

Türkiye Gas Hub: What is needed?

The Biggest Integrated Industrial Holding of Türkiye



THE BIGGEST FOREIGN INVESTOR IN TÜRKİYE

More than **18** Billion \$



TOTAL INVESTMENT PLAN

19,5 Billion \$

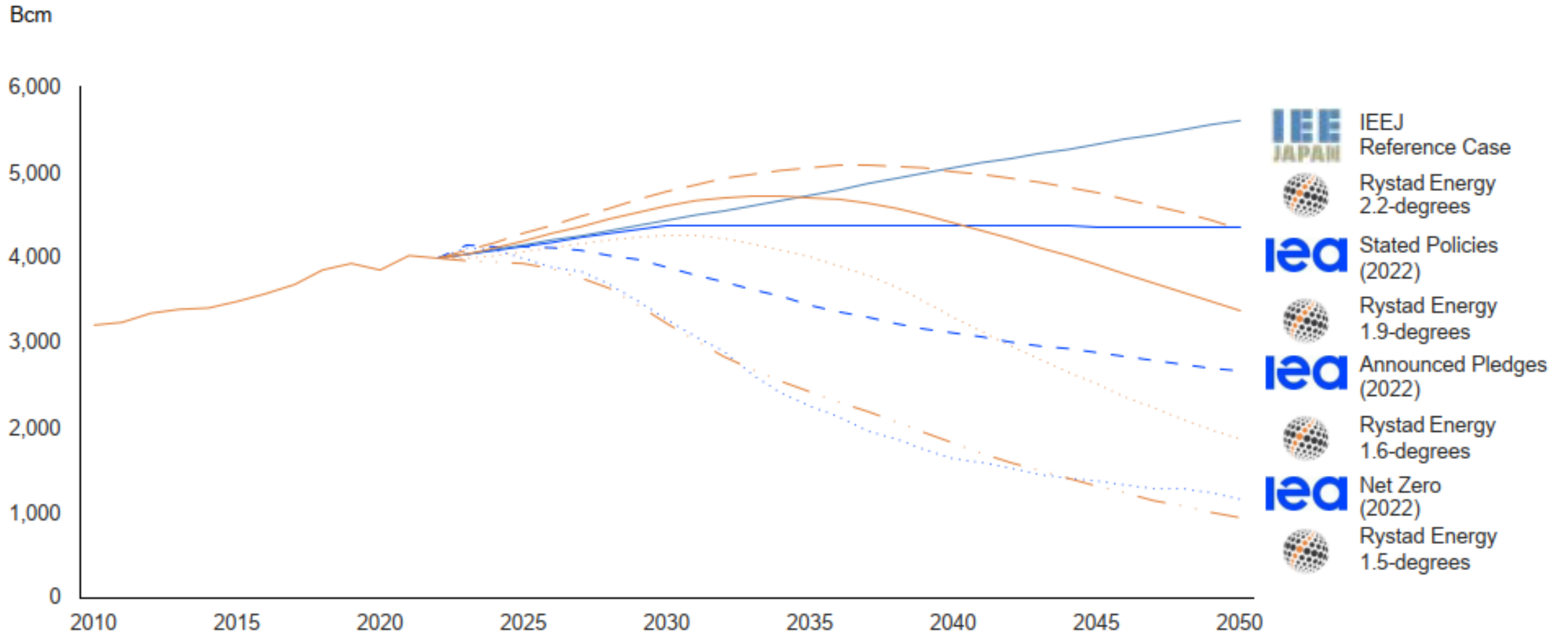
FROM
PAST TO
PRESENT

SIGNIFICANT CONTRIBUTION TO TÜRKİYE'S CURRENT DEFICIT CLOSURE

DIRECT OR INDIRECT NUMBER OF PEOPLE EMPLOYED

10.000+ People

Global Natural Gas Demand



Sources: IEA; IEE Japan; Rystad Energy

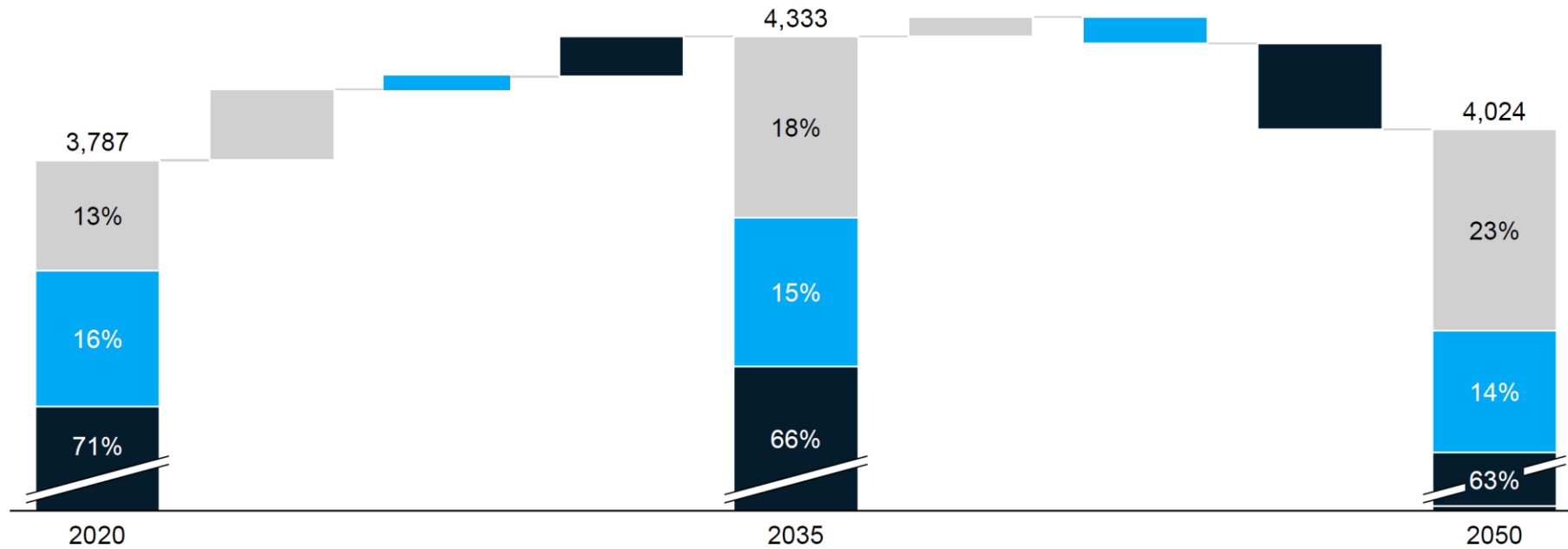
Global Natural Gas Trade

The share of LNG in the global gas supply will increase consistently, as it meets demand growth and replaces declining pipeline and domestic gas.

Global domestic consumption (piped and LNG gas and import projections), bcm

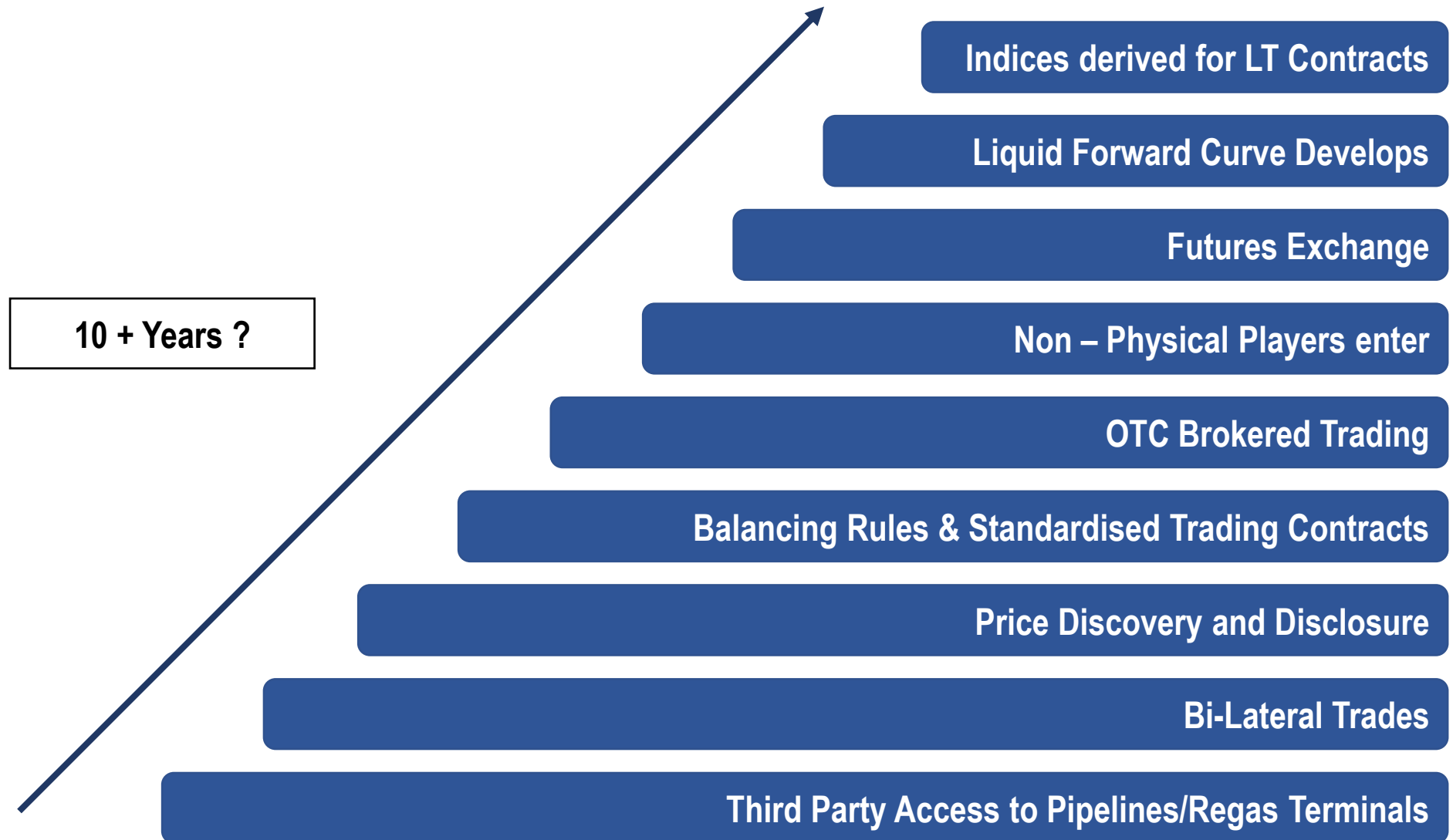
■ LNG¹ ■ Pipeline-import flows ■ Domestic gas

Reference case



1. Including LNG flows within country for Indonesia and Malaysia.

Road Map for being a Trade Center (HUB)

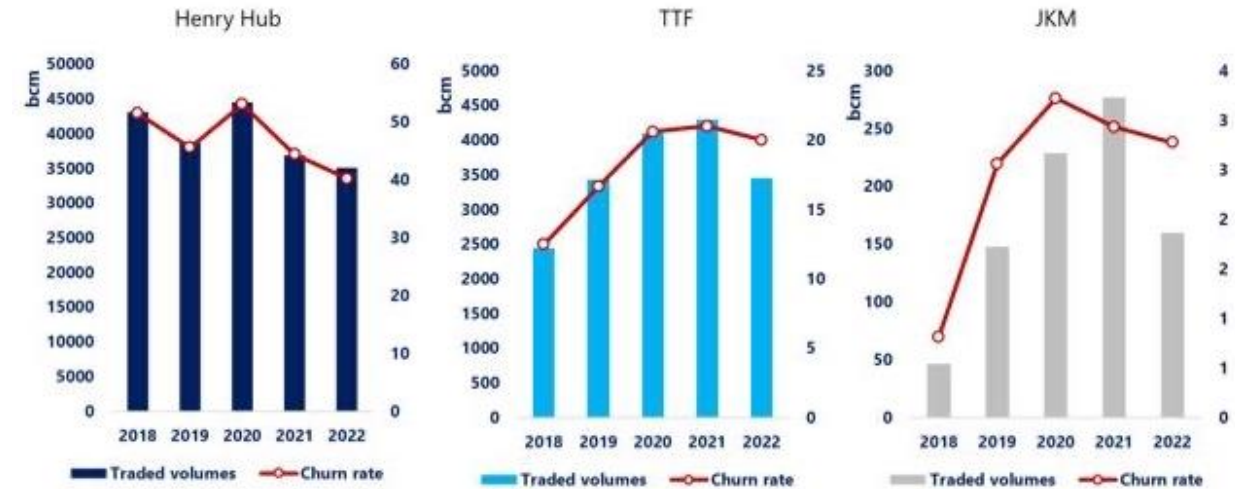


European Trade Centers

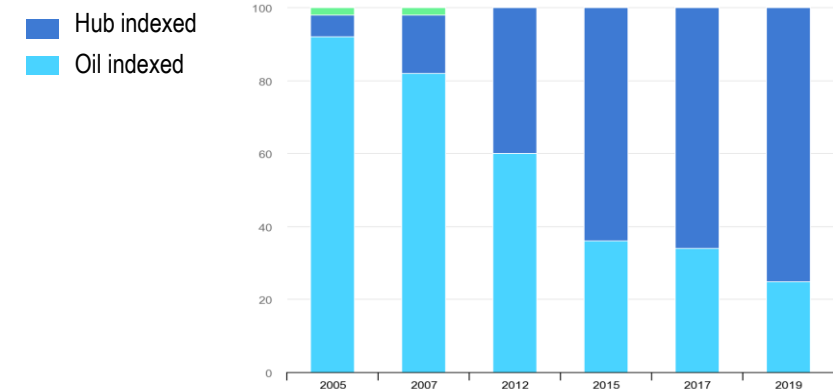


2020						
5 KEY ELEMENTS						
Hub	Active Market Participants*	Traded Products**	Traded Volumes	Tradability Index (Q4)	Churn Rate***	Score /15****
TTF (Netherlands)	225	49	46690	20	60,0	15
NBP (UK)	166	39	10060	17	11,2	13
PSV (Italy)	112	24	1455	16	1,9	10
NCG (Germany)	126	23	1965	15	2,1	9
VTP (Austria)	110	19	1010	14	2,0	9
GPL (Germany)	99	21	1350	16	1,6	9
TRF (France)	46	19	890	15	1,6	7
PVB (Spain)	55	13	145	0	0,2	6
ZEE (Belgium)	45	12	235	5	0,5	6
ZTP (Belgium)	32	10	235	7	0,5	5
VOB (Czech)	41	1	95	6	0,4	5

Traded volumes and churn rates on key global gas hubs



Evolution of European's gas import pricing mechanisms: from oil to hub-indexation



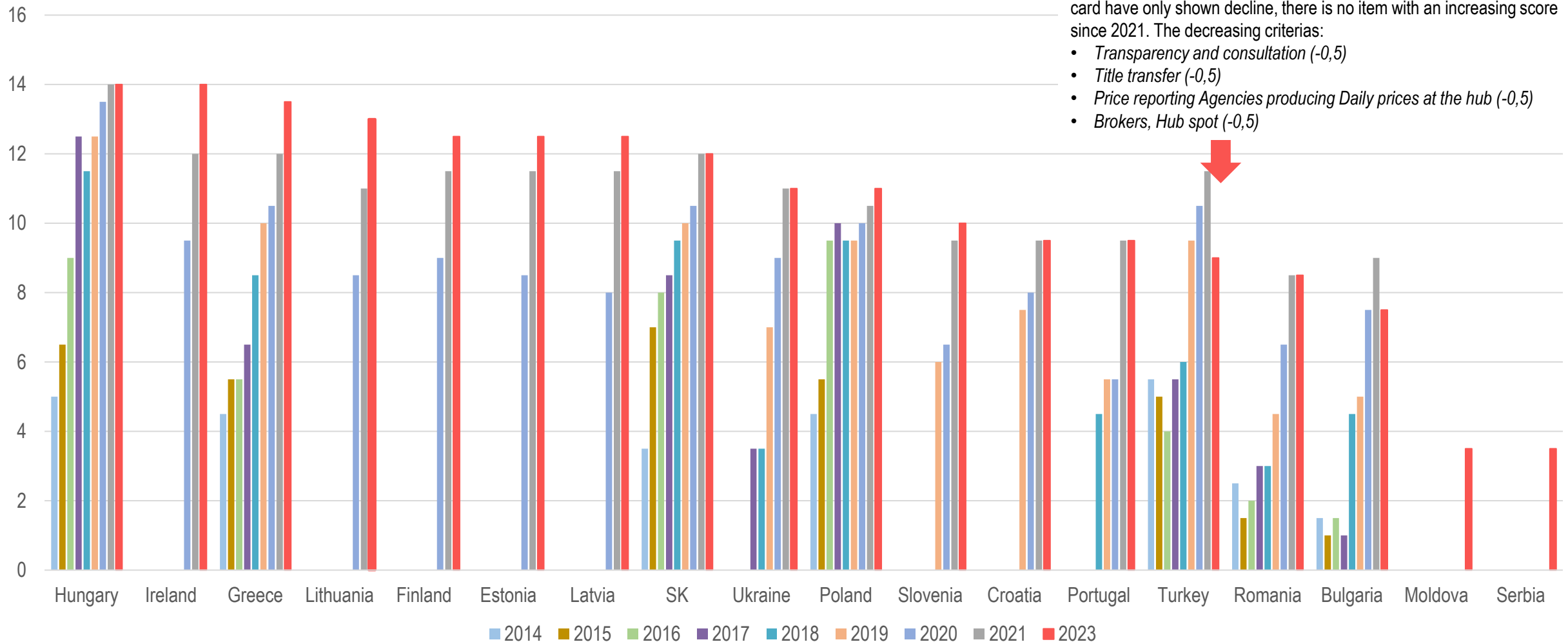
EFET Gas Hub Benchmarking Study



EFET 2023 Gas Hub Benchmarking Study




As of 2023, Türkiye stands as the **14th higher rated country** according to the Gas Hub Benchmarking Study. The criterias on Türkiye's score card have only shown decline, there is no item with an increasing score since 2021. The decreasing criterias:


- *Transparency and consultation (-0,5)*
- *Title transfer (-0,5)*
- *Price reporting Agencies producing Daily prices at the hub (-0,5)*
- *Brokers, Hub spot (-0,5)*




Daily Gas Entry Amounts by Entry Point

Entry & Exit Points :

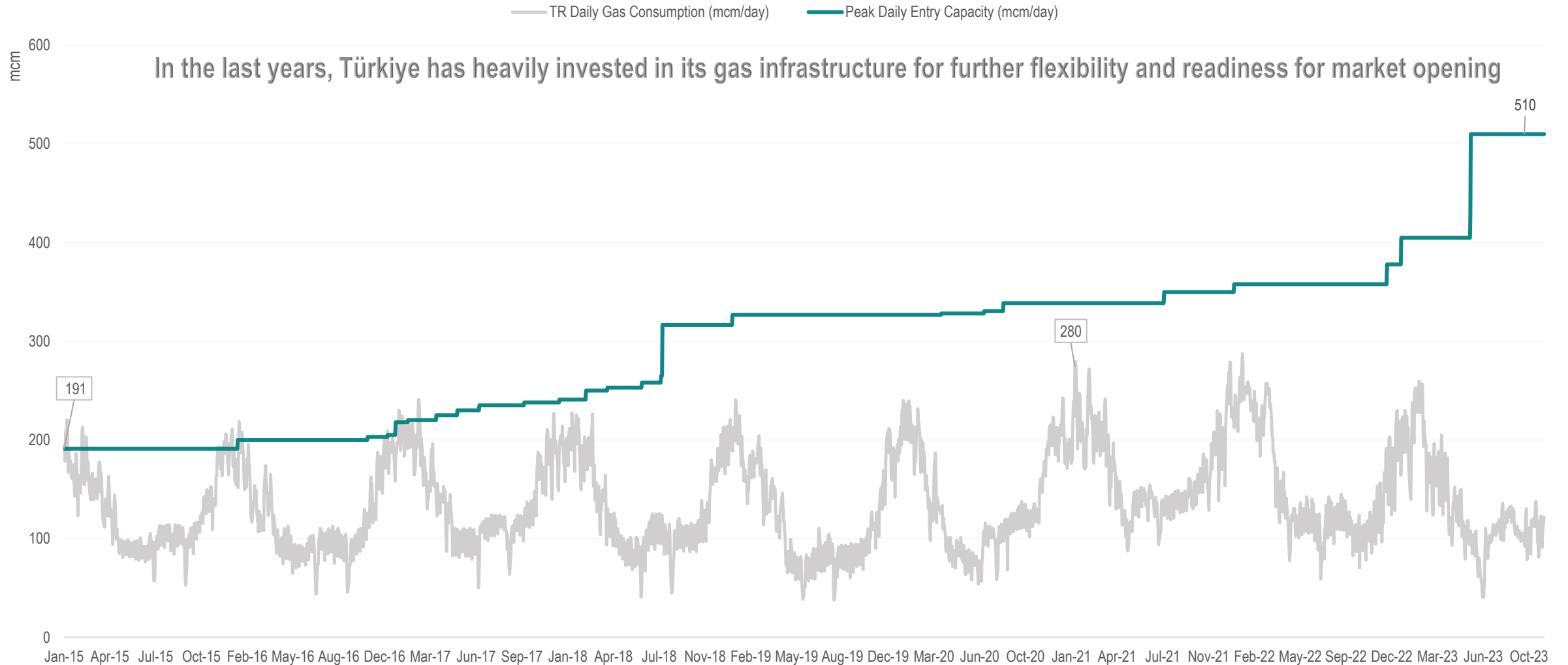
	Entry Point	Technical Capacity (mcm/d)	Commercial Max. Capacity (mcm/d)	Source/Line
	Malkoçlar	42	0	Russia – West Line
	Türkgözü	19,1	7,8	Azerbaijan - Spot
	Durusu	47,3	47,3	Russia – Blue Stream
	TANAP	19	16,9	Azerbaijan– Shah Deniz-2
	Gürbulak (Bazergan)	28,6	28,6	Iran
	Kıyıköy	46,3	30*37	Russia - Turkish Stream
	Egegaz	40	30	LNG
	Etki FSRU	28	21	LNG
	Dört Yol FSRU	28	28	LNG
	Marmara Ereğlisi	37	35	LNG
	Saros	20	20	LNG
	Filyos	40	4	Offshore production
	Silivri	75	30	Storage
	Tuz Gölü	40	40	Storage
Total		510	339	

	Exit Point	Technical Capacity (mcm/d)	Operational Max. Capacity (mcm/d)	Source/Line
	KIPI - Yunanistan	4,6	0,8	KIPI
	Dilucu - Nahçıvan	1,5	1,5	İğdir – Nahçıvan (AZ)
	Malkoçlar - Strandhza	20	11	Malkoçlar- West Line
	Malkoçlar - Strandhza 2	53,8	49,0	Turkstream transit
	Total		79,9	62,3

Storage Capacities:

	Silivri	Tuzgölü	Silivri Planned	Tuzgölü Planned
Storage Capacity, mcm	4.600	1.000		5.400
Daily Max. Injection Capacity, mcm/day	45	21		
Daily Max. Withdrawal Capacity, mcm/day	75	40		80
Current Inventory	4.600	601		
Occupancy Rate	100%	60%		

Türkiye Daily Gas Entry Capacity



Türkiye Gas Supply Contracts



		Source/Line - Company	Contract Volume (bcm/year)	Duration (year)	Start Date	End Date
BOTAS	Operating	Russia – Blue Stream	16	25	2003	1.01.2026
		Russia - Turkish Stream	5,75	4 - Spot	2022	1.01.2026
		Iran	9,6	25	2001	30.07.2026
		Azerbaijan – Shah Deniz 2	6	15	2018	2033
		Azerbaijan Shah Deniz-2 (T.Gözü)	3,5	3 -Spot	09.2021	2025
		Algeria – LNG (Renewed as 4,4 bcm contract volume starting from 2024)	6	30	1994	09/2024
	Terminated	Russia - Turkish Stream	4	23	1998	01.01.2022
		Azerbaijan -Türkgözü	6,6	20	2001	15.04.2021
		Nigeria - LNG	1,3	22	1999	11/2021
		Qatar - LNG	2,1	2 - Spot	2019	09/2020
Private Companies	Operating	Akfel	2,25	30	2013	2043
		Kibar	1	30	2013	2043
		Batı Hattı	1	20	2013	2033
		Bosphorus Gaz	1,75	30	2013	2043
	Terminated	Bosphorus Gaz	0,75	21	2022	2043
		Shell Enerji	0,25	24	1998	2022
		Enerco Enerji	2,5	24	1998	2022
		Avrasya Gaz	0,5	24	1998	2022
BOTAS - Operating		46,85 bcm/year				
Private Companies – RU Operating		6,75 bcm/year				

Shah Deniz-2
Spot Contract:
(2021: 1,0 bcm)
2022 : 2,5 bcm
2023 : 3,5 bcm
2024 : 3,5 bcm

0,75 bcm Bosphorus contract volume from Turkish Stream is extended.

EPIAŞ Exchange Platform

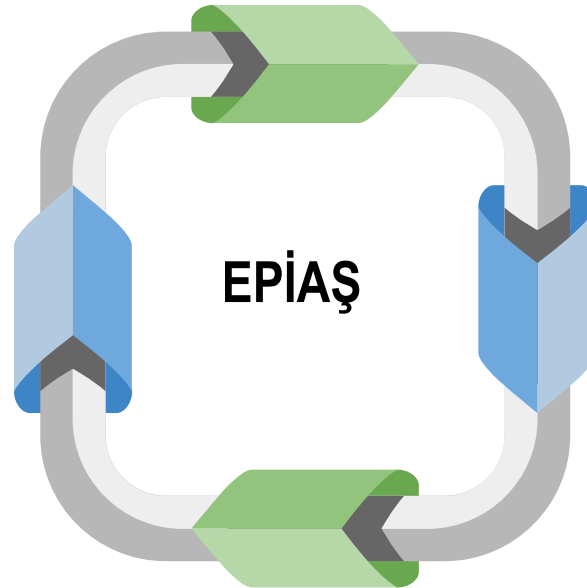
EPIAS has launched Natural Gas Exchange Platform for Organised Wholesale Natural Gas Market on September 2018

55 market participant

- 21 active market player
 - 36 importers
- 16 Wholesale companies

2,01 bcm trade volume

- 93% of trade volume by imbalancing activities
 - 5,7 mcm daily average trade volume



27,5 billion TL traded amount

- 91% of trade amount by imbalancing activities
- 75 million TL daily average trade amount

8.314 annual offer quantity

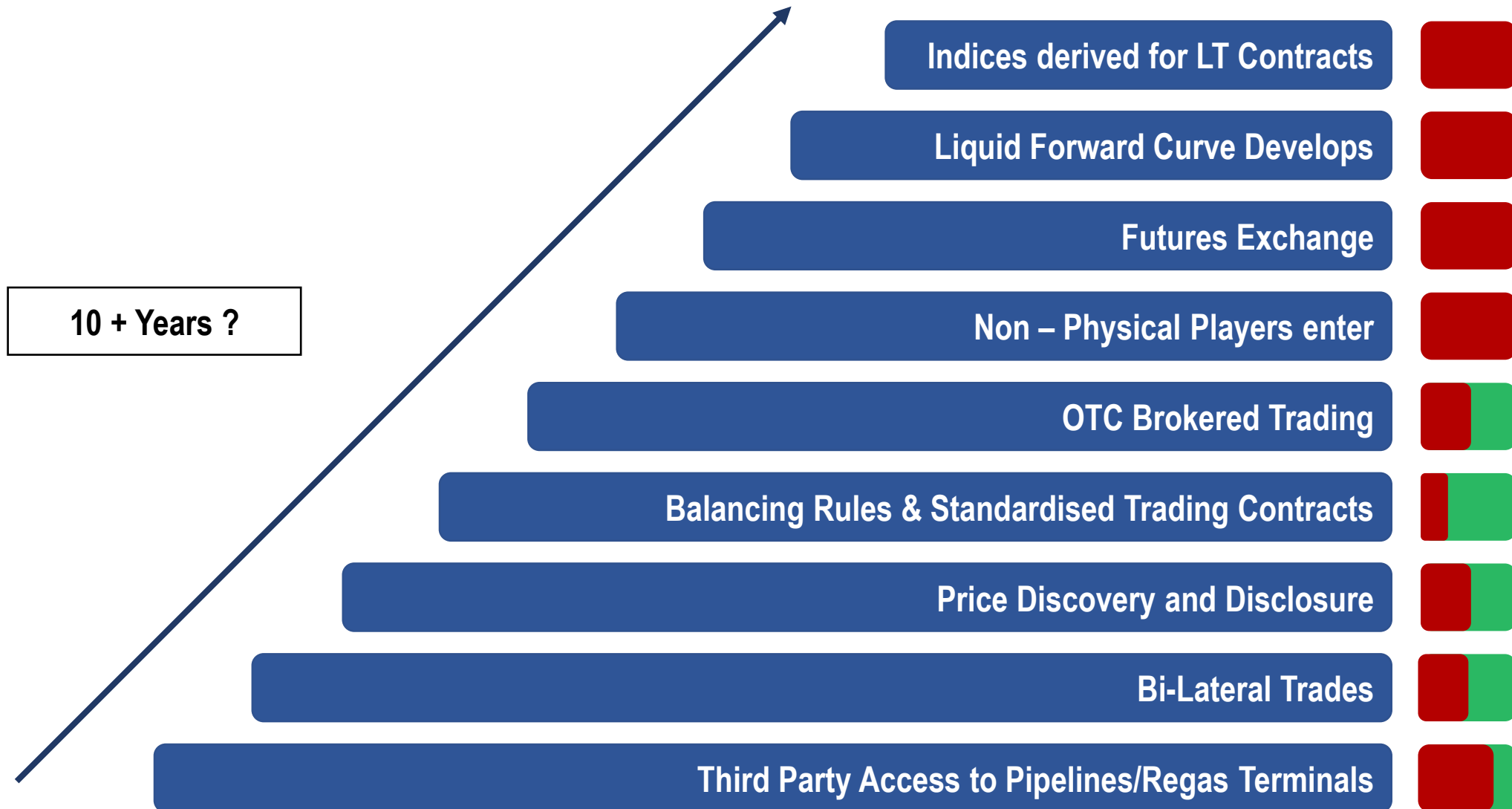
- 22,8 daily average bid quantity
- 37% of offers are realised as trade

Partial settlement	1830
Settlement	3111
Non Settlement	3373
Offer	8314
Sales	4953
Purchase	3361

Continuous Trading Platform

- Day ahead, intraday and day- after market contracts
 - Weekday, weekend and weekly products
- Market notifications for bids and offers of BOTAŞ, additional imbalancing deals, announcements

Türkiye - Road Map for being a Trade Center (HUB)



Türkiye Hub – What is needed?

- Enhancing interconnection infrastructure to integrate Türkiye gas market to international trade centers
- Unbundling of BOTAŞ
- More access to gas supply contracts by private sector (or volume transfer)
- Leaving large scale subsidy implementation and subsidizing the vulnerable consumer instead
- Eradication of price interventions