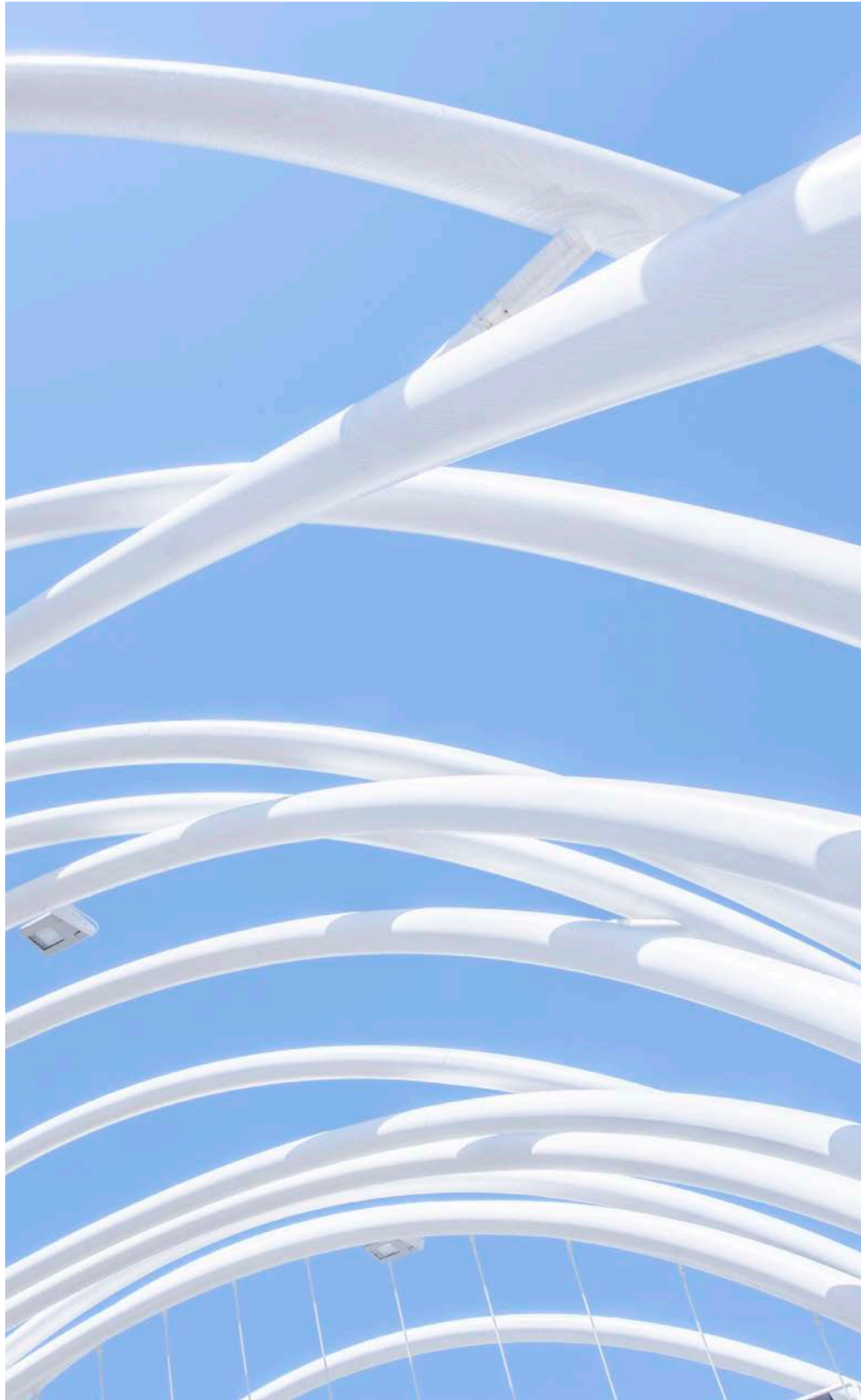


Avrasya TÜNELİ

Connecting Continents and Lives





"The Eurasia Tunnel Project, which we initiated with the vision of providing transportation services for all our citizens in a well-balanced, safe, environmentally-friendly, fair and economic manner, will not only improve the life quality of İstanbul's people, but also increase our country's global competitiveness."

Recep Tayyip Erdoğan, President of the Republic of Turkey

"With this benchmark project, we strove to add another great value to İstanbul which is already a World Capital and the meeting point of cultures and civilizations, West and East. All our effort increases the awareness of our commitment to nation building and leading our people and country into the prestigious position envisioned by Atatürk and into Turkey's future."

Binali Yıldırım, Prime Minister of the Republic of Turkey

"The Eurasia Tunnel Project will constitute one of the most significant steps towards a strong economic collaboration between Turkey and South Korea. I believe that the opportunities for economic cooperation will accelerate due to this significant project, and then continue to gradually increase over time."

Sangkyu Lee, Ambassador of Republic of Korea



"The Eurasia Tunnel undertakes an important mission not only for the present but also the future. We believe that the Eurasia Tunnel will become a symbol of this city with the inspirational motifs of Master Architect Sinan. And we are very proud of leading a project that so greatly benefits İstanbul, the culture capital."

Başar Arıoğlu, Eurasia Tunnel Operation Construction and Investment Inc. (ATAS)/ Yapı Merkezi Construction, Chairman

"This project will symbolize the great and deep friendship between South Korea and Turkey. I believe this international project will be a source of inspiration for many other countries as well. We are both proud and excited to be a part of this magnificent journey and to serve as the committed partners of ATAŞ, which realized the Eurasia Tunnel Project."

Sungjin Lee, Eurasia Tunnel Operation Construction and Investment Inc. (ATAS), CEO





Why the Eurasia Tunnel?

The Eurasia Tunnel, bringing two continents together, will carry today's civilizing solutions to subsequent generations with its long service life, sophisticated technology and respect to cultural heritage. With 1 billion 245 million USD investment cost, project was completed in 47 months.



NON-STOP
JOURNEY



FAST



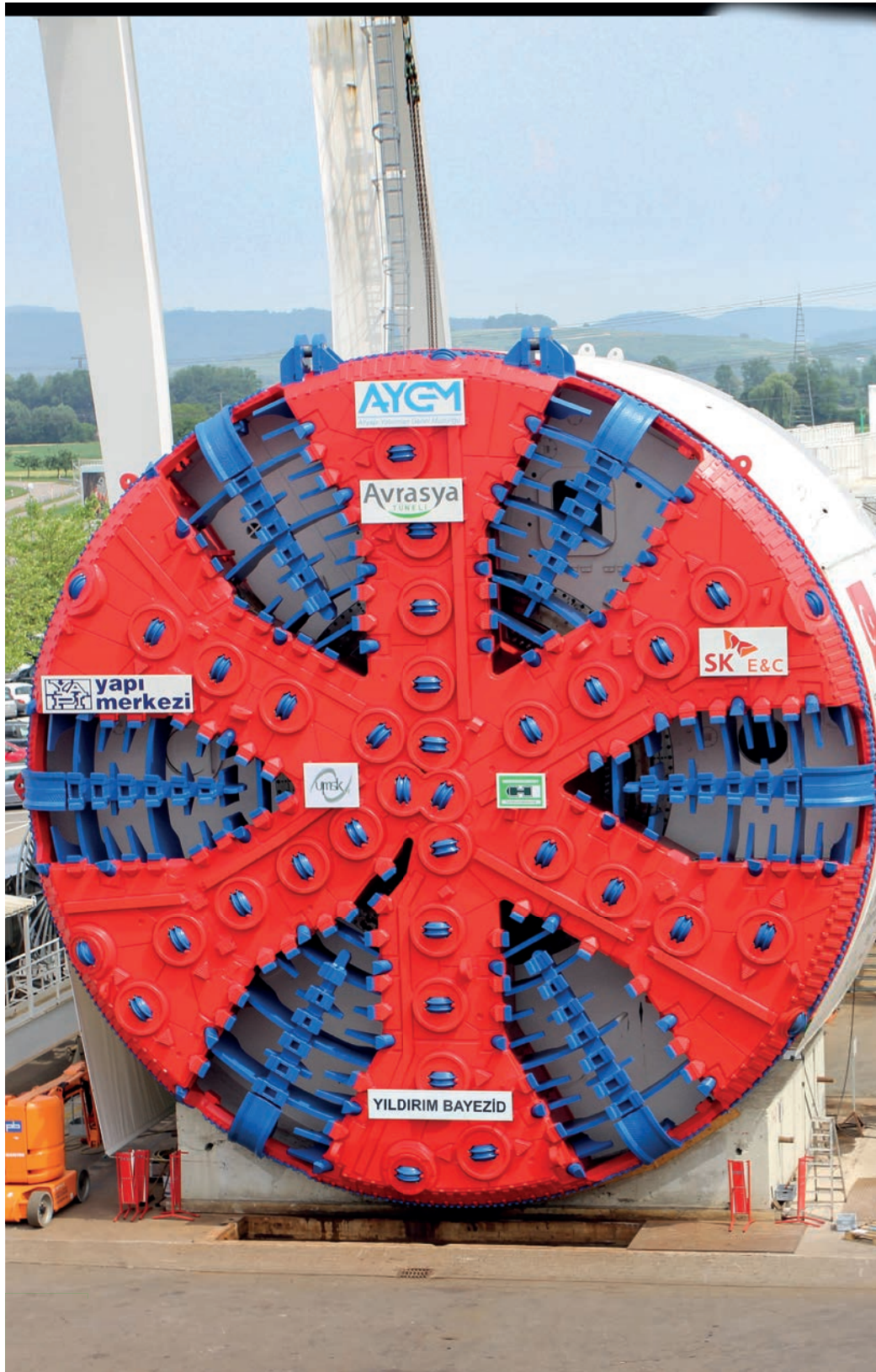
SAFE AND
COMFORTABLE



ECONOMICAL



ENVIRONMENTALLY
FRIENDLY



Intercontinental journey in 5 minutes

Serving between Kumkapı and Koşuyolu districts, 5 kilometer long Eurasia Tunnel shortens the intercontinental travel time to 5 minutes.

Construction on the Eurasia Tunnel (Highway Crossing for Bosphorus) began on February 26, 2011, connecting the continents of Asia and Europe via a highway tunnel crossing under the seabed, and the tunnel began operating on December 22, 2016. The 5 kilometer long tunnel serves between Kumkapı and Koşuyolu, a peak traffic area in İstanbul, and its total route along Kazlıçeşme and Göztepe is 14.6 kilometers. 5.4 kilometer portion of the project contains a 3.4 km long undersea twin deck tunnel built with special TBM technology and 2 km long approaching tunnels built with other methods. The total 9.2-kilometer route around Europe and Asia required road widening and improvement work as well as building underpasses and pedestrian overpasses. Tunnel crossing, road improvement and widening works were designed in an integrative manner to ease traffic jams. In addition to the many other benefits it has brought, the Eurasia Tunnel also contributes to a decrease in noise and pollution.

The Eurasia Tunnel transit route provides the fastest method of transit transportation between Asia and Europe. By design, the tunnel allows the passage of only light vehicles and no heavy ones; in addition to motorcycles, bicycles and pedestrians.

With the operation of Eurasia Tunnel, the travel times between the two continents, which could take 100 minutes decreased up to 15 minutes.



The Project consisted of three main parts

European Side

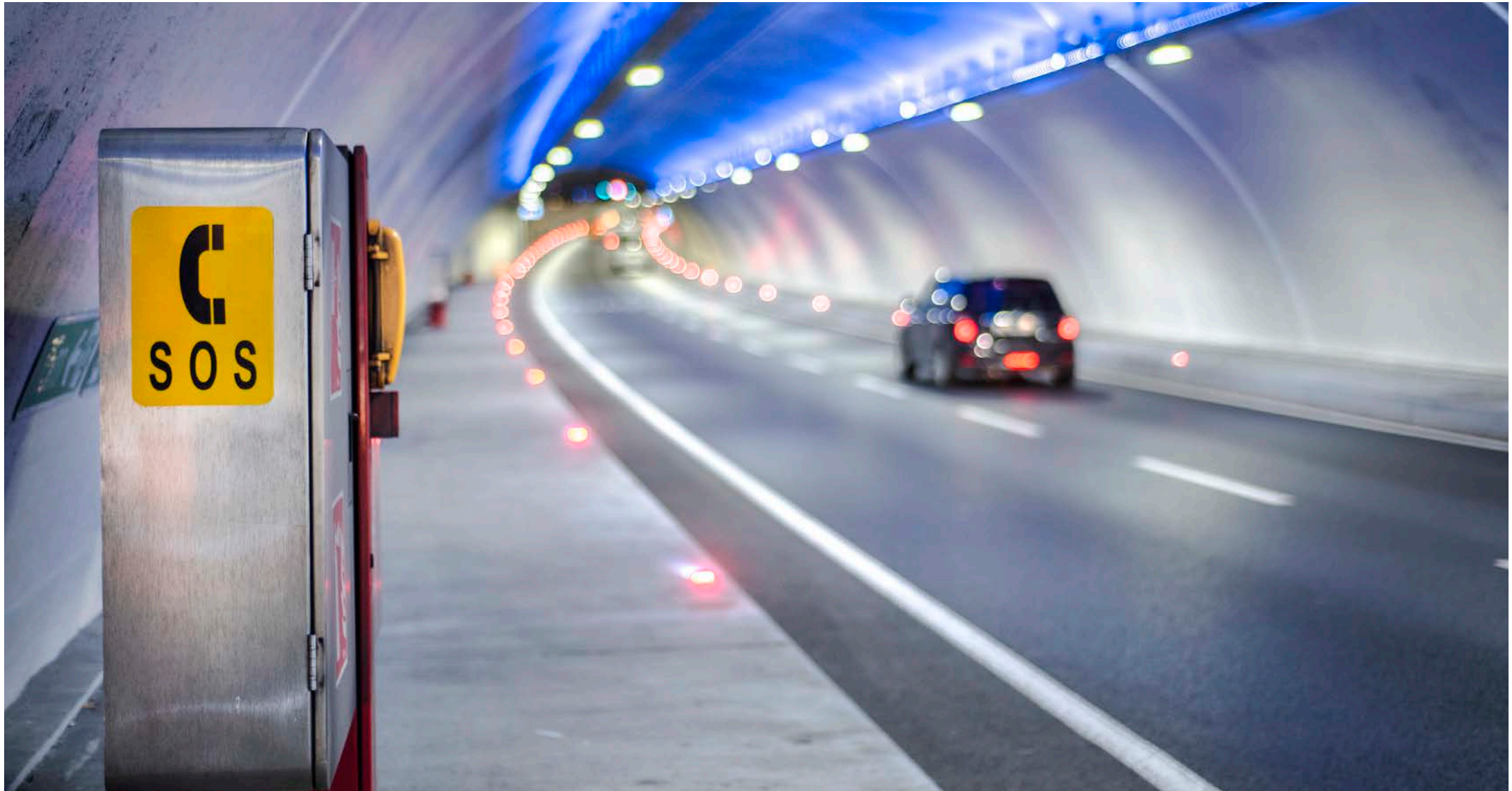
The project involved widening the current 5.4-kilometer Kennedy Street route as well as rearranging intersections and constructing suitable overpasses for disabled people. Within the rearrangement of coastal park 11.642 new trees were planted, exercise areas and bicycle route were built. The pedestrian zone between land and sea was increased from 55 meters to 277 meters which enables easy access for pedestrians.

Bosphorus Crossing

The most important part of the project is 5,4 long Bosphorus Crossing. Undersea tunnel excavation was done with the most advanced TBM tunneling technology. In TBM tunnel total 1.674 concrete segments used and two seismic rings were installed to increase the durability of the structure to earthquakes. In order to increase the safety and comfort qualities of tunnel, modern LED lighting, high capacity ventilation jet fans and road design with a low slope were implemented.

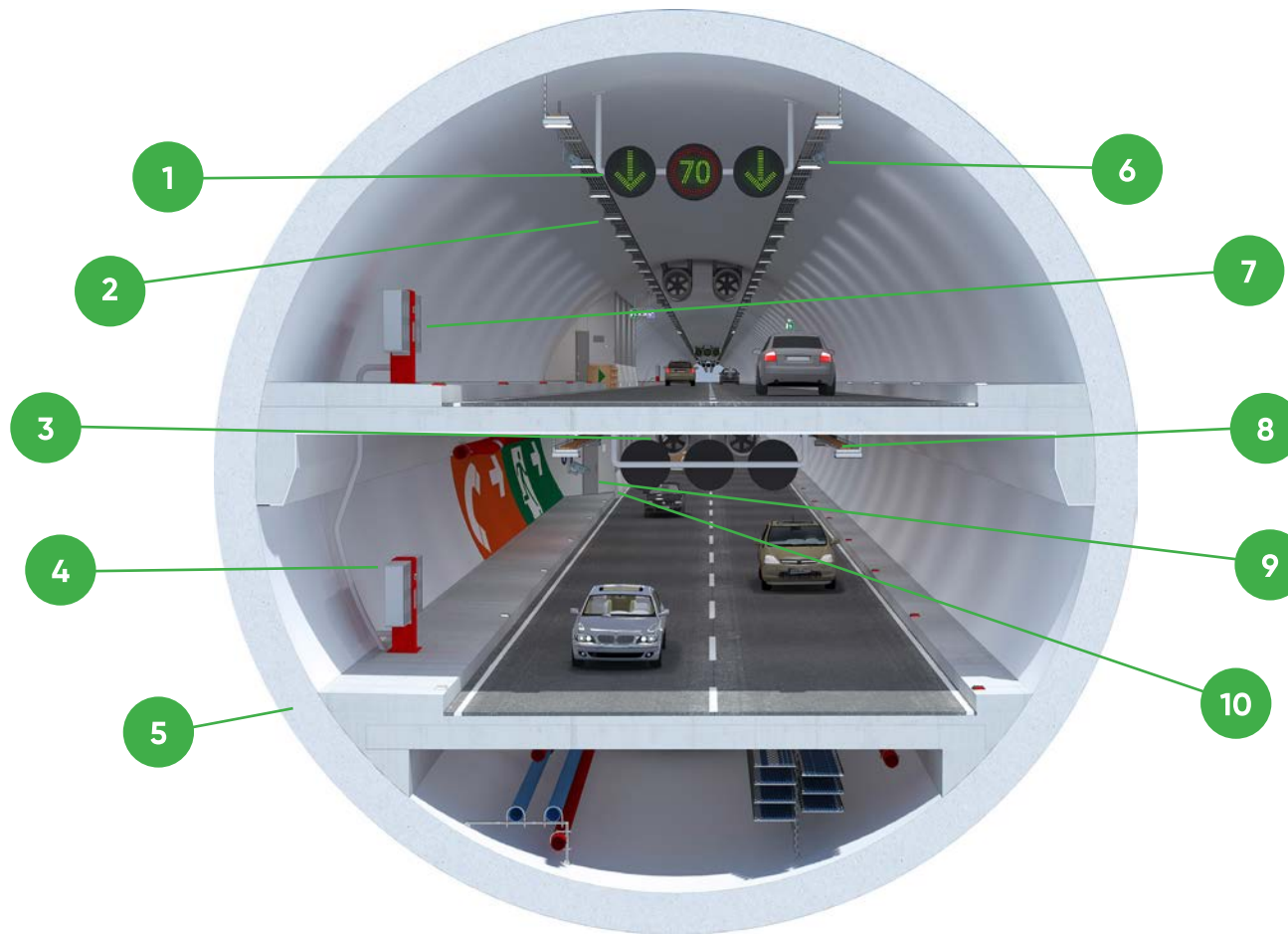
Asian Side

This part of the project required widening the current D-100 road, rearranging intersections and building suitable overpasses for disabled people. Operation and maintenance building, where a project museum is also located, awarded with a LEED Gold Certificate for its sustainable, environmentally friendly and smart technology qualities.



Advanced technological systems assure a safe and comfortable journey

Known for using the most advanced, cutting-edge technologies in construction and operation, Yapı Merkezi and SK E&C work all around the world and bring their international experience and technical assurances to the Eurasia Tunnel. Having emergency response teams on duty in the tunnel 24/7 and direct contact lines with the fire station, ambulance and security units enable immediate intervention in case of accidents or incidents.



- 1 Functional, reliable traffic management and a monitoring system completely integrated with the current metropolitan transportation system.
- 2 Modern lighting technology ensuring safe navigation and visibility for drivers.
- 3 High capacity ventilation for a clean and healthy travel environment.
- 4 Special fire-fighting system readily accessible at each point in the tunnel.
- 5 Fire-resistant surface coating.
- 6 24/7 CCTV monitoring at every point of the tunnel and incident detection systems.
- 7 Communication and notification systems accessible at each point in the tunnel.
- 8 General public announcement system for instantaneous information flow.
- 9 Emergency evacuation system with alternating passages between lower and upper decks at each 200 meters along the tunnel.
- 10 Safety lanes every 600 meters.



An ESIA process fulfills responsibility to the community

Fully comprehending its weighty responsibility to the environment and society, ATAŞ takes a highly sensitive approach to the potential environmental and social impacts of the project. Environmental and Social Impact Assessment (ESIA), carried out in full compliance with the most progressive international standards and strictest performance criteria, defined the impacts of the project on the environment and society through public engagement. Mitigation measures undertaken subsequently reduced or avoided any adverse effects of the project, and positive outcomes and benefits were also identified.

A thoroughly transparent and participative endeavor from the beginning, Eurasia Tunnel, stands out for providing superior access and service and embracing the urban texture of Historical Peninsula of Istanbul. With the light of the assessment, all mitigation measures developed during the ESIA process and implemented during the ultimate design, construction and operation phases in a perfect harmony. Ventilation building located in the European side was designed in 5 meters in order not to effect historical silhouette and bio-filtration planting was implemented. Also, with the establishment of two stations, air quality along the route was monitored continuously during construction and operation periods. All environmental and social documents are publicly available on the project website (www.eurasiatunnel.com).

1.245.121.188\$

Total Financing

285.121.188\$

Equity

960.000.000\$

Loans*

* With an 18-year maturity term, the loan package has the longest maturity terms to date for projects in Turkey's Build-Operate-Transfer Infrastructure sector.

Direct Loans

550.000.000\$

The European Investment Bank
The European Bank for Reconstruction and Development
The Export-Import Bank of Korea

Loans secured by Korea Export Insurance Corporations

210.000.000\$

Guarantors

The Korea Trade Insurance Corporation
The Korea Exim Bank

Creditors

The Sumitomo Mitsui Banking Corporation
The Standard Chartered Bank
The Mizuho Bank

Loans secured by Turkish Banks

200.000.000\$

Guarantors

Yapı and Kredi Bank
Türkiye İş Bank
Garanti Bank





Creditor

The European Investment Bank



The project's benefits

As the only highway connecting the continents of Asia and Europe beneath the seabed, the Eurasia Tunnel contributes TL 1.2 billion to travelers and Turkey's overall economy in its first operation year, taking into account time, fuel, emissions and accident costs. According to calculations made with the data from the İstanbul Metropolitan Municipality,

-  Citizens saved 23 million hours
-  Consumed 30.000 tons less fuel
-  Reduced CO₂ emissions by 18.000 tons
-  And reduced vehicles traveling per kilometer by 109 million, ultimately reducing accident costs

10 international awards



International Road Federation (IRF) 2017
Global Achievement Award in the branch of
Construction Methodology



European Bank for Reconstruction and
Development (EBRD) 2015
Environmental & Social Best Practice Award



Korean Society of Civil Engineers (KSCE) 2017
Golden Category Construction Award



Thomson Reuters PFI 2012
Turkish Infrastructure Deal of the Year



US Illuminating Engineering Society (IES) 2017
Architectural Lighting Award



EMEA Finance 2012
Best Public - Private Partnership



Engineering News Record (ENR) 2016
Best Project of the World



Infrastructure Journal 2012
The Most Innovative Transportation Project



International Tunneling and Underground Space
Association (ITA) 2015
Major Project of the Year



Euromoney 2012
Best Deal of the Year in Europe

Eurasia Tunnel Operation Construction and Investment Inc. (ATAŞ)

Eurasia Tunnel Operation Construction and Investment Inc. (ATAS) was established in 2009 to realize the Eurasia Tunnel. Responsible for the financing, construction and 25-year operation of the project, ATAS is founded on the equal partnership of Yapı Merkezi, based in Turkey, and SK E&C, based in South Korea. The global experience of both partners ensures the success of the Eurasia Tunnel project.

Yapı Merkezi Construction

Yapı Merkezi, founded in 1965, operates internationally with “Building happiness” as its motto. Every year, Yapı Merkezi ranks among the top 250 contractors in the world, according to the list published by the Engineering News Record (ENR) since 1998, and, in 2017, the company ranked 78th. Also in 2017, Yapı Merkezi officially became the 9th largest company working in Mass Transit/Rail Systems.

In all its operations, Yapı Merkezi prioritizes the development of Turkey, the international progress of civilization, its company values and the satisfaction of its customers, employees and shareholders. Yapı Merkezi has to date engineered a total of 42 million square meters around the world, all enhancing the mobility and efficiency of the global community. Operating with the confidence that comes from half a century of experience, the company provides transportation for more than 3.5 million passengers daily across three continents, thanks to the 3600 km of lines, 51 railway systems and 400 stations it has constructed thus far. Yapı Merkezi's successes have resulted in numerous awards bestowed by the world's leading associations, among them the International Association of Public Transport (UITP), Light Rail Transit Association (LRTA) and Tramways&Urban Transit Organization.

SK Engineering & Construction Co. Ltd

SK E&C, an affiliate of the SK Group, is an engineering and construction company. The SK Group, the third largest group of companies in South Korea, currently ranks 95th on Fortune Magazine's Global 500 List. The ENR ranked SK E&C 35th on its Top 250 Contractors list in 2017. Since its 1977 founding, SK E&C has competed on a global scale in construction and engineering fields across all business sectors, including infrastructure, building, housing and industrial facilities. SK E&C plays a key role in maintaining South Korea's identity as a country consistently cited for its excellence in construction and engineering.

With petrol refineries operating in 23 countries, SK E&C has undertaken gas and petro-chemical projects for years, establishing its global voice in these sectors. SK E&C provides fully comprehensive services, including direct operation and maintenance of plants involved in independent energy generation projects along with servicing both coal and combined cycle power plants. Additionally, SK E&C played a pioneering role as the first company to enter both the LNG business in the U.S. and the oil sands market in Canada. The company also offers construction services and fully comprehensive communication solutions for cellular phone systems while servicing household networks and generating solutions for the business world (u-Business) and cities equipped with their own communication technologies systems (u-City).

Project masthead

Project Name

Istanbul Strait Road Tube Crossing (Eurasia Tunnel) Project

Administration

Republic of Turkey Ministry of Transport, Maritime Affairs and Communications
General Directorate of Infrastructure Investments

Guarantor

Republic of Turkey Undersecretariat of the Treasury

Project Company

Eurasia Tunnel Operation Construction and Investment Inc. (ATAS)

Investor Companies

Yapı Merkezi Construction
SK Engineering&Construction

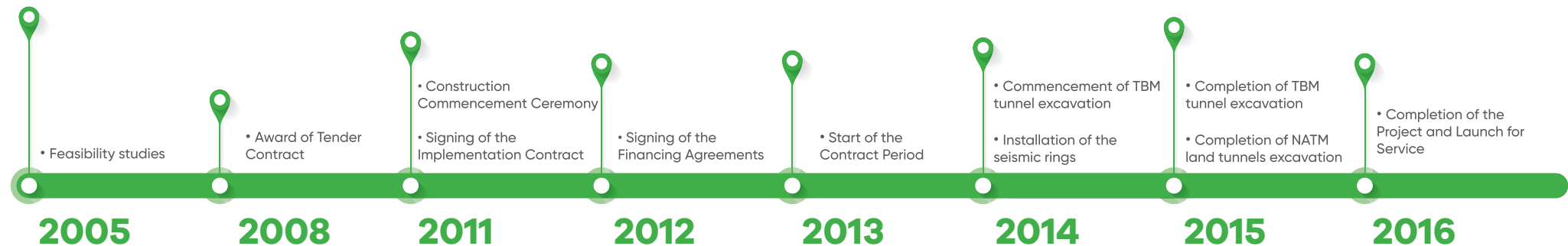
Operation and Contract Information

Contract Period: 29 Years

Investment Period: 3 years and 11 months, 3 days (47 months 3 days)

Operation Period: 25 years and 28 days

Timeline





AVRASYA TÜNELİ İŞLETME İNŞAAT VE YATIRIM A.Ş.

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