

MILANO FOR CLEANTECH 2022

MILANO
FOR
CLEANTECH
2022

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WHY MILANO

1 • A gateway to EMEA region

At the center of Southern Europe, Milan is a strategic gateway to target the EMEA markets

2 • An established talent pool

Milan offers an ambitious education ecosystem with 16 Universities, 227 K students - 10 % of which are international

3 • Capital of a thriving region

The city is the capital of Lombardy region, the richest and most populated area of Italy, generating € 368 bln of GDP (22 % of overall Italian GDP) and hosting 815 K+ companies

4 • Prosperous ecosystem of private and public entities

Milan enjoys a prosperous hybrid system in which public agencies and private bodies cooperate towards the economic and social development of the city

5 • Competitive incentives

Italian government is targeting numerous socio-environmental goals and its main tools are incentives to corporates

- **Unparalleled lifestyle**

Fashion capital, among the top three most visited cities in Italy, Milan attracts tourists from all over the planet for its worldly, culinary traditions and peerless Italian lifestyle

- **High connectivity (transport and internet infrastructure)**

Milano is equipped with transportation infrastructure (3 airports, high-speed trains, highway hub) and state-of-the-art internet connectivity (first Western city to implement 5G)

- **Opportunity to make an impact in a polluted region**

All the City's stakeholders are on the line regarding the need to turn the tide in the fight against pollution and environmental damage. There is enormous room to have positive effects for every player involved in this process

- **Raising concern about environmental matters**

The "milanesi" have always paid great attention to social and ecological issues, with an increasingly active participation from the youth population

SOCIOECONOMIC LANDSCAPE

Milano and Lombardy key macroeconomics figures

Lombardy is home to 10 mln people, ranking 3rd among the main European regions. It hosts 815 K+ enterprises (16 % of Italy's total), with one of the highest rates of entrepreneurship in Europe: 74 companies per 1,000 inhabitants. Half of these companies are based in Milano.

The region generates € 368 bln GDP, or 22 % of Italian total, with a per capita GDP of € 38.5 K. Lombardy is one of the most advanced regions in Italy in terms of digitization and R&D expenditure, being classified as "Strong Innovator" by the European Commission.

The region ranks first in Italy for manufacturing and is the third largest in Europe by number of employees. It has specific competitive advantages in Agrifood, Aerospace, Life Sciences, Green Economy and Cleantech.

Lombardy hosts 1300 Research and Technology Transfer Centers and business activities in the innovation field with a focus on the above mentioned sectors.

There are 20K knowledge-intensive startups established in Lombardy between 2009 and 2017, more than those born in Baden-Wurtemberg (13.6K) e Rhône-Alpes (16.9K), with a record birth rate of 38.6 new born per 100,000 inhabitants.





Milano is Italy's financial capital, generating 10 %+ of the national GDP and being home to an internationally competitive business community with strong Life Sciences, Financial and Manufacturing hubs.

Milano hosts 306,249 enterprises, whose exports and imports register, respectively, a 17 % and a 17.3 % growth from 2020 to 2021. Among these, 5,232 multinational companies employ 560,000 people (only considering the municipality and its surroundings) and generate a turnover of € 245.6 bln, almost half of the turnover produced by multinational companies in Italy. Moreover, Milano is home to 1/3 of the foreign companies active in Italy, accounting for 37.8 % of the national total number of employed people and 39.6 % of the total turnover.

The area collects 60% of the total inward investments in Italy and continuously attracts talents from other Italian and European regions. As proof of this, Milano's foreign population is expected to grow by 16 % between 2021 and 2040.

Milano is also Italy's most innovative city with over 2,880 innovative startups, as of June 2022, with growth rates around 15 % on the previous year. The overall number of innovative startups in Italy is around 14,500, meaning that Milano hosts 1 out of 4 Italian innovative startups. Moreover, thanks to its tech hubs, advanced infrastructures and highly qualified human capital, 1/5 of Italian patents are generated here. The city enjoys a thriving and dynamic labor market: the employment rate is 67.9 %, more than ten points higher than the national one, while the unemployment rate is around 6 %. Despite high volatility and uncertainty, Milan's GDP at the end of 2022 is expected to outpace 2019 (+2.2 %), settling at +4.8 % in 2023. Within this framework, employment is expected to realign with the pre-Covid figure in 2022, then registering +2.3 % in 2023.

[Ester CamCom MI; Milano Produttiva 2022 - Milano Monza Brianza Lodi Chamber of Commerce; EPO - European Patent Office data, 2021; ISTAT; ESTER 2021; Assolombarda; CCLIAA Milano 2021]

CLEANTECH AND GREEN ECONOMY DEVELOPMENT

In line with global trends, Italy has recently taken a turn in its policy against climate change and pollution; leading the way among major Italian cities is certainly Milano.

The Lombard capital city was certainly not off to a favorable position when it came to environmental issues. Air pollution, traffic congestion, greenhouse gas emissions and excessive waste production have historically been some of the main problems that the city has had and still has to deal with. This is one of the reasons why Milano is striving to directly and indirectly promote ecological and environmentally beneficial projects and investments.

Milano is the city with the highest real estate investments planned in Europe. € 13 bln private investments and € 2 bln public investments are projected within 2030.

- + **100** new large urban regeneration projects
- + **4,000** new plans and buildings' renewal
- + **10,000** new social housing apartments
- + **20 new parks** (> 10,000 smq)

Giuseppe Sala,
Mayor of Milano

“To ensure a well-balanced and sustainable urban development, we aimed to transform Milan into an inclusive city where essential services are evenly distributed across districts”.

“The municipality of Milan will electrify all its vehicles by 2030. This process is already underway and we are far ahead of other cities”.

Elena Eva Maria Grandi
Councilor for the Environment

Giancarlo Tancredi
Councilor for Urban Regeneration

“The Municipality has equipped itself with an Air and Climate Plan to reduce polluting emissions, achieve carbon neutrality, contain global warming and provide concrete tools towards a circular economy”.

“Sustainability remains our key strategic pillar. We already develop 70% of our service in electric mode, but we are continuing to invest”.

Arrigo Giana
CEO ATM



MILANO
OFFERING
FOR

CLEANTECH
SEGMENTS

**Circular Economy,
Water & Waste
Management**

**Clean
Manufacturing
& Clean Air**

Smart Cities

(Mobility,
Infrastructure
& Connectivity)

**Clean Energy
& Systems**

Clean Building

CIRCULAR ECONOMY, WATER & WASTE MANAGEMENT

Despite the critical issues that have occurred with regard to the circular economy at the global level, Italy has remained at the forefront in the management and reuse of raw materials and production waste. According to the Circular Economy in Italy Report (2022 edition), the country remains one step ahead of its European competitors: it ranks #1, along with France, among the top 5 European economies.

- overall recycling rate: 68 % (vs. European average: 35 %)
- circular material use rate: 21.6 % (vs. European average: 12.8 %)
- resource consumed per kg: €3.5 GDP (vs. European average: €2.1)
- per capita consumption of materials: 7.5 t (vs. European average: 13.5 t)
- decrease in raw material use per capita: 36 %

By a ranking on resource reuse and waste reduction compiled by researchers at Cesis, (Center for Studies in Economics and Regulation of Services, Industry and the Public Sector at the University of Milan-Bicocca), Milano ranks #1 among Italian cities, thanks to its branched and appreciated public transportation systems, advanced car sharing services, efficient water network, high level of waste collection, and high turnover of second-hand sales activities. According to data published by the Energy & Strategy Observatory of the Politecnico di Milano in the Circular Economy Report 2021, Lombardy is the #1 Italian region in terms of sectoral pervasiveness (i.e., an indicator of the level of coverage of existing legislation and the level of regulatory depth) and the level of adoption of the “R’s” (Recover, Recycle, Repair, Reuse, Rethink and Redesign) grouped into clusters of increasing adherence to the Circular Economy model.

To reduce this gap between the northern and southern regions and support further improvement of waste management and recycling on a national basis, the Italian government has allocated € 600 mln, divided into four lines of intervention, in the pending NRPP:

- Modernization and expansion of existing and construction of new facilities to improve the collection, logistics and recycling of waste electrical and electronic equipment (so-called WEEE) including wind turbine blades and photovoltaic panels;
- Modernization and expansion of existing and construction of new facilities for the improvement of collection, logistics and recycling of paper and cardboard waste;
- Construction of new facilities for the recycling of plastic waste, including marine plastic solid waste (so-called marine litter);
- Infrastructure for the collection of pre-consumer and post-consumer textile fractions, modernization of plant engineering and construction of new plants for recycling textile fractions from a systemic perspective (so-called Textile Hubs).

L'Alleanza per l'Economia Circolare

The Alliance for the Circular Economy is the start of a path of collaboration among 17 Italian companies in order to gather and spread knowledge about the Circular Economy as a strategic innovation lever that redesigns the overall economic system and aims to minimize the consumption of matter in all its forms, involving people, associations and interest groups.

The Alliance's goal is to support the circular economy through several initiatives, including the following:

the definition of measurement methods and targets in terms of circularity (for affiliated companies, but gradually also for their suppliers and for the downstream supply chain);

the development of joint projects;

the definition of common positions and proposals on the topic;

the identification and dissemination of Italian best practices on circularity and their enhancement in the international arena.

The 17 companies that are part of this Alliance are A2A, Aquafil, Bulgari, CDP, Cirfood, Costa, Enel, Erg, Fater Smart, Ferrovie dello Stato, Gruppo Hera, Intesa Sanpaolo, Next Chem, Novamont, Salvatore Ferragamo, TH Resorts, Touring Club Italiano.

Wastly

Founded in 2015 as an innovative startup, [Wastly](#) is a technology platform designed for all players in the circular economy, from manufacturing companies to collectors, transporters and intermediaries to recovery and disposal facilities, recycling plants, municipalities and citizens.

It makes it possible to find not only the contacts of all those involved but also to check the permits of recovery and/or disposal facilities and registration with the National Register of Environmental Managers.

The objectives of the platform are:

Facilitate and transform the economy and generate sustainable competitive advantages through low transaction costs;

Profile actors on a local/national scale and verify certifications;

Provide control and warranty service in the case of goods that do not conform to the specifications detailed at the time of purchase.

Ecopneus

Ecopneus is the nonprofit company for the tracking, collection, treatment and recovery of End-of-Life Tires, formed by the major tire manufacturers operating in Italy (Pirelli, Bridgestone, Continental, Goodyear-Dunlop, Marangoni and Michelin), joined over time by many other companies.

Each year the company secures the tracking and recovery of an average of about 200,000 tons of End-of-Life Tires. Examples of their treatment and reuse include the production of rubber anti-trauma flooring or the making of drainage asphalts. In addition to material values, there are also intangible values, such as the emptying of places invaded by old tires or efforts against black purchases of tires, which then cause the phenomenon of abandonment.

Circular Economy Lab

[The Circular Economy Lab](#) is an innovation initiative born in Milano in 2018 from the partnership between Cariplo Factory and Intesa Sanpaolo Innovation Center to contribute to the evolution of the Italian economic system and spread new models of value creation in the collective interest, accelerating the transition to circular economy models.

SMART CITIES

Mobility,
Infrastructure
& Connectivity

Within the study conducted by Assolombarda, in collaboration with EY, Milano emerges among the benchmark cities (Berlin, Munich, Paris and Barcelona) in several areas.

Connectivity

- Complete ultra-wideband coverage (100 % household coverage)
- Large ubiquity of public wi-fi service (2,356 inhabitants served per hotspot)
- Presence of 597 public wi-fi hotspot
- 5G is now present in Milano, through 4 licensed operators and with increasing coverage (29 municipalities out of 133 - 64.5 % of the territory's population)

Sensor outreach

- The level of sensor deployment in Milano is high: 16 out of 19 types of sensors are present in the city (vs. 17 in Barcelona, 14 in Berlin and Paris)
The types of sensors installed in Milano collect data regarding: mobility, road network and traffic; tourism; security; energy; environment
- Active sensing (the ones providing real-time insights to the users) is present in 12 of the 16 types of sensors deployed in Milano
- Milano has as many as 1,371 open datasets as of June 2021: lower than Berlin (2,703), but more than double the number of the other 3 benchmarks

Payments and Smart Governance

- Milano is the only city among those considered to allow the use of credit cards as travel tickets
- Along with Barcelona and Paris, the city has introduced contactless payments on public transport.
- Online ticketing for museums and monuments is possible
- Through the myCicero app, it is possible to manage payments for actual minutes of use and parking passes from a cell phone

Sharing

In 2020, car, motorbike and bike sharing confirmed a certain "vitality" in our country.

- The circulating fleet of car sharing in Italy at the end of 2020 was about 7,300 vehicles, of which 12 % electric
- The circulating fleet of sharing bicycles in Italy at the end of 2020 was 34,705 vehicles (+4 % over 2019). The weight of electric bicycles within the Italian sharing fleet has been growing steadily since 2017 (30 % in 2020).
- The circulating fleet of sharing scooters in Italy at the end of 2020 was 7,360 vehicles (+45 % vs. 2019). Electric scooters within the Italian shared-sharing fleet now account for almost all of the fleet, accounting for 97 % in 2020.
- The circulating fleet of electric sharing scooters in Italy at the end of 2020 was 35,550 vehicles, a very strong increase over the previous year (+665 % over 2019)

Electric Vehicles

According to the Smart Mobility Report 2021, published by the Energy & Strategy department of the Osservatori of the Polytechnic School of Milano, the “driving” role for the diffusion of EVs of the simultaneous presence of incentives for the purchase of electric vehicles, a “wide-spread” charging infrastructure and the increase of the range of electrified models available is confirmed and strengthened.

In terms of purchase incentives, buyers of electric vehicles were able to benefit from the well-established Ecobonus, to which an additional bonus was added for registrations occurring between August 1, 2020 and December 31, 2020 (pursuant to the “Decreto Rilancio”) and for those between January 1, 2021 and December 31, 2021 (pursuant to the Budget Law 2021).

- In the first nine months of 2021, the threshold of 100,000 registered electric cars in Italy was exceeded (+333 % vs the same period in 2020), a value equal to the entire stock of electric cars on the road in Italy at the end of 2020.
- 59,875 electric vehicles registered in Italy in 2020 (registering a +251 % over the previous year), of which 32,500 BEVs (+203 % vs 2019) and 27,375 PHEVs (+334 % vs 2019).
- 280,000 electric bicycles (vs 195,000 of 2019), 5,053 electric mopeds (vs 4,029 of 2019) and 5,607 motorcycles (+210 % vs 2019) were registered in Italy in 2020.
- Lombardy and Northern Italian regions accounts for the 67 % of the total number of registered electric cars

Infrastructures

Our country has followed global and European growth trends in terms of growth in charging infrastructure installations, both in 2020 and early 2021.

- As of July 2021, there are an estimated 21,500 public and private public access charging points in Italy (+34 % year-on-year).

- Lombardy and Northern Italian regions are equipped with the majority of these infrastructures, with an average of 1,500 charging points each.
- 55-60 % of the installations are in urban areas, 30-35 % are located at so-called “points of interest” (i.e., hotels, restaurants, shopping malls), while the remaining 10 % finally belongs to charging points in suburban areas
- 90 % of the points are of the “normal charge” type, while about 9 % of the charging points are of the “fast charge” type.
- By 2020, more than 24,000 private charging points were estimated to be installed (75% wallboxes and 25% columns), more than triple the number in 2019 and “driven” by growing registrations of electric vehicles.
- An estimated 50-55 % of private charging points are installed in Northern Italy, 30-35 % in the Center, and 10-15 % in the South.

Milano Smart City Alliance

Milano Smart City Alliance is an initiative promoted by Assolombarda to co-design the city of the future through the development and testing of shared and innovative public-private initiatives.

It concentrates the innovation forces of A2A Smart City, Accenture, ATM, Cisco, Coima, Dassault Systèmes, Enel X, Fastweb, IBM, Siemens, Signify, TIM and Assolombarda to find an effective and innovative approach to the challenges of the coming decades, to build increasingly livable, resilient and sustainable cities, to foster the development of an open and collaborative ecosystem. Milano Smart City Alliance stands as a new model of urban development based on three pillars: technological innovation, sustainable development and active collaboration between businesses, institutions and all the stakeholders of the city and the territory.

CLEAN ENERGY & SYSTEMS

Both the European Union and Italy have been targeting very ambitious goals concerning the energy provision from renewable sources. The European Union approved in January 2020 a comprehensive plan to combat climate change, which calls for a 55 % reduction in GHG emissions from 1990 levels by 2030 and a total abatement by 2050.

In the wake of EU initiatives, Italy has designed the “Piano per la Transizione Ecologica” and the “Piano Nazionale Integrato per l’Energia e il Clima” 2030 (PNIEC), which set targets similar to what Europe is calling for and, if possible, more ambitious: they call for an increase to 72 % of renewable sources in electricity generation (vs. PNIEC target of 55 %) and to install about 70 GW of additional renewable energy by 2030.

The country is already active in this regard and some investments have already been made.

- The new renewables capacity installed in Italy during 2021 was 1,351 MW (+70% in terms of capacity vs. 790 MW 2020).
- The country surpassed the 60 GW threshold from renewable sources (60,58 GW), which is almost 9 % of European total installed capacity (688 GW).

Concerning energy efficiency, Italy is addressing this topic with some specific initiatives, together with substantial fundings coming from the EU Recovery Plan.

The “Superbonus 110 %” is a measure approved by the Italian government in 2020, which consists of a 110 % deduction (decreasing in subsequent years) of expenses incurred for the implementation of specific interventions aimed at energy efficiency and static consolidation or seismic risk reduction of buildings. As a consequence of this initiative, a lot of outdated homes and buildings were brought in line with the required energy efficiency standards.

In particular:

- In 2021, energy efficiency investments in the industrial field amounted to more than € 2.2 bln.
- More than 90 % of these are related to hardware-type solutions, with the remaining share represented by investments in digital technologies and solutions.

CLEAN MANUFACTURING & CLEAN AIR

At the heart of one of the two biggest manufacturing regions of Europe, Milano is where most of the local and multinational companies carry out their businesses.

The economic landscape is composed of 83.503 manufacturing companies, meaning the 10 % of the companies present in Lombardy, hiring more than 1 mln employees (26 % of Lombard employment) and generating € 265 bln revenues each year, namely the 29 % of the country's total.

The regional manufacturing sector is exporting goods for € 107 bln (28 % of Italy total) and generating €58 bln of added value.

Given such a framework, if on the one hand the city's economy thrives, on the other the pollution indicators might suffer a significant exposure to industrialization and internationalization consequences.

Milano registered worse air cleanliness indicators compared to other European cities like Barcelona, Berlin, Munich and Paris.

This is the reason why the municipality is working on urban plans to abate or mitigate the climate impact of the businesses and transport, paving the way for numerous opportunities for startups and companies, which can really take advantage of these conditions by offering new products and services.

AFIL - Associazione Fabbrica Intelligente Lombardia

AFIL, the Smart Factory Association Lombardy, is the result of a process, led by the Lombardy Region, aimed at the creation of a network of clusters that, on thematic areas considered priorities at the national and international level, implement an integrated and sustainable system of infrastructures, skills and methodologies to support research and innovation.

The objective assigned to AFIL is to promote and facilitate research and innovation on enabling technologies and practices for the manufacturing sector to support and develop the leadership and competitiveness of Lombard manufacturing, through:

- Creating a stable community by linking companies, universities, research organizations and associations, fostering their collaboration by promoting research and innovation projects and initiatives.
- The being a reference entity of the Region for the definition of research and innovation strategies in the manufacturing sector.
- Supporting the development of an extra-regional Research and Innovation network through participation in the National Cluster Fabbrica Intelligente - CFI and linking with other European regions within the framework of Smart Specialization strategies.

CLEAN BUILDINGS

Construction Tech,
PropTech and Smart Spaces

The total business volume associated with Smart Building investments (excluding connectivity) in Italy in 2019 is equivalent to more than € 8 bln, of which 16 % in Automation technologies, 15 % in Management and control platforms and 69 % in Building devices and solutions.

The research center of the Politecnico di Milano, the Osservatorio Energy & Strategy, outlined 3 scenarios (basic, moderate and accelerated) of future investment associated with Smart Building-related technologies, with a 2025 time horizon.

Taking into account the midway scenario, investments in heat pumps are estimated to grow 74 % in 5 years, reaching close to € 1 bln.

Both the Automation Technologies and Control and Management Platforms segments are estimated to register an average growth of 16 % per year. It follows that the market for sensors and actuators will be around € 2.7 bln in 2025, while platforms for collecting, processing and analyzing acquired data will reach values of € 2.5 bln.

TALENT BASE

Milano education system and human capital is top tier in the Italian and European landscape thanks to the great minds that have shaped the City and Country's centuries-old history. Indeed, the city stands as the main attractive pole when speaking about business, entrepreneurship and innovation in Italy.

The city is known as the Italian economic and financial capital and hosts a dynamic and creative environment for start-ups: around 227,000 are the students (23,000 of which coming from abroad) attending each year the courses provided by the 11 universities and academies that compose the higher-educational ecosystem of the city.

According to fDi intelligence, the city ranks 3rd in Europe for innovation & human capital costs.

Education:

- Around 84 K out of 227 K students are enrolled in Engineering, Architecture and Economic related courses
- Almost 180 K students (2020), a 3 % YOY growth, were pursuing their higher education goals by attending academic courses (excluding Medicine, Veterinary, Health Professions) of the city's universities
- 260 K is the number of students, excluding data related to courses in Medicine, Veterinary, Health Professions, that were enrolled in Lombard universities in 2020, a 6 % YOY increase

The pool of graduates in Engineering, Design, Architecture grew by 53,000 units in five years.

- 24,447 is the number of new graduates (in five years) in Biotech, Mathematics & Physics disciplines
- The talent base of graduates in Economics,

- cs, Management & Business related fields has grown by almost 40,000 units between 2017 and 2021
- 70+ between graduate and undergraduate courses is the educational offer the academic system of the city can provide in Engineering, Architecture and Design related fields
- 80+ courses, both at graduate and undergraduate level, in Biosciences and Mathematics
- 100+ graduate and undergraduate courses are provided by the higher education system of Milano to those students that aim at developing skills in Economics, Business and Management
- yyy bachelor's courses in Cleantech-related fields; rrr master's courses ...
- Among these universities, Politecnico di Milano ranks 13th worldwide for Engineering & Technology, Bocconi University 6th worldwide and 2nd in Europe for Business & Finance
- Bocconi University, Politecnico di Milano, Bicocca University and Università degli Studi di Milano are involved in the Ellis program
- According to Education First, in Milano English proficiency is at a high level. As a result, there are 883 postgraduate courses delivered in English

Jobs:

- Milano accounts for 51 % of Lombardy workforce (4.7 mln) and 8 % of the Italian (25 mln), employing 2.4 mln people
- 255 K+ foreign citizens moved their residence to Milano and now represent almost 18 % of the population
- The average job tenure in Italy is more than 12 years, behind Greece alone (See graph below - datasource OECD)

Salaries:

Accenture data processing - average salaries in Milano:

- Data Scientist € 34,508
- Key account manager € 44,000
- Architect Engineer € 42,514
- Database Administrator € 38,067

Bocconi University

Bocconi isn't just an education. It's a springboard for your ambitions. It was founded in 1902 to help advance social and economic progress across Europe and beyond. It is a mission that is shared by its community of over 100,000 alumni in industries across the globe. For generations the university has shaped the knowledge and values of innovators and future leaders.

Bocconi is ranked 1st in continental Europe for accounting and finance, 2nd for business and management, and first for economics and econometrics.

Bicocca University

Bicocca is a young university that connects students from all over the world, making them members of the global community.

Since its foundation, the University of Milano-Bicocca has reached beyond its borders entering into various agreements with European and non-European universities.

Research is always global. The teachers are members of international research groups that share numerous projects and initiatives, with a common commitment to increase the quality of teaching.

Politecnico di Milano

Politecnico di Milano is a scientific-technological university that trains engineers, architects, and industrial designers. The University has always focused on the quality and innovation of its teaching and research, developing a fruitful relationship with business and a productive world through experimental research and technological transfer.

Today the drive to internationalization sees Politecnico Milano taking part in the European and world network of leading technical universities and it offers several courses besides many which are entirely taught in English.

Politecnico di Milano is ranked 3rd in continental Europe for technology & engineering.

Milan State University

Also known as 'La Statale', the University of Milano is, relatively speaking, one of Italy's younger university institutions. It was founded in 1924 thanks to the tenacious efforts of physician Luigi Mangiagalli, who in creating La Statale, realized his long-held dream of building a university for Lombardy's regional capital.

A multidisciplinary, innovative educational offering and a continuous focus on the new professional skills demanded by a rapidly evolving labor market have characterized the University since its early days. Over the years the University has also strengthened its commitment to technology transfer and to the practical application of scientific research results in the economic-production context.

MUSA

MUSA (Multilayered Urban Sustainability Action) is the ecosystem of sustainable technology and innovation, born in Milan in September 2022 from the collaboration between the University of Milano-Bicocca, Politecnico di Milano, Bocconi University and the State University of Milan.

The MUSA ecosystem priority line falls under the "Climate, Energy, Sustainable Mobility" area of the National Research Plan. MUSA has the ambition to transform the Milan metropolitan area into an innovation ecosystem for urban regeneration, intervening in different areas, from social to technological, to become a national and European model.

The project's areas of intervention, called "spokes," are six, funded with around € 110 mln of the Italian NRRP and each coordinated by one or more universities: Urban regeneration (Urban regeneration - City of tomorrow)

Big data and open data for Life Sciences (Big Data-Open Data in Life Sciences)
Entrepreneurship and Technology Transfer (Deep Tech: Entrepreneurship & Technology Transfer)

Economic Impact and Sustainable Finance (Economic Impact and Sustainable Finance)

Sustainable Fashion, Luxury and Design (Sustainable Fashion, Luxury and Design)
Innovation for Sustainable and Inclusive Societies (Innovation for Sustainable and Inclusive Societies)



An aerial photograph of Milan, Italy, showing a mix of historic buildings and modern structures. The foreground is dominated by a large park with trees in autumn colors. The sky is blue with scattered white clouds. A large, semi-transparent graphic overlay is centered on the image, consisting of a light beige trapezoidal shape on top and a bright blue trapezoidal shape on the bottom, both pointing towards the right. The text 'MILANO CLEANTECH COMMUNITY' is overlaid on these shapes.

MILANO
CLEANTECH
COMMUNITY

PUBLIC LANDSCAPE

The Municipality of Milano has embarked, in the last few years, on a virtuous path aimed at tackling climate and pollution-related problems, proving to be a dynamic city at the forefront when it comes to attention to major social problems.

Air and climate plan

Piano Aria Clima

The plan, approved by the city council in early 2022, has among its goals the reduction of CO₂ emissions by 45 % by 2030 and bringing them to zero by 2050, the achievement of 75 % recycled waste by 2028, as well as energy efficiency in buildings and urban forestation. Furthermore, Milano aims to comply with the limits on NO_x and PM₁₀ concentrations set by European Directive 2008/50/EC and contain the local temperature increase to within 2°C by 2050. The main areas of focus will be mobility, for which a transition from polluting vehicles to green and shared transportation is planned; renewable energy production, through the installation of photovoltaic panels to meet the energy needs of public offices, schools, and public housing; and the transformation of parking areas into parks and green spaces and the planting of trees.

“Piano Urbano della Mobilità Sostenibile” (Sustainable Mobility Urban Plan)

The Sustainable Mobility Urban Plan, approved by the Milano City Council in November 2018, contains strategies and guidelines on the future of the city's mobility. It is the tool required by national legislation to "meet the mobility needs of the population, ensure the abatement of air and noise pollution levels, the reduction of energy consumption, the increase of transport and road traffic safety levels, the minimization of individual private car use and traffic moderation, the increase of transport capacity, the increase of the percentage of citizens transported by collective systems, and the reduction of congestion in urban areas."

General Urban Traffic Plan & Urban Parking Plan

In 2022, both plans, first approved by the municipality in 2013, went through an updating process to check their consistency with the decisions adopted by the current Administration.



Reinventing Cities @Milano

Reinventing Cities is a global competition sponsored by C40 Cities Climate Leadership Group with support from Climate KIC. C40 is a network of about 100 globally influential cities committed to tackling climate change. C40 supports cities in collaborating with each other and sharing knowledge in order to achieve an inclusive, prosperous and sustainable future. The international Reinventing Cities program, involves Cities in identifying abandoned or underutilized publicly owned sites ready for redevelopment, and private entities, organized into Multidisciplinary Teams, in submitting proposals to redevelop sites by finding solutions to the following 10 climate challenges:

1. Energy efficiency and low-emission energy
 2. Life cycle assessment and sustainable management of building materials
 3. Low-emission mobility
 4. Climate resilience and adaptation
 5. Green land services and green jobs
 6. Sustainable management of water resources
 7. Sustainable waste management
 8. Biodiversity, urban reforestation and agriculture
 9. Inclusive actions, social benefits and community engagement
 10. Innovative architecture and urban design
- Milano joined the initiative for three successive editions by putting up 5 sites in the first edition, 7 sites in the second edition and 6 sites in the third edition: 9 proposals have already been awarded.

Urban Regeneration

Urban regeneration in Milano goes through a set of actions aimed at the recovery and redevelopment of an urban space. This process takes place through recovery interventions at the level of infrastructure and services, limiting land consumption to protect environmental sustainability. The goal of urban regeneration is to help make cities sustainable and more people-friendly. Redeveloping an area or regenerating it is a way to improve the quality of life for citizens, seeking to upgrade the space occupied by people and increase its value, wherever possible.

With the steady decline of building areas regulated by land use discipline, the idea of reclaiming existing spaces and areas as much as possible has begun to spread. For this reason, architects, engineers and planners have revised their priorities by favoring more rational construction and encouraging urban redevelopment actions, especially of the most degraded suburban areas.

There are more than 100 urban regeneration projects - with implementation processes already started - active throughout the territory: these are published and periodically updated on the "Atlas" that the municipality has made available through its website.

Among these, the project INNESTO, the first Zero Carbon Social Housing district in Italy, is set to be the showroom of Milano's new sustainability strategies.

INNESTO proposes the development of an innovative 4th generation district heating (4GDH) system, powered by renewable sources (including an urban wastewater heat-recovery system). The design of Nearly Zero Energy Buildings is coupled with a pre-assembled construction technology and an optimal mix of bio-sourced materials. The project promotes active mobility, public transport, sharing systems and a drastic reduction of private vehicle use through reduced availability of parking areas.

Beyond reaching zero carbon, INNESTO encompasses a bold proposal for a private Milano Zero Carbon Fund aiming to implement citywide solutions to reduce GHG emissions and the settlement of a Circular Economy District promoted by primary institution.

Forestami

Forestami is the project promoted by the City of Milan, together with other major territorial public bodies, to plant 3 mln trees by 2030 with the aim to grow natural capital, clean the air, improve life in greater Milano and counter the effects of climate change. This was undertaken by establishing a fund to collect resources from businesses and citizens to be allocated to forestation in the metropolitan area.

Clever Cities Milan

Clever Cities is a € 15 mln project, funded by the European commission (Horizon2020 innovation fund), to foster sustainable, socially inclusive urban regeneration, across Europe, South America and China. Milano is among the front-runner cities, along with London and Hamburg, which are leading the way in implementing urban green space interventions, known as nature-based solution. In Milano, the local team is reclaiming and multiplying green spaces by spreading green roofs and walls in the south

of the city. In parallel, the Tibaldi railway station is being re-designed through innovative elements, such as natural noise barriers, natural elements on embankments, and external green waiting areas. Besides, within the Giambellino district, nature will be the protagonist of a new public park, which will host one of the first gardens for birdlife within the city, helping to attract butterflies and other pollinators.

The Italian government has delivered interventions and plans to tackle the climate issue and turning the tide on the environmental impact produced domestically nationwide. This activity involved different national ministries and introduced various policies and programs, such as: the National Energy & Climate Plan, The national Energy Efficiency Fund, the Superbonus 110% and the NRRP.

National Energy & Climate Plan

The National Integrated Energy and Climate Plan 2030 is the key tool for changing the country's energy and environmental policy toward decarbonization. The Plan is structured into five lines of action, which will be developed in an integrated manner: from decarbonization to energy efficiency and security, through the development of the internal energy market, research, innovation and competitiveness. The high-level targets are to reduce emissions in the large-scale industry sector by 56 %, in the tertiary and transportation sector by 35 %, and to achieve a 30 % share of renewable energy within the country's energy mix.

National Energy Efficiency Fund

The National Energy Efficiency Fund is an incentive that supports the implementation of interventions aimed at ensuring the achievement of national energy efficiency goals. The financial resources allocated for the incentive amount to about € 310 mln and are directed to:

- » Companies
- » ESCOs (Energy Service Companies)
- » Public Administrations

Companies and ESCOs must meet certain formal requirements, such as having been established for at least 2 years, being on the business register. For these categories, facilities are granted in the form of financing and/or guarantees.

Superbonus 110 %

In 2020, the Italian government approved the measure “Superbonus 110 %” which consists of a 110 % deduction of expenses incurred for the implementation of specific interventions aimed at energy efficiency and static consolidation or seismic risk reduction of buildings. The relief is in addition to the deductions, already in effect for many years, due for energy upgrades to buildings (ecobonus). Indeed, this incentive has been effective in bringing large numbers of outdated homes and buildings in line with the required energy efficiency standards.

NRRP

In the wake of the Covid-19 pandemic crisis and in full consistency with the six pillars of the Next Generation EU, Italy has presented a National Recovery and Resilience Plan that includes investments and a coherent reform package, to which € 191.5 bln in funds are allocated. On top of these resources, the government approved the establishment of a complementary fund of € 30.6 bln, bringing the total funds set aside to € 222.1 bln in total.

Among the six envisaged missions of the Plan, there are the “Green Revolution and Ecological Transition” and “Infrastructure for Sustainable Mobility”. A total of € 68.6 bln is allocated for the first one (€ 59.5 bln from the Next Generation EU RRF Facility and € 9.1 bln from the Fund) with the main objectives of improving the sustainability and resilience of the economic system and ensuring an equitable and inclusive environmental transition. [LINK](#)

The second mission mentioned, with a total amount of € 31.5 bln (€ 25.4 bln from the Next Generation EU RRF Device and € 6.1 bln from the Fund) has its primary objective in the development of a modern, sustainable and extended transportation infrastructure for all areas of the country. [LINK](#)



CDP

Cassa Depositi e Prestiti is the financial arm of the Italian state, the institution through which the Country's sustainable development is promoted. Founded in 1850 to collect postal deposits from Italian citizens, today it holds assets of € 410 bln, through which it finances infrastructure and investments by public administrations and territories and invests in social infrastructure, sustainable mobility and new forms of living.

Within the group, CDP Venture Capital Sgr was set up (with 70 % stakes held by CDP Equity and 30 % by Invitalia) with the aim of making venture capital a backbone of the country's economic development and innovation, creating the conditions for the overall and sustainable growth of the venture capital ecosystem.

The objectives are:

- Broaden direct and indirect investments, managing existing funds and also fostering the emergence of new managers, to support startups at all stages of the life cycle.
- Developing "the community" by involving companies, investors and startups to create moments of sharing and new opportunities.
- Evolving "the system" by working in synergy with national agencies and institutions that support startups and activate collaborations with relevant players internationally.
- To expand "the market" by attracting new investors, both domestic and international, to the venture capital asset class by promoting a new culture of venture capital and entrepreneurship in Italy.

CDP has thus set up a Venture Capital system (see next chapter [Access to Capital](#)), together with acceleration, incubation and technology transfer programs (see next chapter [Tech Transfers, Incubators and Accelerators](#)) and support for startups, such as to foster Italy's entrepreneurial development and innovation system.

ENEA

ENEA is the National Agency for New Technologies, Energy and Sustainable Economic Development, a public law body aimed at research, technological innovation and the delivery of advanced services to enterprises, public administration and citizens in the fields of energy, environment and sustainable economic development. ENEA has highly qualified staff, advanced laboratories, experimental facilities and instrumentation of excellence for the implementation of projects, studies, tests, evaluations, analyses and training services with particular reference to product and process innovation and the exploitation of results to contribute to the development and competitiveness of the Country System.

Its strengths are applied research, technology transfer and technical and scientific assistance to companies, associations, territories, central and local governments: also for this, unlike other research organizations, the institutional reference is the Ministry of Economic Development.

Areas of specialization are energy technologies (renewables, storage, smart grids) where the Agency is also the coordinator of the National Energy Technology Cluster, nuclear fusion and safety (where the Agency is the national coordinator for research), energy efficiency (with the National Agency for Efficiency), technologies for cultural heritage, seismic protection, food safety, pollution, life sciences, strategic raw materials, and climate change. Among emerging issues, ENEA supports the production system and public authorities (Ministry of Environment and Ministry of Economic Development in particular) in the transition to circular economy and resource efficiency.


To strengthen its activities, ENEA collaborates with a number of national and international research organizations and institutions such as Texas Tech University, Stanford Research Institute, New Delhi University, the Chinese Academy of Sciences, ICTP, TWAS, and participates in technology platforms and networks such as EERA (European Energy Research Alliance), ECRA (European Climate Research Alliance), MEDENER, and Enterprise Europe Network, the largest network of services supporting competitiveness and innovation for SMEs.

ASVIS, the Italian Alliance for Sustainable Development, was established in 2016 to raise awareness of the importance of the 2030 Agenda for Sustainable Development and to mobilize for the purpose of achieving the Sustainable Development Goals (SDGs) through:

- the development of a culture of sustainability at all levels, orienting production and consumption patterns to this end;
- the analysis of the implications and opportunities for Italy related to the Agenda for Sustainable Development;
- contributing to the definition of an Italian strategy aimed at the achievement of the SDGs (also using analytical and forecasting tools that help the definition of policies for sustainable development) and the implementation of a system to monitor Italy's progress towards the SDGs.

Fondazione per lo Sviluppo Sostenibile is an authoritative reference point for the main sectors and players in the green economy: the economics of sustainable development. Through civic and environmental engagement, it is concerned with providing support to businesses and organizations that share a common path of ecological transition. It relies on continuous updating, producing and disseminating publications, studies and research, information and discussion meetings, involving institutions and stakeholders, and networks to promote the strategic themes of the ecological transition: climate neutrality and energy transition, circular and regenerative economy, green cities and sustainable mobility, and natural capital.





CORPORATES & STARTUPS

Milano's cleantech ecosystem is vast and diverse, composed of large public and private companies and growing startups.



A2A

A2A is an Italian utility company, owned by the municipality of Milano and neighboring Brescia (25 % each). The company is active in electricity (production, distribution, trading and sales), gas (supply, distribution, trading and sales), district heating, waste (collection, treatment and disposal), integrated water cycle, public lighting and other activities and has a strong presence in the North of Italy. In 2021, the group showed growth both in terms of revenues (+69 %) and in terms of production from photovoltaic and wind renewable sources (from 129 GWh in 2020 to 313 GWh) compared to 2020.

A2A is a “Life Company,” given its mission to create value and benefit for the community it serves. This is confirmed by the full integration of ESG goals into business strategies, fostering the sustainable development of the country. To achieve its mission, which is embodied in the realization of a model for energy and ecological transition, the company published an ambitious plan for 2030: a 10-year investment plan, based on energy transition and circular economy, of more than € 18 bln, which exceeds the COP26 targets: A2A wants to anticipate the goal of zero emissions by 10 years, reaching carbon neutrality in 2040.

Thanks to an Open Innovation process, through which to generate and promote ideas and turn them into products or services for the community, and a Corporate Venture Capital (CVC) it welcomed 600 startups into the ecosystem.

ATM

ATM S.p.A., a wholly owned subsidiary of the Municipality of Milano and Holding Company of the Group “Azienda Trasporti Milanesi”, manages the public transport and integrated mobility services of the city and its surroundings, serving more than 3.3 mln inhabitants. Its Full Electric Plan, supported by investments of more than € 2 bln, aims to improve service in efficiency, accessibility, competitiveness, comfort and environmental sustainability. By the end of 2030 the bus fleet will be 100 % electric and ATM vehicles consumption will be reduced by nearly 75,000 tons/year, compared to 2020. The Plan also includes the construction of four new full-electric depots, the expansion of the San Donato depot, which will be stocked with charging systems, and the renovation of existing depots housing the road fleet, facilities that will be equipped with the appropriate facilities and technologies to house and recharge electric vehicles; investments also include 83 new electric company cars used for in-line assistance to vehicles, maintenance work on metro and tramway network facilities to replace old cars with endothermic engines.



Snam

Snam is Europe’s leading operator in natural gas transport and storage. It operates a pipeline network of approximately 41,000 km spanning from Italy, Austria, France, Greece and the United Kingdom. It plans to build 150 new natural gas refueling stations (compressed and liquefied) to make this fuel increasingly available to cars, buses, trucks and potentially also ships and trains.

3.5 % of the world’s gas storage capacity
2021 total revenue: € 3.297 bln
€ 1.3 bln investments on green energy projects in 2021-2025

Enel Group

Enel is one of the world's leading players in the energy and gas market. The Group's total capacity is 91.4 GW of energy, more than half of which is zero-emission, and is distributed through a network of 2.2 mln kilometers, supplying power to nearly 74 mln households and businesses. Enel's 2022-2024 Strategic Plan expects unprecedented global investments and anticipates "Net Zero" commitments to 2040 and accelerating the electrification of consumption. It plans to invest €210 bln through the traditional Ownership model and the Stewardship model, which catalyzes investment through joint ventures and partnerships to fully leverage valuable expertise by offering services.

By 2030 the Group expects to triple its capacity from renewable sources, with an increase of around 105 GW of capacity, cutting its direct CO2 emissions by 80 % when compared with 2017 levels - a goal in line with the 1.5° scenario.



Enel Green Power

Enel Green Power operates on 5 continents (21 countries) with more than 1,200 plants and is involved in the development and management of power generation activities from renewable sources such as solar, geothermal, wind and hydro. Installed renewable capacity of 54.2 GW.



Enel X

Enel X provides innovative products and services to serve energy transformation at the domestic, urban, and industrial levels, with a deep focus on sustainable development. It leverages the benefits of digitalization to optimize the energy offering. It is active in the areas of electric public transport, smart home, and smart city, smart street lighting and services for the integration of renewables, and energy efficiency for businesses and public administrations. It operates in the following sectors: e-Industries, e-Mobility, e-Home, e-City.

Enel Open Innovability® & Innovation Hubs

Open Innovability® is the crowdsourcing platform created by Enel to gather innovative and sustainable solutions based on two concepts that sum up our Group's philosophy: Innovability® and Open Power. To date, the platform has been able to reach a community of 500 thousand "active solvers" and 11,000 startups from more than 100 countries, who have proposed more than 7 thousand solutions. Anyone can contribute by submitting solutions related to specific challenges or original projects. Milano hosts one of its hubs dedicated to the research on infrastructure and network technologies.





Lendlease

LendLease is an Australian multinational infrastructure group operating in more than 40 countries worldwide, but with only two offices in Europe: one in London, UK and one in Milano, Italy.

- » approximately € 7 bln revenues (AU\$ 10.2 bln)
- » 10,000+ employees

The company recently promoted 2 major urban regeneration projects for the city, with a total estimated value of around € 8 bln: Milano Santa Giulia and the Milano Innovation District - MIND.



Federated Innovation

Within MIND framework, 36 global corporations federated under a new legal entity, working together in a virtuous and collaborative environment, to accelerate the translation of ideas into new products, processes, and services that will contribute to the economic revival of Italy. The new ecosystem is organized within 11 key sectors, with the goal of creating and boosting innovation, in an open and collaborative environment. This model is designed to go beyond open innovation and proprietary innovation, while contributing to the goal of making MIND a unique scientific park where all the players contribute to the ecosystem and make themselves available to create value for the whole territory. Companies joining the Federated Innovation™ @MIND will develop innovative projects in the areas of: Agrifood Tech & Wellbeing, Construction

Tech, Greentech & Circular Economy, and Life Sciences & Health Care, among others. The network is organized in 5 different layers of participation, working together to develop innovation initiatives, including the possibility for companies registered in Italy, and for talents to join the network without admission costs and specific forms of commitment towards the MIND district, while being able to submit their projects to the community and find valuable partners and use the District as a test-bed to experiment their technology. A structured system of interaction aimed at TT and open innovation between universities, research bodies and companies, is organized in different thematic areas with access to research infrastructure, know-how, funds and networks.



MIND - Milano Innovation District

MIND is a 1 mln sqm innovation park district with a unique international platform to capitalize

the global and local research and business excellences. The project, started in 2018, represents the perfect example of urban regeneration and decarbonization, made up by reutilizing and renovating existing facilities (with specific purposes) and breathing new life into an area that would otherwise have ended up on the fringes of city life. The project aims to be a zero-carbon precinct that is committed to tackling climate change throughout all stages of the building lifecycle.

Born on the premises of Milano World Expo 2015 themed “Feeding the Planet, Energies for Life”, the site represents an overall public-private investment of € 2.54 bln+ on the private site and ca €1.5 bln on the public side. It will host over 60,000 people/day by 2030, making it one of the top 200 Italian municipalities in terms of population.



- **Energy sources and efficiency:** secure energy demand through certified renewable sources and maximize the efficiency of heating and cooling solutions. Aligned with Lendlease’s 1.5°C trajectory, it has a fully decarbonised grid which includes onsite solar power generation, and all buildings exceeding regional requirements for energy performance by 20 %.
- **Construction materials and techniques:** use of low-carbon materials (especially sustainable wood), recycling of construction waste in accordance with a circular economy model, and adoption of advanced design and construction techniques (Design Manufacturing and Assembly, Digital Twin). The site is targeting the diversion of 95 % of construction waste from landfill during development, and 95 % onsite recycling with no more than 5 % of waste sent to landfill during operation by 2040. To accelerate the use of sustainable timber in buildings at MIND, Lendlease has established a dedicated studio in Milano in partnership with Stora Enso, one of the world’s leading suppliers of sustainable timber. The studio will enable the co-development and co-design of new products with supply chain partners through rapid prototyping.

- **Site mobility:** designing the district for an all-electric transportation system, as well as conducive to cycling and walking. The mobility strategy for MIND is designed to achieve fully electric transport onsite and walkable and cyclable routes with a goal to reduce car trips within the precinct by 50 %.
- **Naturalistic landscape:** ensure abundant presence of naturalistic elements, both trees and water channels, and integrate it into the urban framework. Urban heat island effect and flooding were identified as the top two climate risks for the site. Identifying these risks early enabled the project team to investigate and embed appropriate mitigation measures into the design, including enhanced nature-based infrastructure, such as approximately 300,000 sqm of green and blue areas, outdoor office space and training areas. MIND has been designed according to the World Bank's One Health Framework to facilitate the health and wellbeing of residents, workers, and visitors. The project has strategies in place to conserve natural resources like water, minimize waste and source materials responsibly. MIND will reduce water demand by specifying metering, low flow fittings and water networks.

The MIND project is designed to generate social value for the community and is working in partnership with the Italian Ministry of Justice on Programma 2121, which provides training and job opportunities to previously incarcerated individuals. It is estimated that Programma 2121 will deliver AU\$2.39 mln in social value from 2019-2022, with a Social Return on Investment of AU\$4.50 for every AU\$1 spent in that time-frame.

All this is turning MIND into a breeding ground for Green and Circular Economy solutions and Clean technologies development where to generate answers to the environmental and social concerns.



WEST GATE

The Canada Pension Plan Investment Board (CPP Investments) recently signed a €200 mln deal with Lendlease which will support the development of the West Gate area.

This 300 K sqm area will be the laboratory of the city of the future, a place where digital and technological solutions, in line with the ecological and digital transition directives launched by the recently approved NRPP, will be pioneered and experimented to make MIND a district devoted to innovation, sustainability, circularity, competitiveness, culture and inclusion.

The heart of the project will beat in the Common Ground, which will cross the entire area and be delivered in 2024. This will be followed by the construction of the other key lots and distinctive elements of the entire project: the “Pier” mobility hub, and the Zenith and Horizon offices.



Falck Renewables

Falck Renewables S.p.A. designs, builds and manages plants that generate clean energy, providing also highly specialized energy management and downstream services to both energy producers and consumers through its subsidiary Vector Renewables.

56 plants in Europe and US
installed capacity of 1,370 MW
around 700 employees
In 2021, revenues of € 568 mln, +47.9 % compared to 2020.
€ 1.8 mln spent on R&D activities in 2021

e-Novia

e-Novia was born in Milano in 2015 as an Enterprises Factory. Starting from a raw material consisting of innovative technologies in the field of robotics – generated thanks to the strategic partnership with universities, research centers, Italian and international corporates – e-Novia builds deep tech products and creates the most effective business model to bring them to the market. The industrial strategy of e-Novia focuses on eight deep tech companies, already active with products launched on high potential markets (Smart City, energy and sustainable mobility among others). These companies operate in the modern areas of vehicular robotics (Blubrake, e-Shock, HiRide, YAPE and Y.Share) and collaborative and wearable robotics (Blimp, Smart Robots and Weart). Today e-Novia is a fast-growing company with more than 200 polytechnic talents, 8 focus companies, 39 entrepreneurial projects based on more than 100 patents and 14 partnerships with universities and research centers.

De Nora

De Nora S.p.A. is the world's largest supplier of high-performing catalytic coatings and insoluble electrodes for electrochemical and industrial applications, as well as a leading provider of equipment, systems, disinfection, and filtration solutions for water and wastewater treatment. Including production facilities, sales offices, and technical support, De Nora has 25 operating companies in 10 countries worldwide, with over 1700 employees and 5 R&D centers.

This widespread presence allows the Company to serve customers in 100 countries throughout the world effectively. De Nora currently holds about 260 patent families.

2021 revenues amounted to € 616 mln (+ 23 % compared to €499 mln in 2020)

Through investments in research and development, the Group intends to develop innovative electrochemical technologies, such as the production of green hydrogen, and at the same time to consolidate its leadership in the electrode technology and water treatment businesses.



Mapei

Mapei S.p.A. is a company, founded in Milano in 1937, operating in the field of chemical materials production for the building industry. In 2022 it recorded € 3.3 bln in sales, having employed 11,000 employees. It has 91 subsidiaries in 57 countries, 84 production centers in 35 and 32 R&D centers worldwide. Mapei seeks to provide a concrete action against climate change firstly by offering products that are safe, reliable and long-lasting while having the least possible impact on the environment. It produces innovative, recycled and ultralight raw materials, developed to reduce energy consumption and to have a very low emission of volatile organic compounds. Mapei is among the founding companies of Federated Innovation, a virtuous model for the development of innovation projects in the field of Life Sciences and City of the Future, within MIND, the Milano Science and Technology Park. It will operate within the Construction Tech cluster to promote ideas and cooperation in the development of innovative solutions in the building and construction industry.

Coima

Coima is an Italian leading group for the investment, development and management of property assets on behalf of international and Italian institutional investors. It has developed and still manages the Porta Nuova neighborhood, the largest urban redevelopment project in a historic center in Europe, located in a unique location 1 km away from the Duomo.

Through its parent companies the group manages 30 alternative real estate investment funds, properties for over 5 million square meters, and operates in the technological and digital field to support the processes of urban regeneration and digital transformation of physical spaces.

200 + professionals

3+ bln value of investments in the last 5 years

9.3 bln stabilized asset under management

» 2021 net profit up by 50% to € 23.1 mln

To reinforce its commitment to sustainable practices, COIMA established its Sustainable Innovation Committee, and subsequently submitted a number of strategic funds to the Global Real Estate Sustainability Benchmark (GRESB), a rating mechanism which measures the ESG performance of property investment vehicles.



STARTUPS, NETWORKS, & REGIONAL CLUSTERS

- **Energy Dome**

Energy Dome is a dynamic scaleup in the cleantech field based in Milano, since February 2020, and with ambitious goals of fighting climate change with a new technology for utility-scale long-duration energy storage and make renewable electricity dispatchable 24/7. The company wants to give a significative impact to the decarbonization, thanks to the proprietary technology, the CO2 Battery, which uses CO2 to store electricity cost-effectively, through a closed thermodynamic process, with unprecedented round-trip efficiencies and without emissions to the atmosphere. The company's great potential was demonstrated by the successful closing of an \$11 million bridge funding round led by the Evolution Fund of CDP Venture Capital Sgr, together with existing investor Barclays, taking to nearly \$ 25 mln the amount raised since the company exited stealth mode in February 2020. The first CO2 Battery plant (2.5 MW/4MWh) is currently operational in Sardinia, Italy, and connected to the grid. Energy Dome is developing a pipeline of projects in Europe, the U.S. and other regions around the world.

- **Vegea**

Vegea Srl is an Italian start-up that produces biomaterials for fashion, furniture, packaging, automotive & transportation. Established in Milano in 2016 with the aim to promote the integration between chemistry and agriculture through the development of new eco-sustainable products, the company relies on vegetal

and recycled raw materials to produce alternatives to synthetic oil-derived materials.

The continuous investment in research activities, along with synergies and partnerships with local industry and research institutes, enabled the development of innovative and low environmental impact technologies, enhancing an entire Made in Italy production.

In recent years, the company has activated many collaborations with famous brands in different sectors, from Calvin Klein and Tommy Hilfiger to Bentley, reaching international recognition and various awards thanks to the quality of its products.

- **Greenchic by Armadio Verde**

Greenchic is a marketplace for second-hand clothes, which now has more than 750 thousand members and moves 6 thousand garments in and out every day. The company has recently raised a \$ 3.1 mln Series A round of funding.

Founded in 2015 with the desire to create new consumption models with a positive impact on the environment and people, today greenchic is a benefit company and continues to pursue this goal with a strong focus on fashion and sustainability.

The company takes charge of collecting the clothes from the home and then, through an evaluation, awards credits that can be spent on the site to buy more clothes. Clothes that cannot be accepted are instead donated to charity.

This original solution guarantees:

- » Financial savings on clothing purchases;
- » Decreased resource consumption and CO2 emissions, resulting in reduced environmental impact;
- » Many clothes that cannot be resold due to minor defects, but are absolutely wearable, are donated to charity: this is about 300 clothes per day.

- **WiseAir**

Wiseair is a start-up born in 2019 from the minds of 4 young engineers. In 2021 the company raised \$ 1 mln seed funding.

Wisear's works with municipalities, citizens and companies with the mission of bringing back and maintaining clean air in cities. The company sells an air-quality monitoring platform with sensors providing real time data and insights on air quality for administrations.

It also includes the possibility to show data on the mobile app free-to-download for citizens.

Besides administrations, Wisear supports citizens through community projects. Each community project activated by Wisear is powered by the strong belief of being able to generate a positive impact in the world, also and especially thanks to concrete actions put in place by citizens.

- **Treedom**

Treedom is an Italian company that launched the first platform in the world that allows everyone to plant a tree remotely and follow it online. Since its start, Treedom has planted more than 3,000,000 trees in Africa, Latin America, Asia and Italy.

Thanks to its business model, Treedom has been certified as a B Corporation.

- **3Bee**

3Bee is a company that develops intelligent monitoring and diagnostic systems for bee health. Through its unique technologies, beekeepers can constantly and comprehensively monitor their hives in order to optimize production, save time and treat their bees by preventing problems and diseases.

- **Huna**

Huna is an innovative start-up active in the sector of public lighting, whose aim is to facilitate and make accessible the

management of plants, reducing their energy consumption and improving safety. Company's platform performs energy diagnostics by optimizing the design and management of public lighting networks, through a remote control and monitoring system that reduces energy waste and maintenance interventions, enabling industries to improve urban infrastructures, simplifying their management, increasing their potential, and reducing costs. Huna also provides the support of software and electronic devices to monitor, project and manage installations, including sensors to be applied on lamps.

- **Moove by Revo**

Revo is an innovative start-up founded in 2018 with the aim of offering a significant contribution towards circular economy, environmental sustainability and people's health.

Its main project is mOOve: an eco-sustainable, modular and easy-to-install cycle circuit. The mOOve tracks are easily removable as they are positioned on the existing substrates without the need for excavations, remaining separate and raised above the ground. The paths are created through the use of recycled polymers belonging to the most common categories, like plastic bottles, and at the end of their life can be recycled again.

- **Lombardy Energy Cleantech Cluster - LE2C**

LE2C is the Lombard cluster for energy and environment technology to support the growth, innovation and competitiveness of the Lombard production system. It was founded in 2009, on the initiative of 8 companies in the energy sector, and is now a recognized association, accredited by the Lombardy Region as the Lombardy Technology Cluster for Energy and the Environment. LE2C is an aggregation network to support the growth, innovation and competitiveness of the regional production system: it supports the development of research, innovation and training projects thanks to the presence, together with companies, of business associations, universities, knowledge and research centers, specialized entities, public administration and finance.

The organization is active in several international networks such as European Cluster Collaboration Platform (ECCP), Global Cleantech Cluster Association (GCCA), the Vanguard Initiative, a network of European regions working together on S3 (Science, society & sustainability issues).

To date, the cluster features 103 enterprises, 12 universities and research centers, 14 industry associations and nonprofit entities, 8 public sector institutions, 2 financial institutions, and 4 media.

The cluster's 2021-2027 strategy has identified 4 strategic pillars (CO2 Reduction, Hydrogen Development, Industrial Symbiosis, and Digitization) and 6 areas of action, through Energy & Cleantech Open Innovation, European and regional funded programs and special projects. The areas of action refers to specific segments of the Cleantech market:

- » Water Energy Nexus
- » Sustainable Manufacturing
- » Green Buildings
- » Smart Energy Systems
- » Clean Air
- » Circular Economy (as a cross-cutting point across the five Areas)

- **Green Economy Network**

Green Economy Network is the organization promoted by Assolombarda to stimulate new alliances between companies offering products, technologies and services for environmental and energy sustainability, to give visibility to their capabilities. It was created in June 2011 to strengthen the green supply chain in the Italian territory, and now hosts about 400 companies, with a total of 25 K employees and € 50 mln in revenues. The network has a very broad focus, covering all the main sustainability subjects, like Water, Waste, Air, Sustainable Mobility, Soil and Land Reclamation, External Noise, Renewable Energies, Conventional Energies, Energy Efficiency, and Eco-friendly Products.



TECH TRANSFERS, INCUBATORS AND ACCELERATORS

Tech4Planet (CDP)

Tech4Planet is the National Technology Transfer Pole created by CDP Venture Capital Sgr to facilitate market access and growth of new companies conceived within research laboratories dedicated to Environmental Sustainability, particularly in the energytech, circular economy, sustainable manufacturing, smart mobility and water management sectors. It was announced in late November 2021 by CDP, which has allocated a total of € 55 mln from CDP Venture Capital Sgr's Technology Transfer Fund, forming a collaboration with the Politecnico di Milano and the Polytechnics of Turin and Bari. Part of the overall investment will also be dedicated to support the launch of new Venture Capital Funds specializing in Environmental Sustainability sectors, which will be tasked with continuing to finance the most promising startups.

The entrepreneurial acceleration phase for the transfer of inventions to the market will then be carried out at the Gasometri Innovation District of the Politecnico di Milano in collaboration with PoliHub and specialized international partners, and will also be open to research projects already established in enterprises from the entire network of Italian universities and research centers.

The Fondazione Politecnico di Milano is among the co-investors of the Tech4Planet Cluster, and important agreements are being finalized with leading sector companies and institutional bodies, which will increase the investment of € 55 million being allocated by CDP Venture Capital, with a potential total estimated leverage effect of more than € 130 million over four years for the creation and development of more than 60 new companies.

Encubator

[Encubator](#) is the programme of the Milano Chamber of Commerce, PoliHub and Politecnico di Milano, created to identify technological projects in the field of sustainability and maximize their potential. These projects might come from universities or research centers spinoffs, but also Italian, European and international early stage startups, as long as they have technologies capable of solving major challenges in the Climate Tech and Sustainability areas. The program aims at supporting their growth through a 4-months acceleration program, managed by PoliHub, to support technological and business development, the issuance of cash grants and the access to the network and to investors thanks to the final Demo Day. Encubator perfectly reflects the ambitions of its advocates, who always seek to bolster innovation and promote the city and regional entrepreneurial ecosystem.

- **Impact Hub Milano**

Impact Hub is the largest global network bringing together communities of entrepreneurs sensitive to highly scalable social impact issues. Worldwide, Impact has over 100 spaces, on 5 continents and in more than 50 countries. Each Impact Hub is founded by a local team with a desire to create impact within their community in a unique and innovative way.

Impact Hub Milano is a Global Community, a Coworking Space and Event Location, an Impact Startup Incubator, and an Investor Group. Since 2014 it has been a Certified Startup Incubator with a focus on Social Impact and has numerous Incubation and Open Innovation projects with leading companies and organizations. To date, Impact Hub Milano incubated 200 startups and is holding shares in 25 of them in its portfolio.

- **Unicredit Start Lab**

Start Lab is the initiative created by Unicredit, one of Italy's two major banking institutions, to support young entrepreneurs, innovation and new technologies.

The UniCredit Start Lab business platform targets innovative startups in all sectors with a 360 degree support program that consists of numerous actions to empower your business ideas, including the award of a cash prize, mentoring activities, network development, advanced management training, and ad hoc banking services. Thanks to partnerships established with Italian and international incubators and investors, the program also ensures support for startups in the seed stage

It has a multi-sector scope and targets all high-tech startups established no more than five years ago and projects with a strong innovation component in more traditional sectors.

Specifically, the sectors of interest are:

- » Innovative Made-in-Italy (Agrifood, fashion & design, nanotechnology, robotics, mechanics, tourism)
- » Cleantech (Renewable energy, energy efficiency, sustainable mobility, waste treatment)
- » Digital (Cloud computing, mobile apps, B2B services & platform, hardware, Fintech, IoT)
- » Life Science (Biotech, pharma, medical devices, digital healthcare, assistive technologies)

To date, the Start Lab has analyzed 5000+ projects, engaged 350+ startups and 200 partners, and led 36 open innovation initiatives.

- **PoliHub**

PoliHub is the Innovation Park & Startup Accelerator of Politecnico di Milano, one of the world's best engineering universities. Its mission is to promote, leveraging the entire Politecnico ecosystem, the growth of new startups in the fields of science and technology in order to produce a strong incremental economic value and generate new opportunities for researchers, entrepreneurs, partner companies and investors

Ranked among top 5 of university business incubators in the world according to the UbiGlobal Index 2019-2020 ranking, in 2019 the 185 companies supported within the programs reached € 39.1 mln in aggregate turnover, received cumulative investments of € 17.8 mln and generated over 1000 jobs.

In addition to incubation and acceleration programs, PoliHub also provides Open Innovation services to corporates, seeking to tackle some specific challenges.

- **Plug and Play**

Plug and Play is the largest open innovation platform in the world and one of the leading early-stage startup Venture Capital. With a no-fee and no-equity model for its 60+ open innovation programs globally, Plug and Play supports corporates in deploying their innovation strategy through collaborations with stage-agnostic startups through a 3-month program.

It has 60,000 startups in its network, 1,100+ in its portfolio and partners-up with 530+ corpora-

tions worldwide. Plug and Play has chosen Milano to set up its European Sustainability Accelerator program from Silicon Valley in order to connect big corporations to the most disruptive startups on the market and favor their innovation transition. Key partners of the program are A2A, Buzzi Unicem and Poste Italiane.

The current Sustainability batch includes tech providers servicing the following areas: Circularity, Energy and Climate, Water and Air and Industrial Operations. Since the program inception in 2020, 247 startups have been top listed for the past batches, from which 64 were admitted to the program.

Plug and Play supported the growth of Italian startups such as Energy Dome, which developed a ground-breaking long-duration energy storage technology leveraging super-critical CO₂ and has raised \$ 23 mln in funding.

In addition, Plug and Play has also invested in and supported Greyparrot, which provides AI-based computer vision waste recognition software to monitor, audit and sort waste at scale, by introducing the startup to A2A, with whom they have developed a pilot project. Greyparrot has raised a total of \$ 15.9 mln in funding.

- **Berkeley SkyDeck Europe, Milano @MIND**

Berkeley SkyDeck, Cariplo Factory, and Lendlease launched a new accelerator program, which officially started in May 2022, focusing on accelerating European-based startups and based in Milano.

European startups will now have easier access to the vast network of advisors, mentors, VCs and companies that Berkeley SkyDeck has built over the past 10 years. The accelerator is a collaborative effort between three key players, including Berkeley SkyDeck, the global startup accelerator at the University of California, Berkeley; Cariplo Factory, an innovation hub specializing in entrepreneurial programs; and Lendlease, a global real estate and investment group. The acceleration program will take place in the first European headquarters of SkyDeck in the inspiring context of MIND Milano Innovation District, the innovation district born in 2018 in the former Expo area.

- **TerraNext (CDP)**

Terra Next is the Italian Bioeconomy accelerator of CDP's National Accelerator Network that supports the growth of innovative startups and SMEs with great business potential and a solution within the Bioeconomy, particularly with a focus on the Nutraceuticals, Biobased Solutions and Regenerative Agriculture segments.

The project has the participation of Intesa Sanpaolo Innovation Center as co-developer and promoter and the support of Cariplo Factory, which will operationally manage the program. Terra Next is designed on a 3-year time axis, with an initial endowment of about € 3.8 mln allocated by the Accelerators Fund of CDP Venture Capital in addition to about € 1.3 mln allocated by Intesa Sanpaolo Innovation Center and partners.

- **ComoNExT**

ComoNExT is a digital innovation hub based in Lomazzo (CO - 30 minutes from Milan), founded in 2010 by the local Chamber of Commerce with the aim of supporting business innovation.

ComoNExT attracts innovative companies, enabling the development of new entrepreneurship through the incubation of startups. Through the "NExT Innovation Model", an original company to company tech transfer model, ComoNExT develops Open Innovation projects using the expertise and know-how of Companies and Associations within its ecosystem.

ComoNExT is located between Milano and Como, inside the former Somaini Cotton Mill, which has been restored in an operation of industrial re-development, resulting in a brilliant example of architectural and urban deployment. Inside the Innovation hub are hosted both ma-

ture companies with established products, services, and markets as well as innovative startups, selected through targeted calls for ideas and co-incubation programs.

Since 2013, ComoNExT is also a certified incubator, according to the requirements of the Italian Ministry of Economic Development (MISE). Its technical structure supports the creation and growth of innovative companies by offering specialized management consulting services. Since its creation, 12 years ago, it has reached the following:

- » 150 founded companies
- » More than 100 incubated startups
- » More than 1.000 knowledge workers
- » An area of 21K sqm with a total of about 130 office spaces and laboratories
- » 2 Labs: Fabbrica Diffusa®, an industry 4.0 demo site, and the NExT Marketing Lab®, a neuromarketing technologies demo site.
- » A wide network with international links including companies, incubators, universities, research centers, banks, investors
- » More than €10mln raised for hosted companies through funded projects or venture capital matching
- » NExT Innovation® original transfer model based on the involvement of the competences of all hosted companies

ComoNExT in 2021 promoted the newly established C.NEXT SpA holding, whose aim is to spread the NExT Innovation® and Incubation Models all over Italy, in a big, technology transfer community.

• **H-FARM**

H Farm is a youth-focused innovation platform that aims to fertilize entrepreneurship and education, support the creation of new business models and the transformation and education of young people and companies from a digital perspective. Established in 2005, a month before the American Y Combinator, they were the first in the world to adopt a model that combines investment, business consulting and digitally augmented training programs. Among the supporters of this network, there are big corporations like Audi, Cisco and Intesa Sanpaolo, one of Italy's two major banking institutions.

Today H-Farm Campus is the largest and most important innovation hub in Europe, with 51 hectares of land, 3000 hosted people, € 101 mln investment and € 8.7 mln economic impact. The project, which began in 2017, is sustainable, carbon-neutral, and technologically advanced. It is self-sufficient for 85 % of energy needs thanks to photovoltaic systems of more than 1.2 MW and energy storage and grid exchange systems.

Sustainable mobility is encouraged by electric bollards and more than 500 bikes, e-bikes, cad-dy cars and electric scooters.

It is zero-cube, thanks to the rehabilitation of derelict structures and the demolition of a former military base.

Security is provided by a state-of-the-art AXIS access control and video surveillance system. The common areas are digitized and equipped with software that can define the maximum capacity of people. It has state-of-the-art audiovisual solutions, IOT peripherals, large Apple TV screens in all classrooms, 3D printers, virtual reality labs.

H-FARM Digital Marketing is H-FARM's Milan-based company, which operates in 360° marketing with a focus on digital innovation. It collects the legacy of successful consulting companies in strategic marketing and digital transformation and is part of H-FARM's international hub

• **ZERO (CDP) @ROME**

ZERO is the Italian Cleantech Accelerator of the CDP National Accelerator Network, launched

by CDP Venture Capital Sgr - Fondo Nazionale Innovazione, Eni, L'venture Group and ELIS, with the support of Corporate Partners Acea, Maire Tecnimont, Microsoft and Vodafone. Based in Rome, the initiative has an initial endowment of € 4.6 mln, which will be followed by an additional € 1.8 mln subscribed for subsequent post-acceleration follow-ons, the initiative aims to support in 3 years the growth of 30 Italian startups and innovative SMEs and international entities wishing to develop their business by opening an operational headquarters in Italy.

It is a 5-month acceleration program with the provision of € 80 K investment for each participating startup, which develops both Hardware and Software solutions in the following segment of interest.

- » Energy: solutions for efficient energy production and storage, improving the development of sustainable energy carriers.
- » Water Resources: solutions for more sustainable integrated water management, with a view to protecting biodiversity.
- » Waste management: solutions to implement disposal, reuse and recycling, extending the life cycle of products to decrease and enhance waste from a Waste-to-Energy perspective.
- » Sustainable cities: solutions and services aimed at improving infrastructure according to sustainability criteria to make cities increasingly prosperous and resilient, developing clean and shared mobility with a view to decarbonization.



ACCESS TO CAPITAL

Private Equity

- **Ambienta Sgr S.p.A.**

Founded in 2007, Ambienta is one of the largest and most experienced sustainability investors. Operating out of Milan, London, Paris and Munich, Ambienta is focused on investing in private and public companies driven by environmental megatrends.

It is an independent firm that manages over € 1.5 bln of assets, both in private equity and in the public market. Its investor base consists of a diverse mix of blue-chip global investors, including insurance companies, banks, pension funds, foundations, and asset managers.

Ambienta defines environmental impact beyond the narrow scope of greenhouse gas emissions or climate change: environmental sustainability encompasses the full spectrum of natural resources - not only energy - and all types of pollution affecting water, air, soil, and human health. This holistic approach to a problem rather than a sector targets investment opportunities with a positive environmental impact in almost all areas of human activity.

Ambienta invests only in companies whose products or services generate an impact on resource efficiency or pollution control. The impact must be at the source of growth, indisputable, measurable and material. These companies grow because they increasingly need their products and services to cope with pressure on natural resources and the negative effects of pollution.

- **HOPE SICAF S.B. S.p.A.**

HOPE is an independent and innovative investment platform that aims to raise and manage institutional capital and private savings of Italian families to invest them in two strategic areas for the revitalization of our country: excellent small and medium-sized enterprises, future global leaders, and sustainable cities (i.e., urban and territorial regeneration and development, digital and “green” infrastructure).

It has a long-term investment horizon, with ambitious goals of economic, social and environmental sustainability and with attention to the interests of key stakeholders. It offers everyone, including individuals and Italian families, the opportunity to invest in the country’s real economy, not as subscribers to debt securities, but as “shareholders”: bringing together love of country, civic conscience and economic interests. Shareholders as underwriters of a share in the capital stock of enterprises, but also as citizens who get things done, through action, thus “shareholders” in doing.

- **Tages Capital sgr S.p.A.**

Tages Capital SGR S.p.A is an independent asset management company specializing in alternative products that manages infrastructure funds with a focus on renewable energy.

They are the second largest PV operator in Italy with assets of over € 1 bln (287 plants and an installed capacity of 612 MW), managed through two funds, Tages Helios and Tages Helios II, through an innovative proprietary-manager model and with a buy and hold strategy.

Venture Capital

- **Equiter**

Equiter is an investor and advisor in the infrastructure, research and innovation sector. In particular, Equiter researches, selects, structures, implements and manages direct and indirect venture capital investments with the aim of generating - along with a financial return - also a sustainable and measurable social impact over time, aimed at promoting the socio-economic development of the territory.

Through the Equiter Infrastructure II fund, the company invests in energy efficiency, territorial regeneration and infrastructure development projects

- **Fondo Italiano d'investimento SGR**

Created on the initiative of the Ministry of Economy and Finance, Fondo Italiano d'Investimento SGR is participated by CDP Equity, Intesa Sanpaolo, UniCredit, Fondazione ENPAM, Fondazione ENPAIA, ABI - Associazione Bancaria Italia, Banco BPM and BPER Banca.

It has been operating since 2010 to support the competitiveness of the Italian industrial system, supporting the growth of Italian companies and contributing to the development of the country's real economy. With over 600 Companies in Portfolio, today it is the largest institutional private capital investor in Italy.

In pursuing its strategy, FII aims to promote environmental, social and economic sustainability by integrating ESG factors into our investment process, with a view to long-term value creation and through exclusion criteria with respect to sectors or activities deemed controversial from an ESG perspective and analysis and monitoring of ESG risks and opportunities.

- **EUREKA! Venture SGR**

The company manages Eureka! Fund I – Technology Transfer: investments are focused on proof of concept, seed and early stage deals in spinoffs and startups steaming out from Italian Universities and Research Centers. Ideas and companies backed by Eureka! Fund has a competitive advantage stems from cutting-edge proprietary technologies and innovations in materials science & engineering with a clear and unique vision on intellectual property rights.

- **Fondazione Cariplo**

The Foundation promotes, together with ACRI, TTVenture, an Italian closed-end fund to support high-tech projects in joint ventures between universities and companies, in the biomedical, agribusiness, energy-environmental and materials science fields.

- **Innovatec S.p.A.**

Through Innovatec Venture srl, the new corporate venture capital vehicle, Innovatec aims to promote sustainable innovation both outside and within the group, with a focus on innovative startups with high growth potential dedicated primarily to the recovery of matter and energy from waste.

- **Green Arrow Capital**

Green Arrow Capital is an independent financial group specializing in alternative investments in Europe, operating in the Clean Energy & Infrastructure field through 10 funds

CLEANTECH FINANCIAL AND FISCAL INCENTIVES

Incentives directed specifically at the Cleantech sector

Development Contracts: electric buses supply chain

For large and innovative investments in manufacturing, tourism and environmental protection for greenfield and expansion projects of more than € 20m (€ 7.5m for food processing) presented by one or more small and medium companies also in joint form. Projects presented by foreign companies providing an investment of at least € 50m gain access to the Fast-Track procedure.

Additional funds for Fast-Track will be accessible to companies investing in the Green Economy, Biomedical and Telemedicine sectors.

- **IPCEI Batteries 1**

The aim of this measure is to support research, development and innovation activities that introduce highly innovative and sustainable technologies along the entire lithium-ion battery value chain, to improve the life characteristics, charging times, safety and environmental compatibility of new products. compared to the current state of the art.

- **IPCEI Batteries 2**

Initiative aimed at supporting research, development and innovation activities with a strong emphasis on environmental sustainability along the entire value chain: from the extraction of raw materials, to the design and production of batteries, to recycling and placing in the circular economy circuit.

- **Sustainable Investments 4.0**

The measure provides for the granting and disbursement of subsidies in favor of investment programs proposed by micro, small and medium-sized enterprises in compliance with the current principles of environmental protection and with a high technological content, consistent with the Transition 4.0 plan, with priority for those in able to offer a particular contribution to

the sustainability objectives defined by the European Union and for those aimed, in particular, at:

favor the transition of the company towards the circular economy paradigm;
improve the energy sustainability of the company.

Thresholds for the amount of eligible expenses: not less than € 1 mln overall and not more than € 3 mln and, in any case, 80% of the turnover of the last approved and filed financial statements.

- **R&D Circular Economy**

The aid supports the transition of economic activities towards a circular economy model, supporting R&D projects aimed at a more efficient and sustainable use of resources.

Purposes:

- » industrial production conversion;
- » making production processes more efficient in terms of time and resources used and less impacting on the environment in terms of reducing greenhouse gas emissions

- » recovering materials and minimizing waste.

The projects must be carried out in one or more local units with eligible expenses between € 500 K and € 2 Mln, with a duration \geq 12 months and \leq 36 months.

Incentives directed not exclusively to the Cleantech sector

- **Development Contracts: competitiveness and resilience of production supply chain**

For large and innovative investments in manufacturing, tourism and environmental protection for greenfield and expansion projects of more than € 20 mln (€ 7.5 mln for food processing) presented by one or more small and medium companies also in joint form. Projects presented by foreign companies providing an investment of at least € 50 mln gain access to the Fast-Track procedure.

Additional funds for Fast-Track will be accessible to companies investing in the Green Economy, Biomedical and Telemedicine sectors. Competitiveness and resilience of production supply chains / “Competitività e resilienza delle filiere produttive”: The supply chains involved are: automotive; design, fashion and furniture; microelectronics and semiconductors; metal and electromechanics; agroindustry; pharmaceutical chemical.

It is possible to apply for the aid provided for in section 3.13 of the Temporary Framework, in territories other than “zones a” (Map of regional aid 2022-2027).

- **New Enterprises “Zero Interest Rate”**
Investment programs with eligible expenses up to € 1.5 mln to be implemented by micro and small companies established by no more than 12 months and composed, for more than half of members and shares, of people aged between 18 and 35 years old or by women. Program duration not less than 3 years from project completion. Benefits are granted in the form of a subsidized loan (max. 8y) with a zero-interest rate covering up to 75 % of the eligible expenses.
- **Digital Transformation**
The incentive supports the digital transformation of SMEs’ production systems by financing the adoption of technologies consistent with the Industry 4.0 plan.
- **Smart&Start Italia**
To support innovative startups, established for no more than 60 months with a strong technological dimension. Interest-free loan up to 80% of the total investment (10y repayment). Up to 90% if the startup is composed exclusively by women or people aged <35, or if it includes at least one Italian PhD working abroad and willing to return to Italy.
- **Innovation Agreements**
Direct contributions to expenditure and subsidized loans dedicated to projects related to industrial research and experimental development aimed at the creation of new products, processes or services (or the significant improvement of the same already existing) through the development of key enabling technologies (KETs) provided for by the “Horizon Europe” program. Limits and criteria:
 - » Up to 50 % of the eligible costs of industrial research and 25 % of the eligible costs of experimental development;
 - » The subsidized loan, if requested, can be granted exclusively to companies, up to a limit of 20 % of the total eligible costs of

the project.

- » In the event that the project is carried out jointly through an effective collaboration between at least one company and one or more research organizations, a further contribution is provided.

- **Brands+**
- **Patents+**
- **Design+**
- **Voucher Connectivity**
- **AI. Blockchain & Internet of Things**
- **IPCEI Microelectronics**
- **Tech Transfer Fund**

Fiscal measures & work permits

- **Nuova Sabatini Law 2021**

The measure subsidized investments in Instrumental Assets by micro and SMEs and is designed to support the purchase (or leasing) of machinery, equipment, plants, capital goods for productive use and hardware, as well as software and digital technologies. Government subsidy plus a public contribution equal to the interests on the loan stipulated with the bank, up to an annual rate of 2.75 % for ordinary investments and 3.575 % for investments in digital technologies. Coverage up to 100 % of the total, <5y duration for an amount between €20k and €4m.

- **Innovative Startups**

Startups founded by <5y with < €5m revenues are exempted from certain taxes and access to flexible employment contracts. Either 15 % of their costs are in R&D or 2/3 of personnel hold a Master's Degree or they are the owner/ licensors/depositaries of a registered patent/software. Tax relief for investors in innovative startups (cap at €1m for individuals, €1.8 for companies).

- **Patent Box**

50 % tax reduction for incomes arising from direct use or licensing of qualified intangible assets: property rights, industrial patents, trademarks, designs and models, etc.



- **Impatriate Workers Regime**

Tax relief regime (reduction of the personal income tax base by 50 - 70 %) applicable for a five-year period to the “worker” who:

- » transfers the residence to the territory of the Italian State;
- » has not been resident in Italy in the two tax periods prior to the transfer and undertakes to reside there for at least two years;
- » carries out the work activity mainly in the Italian territory.

Furthermore, all citizens of the European Union, or of a non-EU country with which a Convention against double taxation is in force, or an agreement on the exchange of information in tax matters, will also be able to access this regime, which:

- » are in possession of a degree and have continuously carried out an employee, self-employed or business activity outside Italy in the last 24 months or more, or
- » have continuously carried out a study activity outside the Italian borders in the last 24 months or more, earning a degree or postgraduate specialization.

Time extension of the benefit for a further five years in the event that:

- » the expatriate has a minor or dependent child.
- » In the event of the purchase of a residential property unit in the territory of the State in the twelve months prior to the return, or after the return, as long as it is no later than the first 5 tax periods of use of the scheme and remains for the entire facilitated period.

- **Employment**

Firms that employ workers under the age of 35 are granted a reduction in the labor taxes for the first three years of their employment, up to a maximum of € 3,000 per year.

- **New Residents**

Employees, self-employed, researchers and

professors who move to Italy and have not been resident in Italy in the prior 2 years can benefit from a special tax regime with a tax exemption equal to 70 % of their incomes for 5 years (extendible under certain circumstances).

Other relevant incentives:

- ACE Allowance for corporate equity
- Tax Credit on Assets
- Tax Credit on Training 4.0
- Tax Credit for Research and Development, Technological Innovation, Design and Aesthetic Conception
- Investments in Start-ups
- Bonus Apprentices and work-related learning experiences
- Bonus Unemployment income holders (NASPI)
- Bonus Redundancy fund holders (CIG-CIGS)
- Bonus “Citizenship income” holders
- Bonus People over 50
- Bonus Women of any age
- Work Permit: ART.27 “LETTER A” WORK PERMIT - MANAGER OR HIGHLY SPECIALIZED EMPLOYEES WORK PERMIT “TUI-Testo Unico Immigrazione” (Legislative Decree 286/1998)
- ICT Work Permit Art. 27, Intra Company Transfer
- Work Permit: EU Blue Card
- Tax Benefits for Professors and Researchers (art. 44, Legislative Decree 78/2010)

Quality of life

Milano and its attractive surroundings offer a modern, sophisticated way of living, in a safe, open and tolerant social and cultural environment.

It is a city that makes everyone feel at home right away and has its doors open to foreign investors and employees.

English is widely spoken. Its quality of life is among the best in the world, with high-quality housing, a comprehensive network of international schools, a state-of-the-art healthcare system, a thriving artistic and cultural environment, a unique food scene, and an efficient public transportation system.



Milano stands at the heart of Europe, connected to all the continent's great cities.

With 3,000 weekly flights to 185 destinations, Milano has efficient and rapid connections with Italy, Europe and the world. The city is two hours by plane to most EU capital cities, and two hours drive from the Alps in the North and the seaside in the South.

Milano has three major airports: Malpensa-MXP for intercontinental destinations, Linate-LIN with convenient connections to European and Italian cities, and Orio al Serio-BGY, which is an operating base for European low- cost airlines. Milano Centrale railway station is a major hub for international railway travel, with daily trains to Paris, Munich, Barcelona, Vienna, Bern, Lugano, Nice, and Marseille. The city is also at the junction of major highways networks, which connect the city to France, Switzerland, Germany, Austria and Slovenia, as well as to the ports of Genoa and Venice-Mestre.

Intercontinental Direct Flights to: San Francisco, New York, Shanghai, Hong Kong, Tokyo, Istanbul, Tel Aviv, Riyadh, Abu Dhabi, Cyprus among others.

Intercontinental Direct Flights to:

San Francisco, New York, Shanghai, Hong Kong, Tokyo, Istanbul, Tel Aviv, Riyadh, Abu Dabhi, Cyprus



A RENEWED COMMITMENT TO SUSTAINABILITY CONCERNS

The Milanese are growingly proving to care about environmental health and climate concerns. Their habits are changing, together with the expectations they place in institutions and corporations as well.

Probably because of excessive urban pollution, due to the fact that Milano is located in the center of Lombardy, the Italian region with the highest rate of industrialization, countermeasures have been taken in recent decades in every area of daily life: transportation, waste management, energy efficiency, and so on. This has certainly been accompanied by a new lifestyle of citizens and a new mindset, on their part and on the part of manufacturing companies, that has marked a sustainable and ecological breakthrough.

Besides the above mentioned initiatives and plans in which the municipality is directly or indirectly involved in (Reinventing Cities, Clever Cities Milano, Forestami, Urban Plan for Sustainable Mobility, Sharing Economy, etc.), the city was also involved in some international events and demonstrations focusing on these topics.

Between September 28th and October 2nd, 2021, the city of Milano hosted Pre-COP26, the United Nations high-level preparatory meeting

for the Conference of the Parties on Climate Change (COP26) held in November that year in Glasgow. Four hundred young delegates from all over the world, dozens of Environment Ministers, Heads of State, UN representatives, more than 500 national and international events supported by the private sector and civil society: these were the numbers of the Italian week dedicated to the fight against climate change, which included two high-profile international meetings and a busy calendar of initiatives.

At the same time, the Fridays For Future event was opened, which was attended by tens of thousands of young Italian and international students and workers. The great participation of youngsters to the demonstration, together with the adherence of elder people as well, was a clear sign of how deeply the Italian and Milanese population is caring about these themes.

MILANO FOR CLEANTECH 2022