



AUGUSTO

INNOVATION HUB



In partnership with



Giancarlo Zema Design Group



R. Rockefeller S.C.



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How to read this report

This report explains the Milazzo hub to readers who want to understand it: what it will do, with which technologies and architecture, and why a Sicilian project matters to Italy and Europe.

This document is intended for publication. It uses only public information: Sicilian Region documents, national press, the recording of the Senate conference, market research, European institutional documents, and official data from R. Rockefeller S.C. and Giancarlo Zema Design Group. Every figure is accompanied by its source.

Market estimates belong to the publishers cited and are not forecasts for the hub. Technical terms are explained where they appear and collected in the final glossary.

Augusto. Strategic Report. Issue 1, editorial deadline 20 September 2026. Analysis and text: R. Rockefeller S.C., Research and Strategic Analysis. Cover image: architectural visualization of the project, Architectural Design by Giancarlo Zema Design Group. It does not show the site's completed state. The section-opening illustrations are editorial drawings, not representations of the architectural design. For information only. This document is not an investment offer.

A project that has moved beyond an idea

A EUR 100 million programme, admission among the Sicilian Region's strategic projects, and a presentation at the Senate. What the Milazzo hub is, what it will do, and why it matters to Italy and Europe.

The hub that Augusto Innovation Hub plans to build in Milazzo occupies around 47,000 square metres of the former Montecatini factory, beside the port and facing the Aeolian Islands. The factory opened in 1901 to produce chemical fertilizers, closed in the 1960s and lay abandoned for decades. Announced by its promoters as a EUR 100 million investment, the programme transforms it into a place that produces four things: digital environments and virtual production systems, artificial intelligence software and specialized AI agents, cybersecurity and digital identity services, and clean energy to power it all.

In June 2026, the Sicilian Region admitted the project to the STEP call, the instrument through which the European Union supports technologies it considers strategic. On 15 September, architect Giancarlo Zema presented it in the Italian Senate's Sala Zuccari as a national example of the regeneration of a disused industrial site.

The role of R. Rockefeller S.C.

The agreement is directly with R. Rockefeller S.C., the international US company, as the hub's technology and strategic partner. It brings three capabilities. Artificial intelligence software developed from code, with a network of over 250 engineers in 18 countries. The design of specialized AI agents: programs capable of completing entire tasks in a specific sector, with verifiable identities and security rules. And AGS geothermal technology developed with RePG, the group's engineering centre in Bursa, for which Milazzo is the European pilot project.

The architecture

The design is by Giancarlo Zema Design Group, the Rome-based practice internationally known for sustainable

architecture. It restores the listed factory and covers it with a photovoltaic canopy of over 14,000 square metres, generating energy, providing shade and creating a public square. Augusto Innovation Hub will purchase the entire site: everything the programme builds increases an asset base that remains the hub's own.

A strategic asset

Europe is building its computing capacity: in July 2026 it opened the tender for large AI factories. It has also selected eleven sectors in which to accelerate adoption. What is still missing is the capacity to write software and deploy it within businesses and public authorities: in 2025, 20% of European companies and 16.4% of Italian companies used AI. Milazzo addresses this link in the chain, from southern Italy, on a regenerated site, with its own energy.

The markets can be verified. In Italy, AI is worth EUR 1.8 billion and has grown by 50% in a year; cybersecurity is worth EUR 2.78 billion. Globally, the AI agent market is forecast to grow from USD 7.84 billion to USD 52.62 billion between 2025 and 2030. According to the promoters, at full capacity the hub will employ 500 people and generate EUR 100 million a year in local economic impact.

What to watch in the coming months

1. Progress in the process with the Sicilian Region.
2. The geothermal pilot: an initial 400 kW plant, scalable up to 1 megawatt.
3. Restoration of the complex and the photovoltaic canopy.
4. The launch of the software production centre and the first special AI agents.
5. Training programmes with universities.

The project in numbers

Twelve public figures to put the project in perspective. Each with its source below.

47,000 m²

The area of Milazzo's former Montecatini plant, beside the port.

Senate presentation, 15.9.2026; national press, 2025

1901

The year the fertiliser factory began operating. It closed in the 1960s.

Giancarlo Zema, Sala Zuccari, 15.9.2026

100 million €

The investment announced by the promoters to build the hub.

Il Sole 24 Ore, 1 Aug 2025; Gazzetta del Sud, 31 Jul 2025

14,000 m²

The photovoltaic canopy over the restored buildings, with capacity of around 2 megawatts.

Giancarlo Zema, Sala Zuccari, 15.9.2026

400 kW

The first closed-loop geothermal plant, scalable up to 1 megawatt.

Giancarlo Zema, Sala Zuccari, 15.9.2026

250+

Engineers in the R. Rockefeller S.C. network: 25 active centres, 18 nations, 5 continents.

R. Rockefeller S.C., official group data, 2026

500

Jobs at full capacity, according to the promoters, with EUR 100 million a year in local economic impact.

Il Sole 24 Ore, 1 Aug 2025

1,000

Students at the planned campus for film and digital creative professions.

StartupItalia, 4 Aug 2025

20%

European companies using AI. In Italy the figure is 16.4%: this is the market to serve.

Eurostat and ISTAT, December 2025

52.62 billion \$

The forecast global AI agent market in 2030. It was worth \$7.84 billion in 2025.

MarketsandMarkets, 2025

1.8 billion €

Italy's artificial intelligence market in 2025, up 50%.

AI Observatory, Politecnico di Milano, February 2026

2.78 billion €

Italy's cybersecurity market in 2025, up 12%.

Cybersecurity Observatory, Politecnico di Milano, February 2026

The project

A factory dating from 1901, forty-seven thousand square metres beside Milazzo's port, and a EUR 100 million programme admitted by the Sicilian Region among its strategic technology projects.



Conceptual illustration of the Milazzo hub. Inspired by the Giancarlo Zema Design Group project.

IN THIS SECTION

Milazzo: a factory finds a new purpose
Among Europe's strategic technologies

Milazzo: a factory finds a new purpose

For sixty years it produced fertilizers for southern Italy; for another sixty it stood empty. Now the former Montecatini factory is becoming a EUR 100 million technology hub. Who is behind it, who will own the site, what it will produce, and why it is strategic.

The site is on Via Ciantro, beside Milazzo's port and facing the Aeolian Islands. It covers around 47,000 square metres. A chemical fertiliser factory began operating here in 1901 and supplied much of southern Italy's farming sector for decades. Its equipment aged, heavy agricultural chemistry changed, and the factory closed in the 1960s. A long period of abandonment followed. In 1998, the regional cultural heritage department placed the complex under protection: the project therefore restores the buildings wherever possible, rather than replacing them.

A EUR 100 million programme

The project was presented to the national press in summer 2025 as a EUR 100 million investment to create, in its promoters' words, a European reference point where art, research, sustainability and technology meet. This is the programme's total value: it includes restoring the listed complex, studios and laboratories, the computing centre, energy facilities and the training campus.

It was conceived by a group of entrepreneurs led by Fabrizio Crimi, President, and Jacques Maria Martelli, Chief Executive Officer, together with Corrado Camilla and Federico Gariboldi. It is being developed by Augusto Innovation Hub S.r.l., an innovative start-up incorporated in December 2025, with its registered office in Messina and production facility in Milazzo. The hub is dedicated to composer and conductor Augusto Martelli, after whom its sound design and film score area is named.

In Latin, the root of Augusto means to increase, to make prosper.

A wholly owned site

Augusto Innovation Hub will purchase the entire 47,000-square-metre site. This is no minor detail. A hub that owns its land also owns what it builds on it: restored buildings, the photovoltaic canopy, geothermal wells and the computing centre. It is the difference between a tenant investing in someone else's home and an owner increasing their own assets. A site of this size, on the seafront, beside the port and within the town, is an asset that cannot be replicated: every element of the programme increases its value, and that value remains with the hub.

The project at a glance

Location Milazzo, former Montecatini factory, around 47,000 square metres beside the port

Programme value EUR 100 million, announced by the promoters

Ownership Augusto Innovation Hub will purchase the entire 47,000-square-metre site

Architecture Giancarlo Zema Design Group, Rome

Technology and strategy R. Rockefeller S.C.

Facilities Virtual production and immersive content, AI software and agents, cybersecurity and digital identity, a digital location library, a campus for around one thousand students, and a music area

Energy A photovoltaic canopy of over 14,000 square metres and closed-loop geothermal energy

The designer

The architectural design is by Giancarlo Zema and his Rome-based practice, specializing in sustainable architecture and smart infrastructure. It brings together two interventions: restoring the factory and adding a technological skin, a photovoltaic canopy of over 14,000 square

metres above the buildings. Part Two of this report is devoted to this work.

What the hub produces

The hub manufactures technologies; it does not merely host them. Its four lines of activity support one another. The first is Digital Location Automation: a production chain using AI algorithms, photogrammetry and computer vision to transform real locations into high-fidelity digital twins, ready for cinema, video games and extended reality. The twins feed a European library of digital locations. The second is FORMA, a mobile robotic system: omnidirectional

bases with LiDAR sensors and autonomous navigation that reconfigure a virtual set's LED walls by themselves, directly at the filming location. The third line is security: a sovereign blockchain-based digital identity platform compliant with European eIDAS 2.0 standards, which certifies and tracks digital assets, protects them against tampering and misuse, and hosts a marketplace of identifiable AI agents. The fourth is software: AI developed from code, agents and multi-agent systems, with the high-performance computing nodes needed to run them. Underpinning everything is energy: the canopy's photovoltaics and the closed-loop geothermal pilot.

The programme's business lines, explained

Business line	What it produces	Who uses it
Digital Location Automation	Digital twins of real places, certified and optimised for real-time rendering; a European library of environments	Film and television, video games, museums and cultural heritage, industry and training
FORMA	Mobile mechatronic systems for virtual sets reconfigured on site, including installation and maintenance	Studios, audiovisual integrators, broadcasters and location productions
Blockchain identity and security	Certification, traceability and protection of digital assets; a marketplace for identifiable AI agents	Businesses and institutions needing to prove a content asset's origin, version and rights
AI software and multi-agent systems	AI software developed from code, specialized agents and teams of agents for sectors and functions	Businesses, public administrations and regulated supply chains
Energy	Rooftop photovoltaics and an AGS closed-loop geothermal pilot	The hub itself; as a replicable model, data centres and industry
Training and music	A campus for film and digital creative professions; a sound design and film score area	Students, professionals, productions

Why a hub, rather than four separate factories

Keeping these activities in one place has an economic rationale. Rendering, storage, energy, laboratories and people serve more than one line: the library needs computing, FORMA needs environments, and agents need the identity register. These are economies of scope: what is built for one activity delivers more value because it also serves the others.

There is also a reason specific to southern Italy. For decades, the South has trained skilled young people who then leave. A hub offering work to engineers, developers, technicians and creatives, linked to the island's universities, gives students an alternative to leaving and those who have left a reason to return. This impact is the least visible in the accounts and the most lasting over time.

Among Europe's strategic technologies

The Sicilian Region has admitted the project to the STEP call, the instrument through which the Union supports critical technologies. What STEP is, what it requires, and what admission means.

STEP is the Strategic Technologies for Europe Platform, established by Regulation (EU) 2024/795. It starts from a simple observation: in some technologies on which its future depends, Europe buys more than it produces. The platform directs resources from eleven European programmes, including cohesion funds, towards these technologies, supporting those who develop or manufacture them in three groups: digital and deep tech, clean technologies, and biotechnology.

Admission requires demonstrating one of two things, or both: bringing an innovative element with substantial economic potential to the European market, or reducing a strategic dependency of the Union. These are industrial criteria, not welfare criteria.

Admission

The Sicilian Region translated the platform into a call under its 2021-2027 European programme. In June 2026, Augusto Innovation Hub was admitted to a list that also includes major industrial groups such as Leonardo, Nexperia and ISAB. The project falls within digital technologies and deep tech: AI, blockchain cybersecurity, advanced mechatronics and mobile robotics.

Inclusion means the Region recognized in the project the characteristics of technologies Europe considers strategic.

What it means

Admission tells us two things. First, regional evaluators viewed the Milazzo hub as an industrial initiative in critical technologies, not a property development or service centre. Second, the project enters the STEP framework, which the Union created to direct public and private resources towards technological autonomy. It is the right framework for a hub producing software, robotics, digital identity and clean energy.

STEP's three technology groups

Group	Where Milazzo fits
Digital and deep tech	AI, agents, cybersecurity and blockchain identity, FORMA mobile robotics, high-performance computing
Clean technologies	Closed-loop geothermal energy and photovoltaics integrated into the architecture
Biotechnology	Outside the hub's scope

Source: Regulation (EU) 2024/795; analysis by R. Rockefeller S.C.

11

European programmes whose resources STEP directs towards critical technologies.

2 out of 3

Strategic technology groups in which Milazzo operates: digital and clean.

June 2026

The project's admission by the Sicilian Region.

The architecture

Restoring a listed factory and covering it with a skin that produces energy, provides shade and creates a public square. Giancarlo Zema Design Group's design is the face of the hub, and part of its value.



Conceptual illustration inspired by the Giancarlo Zema Design Group project. Not the project's site plan.

47,000 m²

hub site area

over 14,000 m²

photovoltaic canopy

around 2 MW

photovoltaic capacity

IN THIS SECTION

Giancarlo Zema's design: restoration, the canopy, the park, the practice and design as an economic factor

Giancarlo Zema's design

An architect who built his reputation on water, solar energy and smart infrastructure is designing the rebirth of the former Montecatini factory. The project, the practice, and why architecture is an economic factor in a technology hub.

A technology hub could occupy any industrial shed. Milazzo has chosen the opposite: entrusting its identity to an architect recognized internationally for sustainable projects. At the Senate on 15 September 2026, Giancarlo Zema described Milazzo as an urban regeneration project particularly close to his heart, on which the practice had been working for a year. He explained it through two interventions.

First intervention: restoration

The complex has been protected since 1998, and that is the project's starting point. The factory is restored to its original form: masonry blocks, roofs and the rhythm of openings are recovered, while interiors are repurposed for studios, laboratories, classrooms and workspaces. Early twentieth-century industrial architecture lends itself to this: wide spans, generous heights and structures designed to carry heavy loads. Where sacks of fertilizer moved a century ago, LED walls, cameras and computing rooms can operate.

Restoring rather than demolishing also helps secure public support. A town welcomes a technology hub more readily when it returns a piece of its history.

Second intervention: a technological skin

Above the restored buildings, Zema places a photovoltaic canopy of over 14,000 square metres, with capacity of around 2 megawatts. It is a continuous

surface with flowing lines, the practice's signature, and it does three jobs at once. It produces energy for the hub. It provides shade, lowering temperatures beneath it and reducing building cooling demand, a major component of Sicily's summer consumption. And it creates covered public space: a square sheltered from the sun where there was once an industrial enclosure.

At night, the canopy changes colour according to the events taking place and becomes the hub's beacon, visible from the port and the sea. Around it is an urban park with smart, self-powered solar street furniture.

The canopy does three jobs: it produces energy, provides shade and creates a covered square.

Energy as a design material

In Zema's work, energy is not added at the end: it is a building material, like glass or steel. In Milazzo, the canopy's photovoltaics cover sunny hours. For the rest, the architect explained at the Senate, photovoltaics alone were insufficient: through the strategic partnership with R. Rockefeller S.C., the project integrates next-generation, fully closed-loop geothermal technology, producing clean energy around the clock. Sun above, earth below, architecture in between.



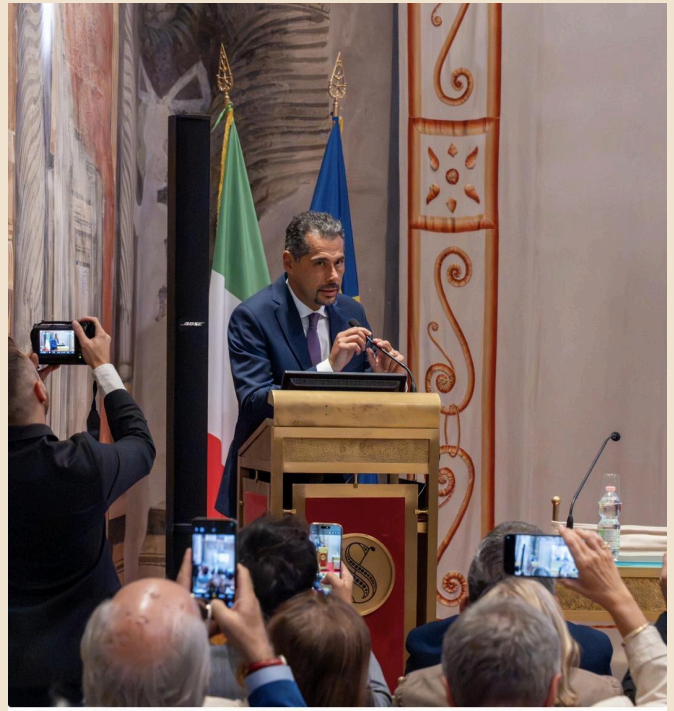
Sala Zuccari, 15 September 2026. On screen, the project's night view, with the illuminated canopy above the restored factory.

The practice

Giancarlo Zema was born in Rome in 1973 and graduated in architecture from Sapienza under Giovanni Zuccon, one of the leading figures in international naval architecture. In 2001, he founded Giancarlo Zema Design Group in Rome, a practice covering the entire process from concept to construction detail, specializing in sustainable projects, smart infrastructure, self-sufficient floating habitats, yachts and interiors. Its defining feature is soft, biomorphic form.

Recognition came early, from the sea. In 2001 came Trilobis, an eco-yacht with hydrogen engines and an underwater observation lounge, and Jelly-Fish, a floating house with underwater views. In 2006 came Amphibious, a semi-submerged hotel with floating suites for Qatar. In 2015, WaterNest, a solar-powered floating habitat. Public works and infrastructure followed: a restaurant bridge in Bahrain, sports facilities in Libya and Azerbaijan, and vertiports for passenger drones in China.

In Italy, the practice designed Anas's Green Islands, energy and charging stations for smart roads across the country, and Rome's Smart Road Center. For FS Sistemi Urbani, part of the Ferrovie dello Stato group, it designed Varese Vertiport HUB, presented as Europe's first smart infrastructure dedicated to



A moment during the project presentation at the Italian Senate.

urban air mobility. In 2023, it designed the Levi-Montalcini Foundation's exhibition and research centre. For the Luminexence brand, it created entirely off-grid collections of solar-powered street furniture: the same idea that returns in Milazzo's park.

The practice at a glance

Founded Rome, 2001

Fields Sustainable projects, smart infrastructure, floating habitats, yachts and interior design

Clients Anas, FS Sistemi Urbani, Luminexence, Levi-Montalcini Foundation, clients in Qatar, the UAE, Bahrain and China

Awards Green Good Design Awards, BUILD Architecture Awards, Global Future Design Awards, Hydrogen Awards, Rethinking The Future Awards, LOOP Design Awards, Global Architecture Awards, World Design Awards, Architecture MasterPrize; Blue Ambassador 2024

Exhibitions Triennale di Milano, Venice Biennale, Ara Pacis Museum, Farnesina Design Collection

Press Over one hundred publications; featured in The New York Times, The Sunday Times and Forbes

Why design is an economic factor

In a hub like this, architecture affects the economics in four ways. The first is identity. A distinctive place attracts talent, productions and partners that an

anonymous industrial shed would not: for someone shooting a film or opening a laboratory, the address matters. The second is energy: a roof that generates 2 megawatts while shading the buildings lowers operating costs throughout the complex's life. The third is public support: restoring a protected asset and opening a park to the town turns a private construction project into something the community feels it owns. The fourth is asset value: a restored, architect-designed complex is worth more than the sum of its square metres, and that value belongs to whoever owns the site.

Finally, there is its value as an example. In Italy, industry studies have mapped 3.7 million square metres of disused industrial land suitable for new digital infrastructure. Milazzo shows how it can be done: without consuming new land, recovering the site's memory and producing the required energy on site. At the Senate, the President of Federcostruzioni said he had viewed the project with admiration.

A case within a national debate

The project was presented at the Senate during a conference on the cities of the future, while Parliament

was discussing the urban regeneration bill. In his opening remarks, its rapporteur, Senator Roberto Rosso, spoke of rethinking neighbourhoods around people and services, through public-private partnerships. Federcostruzioni President Emanuele Ferrarolo used Milazzo itself as an example of what decades-old planning rules risk obstructing. Zema's design therefore has value beyond the site: it contributes to the debate on how Italy recovers its disused areas.

A project partnership

Giancarlo Zema Design Group is R. Rockefeller S.C.'s design partner for the group's industrial, energy and green projects. In Milazzo, the collaboration has a precise form: the practice designs the spaces and integrates the facilities into the architecture; R. Rockefeller S.C. brings geothermal technology, software and security. The result is a model in which architecture, energy and computing are designed together from the first sketch, rather than meeting on the construction site. It is a replicable model that the two companies can jointly offer for other projects.

Selected works by Giancarlo Zema Design Group

Work	Description	Client or location
Trilobis and Jelly-Fish, 2001	Hydrogen eco-yacht and floating house, both with an underwater observation lounge	SemiSubGeneration
Amphibious, 2006	Semi-submerged hotel with floating suites	Qatar
WaterNest, 2015	Solar-powered floating habitat	EcoFloLife
Sea Urchin, 2016	Installation exhibited at the Venice Architecture Biennale, later added to a permanent collection	Spazio Thetis, Arsenale Nord
Green Island and Smart Road Center, 2020	Energy and charging stations for smart roads; control centre in Rome	Anas
Exhibition and research centre, 2023	Exhibition and scientific research spaces	Levi-Montalcini Foundation
Varese Vertiport HUB, 2024	Smart infrastructure for urban air mobility	FS Sistemi Urbani, Ferrovie dello Stato group
Augusto Innovation Hub	Restoration of the former Montecatini factory, a photovoltaic canopy of over 14,000 square metres, and an urban park	Milazzo

Source: Giancarlo Zema Design Group, official profile and biography; Senate presentation, 15 September 2026.

47,000 m²

The area regenerated by the project, beside the port.

14,000 m²

The photovoltaic canopy above the buildings.

2 MW approx.

Solar capacity integrated into the architecture.

1998

The year protection began: why the factory is restored, not demolished.

Artificial intelligence

Computing centre hardware can be bought. Software cannot: it must be produced, and production takes people and methods. What R. Rockefeller S.C. will do in Milazzo, what specialized agents and multi-agent systems are, and where they can work.



Conceptual illustration of R. Rockefeller S.C.'s activities: software development, artificial intelligence and multi-agent systems.

IN THIS SECTION

The software factory
Specialized agents and multi-agent systems

Twelve fields of work for artificial intelligence
In figures: the market

The software factory

A production centre for software, applied AI and cybersecurity, within a European value chain for technological sovereignty. Methods, engineers, the computing centre and its links with the local area.

A data centre houses machines. A production centre houses people who write software, train it, test it and deliver it. The difference is the same as that between a warehouse and a factory. Under its direct agreement with Augusto Innovation Hub, R. Rockefeller S.C., the international US company, will build the latter in Milazzo: an artificial intelligence software factory, with its engineers, its quality methodology and a computing centre that grows in stages alongside available energy.

Milazzo's place in the European value chain

Europe is investing in computing power. It has launched a network of AI factories around its supercomputers and, on 30 July 2026, opened a tender for up to seven gigafactories: facilities with tens of thousands of specialized processors for training the largest models. These are the foundations. Milazzo works one level higher, closer to the customer: it takes a business or public authority's problem and turns it into functioning software, under European rules, on machines located in Sicily. This is the link that Europe's Apply AI strategy identifies as the weakest: not research, but adoption.

The method

Code is produced internally from the outset. The software's logic does not depend on third-party artificial intelligence interfaces or commercial cloud platforms, and remains under direct control. There is no outsourcing. The process is governed by an ISO 9001-certified quality management system. The architecture is unified and consistent; work takes place in the centres, close to customers: one underlying logic, many locations.

The expertise covers the full production cycle. Algorithm design, including the ability to design neural and cryptographic logic from scratch. AI architectures. Cryptography and security, with proprietary protocols and zero-trust architectures. Mathematics and optimization to drive performance.

Systems integration, combining AI, cryptography, databases and logic layers into autonomous agents. Alongside these are the disciplines of application development: databases, full-stack development from server to interface, enterprise applications and quality assurance.

250+

engineers in R. Rockefeller S.C.'s network, across 25 active centres, 18 countries and 5 continents. The stated target is around 500 by 2028.

The engineers

Capacity means staff, not intentions. The operational core is the Global Innovation Hub in Lalitpur, Nepal, a group-owned centre operating since 5 May 2026 from premises exceeding five thousand square metres. It employs over fifty certified software engineers and fifteen managers, architects and domain experts, under ISO 9001 certification. Its team has over fourteen years of continuous delivery for institutional programmes: the World Bank, UN agencies including UNDP, ILO and IFAD, US, German, Swiss, Korean and Japanese development cooperation bodies, and Nepalese government ministries. It has built national budget and treasury systems, tax administration platforms and governance systems for entire provinces. Thirteen senior professionals together bring over two hundred years of experience.

New Delhi coordinates artificial intelligence software engineering across the network, with a team growing from over one hundred to over two hundred engineers. Technical leadership is unified: Umberto Colella, Chief of Staff and Lead AI System Architect, defines the architecture for every centre. His is a rare profile, able to design and build artificial intelligence models, software and cryptographic systems from scratch, rather than assemble other providers' tools.

Knowledge is global; the product is made in Italy: software is written on servers installed in Sicily.

The computing centre

The physical core is a room of high-performance computing systems equipped with latest-generation graphics accelerators. Around them are fast storage, ultra-high-speed fibre networking, uninterrupted power, high-density power distribution and physical security. These systems require liquid cooling because their power density is too high for air cooling.

The starting choice follows a simple logic: energy sets the pace. Operations begin with an initial cluster of systems sized to what photovoltaics and geothermal energy can supply. The room, cooling and electrical distribution are designed for growth from the outset. Expansion means adding modules, not rebuilding the facility. Each step validates the previous one: first energy, then computing, then software.

Links with the local area

A production centre depends on skills. The project includes a campus for around one thousand students and programmes

dedicated to the technologies used there: AI, virtual production, cybersecurity and energy. This is how an investment becomes a driver of skilled employment: courses train the people the hub needs, and graduates find opportunities a few kilometres away rather than a thousand. In Italy, demand for AI skills in job advertisements grew by 93% in one year.

What is sold

Italy's artificial intelligence market reached €1.8 billion in 2025, up 50% on the previous year. Custom projects developed for individual customers account for 77% of that value: exactly the work of a software factory. Scalable models, meaning services and licences, are growing faster. Among large companies, 71% have at least one AI project; among small and medium-sized businesses, the figure is 8%. That gap represents demand still seeking a supplier.

A centre like this has four revenue streams: commissioned projects, software licences and maintenance and development subscriptions, computing capacity made available to third parties, and training. Added to these is the product line examined in the next article: specialized agents and multi-agent systems.

What R. Rockefeller S.C. brings to the hub

Contribution	In practice	Benefit to the hub
People	Network engineers working alongside hub staff; unified technical leadership	Delivered software and transferred skills
Method	Code developed internally, ISO 9001 quality system, no outsourcing	Repeatable quality and control of the logic
Computing centre	Technical specifications, phased launch, liquid cooling	Capacity matched to energy availability
Agents and multi-agent systems	Design and development from source code, with identity, permissions and an action log	A new product line
Security	Proprietary cryptography, zero-trust architectures, monitoring agents	Demonstrable trust for customers and institutions
Energy	AGS technology with RePG, engineering and pilot project management	Continuous power and stable costs
Network	25 centres in 18 nations, institutional relationships and commercial channels	Access to expertise and markets

Specialized agents and multi-agent systems

An assistant answers a question. An agent completes a task. A team of agents completes an entire process. R. Rockefeller S.C. designs and builds them from code. In Milazzo, they also gain their own identity register.

The terminology is the starting point. An artificial intelligence agent is a programme given an objective rather than asked a question. It breaks that objective into steps, selects the tools it needs, such as an archive, a management system or a register, executes the work, checks the result and reports back. It operates within rules set by its user and stops where a human decision is required. The difference from a conversational assistant is the same as that between someone who provides information at a counter and someone who processes the application.

Four terms not to confuse

Automation. Always follows the same predefined steps.

Assistant. Answers a question. Does not act.

Agent. Receives an objective, chooses steps, acts within rules and accounts for its actions.

Multi-agent system. Several specialized agents, coordinated by an orchestrator, sharing an entire process.

Why special agents

A generic agent knows a little about everything without knowing anyone's profession. A special agent is built for a sector or function: it speaks the customer's vocabulary, works with their data and follows their procedures and sector rules. Analysts call these vertical agents and identify them as the fastest-growing segment: MarketsandMarkets forecasts compound annual growth of 62.7% between 2025 and 2030, compared with 46.3% for the overall agent market.

From individual agent to team

A real process, such as a tender, a funding application or closing a set of accounts, involves different professions. Giving it to one agent means asking it to be an archivist, legal expert,

accountant and writer all at once. A multi-agent system works like a well-organized office: it divides the work. One agent reads documents. Another checks the rules. A third does the calculations. A fourth writes. A fifth checks the others' work. Above them, a coordinator, the orchestrator, assigns tasks, gathers results, resolves conflicts and hands decisions that do not belong to a machine to a person.

There are four advantages. Quality: an agent doing one thing can be tested thoroughly, like a spare part. Control: each agent receives only the permissions it needs, and no one sees everything. Robustness: an agent can be replaced without rebuilding the system. Auditability: every handover between agents leaves a trace, so who did what can be reconstructed.

A team at work, step by step

Illustrative example: licensing a digital environment from the library.

- 1 The intake agent receives the request and identifies the intended use.
- 2 The rights agent queries the register: who holds the rights, and which uses are permitted.
- 3 The archive agent retrieves the correct version of the package and verifies its fingerprint.
- 4 The contracts agent drafts the licence, specifying duration, territory and limits.
- 5 The checking agent compares the draft with the rules and flags inconsistencies.
- 6 A human manager approves. The register records the licence. Every step remains on record.

What R. Rockefeller S.C. does

The group designs and builds specialized agents and multi-agent systems from code. This directly applies the capability described in the preceding

article: integrating AI, cryptography, databases and logic layers into autonomous agents. Four properties distinguish a system built for a serious organization from an experiment. Identity: each agent's identity, producer and version are known. Permissions: each accesses only what it has been allowed to access. An audit trail: every action leaves a searchable record. Supervision: sensitive steps remain with a person.

Why Milazzo

The project includes a sovereign blockchain-based digital identity platform compliant with European eIDAS 2.0 standards. It is designed to certify digital assets and protect them from tampering and misuse by unauthorized agents. It also provides a marketplace for the secure management of identifiable AI agents. The two fit together: the hub is both the factory where agents are built and the register where they receive a verifiable identity, a version history and a defined set of permissions. In a team of agents, this matters even more: each member has its own identity card, and it is always clear who passed what to whom.

The Italian market

The Politecnico di Milano's Artificial Intelligence Observatory measures the Italian market at EUR 1.8 billion in 2025, up from EUR 1.2 billion in 2024 and EUR 760 million in 2023. Generative or hybrid AI solutions account for 46%, and machine learning projects for 54%. By solution type, 39% consists of systems that converse or analyse text, 30% of systems that explore data, forecast and optimize, 16% of image, video and audio generation and analysis, and 11% of recommendation systems. Process orchestration and agents represent 4%: around EUR 70 million when calculated against the total.

It is the smallest share, and the one to watch. The Observatory's director called Agentic AI the expression of 2025, warning that until systems have full reasoning and self-correction capabilities, human supervision is not recommended: it is necessary. Meanwhile, the figures show where the need lies. Some 71% of large companies have at least one AI project, but only one in five uses AI extensively across multiple functions.

Some 84% have bought generative AI licences. Among small and medium-sized enterprises, 8% have projects.

The interpretation is straightforward. Italy has bought the licences; now it must make AI work within processes. That is exactly what agents and teams of agents do: they move technology from the individual's desk into the organization's workflow, with rules, permissions and an accountable person. Italy's agent market is small because it is just beginning, not because demand is absent.

The global market

MarketsandMarkets values the global AI agent market at USD 7.84 billion in 2025 and projects USD 52.62 billion in 2030. Grand View Research starts at USD 7.63 billion in 2025 and reaches USD 182.97 billion in 2033. Their scopes differ and must be read separately. Europe's Apply AI strategy, published in October 2025, explicitly supports the development of sector-specific agentic AI.

How value is created

There are four complementary models. Custom development, when a customer commissions an agent or a team of agents for its own process. A licence or subscription for each agent in operation. Supervision, maintenance and updates, because an agent system needs to be managed like a plant. Certification and registration in the identifiable-agent marketplace, a trust service with recurring revenue.

The rules

From 2 August 2026, the European AI Office and national authorities began enforcing the Union's regulation, which scales obligations according to a system's use and the provider's role. Italian Law 132 of 2025, Europe's first national law to accompany the regulation, establishes a clear principle: in public administration and the professions, AI is a supporting tool, and responsibility remains with the person. An agent system designed with identity, permissions, an audit trail and human approval points starts at an advantage: it documents by design what the rules require it to demonstrate.

Twelve fields of work for artificial intelligence

Europe has identified eleven sectors in which it wants to accelerate AI adoption. Here, sector by sector, is what a software factory operating from Sicily can do.

In 2025, 20% of European companies with more than ten employees used at least one AI technology: 55% of large companies, 30% of medium-sized companies and 17% of small ones. In Italy, the share was 16.4%, double the previous year. Europe's 2030 target is three companies in four. Between the two lies an enormous amount of custom software work, and the Commission's Apply AI strategy says where to do it: healthcare, robotics, manufacturing and construction, defence and security, mobility, communications, energy, climate and environment, agrifood, culture and media, and the public sector. Finance, tourism and e-commerce are identified as next. The following twelve fields connect that list with the hub's capabilities.

1. Public administration. Document registration, case processing, tenders and citizen services. Teams of agents read documents, check requirements, prepare drafts and leave the signature to the official, as Italian law requires. This is where the gap between need and adoption is widest.

2. Small and medium-sized enterprises. Quotations, orders, technical documentation, customer support and compliance. Ready-to-use specialized agents for recurring tasks: a twenty-person business cannot afford a bespoke project, but it can adopt a certified agent.

3. Manufacturing and construction. Visual quality inspection, predictive maintenance, site planning and automated reading of specifications and bills of quantities. Italy's industrial fabric consists of specialized suppliers: software needs to reach them.

4. Robotics. This is the hub's home ground. FORMA is a mobile robot: autonomous navigation, environmental recognition, coordination of multiple bases and fault diagnosis are AI embedded in the product.

5. Culture, creativity and media. Turning a location into a digital environment involves repetitive, costly steps: cleaning geometry, optimizing textures, quality control, metadata and rights records. Agents industrialize the process.

6. Cultural heritage and tourism. Europe is calling for all at-risk monuments and half the most visited ones to be digitized in 3D by 2030. This requires capture, automated comparison of successive surveys to detect deterioration, and guides and services built on digital twins.

7. Energy. Scheduling computing loads according to the solar and geothermal energy available each hour; forecasting generation; anticipating maintenance of the geothermal unit. What is learned in Milazzo applies to every subsequent plant.

8. Ports, logistics and industry. Milazzo is a port and an industrial district. Transport documents, shifts, yard safety and cargo tracking are processes built on paperwork and checks: natural territory for teams of agents.

9. Agrifood. Supply-chain traceability, computer-vision product sorting, water management and export documentation. For Sicilian agriculture, which sells quality and origin, proving what is claimed has commercial value.

10. Cities and local areas. The Senate discussion covered digital twin cities, reconstructed on computers to test an event's effects in advance. This is the same technology as the hub's digital locations, applied to neighbourhoods, networks and civil protection plans.

11. Cybersecurity. Agents monitor systems and logs, rank alerts by severity and prepare incident documentation within the tight

deadlines imposed by European rules. In-house expertise is scarce everywhere: here, the agent supports the person rather than replacing them.

12. Finance, insurance and compliance. Document verification, suitability checks and monitoring obligations. These sectors have already bought the most licences and demand the strongest safeguards: identity, permissions and audit trails are made for them.

Method before deployment

Twelve fields do not mean twelve simultaneous launches. The method is that of any serious factory: a few repeatable use cases, tested with an initial customer, measured, and only then replicated. Training accompanies each deployment, because an agent delivered to someone unable to govern it is a risk, not an advantage. And every system includes human supervision in its design, not as an afterthought.

Fields of work, European sectors and the hub's business lines

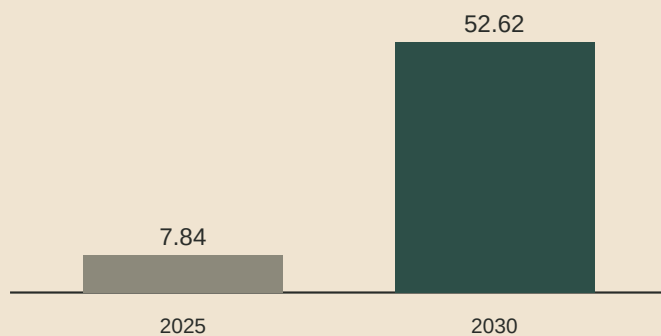
Field of work	Sector in Europe's Apply AI strategy	Hub business lines involved
Public administration	Public sector	AI software, multi-agent systems, digital identity
SMEs; manufacturing and construction	Manufacturing, engineering and construction	AI software, specialized agents, training
Robotics	Robotics	FORMA
Culture and media; cultural heritage and tourism	Cultural and creative sectors, media	Digital Location Automation, library, virtual production
Energy	Energy; climate and environment	AGS geothermal energy, photovoltaics, computing centre
Ports, logistics and industry	Mobility and transport	Multi-agent systems
Agrifood	Agrifood	AI software, identity and traceability
Cities and local areas	Public sector; climate and environment	Digital twins, computing
Cybersecurity	Defence, security and space	Cybersecurity, monitoring agents
Finance, insurance and compliance	Identified among the next sectors	Multi-agent systems, digital identity

Sources: European Commission, Apply AI Strategy, 8 October 2025; Eurostat and ISTAT, December 2025. Cross-mapping by R. Rockefeller S.C.

Artificial intelligence and agents: the market

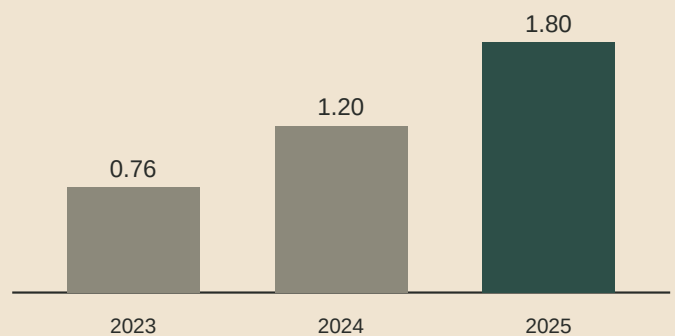
Public estimates, kept separate. Each publisher uses its own scope: the series must not be added together or averaged.

AI agents worldwide



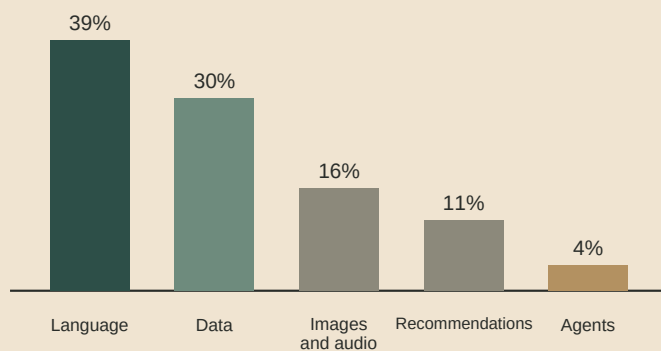
USD billion. Annual growth: 46.3%; vertical agents: 62.7%. Source: MarketsandMarkets, 2025.

Artificial intelligence in Italy



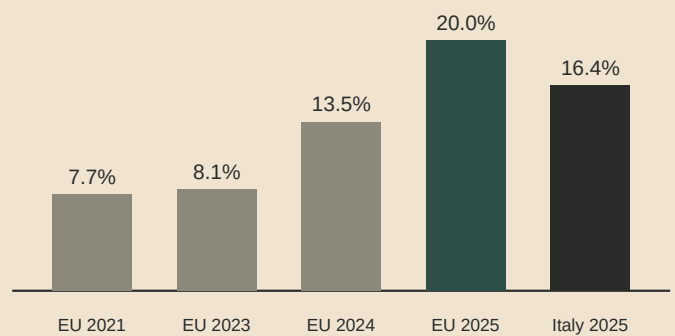
EUR billion. Up 50% in 2025. Source: AI Observatory, Politecnico di Milano, February 2026.

What makes up the Italian market



Shares by solution type, 2025. Agents: process orchestration and Agentic AI. Source: AI Observatory, Politecnico di Milano.

Companies using artificial intelligence



Companies with at least ten employees. European target for 2030: 75%. Sources: Eurostat; ISTAT.

77%

of the Italian AI market consists of bespoke projects.

84%

of large Italian companies hold generative AI licences.

1 in 5

uses it extensively across multiple business functions.

8%

of SMEs have a project. This is the market to serve.

Cybersecurity

Digital content has value when its origin, creator and authorised users can be proved. The hub treats trust as an industrial product and chooses European solutions.



Conceptual illustration of R. Rockefeller S.C.'s cybersecurity, data protection and digital trust activities.

IN THIS SECTION

Trust, the scarcest product

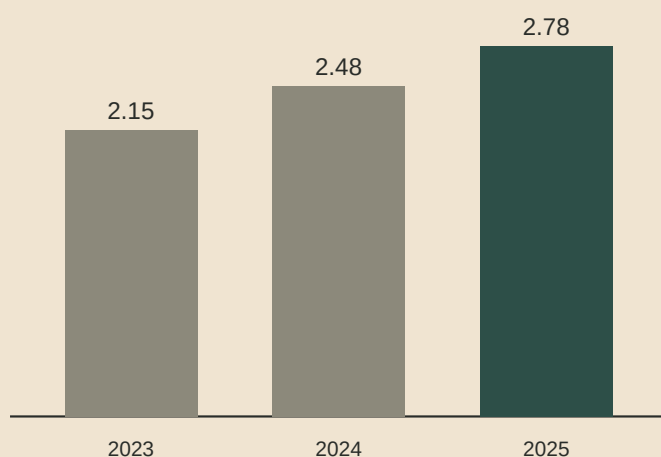
Trust, the scarcest product

In Italy, one third of large companies suffered an attack with significant costs in 2025. Spending is rising, and businesses are beginning to ask where the technology protecting them comes from. This creates room for a European value chain.

The figures are published annually by the Cybersecurity & Data Protection Observatory at Politecnico di Milano. In 2025, Italy's cybersecurity market reached €2.78 billion, 12% above the previous year. Attacks causing substantial recovery costs affected 34% of large companies. Spending grew fastest in public administration, up 28%, finance, up 22%, and logistics and transport, up 18%. Seven in ten large companies expect to increase their budgets again in 2026.

Two forces drive the market. The first is technical: attacks use artificial intelligence and are becoming more targeted. The second is regulatory: the EU NIS2 Directive, transposed in Italy through Legislative Decree 138 of 2024, broadens the organisations covered and tightens deadlines, with early warning within 24 hours of an incident and notification within 72. Alongside these is a structural skills shortage, pushing third-party managed security services above average growth.

Cybersecurity in Italy



EUR billion. Source: Cybersecurity & Data Protection Observatory, Politecnico di Milano, 2024, 2025 and 2026 editions.

The question of origin

The new development in 2025 is different, and directly relevant to Milazzo. Most large Italian

companies, the Observatory finds, now assess the geographical origin of security solutions and services. National and European providers offering explicitly sovereign solutions are gaining ground. Digital sovereignty is no longer just a conference topic: it has entered procurement specifications.

The hub is built around this choice: the security it produces is designed in Europe, under European rules, on machines located in Sicily. This is the same direction the Union took in June 2026 with its technological sovereignty package, designed to reduce strategic dependencies in cloud and AI.

What the hub offers

Three things. First, the sovereign blockchain-based digital identity platform: a register that certifies and tracks digital assets, protects them against counterfeiting and AI-generated fakes, and governs AI agents' identities. Second, the defensive software and security engineering that R. Rockefeller S.C. brings from its network: in-house cryptography, zero-trust architectures and security built into software from the design stage, not added at the end. The architectures remain the group's property and are not disclosed; the customer receives a verifiable result. Third, specialized security agents: they monitor, prioritize alerts and prepare incident documentation.

A register answers only the questions it was designed to answer. Saying so is the first trust service.

What a register proves, and what it does not

One firm principle also serves as a commercial rule.

Registering a file on a blockchain does not make it true,

nor does it certify who owns the rights. A well-designed register answers precise questions, and only those. The table distinguishes them. Three precautions follow. Europe's eIDAS framework separates electronic ledgers from qualified trust services: qualification

does not arise from using distributed technology. Personal data must not be written into an immutable register. Scanning a cultural asset does not in itself grant the right to exploit its image: rights must be checked before capture, publication and licensing.

Five layers of digital trust

Level	What it can document	What it cannot prove alone
Party identity	Who signed or attested a specific transaction	Ownership of the asset, scanning authorisation or survey quality
Integrity and version	The file's match to a fingerprint and the chain of recorded changes	The truth of the content or accuracy of the physical replica
Documented provenance	Declared origin, dates, authors, tools and processing steps	Completeness of events that were not captured or verified
Rights and licence	The permitted scope of use granted by an authorised party	Absence of unexamined third-party rights
Metric or application conformity	A test result with an identified method, threshold and responsible party	Universal authentication valid for every future use

Analysis by R. Rockefeller S.C.

Deadlines that create demand

Three European timetables directly affect the hub's products. By the end of 2026, every Member State must make a European Digital Identity Wallet available to citizens under the new eIDAS framework: verifiable identity becomes common infrastructure. The Cyber

Resilience Act, covering products with digital elements, introduced reporting obligations on 11 September 2026 and will apply generally from 11 December 2027. The new Machinery Regulation, 2023/1230, applies from 20 January 2027 and concerns FORMA as a mechatronic product. For technology suppliers, these are obligations. For suppliers of security and traceability, they create demand.

Who buys digital trust

Customer	What they must demonstrate	What the hub provides
Productions, broadcasters, studios	Origin and rights of digital environments used in a work	Library titles with rights records, versions and fingerprints
Museums and cultural institutions	Copy fidelity, authorisations and permitted uses	Documented capture, provenance register and defined licences
Industrial companies	Data confidentiality, accuracy and version traceability	Application environments with acceptance tests and controlled access
Public administration	Compliance with European rules and technology provenance	European solutions and eIDAS 2.0-compliant digital identity
AI agent adopters	Knowing the agent's identity and actions	Identity, permissions and an action log for every agent

Virtual Production and digital assets

A physical product that goes where it is needed, a factory of digital environments, and a library of Italian landscapes that can be licensed repeatedly. This is the hub's creative heart.



Conceptual illustration of virtual production: digital environments, LED walls and robotic systems for the set.

IN THIS SECTION

From set to factory: the technology, FORMA, the library, the markets and the campus

From film set to factory

Shooting a film inside a wall of light rather than in front of a green screen. Taking that wall where it is needed, with a robot. Filling it with digitized, certified Italian locations. What the hub will do, for whom, and in which markets.

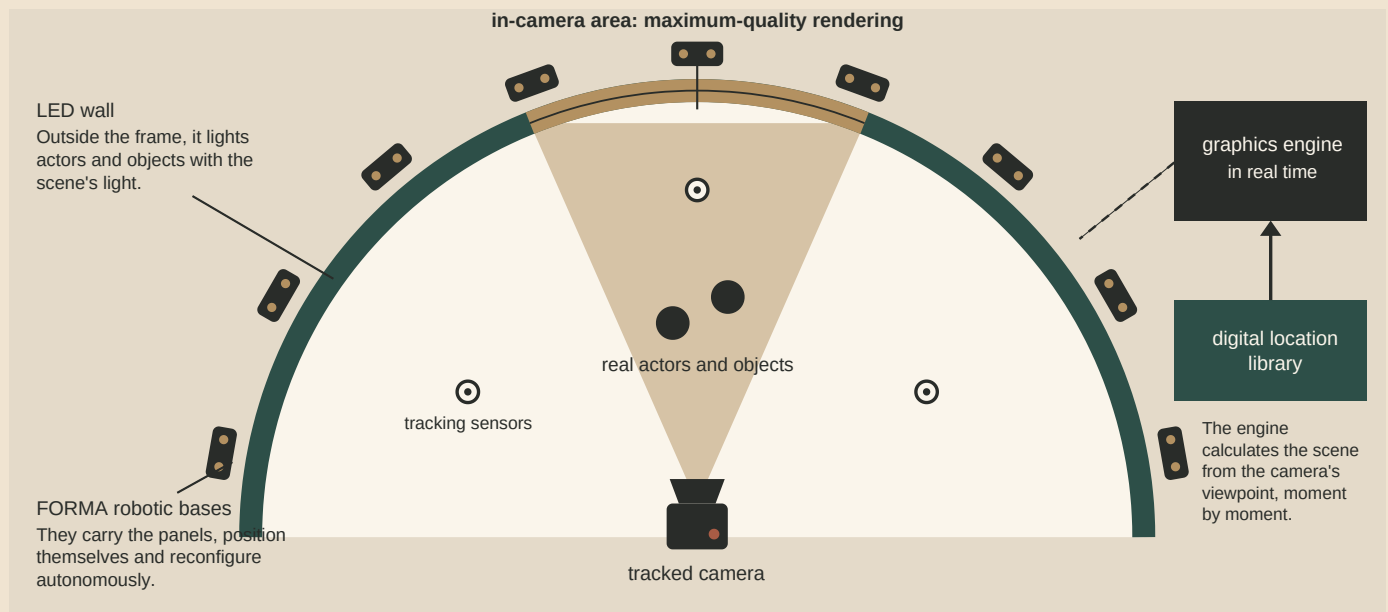
Virtual production does not involve filming in front of a green screen. Filming takes place inside a volume of ultra-high-resolution LED walls, onto which a graphics engine projects a three-dimensional environment in real time. Actors perform within the scene, the camera captures an already corrected background, and the director sees the result immediately. Travel is cut, post-production is reduced, and light and weather are controlled. It is the technique used today for high-budget series and films, and it is expanding into advertising, television, events and training.

The Milazzo hub does not merely use this technique: it manufactures its tools. It does so through two mutually reinforcing assets. The first is FORMA, a physical product. The second is the digital environment factory, with its library.

A virtual production shoot, step by step

- 1 The scene's digital environment is selected from the library or created.
- 2 The LED wall volume is arranged around the set. With FORMA, the bases position themselves.
- 3 The camera is tracked: as it moves, the graphics engine adjusts the background's perspective with it.
- 4 Real actors and objects are lit by the projected scene, with convincing reflections.
- 5 The director sees the finished shot on the monitor and makes adjustments on site.
- 6 Post-production is left with refinement, not reconstruction.

A virtual set viewed from above



Conceptual diagram, not to scale. The wall area seen by the camera displays the background at maximum quality; the remainder lights the scene. Analysis by R. Rockefeller S.C.

FORMA: the self-assembling set

A large virtual studio is a fixed installation: productions must travel to it, book it and adapt to its geometry. FORMA reverses that relationship. It is a system of LED panels mounted on mobile, omnidirectional robotic bases with LiDAR sensors and autonomous navigation. The bases arrange themselves to match the scene, reconfigure between takes, load onto a vehicle and go wherever the production works: a soundstage, an industrial building, a square or a museum. This is advanced mechatronics and mobile robotics, one of the technologies Europe considers strategic, while LED panels today come largely from Asia.

A service chain develops around the product: installation, operational rental with technicians, scheduled maintenance and updates. In its 2025 report on the media industry, the European Commission counted around thirty virtual production facilities in the Union in 2024 and noted interest in smaller, more flexible formats. This is precisely FORMA's territory.

The environment factory

The other half is digital. A production chain, Digital Location Automation, transforms real locations into high-fidelity three-dimensional environments: the location is captured through photogrammetry and scanning, then AI algorithms clean the geometry, optimize textures and prepare the environment for real-time rendering. The result is a digital twin that can be lit, filmed and inhabited like the real place, at any hour and in any weather.

The environments enter a library: a collection of iconic Italian landscapes, certified and accessible in the cloud, presented by the promoters in 2025 as a key element of the project. It has two kinds of value. For international productions, it is a catalogue of authentic, assured settings with cleared rights. For the country, it is a database for protecting its heritage: a rigorously digitized location is documented forever, whatever happens to it.

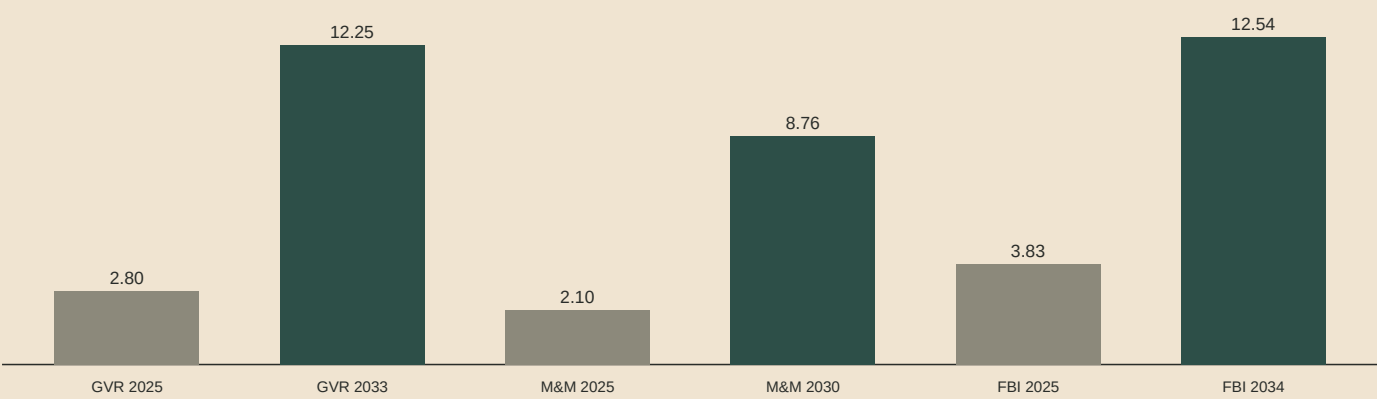
A digitized location can be licensed many times without being used up.

This asset has distinctive economics. Producing an environment costs money once; licensing it costs almost nothing and can be repeated many times. Each new title increases the catalogue's value, and the catalogue remains the property of its creator. This makes the library one of the hub's most important assets, and explains why it must be protected: every title carries a rights record, a version and a fingerprint recorded on the digital identity platform.

The markets

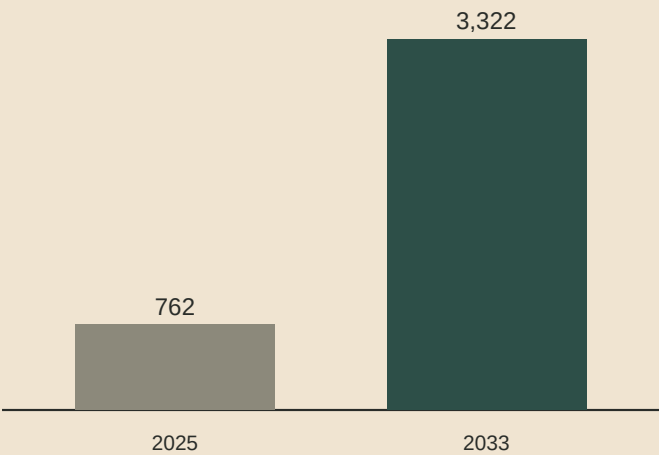
Three publishers provide estimates for global virtual production, and they differ because their scopes differ: they must be read separately, not averaged. All three indicate double-digit growth. For Europe, Grand View Research gives USD 762.3 million in 2025 and USD 3,321.9 million in 2033, with compound annual growth of 20.6%.

Global virtual production: three publishers, three scopes



USD billion. GVR: Grand View Research, annual growth of 20.4% between 2026 and 2033. M&M: MarketsandMarkets, 33.1% between 2025 and 2030. FBI: Fortune Business Insights, 14.1% between 2026 and 2034. Publishers' estimates, not forecasts for the hub.

Virtual production in Europe



USD million. Compound annual growth of 20.6%. Source: Grand View Research, Europe Virtual Production Market Size and Outlook 2026-2033.

Customers are not limited to cinema. The same tools serve television and live events, advertising, video games, museums seeking to show what cannot be touched, industries training staff in simulated environments, and architects showing buildings before they are built. They are as useful abroad as in Italy: the domestic market establishes a track record, while European and international markets provide scale. A system that travels and a library that can be downloaded have no logistical borders.

Where virtual production is useful

Sector	What it enables
Films and series	Filming remote, dangerous, protected or vanished locations without moving the crew; controlling light and weather
Advertising	Changing settings in minutes; producing several versions of the same commercial in one day
Television and events	Sets that transform live; immersive stages and conferences
Museums and cultural heritage	Visiting what cannot be touched; reconstructing what no longer exists; documenting what is at risk
Industry and training	Training staff in simulated environments without stopping facilities or taking risks
Architecture	Showing a building, neighbourhood or restoration before construction

What the department offers

Business line	Description	For whom
FORMA systems	LED panel configurations on mobile robotic bases, delivered and installed	Studios, integrators, broadcasters
Deployment	A virtual set brought to the filming location, with technicians, by the day	Productions, events, advertising
Custom environments	A real or imagined location built in 3D for a specific production	Films, series, video games
Photogrammetry	Survey campaigns covering locations, buildings and works	Museums, public bodies, companies
Library licences	Certified Italian settings, ready to use	Productions worldwide
Trust services	Certification of digital assets' origin, version and rights	Businesses and institutions
Maintenance	Scheduled support and updates for installed systems	FORMA system owners

Why a customer would buy

An illustrative example makes this clear. Take a EUR 250,000 production filmed conventionally. With a virtual set brought on site and a ready-made digital environment, travel and locations fall from EUR 112,000 to EUR 20,000, and post-production from EUR 60,000

to EUR 38,000; EUR 47,000 of digital work appears that did not exist before. The total becomes EUR 185,000: EUR 65,000 less, a 26% saving. Savings vary between productions, but the mechanism is clear, and it also benefits the environment: fewer people and vehicles travelling means fewer emissions.

A European interest

Digitizing locations is not just a film industry business. Through Recommendation 2021/1970, the European Commission asked Member States to digitize in 3D all at-risk monuments and sites, and half the most visited ones, by 2030. Italy has the most sites on UNESCO's World Heritage List. An industrial chain capable of producing certified digital twins, with cleared rights, meets a public objective as well as a market need. It also keeps the intellectual property of landscapes and cultural heritage under European control, instead of entrusting it to platforms on other continents.

The campus and music

Training develops around production. The project includes a campus for around one thousand students, dedicated to film and digital

creative professions: virtual production, AI, immersive systems and visual effects. It also includes a cutting-edge area for sound design, sound production and film scores, named after Augusto Martelli. A hub that produces images needs people who know how to create them and how to give them sound.

The competitive landscape

The competitive arena includes virtual studio integrators such as Mo-Sys, LED panel manufacturers such as ROE Visual, software and service providers such as Disguise, motion-control specialists such as MRMC, and asset platforms such as Fab. The same company may be a supplier on one project and a competitor on another. The hub seeks to distinguish itself by combining what others do not: a self-moving set, a certified library of Italian landscapes and an asset trust service, all produced in Europe.

FORMA's five gates

Gate	Required evidence	Decision enabled
Specification	Scope of use, architecture, requirements, responsibilities	Development launch
Subsystems	Mechanical, control, LED and synchronisation tests	Sample integration
Integrated prototype	Repeatability, calibration, workflow, diagnostics and recovery	Application demonstration under tested conditions
Commercial release	Documentation, applicable compliance, manuals and saleable configuration	Order acceptance within the release scope
Industrial repeatability	Stabilised bill of materials, qualified suppliers, testing and support	Growth in volumes and fleet

The path from prototype to series production for a mechatronic product. Analysis by R. Rockefeller S.C.

In brief: virtual production at the hub

- 1

A product. FORMA, the self-moving virtual set, manufactured in Europe.
- 2

A factory. Digital environments produced at scale using AI.
- 3

An asset base. A certified library of Italian landscapes that can be licensed repeatedly.
- 4

A school. The campus for around one thousand students and the music area named after Augusto Martelli.

Energy

Whoever controls energy controls computing capacity. In Milazzo, energy comes from two sources of its own: the sun, through the photovoltaic canopy, and the earth's heat, through the first European pilot of R. Rockefeller S.C. and RePG's AGS geothermal technology.



Conceptual illustration of AGS geothermal energy and ORC conversion. It does not depict the completed plant.

0 m → up to 1,000 m

illustrated depth

ORC

energy conversion cycle

IN THIS SECTION

Two hundred and fifty kilowatts beneath our feet

Two hundred and fifty kilowatts beneath our feet

A closed loop underground and a surface machine turning heat into electricity, day and night. How the Milazzo pilot works, what it really produces and why it is worth more than the energy it generates.

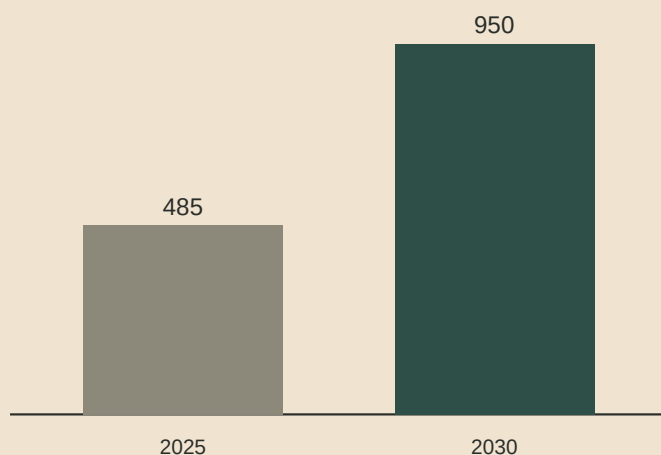
Artificial intelligence has a physical constraint, and it is not chips: it is electricity. The International Energy Agency estimates that the world's data centres consumed 485 terawatt-hours in 2025 and will consume 950 in 2030. This doubling creates a race for available power, especially continuous power independent of the weather. On 1 September 2026, Fervo Energy and Google announced a 396-megawatt geothermal supply agreement for a future Utah data centre, with deliveries planned from 2028. Fervo uses a different technology from Milazzo, but the signal is the same: a market exists for geothermal power for computing.

How it works, in plain language

Traditional geothermal systems draw hot water or steam from a natural reservoir and reinject it. Closed-loop AGS geothermal systems extract neither. A fluid sealed inside pipes travels underground, heats up through contact with the rock, returns and releases its heat at the surface. There is no exchange between the fluid and the ground: no water withdrawal and no subsurface emissions.

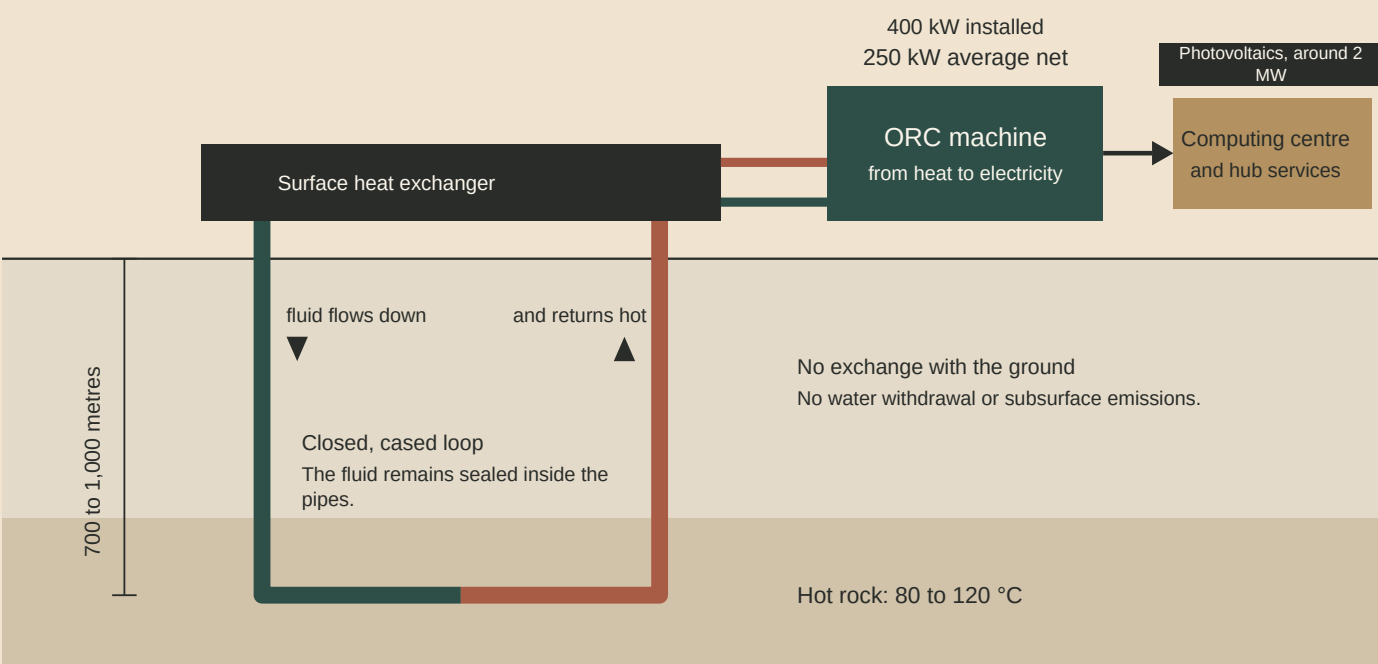
At the surface, an Organic Rankine Cycle machine operates. Instead of water, it uses a fluid that evaporates at low temperatures: heat causes expansion, expansion drives a generator, a condenser returns the fluid to liquid form and the cycle restarts. It is the principle of a steam power station adapted to low-temperature heat.

Global data centre electricity consumption



Terawatt-hours per year. The 2030 figure is the central projection. Source: International Energy Agency, Key Questions on Energy and AI, 2026.

The Milazzo loop, in a diagram

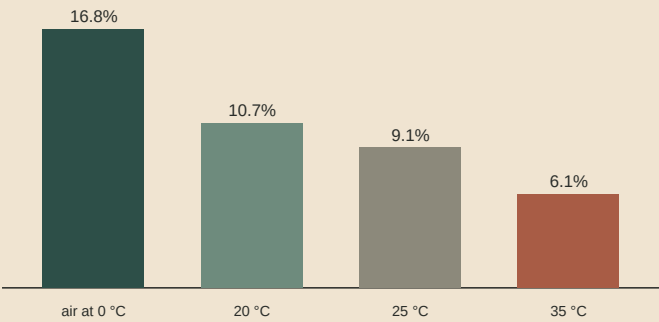


Conceptual diagram, not to scale. Depths and temperatures are those stated in the public project presentation at the Senate on 15 September 2026. Capacities: R. Rockefeller S.C.

What 55 degrees means

RePG technology is known for generating electricity from 55 degrees. This figure needs to be understood. A heat engine does not work on temperature alone, but on the difference between a hot source and a cold one. Physics sets a theoretical ceiling, the Carnot limit, which no real machine reaches. With a hot source at 55 degrees, that ceiling is 16.8% when outside air is at zero degrees, 10.7% at 20 degrees and 6.1% at 35. Generating electricity at 55 degrees is therefore possible; the real question is how much net power is obtained.

The theoretical efficiency ceiling with a 55 °C source



Carnot limit as the cold-source temperature varies. Actual efficiencies are lower. Source: R. Rockefeller S.C.

The advantage is tangible: a low threshold makes cooler, shallower sources usable, which conventional

technologies consider beyond reach. It means geothermal energy can be used in many more places.

Field evidence

The surface unit has already operated in real facilities in Türkiye. At the Hayat Kimya plant, a 75 kW module ran for 4,248 hours in its first period, averaging 48.4 kW net, producing 205.5 megawatt-hours and recording 97.5% availability over the logged hours; by August 2026, recorded net output was around 396 megawatt-hours. At AFJET, with water at 72 to 66 degrees and 25 cubic metres per hour, the unit delivered 12.7 kW net. These are company-sourced data. Stated maturity is TRL 9 for the surface unit and TRL 7 for the integrated AGS system, which is undergoing a one-megawatt qualification programme in Bursa. Milazzo is the European pilot project.

The Milazzo pilot

The planned unit is a RePG module with 400 kW installed capacity, designed for average net output of 250 kW. RePG manufactures in Bursa; R. Rockefeller S.C. handles engineering, coordination and project management. At the Senate, architect Zema described a fully closed-loop system at depths of 700 to 1,000 metres, with temperatures of 80 to 120 degrees, and an initial plant scalable up to one megawatt.

From 400 to 250: the calculation step by step

- 1

400 kW is the machine's rating. It is what the generator can deliver under design conditions, like the maximum power in a car's specifications.
- 2

The plant uses part of it. Circulation pumps, condenser fans and control panels consume electricity. These are auxiliary loads.
- 3

Climate matters. Warmer air reduces the temperature difference driving the machine. It produces less in summer than in winter.
- 4

250 kW is what remains. It is the annual average at the meter: the energy that can actually be used.
- 5

In one year. 250 kW multiplied by 8,760 hours yields 2.19 million kilowatt-hours. At an 85% capacity factor, this falls to 1.86 million.
- 6

And it can grow. The first plant is designed to reach up to 1 megawatt by adding modules, without rebuilding what already exists.

Sun above, earth below

The two sources complement each other. The photovoltaic canopy, over 14,000 square metres with around 2 megawatts of capacity, produces heavily around midday and nothing at night. Geothermal produces less, but continuously, around the clock. For a computing centre with an almost constant load, the latter supplies the base and the former the peak. The hub remains grid-connected: the aim is to reduce dependency and stabilize costs.

Why the pilot is worth more than its energy

The pilot is a demonstration plant, the first of this technology in Europe. If the testing programme is written before construction, the plant delivers a reusable evidence file: the net power curve under different weather conditions, availability and maintenance. That file reduces the risk of every subsequent plant, in Italy and abroad. Measuring summer performance well is worth more than a rated output observed only in winter. For the hub, it means hosting the reference site for a technology facing the entire market for continuous energy in industry and computing.

The pilot's qualification pathway

Stage	Result required before proceeding
Site definition	Thermal characterization, rights, connection, access, environmental conditions
Design and contracts	Thermal and electrical balances, layout, responsibilities, acceptance criteria
Factory acceptance	Verifiable unit measurements under agreed conditions, calibration, safety checks
Site acceptance	Net power at the agreed meter, loaded operation, fault and restart tests
Seasonal campaign	Continuous data series: climate curve, availability, maintenance
Replication	Standard offer with guaranteed curve, schedule and maintenance for the next site

Source: R. Rockefeller S.C.

How much geothermal a data centre needs

An example helps establish scale. A data centre with a 10-megawatt IT load consumes more than those 10 megawatts because it must also provide cooling and auxiliary services: in this example, one quarter more. Average demand becomes 12.5 megawatts, or 109,500 megawatt-hours a year. A 12.5-net-megawatt plant operating at 90% produces 98,550. Annual energy alone does not guarantee supply in every hour: the grid, or backup, remains necessary. This is why a continuous source such as geothermal is worth more for computing than a source that produces only when the sun shines.

A European interest

Geothermal energy has returned to the Union's agenda. The European Parliament in January 2024, and energy ministers in December that year, called for a dedicated European strategy, and the Commission scheduled an action plan. The International Energy Agency recorded USD 2.2 billion in financing for next-generation geothermal in 2025. In Italy, the framework starts with Legislative Decree 22 of 2010 on geothermal resources and coordinates with the new renewable energy regimes; the Environment Ministry's decree of 2 April 2026 updated rules for geothermal probes. A closed-loop plant, without

abstraction or emissions, is the kind of geothermal energy most readily accepted by a local community.

A small field of operators

The world's recognizable closed-loop geothermal platforms can be counted on one hand: they include Canada's

Eavor, with its Geretsried plant in Germany, and the US companies XGS Energy and GreenFire Energy. R. Rockefeller S.C. and RePG's differentiator is low-temperature conversion combined with modularity. Through the Milazzo pilot, Italy joins this select group with its own technology.

Closed-loop platforms around the world

Platform	Proposition	Documented status
R. Rockefeller S.C. and RePG, USA and Türkiye	Sealed underground loop and surface ORC machine; low-temperature operation and modularity	Operating evidence for the converter; integrated AGS undergoing qualification; European pilot in Milazzo
Eavor, Canada and Germany	Multilateral loop for heat and electricity	Demonstrator and Geretsried plant; around 8.5 MW thermal from the first loop, May 2026
XGS Energy, USA	Coaxial tube heat exchanger with highly conductive materials	Collaboration with Baker Hughes on a 150 MW project, not yet operational
GreenFire Energy, USA	Reuse and adaptation of existing wells	Testing programmes with industrial partners
CeraPhi, UK, and GreenTherma, Denmark	Well conversion and closed-loop heat exchange, focused on heat	Thermal projects and demonstration programmes

A selective overview, not an exhaustive register. Source: R. Rockefeller S.C., based on operators' company sources.

The hub's energy at a glance

- 1

Two own sources. The canopy's photovoltaics: around 2 MW during sunshine. AGS geothermal: 250 kW average net output, continuously.
- 2

A first. Milazzo is the European pilot for R. Rockefeller S.C. and RePG technology, with an initial plant scalable up to 1 megawatt.
- 3

The value lies in the data. A power curve measured across the seasons paves the way for subsequent plants.
- 4

An asset. On-site energy lowers and stabilizes operating costs throughout the hub's life.

55°C

The temperature at which the unit begins generating electricity.

97.5%

Availability recorded in the Hayat Kimya plant's first operating period.

24 hours a day

Geothermal generates continuously, in all weather.

1 MW

The capacity to which Milazzo's first plant can grow.

The value for Italy and Europe

A EUR 100 million programme, a 47,000-square-metre site that will belong to the hub, and assets generating value every year. And a clear place in the policies through which Italy and Europe are pursuing technological autonomy.



Conceptual illustration of the hub's industrial and technological value for Italy and Europe.

IN THIS SECTION

Why Milazzo matters: the programme's value, assets, markets, and national and European interests

Seven reasons why Milazzo is strategic

For southern Italy, for the country, for Europe. Each is developed in the following pages.

1

Technological sovereignty

Software, agents and security produced in Europe, under European rules, on machines located in Sicily. This is what the Union calls for to reduce its strategic dependencies, and what the STEP platform was created to support.

2

The missing link in European AI

Europe is building large computing factories. What is missing is the capacity to write software and deploy it in businesses and public authorities: one European company in five uses AI. Milazzo addresses this, with specialized agents and multi-agent systems with verifiable identities.

3

Clean energy of its own

Sunlight from the canopy and heat from the earth, around the clock. Milazzo is the European pilot for low-temperature, closed-loop geothermal technology: whoever controls energy controls computing capacity.

4

An enduring asset base

Forty-seven thousand square metres by the sea, purchased in full by Augusto Innovation Hub, with a historic complex restored by an internationally renowned architect. Every element of the programme increases the value of an irreplaceable asset.

5

Culture as an industry

A certified library of Italian landscapes licensed worldwide, and FORMA, a European robotic product in a sector dominated by Asian supplies. The country's cultural heritage becomes a digital asset under European control.

6

Skilled jobs in southern Italy

Engineers, developers, technicians and creatives, and a campus for around one thousand students. A tangible alternative to young people leaving, and a reason to return.

7

A gateway to the Mediterranean

At the centre of routes between Europe, Africa and the Middle East, within a network of 25 engineering centres in 18 countries. A European node facing the fastest-growing markets.

Why Milazzo matters

The value of a hub like this is measured in three currencies: the economy it sets in motion, the assets it builds, and the technological autonomy it supports. In Milazzo, all three have figures and reasons behind them.

A technology hub is not a building with businesses inside it. It is a collection of productive assets: land, energy, machines, software, archives and skills. Some generate revenue, some reduce costs, and others gain value over time. To understand Milazzo's value, each must be examined individually, and then in its context: a country and a continent determined not to depend on others for the technologies that matter.

One hundred million, and what it sets in motion

The programme's total value is EUR 100 million, the figure with which its promoters presented it to the country. Also according to the promoters, at full capacity the hub will employ 500 people and generate EUR 100 million a year in local economic impact. Industry studies provide a useful benchmark: according to TEHA Group, every EUR 100 million invested in data centre construction supports over 1,200 jobs along the value chain. In Italy, SMEs generate 64% of the manufacturing value added linked to this infrastructure, against 24% in Germany:

a hub built around local suppliers aligns with the country's industrial model.

The hub's assets

The first asset is land. Augusto Innovation Hub will purchase the entire 47,000-square-metre site: a seafront area beside the port, within the town, with a protected complex that restoration and an international architect's design turn into a unique asset. Everything the programme builds, from the buildings to the canopy, from geothermal wells to the computing centre, increases an asset base that remains the hub's own.

The other assets are less visible and equally tangible. The table sets them out. They share one feature: use does not exhaust them. A digital environment can be licensed a hundred times. An agent built for one customer becomes a product for ten others. A geothermal plant generates every hour for decades. A library, an agent catalogue and an energy reference site grow more valuable with each passing year.

The hub's assets and why they matter

Asset	Description	Why it has value
Land and buildings	47,000 square metres to be purchased in full by Augusto Innovation Hub; a historic complex restored to Giancarlo Zema's design	Irreplaceable location and history; every element of the programme increases its value
Energy	Photovoltaic canopy of around 2 MW; closed-loop geothermal scalable up to 1 MW	Generates every day, lowers and stabilizes operating costs; the European reference site for a replicable technology
The computing centre	Liquid-cooled high-performance systems designed for modular growth	Computing capacity under European jurisdiction is scarce and in demand; it serves the hub and can serve third parties
Software and agents	AI software, specialized agents, multi-agent systems	Reusable intellectual property: every system built becomes a product
Digital location library	Certified, ready-to-use Italian landscapes	Licensed repeatedly without being used up; each title expands the catalogue
FORMA	Mobile robotic system for virtual sets	European industrial product in a sector whose panels come largely from Asia; generates sales, services and maintenance
Trust platform	Blockchain digital identity for assets and agents	Recurring service; infrastructure underpinning the library and agents
Campus	Training for around one thousand students, in partnership with universities	Develops the skills the hub employs; retains talent in southern Italy
Brand and architecture	A distinctive place, presented at the Senate as a national example	Attracts productions, partners, visitors and institutional attention

the size of the field in which the hub operates.

The markets in which the hub operates

Each business line addresses a market measured by public sources, and each is growing at double-digit rates. They show

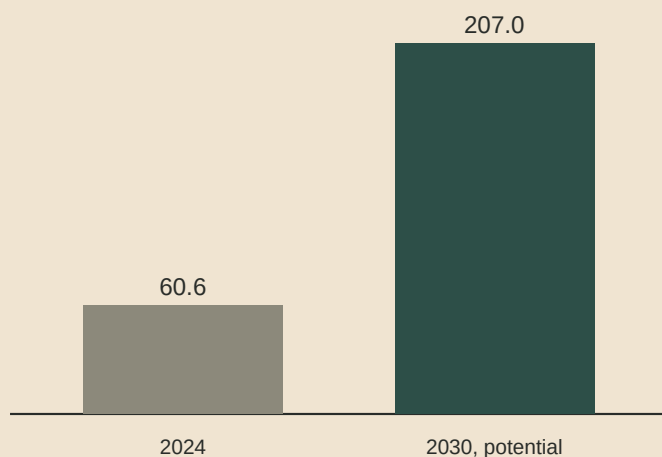
Business line	Reference market	Source
Artificial intelligence software	Italy: EUR 1.8 billion in 2025, up 50% in one year	AI Observatory, Politecnico di Milano
Agents and multi-agent systems	Global: from USD 7.84 billion in 2025 to USD 52.62 billion in 2030	MarketsandMarkets
Cybersecurity and digital trust	Italy: EUR 2.78 billion in 2025, up 12%	Cybersecurity Observatory, Politecnico di Milano
Virtual production	Europe: from USD 762 million in 2025 to USD 3.3 billion in 2033	Grand View Research
Data economy	Italy: EUR 60.6 billion in 2024; over EUR 200 billion by 2030 if aligned with Europe's leading countries	TEHA Group and A2A
Energy for computing	Global data centre consumption: from 485 to 950 terawatt-hours between 2025 and 2030	International Energy Agency

in innovative AI, cybersecurity and enabling-technology companies.

An asset for Italy

For Italy, the hub addresses four issues. The first is the adoption gap: 16.4% of Italian companies use AI, against a European average of 20% and Denmark's 42%. The country needs providers that bring software into businesses, and has just enacted Law 132 of 2025, Europe's first national law accompanying the AI Regulation, authorizing up to EUR 1 billion in investment

Italy's data economy



EUR billion. The 2030 figure is the potential if Italy reached the GDP share of Europe's leading countries. Source: TEHA Group and A2A, L'Italia dei data center, September 2025.

The second issue is southern Italy. A hub providing skilled jobs for engineers, developers, technicians and creatives, and training a thousand students, works against the departure of young people. The third is land: industry studies have mapped 3.7 million square metres of disused industrial areas in Italy suitable for new digital infrastructure. Milazzo models how to regenerate one without consuming new land, while restoring the site's memory. The fourth is cultural heritage: the country with the most UNESCO-listed sites needs an industrial chain capable of documenting them digitally, with cleared rights and under national control.

An asset for Europe

The Union has set an explicit objective: reducing strategic dependencies in digital technologies. It pursues this on three levels, and Milazzo intersects all three. First, computing: a network of AI factories, the July 2026 tender for up to seven gigafactories with over EUR 30 billion in expected investment, and the goal of tripling European data centre capacity within a few years. Second, adoption: the Apply AI strategy, eleven sectors, around

EUR 1 billion, and a focus on SMEs. Third, trust: European digital identity, cyber resilience for products and AI rules.

Large computing factories will be built in a few locations. What is needed everywhere, and is missing, is the layer above: providers that write software, build agents, certify them and deploy them within business and public-sector processes, with clean energy and under European rules. This is precisely the Milazzo hub's business. The Sicilian Region recognized it by admitting the project to the STEP call, Europe's instrument for strategic technologies.

Europe is building computing's foundations. Milazzo works on the floor above: software, agents and trust.

Finally, there is geography. Sicily sits at the centre of the Mediterranean, along the routes of submarine cables connecting Europe, Africa and the Middle East. A south-facing European hub is a gateway: to markets that will grow faster than Europe's, and where Europe seeks industrial, not merely commercial, partners.

Growing in phases

The programme is designed to grow in stages, each extending the previous one. First the core: restoration, energy, the first computing centre and the launch of the business lines. Then completion: more computing systems, FORMA in series production, the library at full capacity and the campus. Then connections with Europe's computing and research networks. Energy sets the pace: servers are added when there is power to switch them on. This approach protects value, because each step builds on something that already works.

The public policies the hub intersects

Policy	What it provides	Where Milazzo fits
STEP, Regulation (EU) 2024/795	Support for critical technologies: digital and deep tech, clean technologies, biotechnology	Project admitted to the Sicilian Region's call
AI Continent and gigafactories	AI factories; 30 July 2026 tender for up to seven gigafactories; tripling data centre capacity	The application layer: software and agents using that computing power
Apply AI, October 2025	Adoption in eleven sectors, focus on SMEs, sector-specific agents	The software factory's twelve fields of work
Technological sovereignty package, June 2026	Cloud and AI Development Act: reducing strategic dependencies	Software, security and computing produced and hosted in Europe
Italian Law 132/2025	Principles for AI use; up to EUR 1 billion for innovative AI and cybersecurity companies	Agents with human supervision, identity and audit trails
NIS2, cyber resilience, eIDAS 2.0	Security obligations; European Digital Identity Wallet by 2026	Trust platform, identities for assets and agents
Recommendation (EU) 2021/1970	Digitizing at-risk monuments and half the most visited ones in 3D by 2030	Digital Location Automation and library
Geothermal energy	Parliament and Council call for a European strategy; Commission action plan	First European closed-loop AGS pilot

Sources: European Commission; EuroHPC; Gazzetta Ufficiale; Council of the European Union. Cross-mapping by R. Rockefeller S.C.

Conclusion

The Milazzo hub brings together things usually kept apart: a restored cultural asset and a software factory, a clean-energy plant and a film set, a campus and a computing centre. It has a EUR 100 million programme, a 47,000-square-metre site set to become its own, regional admission among strategic technology projects, and a Senate presentation. It operates in double-digit-growth markets and within an

Italian and European policy framework calling for precisely what it proposes to do. For southern Italy, it means skilled jobs. For Italy, it is a regeneration model and a contribution to national technological capacity. For Europe, it is a node in the value chain through which the continent aims to write its own software, protect its own data and power its own computing with clean energy. Where a century ago fertilizers were produced for the fields of the South, the products that grow this century's economy will be made.

Who does what

Organisation	Role in the programme
Augusto Innovation Hub S.r.l.	Programme promoter and owner; will purchase the entire 47,000-square-metre site
Giancarlo Zema Design Group	Architectural design, restoration of the protected complex, photovoltaic canopy and urban park
R. Rockefeller S.C. International US company	Direct international technology and strategic partner: AI software, specialized AI agents and multiagent systems, cybersecurity and AGS geothermal energy
RePG, Bursa	R. Rockefeller S.C.'s engineering centre in Türkiye; manufactures the geothermal module
Local businesses and universities	Photogrammetric surveys, mechatronic maintenance, logistics, training

In Sala Zuccari

The Milazzo project was presented at the Senate of the Republic, in Palazzo Giustiniani, during the “Cities of the Future” conference. Architect Giancarlo Zema described it as a case of urban regeneration and cited the geothermal partnership with R. Rockefeller S.C.



Palazzo Giustiniani, Sala Zuccari, 15 September 2026. The screen shows the Augusto Innovation Hub's functional-area plan during architect Zema's presentation.

On Tuesday 15 September, at three in the afternoon, Sala Zuccari at Palazzo Giustiniani was full. The conference was titled “Cities of the Future. Innovation, AI, Finance and New Models of Urban Management”, promoted on the initiative of Senator Antonio Salvatore Trevisi, conceived by Davide Cavalli and moderated by journalist Barbara Gasperini. Three hours of proceedings were broadcast by Senate TV and recorded in full by Radio Radicale.

The room is the only part of Palazzo Giustiniani to have remained unchanged through its renovations: a first-floor gallery entirely frescoed between 1586 and 1587. In his institutional remarks, Senator Roberto Rosso, rapporteur for the urban regeneration bill, spoke of redesigning neighbourhoods around people and services through public-private partnerships. This was the context in which the Milazzo case was presented.

The presentation

The moderator invited Giancarlo Zema, architect and president of Giancarlo Zema Design Group, to set out the vision before the first panel. Zema retraced twenty years of work in sustainable architecture and smart infrastructure, from photovoltaic street furniture to the Green Islands developed for Anas smart roads and the design of Italy's first vertiport in Varese. He then turned to Milazzo, describing it as an urban regeneration project particularly close to his heart and one on which the practice had been working for a year.

He recounted the factory's history: its opening in 1901, closure in the 1960s, abandonment and regional protection in 1998. He acknowledged Augusto's president, Fabrizio Crimi, in the audience, leading the entrepreneurs who had decided to take care of the site. He described its intended use: the first technology hub dedicated to immersive arts, Virtual Production and an artificial intelligence laboratory. And its technological skin: over 14,000 square metres of photovoltaic canopy, around 2 megawatts, changing colour according to events.

On energy, Zema said photovoltaics alone were insufficient and that a strategic partnership with R. Rockefeller S.C. had brought next-generation geothermal into the project: a fully closed loop, depths of 700-1,000 metres, temperatures of 80-120 degrees and clean energy twenty-four hours a day. The first installation is 400 kW, scalable to one megawatt, and the system, he added, is also suitable for data centres and industry.



The opening title card of the Senate TV broadcast.



The presentation poster. Giancarlo Zema, The Future of Sustainable Urban Regeneration: presentation of the Augusto Innovation Hub project, with the R. Rockefeller S.C. and Giancarlo Zema Design Group brands.

Where a fertiliser factory once stood, “a new factory to fertilise new ideas and new projects” will emerge.

Digital twin cities

Opening the proceedings, Senator Trevisi named digital twin cities among the tools of the future: cities reconstructed in computers to test the effects of events on their territory in advance. This is the same digital twin technology the Milazzo hub intends to produce at scale for film, museums and industry, connecting the conference's theme with the hub's industrial programme.

The sector's response

Immediately afterwards, Federcostruzioni president Emanuele Ferrarolo, representing Italy's entire construction supply chain, took the floor. He said he had viewed the project with admiration and used it as an example of what decades-old planning rules risk blocking: a project stands, he recalled, only if its

economics are sustainable. This report makes the same argument.

What remains

Three points. The project was presented in an institutional setting as a national case of regenerating a disused industrial site. The technology partnership with R. Rockefeller S.C. was publicly declared by the architect responsible for the design. And the figures stated in the room match the technical documents: 47,000 square metres, 400 kW for the first geothermal installation and a closed loop.

The afternoon's other two panels addressed artificial intelligence, finance and innovation for real estate, with a member of the National Council of Engineers' AI working group, and the priorities for Italian cities over the next ten years.



The audience during the proceedings. The screen shows the R. Rockefeller S.C. Sustainability Department slide: clean energy solutions, sustainable innovation, AI for the planet, environmental impact and responsible growth.



From left: Fabrizio Crimi, Giancarlo Zema and Valentino Loforese in Sala Zuccari, Palazzo Giustiniani, Italian Senate, Rome, on 15 September 2026, at the presentation of the Augusto Innovation Hub project.



Sala Zuccari's frescoed vault and the conference audience.

Event details

Conference: Cities of the Future. Innovation, AI, Finance and New Models of Urban Management

When and where: Tuesday 15 September 2026, 3 p.m., Senate of the Republic, Palazzo Giustiniani, Sala Zuccari

Initiative: Senator Antonio Salvatore Trevisi. Forum conceived by Davide Cavalli. Moderated by Barbara Gasperini

First panel: From building to city: sustainability, energy and new skills

Presentation: Giancarlo Zema, architect and president of Giancarlo Zema Design Group: the Augusto Innovation Hub project

Recording: Senate TV; Radio Radicale, record 798741, duration 3 hours and 13 minutes

A network across eighteen nations

Twenty-five active centres, five continents and over 250 engineers. Who R. Rockefeller S.C. is and what its network brings to Milazzo.

R. Rockefeller S.C. is a US company with its registered office in Dover, Delaware, operating as a global platform in seven areas: artificial intelligence, AI software production, cybersecurity and defence, geopolitical analysis, engineering centres, AGS geothermal energy and sustainability solutions. It has grown through partnerships and technology exchange: the group contributes intellectual property, engineers, code and its network; partners contribute infrastructure, computing capacity, institutional credibility or financial resources.

Official 2026 figures are 25 active centres in 18 nations across 5 continents, with over 250 engineers. International engineering centres include Bursa, Türkiye, with RePG Energy, and New Cairo, Egypt, with Yellow Helmet Egypt. AI and cybersecurity centres include Lalitpur, Nepal, and a UAE centre under establishment. The agreement with Augusto Innovation Hub is directly with the international US company, R. Rockefeller S.C., which coordinates its contribution through this global network.



From the Senate TV broadcast of 15 September 2026. The R. Rockefeller S.C. Sustainability Department slide projected in Sala Zuccari.

What reaches Milazzo

Through R. Rockefeller S.C.'s international network, engineers and software production methodology come from Lalitpur and New Delhi. The geothermal machine and the engineering team that designed it come from Bursa.

New Cairo provides a bridge to heavy industry in the Mediterranean and Middle East, also the natural market for geothermal technology at low temperatures. The group's institutional relationships in the Gulf offer the hub a future connection to patient capital and technology demand that an established operation can serve.

Then there is geography. Sicily lies between Europe, Africa and the Middle East, along the submarine cable routes connecting the continents. Ten of the

network's twenty-five centres are in Africa. A south-facing European hub is the network's connecting point.

Selected international engineering centres

Type	Location	Partner	Function
Engineering	Bursa, Türkiye	RePG Energy	AGS geothermal and Organic Rankine Cycle machines
Engineering	New Cairo, Egypt	Yellow Helmet Egypt	Coordination for Africa, industrial safety and monitoring
AI and cybersecurity	Lalitpur, Nepal	Group owned centre	AI software production; operating since 5 May 2026
AI and cybersecurity	United Arab Emirates	To be defined	Under establishment

Selected international locations

Americas	Europe and Türkiye	Gulf	Africa	Asia
Dover, Delaware	Sofia Istanbul Bursa	Dubai Doha Riyadh	Tunis Tripoli Cairo Abidjan Accra Port Harcourt Kinshasa Brazzaville Nairobi Johannesburg	Lalitpur New Delhi Mumbai Shanghai Singapore

The group's seven business areas

Artificial intelligence	AI software	Cybersecurity and defence	Geopolitical analysis	Engineering centres	AGS geothermal	Sustainability
Research and architectures	Production from source code	Cryptography and zero trust	Scenarios and institutional relations	International industrial partners	With RePG, at low temperature	Energy and environmental solutions

What the network brings to the hub

- 1 Engineers developing artificial intelligence software from source code, using a certified method.
- 2 The ability to design special AI agents with identity, permissions and an action log.
- 3 Proprietary cryptography and zero-trust security architectures.
- 4 AGS geothermal technology and the engineering team that developed it.
- 5 A presence in eighteen nations, with ten centres in Africa and three in the Gulf.

Milestones

1901	The factory opens. Milazzo's plant starts producing chemical fertilisers. It will close in the 1960s.
1998	Heritage protection. The regional cultural heritage department places the complex under protection.
Summer 2025	The announcement. The project is presented to the national press: 47,000 square metres, a EUR 100 million investment, and Giancarlo Zema's architecture.
October 2025	The context. The European Commission publishes the Apply AI strategy; Italy's Law 132 of 2025 on AI enters into force.
23.12.2025	The company. Augusto Innovation Hub S.r.l. is incorporated as an innovative start-up.
5.5.2026	Lalitpur. R. Rockefeller S.C.'s Global Innovation Hub in Nepal becomes operational.
11.6.2026	Admission. The Sicilian Region admits the project to the STEP call, Europe's instrument for strategic technologies.
30.7.2026	Gigafactories. The Union opens the tender for up to seven large AI factories.
15.9.2026	The Senate. The project is presented in Sala Zuccari, Palazzo Giustiniani, at the conference "The Cities of the Future".
Next steps	The regional process, restoration and the geothermal pilot. Launch of the software production centre and the first specialized AI agents. Augusto Innovation Hub's purchase of the entire 47,000-square-metre site.
2026-2027	European deadlines. The European Digital Identity Wallet by the end of 2026. From 20 January 2027, Machinery Regulation (EU) 2023/1230, which concerns FORMA; from 11 December, general application of the Cyber Resilience Act.
2030	The Union's goals. Three European companies in four using cloud, data and AI; 3D digitization of at-risk monuments and half the most visited ones.

Glossary

AI agent

A programme assigned an objective: it plans steps, uses tools, executes and reports, within rules and under human supervision.

Special or vertical agent

An agent built for a single sector or function, using the customer's data and procedures.

AGS

Advanced closed-loop geothermal system: a sealed fluid collects underground heat without exchanging anything with the ground.

AI factories and gigafactories

European computing centres for AI. The former develop around public supercomputers; the latter are much larger facilities for training the largest models.

Apply AI

European Commission strategy, October 2025, to accelerate AI adoption in eleven sectors.

Brownfield site

An industrial site no longer in use. Regenerating it avoids consuming new land. Known in English as a brownfield site.

Auxiliary loads

Pumps, fans and controls needed for a plant to operate. They consume part of the electricity generated.

Blockchain

A shared digital register whose entries cannot be changed without leaving a trace.

eIDAS

European regulation on digital identity and trust services. The new

version introduces the European Digital Identity Wallet.

Capacity factor

Actual annual energy output divided by the output that full power in every hour would produce.

Zero trust

A security architecture in which no user or system is trusted by default: every access must be verified.

Photogrammetry

Three-dimensional reconstruction of an object or place from multiple photographs.

Digital twin

A faithful digital copy of a real location or object.

kW, kWh, MWh, TWh

A kilowatt measures power, the plant's output at an instant. A kilowatt-hour measures energy, power multiplied by time. One thousand kWh equal one MWh; one billion kWh equal one TWh.

LiDAR

A sensor that measures distances using pulses of light. It helps robots navigate and surveys take measurements.

NIS2

European directive on network and information system security. It broadens the organisations covered and reporting duties.

Orchestrator

The coordinator of a multi-agent system: assigns tasks, gathers results and passes decisions that belong to people to them.

ORC

Organic Rankine Cycle: a system that converts low-temperature heat into

electricity using a fluid that evaporates readily.

Photovoltaic canopy

A lightweight roof supporting solar panels: it produces energy while shading the spaces beneath it.

Installed and net power

The first is the machine's rating. The second reaches the meter after auxiliary consumption and climate effects.

Virtual production

A filming technique in which the scene is projected in real time onto LED walls surrounding the actors.

Multi-agent system

A team of specialized agents, each with its own task, identity and permissions, coordinated by an orchestrator.

Digital sovereignty

A country's or continent's ability to control the technologies, data and infrastructure on which it depends.

SSI

Self-sovereign identity: the holder controls their credentials and decides to whom they are disclosed.

STEP

Strategic Technologies for Europe Platform, Regulation (EU) 2024/795.

Human supervision

The principle that sensitive decisions in an AI system remain with a person.

TRL

Technology readiness level, from 1 to 9. At level 9, the product is validated in its operational environment.

Sources

Method

The report uses only public sources, in three distinct groups. Public documents and statements: regional decrees, press coverage and the Senate conference recording. Market estimates and studies: cited with publisher, date, currency and scope, never turned into forecasts for the hub. R. Rockefeller S.C. analyses: diagrams, comparisons and calculations identified as such.

The project

Sicilian Region, Department of Productive Activities. STEP public call, PR FESR Sicilia 2021-2027, actions 1.6.1 and 2.9.1, D.D.G. No. 3424 of 2 December 2025. D.D.G. No. 1828/2.S of 11 June 2026, list of applications admitted to the first phase.

Il Sole 24 Ore, 1 August 2025; Gazzetta del Sud, 31 July 2025; StartupItalia, 4 August 2025; BeBeez, 2 August 2025; Innovation Island, 7 August 2025: project announcement, investment and promoters' estimates.

Business Register, Messina Chamber of Commerce: corporate registration details for Augusto Innovation Hub S.r.l.

The Senate conference

Radio Radicale. Cities of the Future. Innovation, AI, Finance and New Models of Urban Management. Recording of 15 September 2026, record No. 798741, with programme and automatic transcript.

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The architecture

Giancarlo Zema Design Group. Profile, biography, projects and awards from the practice's official website, accessed September 2026.

R. Rockefeller S.C.

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