

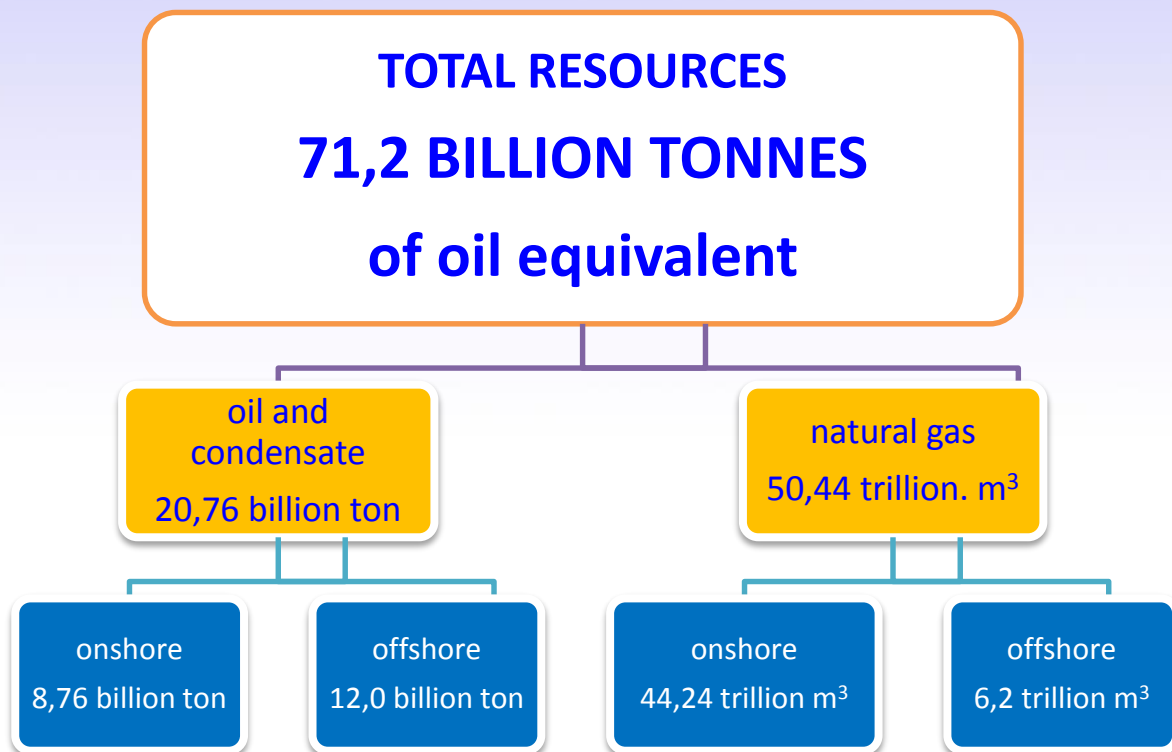


INTERNATIONAL COOPERATION AND INVESTMENT IN THE OIL & GAS INDUSTRY OF TURKMENISTAN



www.oilgas.gov.tm
turkmengaz@online.tm

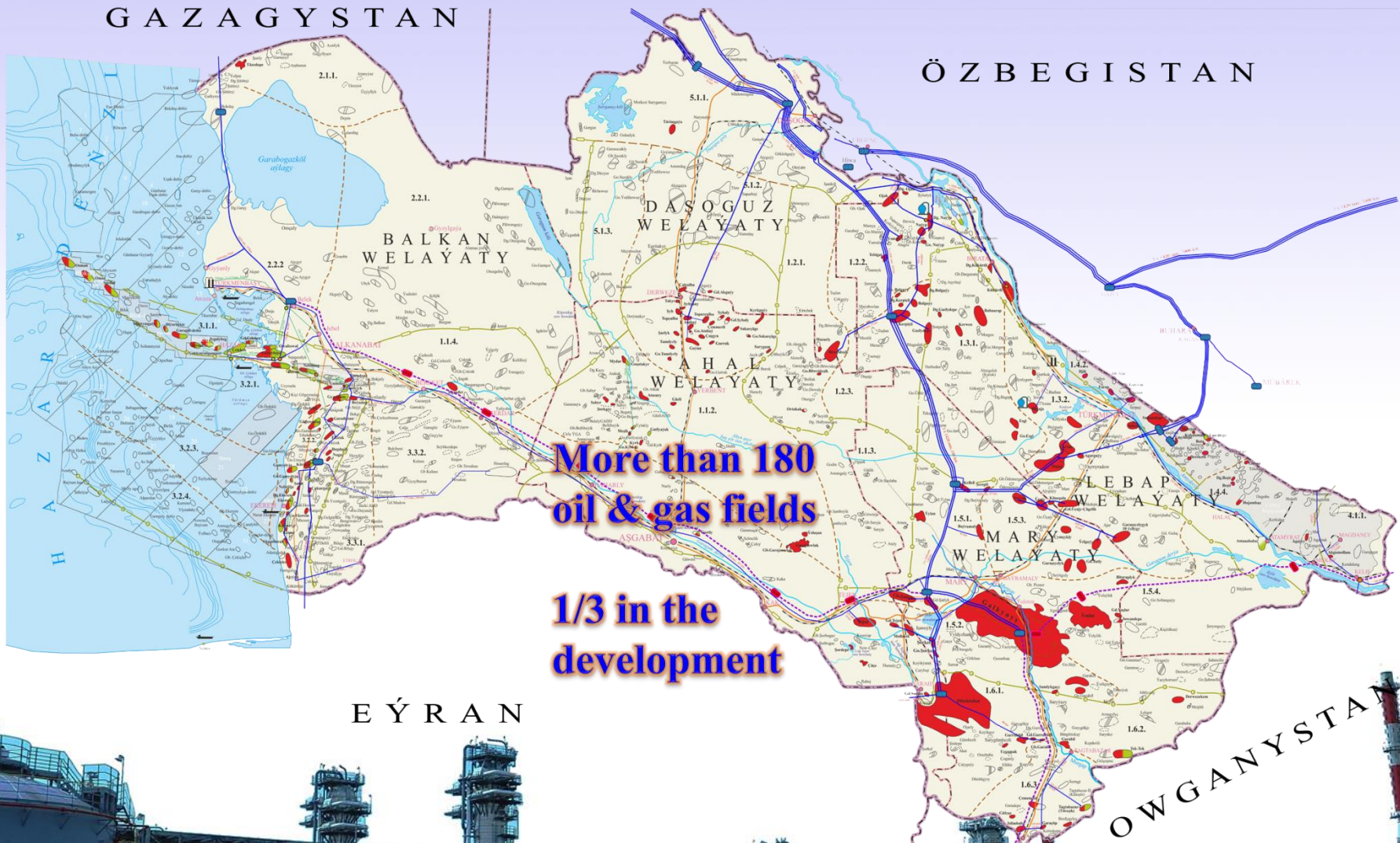
TURKMENISTAN'S HYDROCARBON RESOURCES



OIL AND GAS FIELDS OF TURKMENISTAN

GAZAGYSTAN

ÖZBEGISTAN



EÝRAN

OWGANYSTAN

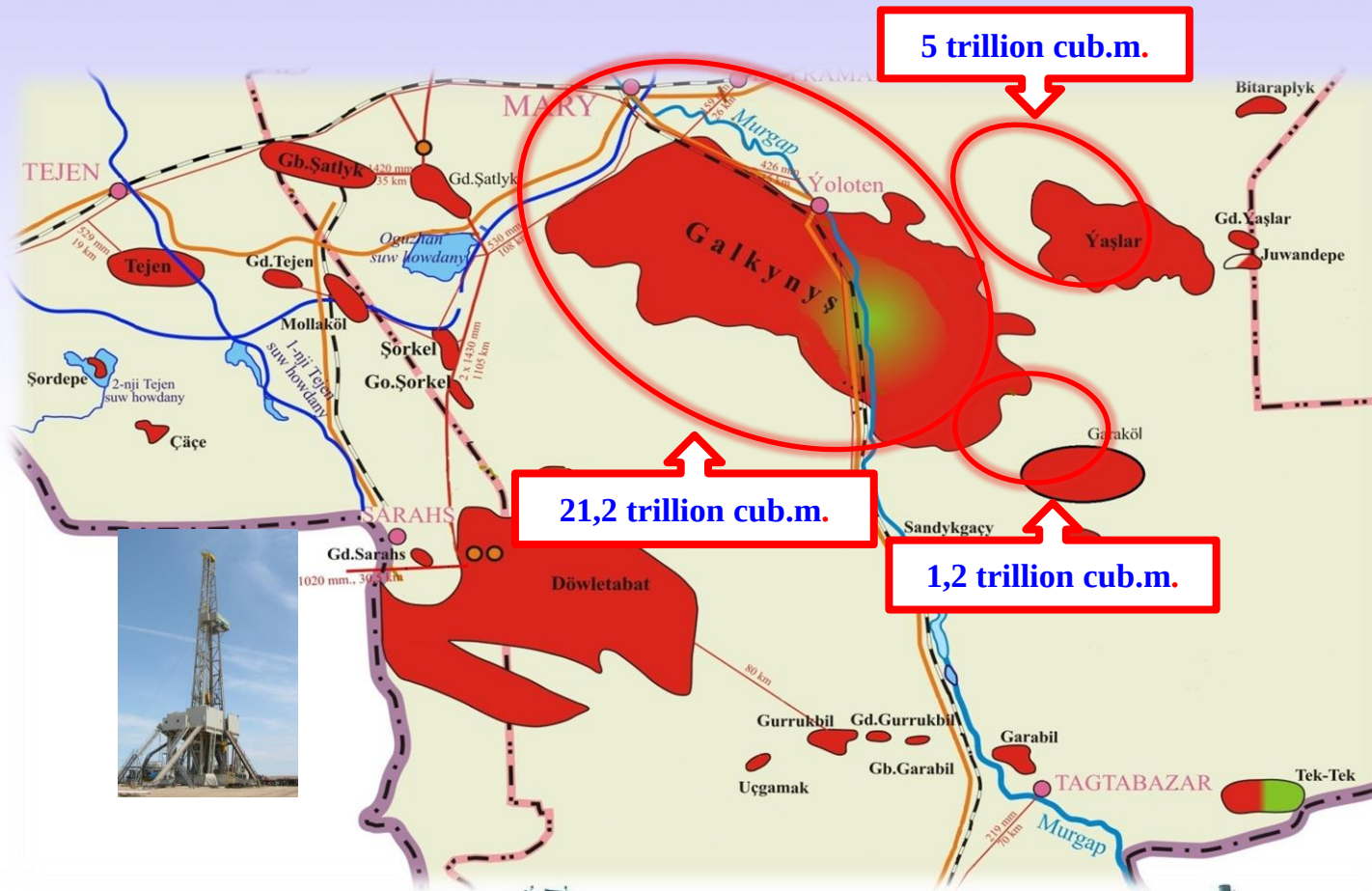


DEVELOPMENT OF HYDROCARBON RESOURCES OF THE TURKMEN SECTOR OF THE CASPIAN SEA

32 license offshore blocks



GALKYNYSH, YASHLAR AND GARAKEL FIELDS



**“Galkynysh”
gas field
is the second
largest field
of the world**

**Total
resources
- 27,4 trillion
cub.m.**



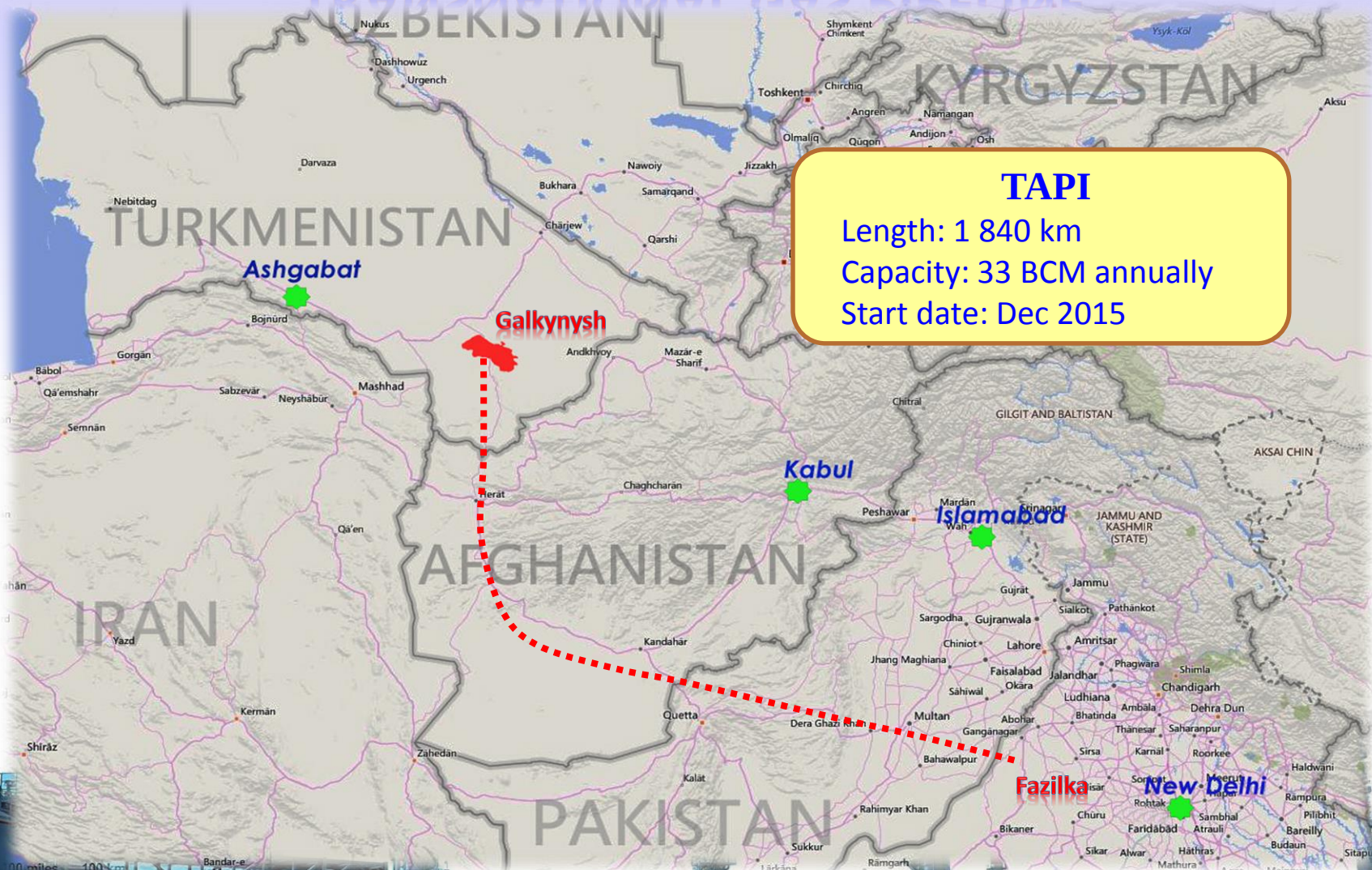
NEXT STAGE OF "GALKYNYSH" GAS FIELD DEVELOPMENT



Capacity: 33 bcm per year for full supply with natural gas of Transnational gas pipeline "Turkmenistan-Afghanistan-Pakistan-India" (TAPI).



TURKMENISTAN – AFGHANISTAN – PAKISTAN – INDIA TRANSNATIONAL GAS PIPELINE



TAPI PROJECT

Project was originally conceived in the 1990s with a view to monetise Turkmenistan's vast natural gas reserves through gas exports to Afghanistan and Pakistan, and potentially to India.

1990^s

Asian Development Bank's involvement in the Project

2000^s

The First Feasibility Study is submitted by ADB

2005

The Framework Agreement was signed

2008

Intergovernmental agreement on the pipeline was signed on 11 December 2010 in Ashgabat.

2010

Governments nominated State Concern "Turkmengas", Afghan Gas Enterprise, Inter State Gas Systems (Private) Limited and GAIL (India) Limited to promote and invest in the Project. ADB was appointed as Transaction Advisor.

2013

In November 2014, the Parties incorporated TAPI Pipeline Company Limited in Isle of Man with the four state-owned gas companies each holding a 25% stake.

2014

In June 2015, State Concern «Turkmengas» was unanimously elected as a Consortium Leader.

2015

In December 2015, the groundbreaking of TAPI pipeline took place with the participation of the Presidents of Turkmenistan and Afghanistan, Prime Minister of Pakistan and Vice President of India, and the Shareholders Agreement was signed.

2015

On April 7, 2016 Parties signed Investment Agreement.

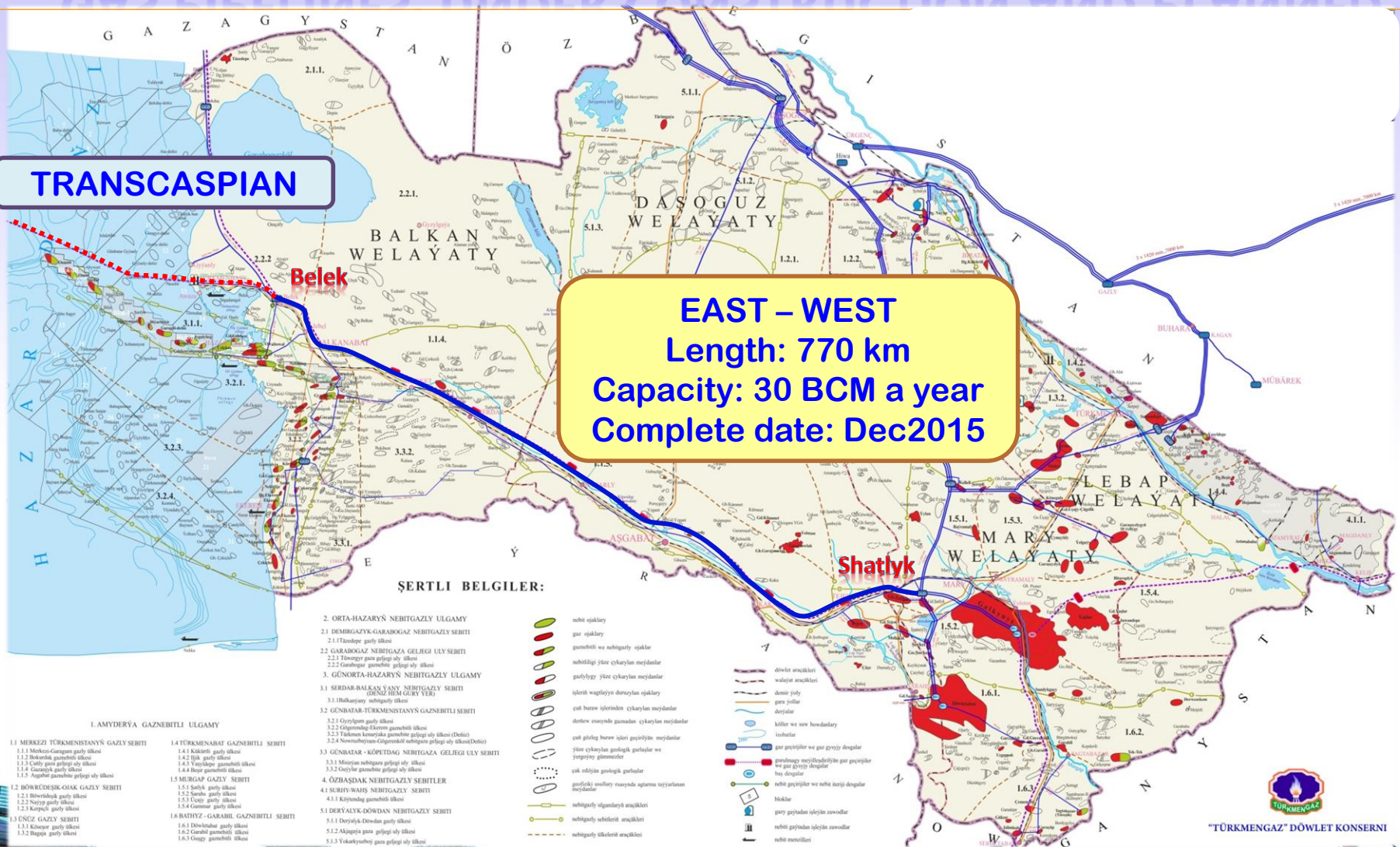
2016



GAS PIPELINES: UNDER CONSTRUCTION AND PLANNED

TRANSCASPIAN

EAST – WEST
Length: 770 km
Capacity: 30 BCM a year
Complete date: Dec2015



"TÜRKMENGAZ" DÖWLET KONSERNI



DEEP PROCESSING OF NATURAL GAS

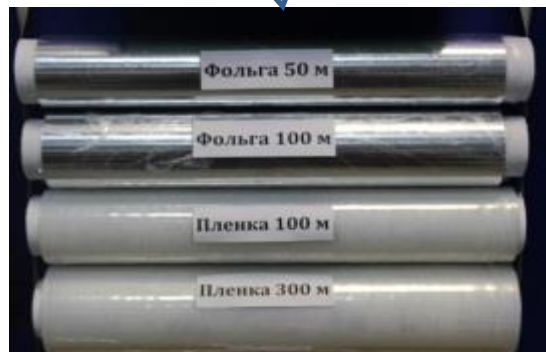




**Low density
linear
polyethylene
product by piece**



Tanks

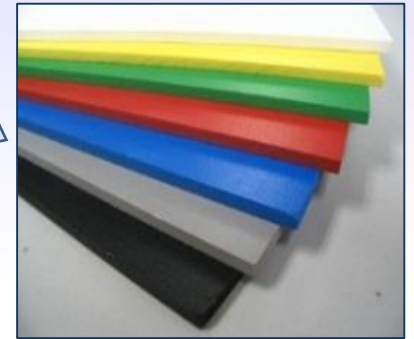


Films





Polypropylene products by piece



Bubbled sheets



Textile industry



Films



Machinery





Polyvinylchloride products by piece



Muted covers



Window frames



PWH sheets



Tubes and fittings

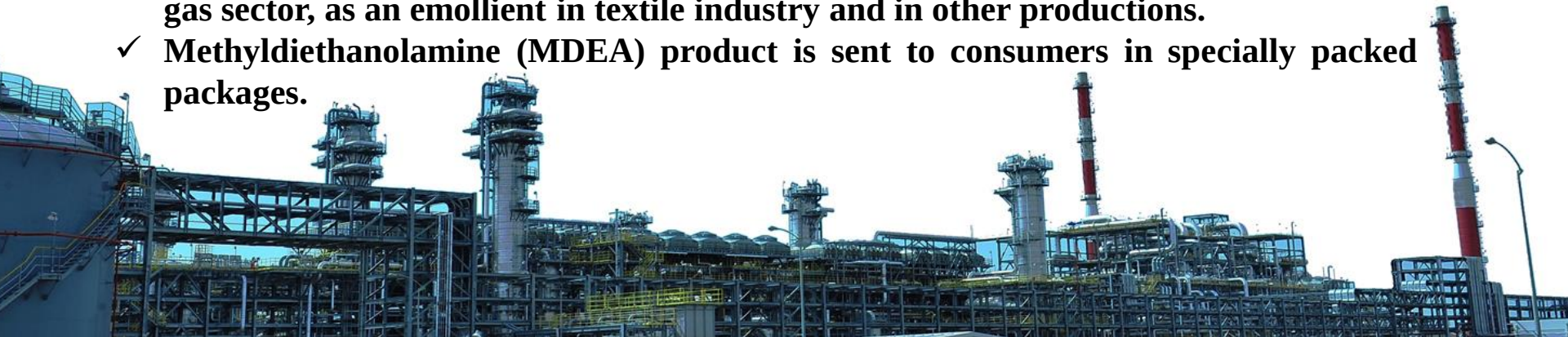
Agriculture



Industrial uses of products produced in methyldiethanolamine (MDEA) manufacturing gas-chemical complex



- ✓ **Methyldiethanolamine (MDEA) product is widely used in refining natural gas in oil-gas sector, as an emollient in textile industry and in other productions.**
- ✓ **Methyldiethanolamine (MDEA) product is sent to consumers in specially packed packages.**



Low-density polyethylene



Films



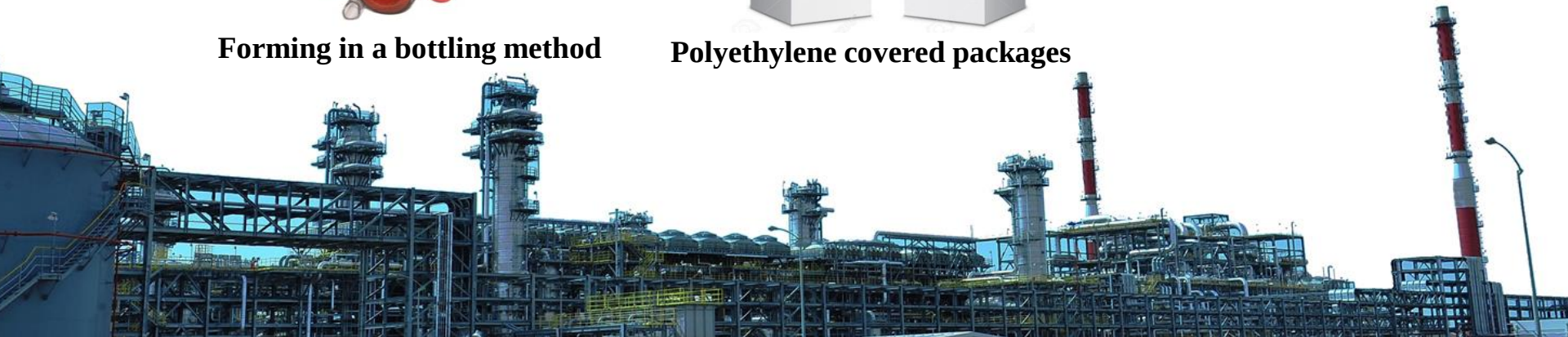
Forming in a bottling method



Polyethylene covered packages

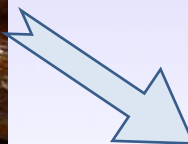


Cabel covers





**Butadiene-styrene
product**



Wheels



Rubber products





Polystyrene products



Packages of foodstuffs



Construction materials



Electrotechnical products



ONGOING INVESTMENT PROJECTS

Project	Contractor	Capacity
"Galkynysh" gas field development (Galkynysh, Mary province)	CNPC (People Republic of China)	30 BCM sales gas per year
Polyethylene and polypropylene plant (Gyyanly, Balkan province)	LG International Corp., Hyundai Engineering Co. Ltd. (South Korea), Toyo Engineering Corporation (Japan)	386'000 tons polyethylene 81'000 tons polypropylene
Gas to gasoline plant (GTG) (Ovadandepe, Akhal province)	Kawasaki Heavy Industries (Japan), Rönesans Endüstri Tesisleri (Turkey)	600'000 tons EURO-5 spec gasoline

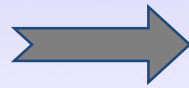


PLANNING INVESTMENT PROJECTS

Project	Location	Capacity
"Galkynysh" gas field development for full supply with sales gas of transnational TAPI gas pipeline	Galkynysh, Mary province	33 BCM sales gas per year
"Turkmenistan-Afghanistan-Pakistan-India" (TAPI) gas pipeline	Turkmenistan-Afghanistan-Pakistan-India	33 BCM natural gas per year
Gas to polymer plant	Gyyanly, Balkan province	200'000 tons LLDPE, 390'000 tons polypropylene, 100'000 tons polyvinylchloride, 82'000 tons caustic soda, 10'000 tons salt acid, 10'000 tons liquefied chlorine per year
Methyldiethanolamine (MDEA) manufacturing gas-chemical complex	Gyyanly, Balkan province	6'000 tons methyldiethanolamine per year
Polyvinylacetate (PVAC) manufacturing gas-chemical complex	Yylanly, Dashoguz province	71'000 tons polyvinylacetate per year
Butadiene-styrene and polystyrene manufacturing gas-chemical complex	Seydi, Lebap province	80'000 tons butadiene-styrene caoutchouc, 45'000 tons polystyrene per year
Gas to liquids plant (GTL)	Ovadandepe, Akhal province	1'100'000 tons diesel fuel, 400'000 tons naphtha per year



PRODUCT TO BE PRODUCED IN POLYMERS MANUFACTURING GAS-CHEMICAL COMPLEX:



Low-density linear polyethylene
– 200 000 tons per year

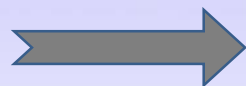


Polypropylene
– 390 000 tons per year

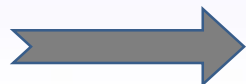


Polyvinylchloride
– 100 000 tons per year





Caustic soda - 82 000 tons per year



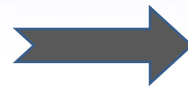
Salt acid - 10 000 tons per year



**Liquefied chlorine
- 10 000 tons per year**



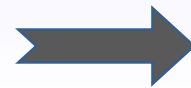
PRODUCT TO BE PRODUCED IN METHYLDIETHANOLAMINE (MDEA) MANUFACTURING GAS-CHEMICAL COMPLEX:



Methyldiethanolamine
- 6 000 tons per year



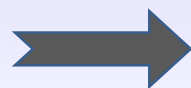
**THE PRODUCT, WHICH WILL BE PRODUCED AT THE GAS-CHEMICAL
PLANT FOR THE PRODUCTION OF POLYVINYL ACETATE:**



**Polyvinyl acetate
- 71 000 tons per year**



**PRODUCT TO BE PRODUCED IN BUTADIENE-STYRENE AND
POLYSTYRENE MANUFACTURING GAS-CHEMICAL COMPLEX:**



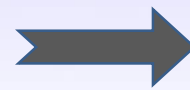
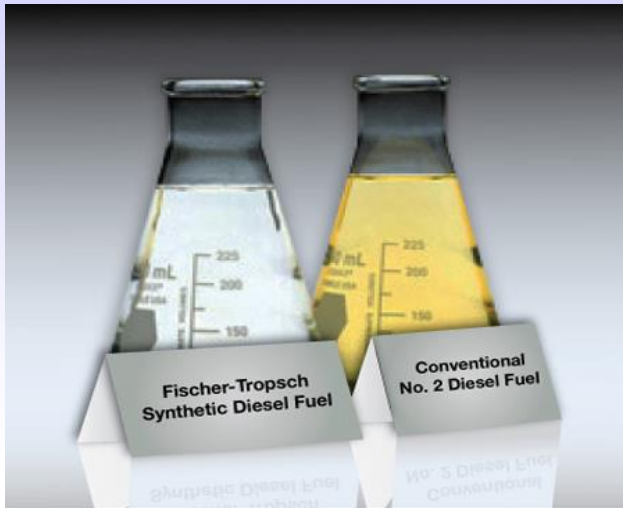
**Butadiene-styrene
caoutchouc
- 80 000 tons per year**



**Polysterene
- 45 000 tons per year**



PRODUCTS TO BE PRODUCED IN COMPLEX MANUFACTURING SYNTHETIC LIQUEFIED FUEL (GTL) FROM NATURAL GAS :



Diesel fuel
– 1 100 000 tons per year

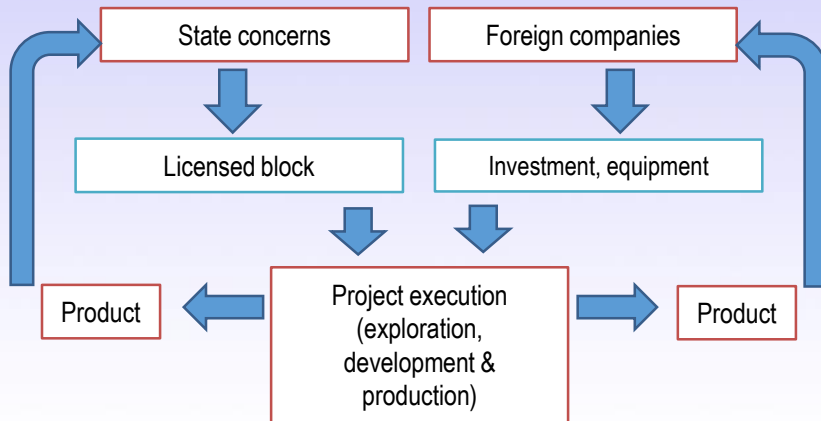


Naphtha
– 400 000 tons per year

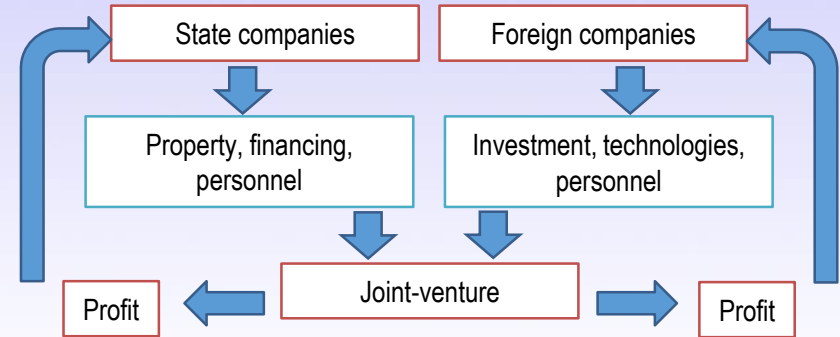


FORMS OF COOPERATION

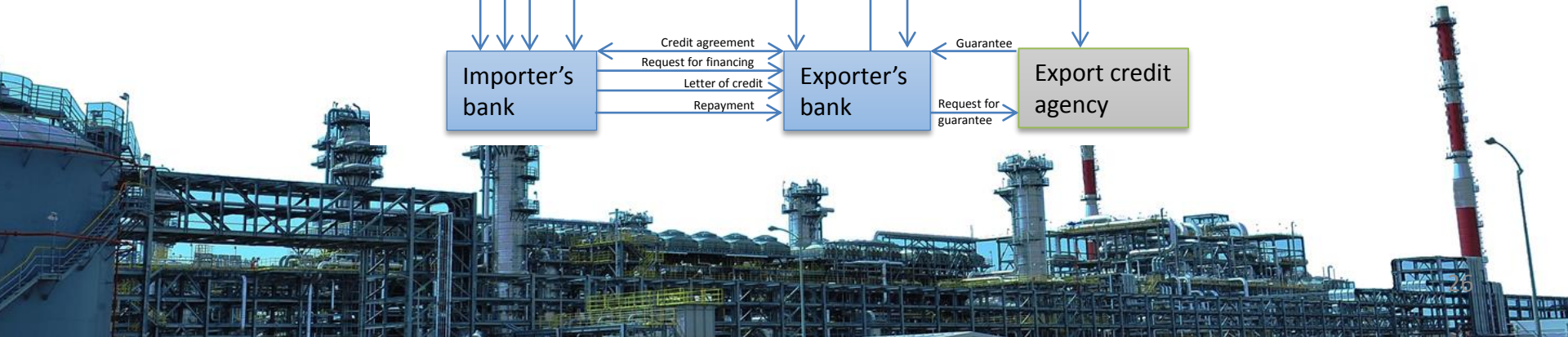
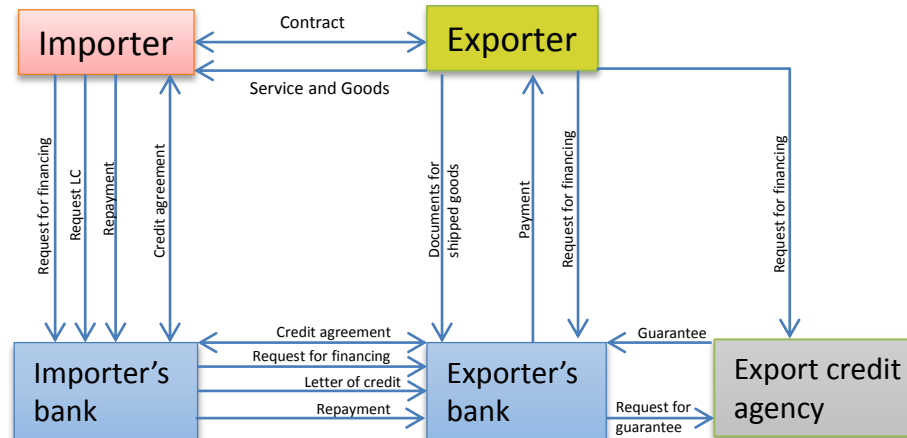
Production sharing agreement (offshore)



Service joint-venture



Service contracts



LEGISLATIVE FRAMEWORK OF TURKMENISTAN FOR FOREIGN INVESTMENT

- Law on Hydrocarbon Resources
- Law on Foreign Investments
- Law on Investment Activities



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MUTUALLY BENEFICIAL
COOPERATION**

**Thank you for your
attention!**



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