

## **Title of the Challenge:**

### **"Smart and Health City for a Better Quality of Life"**

**Description:** Smart cities offer vast opportunities to improve the quality of life for citizens, including facilitated access to healthcare services. In this challenge, we ask you to develop innovative solutions that leverage technology to make healthcare services more accessible, efficient, and effective within the city of the future. Objective: The goal of this challenge is to develop a project or prototype of a technological solution that utilizes artificial intelligence, the Internet of Things (IoT), metaverse, web3, or other innovative technologies to address one or more of the following challenges. The challenge will take place in the MIND - Milano Innovation District, providing a realistic context where potential projects could potentially thrive. Join us at MIND - Milano Innovation District and get ready to transform the future of smart cities and healthcare with your innovative ideas and skills. Good work and good luck!

## **To develop your idea, draw inspiration from one or more of these themes:**

**Health and Wellbeing Monitoring:** Enable real-time monitoring of the health and wellbeing of individuals within smart cities. This may include vital signs detection, emotional state monitoring, or other metrics useful for improving the quality of life.

**Promotion of a Healthy Lifestyle:** Provide information, advice, and incentives to promote a healthy lifestyle among smart city residents. This could include recommendations for physical activity, balanced diet, stress management, or other practices to improve overall health.

**Mental Health and Emotional Wellbeing:** Use technology to address the challenges of mental health and emotional wellbeing in smart cities. This may include intelligent chatbots, virtual support systems, or applications for stress and anxiety management.

**Proximity Medicine (Physical and Digital):** Develop new ideas that primarily aim to reach individuals in their communities, promoting not only their treatment but also their well-being. This involves orchestrating digital services and professional support around individuals. Proximity is made possible by technologies, the creation of online platforms and services that facilitate the connection between the demand and supply of services for individuals through mediation between citizens and public administrations, but also through the creation of new places that, thanks to the possibilities offered by new technologies, facilitate in-person encounters, promoting social interaction and community building.

**Wellbeing - Healthy City:** Think about innovative systems that can support public health initiatives, study abnormal behaviors related to the onset of diseases with significant social impact, develop prevention and early diagnosis methods, support clinical decision-making, rehabilitation, and post-market surveillance of drugs and medical devices.

**Healthcare Data Management:** Propose a solution for the secure and efficient management of citizens' healthcare data within smart cities. This may include using blockchain to ensure privacy, secure data sharing among healthcare providers, or simplified access to patient health information.

**Predictive and Personalized Medicine:** Develop AI-based data analysis solutions to predict and prevent diseases in a personalized manner, enabling timely and targeted interventions to improve citizen health.

**Remote Monitoring and Telemedicine:** Create advanced systems that enable remote patient monitoring, facilitating teleconsultations with physicians and ensuring continuous healthcare support, even at a distance.

**Integration of Wearable Devices:** Harness IoT to effectively integrate and utilize data from wearable devices such as smartwatches, fitness bracelets, or biometric sensors to enhance health management and provide personalized lifestyle advice.

**Artificial Intelligence for Medical Diagnosis:** Develop intelligent machine learning algorithms that can analyze large amounts of medical data to assist physicians in the timely and accurate diagnosis of complex diseases.

**Blockchain for Healthcare Data Management:** Propose blockchain-based solutions to ensure the security, integrity, and controlled sharing of citizens' healthcare data, promoting privacy and rapid access to critical information.

**Digital Mental Health:** Create interactive digital tools, such as applications and platforms, for the prevention, monitoring, and support in managing mental health, including disorders like anxiety, depression, and stress.

**Healthcare Resource Optimization:** Develop solutions that allow for better healthcare resource management, including optimization of appointments, efficient resource allocation, and management of waiting lists.

**Healthcare Data Integration:** Create a unified and interoperable system for integrating healthcare data from various sources, including hospitals, pharmacies, and laboratories, to improve care continuity and coordination among healthcare providers.

**Innovation in Disease Prevention:** Propose innovative solutions for promoting a healthy lifestyle, health education, and disease prevention, actively involving citizens, and encouraging healthy behaviors.

**Smart City for Health Inclusion:** Develop solutions that reduce disparities in access to healthcare services in smart cities, ensuring equal opportunities and the inclusion of all citizens.