



# Smart & Green Mobility Integrated ITS System for Bucharest

PASSENGER INFORMATION SYSTEM

# Need & Opportunity

- ▶ Bucharest has a large public transport network
- ▶ Investment in technical infrastructure has been inconsistent in the last 30 years
- ▶ Public transport fails to provide basic passenger information in public transport stops
- ▶ Service is unpredictable and not accessible for all citizens



Need to modernize the public transport system:

- ▶ Develop the ITS components;
- ▶ Installing displays to provide real-time information;
- ▶ Visual and audio information (text-to-speech button);
- ▶ Create a strong unitary visual identity for public transport in the Bucharest Ilfov Region.



# Determining the investment needs

- ▶ Prefeasibility Study - a unified vision and integrated approach at regional level
- ▶ In Bucharest, 2.271 functional public transport stops were inventoried
- ▶ The integrated project is to ensure both static and real time passenger information:
  - ▶ Static passenger information - pole, plate for mobility brand, plate for displaying the lines servicing the stop, dedicated frame for maps and travel schedule - all stops;
  - ▶ Real time passenger information - integrated ITS system - equipment (displays) and software - strategic stops

All available technologies on the market were analysed and six investment scenarios were identified, including both static and real-time passenger information

# Identifying the latest technologies

## Real-time passenger information for Bucharest 1.272 stops

Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5 - Hybrid	Scenario 6 - Hybrid
<p><b>Battery-powered LCD/ ePaper</b> technology with solar panel Mounted on <b>pillar</b></p>	<p><b>LED technology connected to electrical grid</b> Mounted on <b>pillar</b></p>	<p><b>Battery-powered LCD/ ePaper</b> technology with solar panel Incorporated in <b>totem</b></p>	<p><b>LED technology connected to electrical grid</b> Incorporated in <b>totem</b></p>	<p><b>Battery-powered LCD/ ePaper</b> technology with solar panel for 2 rows/ 13" displays <b>LED technology connected to electrical grid</b> for 4 rows/ 23" displays and 8 rows/ 32" displays Mounted on <b>pillar</b></p>	<p><b>Battery-powered LCD/ ePaper</b> technology with solar panel for 2 rows/ 13" displays <b>LED technology connected to electrical grid</b> for 4 rows/ 23" displays and 8 rows/ 32" displays Incorporated in <b>totem</b></p>



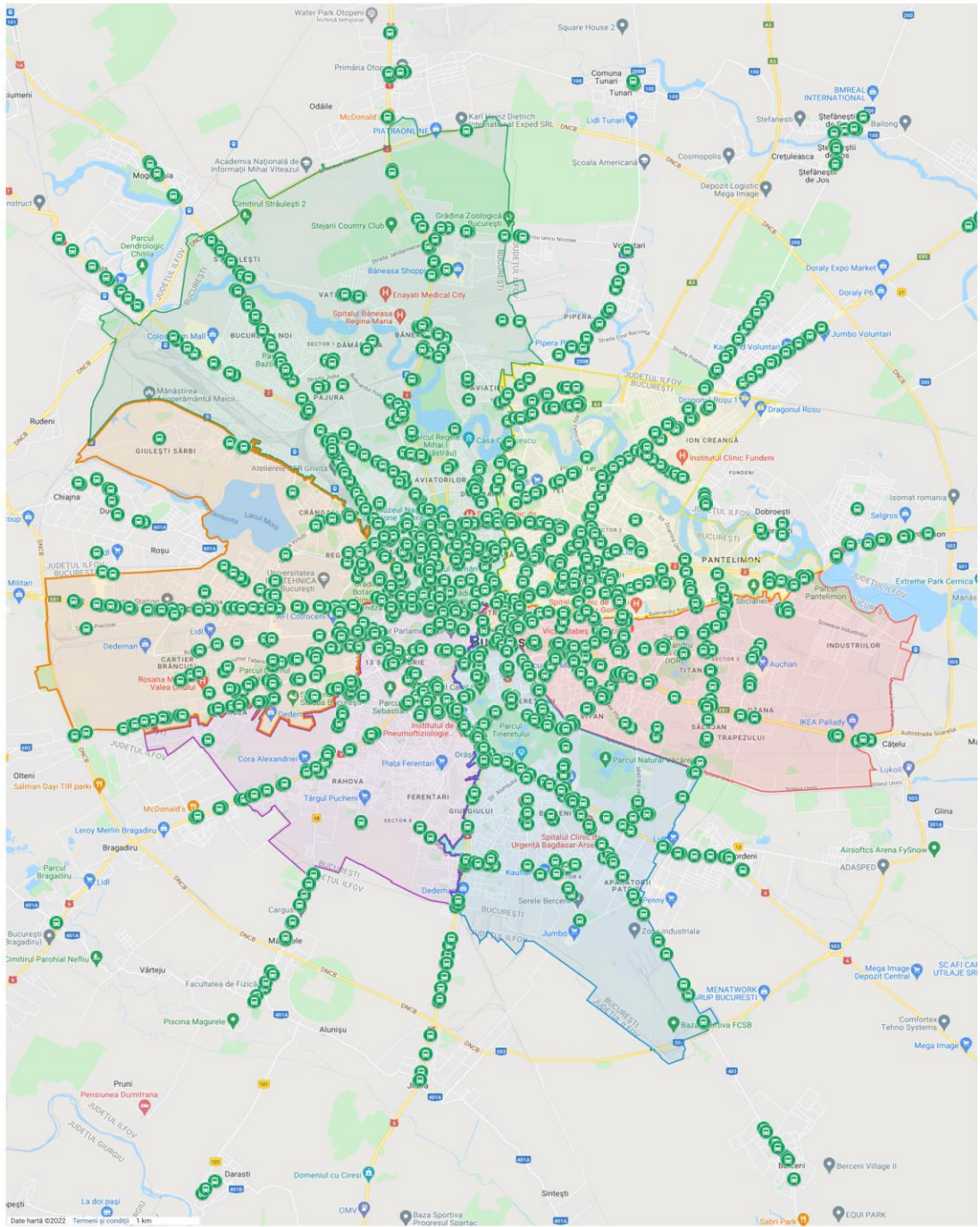
# Description of the Project

- ▶ The project foresees the installation of ITS elements for **real-time passenger information in the public transport stops identified as strategic** located throughout Bucharest;
- ▶ The project will finance integrated ITS components for real-time passenger information at existing stops in Bucharest, i.e. 1.272 stops out of the 2.271 existing in the 6 sectors, as well as static passenger information in 999 stops;
- ▶ The investment will include **equipment (dynamic displays) with support systems (pillar/totem)**, respectively **content management system and software components to ensure connectivity with the existing databases;**
- ▶ The project is to be implemented in the course of **36 months**, based on the following **schedule:**

ACTIVITĂȚI	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17	L18	L19	L20	L21	L22	L23	L24	L25	L26	L27	L28	L29	L30	L31	L32	L33	L34	L35	L36		
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# Location plan for the strategic stops in Bucharest (real-time passenger information) 1.272 public transport stops





# Benefits of the project

- ▶ Digitalisation of passenger information services at public transport stations
- ▶ Integration and interoperability between services and operators, increasing the attractiveness of the public transport system
- ▶ Improving the quality of public transport service by increasing predictability and accessibility for all citizens
- ▶ According to the Sustainable Urban Mobility Plan 2016-2030, real-time information can increase ridership by 10%.



# Project Status - real time passenger information

- ▶ National Recovery and Resilience Plan – financing contract signed by the Municipality in March 2023 for 5,7 mil. Euro
- ▶ Feasibility Study to be tendered by the Municipality



# Thank you for your attention!

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