

ANKARA İZMİR

HIGH SPEED RAILWAY LINE CONSTRUCTION

Transport Community,
19th Technical Committee on Railway

Vienna, 28 February 2024

Menemen

Manisa

Salihli

Banaz

Polatlı

ANKARA



Afyonkarahisar

Eşme

İZMİR

ANKARA İZMİR
YÜKSEK HIZLI TREN HATTI YAPIMI

ERG International Group – Capabilities



**> US\$20 bn
of projects delivered**

PPP

EPC+F

EPC

BOT

O&M

- **Highways, Railways (Bridges, Tunnels)**
- **Dams, Water Infrastructure, Irrigation Systems**
- **Transmission Lines, Hydroelectric Power Plants**
- **Desalination, Wastewater Treatment Plants**
- **Manufacturing Capacity**

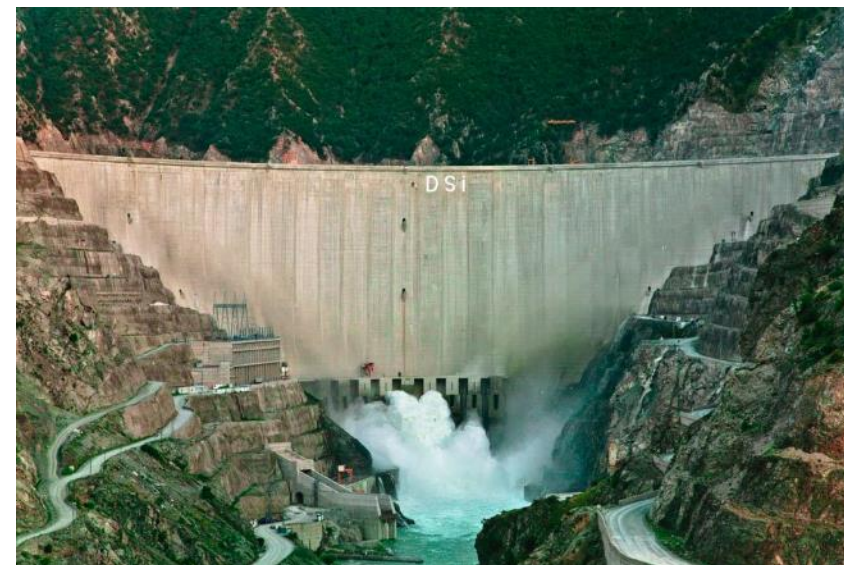


>50 Years Experience

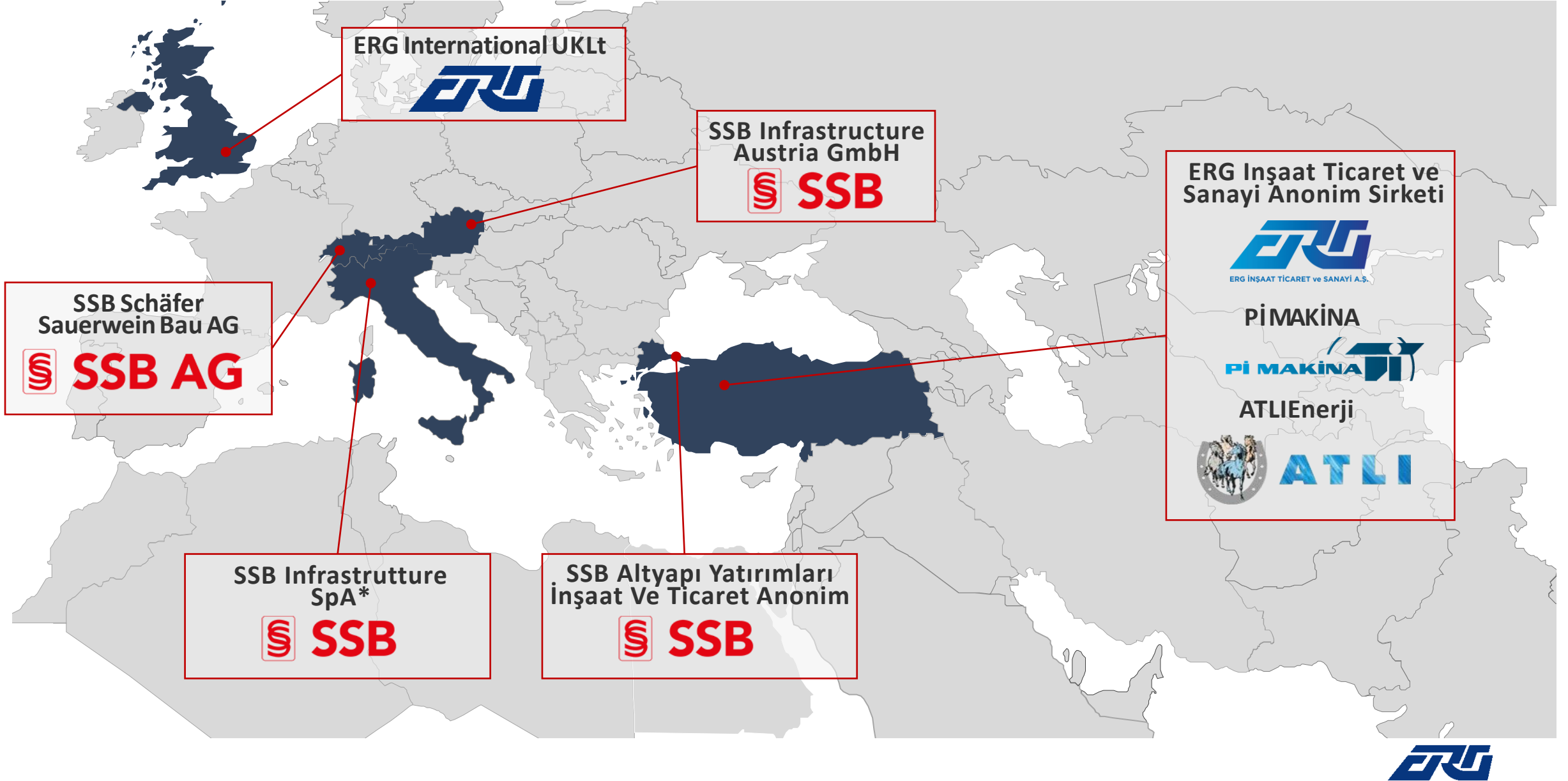
>9,000 Employees

>150 Engineers

>40 Export Markets



ERG International Group – Office Locations



ERG International Group – Projects



Deriner Dam

- Project size: USD 1,4 Bill EUR
- Height: 253m, Structure: EPC+F
- Installed capacity of 670 MW (energy provision for 750,000 people)



Airports

- ERG has delivered some of the largest airports in Turkey such as the Istanbul Atatürk (Yeşilköy) International Airport and the Antalya International Airport



Ankara-Nigde Motorway

- Project size: EUR 1,5 Bill EUR
- Total length: c. 400 km, Structure: PPP
- Greenfield development project



Ankara - Izmir High Speed Rail Project



PROJECT INFO

Project size: EUR 2,162,600,000

Total length: c. 530 km

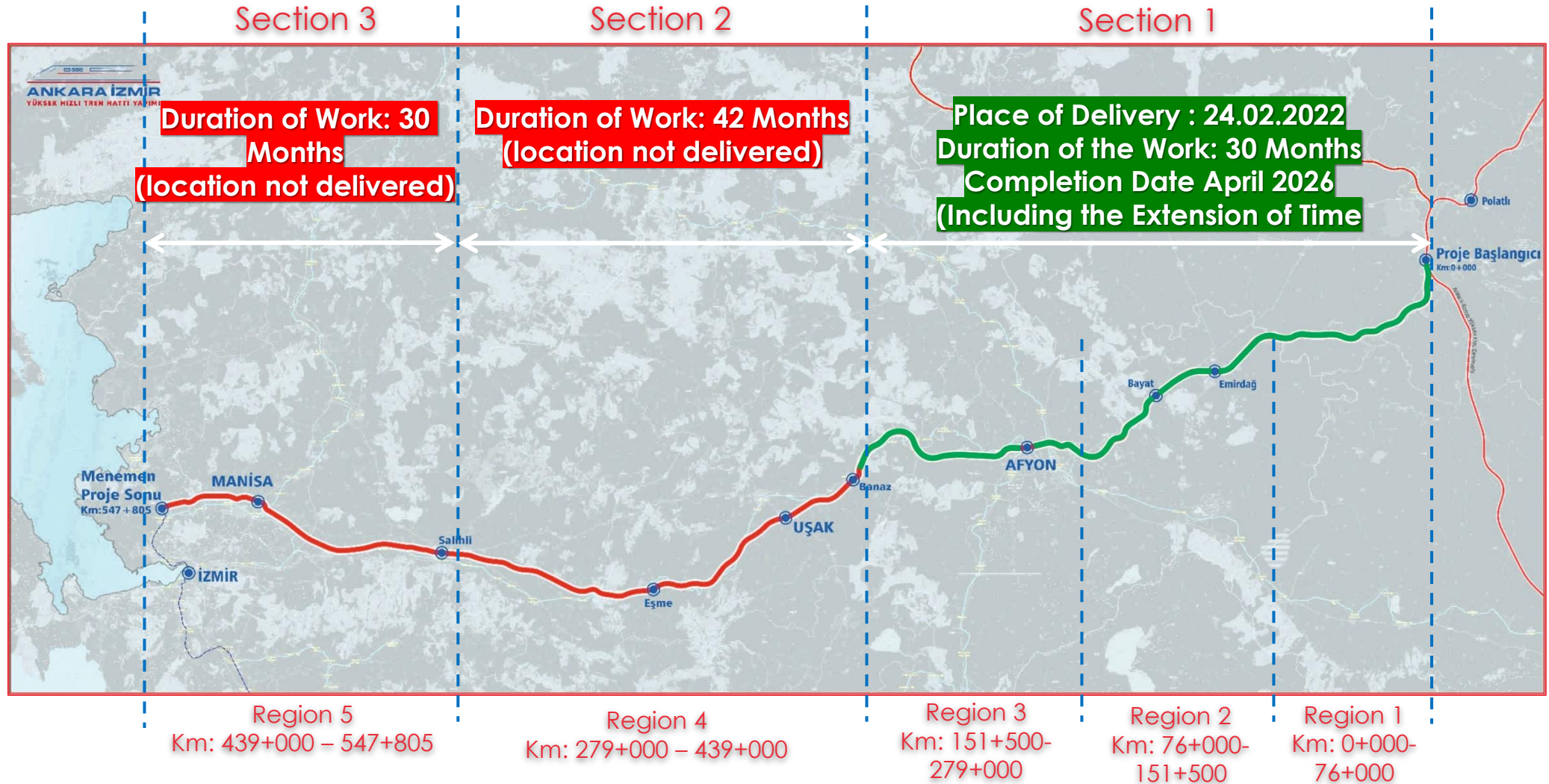
Top speed: 250 km/h

Structure: EPC+F

EUR 2.1 billion green financing guaranteed by UK Export Finance (UKEF), the UK's **largest ever sustainable civil infrastructure deal**. Other European Export credit agencies included **SACE**, **SERV** and **OeKB**.



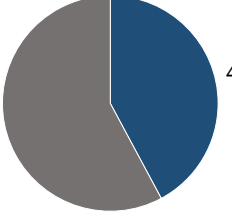
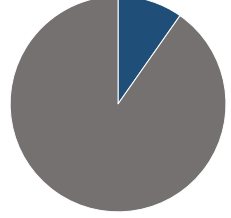
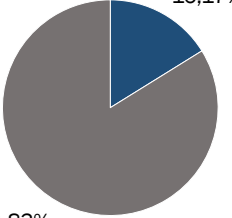
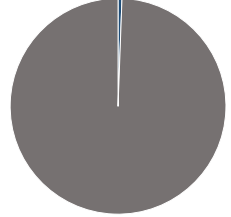
PROJECT LOCATION



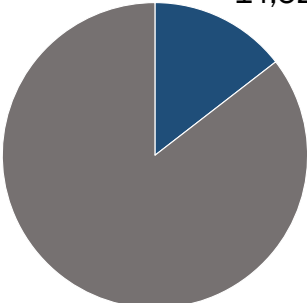
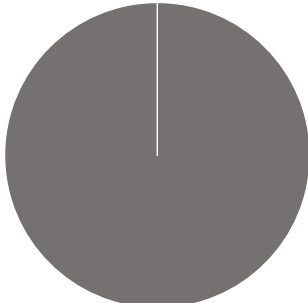
PROJECT COMPONENTS

Length of Main Line	503 km
Number of Stations	9
Number of Engineering Structures	822
Total Length of Tunnel Excavation	10.507 m (15 tunnels-JV's Scope)
Total Length of Tunnel Concreting	13.720 m (15 tunnels-JV's Scope)
Total Length of Viaducts	16.356 m (39 Viaducts-JV's Scope)
Total Ballasted Track	1.038.618 stm (single track meter)
Total Balastless Track	125.232 stm (single track meter)
Total Ballast	2.435.559 m ³
Total Sleepers	1.765.653 pcs
Total Turnouts	237 pcs
Total Rails	163.384 t
Total Rail Fastenings	2.022.038 set

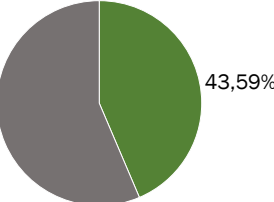
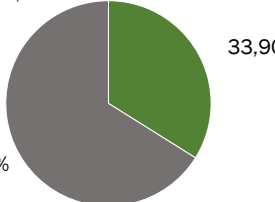
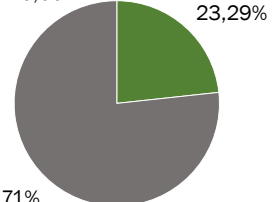
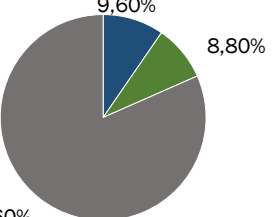
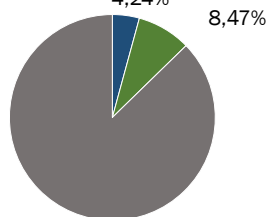
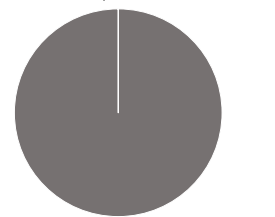
PROGRESS OF EARTHWORKS AND GROUNDWORKS

		Excavation Works		Filling Works	
Earth Works					
	Actual %				
	Remaining %				
Total :		11.584.232 m ³	100,00%	26.145.119 m ³	100,00%
Actual :		4.884.373 m ³	42,16%	2.545.978 m ³	9,74%
Remaining :		6.699.859 m ³	57,84%	23.599.141 m ³	90,26%
		Bored Pile (Ø100 + Ø120)		Deep Mixing (Ø80+Ø100)	
Ground Works					
	Actual %				
	Remaining %				
Total :		339.000 m	100,00%	11.267.323 m	100,00%
Actual :		54.808 m	16,17%	65.480 m	0,58%
Remaining :		284.192 m	83,83%	11.201.843 m	99,42%

PROGRESS OF TUNNELS

		Tunnel Excavation		Tunnel Concrete Coating	
TUNNELS					
	Actual %				
	Remaining %				
Total :		10.690 m	100,00%	13.768 m	100,00%
Actual :		1.552 m	14,52%	-	-
Remaining :		9.138 m	85,48%	13.768 m	100,00%

PROGRESS OF ENGINEERING STRUCTURES

		Viaducts		Bridges		Overpasses	
Engineering Structures							
	Actual %						
	Ongoing %						
	Remaining %						
Total :		39 piece	100,00%	59 piece	100,00%	73 piece	100,00%
Actual :		-	-	-	-	-	-
Ongoing :		17 piece	43,59%	20 piece	33,90%	17 piece	23,29%
Remaining :		22 piece	56,41%	39 piece	66,10%	56 piece	76,71%
		Underpasses		Culverts		Cut and Cover	
Engineering Structures							
	Actual %						
	Ongoing %						
	Remaining %						
Total :		125 piece	100,00%	354 piece	100,00%	11 piece	100,00%
Actual :		12 piece	9,60%	15 piece	4,24%	-	-
Ongoing :		11 piece	8,80%	30 piece	8,47%	-	-
Remaining :		102 piece	81,60%	309 piece	87,29%	11 piece	100,00%

FINANCING

Tranches [mil. EUR]

2,782

367

2,415

Commercial

10 years
8 Lenders

UKEF Covered

17.5 years
12 MLA
5 Lenders

Green category

GL3-pollution prevention and control

Arrangers & Coordinators



Reinsurers



Exporter



ECA Agent



UK Export Finance

Borrower



Rationale

Turkish government prioritisation

**Inclusion in Turkish State Railways
Investment Agenda 2013.**

**Construction started in 2013 but
was suspended in 2018**

Project re-tendered in 2020.

ERG Role in the Tendering Phase

- Knowledge of ERG in the Region
- Senior management spent several months in daily conversations with Turkish Authorities to understand needs
- In 2020, ERG JV was awarded the project

UK Financing and COP26

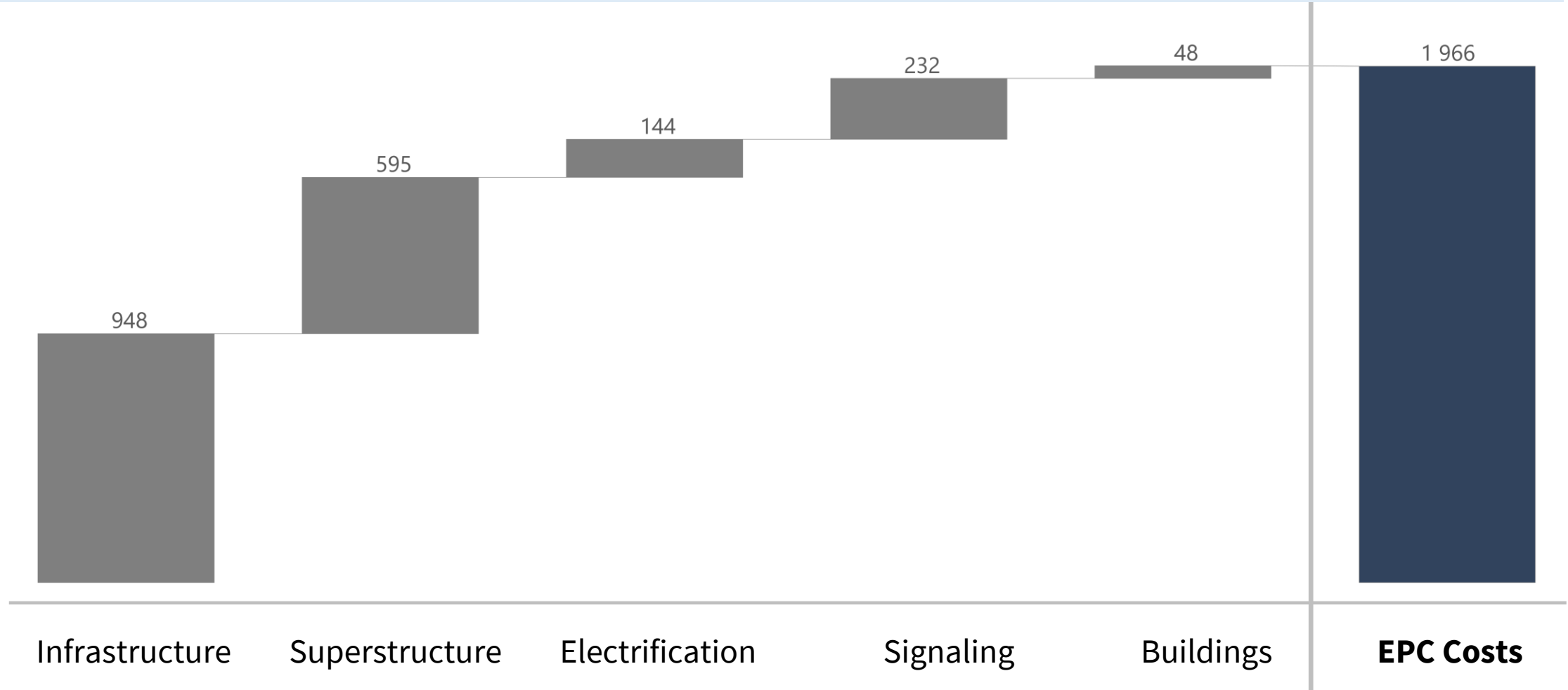
**Highest level bilateral conversations
UK-Turkey during the COP26 in
Glasgow (2021)**

**UK used their financing strength to
promote Climate Change actions**

**Being an electrified railway line, it will
decarbonise travel and help Turkey to
meet its climate change commitments
made at COP26**

**Expression of Interest from UK to help
the financing of Ankara-Izmir HSR**

PROJECT COST IN MIL. EUR

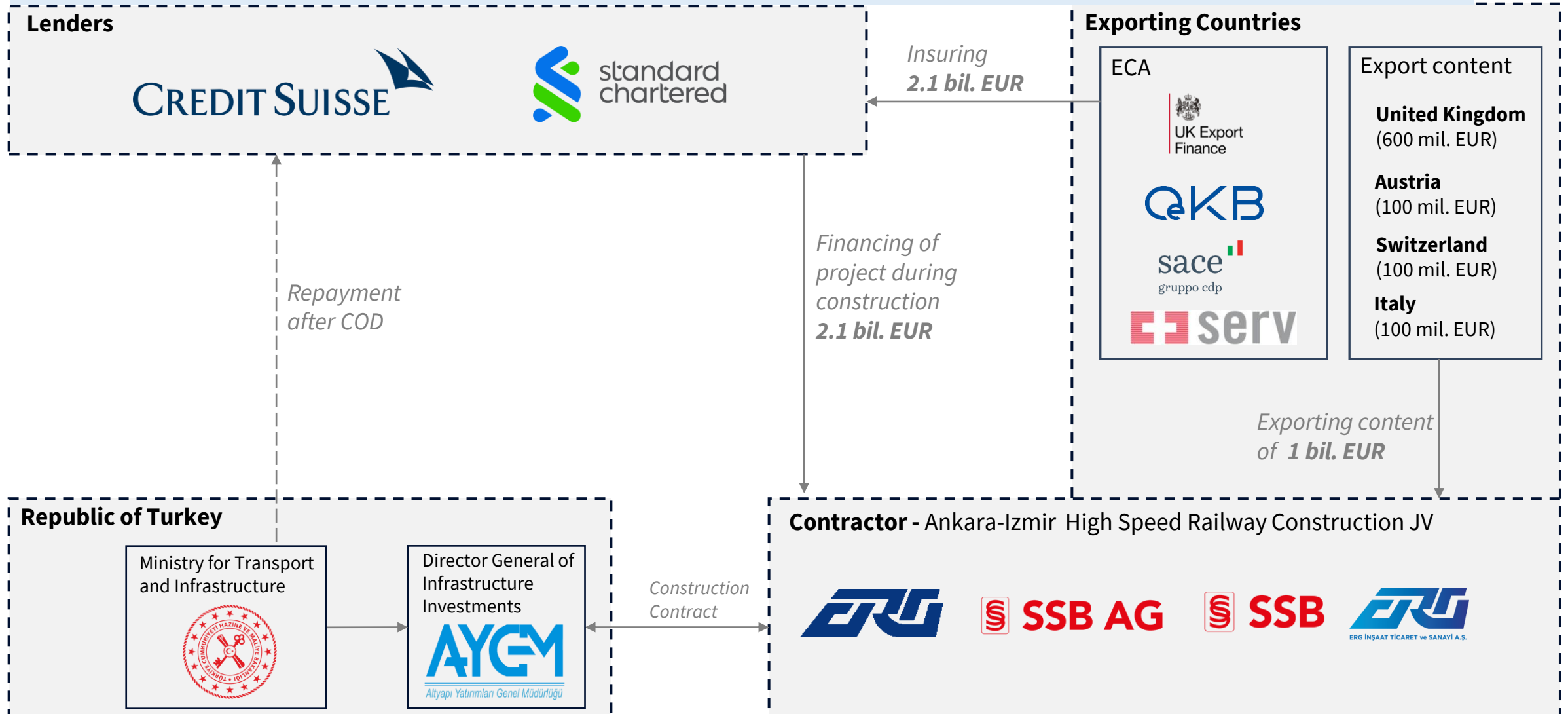


>85% Loan coverage with 1 bil. EUR exported content

**UKEF Partial Reinsurance
to other ECA**

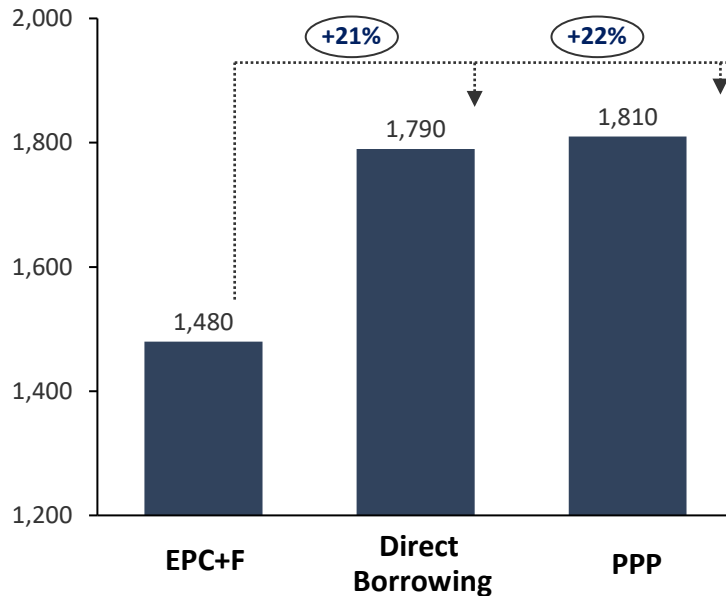


PROJECT STRUCTURE



EPC+F could provide 20% cheaper projects, compared to direct borrowing and PPP

NPV of Government Payments
[mil. EUR]



Lowest Cost Option

Public funding burden is **circa 20% more** by applying PPP or Government Euro-Bond alternative instead of EPC+F.

Avoids lengthy delays...

...associated with an International Competitive Bidding (“ICB”) process managed by a multilateral institution (**usually a 4-8 year cycle**)

No Government
upfront costs

Under an ICB tender process Government would need to appoint, at its cost, various Advisors and a Consulting Engineer to prepare the feasibility study, preliminary design, EIA and tender documents (**usually +USD 1 million up-front cost**). Under the EPC Contract as proposed herein **ERG would bear these upfront costs**.

Certainty of price

Under an ICB FIDIC Red Book tender Government would be responsible for the design risk (including price risk) which typically incurs provisional sums/variations ranging from 20% to 40%. The EPC Contract as proposed herein ERG offers a **lump sum fixed price contract** i.e. ERG would take the design risk.

UK Export Finance

ERG’s access to concessional loan facilities available from the UKEF (the official British Government credit guarantees department) and other international funding institutions including SERV (Swiss export credit agency) enable us to offer **exceptionally low interest with long-term loan repayment**. ERG proposal will also open doors to **extremely favorable UK finance for future Infrastructure Projects**.

VIDEO

Tanıtım_KASIM_2023.mp4

Thank you for your attention!

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