

# Supporting the Future of Urban Mobility

World Economic Forum

Application deadline extended  
See page 12

City Information 2016

# The Forum is committed to shaping urban transportation policy

## World Economic Forum

### MISSION

The Forum is the not-for-profit **international institution**, founded in Switzerland in 1971, committed to improving the state of the world through **public-private cooperation**.

### VISION

Engaging political, business, academic and other leaders of society (*stakeholders*) into collaborative efforts to shape **global, regional and industry agendas**; defining challenges, solutions and actions in the **spirit of global citizenship**

### ACTIVITIES

Serving and building **sustained communities** through an **integrated** concept of high-level meetings, research networks, task forces and digital collaboration

### VALUE PROPOSITION

Delivering value to all participants through **Annual and Regional Meetings, expert networks** of Global Agenda Councils, and online **knowledge and interaction platform**

## Mobility Work



Researched components of new mobility eco-systems

Developed **recommendations for industry and city leaders to drive/accelerate transformation of urban mobility**



Conducted a survey of urban consumers globally and a study of city transit authorities to **understand expectations of autonomous vehicles**

Modelled **4 major scenarios for autonomy in cities**



Researched innovative solutions to urban problems

Produced reports identifying **Top 10 urban innovations** and outlining **the Future of Urban Development & Services**

# World Economic Forum 2015 project work revealed the need for real-life, on-the-ground impact

## Our 2015 project achievements



This year, we accomplished the following three project objectives

- Gained an in-depth understanding of **future customers' needs** in 10 countries
- Conducted a series of city interviews to understand **city perspective on new mobility**
- Developed and detailed **future mobility concepts** and their impact on cities

### Still to be accomplished

- Test and refine conceptual models** in one real-life city to develop recommendations for all cities

## Open questions

- How can cities prepare for future mobility if they haven't **revised their transportation plans** to account for car sharing, bike sharing, ride sharing, data platforms, etc.?
- How can cities plan for SDVs in isolation when it requires a **discussion with other linked parts** of the mobility system?
- How will consumers react to a **real experience of a SDV**?
- Which specific **regulatory changes** will be required
- What is the required operating model and infrastructure for a real-life roll-out?
- How will the economics of a specific SDV fleet model play out?

### Path to Discovery

- Support a city in revamping their overall transportation plan to incorporate new technologies
- Support a city in planning and implementing a self-driving vehicle pilot as one element of the transportation plan

# General recognition that cities need to start working on this topic...

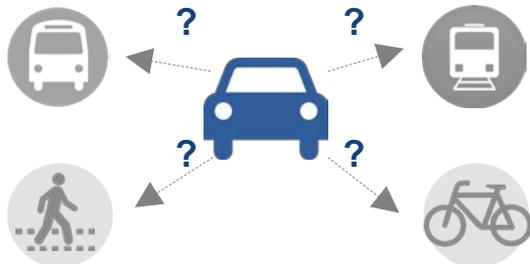
## Most cities have started thinking about SDVs

*Out of 25 policy makers we spoke to ...*

*~ 23 had previously thought through potential SDV benefits and concerns*



*While only very few cities have thought about implications for their urban transport system*



### A National League of Cities

Survey found that only **6% of cities have included driverless cars** in their long-term transportation planning, though most are aware of the technology.

In the “**Declaration of Amsterdam**”, organized by the Dutch EU Presidency, all parties agreed to work together to ensure a successful deployment of connected and automated vehicle technologies across Europe

**Chicago, IL** is in the process of pre-approving parts of Chicago to be ready for driverless car tests as part of a plan to prepare the city for future technology.

The **US DOT** planning two public meetings in 2016 on self-driving vehicles, to gather information and provide manufacturers and states with safety guidance.

## ...with pilots taking place in certain cities

And many of them have specific SDV related initiatives under way

### Gothenburg



Trials of self-driving vehicles on ring road as part of Drive Me starting in 2017

### Toronto



Collaboration with university of Toronto to understand impact of self-driving technology on city

### Pittsburgh



Uber and Carnegie Mellon University active in testing self-driving cars in Pittsburgh

### London



Project GATEway to start trial of pod cars in Greenwich area in 2016

### Milton Keynes



Trials of autonomous pod cars starting in 2016 as part of project UK Autodrive

### Amsterdam



Small-scale self-driving demonstrations planned as part of EU presidency focus

### Singapore



Announced six kilometer route for autonomous vehicle testing – "One-North" in January 2015

### Wageningen and Ede



Driverless minibus system has been tested and will soon carry passengers from these two Dutch towns to a nearby university

# Objective 2016: Help a city revamp their transportation plan, with a focus on self-driving vehicle planning/pilot

## Revision of Transportation Plan

Analyze and revise city transportation plan, including:

- Bring all stakeholders together for dialogue
- Conduct surveys and ride-alongs to identify pain points
- Research other cities' systems and/or pilots
- Assess if and how current transportation options can be expanded and integrated
- Assess current data collection and distribution systems
- Set measurable goals and targets
- Create a plan for strategic investment
- Make and keep data open to stimulate entrepreneurship and allow objective validation
- Evaluate and fine tune plans

## Pilot Planning (Optional)

Develop one or more self-driving vehicle pilot plans, designed to assess:

- Consumer acceptance
- Regulatory requirements
- Infrastructure needs
- Best operating model
- Business case
- Impact on citizens and city overall
- Impact on existing public transportation

## Collaboration offers 3 core benefits to the selected city



- Development of a **multi-year transport plan** that builds on Forum mobility research, and site-specific analysis
- Assessment of **regulatory needs** specific to chosen city
- Evaluation of **infrastructure and investment requirements** for chosen city
- Identification of **achievable and measurable goals** for personal safety and mobility, and environmental sustainability



- The **World Economic Forum** is the foremost international organization for Public-Private Cooperation, bringing together leaders of business, civil society, and politics
- Engagement with the Forum can deliver **significant visibility** to the host city; global recognition as leaders in innovation
- Opportunity to present city vision at selected **Forum events**



- Access to **advice and collaboration** from the high-level business, government, and academic members of the Forum Automotive Community at **several workshops** throughout the year
- Access to a **peer network** of **city leaders**

## The ideal host city has 5 main characteristics



Desire for modern, connected urban mobility as addition to otherwise well-functioning urban life and administration



Strong, collaborative leadership and regulation already in place to support ITS and connected mobility



Availability of the mayor, and all relevant city stakeholders, to work with an advisory team and for core team to attend workshops



Commitment to the role of leader and innovator as a city, with potential to show significant impact/benefit and transfer learnings to other cities



Interest in (and capacity to implement) ITS and self-driving technology, and a designated test area in which to do so

## Application Sections – please refer to separate Word Document

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### Transportation Vision

- Key transportation challenges
- Transportation goals
- Goals for public perception of city transportation
- Perceived challenges to workforce, land use, data security, etc. and mitigation strategy
- Planned mobility initiatives

### Collaborative Vision

- Vision of successful collaboration with the World Economic Forum – tangible achievements
- Perceived challenges to collaboration with the World Economic Forum, and mitigation strategy

### Transportation Team

- Core team and decision-making process
- Point of contact (and his/her availability) to work with on-site expert
- Current public or private partners involved in city transportation

### Commitment to Programme Participation

- Core team available to attend two in-person workshops outside the city (possibly outside the country)
- Transportation team committed to Intelligent Transportation Systems, the sharing economy and/or self-driving vehicles
- Openness to sharing data and collaborating with on-site expert

### City Data

- Population and demographics – e.g. population; population density; age and income brackets; land values, etc.
- Transportation infrastructure – e.g. miles (km) of roadway; number of registered private vehicles; bus, subway, etc.
- ICT and Energy infrastructures – e.g. public wireless, Smart Grid, green energy sources, etc.
- Current data collection systems
- Funding availability – only in the event that the city desires the planning of an autonomous vehicle pilot

## Selection Criteria (1/2)

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### Vision

- Vision of mobility goals for the pilot and beyond
  - City leadership has an **achievable vision** for the city transportation network, which can be built into an already well-functioning urban life and have significant impact
  - Vision for mobility over the next 5-10 years includes **multi-modal Intelligent Transportation Systems** and possibly connected vehicles to improve safety and accessibility
  - City seeks to stand out as an **innovator in transportation** and technology
- Vision of collaboration with the World Economic Forum and Forum partners
  - Concrete, **measurable objectives** for collaboration with the Forum, on-site expert, and industry advisory group
  - Ideas of what challenges exist and how to **mitigate challenges and risks associated with collaboration**

### Transportation Team

- **Continuity of committed leadership** with capacity to carry out the programme throughout the period outlined
  - Mayor with demonstrated **commitment to innovative transportation, open data, and the sharing economy**, in addition to the ability to drive public acceptance
  - **Head of Transportation, who either works closely with, or is, the Mayor**
  - Transportation **staff and resources to dedicate to project** implementation
  - Decision-makers, including mayors, must be able and willing to work closely with an on-site expert representing the Forum and **take part in at least two off-site workshops** during the year
  - **Regulation favorable to implementation** of new transport models

## Selection Criteria (2/2)

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### Modern Infrastructure

The ideal city already has a **varied public transportation system, good roads**, and good mobile and wireless coverage

- The current public and private transportation options have a **baseline level of performance**
- **ICT infrastructure** and cellular and data coverage is strong
- **Data collection systems** are integrated across government departments
- The city may have existing or planned **infrastructure for electric vehicles**

### Funding

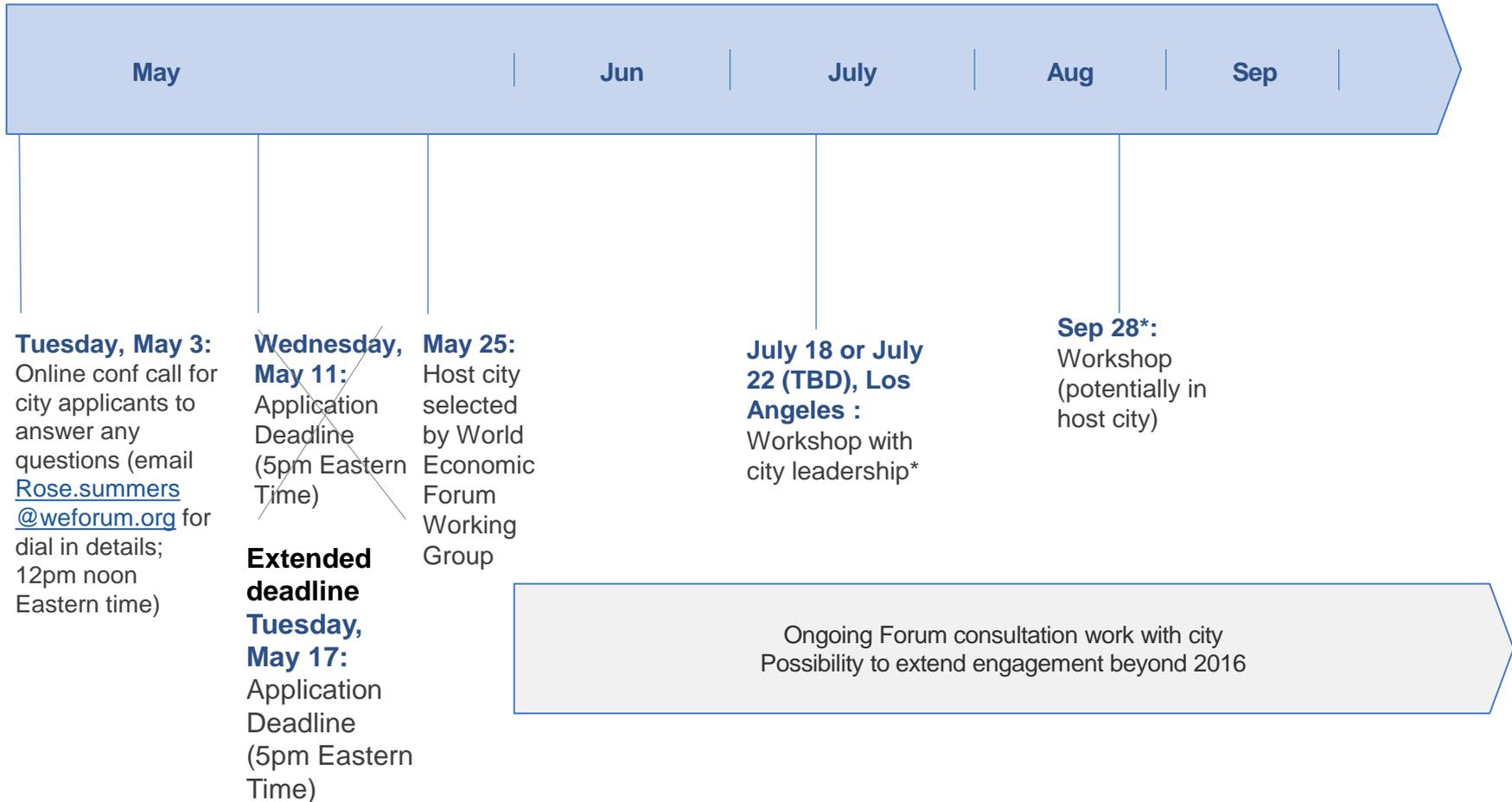
The World Economic Forum will be contributing expertise and personnel support, and may be able to assist in designing innovative funding models, but the city must have its **own ability to fund any pilot, should a pilot be desired** and within the scope of the transportation plan created. If a pilot plan is desired –

- **Funds have already been earmarked** for a project of this kind

**AND/OR**

- **Funds have been secured** through partnership with private enterprise(s)

# 2016 Timeline of Engagement



\* For selected city, presence of both mayor and city transport head expected

## How to Apply

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To obtain the application document, please send an email to  
[alex.mitchell@weforum.org](mailto:alex.mitchell@weforum.org)