

Project Engineering, Procurement and Construction in the Caspian Region

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Amec Foster Wheeler in a nutshell and what is there for the Caspian Region



Who we are and what we do

Listed on both

--London Stock Exchange--
--New York Stock Exchange--

40,000
exceptionally talented
people worldwide

150+
year history
operating in over
50 countries

Markets
Oil & Gas,
Clean Energy,
Environment &
Infrastructure,
Mining.

Offerings
Consultancy,
engineering, project
management,
operations and
construction services,
project delivery,
specialised power
equipment.

**Collaboration
and leveraging
of skills around
the world.**

Connected
Partner of
choice for
our customers

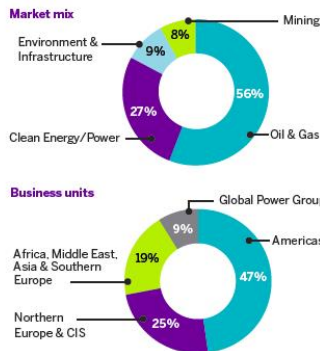
Excellence
Consistent delivery
of fit for purpose
solutions

Scale
Revenues
c.£5.5bn
(c.\$9bn)

What drives us

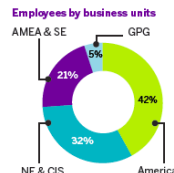


Revenue



About us

Americas
Northern Europe & CIS
Africa, Middle East, Asia (AMEA) & Southern Europe
Global Power Group



Markets

Oil & Gas
Full life cycle services to offshore and onshore oil and gas (conventional and unconventional, upstream, midstream and downstream).

Clean Energy
Full asset life cycle, including new build, operational support and decommissioning in nuclear, renewables, transmission and distribution, power and bioprocessing.

Environment & Infrastructure
Consultancy, engineering and project management services in water, transportation/infrastructure, government and industrial/pharma sectors.

Mining
Concept and development through operations and closure of mines, metallurgical processing facilities and associated infrastructure.

Full life cycle services to offshore and onshore oil and gas (conventional and unconventional, upstream, midstream and downstream) for greenfield, brownfield and asset support projects, plus leading refining technology.

Strong position in clean energy market, including full life cycle offering to nuclear sector from environmental studies and reactor design to decommissioning and clean up.

Expertise across a broad spectrum of commodities including iron ore, copper, potash and gold. Leader in projects with significant logistical challenges in remote locations. Top-tier position in consulting, materials handling systems and strong environmental and growing underground expertise.

High Value Execution Centres supplementing our businesses all over the world.

Centres of Expertise supporting projects with differentiating capabilities, exporting key talent to execute work globally, also serving local markets.

Leading provider of circulating fluid-bed steam generators, advanced industrial and utility steam generators, advanced air quality control systems and a wide range of aftermarket products and services.

Specialist skills in pharmaceuticals/bioprocessing, industrial, infrastructure/transportation and environmental consultancy.

Well-established relationships with international Oil Companies (IOCs), National Oil Companies (NOCs), energy, mining, chemicals and pharma customers.



Principal office locations

Selected customers



"Our vision is to be the most trusted partner for our customers by consistently delivering excellence – bringing together the knowledge, expertise and skills of our people from across our global network."

To find out more
amecfw.com

AMEC + Foster Wheeler deal rationale

A compelling combination across the Oil & Gas market

What could we take for the Caspian Region?



		AMEC	FW	Amec Foster Wheeler
Upstream	Offshore top side facilities			
	Onshore facilities engineering			
	Main. Mods & Ops			
	Oil sands			
Mid & downstream	Gas processing, LNG, GTL			*
	Refineries			
	Petrochemicals			
	Main. Mods & Ops			*
Project management consultancy				
Environmental consulting				

Analysis is indicative and is not intended to represent the entirety of the market

AMEC

- ▶ More exposure to NOCs
- ▶ Greater exposure to faster growing sectors

Foster Wheeler

- ▶ Exposure to wider portfolio of customers
- ▶ Broader exposure to wider sectors

Amec Foster Wheeler

- ▶ Serves the whole O&G value chain
- ▶ Opportunities for cross-sell from other three markets
- ▶ Combines two highly-skilled teams
- ▶ Global capability to deliver greater value to our customers

Key:

	Strong position
	Limited position
	No material position

* Growth aspiration

Addressing our customers' business objectives across the whole oil & gas value chain

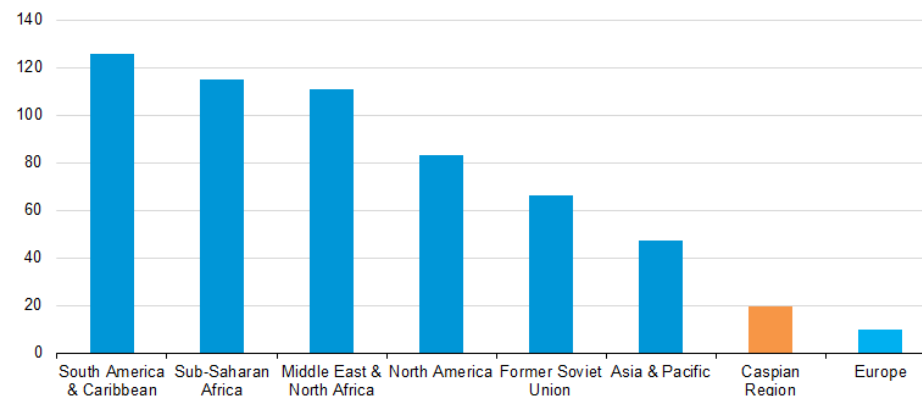
Caspian market overview



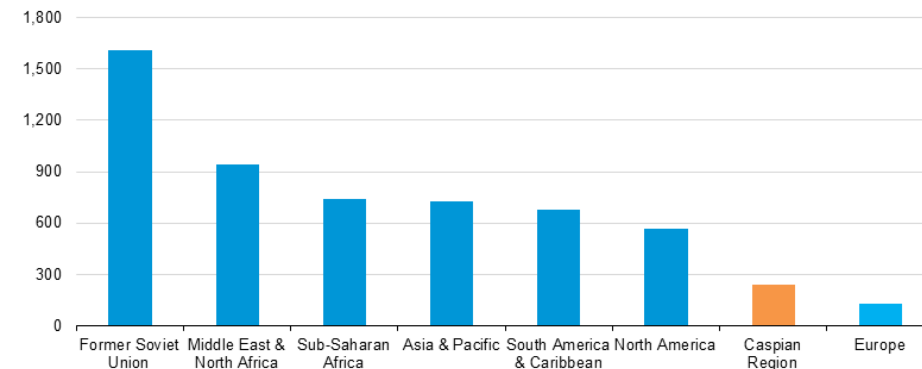
A new era for Caspian oil and gas

- The recent decline in world oil prices is likely to constrain economic growth and investment in the Caspian region.
- The steep decline in global oil prices has dealt a blow to earnings for many energy-exporting states, pushing their finances and investment projects over the red line.
- They have suffered slowdowns since crude prices began to slide in mid-2014, but most of them still expect to weather the crisis and will draw on their significant currency reserves to keep their economies and projects floating.

World's estimated undiscovered oil resources
billion barrels of oil



World's estimated undiscovered natural gas resources
trillion cubic feet



Notes: undiscovered resources are mean undiscovered technically recoverable resources.
"Former Soviet Union" includes all Caspian Sea Area resources except in Iran.

Sources: U.S. Energy Information Administration, USGS World Estimate of Undiscovered Resources 2012,
USGS Assessment of Undiscovered Resources of Caspian Sea Area 2010

Caspian region: responses to the price crash

- Nobody knows with certainty when and how this prolonged and unexpected market fluctuation will end.
- Even if conditions were to stabilise soon, the consequences of the dramatic fall that has already occurred could be serious.
- If the market remains bearish, these countries could have a very hard time, not only with respect to recouping their losses but also in facing much tougher competition for new investment.

According to the International Energy Agency (IEA), Kazakhstan exported about 1.69 million barrels per day of oil in 2014, while Azerbaijan exported 840,000 bpd and Turkmenistan 280,000 bpd.



Caspian region refining and gas processing

Caspian region refining

Country	Operating refineries		Crude capacity (1,000 bbl/d)	
	Total	<100 miles from Caspian sea	Total	<100 miles from Caspian sea
Russia	40	1	5,500	4
Iran	9	1	1,451	220
Azerbaijan	2	2	399	399
Kazakhstan	3	1	345	104
Turkmenistan	2	2	237	237
Uzbekistan	3	0	224	-
TOTAL:	59	7	8,156	964



Caspian Sea area operating natural gas processing centers

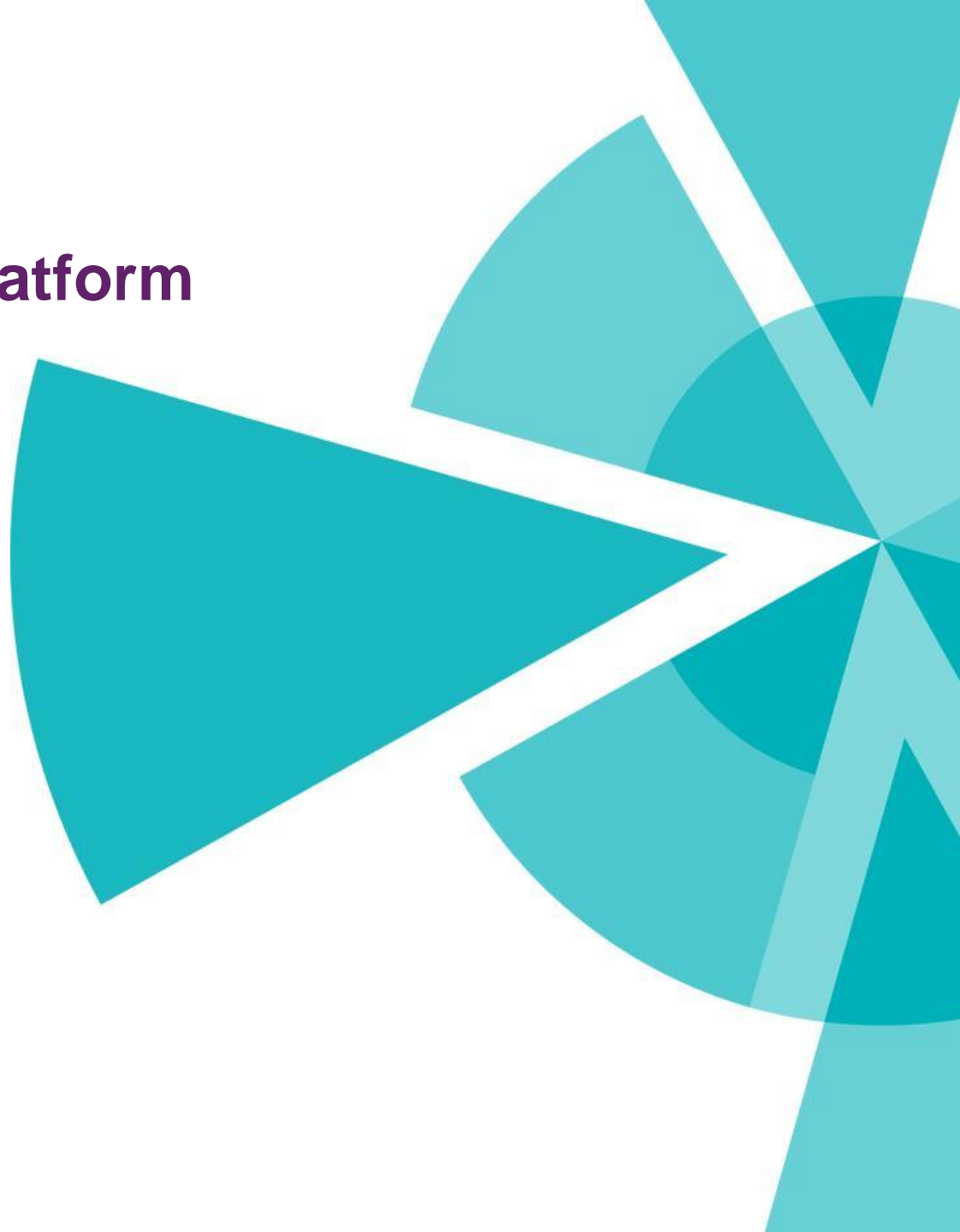
Country	Total	<100 miles from Caspian Sea	Major activities
Azerbaijan	2	2	SOCAR runs gas processing plants for Caspian basin fields, including Shah Deniz.
Iran	40	0	--
Kazakhstan	14	3*	TengizChevrOil runs a gas processing plant to pick up associated gas from the Tengiz oil field. Agip KCO of NCOC building processing plant to handle associated gas from Kashagan.
Russia	37	2	Gazprom and LUKOil run gas processing plants for natural gas from the large Astrakhan field and smaller gas fields in North Caucasus.
Turkmenistan	2	0	Iranian company Ramshir currently building processing plant for Korpezhe field to service the Iranian market.
Uzbekistan	4	0	--



* Gas processing plant to service Kashagan field is under construction.
Sources: U.S. Energy Information Administration, IHS Edin, IHS Global Insight.

Project Delivery Platform

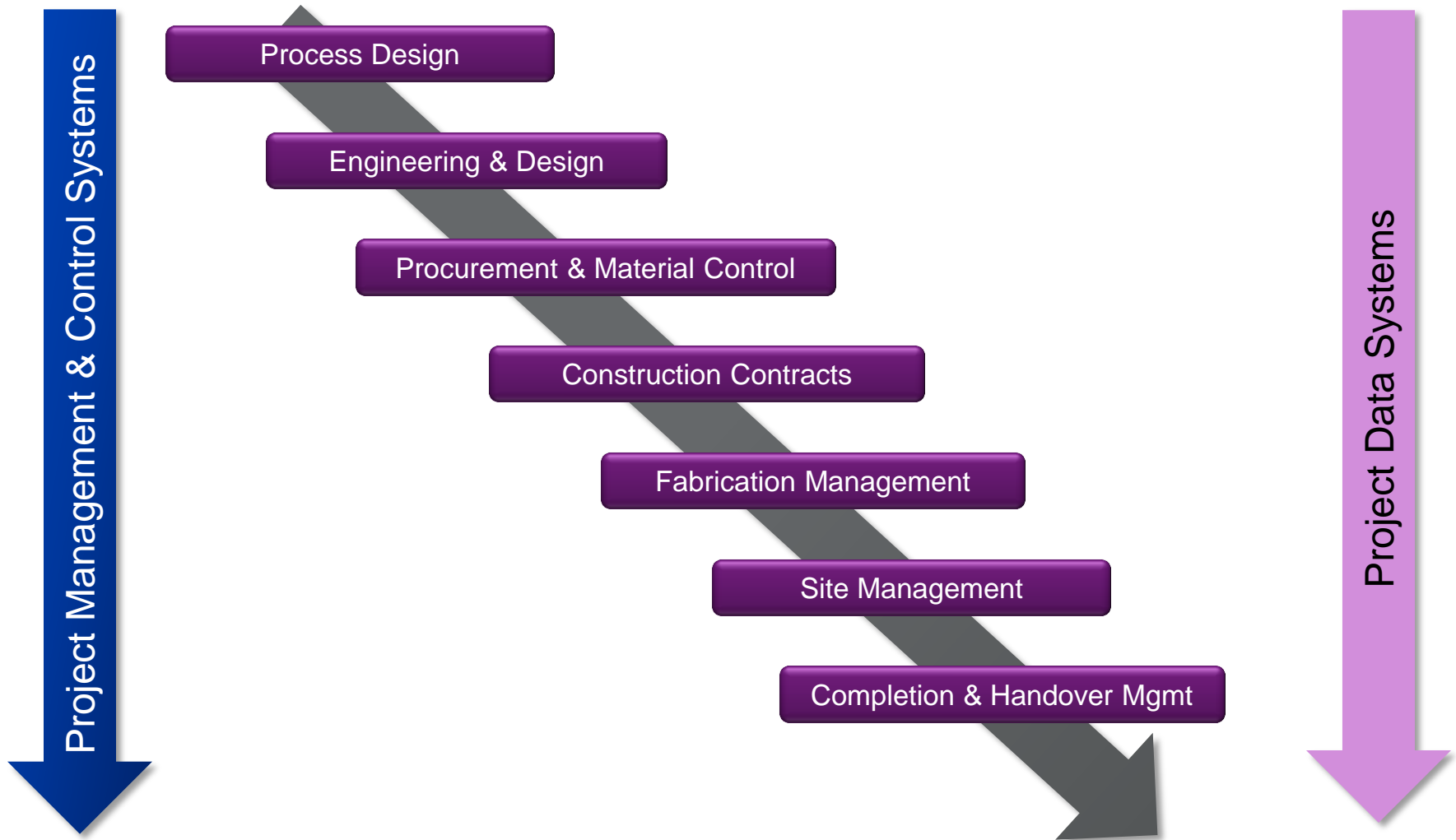
Caspian Region





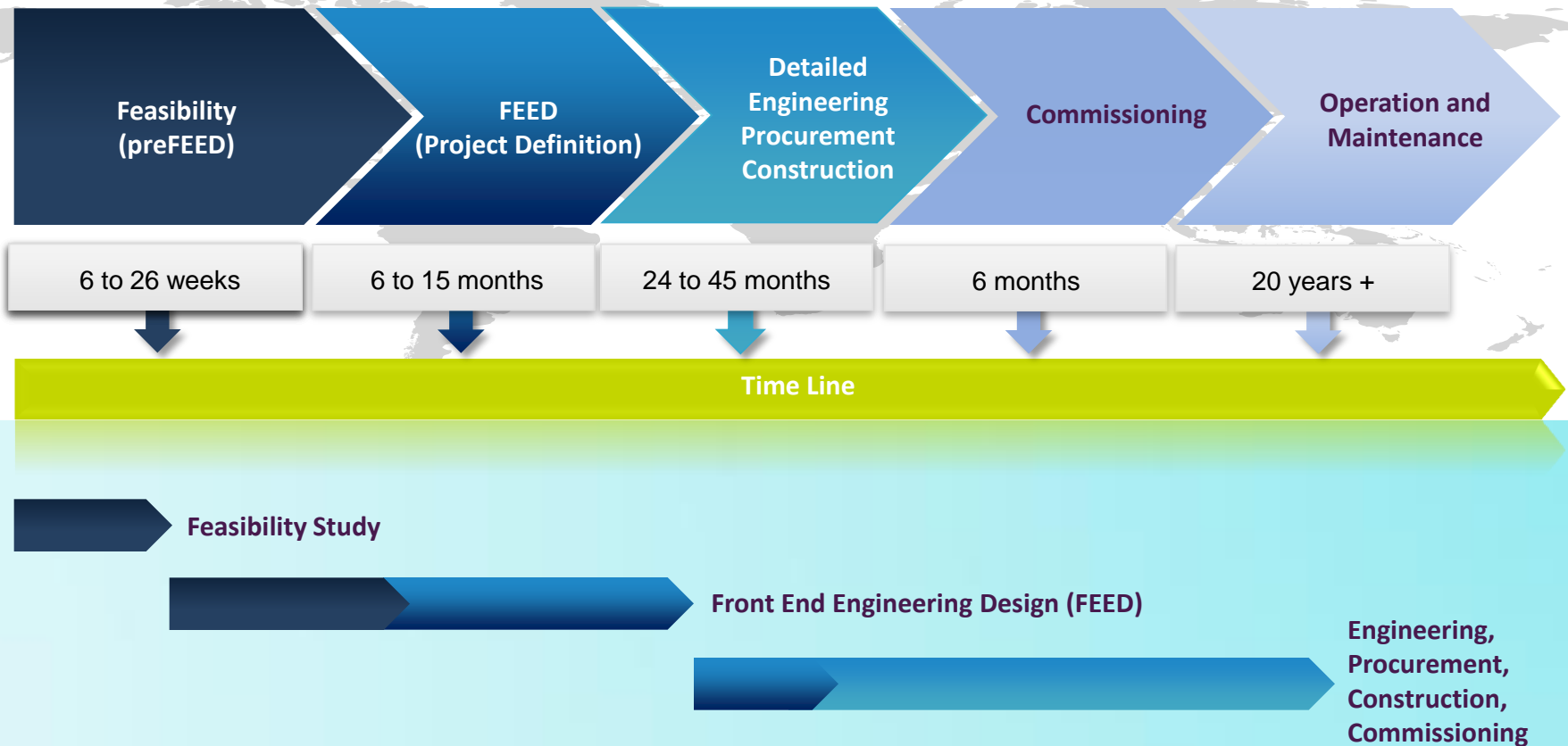
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Project Delivery Model

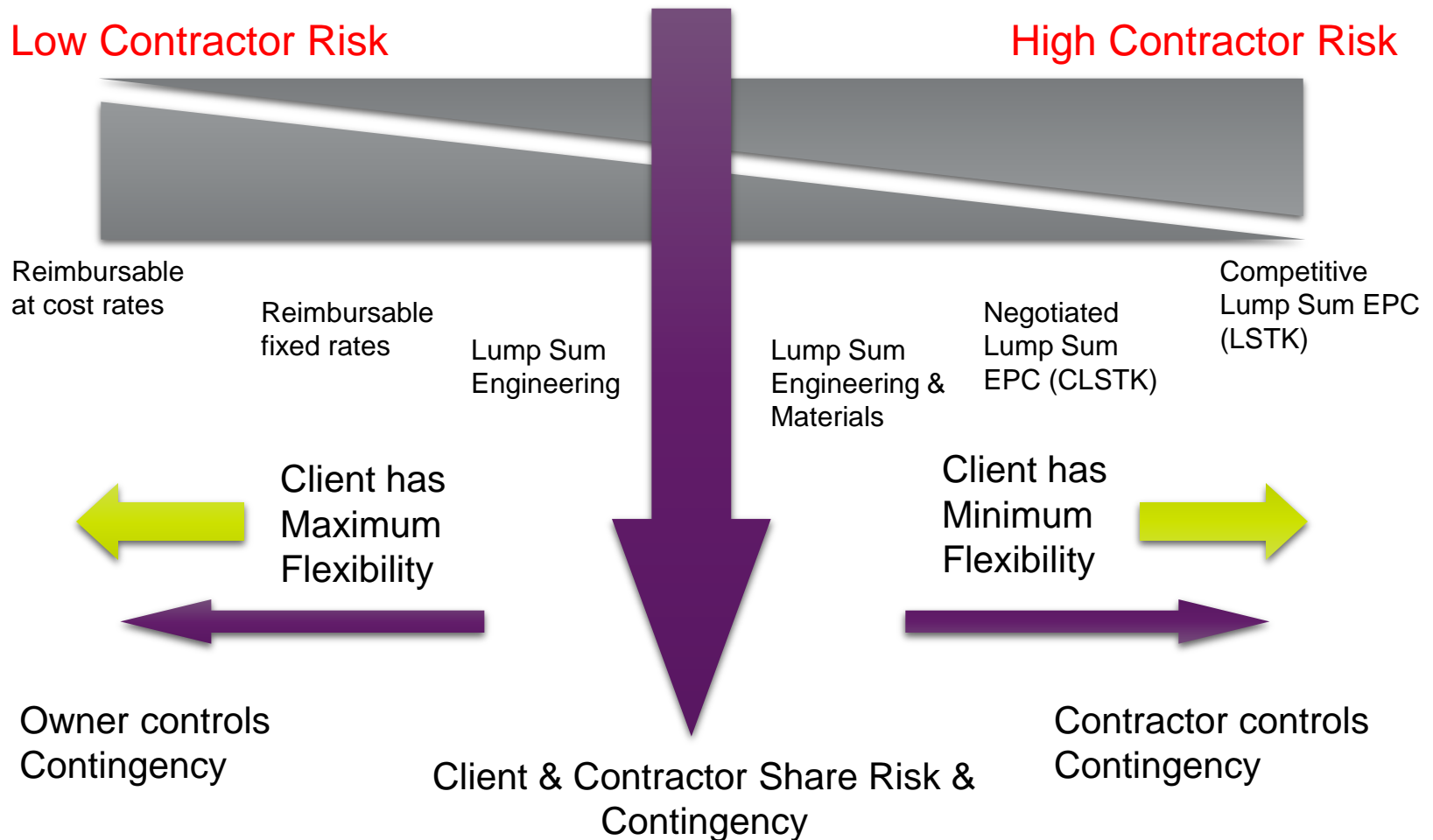




Phases of Project Delivery – Critical Issues



Contracting strategy



Traditional challenge in Caspian region – local content requirements

Engineering & project execution

- **Lack of experience** in executing projects through EPC contractors
- **Need to comply** with local standards and norms
- **Language barrier**
- **Lack of effective interaction and integration** between Contractors and Design Institutes
- **High local content requirements**

EPC contractors still continue to experience challenges that are specific to Caspian market

Procurement

- **Limited experience** of EPC contractors working with local equipment and materials suppliers

Building cooperation with Caspian contractors will allow more effectively mitigate these challenges and ensure EPC success in the region

Logistics

- **Lack of experience** of dealing with Caspian logistic companies

Construction

- **Difficulties experienced by EPC contractors** in managing Caspian construction subcontractors

- **Increasing requirements for local content should bring additional long term value added for Caspian region economies**
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New challenges and opportunities in Caspian Region for EPC Contractors

- Low oil prices impacted on most oil&gas Upstream projects economics (especially offshore) and bring more severe competition for finance in projects portfolio. Still most projects are long term oriented so existing projects can not be easily stopped, but some new ones are postponed
- Low oil prices improve economics of high value added products in downstream making them more attractive
- New geopolitical changes – deteriorating relationships of Western Countries with Russia develop additional interest for alternative oil&gas supply to Europe
- New market conditions may bring new consortiums and M&A activities on the EPC market
- Early stages engineering becomes more important,
- High sulfur oil (Kazakhstan), decreasing oil production (Azerbaijan), brings additional strong demand for new effective technologies and State of the Art solutions

Key conclusions

1

Local content requirements increase, that may help to improve Caspian region economics

2

Low oil prices bring more severe competition for money and for projects

3

New market conditions and geopolitical changes bring new opportunities for cooperation and launch of new projects

4

Contractors who are able to implement entire project from early stage to project commissioning have better competitive position

5

Strong demand for new State of the Art technologies



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