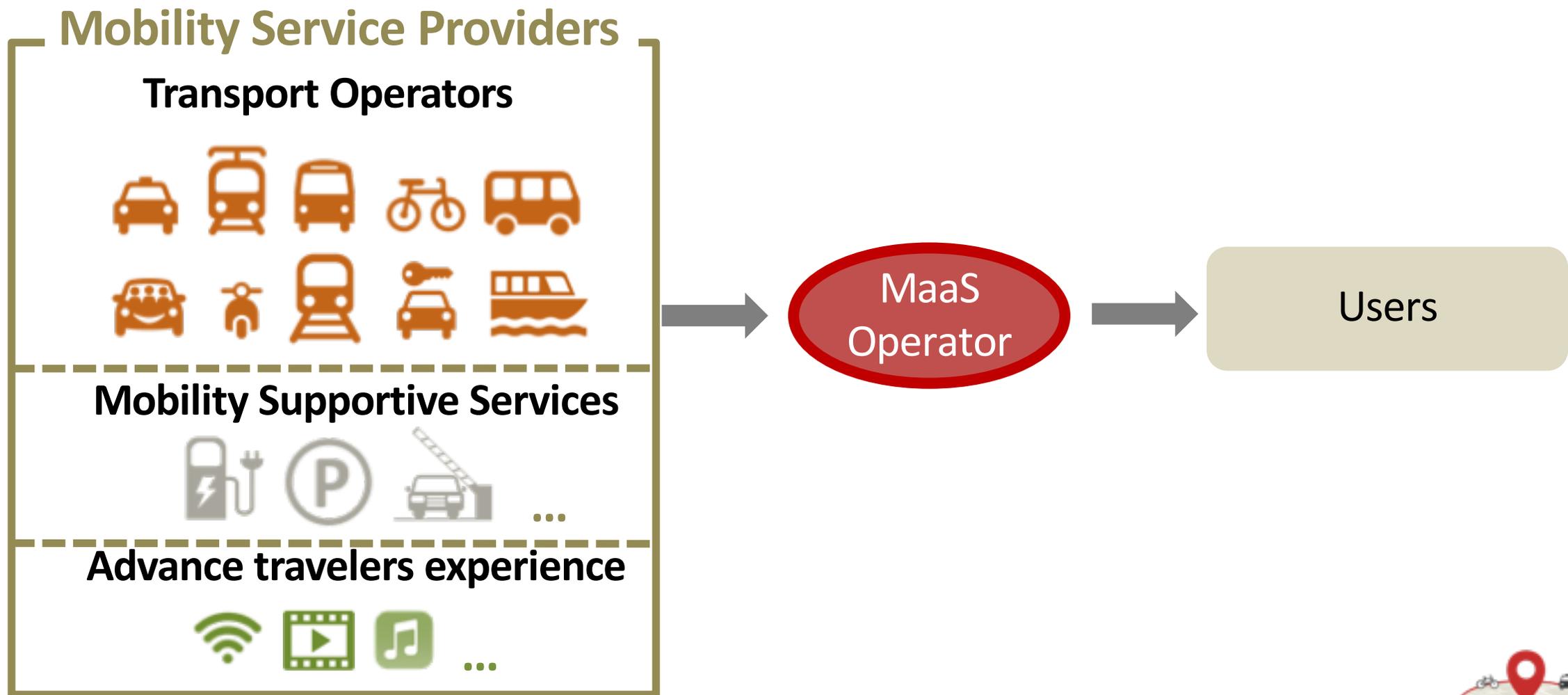
# Travelling without using a private car...



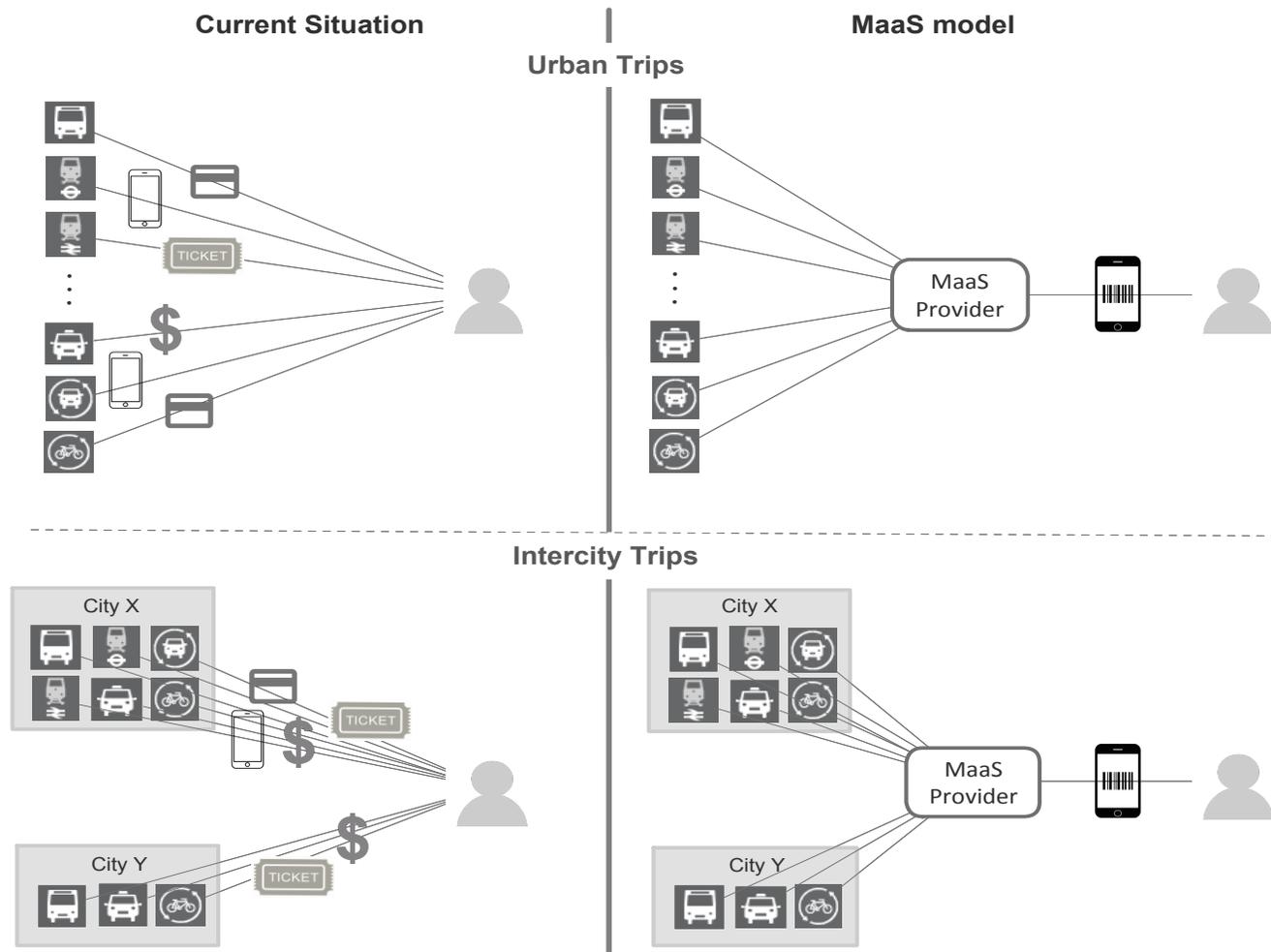
# The MaaS Concept



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# The MaaS Concept



Source: Kamargianni, M., and M. Matyas 2017. The Business Ecosystem of Mobility as a Service. 96th Transportation Research Board (TRB) Annual Meeting, Washington DC, 8-12 January 2017.

# The definition of MaaS

“Mobility-as-a-Service is a user-centric, intelligent mobility management and distribution system, in which an integrator brings together offerings of multiple mobility service providers, and provides end-users access to them through a digital interface, allowing them to seamlessly plan and pay for mobility.”

*Just car-sharing is not MaaS*

*MaaS is not an app. The app is just the digital interface.*

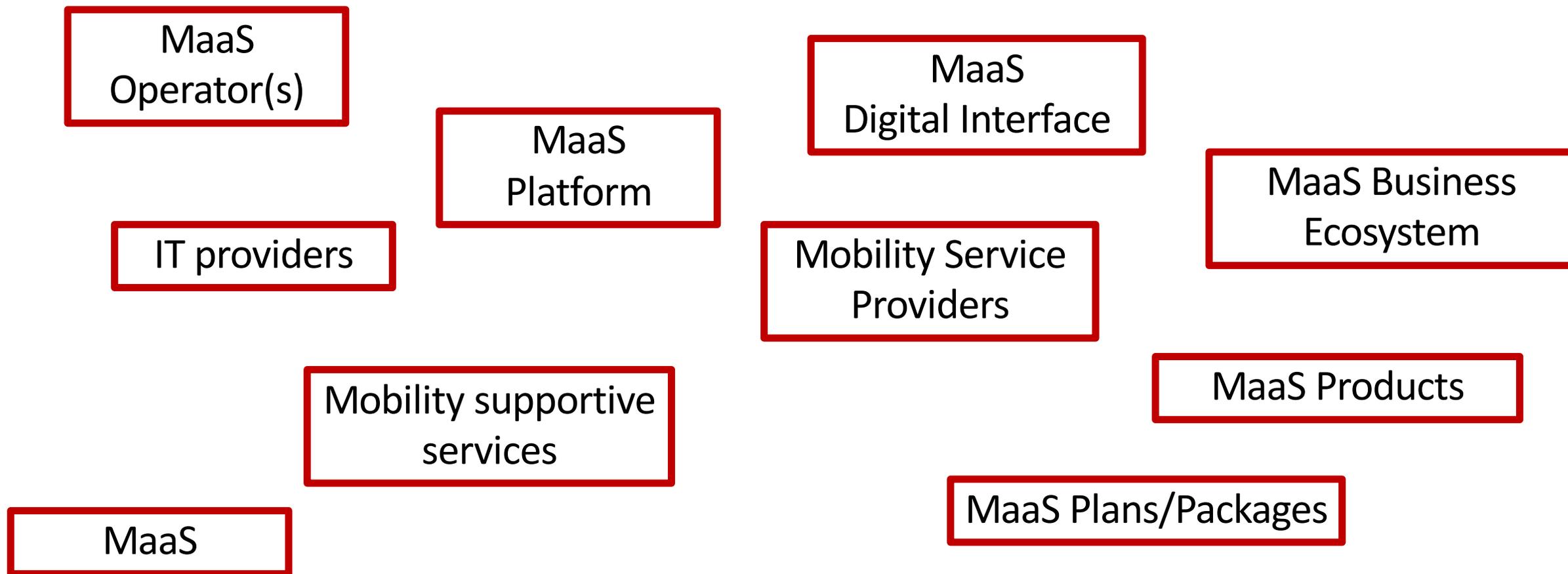
*An intermodal journey planner is not MaaS*

*Just ride-hailing is not MaaS*

*MaaS is not just monthly subscription packages*

- The MaaS concept covers several topics that have been extensively discussed in the transportation sector during last decades.
  - These are the integration, interconnectivity and optimization of the transport services, smart and seamless mobility, and sustainability.
- It also includes concepts that have recently emerged via the Internet of Things and the sharing economy.

# MaaS dictionary



# **Benefits that MaaS could bring to the transport system**

# Impact assessment of MaaS on Public Transport

	Expected Impact	Scale of Impact
Passenger Demand	The demand for public transport services is likely to rise as a great proportion of car users would increase their usage of public transport	Expected Positive
	The extent to which the demand could rise depends largely on the chosen MaaS product and the degree of switching away from public transport	
	Overall, it is noticed that the percentage of the participants who stated that they would increase the use of public transport is higher than those who stated that they would decrease their public transport use.	
Capacity	MaaS could improve the network efficiency and optimise capacity (supply) and demand.	Expected Positive
	Especially in peak hours, the excessive demand can be redirected to under-utilised routes or other transport modes.	

# Impact assessment of MaaS on Public Transport

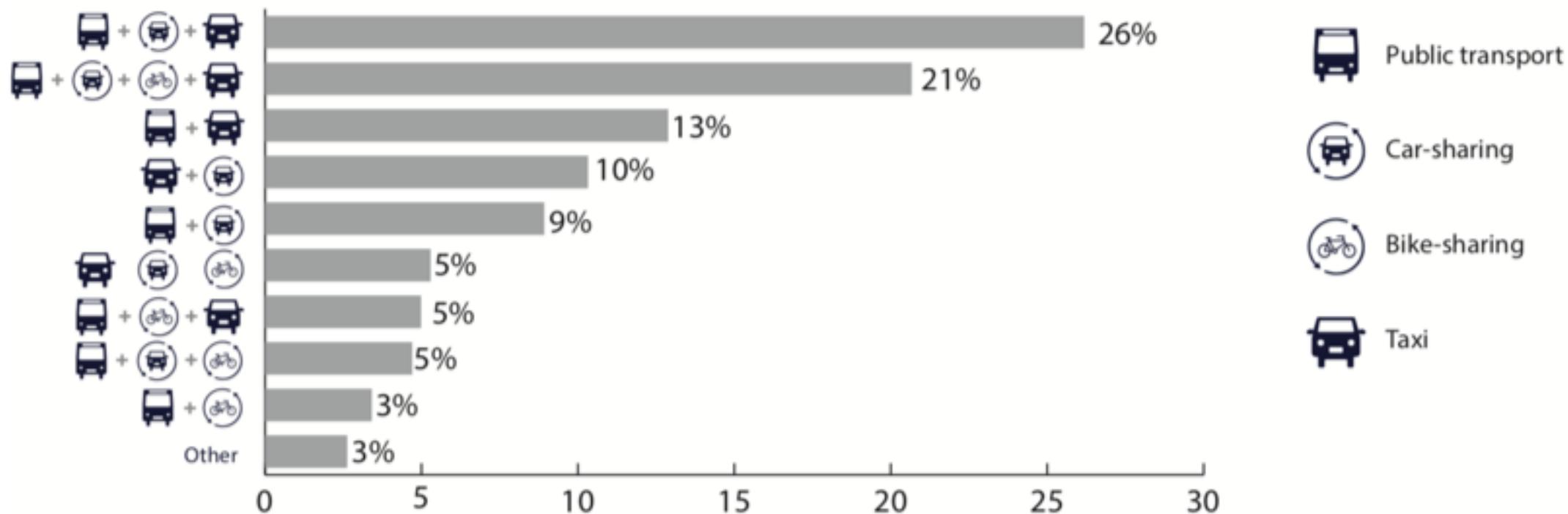
	Expected Impact	Scale of Impact
Flow at stations	The single ticketing and payment feature of MaaS is an option that could contribute to the flows at ticketing machines at stations.	Expected Positive
	Several journey planners already offer information (both static and real time), which contributes to a reduced volume of enquiries at stations.	
Capacity	Internally, public transport modes will be more tightly connected from passengers' point of view as they can access the information of these services all in one place.	Expected Positive
	- Externally, public transport will be connected with the other transport modes available in the city contributing to the achievement of seamless intermodal door-to-door mobility.	

# Impact assessment of MaaS on Public Transport

	Expected Impact	Scale of Impact
Revenue	Results from market researches in London, Birmingham, Budapest, Luxembourg and Manchester indicate that end-users widely prefer MaaS products that definitely include public transport.	Expected Positive
	The potential increase in demand will generate additional revenue to the Public Transport Authority, which could be reinvested.	
	The integration of the public and the other transport modes would reinforce the demand for both increasing the revenue and market shares for both (this increase in the market share of the transport operators is expected to come from the reduction in the usage of private vehicles). MaaS products, if designed, structured and priced appropriately, could remove a certain number of private vehicles off the roads.	
Travel data for planning	It is expected that MaaS operators could provide high quality travel data (and especially data for intermodal trips) back to the transport authority that could be used for transport planning purposes.	Expected Positive

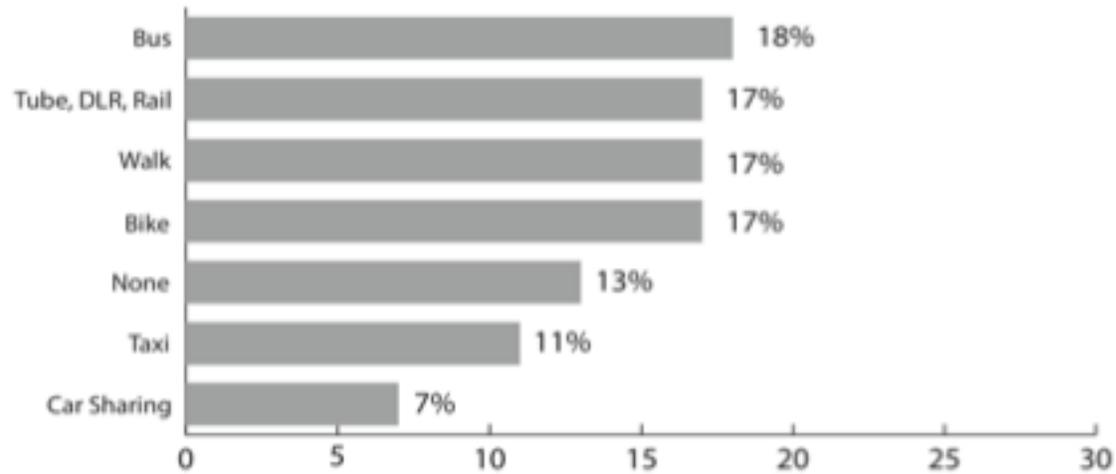
# **End-users attitudes and preferences towards MaaS and MaaS Products**

### Transport Mode Combinations in the Preferred MaaS Plans

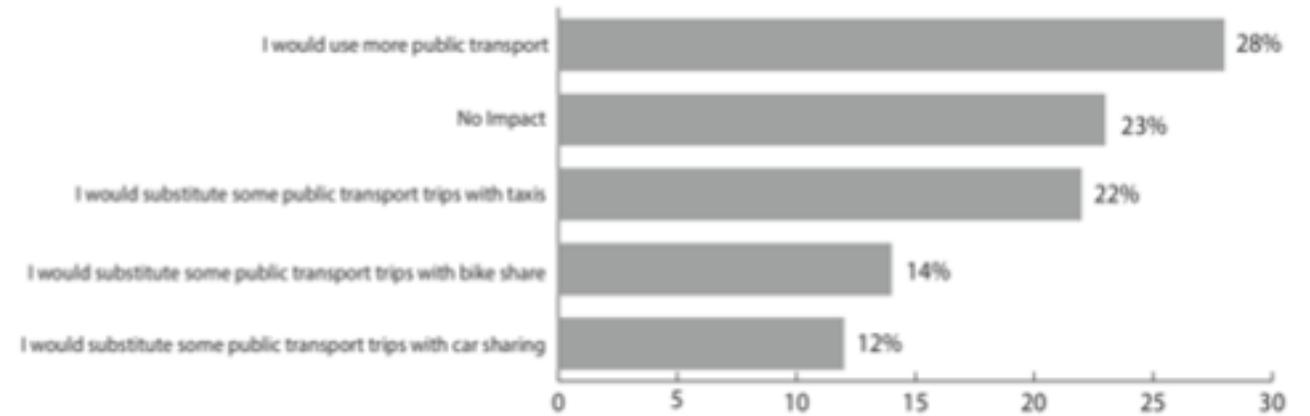


# Modal Shifts

"Most likely substitute for car trips with MaaS"

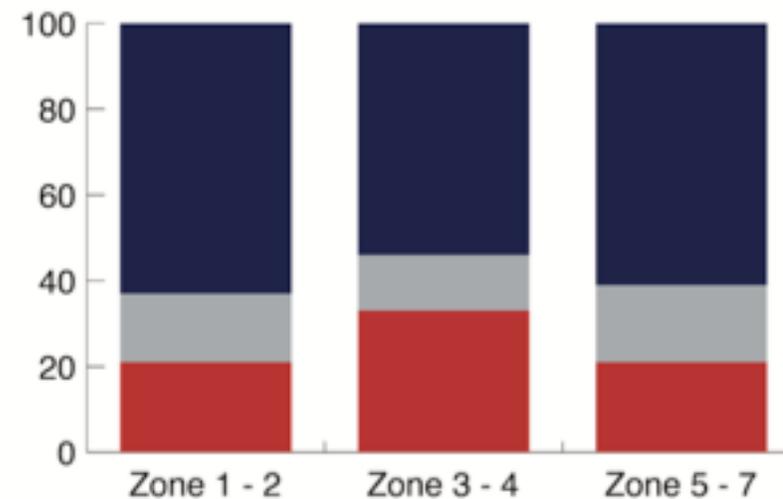
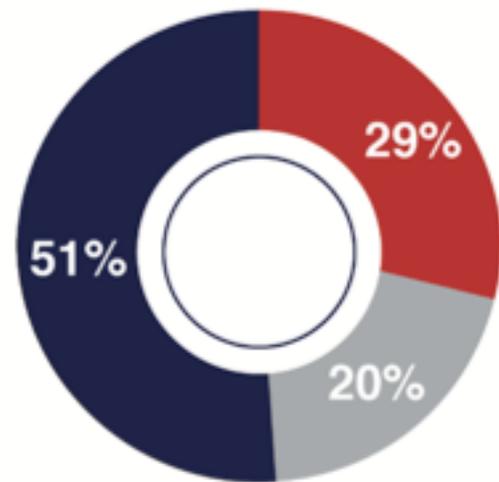


"Most likely substitute for public transport trips with MaaS"



# Attitudes towards MaaS

“I would be willing to try new transport modes I previously didn't use if my MaaS plan included them”



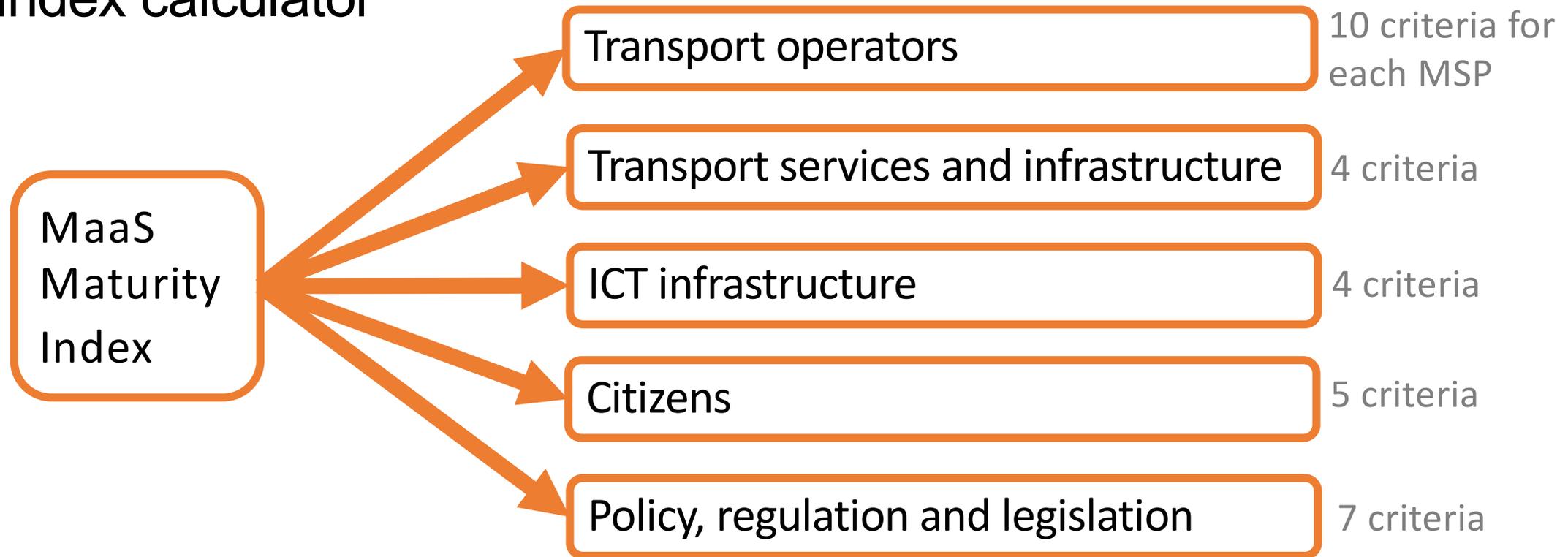
● Disagree   ● Neutral   ● Agree

# MaaS as a Demand Management Tool

- Even though respondents do not prefer shared modes in their MaaS plans, a significant number of them are willing to subscribe to plans that include these modes.
- Once they have subscribed, 60% of them indicated that they would be willing to try transportation modes that they previously did not use if their MaaS plans included them.
- These initial results show evidence that MaaS bundles can indeed be used as a mobility management tool to introduce more travelers to shared modes.

# MaaS Maturity Index

- The index calculator





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**Thank You!**

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