



IPA 2 X

Intelligent pedestrian assistant

Safer street crossing for children,
the elderly, and people with disabilities.



Urban Mobility

IPA2X.EU

Co-funded by the
European Union





Increased pedestrian safety



Increased mobility of vulnerable groups



Reduced CO₂ emissions & noise pollution



Promotion of active mobility



New urban space focus



Lowering costs of local police presence

Challenge

Road traffic injuries continue to represent a significant challenge. This places further pressure on the most vulnerable mobility groups: children, the elderly, and people with disabilities.

Our solution: Intelligent pedestrian assistant robot (IPA2X)

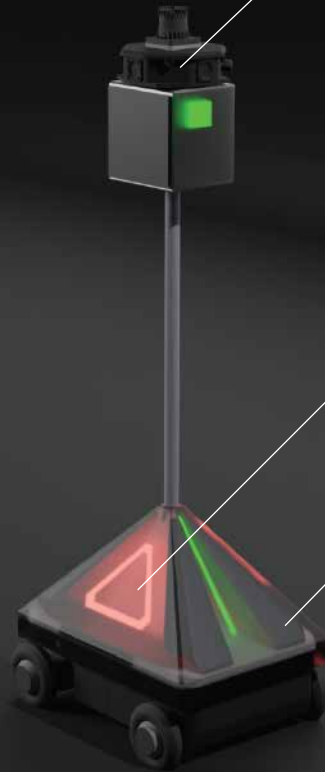
IPA2X is the result of an alliance between European living labs, research institutes, and OEMs on improving pedestrian crossings and assessing the user acceptance of robots.

IPA2X will help children, the elderly, and people with disabilities when crossing the street.



Excellent
visibility for
drivers and
pedestrians

2,1 m



Ultrasonic Sensors
Camera Array
LIDAR

4 multi-directional
DOT Matrix LED
Monitors

AI & RT computing
GPS & WiFi
4G/5G module

OBJECTIVE

1

**Create a human-centric and
user-friendly autonomous
zebra pedestrian assistant**

OBJECTIVE

2

Increase pedestrian safety
especially for children, people with
disabilities and elderly people

Project partners

3 Pilot & Living Lab Sites



AV Living Lab
BTC City Ljubljana



Comune di
Milano



Comune
di Modena

AV Living Lab Ljubljana / SLOVENIA

Target group: elderly

The pilot will be organized by AV Living Lab, a live ecosystem and SME for the development of future human-centric mobility solutions.

Milano / ITALY

Target group: school children

The pilot will be conducted in collaboration with the police department, teachers, school officials, mobile operator and AMAT.

Modena / ITALY

Target group: school children

This pilot will take place inside the Modena Automotive Smart Area (MASA), a real urban laboratory with infrastructure and 5G/IoT capabilities.

Aims of pilots

1

Distributed sensing and increase awareness through V2X

2

Adoption of autonomous rovers

3

HMI & user acceptance

Project partners



I P A 2 X

COORDINATOR

TUM - Technical University of Munich / GERMANY

One of Europe's top universities, committed to excellence in research and teaching, interdisciplinary education and active promotion of promising young scientists.

AMAT / ITALY

The affiliated partner of the City of Milan, providing strategic planning and technical studies for urban mobility, environment quality and land use management.

CVUT - Czech Technical University in Prague / CZECHIA

A public university experienced with working on many automotive and autonomous driving-related projects.

Evidence Srl / ITALY

A company specialized in real-time operating systems especially on the automotive domain, virtualization and functional safety.

Hipert Srl / ITALY

A UNIMORE spin off, applying SW and HW experience on next generation computing platform to support the transition toward autonomous robotic systems in multi-domain applications.

Lifetouch Srl / ITALY

An AI and UX design automotive SME, with a focus on the next generation of HMI assisted by AI and development of the next generation of autonomous robots.

ŠKODA AUTO / CZECHIA

One of the oldest car manufacturers in the world. Its history stretches back to 1895 when V. Laurin and V. Klement set up a company. It has been part of the VOLKSWAGEN Group for almost 30 years.

PROJECT COORDINATOR



PROJECT PARTNERS



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EIT Urban Mobility acts to accelerate positive change on mobility to make urban spaces more liveable. Learn more: eiturbanmobility.eu



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