

Factsheet

Medusa is by far the largest submarine cable project in the Mediterranean to date with 7,100 km

❖ What is Medusa Submarine Cable System?

Medusa is a new submarine communication infrastructure connecting the two shores of the Mediterranean sea. With a length of 7,100 km, it will be the longest submarine fiber optic cable in the Mediterranean. The total estimated cost of the project amounts to € 342 million.

❖ Why Medusa is necessary?

The infrastructure that will reinforce the submarine fiber optic cable network in the context of growing demand for data traffic and where submarine cables support 98% of Internet traffic.

Medusa will address the following connectivity needs:

- Directly interconnect, for the first time, the Northern and Southern shores of the Mediterranean Sea and the Southern countries among themselves via a high capacity, multi-country, future-proof optical fiber submarine cable.
- Address the digital divide with partner countries, as highlighted by the EU's Economic and Investment Plan for the Southern Neighbours.
- Offer secured connectivity for the research and education communities, up to 200 Gigabits per second, per each North African country.
- Provide the digital backbone for economic development of connected countries

❖ The EU and EIB contribution

The EU will provide a grant contribution of €40 million which will result in a significant upgrade in the interconnectivity of the research and education centres of the North African countries, with each other and with EU peer organisations, fostering the exchange of information and scientific contributions, thus stimulating innovation and research in the region.

The grant contribution will help secure direct high-speed connectivity between the North African countries and the EU for which the investment would otherwise not be commercially viable. It will also extend the impact of the infrastructure to more beneficiaries, in terms of geography and users (students, teachers, and researchers) and enhance connectivity for beneficiaries including throughout the region with first time interconnectivity between the Northern African states. The EU grant contribution has been approved in September 2022. The EIB is expected to provide the debt finance for the infrastructure with a contribution of up to €100 million in loans.

❖ Which connections?

The subsea system will depart from Lisbon and end its route in the Egyptian city of Port Said, passing through different Mediterranean countries. It will have 12 landing points in countries, West to East, such as Portugal, Morocco, Spain, Algeria, France, Tunisia, Italy, Cyprus and Egypt. Libya is an option to be confirmed. At a later stage, the project could equally be extended to the Middle East.

The EU grant concerns the interconnection of the cable landing station in Barcelona representing the entry point to the EU research and education network with four North African countries (Morocco, Algeria, Tunisia and Egypt).

❖ When it will become operational?

The submarine fiber optic infrastructure is expected to be operational between the end of 2024 and the beginning of 2025, with the activation of the first phase connecting Lisbon, Barcelona and Marseille. It will feature up to 24 fiber pairs with a capacity of 20 Tbit/s per fiber pair, and a design life of 25 years.

❖ State of the art technology

Thanks to its technology, the cable will be a high capacity, low latency, scalable, highly flexible, and therefore future-proof, connectivity solution to connect North Africa with Europe. In addition, the project will significantly improve intra-European connectivity's capacity, quality of service and resilience, as it will provide an alternative path for data traffic in the targeted EU routes.

Beyond improved connectivity, the cable will feature pioneering intelligent monitoring technology in some of its segments. This is a DAS (Distributed Acoustic Sensing) acoustic sensor system, which prevents damage to the cable with an expected lifetime of 25 years, by providing early warning of potentially damaging activities.

This system could also have a very positive application in the field of underwater seismic measurements and even study the behaviour of endangered marine mammals.

❖ Who is behind Medusa?

Medusa is owned by AFR-IX telecom, an infrastructure and telecommunications operator, founded in 2013 with European capital. AFR-IX telecom signed the agreement with Alcatel Submarine Networks (ASN), who is in charge of the manufacturing of the cable.

AFR-IX has the largest pan-African Metro Ethernet network and provides internet access in more than 50 countries in Africa, thanks to terrestrial and submarine cables and more than 60 POPs. According to the annual Financial Times Europe's Fastest Growing Companies list, AFR-IX is one of the fastest growing telecommunications companies: positions 8 (2020), 16 (2021) and 11 (2022) according to the FT 1000.

AFR-IX telecom's infrastructure investments include the Barcelona Cable Landing Station, an open digital port which started operations in October 2022 and aims at providing open access cable landing service to subsea cable operators for a neutral, safe and secure landing in Barcelona.