



# Eurasia Tunnel Project

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T.C. ULAŞTIRMA VE  
ALTYAPI BAKANLIĞI



Altyapı Yatırımları Genel Müdürlüğü



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SK ecoplant



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## Avrasya TÜNELİ



# Part 1. Project Overview



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# Avrasya TÜNELİ





TOTAL PROJECT LENGTH 14.6 KM

PART 1 - 5.4 km

PART 2 - 5.4 km

PART 3 - 3.8 km



- **Project Model** : Build – Operate – Transfer
- **Total Investment** : 1,245 Billion \$
- **Traffic Capacity** : 120,000 vehicle/day
- **Date of Operation** : 22.12.2016

- **Administration** : Ministry of Transportation and Infrastructure
- **Investors** : Yapı Merkezi (Turkey), SK Ecoplant (South Korea)
- **Contractor** : YMSKJV
- **Operation Period** : 25 Years 28 Days

### ➤ Time line

- 2008 June Tender submission
- 2008 December Tender decision
- 2011 February Contract signing
- 2012 December Loan Agreements signing
- 2013 January Site Handover & IC Effectiveness
- 2013 March Financial Close
- 2013 July TBM machine ready for testing in Germany
- 2013 December TBM machine in Istanbul
- 2014 April TBM starts boring
- 2015 August Breakthrough
- 2016 December Tunnel open

Official time for construction: 55 months

**8 Months Early Completion**

47 months

16 months



## Part 2. Due Diligence and Financing



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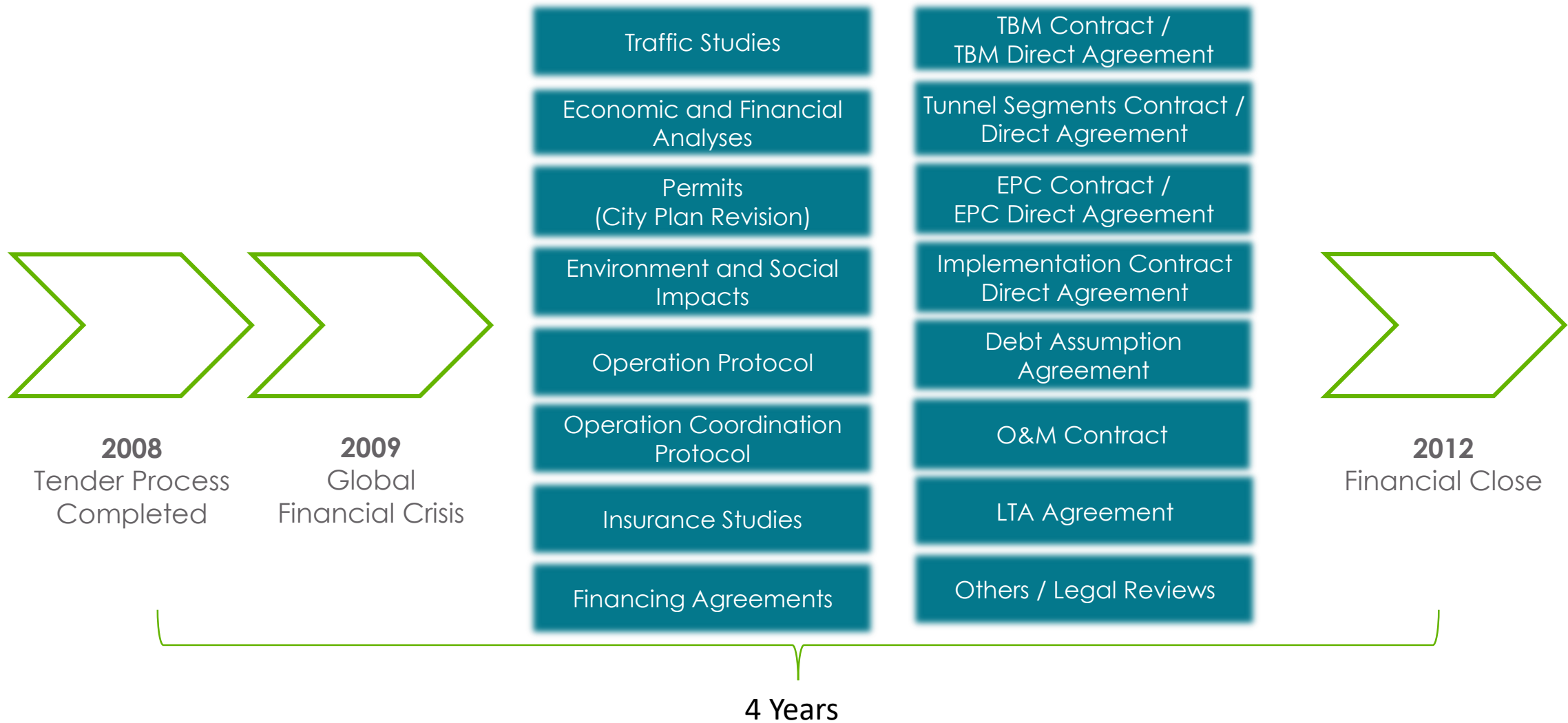


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## 2. Due Diligence and Financing

## Financial Structure

USD Million

EIB 150

EBRD 150

KEXIM 250

**TOTAL DIRECT 550**

EIB 200  
(by İşbank, Yapı Kredi, Garanti)

Standart&Chartared 75  
(by KSURE)

SMBC 60  
(by KSURE)

MIZUHO 45  
(by KSURE)

SMBC 30  
(by KEXIM)

**TOTAL COVERED 410**

**TOTAL LOAN 960**

**%77,1**



**EQUITY**

**285**



**TOTAL INVESTMENT**

**1,245**

**%22,9**

**%100**





## Part 3. Environmental and Social Impact Assessment



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## ❖ Out of scope of local EIA Regulation

- In accordance with International Standards
- Equator Principles
- IFC, EBRD and EIB Environmental and Social Performance Requirements
- OECD Common Approach

## «Environmental and Social Impact Assessment»

## ❖ Course of proceeding steps

- Protection
- Mitigation Measures
- Observation
- Improvement

## ❖ Main subjects

- Health and Safety
- Land Acquisition
- Vegetation and natural habitat
- Noise and Vibration
- Air Quality
- Resources and Wastes
- Archaeology and Cultural Heritage
- Stakeholder Engagement

## European Bank for Reconstruction and Development

## «Environmental and Social Best Practice Award, 2015»



## Part 4. Design & Construction



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Excavation  
completed in  
468 days

Boring  
speed is  
7m/day

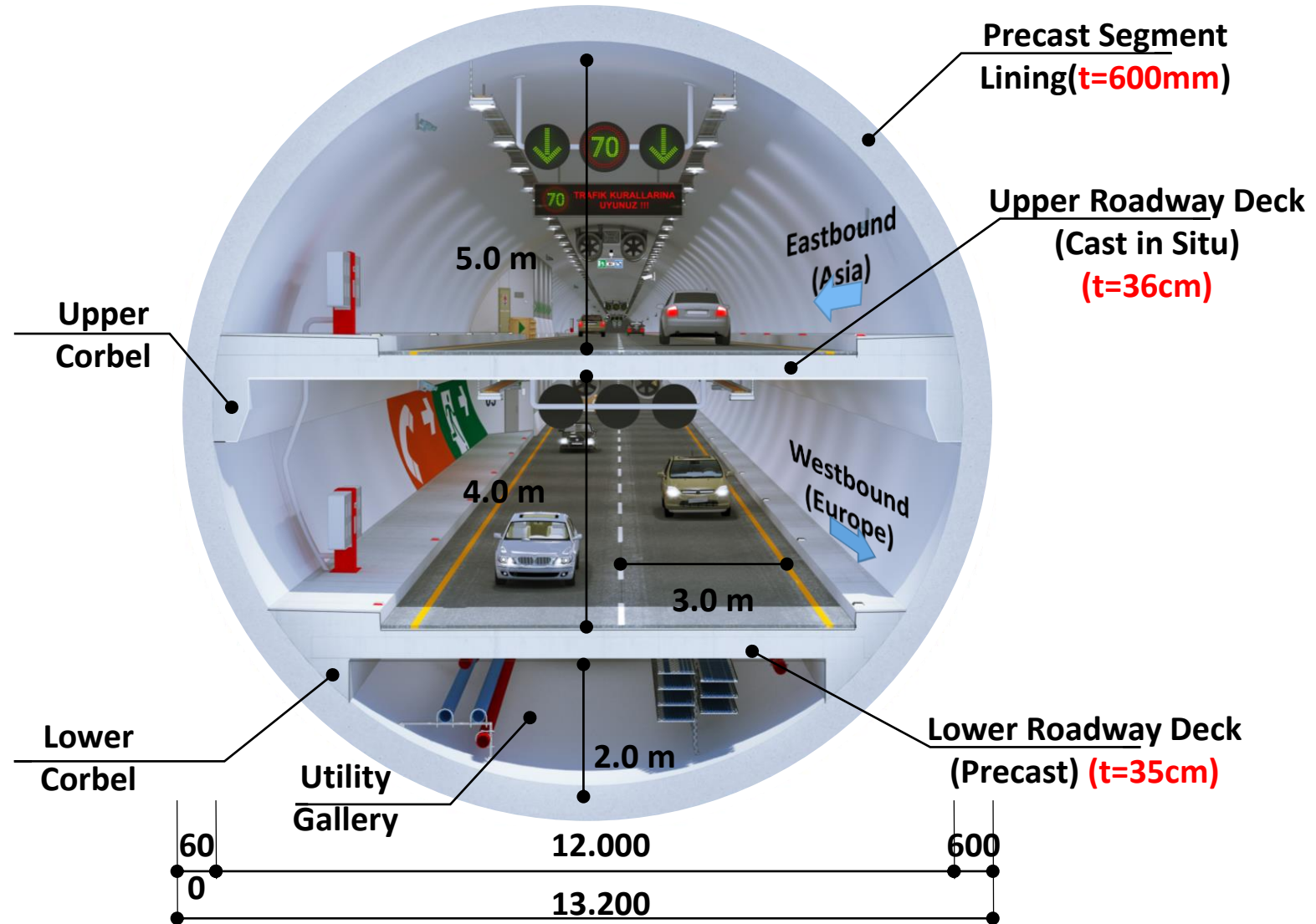


### ❖ TBM;

- 1<sup>st</sup> in the World with cutter head power, 33,3 kW/m<sup>2</sup>
- 2<sup>nd</sup> in the World with excavation pressure, 12 bars
- 6<sup>th</sup> in the World excavation diameter, 13.7 m

### ❖ Typical Section

- Excavation and Installation of Segment lining
- Upper Road Deck
- Lower Road Deck
- Fire Protection, Painting and Pavement
- E&M Works
  - Ventilation
  - Signalization
  - Lighting
  - CCTV Cameras
  - Fire Cabinets





# 4. Design & Construction

## Facility Buildings

- Operation and Maintenance Building



- Ventilation and Substation Building Asia



- Ventilation and Substation Building Europe



- Substation Building Asia



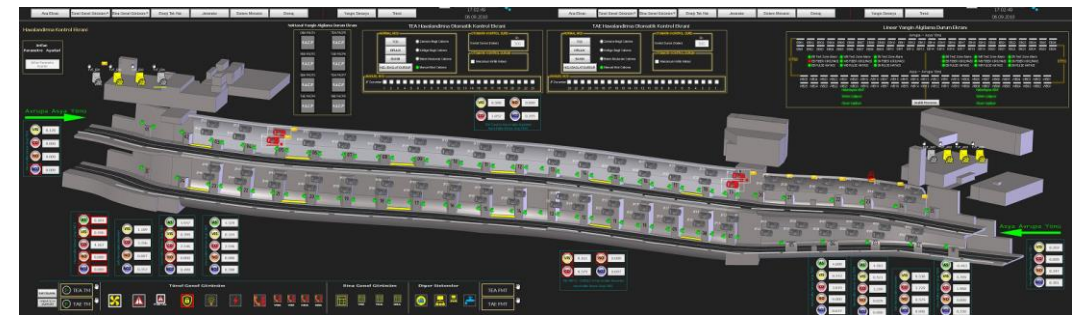
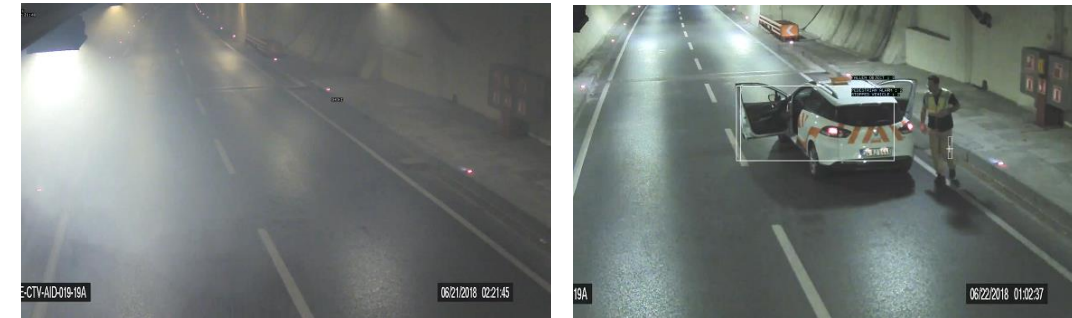


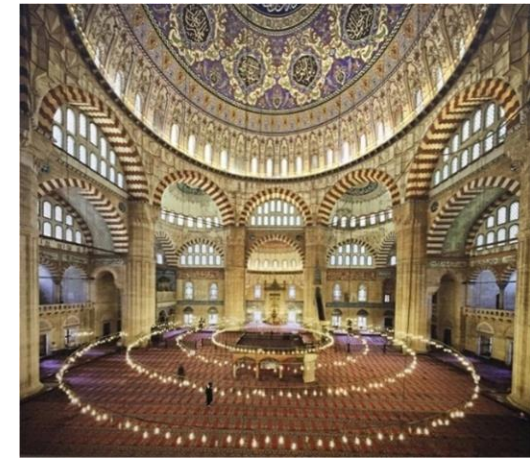
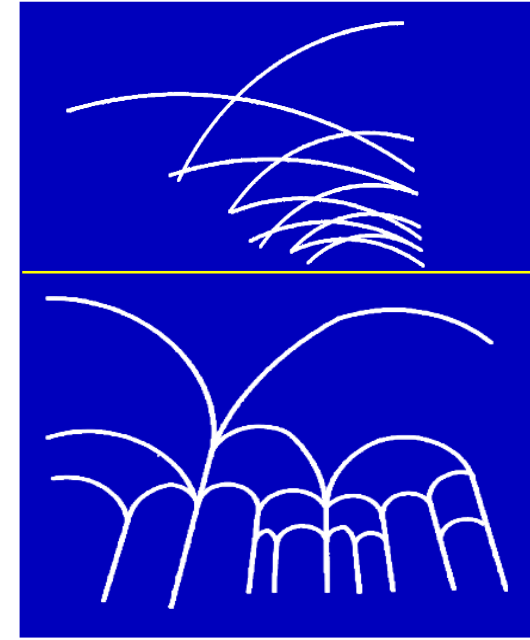
### ❖ SCADA System

- **Monitoring** and control of **integrated systems** including Ventilation, Lighting, Security, Power Supply, Radio Rebroadcasting, Public Address, Fire Detection and Suppression. (**2 SCADA Operators 24/7**)

### ❖ CCTV & Automatic Incident Detection (AID) System

- Cameras to detect scenarios including **stopped vehicle, object on the road, pedestrian, smoke, wrong way vehicle, traffic congestion, speed drop.**
- **Over 400 fixed AID cameras** implemented in both roadway and facility buildings











## Part 5. Traffic



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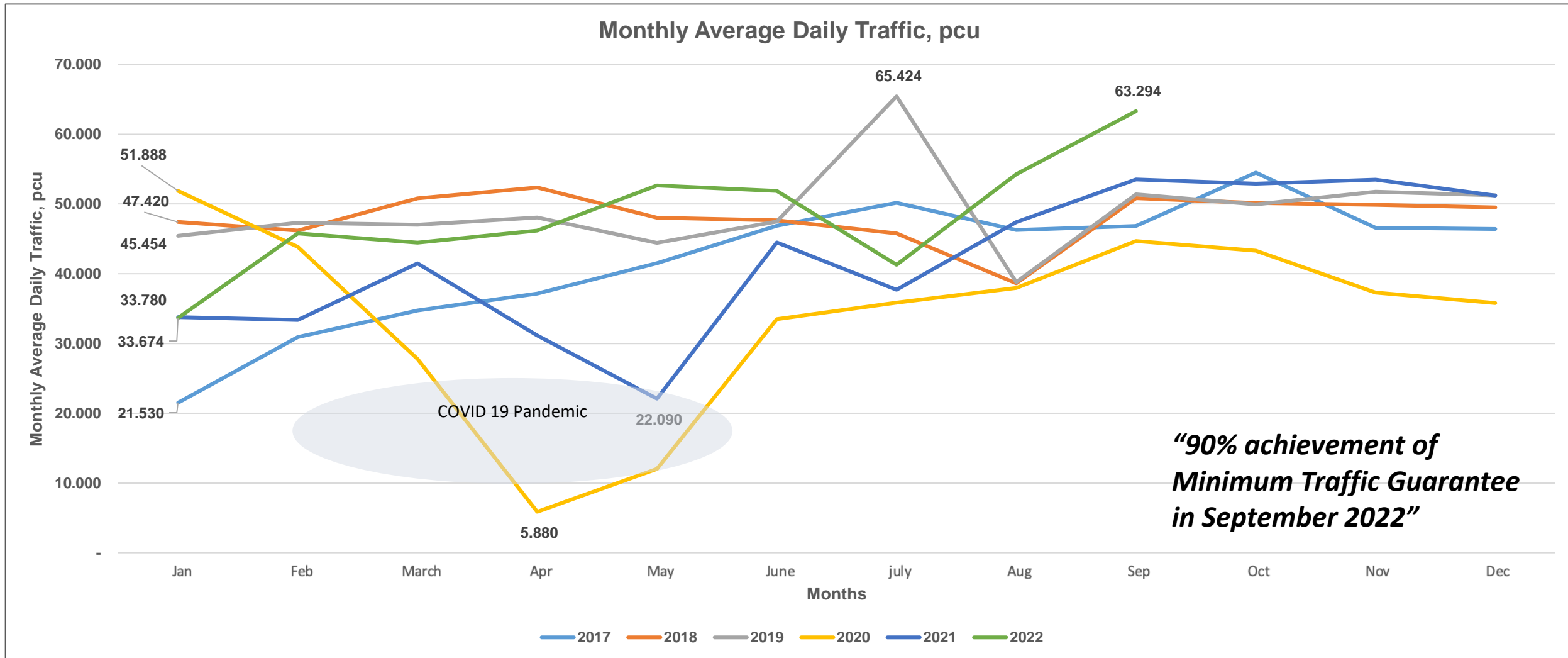


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## Part 5. Economic Impact



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### ❖ Saving Impacts in 5 years

(2017- 2021)

#### ➤ Time Saving

103 million hours, 789 million \$

#### ➤ Fuel Saving

139 thousands ton, 159 million \$

#### ➤ Emission Saving

50 thousands ton, 15 million \$

#### ➤ Accident Saving

325 million veh-km, 9 million \$

### ❖ Contribution to Economy

#### ➤ Gross Value Added

1,7 billion \$

#### ➤ Employment

57.374

#### ➤ Tax

364 millionxxxx

«Every year it contributes  
57 million \$ to economy and  
more than 1.800 employment»

## Part 6. Awards



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Thomson  
Reuters PFI

### Thomson Reuters PFI Best Infra Deal of the Year

Thomson Reuters Project Finance International ATAŞ was awarded the "Turkish Infrastructure Deal of the Year - 2012" for the Middle East and Africa by Thomson Reuters Project Finance International (PFI), a highly reputable publication in the business world.



Euromoney

### Euromoney Best Deal of the Year in Europe

ATAŞ received the award for "Best Project Finance Agreement in Europe 2012" by Euromoney, a prestigious global finance magazine. ATAŞ received the award for its financing agreement, which constitutes 78% its investment out of a total of approximately 1.280 billion US dollars.



International Road  
Federation (IRF)

### 2019 Project Financing and Economy Award

International Road Federation (IRF) which was established to encourage and support the development of road networks worldwide gave "2019 Project Financing and Economy Award" under its annual "Global Achievement Awards" to Eurasia Tunnel.



EMEA Finance

### EMEA Finance Best Public-Private Partnership

The Eurasia Tunnel Project received the best Public-Private Partnership (PPP) award in 2012, awarded by EMEA Finance, a leading finance magazine in the Europe, Middle East and Africa region.



Infrastructure  
Journal

### Infrastructure Journal Most Innovative Transportation Project

The Eurasia Tunnel was among the best 100 projects of 2012 announced by Infrastructure Journal. The Eurasia Tunnel was selected as one of the best innovative transportation projects.





## European Bank for Reconstruction and Development (EBRD) Best Environmental and Social Practice

The Eurasia Tunnel won the 'Environmental and Social Best Practice Award' in 2015, presented by the European Bank for Reconstruction and Development (EBRD) to the most successful sustainability projects. The Eurasia Tunnel Project received the award for its 'high standards' as a result of the evaluation of 28 projects by an independent jury.



## ITA - International Tunneling and Underground Space Association Major Project of the Year

The Eurasia Crossing Project was awarded the 'Project of the Year' in 2015 in the 'Major Projects' category of the International Tunneling Awards organized by ITA, International Tunneling and Underground Space Association, which is regarded as the most important association in tunneling worldwide.



## ENR – Global Best Projects Best Project of the World

The Eurasia Tunnel was selected the 'Best Project of the World' in the Bridge/Tunnel category in 2016 by the Engineering News Record (ENR) Review, which has been published in the US since 1874 and which holds a major role in the construction industry.



## "2017 Building Prize of the Year" from Korea

Korean Society of Civil Engineers (KSCE) awarded the "2017 Building Prize of the Year" in Golden Category to Eurasia Tunnel. Just like the other international prizes given to Eurasia Tunnel since its financing and building stage, Korean Society of Civil Engineers' 2017 Building Prize of the Year is displayed at the Eurasia Tunnel Museum.



## Architectural Lighting Award 2017

The Eurasia Tunnel was awarded with the IES Illumination Award of Merit 2017 by the Illuminating Engineering Society (IES) of USA, for its worthy contribution to the design world of lighting.



## GLOBAL ACHIEVEMENT AWARD' from IRF

Eurasia Tunnel was found worthy of the big prize in the 'Construction Methodology' category of the 'IRF Global Achievement Awards' organised annually by the International Road Federation (IRF), founded for the purpose of encouraging and supporting the development of worldwide road networks.



## "Maintenance and Renewal Method" Awards from UK

Eurasia Tunnel was found worthy of the "Maintenance and Renewal Method" award by the New Civil Engineers Magazine, the most respectable engineering magazine of the United Kingdom, for the project it realized together with Arup, aimed at enhancing the energy productivity and sustainability.



## "Service & Solution Award from The International Innovation Awards (IIA) 2020"

Eurasia Tunnel, for its implementation of Speed Regulating Moving Lighting (Pacemaker Lighting) Technology, was deemed worthy of an award in the "Service and Solution" category at the International Innovation Awards (IIA) 2020, organized annually by Enterprise Asia to reward the most innovative companies.



### LEED Gold Certificate

Eurasia Tunnel Operation and Maintenance Building is awarded with LEED Gold Certificate in 2017 by US Green Building Council.



### A'DESIGN AWARD

Eurasia Tunnel Operation and Maintenance Building is awarded with Silver Design Award in 2015.



*Thank you!*



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