



PRESS RELEASE

FONDAZIONE SYMBOLA AND ENEL PRESENT 100 ITALIAN RENEWABLE ENERGY STORIES

ITALY IS THE SECOND LARGEST EUROPEAN PRODUCER OF RENEWABLE ENERGY TECHNOLOGIES AFTER GERMANY

IN ITALY, THE RENEWABLE ENERGY SUPPLY CHAIN CONSISTS OF 37,655 COMPANIES, A THIRD OF WHICH ARE CONCENTRATED IN LOMBARDY, LAZIO AND THE VENETO

ITALY AT THE FOREFRONT FOR THE COLLECTION AND RECYCLING OF END-OF-LIFE PHOTOVOLTAIC MODULES

ERMETE REALACCI, CHAIRMAN OF FONDAZIONE SYMBOLA: "IN 2023, IEA EXECUTIVE DIRECTOR FATIH BIROL STATED THAT 85% OF NEW INSTALLED ELECTRICAL CAPACITY WAS FROM RENEWABLE ENERGY. THE GREEN TRANSITION HELPS TOWARDS A FUTURE ON A MORE HUMAN SCALE. FOCUSING ON RENEWABLES AND EFFICIENCY ENCOURAGES GROWTH IN ITALY, STRENGTHENS OUR ECONOMY AND INCREASES JOBS. AS STATED IN THE REPORT, 37,655 COMPANIES DECLARE ACTIVITIES RELATED TO THE RENEWABLE ENERGY SUPPLY CHAIN, ROUGHLY 13% MORE THAN IN THE PREVIOUS YEAR. IN REGIONAL TERMS, ALMOST A THIRD OF THE COMPANIES ARE CONCENTRATED IN LOMBARDY, LAZIO AND THE VENETO. ITALY EXCELS IN MANY SEGMENTS OF THE NEW SUSTAINABLE ECONOMY: THIS COUNTRY IS AT ITS BEST WHEN IT COMBINES ITS ANCIENT CHROMOSOMES, ITS IDENTITY, WITH AN ALL-ITALIAN WAY OF DOING BUSINESS: AN APPROACH THAT BRINGS TOGETHER INNOVATION AND TRADITION, SOCIAL COHESION, NEW TECHNOLOGIES AND BEAUTY, THE ABILITY TO SPEAK TO THE WORLD WITHOUT LOSING TIES WITH LOCAL AREAS AND COMMUNITIES, PRODUCTION FLEXIBILITY AND COMPETITIVENESS".

NICOLA LANZETTA, HEAD OF ITALY AT ENEL: *100 ITALIAN RENEWABLE ENERGY STORIES* TELLS THE STORY OF AN ITALY OF OUTSTANDING BUSINESSES WHOSE IDEAS, ADVANCED TECHNOLOGIES AND SUPPLY CHAIN SPREAD THROUGHOUT THE COUNTRY, GIVING US A LEADING ROLE IN EUROPE'S ENERGY TRANSITION. WE ARE IN THE MIDST OF A LONG JOURNEY ON WHICH WE NEED TO WORK AS A TEAM, FOCUSING DECISIVELY ON RENEWABLES, TO ACHIEVE THE CHALLENGING CLIMATE GOALS OF THE 2030 AGENDA. IT IS THEREFORE NECESSARY TO CONTINUE TO INVEST IN TECHNOLOGIES AND INNOVATION, IN STORAGE SYSTEMS THAT ENSURE PROPER MANAGEMENT OF THE ENERGY PRODUCED, AND IN THE MODERNIZATION, RESILIENCE AND DIGITALIZATION OF THE GRIDS THAT REPRESENT THE CORNERSTONE OF THE ELECTRICITY SYSTEM AND THE COUNTRY'S ENERGY TRANSITION".

Rome, May 29, 2024. The *100 Italian Renewable Energy Stories* report, promoted by Symbola – Fondazione per le qualità italiane and Enel in conjunction with KEY - The Energy Transition Expo, focuses on the technologies developed in the world of renewables. It was presented today at the Enel Auditorium by Ermete Realacci, Chairman of Fondazione Symbola, and by Nicola Lanzetta, Head of Italy at Enel. The speakers included Angelica Agosta, CEO of Ennovia; Alessandra Astolfi, Global Exhibition Director, Green & Technology Division, IEG; Matteo Cavalletti, Innovation Manager, MIDAC; Stefano Lorenzi, CEO, 3SUN; Letizia Magaldi, president of Magaldi Green Energy. The event was moderated by Fausta Chiesa, journalist at *Corriere della Sera*.

After investigating innovation made in Italy in the supply chains of e-mobility and automation, circular economy and life sciences, the report tells 100 stories of innovation to explore a complex system of entrepreneurial, public and third-sector entities, active in various fields in the supply chain. These include production of products, components and machinery; research and development; design and permits; installation and maintenance; software and hardware development; end-of-life; promotion.





"In 2023, IEA Executive Director Fatih Birol stated that 85% of new installed electrical capacity was from renewable energy. The green transition helps towards a future on a more human scale. Focusing on renewables and efficiency encourages growth in Italy, strengthens our economy and increases jobs. In the words of Ermete Realacci, Chairman of Fondazione Symbola, the report notes 37,655 companies that declare activities related to the renewable energy supply chain, roughly 13% more than in the previous year. In regional terms, almost a third of the companies are concentrated in Lombardy, Lazio and the Veneto. Italy excels in many segments of the new sustainable economy: this country is at its best when it combines its ancient chromosomes, its identity, with an all-Italian way of doing business that brings together innovation and tradition, social cohesion, new technologies and beauty, the ability to speak to the world without losing ties with local areas and communities, production flexibility and competitiveness. There is still a great deal to do, but we can start from where we are now to face not only our old mistakes but also the future and the challenges it poses us. We can do so as part of the mission Europe has set itself with Next Generation EU, to respond to crises by bringing together cohesion, and the green and digital transition. The only way we can do it is by strengthening a path of cooperation and peace in a world that is currently weakened. To build together, leaving no one behind, leaving no one on their own; a safer, more civilized, kinder world as set out in the Assisi Manifesto, led by Fondazione Symbola and the Sacred Convent of Assisi".

100 Italian Renewable Energy Stories sets out an Italy of outstanding businesses whose ideas, advanced technologies and supply chain spread throughout the country, giving us a leading role in Europe's energy transition," stated **Nicola Lanzetta, Head of Italy at Enel**. "We are in the midst of a long journey on which we need to work as a team, focusing decisively on renewables, to achieve the challenging climate goals of the 2030 Agenda. It is therefore necessary to continue to invest in technologies and innovation, in storage systems that ensure proper management of the energy produced, and in the modernization, resilience and digitalization of the grids that represent the cornerstone of the electricity system and the country's energy transition".

Italy can be at the forefront

Italy is the second largest European producer of renewable technologies after Germany, with the sole exception of wind power, where half of production originates in Denmark. In that regard, in 2023 Vestas – a leading Danish company in the wind energy market – started to produce the largest wind turbine in the world, the V236-15.0 MW[™]. It did so in Italy, specifically at its Taranto plant, where it employs over 1300 people. Some of the technology and components produced within this country's borders is intended for export: with 3% of world exports, this country is the sixth largest exporter of technology to produce renewable energy (after China, Germany, the US, Japan, and Hong Kong).

In Italy, the renewable energy supply chain consists of 37,655 companies. Of these, 39.2% are involved in installation and maintenance activities, 13.8% in energy production, 12.3% in trade, 9.6% in manufacturing, 6.4% in real estate rental and management, and 6.1% in consulting, testing and monitoring. In regional terms, almost a third of the companies are concentrated in Lombardy, Lazio and Campania.





As part of this supply chain, almost 800 companies are focused on the development of cutting-edge technologies; these are a strategic asset for Italy, given the fact they produce a turnover of €12 billion and employ 37,000 people. Of these, companies operating mainly or exclusively in the supply chain (around half of the total) are growing in terms of both production value and the development of new technologies. Compared to a production value that grew by 14.3% between 2015 and 2019 (against +7.8% for energy and gas suppliers), patents entered in the accounts rose by 176.6%. This is a particularly significant figure, in a context where Italy is more and more rarely among the leaders in patents on technologies in the energy sector.

Machinery production

With regard to machinery production, the most competitive Made in Italy companies have successfully responded to market demand by offering their customers automated solutions to improve quality and production efficiency, while reducing costs at the same time.

The supply chain can gain further momentum as a result of the future industrialization of the solutions currently under development at various independent or in-house research centers. From projects aimed at improving storage solutions by working on the capacity and duration of their energy storage, reducing footprint or improving sustainability by reducing the use of heavy metals, but also research projects aimed at making the production of electricity from renewable sources more efficient (such as those aimed at the development of concentrated photovoltaics), to automate certain plant maintenance activities with a consequent drastic reduction in costs (such as the cleaning of photovoltaic panels) and an increase in the ability to exploit natural resources that currently remain underused, for example the waves at sea.

The manufacturing component of the supply chain, whether in the production of products and components or machinery, is characterized by the bespoke solutions offered by Italian companies, by virtue of Made-in-Italy's ability to promote solutions suitable for different situations and client requirements.

Renewal of energy infrastructure

Another determining factor for the growth of the renewable energy supply chain in this country as shown in the report is the ongoing process of renewal in energy infrastructure. The scenario has been changing radically in recent years: for example, in the first half of 2023, the number of renewable plants in Italy connected to the national distribution grid tripled compared to the same period in the previous year (and even exceeded the total number of connections in 2022). The country's path towards energy independence and environmental sustainability has witnessed significant growth in the number of low-voltage prosumers, i.e. companies or private citizens becoming energy producers in addition to consumers (made possible by photovoltaic panels, micro-wind devices, green car batteries that can receive but also release charge, etc.). This new scenario requires renewal of the electricity grid from a smart grid perspective, to integrate the actions taken by all users and prosumers in a smart, flexible way. This involves renewal of the grid from multiple points of view: crucial for this purpose, not only the increase in the number of primary substations, but also the increase in the capacity to accommodate new needs through digitalization of networks installation of second-generation smart electricity meters, development of software that can provide accurate forecasts on energy consumption and production from renewable sources, etc.





Collection and recycling of photovoltaic modules

Italy is also at the forefront in "end-of-life". For example, it anticipated the European directive on electronic waste through the action of one of its major consortia working in this field, which created the first Italian supply chain for the collection and recycling of photovoltaic modules that have reached the end of their life. Or the commitment of numerous entrepreneurs and research centers to extending the life of products and components or to experimenting with innovative solutions that improve their circularity.

The picture that emerges from the report provides an overview of this country's strengths in terms of the green transition. A network of organizations distributed throughout Italy in all segments of the supply chain, where solutions and technologies related to both electricity generation and infrastructure are increasing exponentially. The same supply chain will need to respond to the growing demand for energy from renewable sources driven by policy, as in the case of energy communities, but above all by businesses.





The 100 stories told are listed below:

END-OF-LIFE: 9-Tech | Caracol | Cobat RAEE | Compton Industriale | Cormatex | Erp Italia Servizi | eTa Blades | Feragame INSTALLATION & MAINTENANCE: C.E.M.E.S. | CIRCET Italia | Ennovia | REITANO | RI.EL.CO. | SITE – Società Impianti Telefonici ed Elettrici | Sundrone

PRODUCTS & COMPONENTS: 3SUN Gigafactory | Axial Fans International | Camuna Condotte | Comal | Costruzioni Oleodinamiche Salvi | E.Geo | Ecolibrì | Energy Dome | Franco Tosi Meccanica | Fri-el Geo | FuturaSun | G.B. Service | GES – Green Energy Storage | Glass to power | Hydroalp | i-TES | Industrie De Nora | Italvalv | Kenergia | Magaldi | Messina Energia | Midac Batteries | NHOA Energy | Prysmian Group | REM Tec | RPS – Riello Solartech | Scotta | SEA – Società Elettromeccanica Arzignanese | Seabreath | SP – Studio Pietrangeli | TenarisDalmine | Teon | Terna | Tesmec Automation | Timotei Officine Meccaniche | Trevi | W4E – Wave for Energy | Zeco | Zucchetti Centro Sistemi

MACHINERY PRODUCTION: Comau | De Pretto Industrie | Loccioni DESIGN & PERMITS: ACN Contract | ARDITO | Asja Ambiente Italia | CESI | DBA Group | Gocer | Idroweld | Renewable Consulting | Renovo Bioeconomy | Ressolar | SR International | Webuild |

PROMOTION: Italian Exhibition Group – KEY The energy transition export | Kyoto Club | Legambiente Nazionale APS RESEARCH & DEVELOPMENT: Bettery | Eni Research Center, Novara | CNR – ITAE Istituto di Tecnologie Avanzate per l'Energia | Eht | ENEA | EURAC Research – Istituto per le energie rinnovabili | FBK – Fondazione Bruno Kessler | HYSYTECH | IIT – Istituto Italiano di Tecnologia | Politecnico di Milano – Department of Energy | Politecnico di Torino – Energy Center | Reiwa | Rise Technology | RSE – Ricerca sul Sistema Energetico | SeaPower | Sentnet | Sinergy Flow | Thales Alenia Space | University of Naples Federico II | Sapienza University of Rome | University of Trento SOFTWARE & HARDWARE: Arpitel – Ingegneria e Telecomunicazioni | Helio Switch | i-EM | Idnamic | Maps | NeN – Yada Energia | Regalgrid

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