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Press Release

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[NYC Transit](#)

IMMEDIATE

MTA Announces 19 Finalists in the MTA Genius Transit Challenge

Participants Were Challenged to Develop Innovative and Groundbreaking Technology Strategies to Increase the Number of Trains at Peak Periods and Reduce Delays

World-Class Panel Reviewed 438 Submissions from 23 Countries

Up to \$1 Million in Prize Money will be Provided to the Best Ideas in Three Separate Categories

The Metropolitan Transportation Authority (MTA) today announced the names of 19 finalists in "The MTA Genius Transit Challenge," an international competition launched in May that seeks to identify innovative solutions to increase the capacity and improve the reliability of New York City's subway service. A panel of technology and transportation experts reviewed over 400 submissions from applicants across the professional spectrum including engineers, technologists, and leading academics and business leaders. Sixty-four applicants advanced to the second phase of the competition and 19 of those moved on to the finals. The winners are expected to be announced sometime in the first quarter of 2018.

The competition is being judged by a panel of technology and transportation experts, and up to a \$1 million "Genius" award will be provided to the best ideas in three separate categories:

- 1) Improve signaling in the New York City Subway System by identifying strategies to dramatically accelerate deployment of Communications-Based Train Control or to deploy alternate signaling solutions that offer technological advantages and can be deployed in a more rapid timeframe;
- 2) Identify strategies to rapidly deploy better subway cars to the Subway System, either through faster delivery of new cars capable of supporting modern communications and train control, or through rapid refurbishment of existing cars; and
- 3) Increase communications infrastructure in the Subway System, including tunnels, to support modern train control systems.

"When I took on the role of Chairman last summer, I was very forthright about the need to stabilize the subway system and we've begun to do that with the implementation of the Subway Action Plan. Additionally, I said that we have to look forward and that after undertaking efforts at stabilizing the system we needed to modernize it. The Genius Challenge is the first step in achieving the modernization goal," said **MTA Chairman Joseph Lhota**.

"Ultimately, this competition is about identifying technologies that can deliver more capacity and throughput in the subway system. Subway ridership has grown in tandem with New York's overall economic growth and it's imperative that we continue working toward finding ways to accommodate more people with better, faster service. Having been so involved with the competition for the past six months, I am confident that ideas that have been submitted can and will play a key role in delivering New York a 21st century subway system," said **Janno Lieber, the MTA's Chief Development Officer**.

As part of Phase 1, judges consisting of MTA representatives, academics, engineers, outside transit experts, and business leaders reviewed submissions with the help of a Technical Evaluation Committee. Each of the 438 submissions was reviewed on its ability to fulfill the Challenge's core objectives, whether it could be implemented in a rapid timeframe throughout the Subway System, innovativeness, and cost-reasonableness. In Phase 2, applicants refined and supplemented their original submissions. Ultimately, the judges chose to elevate 19 of the applicants to the final round. The names of the finalists and a short description of their projects are included below. More information on the proposals is available on the [Genius Challenge website](#). The names of the judges who will choose the winners of the competition appear at the bottom of this release.

FINALISTS IN THE CATEGORY OF SIGNALS (Challenge 1)

*AECOM: **Intelligent Alignment of Service Delivery to Customer Demand**

*Alstom: **Train-Centric Peer-to-Peer CBTC**

*Ansaldo STS: **Video Odometry, Heads-Up Display and Augmented Reality**

*Arup: **Acorn: Autonomous Car Operating Rail Network**

*Robert James (Individual): **Connected Vehicles & Ultra-Wideband for Communications & Location**

*Metrom Rail : **Positive Train Control System based on Ultra-Wideband**

*Siemens : **Dramatically Accelerate Communications-Based Train Control Deployment**

*Thales Group: **Several Integrated Ideas to Accelerate Communications-Based Train Control Deployment**

*Thales Group: **Next Generation Positioning: Autonomous Train Car Platform**

FINALISTS IN THE CATEGORY OF CARS (Challenge 2)

*Alstom: **Upgrades to Improve Subway Car Reliability**

*Craig Avedisian (Individual): **Modify Cars to Enable Trains to Have 4 More Cars**

*Bombardier: **Modular Car Concept Utilizing a Common Vehicle Platform**

*CRRC MA: **Technology-Advanced Cars with Shorter Vehicle Lifecycle**

*CSINTRANS: **Open Information System to Improve Operations Efficiency & Customer Communications**

*Faiveley (Wabtec): **Newly Developed Brake Control System**

FINALISTS IN THE CATEGORY OF COMMUNICATIONS (Challenge 3)

*Alcatel-Lucent (Nokia): **Standards-Based Trackside Private LTE Network with an IP/MPLS Backbone**

*Alstom: **Multi-Service High Capacity, Flexible Network**

*Bechtel: **The Big B: Semi-Automated Robotic System**

*Transit Wireless: **Dedicated LTE Network to Connect Trains to Tunnel Entrances and Trackside Radios**

The MTA Genius Transit Challenge Finalist Judges

- Sarah Feinberg, Former Administrator, Federal Railroad Administration
- Daniel Huttenlocher, Dean and Vice Provost, Cornell Tech
- Charles Phillips, CEO, Infor; Former Co-President and Director, Oracle
- Kristina Johnson, Chancellor-elect, SUNY
- Nick Grossman, General Manager, Union Square Ventures
- Eliot Horowitz, Co-founder and Chief Technology Officer, MongoDB
- Balaji Prabhakar, Professor of Electrical Engineering and Computer Science, Stanford University
- Joe Lhota, Chairman, MTA
- Pat Foye, President, MTA
- Veronique "Ronnie" Hakim, Managing Director, MTA
- Janno Lieber, Chief Development Officer, MTA