

# MIND – Milan Innovation District

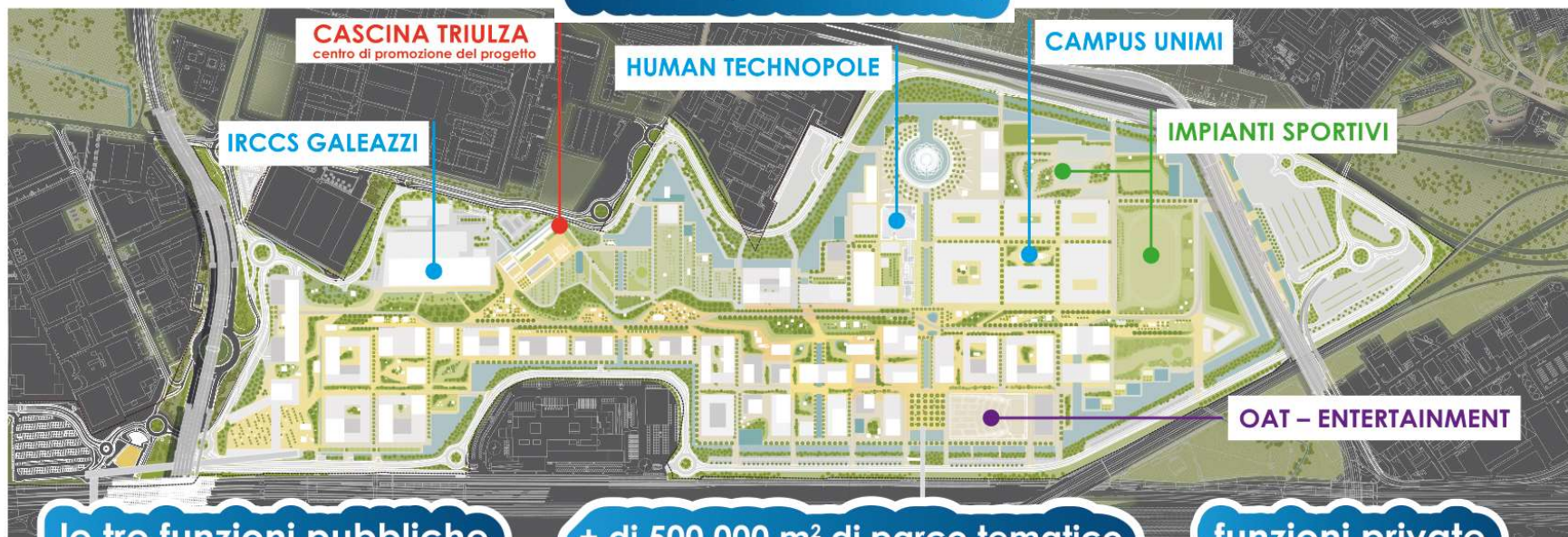
Filippo Addarii

EU Regions & Cities Week

Brussels October 2016



**1 MILIONE DI MQ**



**le tre funzioni pubbliche**

Human Technopole  
IRCCS Galeazzi  
Università Statale di Milano

**+ di 500.000 m<sup>2</sup> di parco tematico**

di cui 460.000 in Unità 1

**funzioni private**

> 50 manifestazioni  
d'interesse ricevute

# Innovation District

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## Bruce Katz & Julie Bruce: “The Rise of Innovation Districts: A New Geography of Innovation in America”



Innovation districts are a new generation of science and tech park. They are zones in cities where public and private actors work to attract entrepreneurs, startups, [business incubators](#), generally with the aim of revitalizing depressed [downtown](#) areas.<sup>[1]</sup> The first, [22@](#) in [Barcelona, Spain](#), was launched in 2000; as of 2019, there are more than 80 worldwide



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# EXPO 2015 – Feeding the Planet, Energy for Life





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# Post EXPO 2016 – Failure







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# Independent task for EXPO 2015 legacy





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# Public Private Partnership 2017



## THE PARTNERSHIP



Arexpo is the company which owns the site where the Expo 2015 was held (over 1 million sqm ). Our mission is to **transform the area in a science, technology and innovation district** of international relevance.



Comune di Milano



Fondazione Fiera Milano




Lendlease is a leading international property and infrastructure group with operations in Australia, Asia, Europe and the Americas. Our vision is **to create the best places**; places that inspire and enrich the lives of people around the world.

 **12.741**  
employees

 **9.6 bn**  
capitalisation

 **57.442**  
security holders

 **56.7 bn**  
development pipeline

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# Partnership for innovation





# THE PLACE

An innovation ecosystem, catalyst for social and economic growth. A new neighbourhood of Milan, sustainable open and safe, able to attract talent from all the world

Private and public institutions provide guidance through partnerships with smaller private actors thus profiting from the dynamic environment



Start ups bridging the gap between universities, academia and companies. The contamination due to the functional mix helps innovative companies to grow along corporations



Universities and students provide a livelier environment to foster contamination between different functions while guaranteeing innovation and academic research



Corporate headquarters present on the site will benefit from the rich mixed environment where office space has no boundaries and employees can work seamlessly

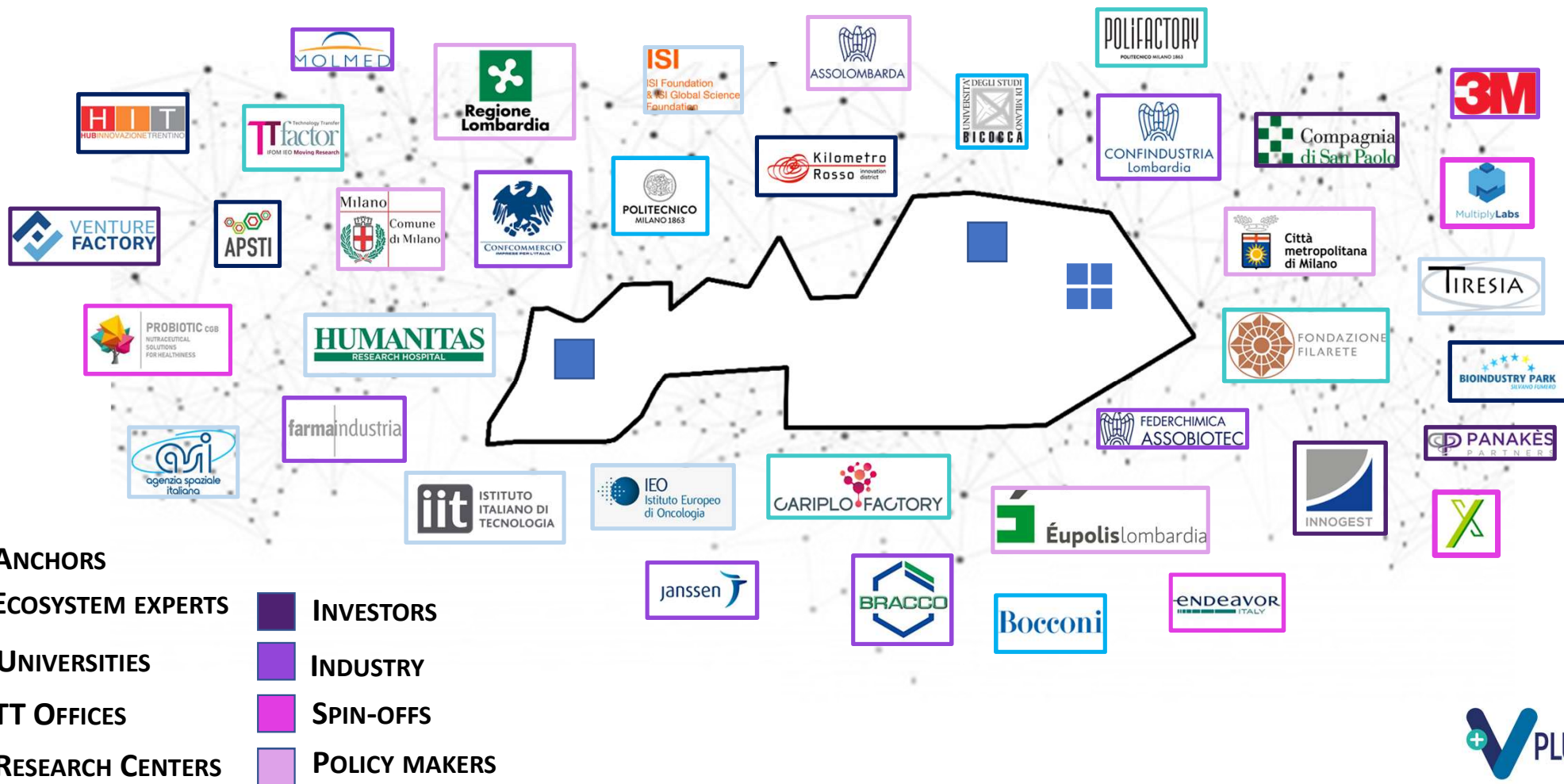


Tertiary functions are present across the whole area to distribute services and guarantee urban life

**AN ECOSYSTEM OF INNOVATION AT THE HEART OF THE ITALIAN STYLE URBAN LIFE**

# RESEARCH ON INNOVATION ECOSYSTEM

Desk research: 60+ interviews with key players/stakeholders in the research and innovation ecosystem (Nov 2018 - Apr 2019)



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# Living lab to develop & test new solution 4 urban living

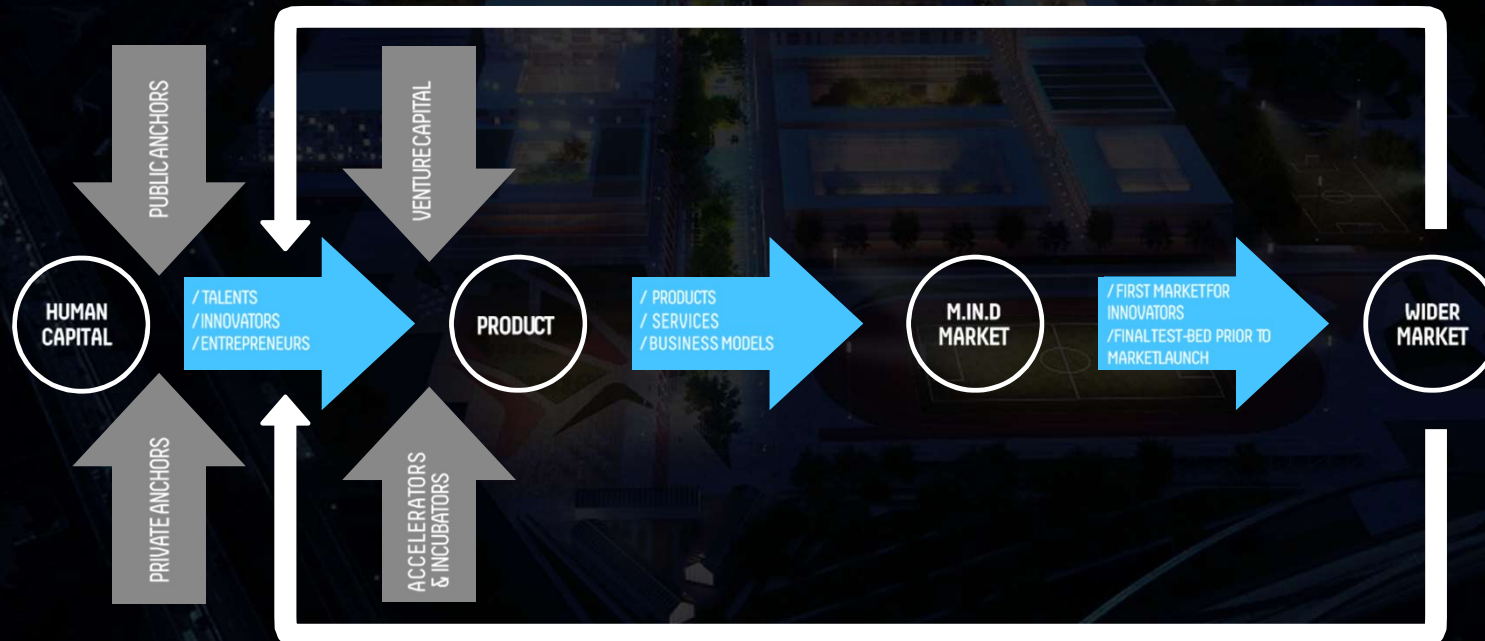




## LIVING LAB FIRST MARKET FOR INNOVATORS



M.IN.D. is an ecosystem of **open innovation embedded in a real life environment**, where the involvement of the end users in the creation process **accelerates the development and testing of new products and services** and their ability to succeed.



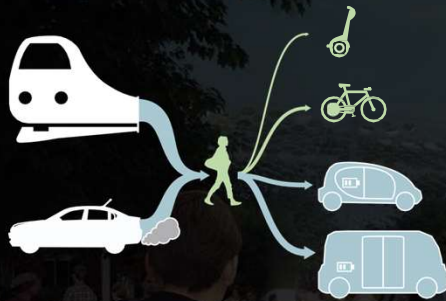
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# Designing innovation ecosystem: 1) Engineering



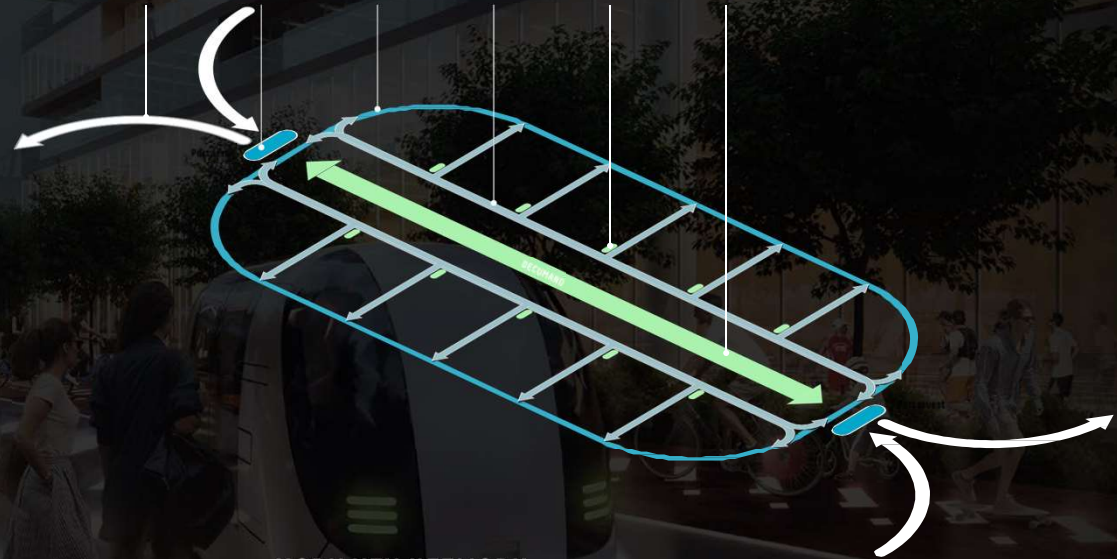
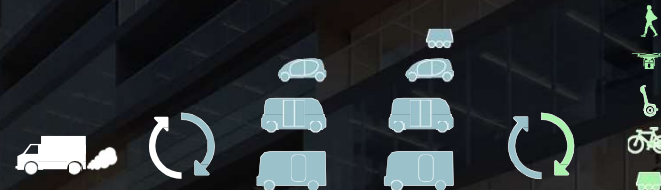
## ENHANCED MOBILITY INTERNAL CONNECTIVITY

The entire masterplan features a mobility strategy conceived around an **efficient internal transportation system** and smart mobility which will allow **seamless transition between transit forms** and improve people's commuting experience.



### SMART MOBILITY DISTRICT

Mobility has always characterised the lay out of cities and thus, it is important to take into account current developments in urban mobility when designing a long term development. The area is conceived to take into consideration the challenges and opportunities of self driving cars and other innovative means of mobility.



### MOBILITY NETWORK

The mobility network is characterized by nodes of intermodality and different layers of transportation which range from traditional transportation to new innovative transportation modalities.



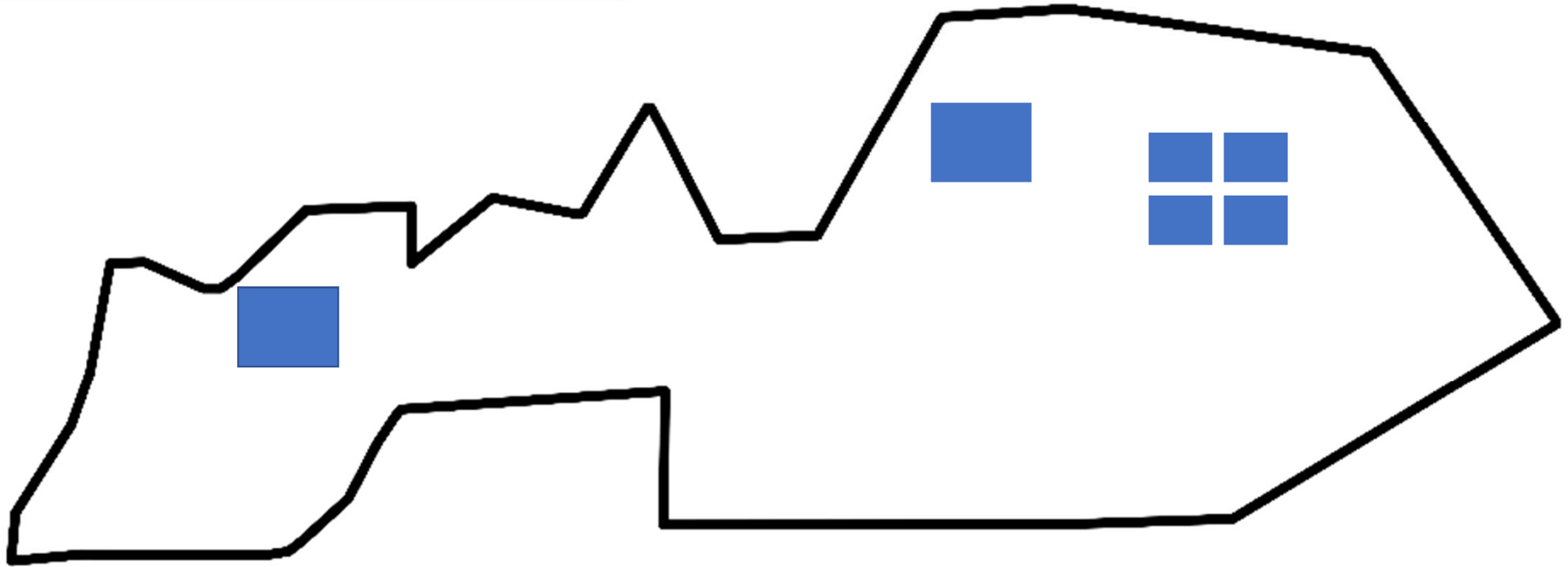
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# Designing innovation ecosystem: 2) Emergence



# CLUSTER MAGNETS: SPATIAL STRATEGY TO GROW AN INNOVATION ECOSYSTEM AT MIND

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ANCHOR INSTITUTIONS: GALEAZZI, HUMAN TECHNOPOLE, UNIMI

## PUBLIC ANCHORS

Three major Public facilities will enable the development of the site.

### HUMAN TECHNOPOLE

#### MISSION & VISION

A national and international Hub connecting Universities, Research Institutes and Hospitals with the aim to develop personalized medicine and nutrition to tackle cancer and neurodegenerative diseases by means of genomics, big data analysis, new diagnostics and innovative therapies.

#### FUNDING

1,0b€ public funding available over next 10 years

#### TIMING

Now Open - 400 people active by end of 2018  
Fully Operational by 2023

#### SIZE & PEOPLE

35.000 sqm, 1.500 staff

#### FACILITIES

5 buildings, 7 research centres with focus on:

- Onco, Neuro, Agri Food & Nutrition Genomics
- Computational science and bioinformatics
- Data handling and analytics
- Smart materials

### STATALE UNIVERSITY

#### MISSION & VISION

Science for Citizens - a modern scientific education and research campus, aiming to the most advanced international standards for teaching, research and interaction with the private industry.

#### FUNDING

250m€ public funding secured

#### TIMING

Design phase started Feb-2018  
Operational by 2021

#### SIZE & PEOPLE

150.000 sqm, 20.000 people

#### FACILITIES

5 buildings, 4 main scientific faculties:

- Science and Technology
- Nutrition and Agricultural Sciences
- Medicine and Surgery
- Pharmacology

### GALEAZZI RESEARCH HOSPITAL (IRCSS)

#### MISSION & VISION

Gathering together the excellence in the orthopaedic field of IRCCS Galeazzi and the experience gained in the cardio-thoraco-vascular and bariatric field of the IstitutoClinico Sant'Ambrogio, to offer patients a great multi-specialized research hospital.

#### FUNDING

100% private funding (Gruppo San Donato)

#### TIMING

Construction to start in spring 2018  
Fully operational by 2021

#### SIZE & PEOPLE

150.000 sqm, 9.000 people

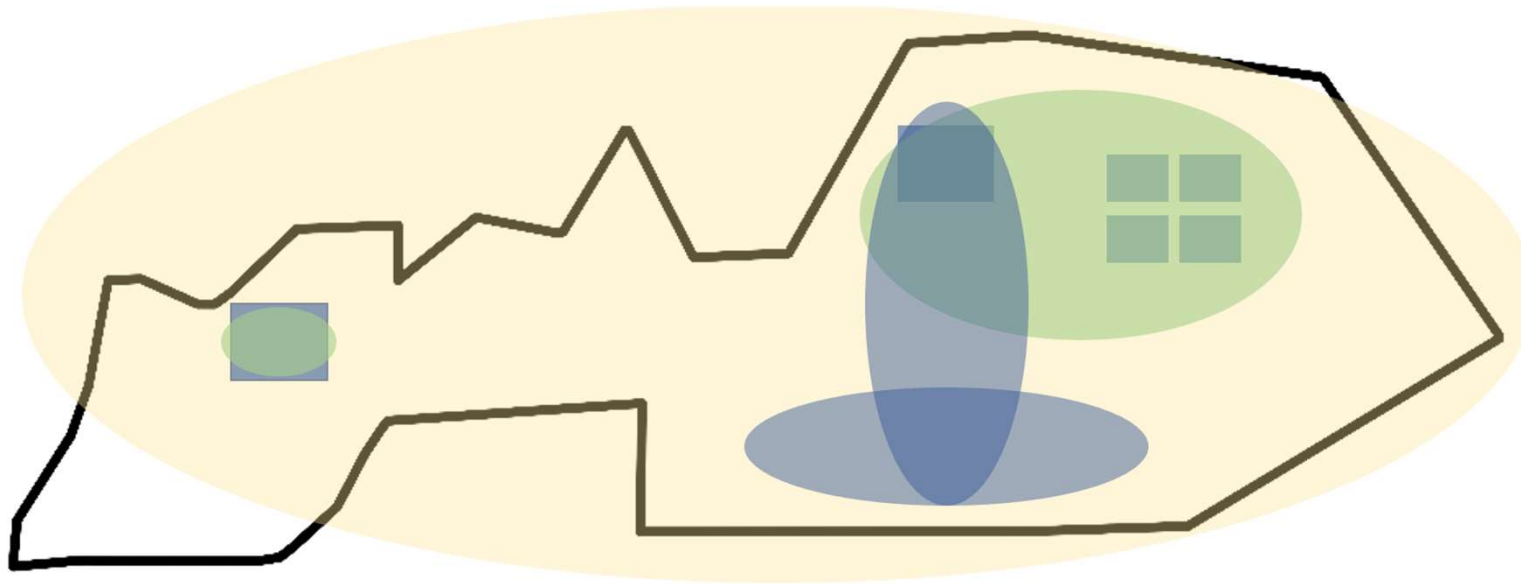
#### FACILITIES

One centralized high-rise facility hosting:

- 589 beds
- 35 operating theatres
- 140 ambulatories



# SPECIALIZATIONS: 3 EMERGING CLUSTERS THAT BUILD ON THE STRENGTHS OF THE ANCHORS AND OF THE REGIONAL ECOSYSTEM



PRECISION MEDICINE



PRECISION NUTRITION



ADVANCED  
MANUFACTURING

# ARGUMENTS IN FAVOUR OF PRECISION MEDICINE AT MIND

## THE FOUNDATION OF PRECISION MEDICINE

An evolving approach where customized healthcare—in medical decisions, treatments, practices, and products—are tailored to the individual patient. It therefore requires highly sophisticated diagnostics, such as a detailed analysis of a patient's genetic profile together with lifestyle habits and environmental factors. Tools employed in precision medicine include molecular diagnostics, imaging, and analytics.

### A GROWING INTERNATIONAL MARKET FOR PRECISION MEDICINE:



Precision medicine has an outstanding commercial potential. Pharma, and red biotech in particular, is experiencing a true Renaissance, with over **15,000 new products being developed and representing the biggest RDI investment globally: 1,000 billion dollars will be invested in the next decade, equal to 18% of the global expense in RDI, compared to 11% in software development and about 14% in transport.**



Italy has a strong tradition in pharma manufacturing, and **56% of new therapeutic projects of the Italian Pharma Sector is in the Red biotech sector.** Lombardy is home to 132 Red Biotech firms, equal to nearly 45% of the Italian total. **Lombardy has a strong specialisation in advanced therapies: three approved therapies out of nine in Europe are Italian. Two out of these three in Italy have been developed in Lombardy.**



# SPECIALIZATIONS: PRECISION MEDICINE



## HT

Human Technopole, which will be completed in 2024, will employ 1000 full-time researchers and host one of the world's most advanced infrastructures in terms of storage capacity, high performance computing and imaging — the basis of personalized medicine. 5 centers which are now in the process of being established (computational biology, genomics, structural biology and neuroscience and CADS) are related to the field of precision medicine.



## UniMi

The departments of Bioscience, Oncology and Hematology, Pharmacology and Biomolecular Sciences have been awarded, for their excellence, over 20 million in additional funding from the MIUR to be invested in research between 2018 and 2022. UniMi also boasts 18 projects funded by the European Council of Research (ERC), the most selective grant institution in Europe, 11 of which are in the field of precision medicine and 5 brought to UniMi by researchers based elsewhere.



## Galeazzi

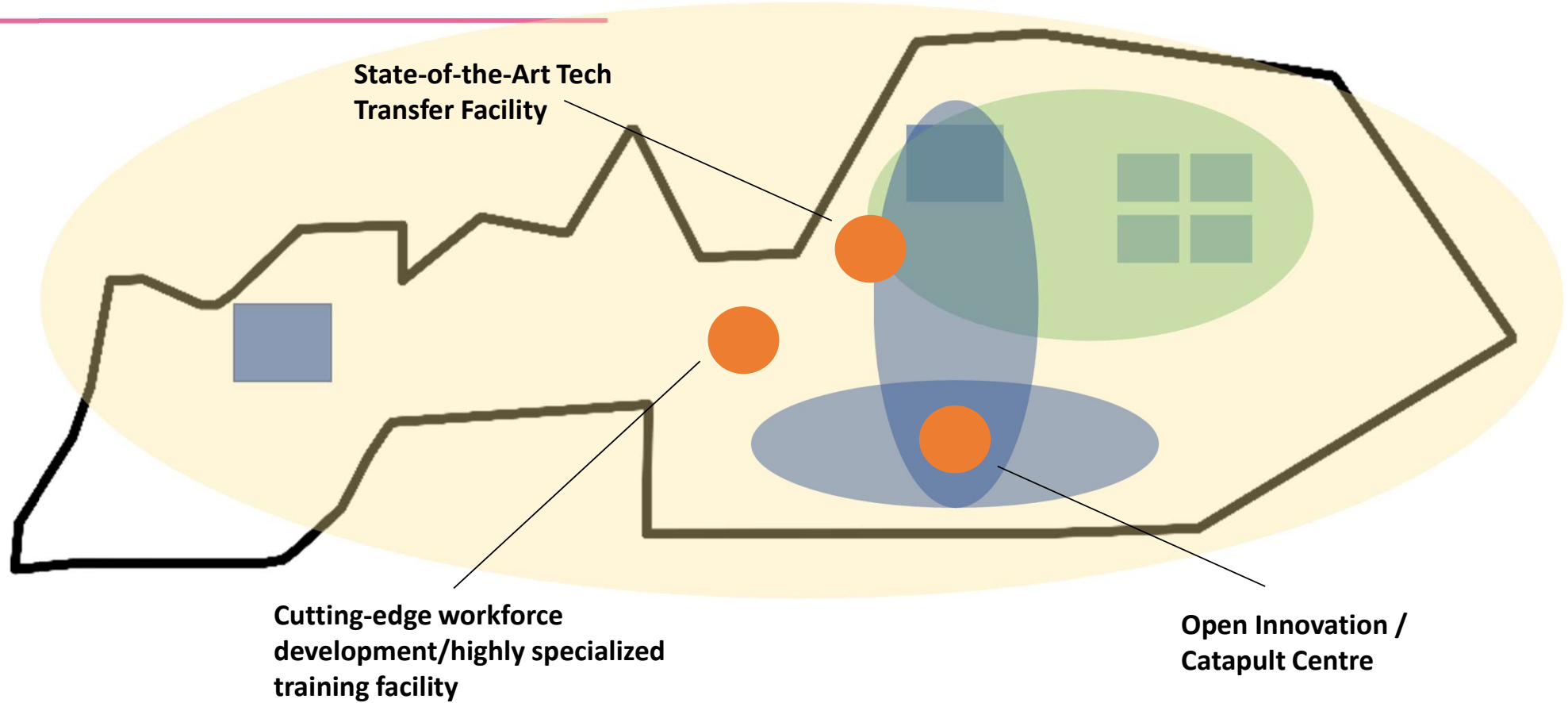
The IRCCS Galeazzi is the first IRCCS in Italy for casemix, an indicator that reflects the complexity of the cases treated and has great expertise on tissue engineering and fourth-generation biomarkers. The specialized research units include a cell and tissue engineering laboratory and a biotechnology applications laboratory, specializing in skeleton-muscle.

## SPECIALIZATION NICHES

- Molecular diagnostics
- DNA testing and predictive genomic tests
- prosthesis
- Advanced imaging
- Medical and technical services
- Computational biology
- Nanobiotechnology



# CLUSTER MAGNETS: SPATIAL STRATEGY TO GROW AN INNOVATION ECOSYSTEM AT MIND



# Thanks you

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