

IMPACT INNOVATION FOR A BETTER URBAN LIFE

MINN *lab*

# What is MIND *lab*

MIND<sup>lab</sup> is a **call** for non-binding expressions of interest regarding the **development of field testing, experiments, pilot projects, applications, innovative systems and technologies in a “living lab” environment.**

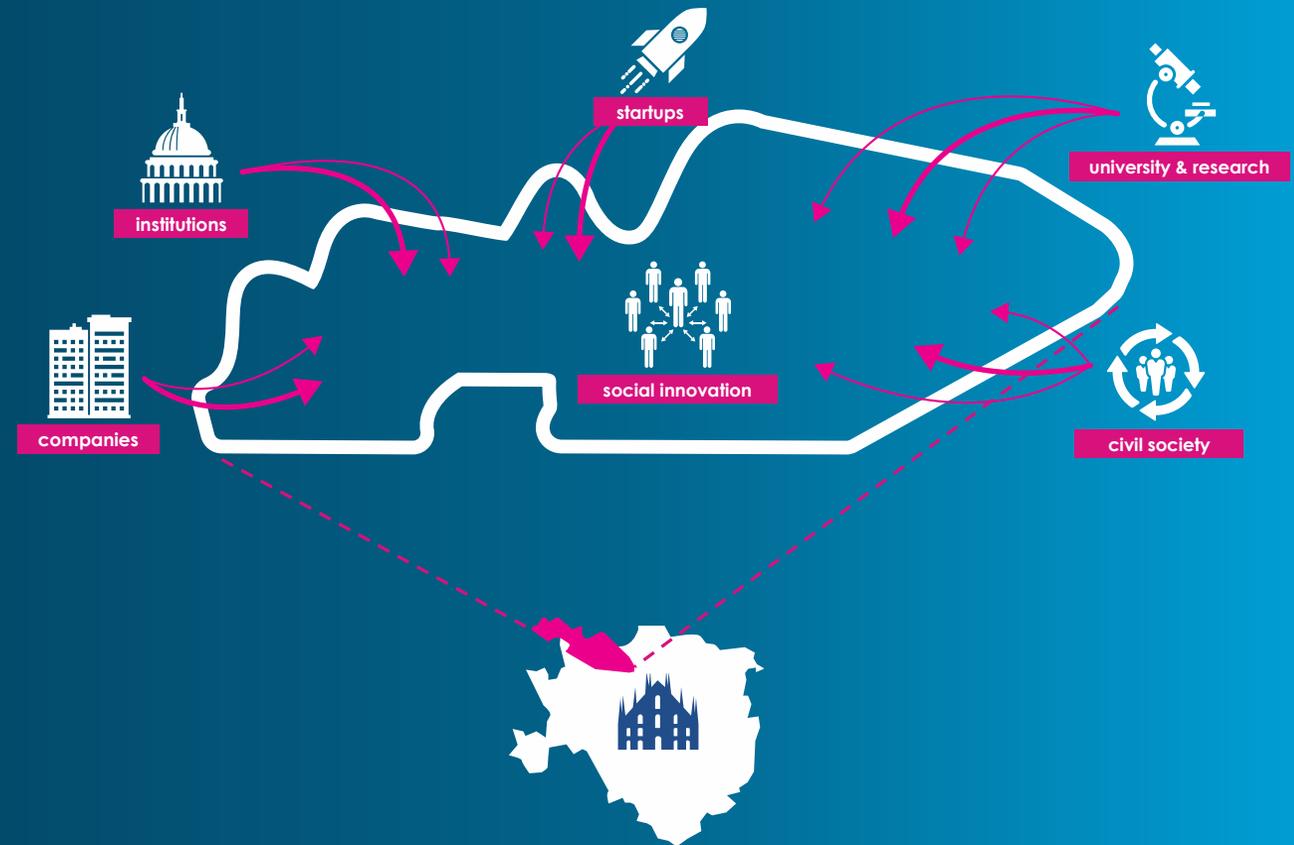
The **purpose of MIND<sup>lab</sup>** is to create an ecosystem which fosters **social innovation processes**, generating large-scale impact, for a **better quality of urban life.**

After hosting the Universal Exhibition Expo Milan 2015, the **MIND** (Milan Innovation District) site, aims to transform itself into a **“living lab”**, a **place** where **innovation** is at the service of stakeholders, who are an active part of the urban transformation process that will lead to the **creation of an internationally renowned science, knowledge and innovation park.**

**Arexpo**, owner of the site, through offering immediately available of spaces and facilities, or taking advantage of the transformation phase of the area, aims **to create a fertile environment, between physical and digital**, which uses the space as a testing field and is capable of **stimulating innovation**, facilitating interdisciplinary contamination and **developing tangible solutions** to urban problems.

The adoption of the **living lab model** into the science, knowledge and innovation park will enable the **transformation of this new area of Milan** into a **place of national and international relevance** for **experimentation** of technological innovations and digital culture.

## THE INNOVATION ECOSYSTEM AT THE HEART OF MIND



# The MIND Site (Milan Innovation District)

The site which hosted EXPO Milan 2015 is transformed into "MIND" (Milan Innovation District). The transformation project is firmly based on six fundamental "pillars":



the **Human Technopole Research Institute**: the new Italian life-sciences research institute will occupy facilities totalling approximately 30,000 sqm and, once fully operational, will employ 1,500 people;



the **"Galeazzi" treatment and research Hospital**: a facility offering healthcare of the future, with a built surface area of approximately 150,000 sqm, over 500 beds, approximately 700 doctors, 1,100 nurses and healthcare workers and 500 researchers, students and postgraduates;



the **new University of Milan Scientific Disciplines Campus**: a state-of-the-art facility with a built surface area of approximately 150,000 sqm, which will host approximately 18,000 students;



the **Cascina Triulza Compound**: a key pillar of the Expo Milan 2015 legacy. It is the social hub of MIND, a multi-functional training, cultural and scientific communication centre, a meeting and connection point with local communities and Third Sector organisations;



a **high-density mix of functions, infrastructure and services** for up to approximately 480,000 sqm of gross floor area, including different residential formats (social housing, student accommodation halls, senior living and standard residential offering), offices, retail, F&B, hospitality, co-working spaces, laboratories, incubators and company accelerators, as well as other facilities for entertainment, culture, sport and leisure;



the **theme park**, extends over a total surface area of more than 440,000 sqm, is green and characterised by high quality public spaces. It is a "hybrid" system of technologically advanced places which are open to innovation, accessible for the community and which will facilitate socialization and interaction.

# Targets

MIND LAB is targeting:

ENTITIES WITH  
INNOVATIVE IDEAS  
REQUIRING TESTING



NATIONAL AND  
MULTINATIONAL  
**COMPANIES**  
WITH INNOVATIVE  
TECHNOLOGIES,  
SOLUTIONS AND PRODUCTS  
WHO REQUIRE A PHYSICAL  
TEST BED AT URBAN SCALE

IMPACT INNOVATION FOR A BETTER URBAN LIFE

**MIND** *lab*

ENTITIES INTERESTED  
IN CREATING **HUBS**  
AS **INCUBATORS**  
OR **ACCELERATORS**  
FOR **STARTUPS**



USERS OF  
TECHNOLOGIES  
(VENTURE USERS)



INVESTORS  
INTERESTED IN **THE**  
**INNOVATION**  
**ECOSYSTEM**  
CREATED WITH THE  
**LIVING LAB**

# What's on offer

The living lab will provide **research and development equipment, actively involving companies, institutions, civil society organisations, residents and innovation end users**, throughout the entire process, from **research and development right through to actual application**.

## A SITE WITH THE FOLLOWING CHARACTERISTICS:

- **1 million sqm** of site surface area
- **15 Km of roads** equipped with **lighting, signs, road traffic, bridges** and **footbridges** as well as **parking facilities**
- **buildings** available for temporary use as **office, warehouse, laboratory, logistics, co-working or incubator space**
- **Infrastructure networks** (electricity, water, optical fibre, sewage, etc.) which serve the site
- a network of **fresh water canals** and **green areas**
- **buildings, infrastructure and outdoor areas at urban scale**, on a **privately owned site** which is not subject to specific public restrictions
- **potential local market** which will be generated by approximately **4 billion € in investments over the next 10 years**
- a **community of 60 k people**: young, educated and multi-ethnic
- an **innovation ecosystem** "anchored" to the Human Technopole institute, the Galeazzi Hospital for Treatment and Research, University of Milan and Fondazione Triulza, which since 2016 has been promoting the Human Factory project: Research&Civil Society for social innovation
- **digital and social innovation** support and **users participation**
- connection of **co-created innovation** to public institutions
- visibility and access to **international, institutional and business networks**

# Project phases

The **MIND**<sup>lab</sup> project will take a long-term view which will follow the transformation of the site over its three main phases:

## **DESIGN AND BUILD PHASE (2018-2025)**

- experimentation with construction technologies
- designing the implementation of technologies that can become actual solutions during the life-span of the Masterplan
- temporary locations for starting up experimentations

## **SETTLEMENT PHASE / DEFINITIVE TRANSFORMATION (2020-2025)**

- possibility of identifying permanent locations
- start up of partnerships with scientific research facilities

## **MANAGEMENT PHASE (SINCE 2025)**

- experimentation with site users who will be the first real market
- possibility of adopting solutions for social innovation
- adoption of innovative technologies in everyday life

Arexpo is interested in receiving expressions of interest regarding the current **temporary phase**, offering the immediate availability of temporary spaces and facilities, the subsequent **definitive transformation** phase, which will be evaluated within the design and development process, and the **management phase**, following completion of the urban transformation.

## Fields/ sectors of interest



### **DIGITAL:**

PROP-TECH,  
IOT, FIN-TECH,  
ARTIFICIAL  
INTELLIGENCE,  
CYBERSECURITY,  
AUGMENTED  
REALITY



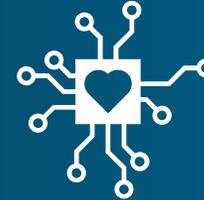
### **MANUFACTURING**

INDUSTRIAL  
DESIGN,  
CONSTRUCTION  
AND  
MECHANICAL  
ENGINEERING



### **SMART CITY**

MOBILITY,  
ENERGY, WASTE  
MANAGEMENT,  
SUSTAINABILITY,  
SURVEY AND  
ENVIRONMENTAL  
MONITORING



### **LIFE SCIENCE**

BIOTECH,  
PHARMA AND  
MEDICAL DEVICES



### **AGRI-FOOD**

NUTRITION,  
AGRI-TECH AND  
FOOD-TECH



### **ENTERTAINMENT**

CULTURE,  
SPORT,  
WELLNESS,  
SPORT TECH,  
VIRTUAL REALITY

## **VIRTUOUS ASPECTS ACROSS FIELDS AND SECTORS:**

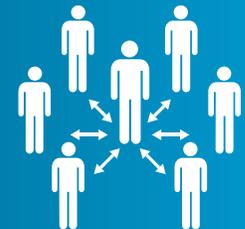
### **CIRCULAR ECONOMY**



### **RESILIENCE**



### **SOCIAL INNOVATION**



# Digital



## Digital and sensory technology at urban scale |

urban management digital platforms, Datastores and Dashboards for sharing public data and information, access to on-line services, stakeholders participation, etc.; innovative products and services based on the use of the Internet of Things; sensors, communication channels, monitoring systems and indexing algorithms which enable the representation, quantification and sharing of interaction methods between users and the built environment, between communities and services provided (responsive environment).

## Social-digital innovation |

initiatives for maximising the potential of on-site digital technologies and urban sensor systems, with a view to the co-creation of services and the promotion of entrepreneurship and innovation. Workshops, advanced courses which use innovative and multidisciplinary methodologies, including artistic approaches, to facilitate the visualisation and use of data and information, designed for different types of users (including, but not limited to: schools, students, over-55, researchers, start-ups, firms and civil society organisations), which aim to promote a "data culture", equally focused on issues pertaining to ethics, privacy and security, as well as to technical aspects and the power of data in terms of service creation and efficiency enhancement, products and innovative processes.

## APPLICATION EXAMPLES

- **TESTING OF ADVANCED TECHNOLOGICAL NETWORKS - 5G NETWORK**
- **DEVELOPMENT OF APPLICATIONS FOR MIND USERS WHICH CAN PROVIDE SERVICES SUCH AS: ACCESS TO MOBILITY, PAYMENT SYSTEMS, DATA SHARING SYSTEMS, BOOKING OF EVENTS AND PUBLIC SPACES**

# Manufacturing



## Materials, technologies, processes and the optimisation of the construction industry |

innovative materials, industrialised construction processes by means of modularisation, 3D printing and prefabrication. In general, products and services designed to improve quality, durability and safety, while also optimising time and minimising use of resources and the environmental impact of development and construction processes for industry and infrastructure.

### APPLICATION EXAMPLES

- **PROTOTYPES FOR ENERGY GENERATION, TECHNOLOGIES APPLIED TO SURFACES OR OTHER BUILDING FABRIC WHICH ABSORBS SOLAR ENERGY, MATERIALS WHICH ENABLE THE REUSE OF ENERGY GENERATED BY RENEWABLE SOURCES, MATERIALS WHICH ELIMINATE OR MITIGATE POLLUTION SOURCES;**
- **THE USE OF 3D PRINTING OR PROTOTYPES FOR THE CONSTRUCTION OF BUILDINGS WHICH WILL BE CREATED INSIDE THE SCIENCE, KNOWLEDGE AND INNOVATION PARK**

# Smart city



## Innovative mobility systems |

mobility solutions which can be integrated within the innovation process to become sustainable commercial products or services. Specifically: autonomous drive electric vehicles, drones, shared mobility solutions, innovative mobility systems, platforms for modal integration.

## Technologies and systems for Energy generation |

new energy generation prototypes such as innovative technologies applied onto surfaces and equipments, road surfaces which absorb solar radiation and enable the reuse of energy, technologies for generating clean energy generation from the movement of pedestrians, bikes and cars.

## Sustainability and environmental monitoring |

innovative solutions which contribute to the sustainable development of MIND. Efficient energy solutions, in terms of climate and energy, including: energy and water supply systems, climate change mitigation systems, smart grids, noise pollution reduction systems, lighting systems and intelligent urban technologies.

## APPLICATION EXAMPLES

- **AUTONOMOUS DRIVE VEHICLES, DRONES FOR TERRITORIAL MONITORING, SHARED MOBILITY SOLUTIONS OR INNOVATIVE MOBILITY SYSTEMS;**
- **MOBILITY SOLUTIONS WHICH CAN BE INTEGRATED WITHIN THE INNOVATION PROCESS TO BECOME COMMERCIALY VIABLE PRODUCTS OR SERVICES SCALABLE ON THE GLOBAL MARKET**



## Health and well-being |

solutions, projects or products which are complementary to research fields already covered by the Human Technopole institute (oncological genomics, neurology and/or agri-food and nutrition, big data), by the Galeazzi Hospital for Treatment and Research (orthopaedic, cardio-thoracic-vascular medicine, diagnosis and the treatment of obesity), or by the University of Milan scientific faculties (Agricultural and Food Science, Pharmaceutical Sciences, Medicine, Sciences and technologies).

## APPLICATION EXAMPLES

- **PROJECTS LINKED TO THE PRESENCE OF THE HUMAN TECHNOPOLE, RESEARCH CENTRE SPECIALISED IN ONCOLOGICAL GENOMICS, NEUROLOGY, NUTRITIONAL SCIENCES AND BIG DATA**
- **SOLUTIONS, PROJECTS OR PRODUCTS WHICH AIM TO PROMOTE THE STRUCTURING OF THE FOOD SUPPLY CHAIN, THE NUTRITION CULTURE, ANIMAL WELL-BEING AND RISK MANAGEMENT IN THE AGRICULTURAL SECTOR**



## Materials, technologies, processes and the optimisation of the agri-food industry |

solutions, projects or products which aim to boost profitability and competitiveness of farms, promote the organization of the food supply chain, the nutrition culture, animal well-being and risk management in the agricultural sector, to preserve, restore and enhance ecosystems linked to agriculture, encourage the efficient use of resources and the transition to a low carbon emission economy which is also climate resilient in the agri-food and forestry sector.

### APPLICATION EXAMPLES

- ENERGY AND WATER SUPPLY SYSTEMS, SYSTEMS FOR THE MITIGATION OF CLIMATE CHANGE, SMART GRIDS, SYSTEMS FOR THE REDUCTION OF NOISE POLLUTION, INNOVATIVE LIGHTING SYSTEMS AND INTELLIGENT URBAN TECHNOLOGIES;
- THE USE OF SERVICES WHICH AIM TO PROMOTE A WORK-LIFE BALANCE, CULTURAL, SPORTS, EDUCATIONAL, HEALTHCARE AND SOCIAL INCLUSION PROSPECTS

# Entertainment



## Culture, sport & entertainment |

**alternative entertainment solutions** capable of generating unique "contents" and "experiences" in the public and semi-public courtyards system which will form the "common ground" of MIND, guaranteeing physical access as well as interaction with contents, attractiveness and the interaction of passers-by, also thanks to the opportunity to showcase and field-test prototypes and smart technologies.

**Improve visitors experience and access to contents** during large-scale events such as: concerts, sports events, exhibitions, etc. (both during access to the Area, with innovative ticketing systems, entry checks, etc., as well as in terms of overall experience enhancement with innovative immersive and scenic technologies, or in terms of overall event participation).

# What happens after the submission of a proposal

Arexpo will send a written reply to all applicants who have submitted an expression of interest.

After analysing submitted expressions of interest, Arexpo reserves the right to contact applicants to requests clarifications on the proposal and to organise follow-up meetings between parties.

In full compliance with applicable regulations, its own role and governance, Arexpo will facilitate sharing of the best proposals with:

- **it's own private partners for potential implementation during design, construction and management phases of MIND;**
- **it's own public partners for potential access to economic and financial support programmes.**

This Call **does not provide for any competitive or comparative selection procedure** and therefore no ranking, scoring or any other classification system will be implemented.

This Call is non-binding for Arexpo and therefore the latter reserves the right to suspend, amend or cancel this Call, or not to proceed with undertaking or pursuing any negotiation, without being subject to claims brought against it by interested parties, for indemnity or compensation of any nature.

# Participation in the call

## PROCEDURE:

Expressions of interest must be sent by email to [mindlab@arexpo.it](mailto:mindlab@arexpo.it), specifying the following subject: “**MIND LAB CALL**” and must include at least the following elements:

- the candidate's general identification data (name, company name, headquarters, etc.);
- a brief overview of the candidate's business, economic scale and product sector;
- information on the proposal, by filling out the form “**MIND Lab Project Sheet**”, attached to this Call.

Starting from September 2018, Arexpo, in collaboration with its private partner, will organize in-depth public information sessions in order to allow maximum sharing, participation and widespread dissemination of this call.

On this occasion, the private partner will explain the ways in which proposals will be selected and implemented.

Interested parties can access technical information on the current status of the area on the site: [www.mindmilano.it](http://www.mindmilano.it)

## TIME FRAME:

In order to evaluate the possible integration of proposals received in convenient time for the MIND planning and design phase, applicants are requested to submit their expression of interest no later than midday (12:00 CET) on 31/12/2018.

# 1 6 Participation to the call

## REQUIREMENTS

The selection of projects will have the following guiding principles:

- large-scale social impact
- technological innovation
- project feasible at urban scale
- partnership creation
- sustainability

## CONFIDENTIALITY

Call participants can request Arexpo the signing of a confidentiality agreement ("NDA") before submitting the project proposal. This agreement must explicitly indicate which information must not be disclosed ("Confidential Information"), without prejudice to the ability of Arexpo to share the aforementioned information with its private partner.

## INTELLECTUAL PROPERTY

The possession of the right of ownership and, therefore, of use and economic exploitation of the project proposal presented during the call, as well as of all the activities carried out within the same, will remain with the participant, in compliance with the current regulations in force.

## DATA PROCESSING:

All data acquired by Arexpo in the implementation of this Call will be managed and processed in compliance with security and confidentiality obligations as established in EU Regulation 679/2016 ("GDPR").

The use of information and data collected by Arexpo pursuant to and for the purposes of this Call guarantees the anonymity of all persons and entities concerned.



MILANO INNOVATION DISTRICT

*is* SOCIAL  
INNOVATION

IMPACT INNOVATION FOR A BETTER URBAN LIFE

**MIND** *lab*

For any information or clarification you can contact the following email address: [mindlab@arexpo.it](mailto:mindlab@arexpo.it) or visit the website: [www.mindmilano.it](http://www.mindmilano.it)