

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

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

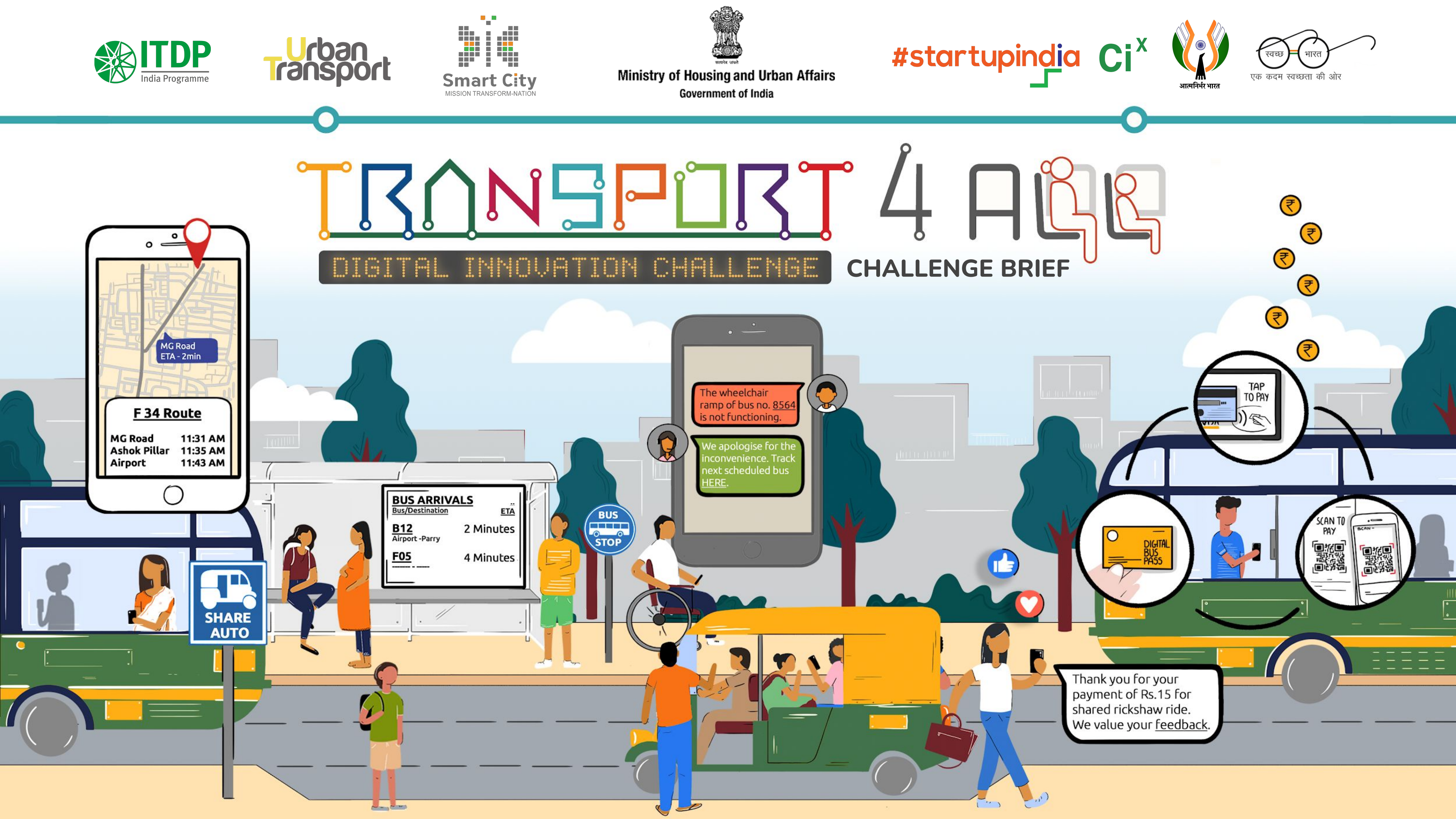
We apologise for the inconvenience. Track next scheduled bus **HERE**.

TAP TO PAY

DIGITAL BUS PASS

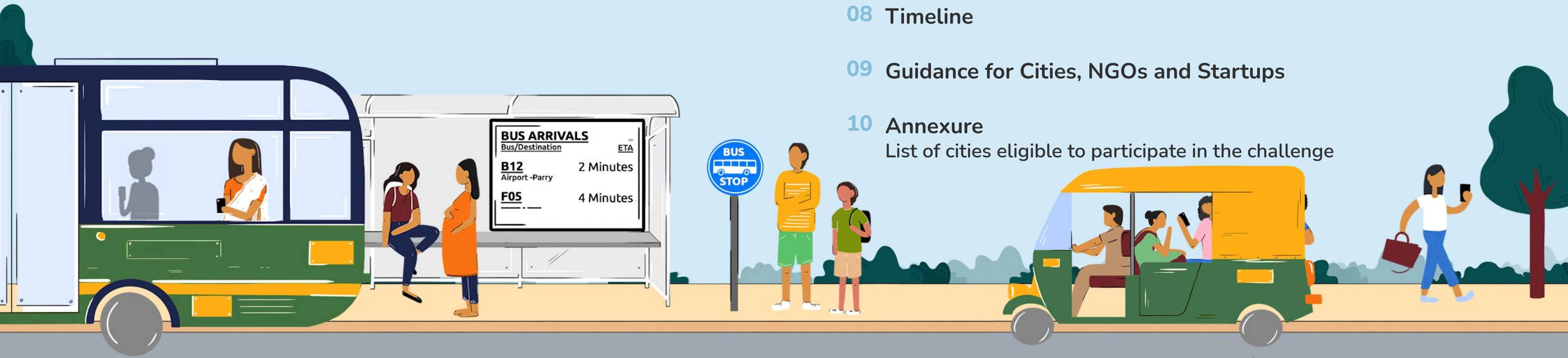
SCAN TO PAY

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



# CONTENTS

- 01 Vision
- 02 Background
- 03 Solution Areas
- 04 Challenge Team
- 05 Bringing Together - Cities, Citizens, and Startups
- 06 Challenge Stages
  - Stage 1: Problem identification
  - Stage 2: Solution generation
  - Stage 3: Pilot testing
- 07 Need for Cities to Reform Procurement Framework
- 08 Timeline
- 09 Guidance for Cities, NGOs and Startups
- 10 Annexure
  - List of cities eligible to participate in the challenge





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.

---

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

---

# 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. Durga Shanker Mishra,**

Secretary,  
Ministry of Housing and Urban Affairs



*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. 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.*

**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**

South Asia Programme Lead,  
Institute for Transportation and Development Policy



*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)

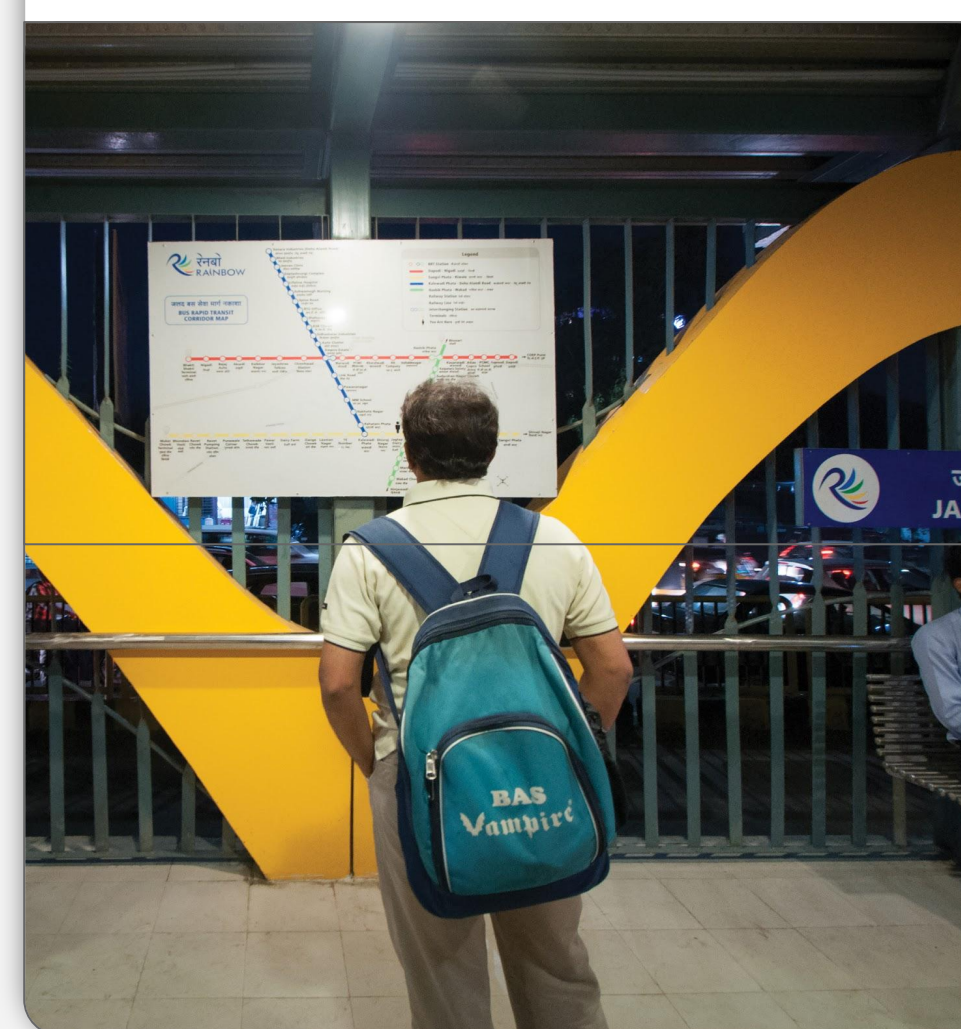
## Fare Products & Payment Solutions



## 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.*

♿ ↑  
⊘  
નિકાસ નિષેધ  
No Exit

BTO CIRCLE 82 MIN  
CHANDRANAGAR 83 MIN

↑  
EXIT

8:13 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

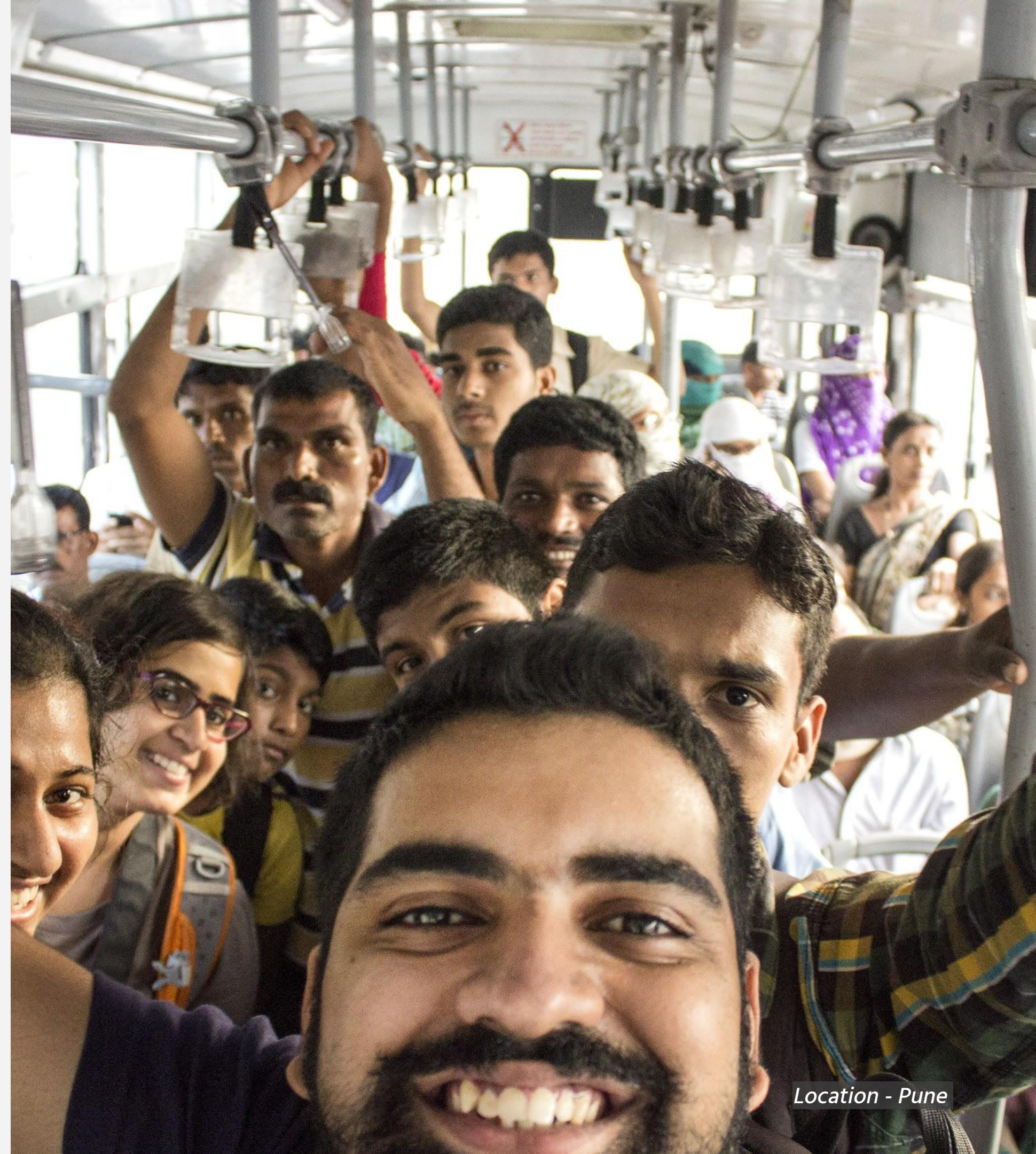


- Engage with Startups
- Assist in evaluating prototypes and solution scale-up
- Provide a platform for startups to engage with a panel of experts

## 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



Location - Pune





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.\*

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

## 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.

## 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 - August '21


 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 will curate up to 10 key problem statements based on the submission by the cities. In Stage 2, startups will develop solutions for these problem statements.










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

## STAGE 2

### SOLUTION GENERATION | August '21 - May '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.

*\* Startups may refine their existing products to best address the problem statements.*

 Cities, with the support of the NGOs:

-  • Conduct outreach to **build support for public transport** in the city.
- 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.

By the end of Stage 2, cities shall **reform their procurement framework** to engage with startups to pilot solutions in Stage-3.






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 ₹10 lakhs per solution from MoHUA and will be eligible to pilot their solutions in interested cities in Stage 3.




# STAGE 3


PILOT TESTING | June '22 - February '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.

 Cities with the support of NGOs will **evaluate solutions** with citizens.

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: **August '21**

## STAGE 2

### Develop solutions & prototypes

Startup registrations open: **August '21**

Startups register with a concept note by: **September '21**

Announcement of screened startups: **November '21**

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

Announcement of winners: **April '22**

## STAGE 3

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

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

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

Closing workshop of the Challenge: **February '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 | May'21

##### FOR CITIES AND NGOs

Challenge overview;  
Engagement with citizens and public transport operators to identify problem areas

#### Online Workshop 2 | June'21

##### FOR CITIES AND NGOs

Peer-to-peer learning on developing problem statements through citizen engagement

#### Online Workshop 3 | June'21

##### FOR STATES AND CITIES

Consultation with cities on procurement reforms to engage startups and foster innovation

#### Online Workshop 4 | July'21

##### FOR CITIES AND NGOs

Building citizen support for Transport4All

## STAGE TWO

### SOLUTION GENERATION

#### Online Workshop 5 | Sept' 21

##### FOR CITIES, NGOs, AND STARTUPS

Introduction to Stage 2 of the Challenge

#### Online Workshop 6 | Oct' 21

##### FOR CITIES, NGOs, AND STARTUPS

Stage 2 progress check-in

#### Online Workshop 7 | Nov' 21

##### FOR STATES AND CITIES

Peer-to-peer learning on procurement reforms

#### Workshop series | Sept - Dec' 21

##### FOR CITIES AND STARTUPS

Technical workshop series for prototype development

Presentation of solutions by startups to the jury |  
**Jan-March'22**

# ANNEXURE LIST OF CITIES ELIGIBLE TO PARTICIPATE IN THE CHALLENGE

## Andaman & Nicobar

Port Blair

## Andhra Pradesh

Amravati  
Guntur  
Kakinada  
Kurnool  
Nellore  
Tirupati  
Vijayawada  
Visakhapatnam

## Arunachal Pradesh

Itanagar  
Pasighat

## Assam

Guwahati

## Bihar

Bhagalpur  
Bihar Sharif  
Muzaffarpur  
Patna

## Chattisgarh

Bilaspur  
Durg-Bhilainagar  
Nava Raipur, Atal Nagar  
Raipur

## Dadra & Nagar

### Haveli

Silvassa

## Daman & Diu

Daman  
Diu

## Goa

Panaji

## Gujarat

Ahmedabad  
Bhavnagar  
Dahod  
Gandhinagar  
Jamnagar  
Rajkot  
Surat  
Vadodara

## Haryana

Faridabad  
Gurgaon  
Karnal

## Himachal Pradesh

Dharamsala  
Shimla

## Jharkhand

Bokaro Steel City  
Dhanbad  
Jamshedpur  
Ranchi

## Karnataka

Belagavi  
Bengaluru  
Davanagere  
Gulbarga  
Hubbali-Dharwad  
Mangaluru  
Mysore  
Shivamogga  
Tumakuru

## Jammu and Kashmir

Jammu  
Srinagar

## Kerala

Kannur  
Kochi  
Kollam  
Kozhikode  
Malappuram  
Tiruvananthapuram  
Thrissur

## Ladakh

Leh

## Lakshadweep

Kavaratti

## Madhya Pradesh

Bhopal  
Gwalior  
Indore  
Jabalpur  
Sagar  
Satna  
Ujjain

## Maharashtra

Amravati  
Aurangabad  
Bhiwandi  
Greater Mumbai  
Kalyan-Dombivali  
Kolhapur  
Malegaon  
Nagpur  
Nanded Waghala  
Nashik  
Pimpri Chinchwad  
Pune  
Sangli  
Solapur  
Thane  
Vasai Virar City

## Manipur

Imphal

## Meghalaya

Shillong

## Mizoram

Aizawl

## Nagaland

Kohima

## New Delhi

## Odisha

Bhubaneswar  
Cuttack  
Raurkela

## Puducherry

## Punjab

Amritsar  
Chandigarh  
Jalandhar  
Ludhiana

## Rajasthan

Ajmer  
Bikaner  
Jaipur  
Jodhpur  
Kota  
Udaipur

In case of any questions, the nodal officer can write to

[contact@transport4all.in](mailto:contact@transport4all.in)

The common questions received will be answered on the FAQ page of the Challenge website.

## Sikkim

Gangtok  
Namchi

## Tamil Nadu

Chennai  
Coimbatore  
Erode  
Madurai  
Salem  
Thanjavur  
Thoothukudi  
Tiruchirapalli  
Tirunelveli  
Tiruppur  
Vellore

## Telangana

Hyderabad  
Karimnagar  
Warangal

## Tripura

Agartala

## Uttar Pradesh

Agra  
Aligarh  
Bareilly  
Firozabad  
Ghaziabad  
Gorakhpur  
Jhansi  
Kanpur  
Lucknow  
Meerut  
Moradabad  
Noida  
Prayagraj  
Sahranpur  
Varanasi

## Uttarakhand

Dehradun

## West Bengal

Asansol  
Durgapur  
Kolkata  
New Town Kolkata  
Siliguri

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