Strait of Messina Bridge

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Coordinates: 38°14′51″N 15°38′21″E

The **Strait of Messina Bridge** (Italian: *Ponte sullo stretto di Messina*) is a proposed 3.6-kilometre (2.2 mi) suspension bridge across the Strait of Messina, connecting Torre Faro in Sicily with Villa San Giovanni on the Italian peninsula.[3]

The bridge has been controversial due to the impact of earthquakes, strong currents in the strait, concerns of disruption of bird migration routes, and the infiltration of mafia groups Cosa Nostra and 'Ndrangheta in area construction projects.[4]

While a bridge across the Strait of Messina had been proposed since ancient times, the first detailed plan was made in the 1990s for a suspension bridge. The project was cancelled in 2006 under prime minister Romano Prodi.[5] On 6 March 2009, as part of a massive new public works programme, prime minister Silvio Berlusconi's government announced that construction of the Messina Bridge would indeed go ahead, pledging €1.3 billion as a contribution to the total cost, estimated at €6.1 billion.[6] The project was cancelled again on 26 February 2013, by prime minister Mario Monti's government, due to budget constraints.[7] A decade later, the project was revived again with a decree by Giorgia Meloni's government, on 16 March 2023,[8] which received presidential approval on 31 March 2023.[9][10]

If built, it will be the longest suspension bridge in the world. The bridge would be part of the Berlin–Palermo railway axis

Strait of Messina Bridge
Ponte sullo stretto di Messina

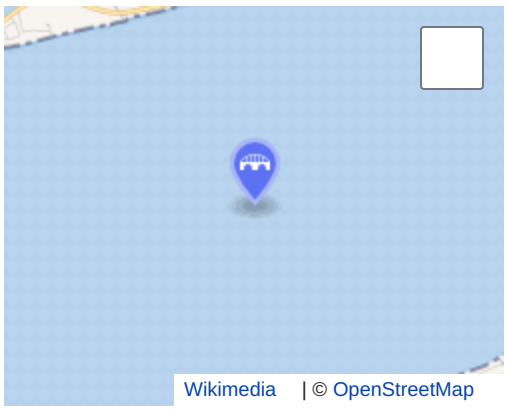
An artist's impression of the planned bridge from the Calabrian coast

Coordinates	38°14′51″N 15°38′21″E
Carries	Six lanes and two emergency lanes. Two rails and two railway sidewalks.
Crosses	Strait of Messina
Locale	Messina and Villa San Giovanni
Characteristics	
Design	Suspension bridge
Total length	3,666 metres (12,028 ft)
Height	382.6 metres (1,255 ft) (pylons)
Longest span	3,300 metres (10,800 ft)
Clearance below	76 metres (249 ft)
History	
Designer	Stretto di Messina
Construction start	2025 (projected)[1]

(Line 1) of the Trans-European Transport Networks (TEN-T). Construction is expected to begin in 2025,[1] with completion forecast for 2032.[2] The project received final government approval on 6 August 2025.[11]

Construction end	2032 (projected)[2]

Location



Geography [edit]

The Strait of Messina is a funnel-shaped arm of sea that connects the Ionian Sea in the south to the Tyrrhenian Sea to the north. The width of the strait varies from a maximum of approximately 16 km (9.9 miles) (between Capo d'Alì in Sicily and Punta Pellaro in Calabria) to a minimum of approximately 3 km (1.9 miles) between Capo Peloro in Sicily and Torre Cavallo in Calabria.[12] A similar distance separates Pezzo and Ganzirri; at that point, the strait is only 72 m (236 ft) deep, while in other places it can reach 200 m (660 ft) deep. It is also characterised by strong currents, and the region has significant seismicity.

A 2002 NASA photo of the Strait of Messina. The bridge would connect north Messina with Villa San Giovanni.

History [edit]

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The idea of a bridge crossing the strait is an old one. The Romans considered building a bridge joining Calabria and Sicily made of boats and barrels. Pliny the Elder, a philosopher and Roman military leader born in 23 AD, wrote of a plan to bridge the strait with a series of connecting boats. The idea was abandoned, as it was clear that more traffic plied the strait in a north-south than east-west direction, so any structure on water could not be permanent.[13]

Charlemagne considered joining the two sides with a series of bridges. This idea was revived by the Norman adventurer Robert Guiscard in the 11th century and by Roger II of Sicily in the 12th. In 1876, Giuseppe Zanardelli was convinced that the strait could be linked by either a bridge or a tunnel. In 1866, public works minister Stefano Jacini gave Alfredo Cottrau, an internationally recognised engineer, the task of drawing up

plans for a bridge between Calabria and Sicily. Later, in 1870, Navone proposed building a tunnel based on Napoleon's idea of a tunnel under the English Channel. This tunnel was to start at Contesse and was to pass below Messina and Ganzirri at a depth of 150 m (490 ft), crossing the strait to Punta Pezzo and resurfacing at Torre Cavallo.

A geologic study of the strait was published in 1909 (historical Arch. Sicilian year XXXIV f.1,2), and in 1921, a study of an undersea tunnel was released to the Geographic Conference of Florence. A group of railway civil engineers studied the possibility of a suspension bridge, but nothing came of it. The idea was revived in 1953 by bridge builder David B. Steinman, with a plan to build a bridge that crossed the strait using two 220 m (720 ft) towers sunk in 120 m (390 ft) deep waters. The proposed 1,524 m (5,000 ft) span would have represented a world record, eclipsing the then-longest 1,275 m (4,183 ft) centre span of the Golden Gate Bridge and beating the 2,256 m (7,402 ft) Mackinac Straits Bridge (then in planning) with a total length of 2,988 m (9,803 ft). The proposed structure was to clear the sea by 50 m (160 ft) for navigation and have two decks—a lower deck carrying two rail lines, and 7 m (23 ft) above, a road deck 30 m (98 ft) wide. The main cables were designed with a diameter of 1 m (39 in). The construction of the bridge would have required 12,000 workers and cost hundreds of billions of lire.

Modern attempts to build the bridge [edit]

Early planning stages [edit]

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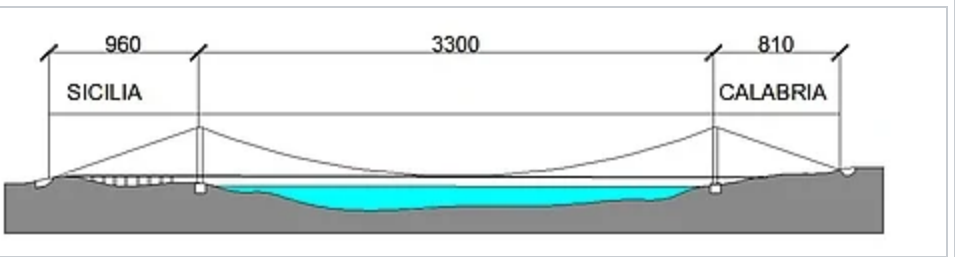
- In the 1960s, a wide variety of proposals were advanced, including everything from submerged tubes to floating struts, pontoons, and a revolving central section of the bridge. None turned out to be realistic.
- In 1969, an international design competition was arranged.
- In the 1970s, feasibility studies were undertaken by the state railways, leading to the creation of a private company with responsibility for planning the strait's crossing.
- In the 1980s, the Messina Strait Company was set up with support from the state railways, the regions, and IRI. It concluded that it would be feasible to build a suspension bridge.
- Detailed plans followed in the 1990s, with final approval from the High Council of Public Works (*Consiglio Superiore dei Lavori Pubblici*).

First Berlusconi government [edit]

The 2006 plan called for a single-span suspension bridge with a central span of 3,300 m (10,800 ft). This would have made the span more than 60%



Cross-sectional diagram of the Strait of Messina Bridge

longer than the 1915 Çanakkale Bridge in Turkey—currently the longest suspension bridge in the world, at 2,023 m (6,637 ft).[14]

Plans called for four traffic lanes (two driving lanes and one emergency lane in each direction), two railway tracks, and two pedestrian lanes. In order to provide a minimum vertical clearance for navigation of 65 m (213 ft), the height of the two towers was to be 382.6 m (1,255 ft). This would have been taller than the Millau Viaduct in France (currently the tallest bridge in the world, at 341 m (1,119 ft)). The bridge's suspension system would have relied on two pairs of steel cables, each with a diameter of 1.24 m (49 in) and a total length, between the anchor blocks, of 5,300 m (17,400 ft).[15]

The design included 20.3 km (12.6 miles) of road links and 19.8 km (12.3 miles) of railway links to the bridge. On the mainland, the bridge was to connect to the new stretch of the Salerno-Reggio Calabria motorway (A3) and to the planned Naples-Reggio Calabria high-speed rail line; on the Sicilian side, to the Messina-Catania (A18) and Messina-Palermo (A20) motorways as well as the new Messina railway station (to be built by Rete Ferroviaria Italiana).[16]

The bridge was planned to connect Reggio Calabria to Messina, the two cities that face each other on either side of the strait, in order to form a single metropolitan area. This ambitious urban project was called *Area Metropolitana integrata dello Stretto* ("integrated metropolitan area of the strait") or simply *Città dello Stretto* ("city of the strait"). Among the controversies surrounding the building of the bridge was strong opposition to the formation of the new city by various Sicilian nationalist groups.[16]

Among the engineers who participated in the project was Giorgio Diana, who mainly dealt with the aeroelastic aspect.[17]

Contracting parties [edit]

A construction consortium, led by Impregilo, was chosen in 2005, with work set to begin in the second half of 2006. The bridge was designed by Danish architects at Dissing+Weitling in close collaboration with the Danish engineering firm COWI.[18] On 27 March 2006, Impregilo and Stretto di Messina announced that they had signed a contract assigning final project planning to a general contractor. Impregilo S.p.A., the lead partner, had a 45% share. Other participants were Spain's Sacyr (18.70%), the Italian companies Società Italiana per Condotte D'Acqua S.p.A. (15%) and Cooperativa Muratori & Cementisti-C.M.C. of Ravenna (13%), Japan's IHI Corporation (6.30%), and Consorzio Stabile A.C.I. S.c.p.a (2%). The general contractor would also be assisted by the Danish and Canadian companies COWI A/S, Sund & Baelt A/S, and Buckland & Taylor Ltd., who would handle project engineering. Completion was planned to take six years, at an estimated cost of €3.9 billion.[19]

Contract of the Messina Bridge

Function	Companies	Role
General contractor Eurolink[20]	Webuild (Impregilo until 2012)	Group leader (45%)
	IHI Infrastructure Systems Co., Ltd.	Mandator

	COWI A/S	Mandator
	Sacyr	Mandator
	Società Italiana per Condotte d'Acqua	Mandator
	Cooperativa Muratori & Cementisti	Mandator
	Argo Costruzioni Infrastrutture	Mandator
	Dissing+Weitling	Mandator
	Sund & Bælt A/S	Mandator
	Buckland & Taylor	Mandator
Project management	Parsons Corporation	
Environmental monitoring	Fenice	Group leader
	Agriconsulting	Mandator
	Eurisko NOP World	Mandator
	Nautilus Società Cooperativa	Mandator
	Theolab	Mandator
Insurance broker	Marsh	

The Akashi Kaikyō Bridge, built in 1998 in Japan by IHI Corporation, one of the companies in charge of building the Messina Bridge.

The Øresund Bridge, built in 1999 by COWI A/S, one of the companies to be involved in building the Messina Bridge.

On 12 October 2006, the Italian Parliament voted 272 to 232 in favour of abandoning the plan due to the bridge's "doubtful usefulness and viability", as well as the inability of the already burdened Italian treasury to bear its share of the cost. Additionally, transport minister Alessandro Bianchi pointed out that the road and rail links leading to the location of the proposed bridge are not capable of supporting enough traffic to make the bridge profitable. Other reasons for abandoning the plan were earthquake risk and fears that the bridge would enrich the networks of organized crime in Italy, such as Cosa Nostra and 'Ndrangheta.[5][21]

Second Berlusconi government [edit]

On 15 April 2008, Silvio Berlusconi was re-elected prime minister of Italy and vowed to restart the project to build the bridge. The following month, Altero Matteoli, Italy's minister of infrastructure and transport, confirmed the government's intent to restart work on the bridge in a letter to Pietro Ciucci, the president of Società Stretto di Messina.[22]

On 6 March 2009, as part of a massive new public works programme, Berlusconi's government announced that plans to construct the Messina bridge had been revived, pledging €1.3 billion as a contribution to its estimated cost of €6.1 billion. Berlusconi claimed that work would be completed by 2016. Until 2006, when

the project was halted, the work had been assigned to a consortium of Impregilo (now called Webuild), Condotte d'Acqua, Cooperativa Muratori & Cementisti, and Consorzio Stabile A.C.I., alongside Spain's Sacyr and Japan's IHI Corporation.[14]

On 23 December 2009, preparatory work began, with the diversion of the Tyrrhenian railway at Cannitello on the Italian mainland side of the strait.[23]

In February 2013, the project was shut down by Mario Monti, the new Italian premier, for lack of funds.[7]

Renzi government [edit]

In September 2016, the project was reconsidered by the government of Matteo Renzi.[24]

Conte government [edit]

On 3 June 2020, during the COVID-19 pandemic, premier Giuseppe Conte brought up the topic of the bridge, declaring that the government would evaluate the resumption of work without prejudice.[25][26]

On 22 April 2021, the CEO of Webuild, Pietro Salini, in a joint press conference with the President of the Sicilian Region Nello Musumeci, announced that he was ready to build the Strait of Messina Bridge, starting immediately with the work and on the basis of the executive project and construction site approved definitively in 2013. He declared that he already had the four-billion-euro coverage necessary for the construction and that he could obtain the other two necessary for the infrastructures connected to it from private financing.[27][28]

Meloni government [edit]

On 16 March 2023, the Government of Italy, chaired by Giorgia Meloni, with Matteo Salvini at the Ministry of Infrastructure, approved a decree to proceed with the construction of the bridge by remodeling the existing project.[8]

On 19 March, WeBuild's Pietro Salini said work on the bridge should begin by 2024, with the opening of the project scheduled for 2032.[29]

On 31 March, the Italian president, Sergio Mattarella approved the *Decreto Ponte* ("bridge decree").[9]

In April 2025, Salvini announced that construction of the bridge would start in mid-2025 and would comply with all environmental standards.[30]

The Meloni government gave final approval to the project on 6 August 2025, allowing construction on the bridge to commence.[31]

Criticisms [edit]

The bridge has been controversial due to the impact of earthquakes, strong currents in the strait, concerns about disruption of bird migration routes, and possible infiltration of the mafia groups Cosa Nostra and 'Ndrangheta in construction projects.[4]

Seismic activity and strong winds have been cited as the largest structural issues the bridge faces.[32][33]

See also [edit]

- List of longest suspension bridge spans
- Scandinavian–Mediterranean Corridor
- Trans-European Transport Network
- Pylons of Messina
- Intercontinental and transoceanic fixed links

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External links [edit]

- Bridge design site
- Rendering of Messina Bridge
- Aerial rendering of Strait of Messina with the Messina Bridge

Categories: Buildings and structures in Messina | Cross-sea bridges in Europe | Proposed bridges in Europe | Strait of Messina Bridge | Transport in Calabria | Transport in Sicily | Villa San Giovanni