



Ministry of Housing and Urban Affairs  
Government of India

#startupindia



# TRANSFORM 4 A

DIGITAL INNOVATION CHALLENGE CHALLENGE BRIEF

MG Road  
ETA - 2min

**F 34 Route**

MG Road	11:31 AM
Ashok Pillar	11:35 AM
Airport	11:43 AM

BUS ARRIVALS		
Bus/Destination	ETA	
B12 Airport -Parry	2 Minutes	
F05	4 Minutes	

The wheelchair ramp of bus no. 8564 is not functioning.

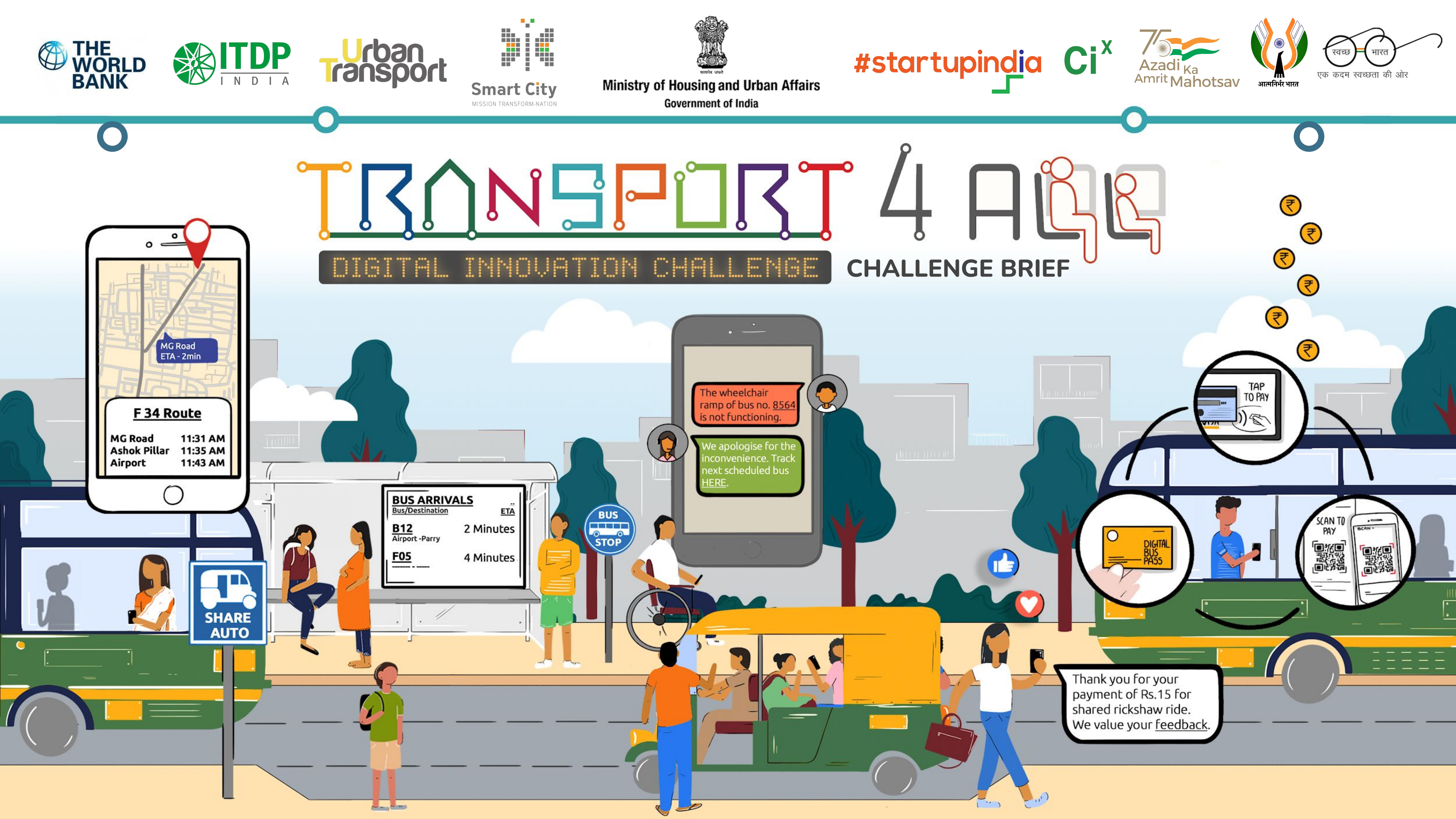
We apologise for the inconvenience. Track next scheduled bus [HERE](#).

TAP TO PAY

DIGITAL BUS PASS

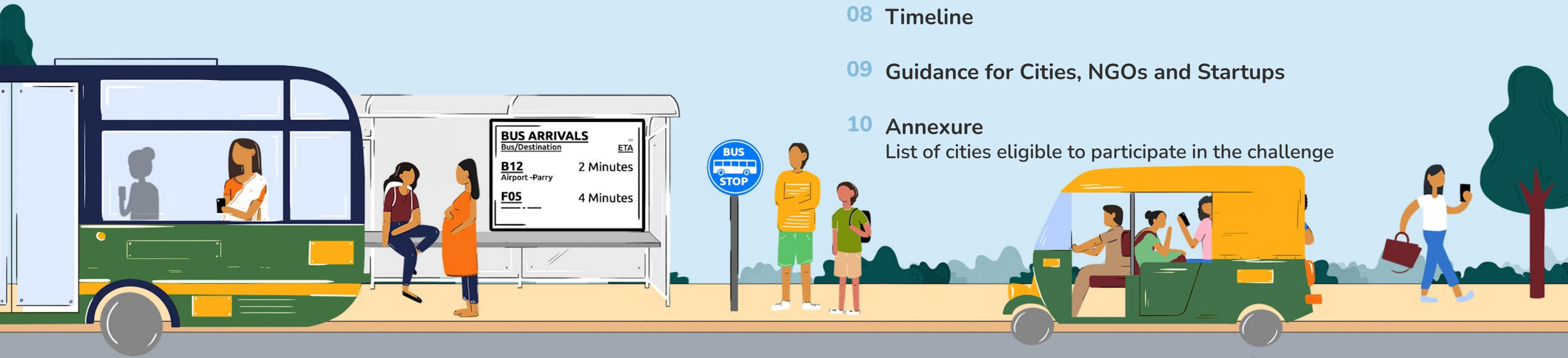
SCAN TO PAY

Thank you for your payment of Rs.15 for shared rickshaw ride. We value your feedback.



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Location - Pune

# 01 VISION

The Transport4All Challenge—an initiative of the Ministry of Housing and Urban Affairs of the Government of India—aims to bring together **cities**, **citizens**, and **startups** to develop solutions that improve public transport to better serve the needs of all citizens.

At the core of the Challenge are citizens who will not only define the problems for which solutions shall be created but also help startups and cities to refine the solutions to meet their needs.

The first edition of the Challenge focuses on digital innovation. Cities and startups will receive guidance to develop and test various solutions, learn from them, and scale them to build people's trust in public transport and enhance their mobility.

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**The solutions will make public transport—formal as well as informal—safe, convenient, and affordable for all.**

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# 2 BACKGROUND

Public transport in Indian cities has become highly unreliable and undesirable. Further, growing incomes and expectations have led to people shifting to cars, motorcycles, and taxis.

In the last decade, bus ridership in metropolitan cities dropped by 20% on average. COVID-19 crippled public transport. But cars and motorcycles continue to grow, unabated. Streets are choked with traffic; the air we breathe is toxic. In 2019, four of the top ten most congested cities in the world were Indian.<sup>1</sup>

Indian cities often set ambitious visions of achieving 60-80% of motorised trips on public transport. However, only 46% of motorised trips were on public transport in 2011.<sup>2</sup> Since then, public transport use has dropped further. Cities should have tripled the trips on public transport (before COVID-19 hit us), but the situation has worsened.

Now, more than ever, the Indian cities must innovate to achieve the vision set-out in the National Urban Transport Policy: to ensure safe, convenient, and affordable transport for all.

1- TomTom Traffic Index, 2019 | 2- Census of India, 2011



Location - Pune

**Mr. Hardeep Singh Puri**

Minister of State (Independent Charge),  
Ministry of Housing and Urban Affairs



*COVID-19 has brought the entire world to a halt with transport being one of the worst-hit sectors. The Transport4All Digital Innovation Challenge will support cities to recover from this mobility crisis.*



**Mr. Kunal Kumar,**

Joint Secretary, Smart Cities Mission,  
Ministry of Housing and Urban Affairs



*We invite all cities, citizens and startups to work together to innovative, pilot and test solutions, to find the ones that best serve the mobility needs of the citizens.*



**Ms. Aswathy Dilip**

South Asia Director,  
Institute for Transportation and Development Policy



*The Transport4All Challenge gives all cities an opportunity to TEST-LEARN-SCALE innovative solutions to rebuild public transportation in collaboration with startups and citizens*

**Mr. Durga Shanker Mishra,**

Secretary,  
Ministry of Housing and Urban Affairs (2017-2021)



*The Ministry of Housing and Urban Affairs is very happy to launch the Transport4All Digital Innovation Challenge to support the cities and startups all over the country to move towards digital transformation in urban mobility.*



**Mr. Jaideep,**

OSD (Urban Transport)  
Ministry of Housing and Urban Affairs



*Through the Transport4All challenge we hope to bring large-scale transformation in public transport services across the country.*



**Ms. Shreya Gadepalli**

Founder & Managing Trustee,  
The Urban Works Institute



*At the heart of the Transport4All Challenge are citizens who will support cities to develop and pilot multiple solutions that make public transport safe, convenient and affordable for all.*

# SOLUTION AREAS

Develop solutions for problems in key areas  
(Solutions can attempt to solve problems in multiple areas)

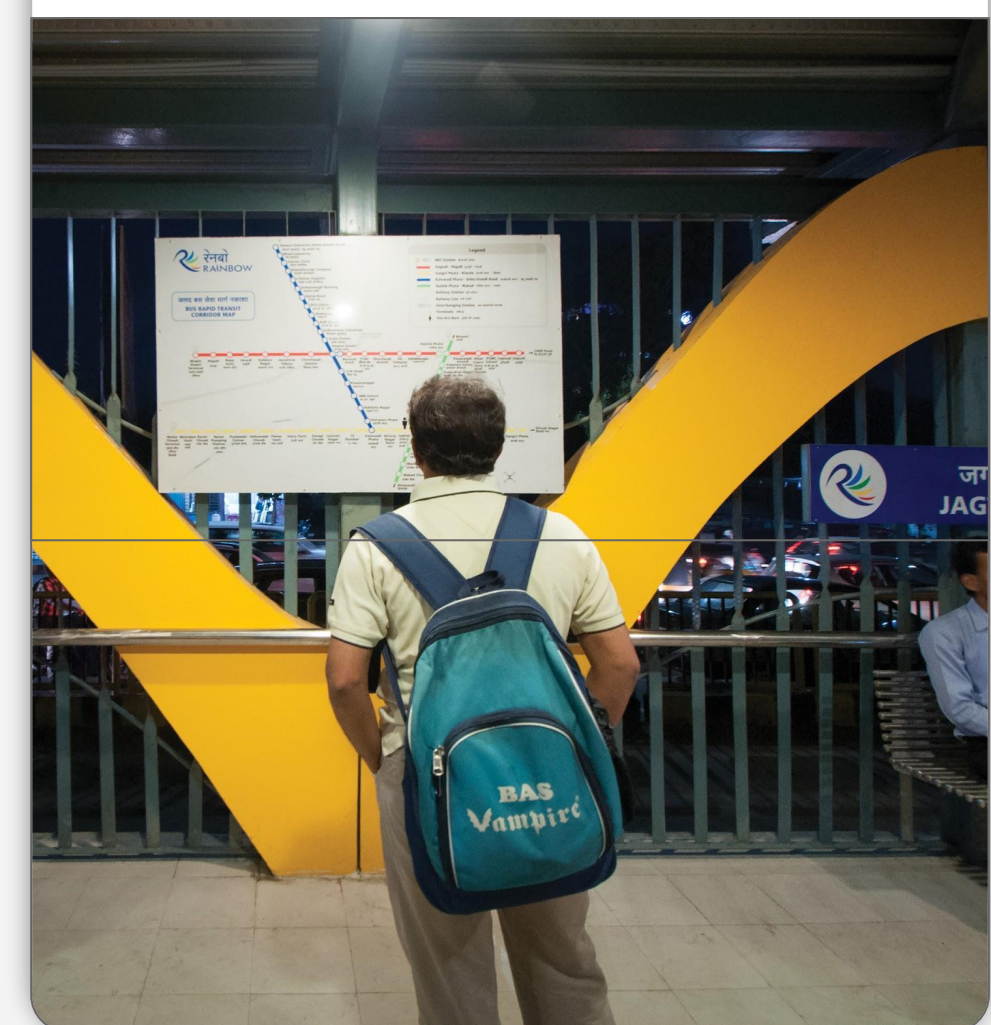
## Fare Products & Payment Solutions



## Service Planning & Monitoring



## Passenger Information & Interaction



*\* The focus of the first round of the challenge is to develop and pilot solutions in the public transport sector to improve the travel experience of citizens. In future rounds, the challenge shall foster innovations in other areas of urban transport.*

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BTO CIRCLE 82 MIN  
CHANDRANAGAR 83 MIN

↑  
EXIT

8:11 AM  
11/11/2023

Location - Ahmedabad

# CHALLENGE TEAM

## HOST & CONVENOR



Ministry of Housing and Urban Affairs  
Government of India



- Host the Challenge
- Encourage cities to participate
- Give awards to startups

## TECHNOLOGY PLATFORM PARTNERS



- Engage with Startups
- Assist in evaluating prototypes and solution scale-up
- Provide a platform for startups to engage with a panel of experts

## CO-HOST & CHALLENGE COORDINATOR



- Facilitate engagement between cities and startups
- Guide cities and NGOs on outreach and citizen engagement
- Support cities in reforming procurement framework
- Organise capacity building workshops
- Conduct Challenge outreach

## KNOWLEDGE PARTNER



- Bring global technical expertise in digital innovation to provide guidance to startups and cities
- Assist in evaluating prototypes and solution scale-up

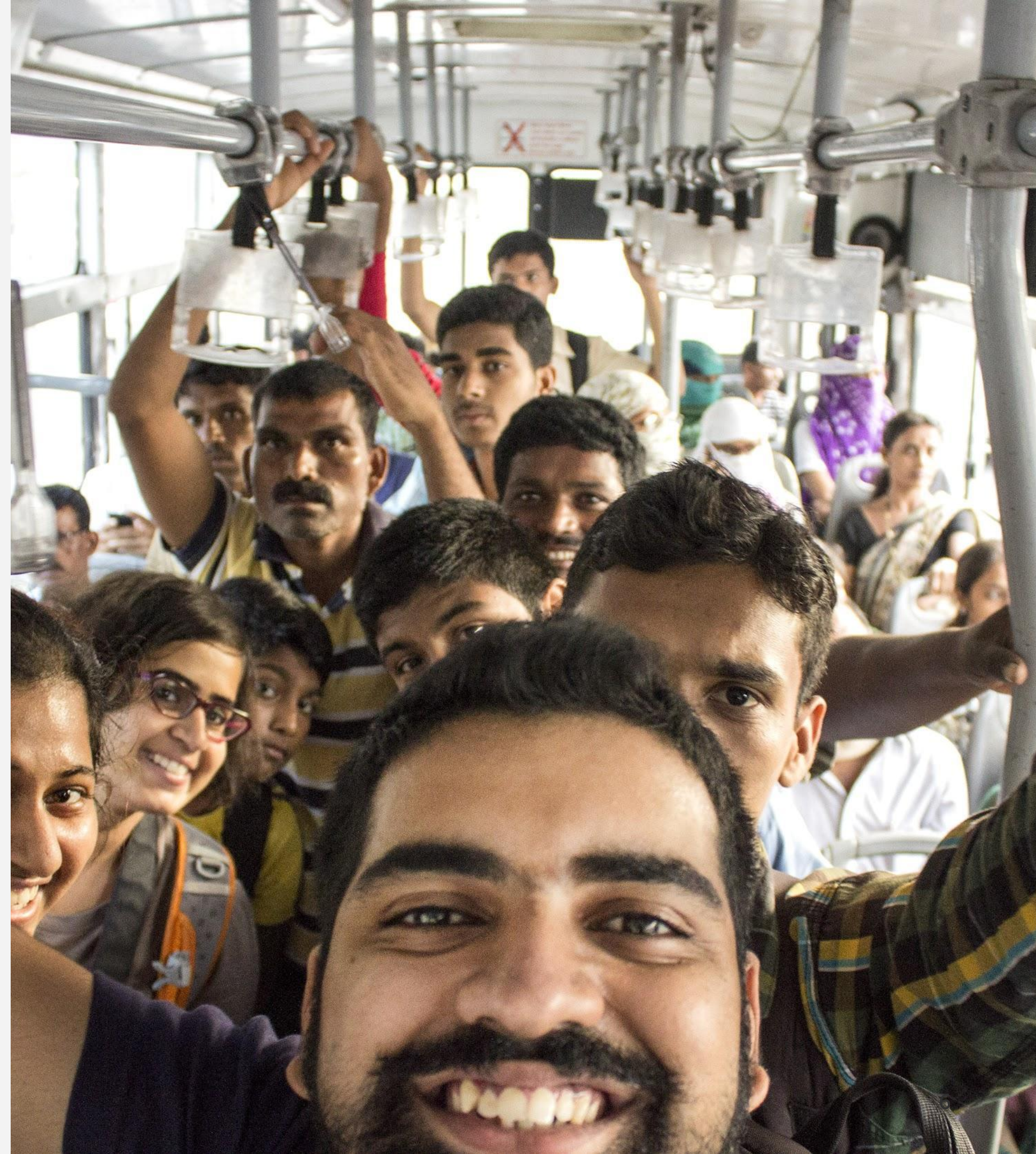




Image source - BL Soni  
Location - Mumbai



Image source - Dreamstime  
Location - Delhi

# BRINGING TOGETHER CITIES, CITIZENS, AND STARTUPS

## WHO CAN PARTICIPATE?



### CITIES

- All cities under the Smart Cities Mission,
  - Capital cities of States/UT's, and
- Cities with more than 5 lakh residents



### NON-GOVERNMENT ORGANIZATIONS

- All civil society organisations
  - Educational institutes
  - Research organisations



### STARTUPS

Mature startups with the ability to develop robust contextual solutions and conduct large-scale pilots.\*

## WHY PARTICIPATE?

**CITIES** have an opportunity to work with citizens and startups to resolve the most critical problems that plague public transport through contextual solutions that are easy to implement. They will be able to crowdsource solutions and choose the ones that best meet their needs and that of their citizens. They also get a chance to learn from their peers.

**NGOs** get an opportunity to create better public transport for all by bringing the voices of citizens to city managers and guiding startups in contextualising solutions to meet the needs of all citizens.

**STARTUPS** get to work with the cities to test, learn, and improve their solutions/products with guidance from experts and based on the feedback of citizens. The best of solutions shall also be endorsed by the Government of India for easy procurement by cities across India.

*\*The eligibility criteria will be announced after the problem statements have been identified.*

## ROLES IN THE CHALLENGE

### **CITIES** will:

- Collaborate with NGOs to identify problems citizens face in using public transport
- Collaborate with NGOs and startups to develop solutions
- Refine procurement framework to engage startups to implement large scale pilots
- Conduct a campaign to garner support for improving public transport in the city

### **NGOs** can:

- Conduct surveys and consultations to bring the voices of citizens to the city government
- Guide city government and startups to contextualise solutions so that they meet the needs of citizens
- Mobilise volunteers to test solutions developed by startups
- Evaluate pilots and document their impact

### **STARTUPS** will:

- Develop innovative solutions that meet the needs of citizens in consultation with city government and NGOs,
- Pilot solutions to test their robustness and refine them to improve their efficacy

*\*Startups shall ensure that all solutions are in compliance with existing standards.*





Location - Pune

# CHALLENGE STAGES



01

## PROBLEM IDENTIFICATION

Cities, with the support of NGOs, identify key recurring problems that citizens and public transport operators face



02

## SOLUTION GENERATION

Startups develop prototypes of solutions to improve public transport with inputs from cities and NGOs



03

## PILOT TESTING

Cities engage startups for large-scale pilots and refine the solutions based on citizen feedback

# STAGE 1

## PROBLEM IDENTIFICATION | April '21 - May '22

■ Cities ■ Non-government Organizations (NGOs)

■ Cities\* **register to participate in the challenge.**

*\*By registering to participate in the challenge, cities agree to engage with citizen groups and citizens, form a Transport4All Task Force with relevant stakeholders, share data, and reform their procurement framework to engage with startups to pilot innovative solutions*

■ NGOs\* **signup to support cities with the roll-out of the challenge.**

*\*The NGOs who have already registered can ask their cities to participate in the challenge.*

■ Cities form a **Transport4All Task Force (TTF)** consisting of key stakeholders: **Municipal Corporation, Smart City SPV, city bus undertaking, metro and suburban rail, regional transport office, traffic police, road owning agencies, IPT unions, NGOs, and academic institutes working in the field of sustainable transport.**

■ Cities collaborate with NGOs to **conduct surveys to identify the problems citizens face** while using formal and informal public transport.

■ Cities, in association with NGOs, **consult bus and IPT operators to identify their problems** in operating formal or informal public transport services.

■ Cities **frame upto five problem statements** in consultation with members of the Transport4All Task Force (TTF) and NGOs

The Challenge Team have curated 8 key problem statements based on the submission by the cities. In Stage 2, startups will develop solutions for these problem statements.



# CURATED PROBLEM STATEMENTS

- 01 Rationalising of Transit Routes and Frequencies
- 02 Network Digitization
- 03 Bus and Staff Scheduling
- 04 Transit Performance Monitoring and Service Optimisation.
- 05 Passenger Information and Ticketing
- 06 Passenger Grievance Redressal System
- 07 Bus Maintenance and Scheduling
- 08 IPT Aggregator & Monitoring




The details of the problem statements can be found [here](#).





Source - O-City Transit Programme, SmartCitiesWorld  
Location - Europe

## STAGE 2

### SOLUTION GENERATION | June '22 - December '22


 Cities  Non-government Organizations (NGOs)  Startups

 Startups **register** with **idea pitches on how they would solve the problems** identified in Stage 1. They can pitch to resolve one or more problems in one or more cities participating in the Challenge. A panel of experts will screen the pitches before startups move to the prototyping stage.

 Startups collaborate with cities to **develop and test their prototypes**. They shall receive guidance from a panel of experts constituted by the Challenge team.

 Cities, with the support of the NGOs:

- Cities and states would work together to adapt the startup procurement policy.
- Engage with startups to help them **understand city context, problems statements and develop contextualised solutions.**

 Startups present the following for evaluation by a jury of experts:

- **Results of prototype testing**, and
- **Plan of action** that includes:
  - the timeline for pilot implementation,
  - the investment required for the pilot,
  - the preparedness of the city to implement the pilot, and
  - the communication plan to engage citizens.

*Cities must **share necessary data** with startups to develop and test solutions.*

The solution generated by startups would be evaluated on the basis of value proposition, product characteristics, product cost, team, feasibility and novelty.

A jury consisting of a panel of experts will identify 1-2 winners for each problem statement based on how well their solutions cater to the present and future needs of citizens in the participating cities.

Winning startups will receive an award of upto ₹20 lakhs per solution (based on the problem statement) from MoHUA and will be eligible to pilot their solutions in interested cities in Stage 3.



# STAGE 2

PROCESS | August '22 - December '22

**By 15<sup>th</sup> Sept'22**

**Startups register with idea pitches** to solve the problems identified.

**By 30<sup>th</sup> Sept'22**

A panel of experts by challenge team will **screen the pitches** before startups move to the prototyping stage.

**By 30<sup>th</sup> Nov'22**

**Startups present the solution for evaluation** to a jury of experts. They shall receive guidance from a panel of experts constituted by the Challenge team throughout stage 2.

**States adopt Startup Procurement policy**

**By 15<sup>th</sup> Dec'22**

**Announcement of upto top 16 winning startups/solutions**

# STARTUP ELIGIBILITY CRITERIA (AS PER DPIIT)

## COMPANY AGE

Period of existence and operations should not be exceeding **10 years** from the Date of Incorporation

## COMPANY TYPE

Incorporated as a Private Limited Company, a **Registered Partnership Firm** or a Limited Liability Partnership

## ANNUAL TURNOVER

Should have an annual turnover not exceeding **Rs. 100 crore** for any of the financial years since its Incorporation

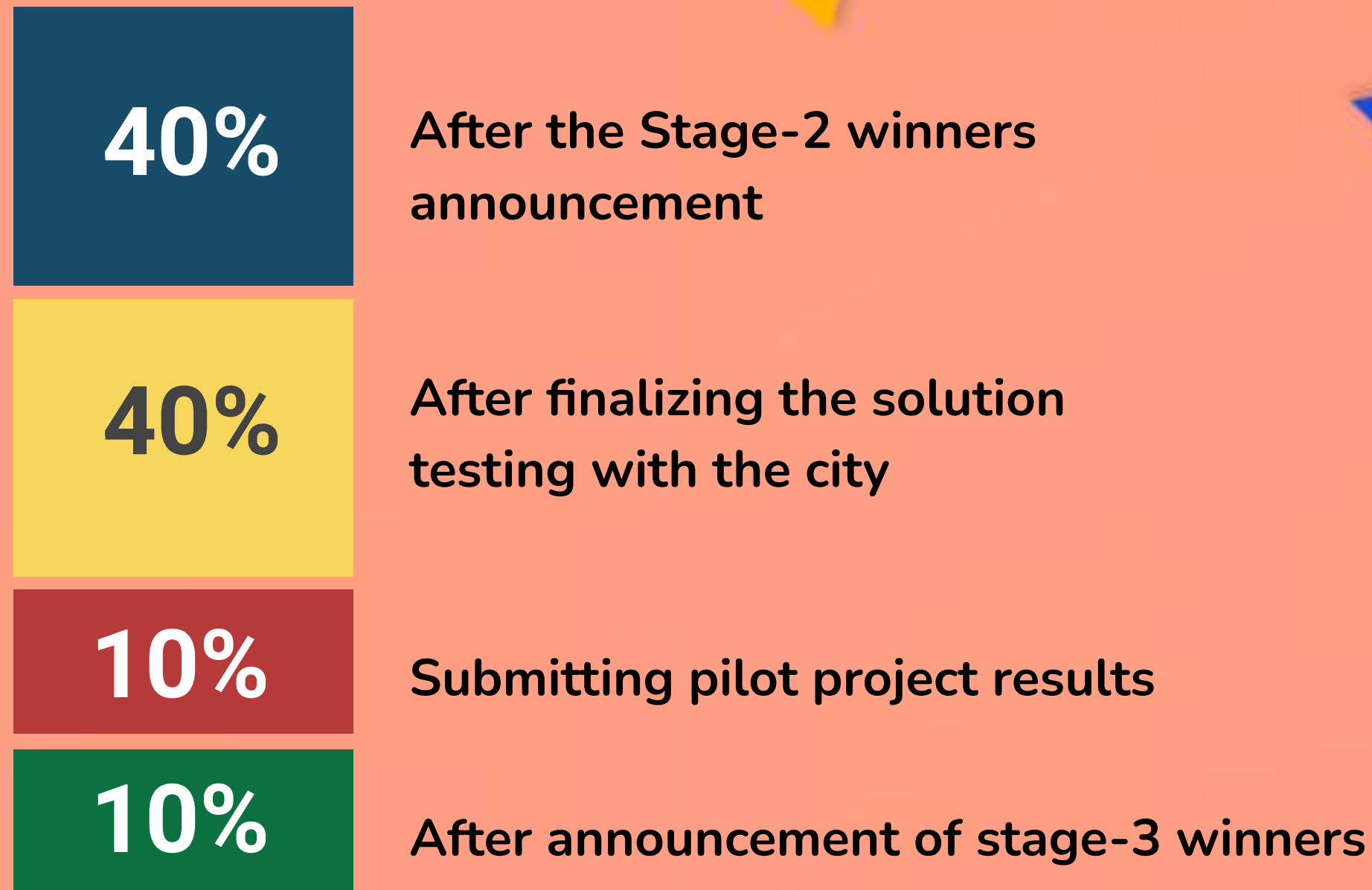
## ORIGINAL ENTITY

Entity should not have been formed by **splitting up or reconstructing** an already existing business

## INNOVATIVE & SCALABLE




Should work towards development or improvement of a product, process or service and/ or have **scalable business model** with high potential for creation of wealth & employment

# REWARD DISBURSAL




## STAGE 3

PILOT TESTING | December '22 - March '23

 Cities  Non-government Organizations (NGOs)  Startups

 Cities procure the services of startups from amongst those with winning solutions in Stage 2 for a large-scale pilot.

 The startups **pilot their solution at scale in real life conditions** for at least 5 months to evaluate the robustness and efficacy of the solutions and sharpen them to improve the mobility of citizens.

 Cities with the support of NGOs will help the **startups to pilot the solutions with citizens** and refine the solutions.

The Smart Cities Mission and Urban Transport, with the assistance of the challenge team and a panel of experts, will review the submissions. Successful pilots shall be empanelled by MoHUA to enable cities to procure their product/services.





Location - Pune

# 07 NEED FOR CITIES TO REFORM PROCUREMENT FRAMEWORK

The Transport4All Digital Innovation Challenge gives cities an opportunity to work with startups to resolve critical urban mobility problems citizens face. However, to encourage innovation, cities and states have to reform their procurement framework to be able to engage startups to conduct large-scale pilots in Stage 3.

The Challenge team will provide guidance to cities to reform their procurement framework by:

- sharing guidelines to reform the framework, and
- organising a workshop with cities and states on creating a conducive procurement environment for startups, and implementing the reform guidelines.

At the end of Stage 3, startups with successful pilots shall be empanelled by MoHUA to enable cities to procure their product/services.

# TIMELINE

## STAGE 1

### Identify problems citizens face

Launch of Challenge and registration opens for cities and NGOs:

**15th April '21**

Cities register by: **15th May '21**

Cities submit problem statements by: **March '22**

Problem statements curated by T4A team: **May '22**

## STAGE 2

### Develop solutions & prototypes

Startup registrations open: **August '22**

Startups register with a concept note by: **15th September '22**

Announcement of screened startups: **30th September '22**

Startups and cities submit prototype testing results and plan of action by: **November '22**

Announcement of winners: **December '22**

## STAGE 3

### Large-scale pilots to validate and refine solutions

Cities procure the solutions from winning startups: **December '22**

Submission of pilot project result by cities: **February '23**

Closing workshop of the Challenge: **March '23**





Location - Pune

# GUIDANCE FOR CITIES, NGOs & STARTUPS

The Challenge team will provide remote assistance to the Cities, NGOs, and Startups through a series of online workshops:

- Identifying problems through citizen engagement
- Communication and outreach to garner public support
- Prototype development and testing
- Monitoring and evaluation of pilots
- Reforming procurement framework to facilitate engagement of startups and foster innovation

## STAGE ONE

### PROBLEM IDENTIFICATION

Online Workshop 1 | July '21

#### FOR CITIES AND NGOs

Kickstarting Transport4All Challenge

Online Workshop 2 | July'21

#### FOR CITIES AND NGOs

Engagement with citizens through in-person surveys  
Peer-to-peer learning on citizen engagement

T4A Clinic | Sept'21

#### FOR CITIES and NGOs

Engagement with IPT and PT operators  
Peer-to-peer learnings on IPT and PT operators

Online Workshop 3 | Dec'21

#### FOR CITIES AND NGOs

Developing problem statements

Closing of Stage 1 and launch of  
Stage-1 Publication | Jun '22

## STAGE TWO

### SOLUTION GENERATION

Online Workshop 5 | June ' 22

#### FOR CITIES, NGOs, AND STARTUPS

Introduction to Stage 2 of the Challenge

Online Workshop 6 | August '22

#### FOR CITIES, NGOs, AND STARTUPS

Stage 2 progress check-in

Online Workshop 7 | Sept '22

#### FOR STATES AND CITIES

Peer-to-peer learning on engaging with startup and procurement reforms

Workshop series | July-Oct '22

#### FOR CITIES AND STARTUPS

Technical workshop series for prototype development

Presentation of solutions by  
startups to the jury | Dec '22

# 46 Champions Cities qualified

## Transport4all STAGE 1

### Andhra Pradesh

Guntur  
Kakinada  
Tirupati

### Bihar

Bhagalpur  
Muzaffarpur  
Patna

### Chattisgarh

Raipur

### Gujarat

Surat  
Rajkot

### Haryana

Karnal

### Himachal Pradesh

Shimla  
Dharamshala

### Jharkhand

Ranchi

### Karnataka

Belagavi  
Bengaluru  
Davanagere  
Gulbarga  
Hubbali-Dharwad  
Mangaluru  
Mysore  
Shivamogga  
Tumakuru

### Kerala

Kochi  
Thrissur

### Madhya Pradesh

Bhopal  
Jabalpur  
Sagar  
Satna

### Maharashtra

Akola  
Aurangabad  
Kalyan-Dombivali  
Malegaon  
Meera Bhayandar  
Nashik  
Pimpri Chinchwad  
Pune  
Solapur

### Odisha

Bhubaneswar

### Punjab

Amritsar

### Rajasthan

Ajmer  
Jaipur  
Kota  
Udaipur

### Tamil Nadu

Salem

### Uttar Pradesh

Bareilly

### West Bengal

New Town Kolkata

For details, visit  
[www.transport4all.in](http://www.transport4all.in)