open fiber

COMPANY PROFILE



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THE BACKGROUND

Open Fiber was founded to build an **ultra-broadband fiber-optic communication network** exceeding 1 Gigabit per second across the entire national territory, thus helping Italy overcome the digital divide with the rest of Europe by enabling next-generation digital services. Established in 2017 following the merger of Enel Open Fiber and Metroweb, the company is now controlled by Open Fiber Holdings, 60% owned by **CDP Equity (CDPE)** and 40% by **Macquarie Asset Management (MAM)**.

Gigabit connectivity is at the heart of the European Union's and Italy's development plans. Through **Digital Compass 2030**, the European Union has set targets for member states: a fixed ultra-fast network (at least 1 Gbps) in all European dwellings and a mobile network (5G) in the continent's populated areas by 2030. The Italian government has launched **Piano Italia 1 Giga** aimed at providing a connection speed of at least 1 Gbps download and 200 Mbps (Megabits per second) upload across the country by 2026.

THE PLAN

Open Fiber aims at ensuring the coverage Italy's major cities and connect rural and industrial areas with an ultra-fast and reliable fiber-optic network that provides increasingly advanced services and functions to citizens, businesses and Public Administration. It does not sell fiber-optic services directly to end users. Still, it operates exclusively in the wholesale market (wholesale only), offering access to its network to all interested operators on equal terms.

Open Fiber's business plan involves building a fiber-optic infrastructure in the three areas into which Italy has been divided:

- 1. In **black areas**, where the main urban centres are located, through private investment, Open Fiber is building a fiber-optic infrastructure (**FTTH** Fiber To The Home) that goes into homes and offices.
- 2. In white areas, rural and peripheral areas where the providers have not expressed an interest in operating, Open Fiber has won the three public tenders called by Infratel (a MIMIT company) to build and operate an ultra-broadband network under concession for 20 years, then remaining of public ownership.
- 3. In **grey areas**, as part of Piano Italia 1 Giga, the government called for tenders to ensure public support for building an ultra-fast network. Open Fiber was awarded 8 tender lots involving **3881 municipalities** in **9 regions**.

Open Fiber has signed a **EUR 7.2 billion** loan with leading national and international banks to bolster its business plan. This is **the most significant investment** in fiber-optic telecommunications networks **in the EMEA region**.

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Including private and public investment, Open Fiber's overall plan is worth **around EUR 16** billion - of which EUR 8 billion has already been spent from 2017 to 2023, and a further EUR 8 billion is earmarked for 2024-2031.

At the end of December 2023, Open Fiber had over 13 million FTTH (Fibre To The Home) saleable property units, confirming its position as by far the leading FTTH provider in Italy, among the market leaders in Europe, and the first wholesale-only operator on the continent.

More than 300 national and international providers have already signed **commercial agreements** to use its ultra-broadband network. Open Fibre's plan in each Italian Region is a powerful economic driver. Each day Open Fiber employs **around 11,000 people**, including staff and suppliers.



BLACK AREAS

Open Fiber is present in 240 large and medium-sized cities, with more than EUR 4 billion invested in network construction and development.



WHITE AREAS

Open Fiber was awarded all three **Infratel tenders** to build a fiber-optic network in those areas where providers did not express interest in investing. The network in these areas remains on public property and will be operated by Open Fiber in concession for 20 years. Open Fiber will reach more than **6000 municipalities** across Italy's 20 Regions, cabling over **6 million** real estate units, including homes companies and Public Administration offices. By the end of 2023, Open Fiber has completed work in over 4700 municipalities.



GREY AREAS

As defined by the European Commission, grey areas are those where only one network operator is present and the chance of another network being built in the near future is unlikely. Open Fiber was awarded 8 lots of public tenders, involving **more than 3800 municipalities** in **9 Regions**: Campania, Emilia Romagna, Friuli Venezia Giulia, Lazio, Lombardy, Apulia, Sicily, Tuscany, Veneto, totalling around **3.9 million households**.



FIBER TO THE HOME (FTTH)

Open Fiber's ultra-fast network is built using **Fiber To The Home (FTTH)** technology, literally meaning "fiber to home." The entire route, from the exchange to the customer's home, is fiber optics. This provides maximum performance with **up to 10 Gigabit per second (Gbps)**. A

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"future-proof" service able to support the full potential of all new technologies set to arrive in the next few years. Connection to a fixed network is made by laying an underground cable that connects the user's home or business to the so-called switching box, which in turn is connected to the exchange. With **ADSL**, on the other hand, the cables used in the two sections are entirely in copper, while with **FTTC**, one connection is in copper and the other in fiber-optic. **With FTTH**, **connections are entirely fiber optics**, providing unachievable performance levels with copper (ADSL) or fiber/copper (FTTC) networks. The FTTH fiber-optic network is the only one certified with the **Agcom green label** as "true fiber".

Greater Reliability

Fiber-optic connections offer increased stability and productivity because they are less prone to interruptions and technical problems than copper. Their maintenance cost is lower, and they provide a higher quality of service to end-users.

High Performance

Fiber-optic networks are 'ultra-broad', like a 100-lane highway with little traffic congestion. Thus information can travel quicker. Additionally, FTTH fiber always ensures access speeds.

Improved Efficiency

Next Generation Networks (NGN) rely on fiber-optic cables for their telecommunications infrastructure because they offer a long infrastructure lifetime and significantly higher transmission speeds than traditional copper or mixed fiber-copper technologies.

Inclination towards New Technologies

Fiber optics is the only "**future-proof**" solution, with an ongoing evolving transmission capacity that already today reaches 10 Gbps. With FTTH, the fiber directly reaches homes, making it compatible with all digital services developed over the years.





THE ADVANTAGES OF FIBER-OPTIC TECHNOLOGY FOR RESIDENTS, BUSINESSES AND PUBLIC ADMINISTRATION

Thanks to fiber-optic connections, the involved territories become more competitive in several fields, from innovation in the home (home automation, streaming, video connections, and gaming) to tourism, from telecommuting to telemedicine. The widespread fiber-optic technology makes it possible to speed up the country's digitisation process by simplifying and improving relations between residents and government, students, schools and universities, boosting productivity and competitiveness of businesses and the efficiency of the Public Administration.

Benefits and Services for Residents

The spread of fiber-optic technology enables residents to access the online services provided by the Public Administration and favours the health sector's digitalisation with applications such as telemedicine, electronic health records and drug allocation. Fiber is increasingly becoming crucial in our homes. It makes the spread of home automation easier, enabling people to work and study remotely, play online games and enjoy high-performance streaming services.

Benefits and Services for Public Institutions and the Public Administration

Fiber-optic technology also has a huge impact on our towns and villages. An ultra-fast and stable connection favours the spread of services in sustainable mobility in municipal areas, including electronic control of city LTZ accesses, info-parking, traffic flows management and EV recharging. Security and territorial monitoring benefits are also several: video-surveillance and environmental remote sensing, efficient management of public lighting, and digitisation of tourist, museum and cultural services. The Public Administration can also take advantage of ultra-broadband development for e-invoicing in commercial transactions and access to online services through SPID (Sistema Pubblico di Identità Digitale - Public Digital Identity System).

Benefits and Services for Businesses

The business world gains several benefits and advanced services enabled by fiber-optic technology. Think of agile working and telecommuting, digitisation and process innovation, and electronic data storage and sharing (cloud computing). Fiber-optic technology also makes ecommerce and export operations much easier, making Italian companies more competitive in international markets.



SUSTAINABILITY

Open Fiber works daily to generate shared value, address environmental challenges, meet current and future social needs, and to lead Italy to a position among the most technologically advanced countries in the world.

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- Sustainability Policy: the company mission is united with the commitment to being a sustainable business and with ESG (Environmental, Social & Governance) matters
- Sustainability Report: since 2021, Open Fiber has published an annual report which
 describes its approach to being a sustainable business and its contribution to
 technological innovation
- Sustainability Strategy: published in 2023, this strategy identifies the essential, distinct, concrete and ambitious sustainability pillars which Open Fiber will implement to reinforce its commitment in the medium and long term
- **ESG certification**: obtained in 2023, Open Fiber is the first Italian company to receive this certification, an unaccredited standard which attests to responsible management in terms of ESG-related themes
- Net Zero Plan: approved at the end of 2023, this ambitious corporate plan has the goal
 of net zero emissions by 2040, in-line with the concrete commitment to decarbonisation
 which, since 2022, has made it possible for Open Fiber to obtain 100% of its purchased
 electricity from renewable sources