

Western Europe leads submarine cable launches, with 152 operational cables and 30 more expected by 2027

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Analysys Mason's new *Submarine cable database* reveals that 436 submarine cables are operational worldwide. An additional 49 are being deployed and another 56 are planned.¹

The number of submarine cable launches has intensified in recent years; 75 new submarine cables have been launched since the beginning of 2020. This is for many reasons, including [the growth in the volume of data traffic worldwide](#), [the desire to connect underserved or unconnected regions](#) and [to add resilience through redundancy to existing cable routes](#). Western Europe is the most connected region worldwide by submarine cables; 35% of all submarine cables landing in the region.

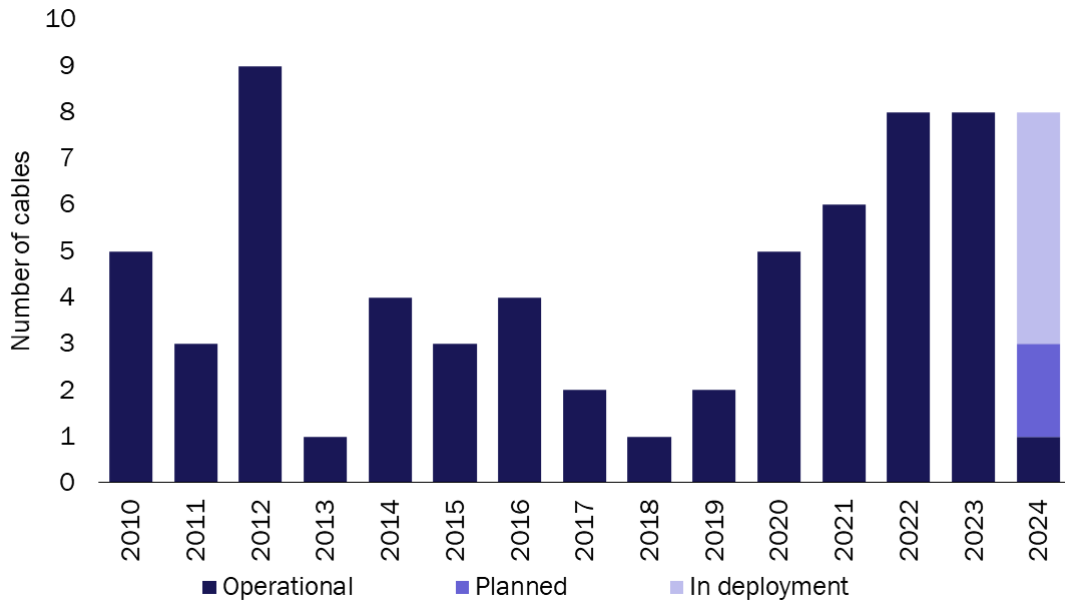
Analysys Mason's new submarine cable database provides details of all submarine cables that are planned, in deployment, operational or have been recently decommissioned. The database includes information on ownership, equipment suppliers, landing points, data centres, length, fibre pairs and capacity. The database has over 600 entries across 8 regions and is updated bi-annually.

Western Europe has the most submarine cable connections in the world; a total of 152 cables connect the region

Western Europe is the most connected region by submarine cables. 152 submarine cables land in 20 different countries within the region. Western Europe is connected by 35% of all active submarine cables. More than 1 500 000km of submarine cables connect Western European countries to other countries in the region and in other regions.

¹ Operational cables include those that only have some sections operational. Our database has 602 submarine cables, classified as operational, in deployment, planned, decommissioned, cancelled/paused or unconfirmed.

Figure 1: Submarine cables by status, Western Europe



Source: Analysys Mason

Western Europe has the highest number of submarine cables for many reasons. The first is its location on both the Atlantic Ocean and the Mediterranean Sea. The Atlantic Ocean allows for subsea connections between the region and North America, which is a high-data traffic route that is well-connected by 15 submarine cables. To the south, the Mediterranean offers connections between Western Europe and the Middle East and North Africa (MENA), a region that has developing and developed telecoms sectors and can offer onward connectivity via terrestrial routes and submarine cables to regions including Sub-Saharan Africa (SSA), emerging Asia-Pacific (EMAP) and developed Asia-Pacific (DVAP).²

Western Europe also has an extremely well-developed telecoms sector and market, making it an ideal connectivity provider partner for emerging regions such as EMAP, MENA and SSA via the Mediterranean route. Additionally, Western Europe consumes a large amount of data and has high data-traffic rates, and although growth rates are falling, total data traffic increased from 535EB in 2019 to 1001EB in 2023.³ This increasing demand necessitates robust submarine cable infrastructure to ensure a constant and resilient supply of connectivity.

The longest intercontinental cables that connect Western Europe include the following.

- **Asia-Africa Europe (AAE-1).** This cable stretches 25 000km between DVAP, EMAP, MENA and SSA before connecting to Western Europe. The cable has a capacity of 40Tbit/s across five fibre pairs and became ready for service (RFS) in 2017. The cable is owned by the AAE-1 consortium which includes China Unicom, Ooredoo and PCCW. It was supplied by TE SubCom and NEC and was upgraded by Ciena in 2022.

² Note: cables must go across the land at some point in the Middle East and do not travel down the Suez Canal.

³ For more information, see Analysys Mason's [Wireless network data traffic: worldwide trends and forecasts](#) and [Fixed network data traffic: worldwide trends and forecasts](#).

- **FLAG Europe Asia (FEA).** This is the second longest cable that connects to Western Europe, connecting Italy, Spain and the UK to landing points in MENA, EMAP and DVAP. The cable spans 27 000km and was upgraded by Ciena in 2012.
- **SEA-ME-WE-3 (SMW-3).** SWM-3 is Western Europe's longest active submarine cable, spanning 39 000km and connecting a total of 32 countries across Western Europe, MENA, EMAP and DVAP. The cable has a capacity of 1.3Tbit/s and became RFS in 1999. The cable is owned by a large consortium of operators and was supplied by Fujitsu.
- **SEA-ME-WE-5 (SMW-5).** This cable follows a similar regional route to SMW-3 but with some varied landing points across Western Europe, Central and Eastern Europe, SSA, EMAP and DVAP. The cable spans 20 000km and has a capacity of 24Tbit/s across three fibre pairs. It became RFS in 2016 and was supplied by Alcatel Submarine Networks (ASN) and NEC.

Western Europe will continue to have the most submarine connections in the coming years, but its market share will fall

Western Europe has 30 cables that are expected to become RFS before 2027, which should take its total active cables to 184. This includes the **2Africa** cable, which is expected to become the world's longest submarine cable upon launch in 2024, connecting Western Europe to SSA, MENA and EMAP. However, other regions have a higher proportion of cables planned or in deployment, including DVAP (44), EMAP (38) and North America (32), which is projected to reduce Western Europe's share of cables (by system count) worldwide from 35% to 31% by 2027.

Investment from hyperscalers will continue to drive new cable projects in Western Europe in the coming years; an additional six hyperscaler cable projects are scheduled to connect the region before 2027. Hyperscalers have been generating an increasing amount of data traffic in recent years, and have begun to invest in submarine cables to [manage the delivery of their services](#). An additional driver will be increasing data traffic rates. Data rates in Western Europe are expected to reach 2300EB by 2029, facilitated primarily by a growth in fixed traffic from factors including the broadcast-to-streaming migration and the increase in use of short-form video content on social media.⁴ New cables will also be required as older cables begin to reach the end of their lifespan, which is typically around 25 years. Lifespan can be extended, but 31 cables are either nearing or exceed this lifespan in Western Europe. This will drive the deployment of new submarine cables as replacements for those that are decommissioned in the next few years.

⁴ For more information, see Analysys Mason's [Wireless network data traffic: worldwide trends and forecasts](#) and [Fixed network data traffic: worldwide trends and forecasts](#).