



# The oil & gas valve industry in Italy

BUSINESS STRUCTURE, TRENDS AND OUTLOOK

Edition 2022

## *Selected evidences*

Bergamo, May 24<sup>th</sup> 2022



- 
- **Business Structure and Italy's role in the European valve industry**
  - Recent trends
  - Outlook (beyond Russia)

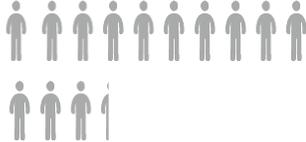
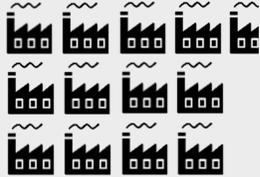
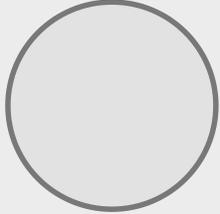
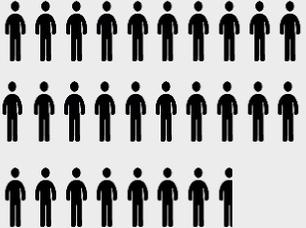
# The Italian Oil&Gas Industry at a glance

---

- ✓ *The Oil&Gas valves industry stand as a core niche industry in the Italian manufacturing. Its contribution is comparable to the one provided by other well-known products of the “Made in Italy”, such as knitwear, electromedical products or motor-cycles, as well as to the whole energy sources’ mining industry.*
- ✓ *Bergamo represents the beating heart of the industry: more than 90 percent of the national production is generated within a 100km radius of the province.*
- ✓ *Italian companies producing Oil&Gas taps and valves have proven themselves to be an industry of excellence even in the current complex and uncertain European (and global) competitive landscape. Also according to latest available data, 4 out of 10 valves for O&G produced in Europe are “Made in Italy”*

# The Italian industry of tapes and valves

A core sector of Made in Italy IM&E industry (2019)

		Number of enterprises	Production value (€ blns)	Number of employees
	 Oil & Gas valves	 255	 3,2	 11.400+
	 Oth. industrial valves*	 682	 4,4	 16.600+
	 Household taps	 336	 1,3	 5.700-
<b>TOTAL</b>	<b>Tapes &amp; Valves</b>	 1274	 9,0	 33.700

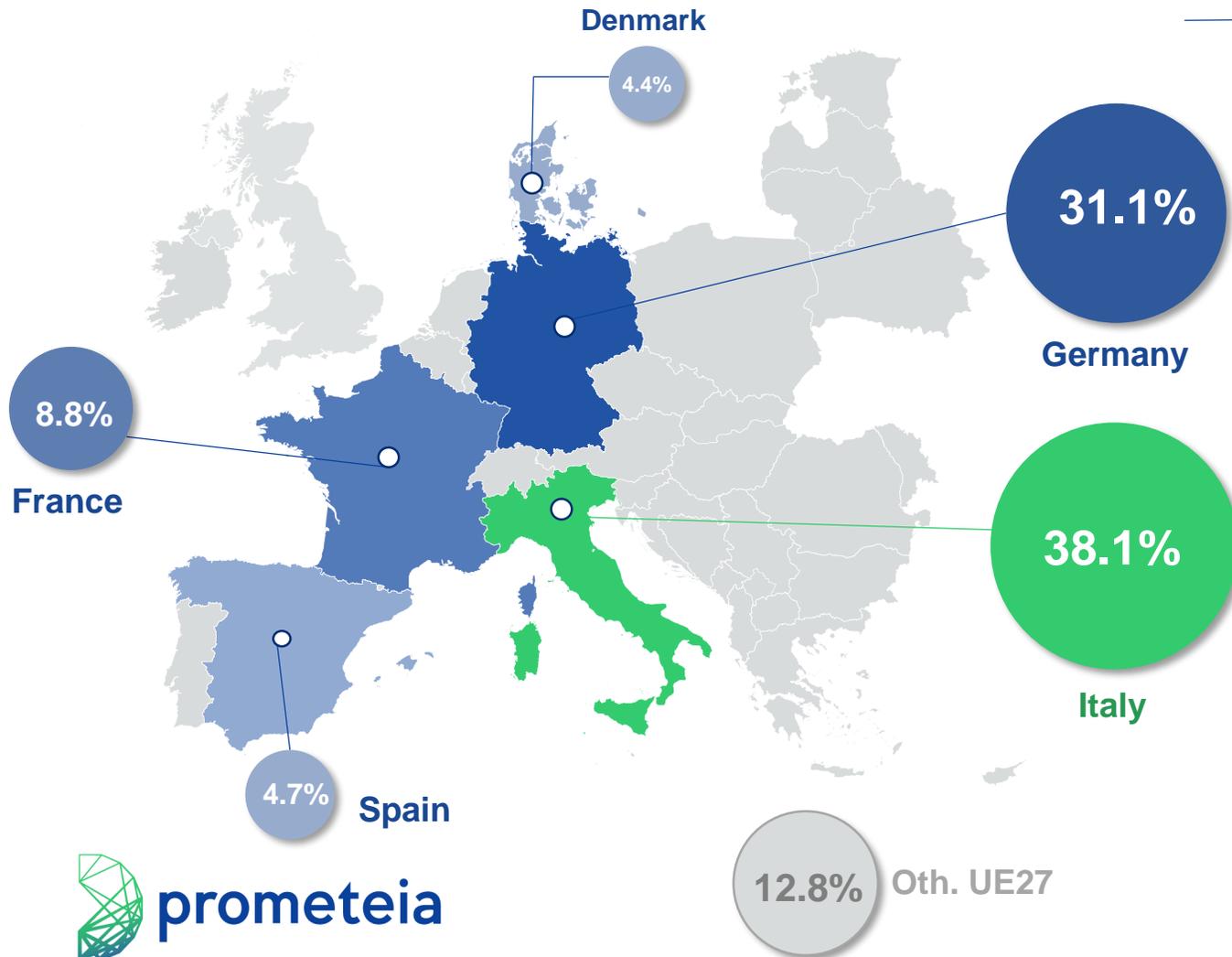
\* Hydraulic valves, valves for food & beverage industry, valves for pharmaceutical industry, etc.

Source: Prometeia's calculation on ISTAT data and Companies balance sheets

# The O&G valve industry in Europe

Italy is the European leading manufacturer of O&G valves (almost 40% of EU Tot. Production)

The main European production countries: sold production value\*  
% share on total, €, average 2018, 2019, 2020



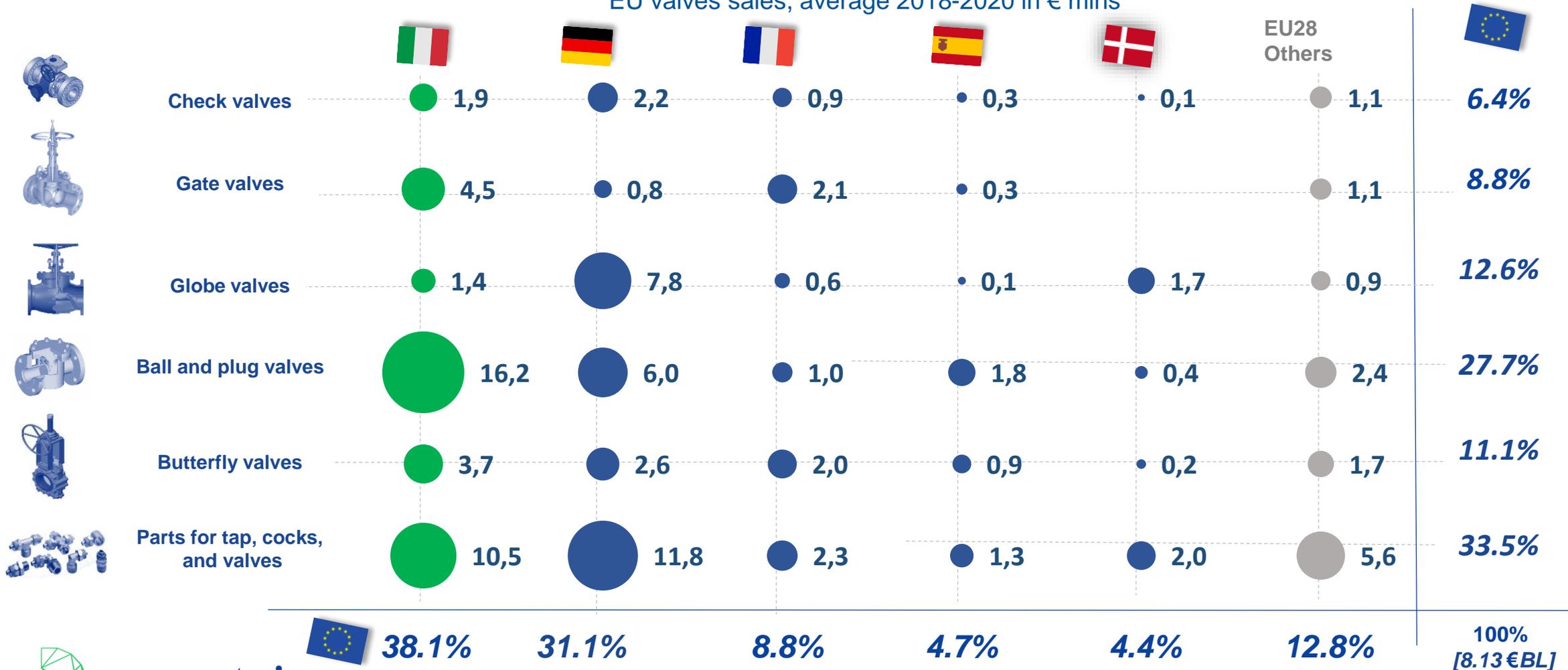
 total UE27  
**8.13€ blns**

\* Production value generated at national production plants

# EU27 valves production by type

Italy leads in Ball and Plug, Butterfly, Gate valves and parts production

The main European production countries: sold production value by country and product\*  
EU valves sales, average 2018-2020 in € mlns

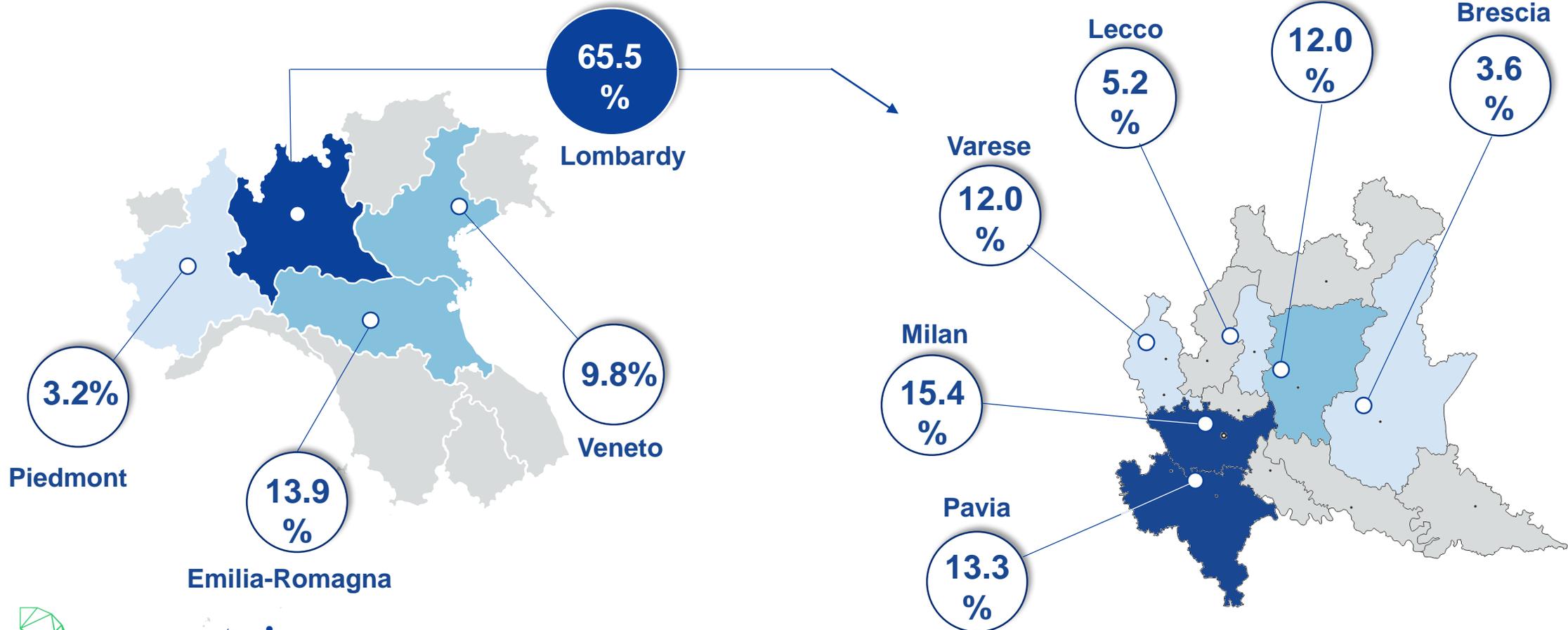


all rights reserved

# The O&G valve industry in Italy

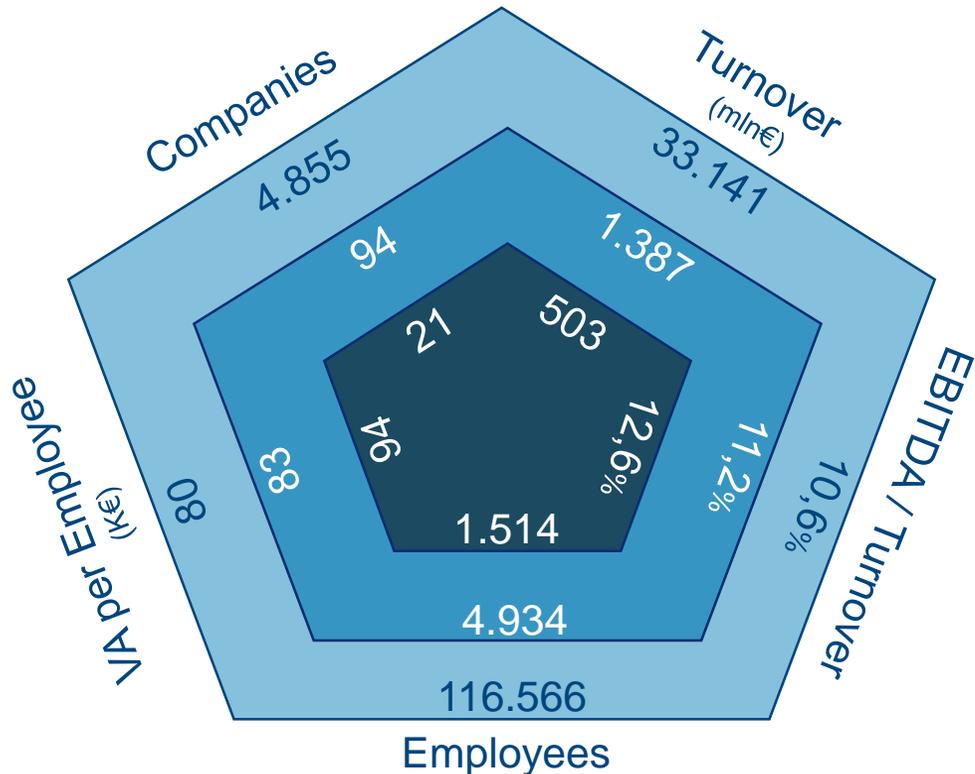
65.5% of the Italian production is concentrated in Lombardy

The map of territorial specialization: % share of the Italian production value (2019)



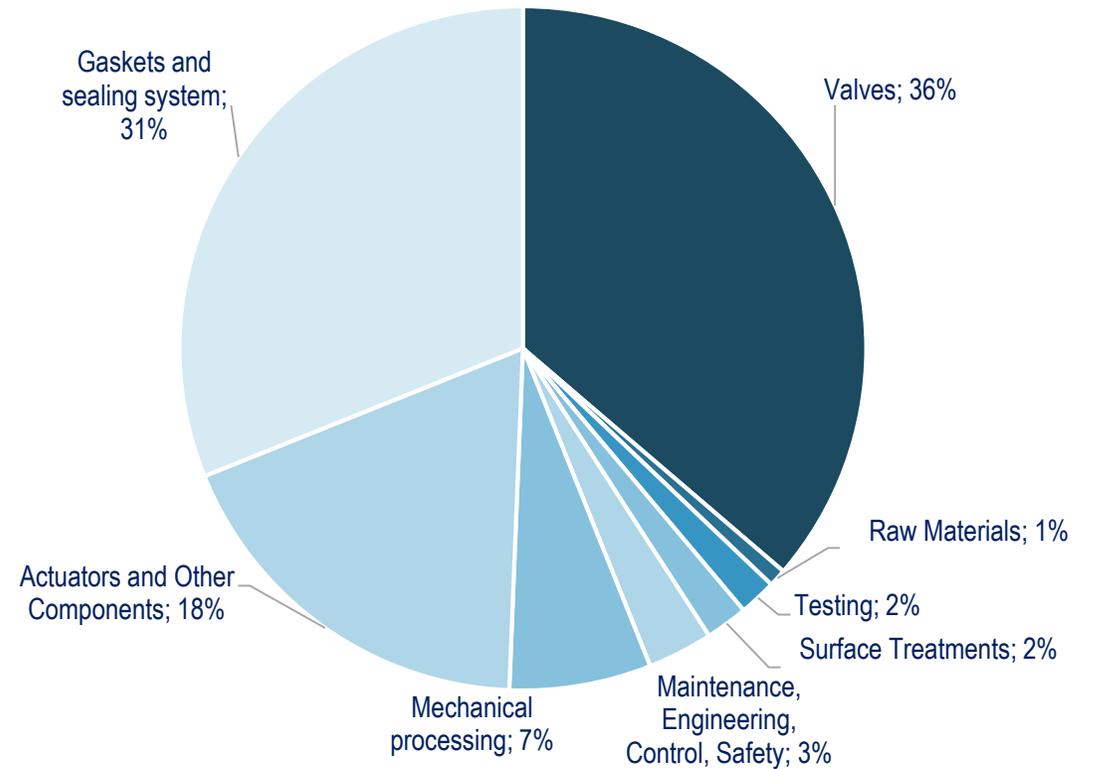
# Oil&Gas Valves – A core Bergamo Industry

Valves manufacturers rely on a larger specialized supply chain



-  ALL SECTORS MANUFACTURERS
-  OIL&GAS VALVES SPECIALIZED SUPPLY CHAIN
-  OIL&GAS VALVES MANUFACTURERS

Main products in the Oil&Gas Valves Supply Chain (% of Turnover)



all rights reserved

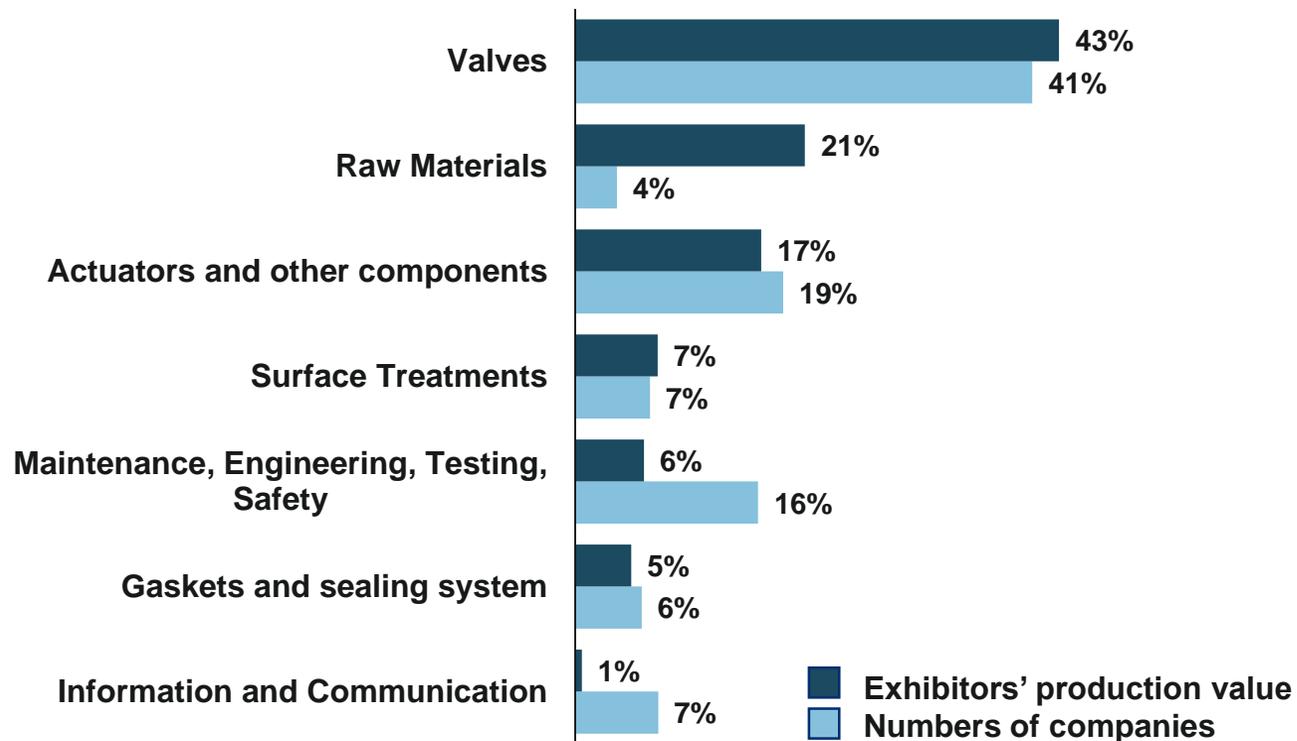


Source: Studi Confindustria Bergamo on BVD – AIDA (2019) data

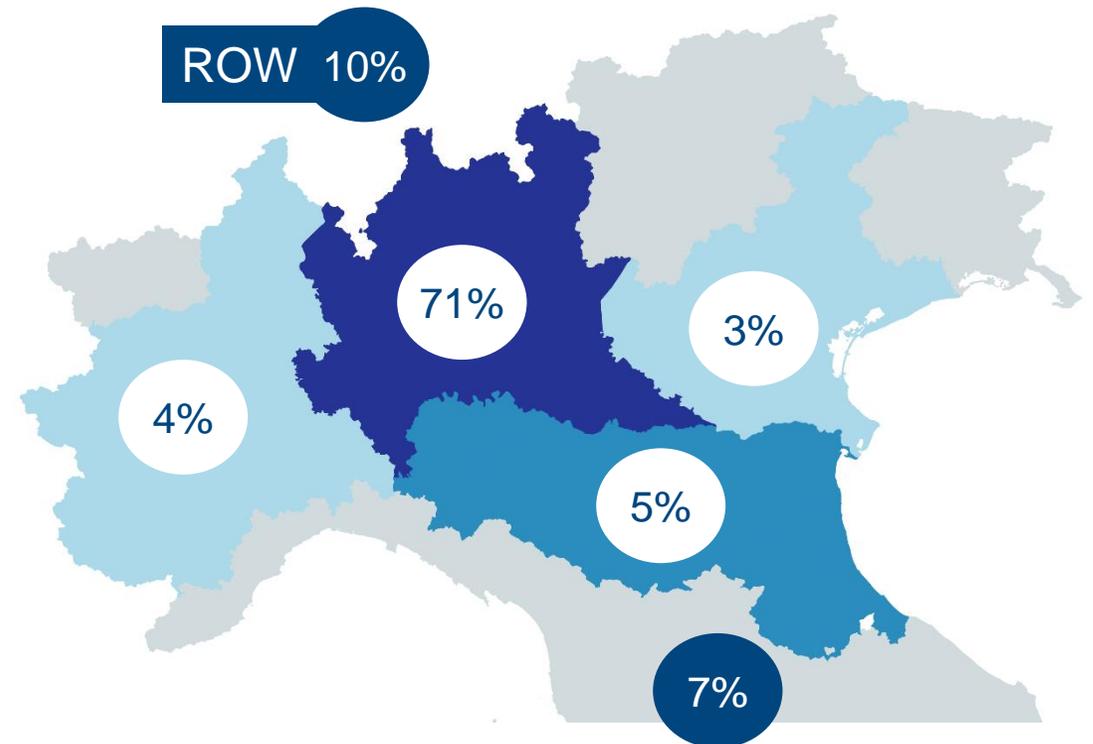
# Industrial Valve Summit 2022

## Exhibitors' activities

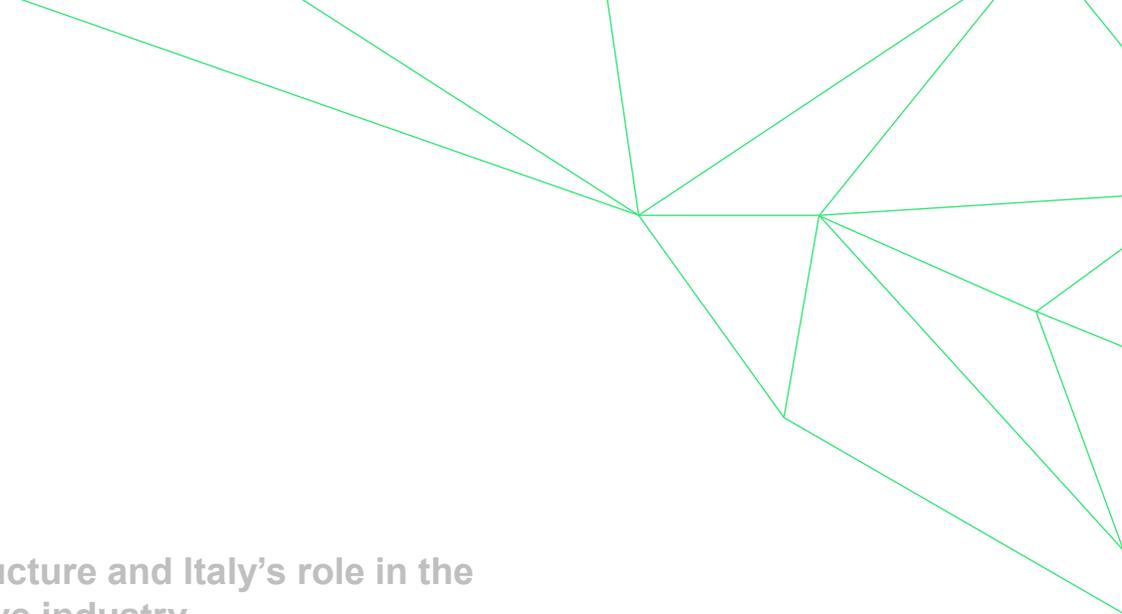
Exhibitors and their production value by main product  
% of total



Exhibitors	2017	2019	2022
No.	195	242	280
Production Value (bln€)	4,6	5,2	5,9



Source: Studi Confindustria Bergamo on BVD – AIDA/Orbis data (2020; production value available for 249/280 companies)

- 
- Business Structure and Italy's role in the European valve industry
  - **Recent trends**
  - Outlook (beyond Russia)

# Recent trends

---

- ✓ *The pandemic has heavily affected the demand for Oil&Gas valves. Global investments in the O&G industry have fallen by around 30% throughout 2020. The recovery of 2021 has exhibited slow rates which have not allowed the industry to re-gain its pre-pandemic standards. Consequently, the global demand of O&G valves imports has reported lower levels in 2021 versus 2019 (-2%).*
- ✓ *Unavoidably, the COVID-19 shock has affected the evolution of the Italian industry:*
  - ✓ *In 2020, it has been registered a shrinkage of Italian companies' turnover (-3,7%), a result that is nevertheless superior to the one of their competitors (-11,8%)*
  - ✓ *In 2021, the Italian export has not yet re-gained its pre-pandemic level (-7%), although the result has not jeopardized its position in the world ranking at 3° place. Italian companies have indeed obtained outcomes that are at least in line with those of their competitors in 62 markets (68% of total exports)*
- ✓ *Geographic specialization and «fly to quality» strategies are at the root of these results.*

# Italy in O&G valves global trade (1/4)

Italian exporters fared relatively worse than peers in the aftermath of the pandemic...

... losing approx. ½ point of export market share

World imports and Italian exports of O&G valves  
2007=100, €



Italy's share of World O&G valves market  
ITA export as % of World imports, €

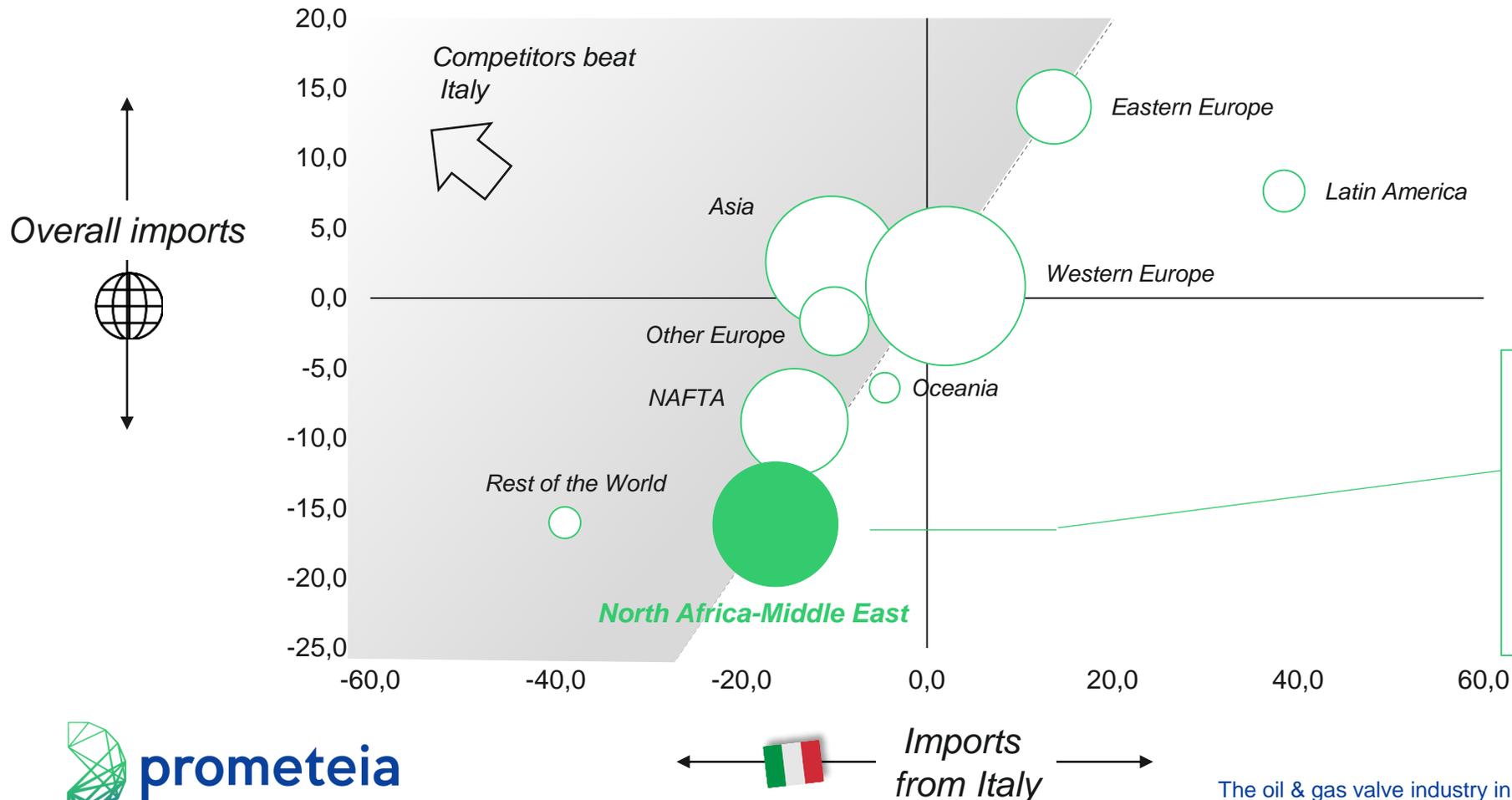


# Italy in O&G valves global trade (2/4)

... whose underperformance affected the Italian export recovery in the last 2 years

## World imports and Italian exports of O&G valves in the last two years

Imports from Italy and overall imports, 2021 / 2019 % chg. (€)

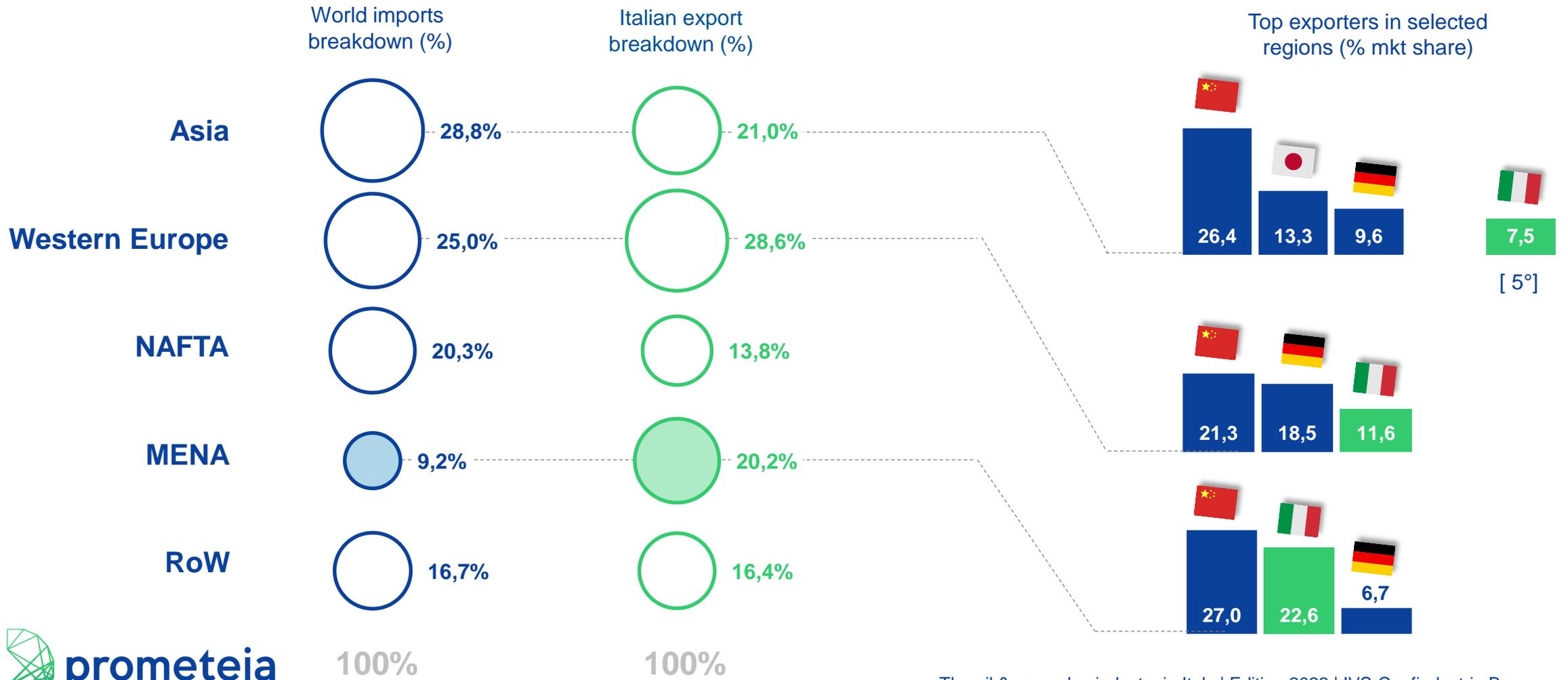


all rights reserved

# Italy in O&G valves global trade (3/4)

One in five valves exported by Italy (in value) is directed to MENA markets ...

Geographic Framework of sales (in €, 2019-2021 average)

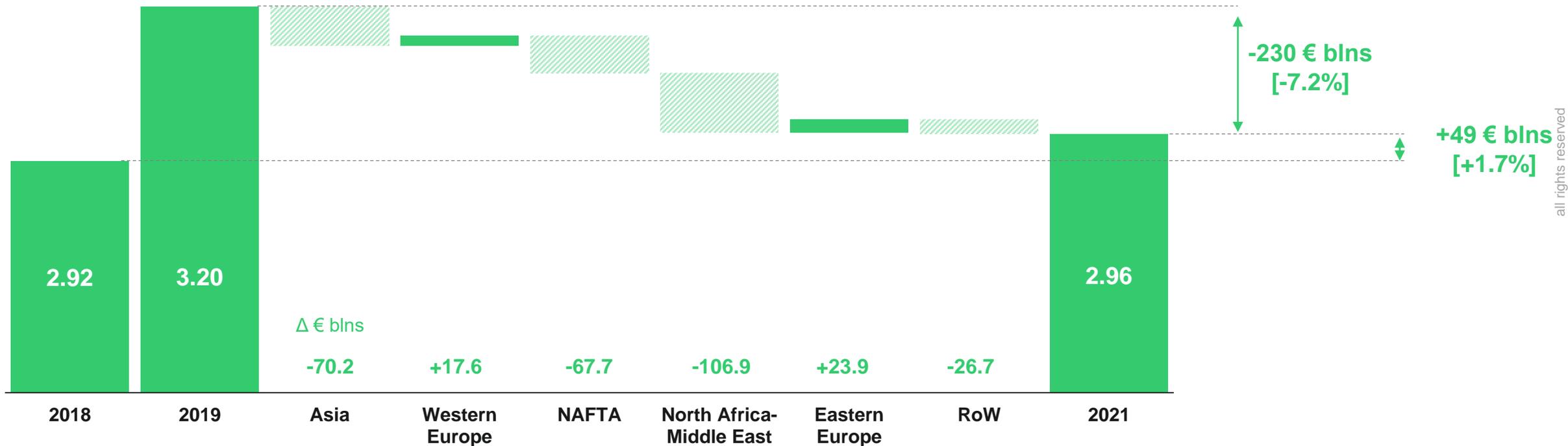


# Italy in O&G valves global trade (4/4)

Overall sales abroad were 7.2% lower in 2021 compared to 2019... albeit 1.7% higher than in 2018



**Italian export of O&G valves**  
Regional contribution to Italian export growth, Δ 2021 - 2019 in € blns.



*Middle-East / Northern Africa* accounted for almost 50% (107 over 230 € blns) of the overall export loss in the “pandemic years” (2020-2021)

# Italy O&G valves maintained competitiveness ...

Italian export growth matched those of competitors in 62 markets (51+11) over 100 (2021 vs 2019)

Export ITA (%)

# of countries



Italian O&G Valves export\*  
2019/2021 growth, in €

Markets* (import % growth 2021-2019, in €)	Italian O&G Valves export* 2019/2021 growth, in €			total	
	better	in line	worse		
Hi-growing (>10%)	17	2	11	30	13.4
Growing (>0% <10%)	9	3	4	16	40.6
Declining (<0% >10%)	10	3	9	22	33.6
Dropping (<-10%)	15	3	14	32	12.4
<b>total</b>	<b>51</b>	<b>11</b>	<b>38</b>	<b>100</b>	<b>100</b>



# ... in fast-changing & concentrating landscape

USA topped the ranking, China gained 2 position, at the expenses of Germany and Saudi Arabia ...

... which anyhow increased their share



Top 4 markets accounted for **34.1%** of Italian export value in 2019...

... almost 5 p.c. points less than in 2021 (**38.5%**)

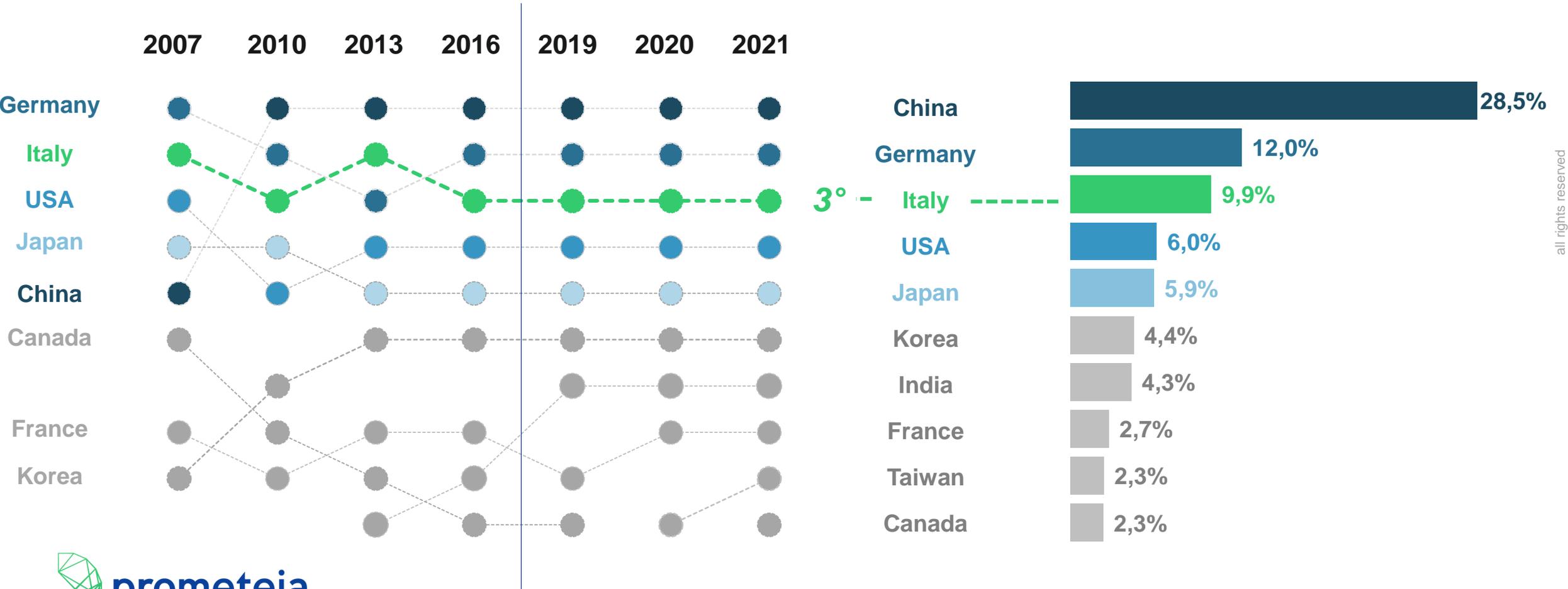
# World top exporters of O&G valves

Italy still holds the bronze medal in global Valves trade – China dominates the ranking, followed by Germany

World top-10 exporters of O&G valves (€)

Place in ranking, 2007-2021

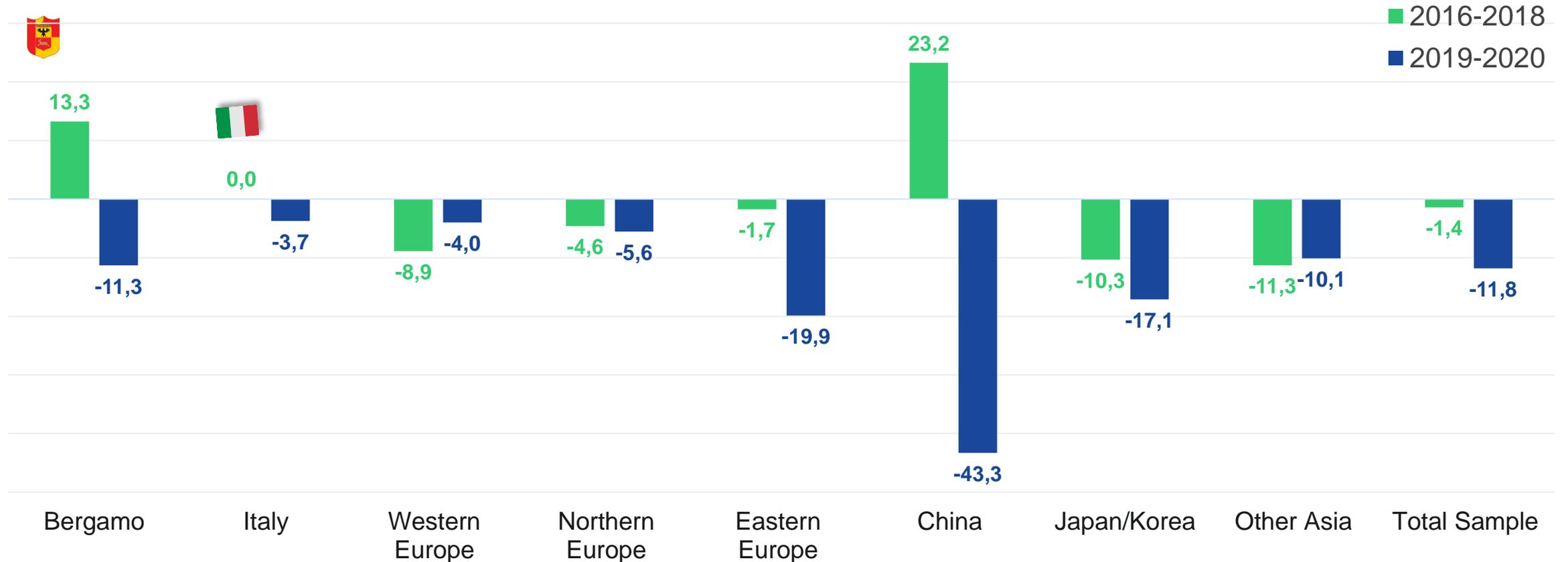
World market share, 2021



# Turnover: most of the companies suffered in 2020

Bergamo performed well both at national and global level before the pandemic

Total turnover evolution 2016-'18: % change, median value by cluster



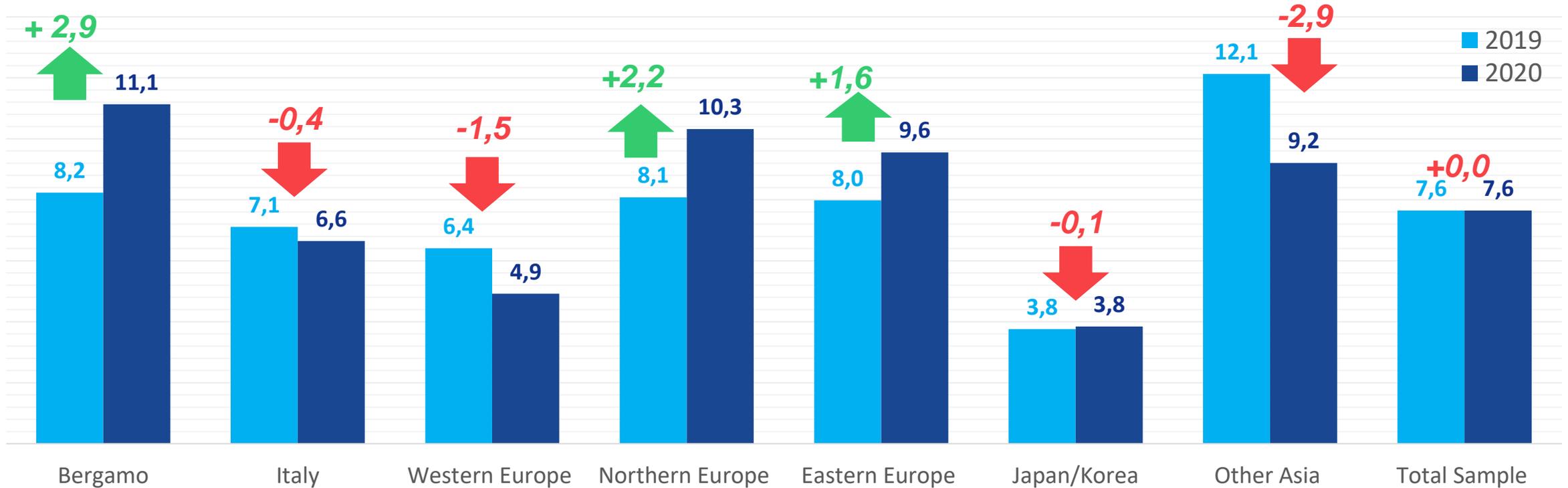
all rights reserved

Source: Prometeia's calculation on balance sheet of a sample of 152 firms for a production value of 6.9 € blns in 2019

# The industrial profitability

Italy remains competitive in terms of marginality as a result of Bergamo's positive performance

Industrial profitability: EBITDA, % share on total turnover, median value by cluster

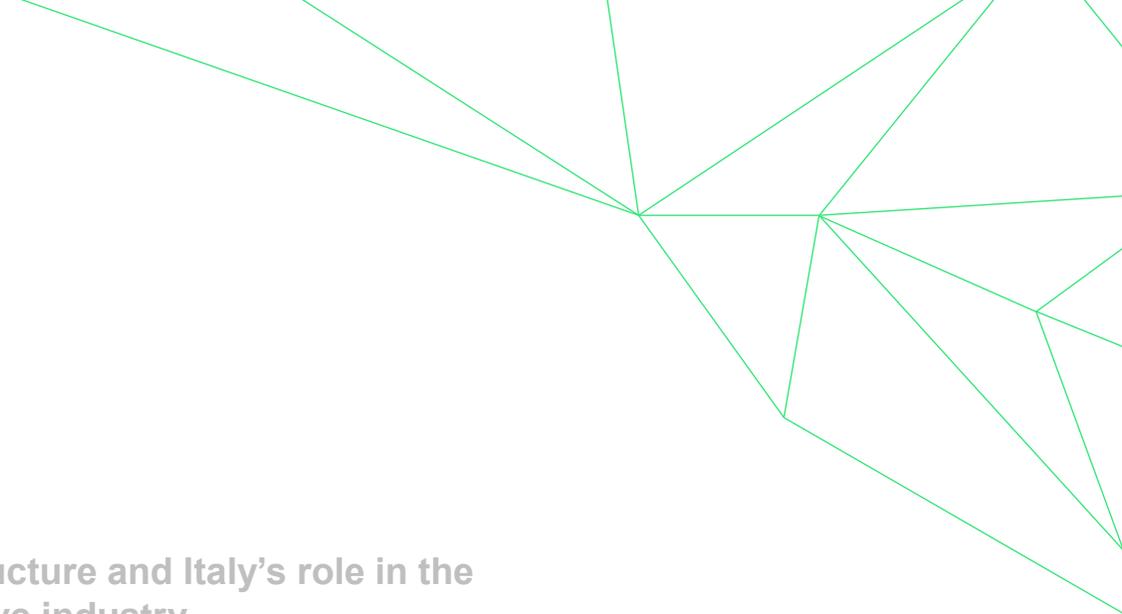


Note: China is missing due to the lack of data availability

The data relating to Bergamo companies differ from those shown on slide 18 because it refers only to companies with turnover >5 € mlns and because it's calculated using the median method and not as a sum

Source: Prometeia's calculation on balance sheet of a sample of 152 firms for a production value of 6.9 € blns in 2019



- 
- Business Structure and Italy's role in the European valve industry
  - Recent trends
  - **Outlook (beyond Russia)**

# Outlook (Beyond Russia) (1/2)

---

## THE ROLE OF RUSSIAN (VALVES & MACHINERY)

- ✓ *The Russian Oil&Gas valves market activates annually imports for almost 800 million of euros, of which 41% from China. With regard to Italian products, the Russian market is valued at 100+ million of exports per year (3,5%)... However, in order to evaluate the overall effect of European sanctions to Russia, the global imports of machineries for O&G should also be taken into account (2,3 mld of euro), of which 235 million derives from Italy.*
- ✓ *Collectively, the sanctions imposed at the European headquarters concern flow of imports for more than 1,5 billion of euros (valves and machineries for Oil&Gas), of which about 340 million have Italian origins.*

## FOCUS ON O&G INVESTMENT PERSPECTIVES

- ✓ *In 2021, investments in Oil&Gas have risen (+7,6%), although they remain considerably below the pre-crisis standards (-26%).*
- ✓ *The “green” transition is taking place... and it is moving fast: for every dollar globally invested in production of new energy sources, 68 cents have concerned fossils sources, and 32 renewable sources... meanwhile, only two years ago, the balance amounted to respectively 74 and 26 cents.*

## Outlook (Beyond Russia) (2/2)

---

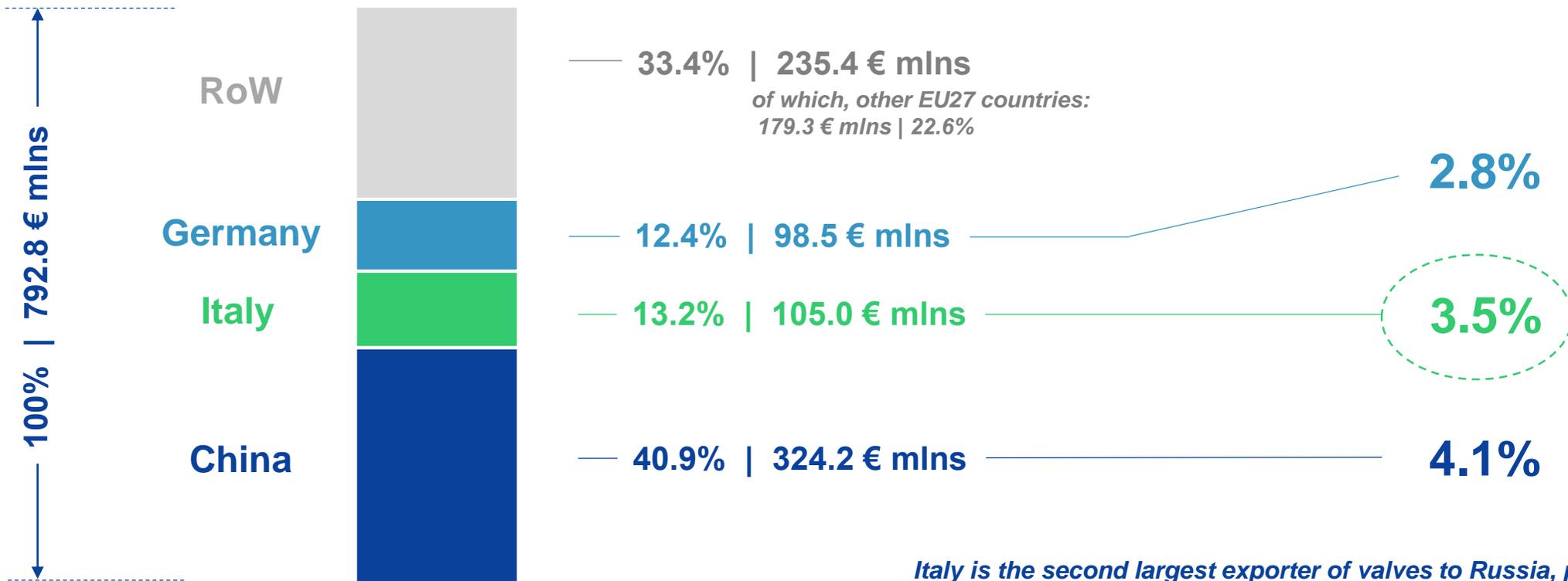
- ✓ **Not even the exceptional increase in prices (Oil and Gas) has - for now - triggered a new cycle of investments in new activities of drilling and extracting. Four underlying factors:**
  - ✓ *Uncertainty caused by the pandemic*
  - ✓ *The presence of a large unexploited production capacity in OPEC countries*
  - ✓ *Uplifted attention to the profitability expected from new investments*
  - ✓ *Embedding in investments choices of the large major of ESG evaluations*
- ✓ **Fossil sources: the primary majors of O&G have highly differentiated outlooks on the long-term evolution of global oil demand (86 million bl/g, the 87% of current oil production)... although also in an outlook of «accelerated» transition, expenses for the maintenance of existing plants will still be necessary (6% per year).**
- ✓ **Renewable sources: two “bright spots” for valves producers:**
  - ✓ *The production of energy from hydrogen is expected to grow by 12 times before 2030*
  - ✓ *The GNL production – the energy source of the transition toward a “zero emission” future – forecasts a significant growth (+80%) over the 2030 horizon*

# An insight on Russia | an 800- € mlns market

... accounting for 3.5% of Italian O&G valves export (~ 105 € millions) now under EU *embargo*\*

Russian imports of O&G valves: 2019-2021 avg.  
in €, % on total imports

Russian share of O&G valves on total export  
in €, % on total exports by country. 2019-'21 avg.



*Italy is the second largest exporter of valves to Russia, preceded by CHN (not impacted by sanctions) and followed by DEU.*

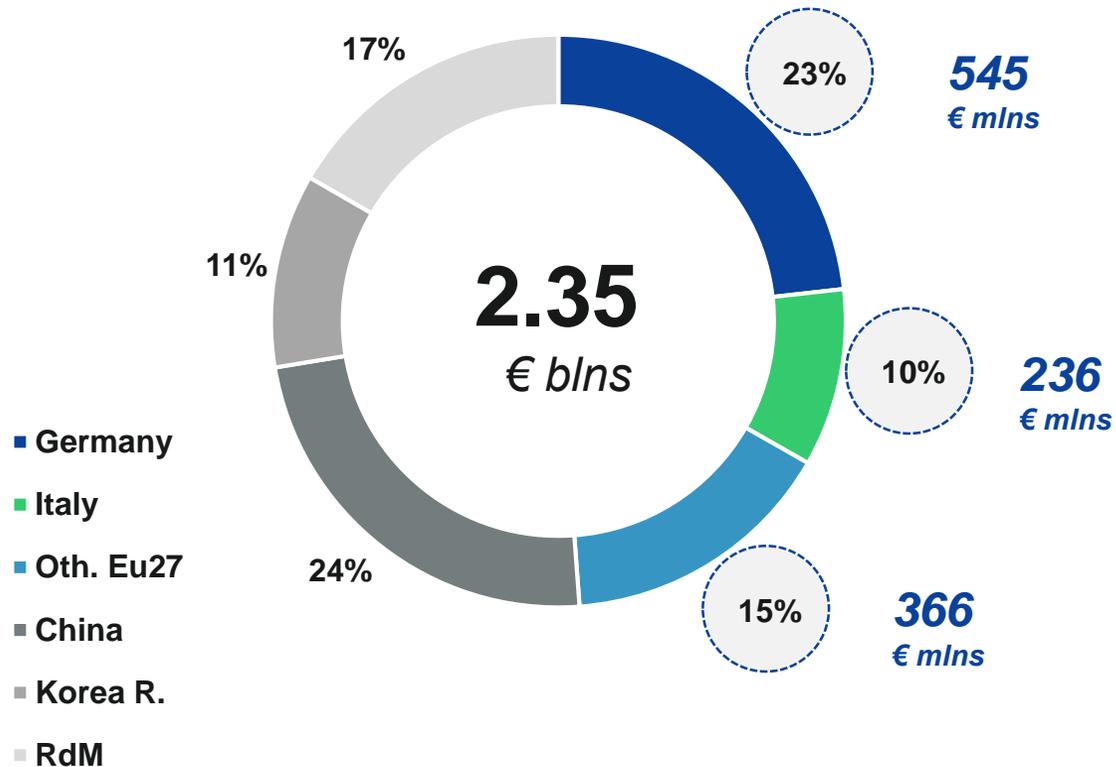
# An insight on Russia | second round effects also matter

Germany is the second largest exporter of O&G machinery to Russia...

... and the third market for ITA O&G Valves export

## Russian imports of O&G machinery (under embargo by 2022 EU sanctions\*)

in €, % on total imports



**48%** of O&G machinery goods (both upstream and mid-downstream) imported by RUS in 2021 (worth **1.14 € blns**) originated from European countries and are now subject to a full embargo by EU\*.

**Western Europe** accounts for 24%- of overall Italian O&G valves export, part of these used as components for O&G machinery sold in Russia.

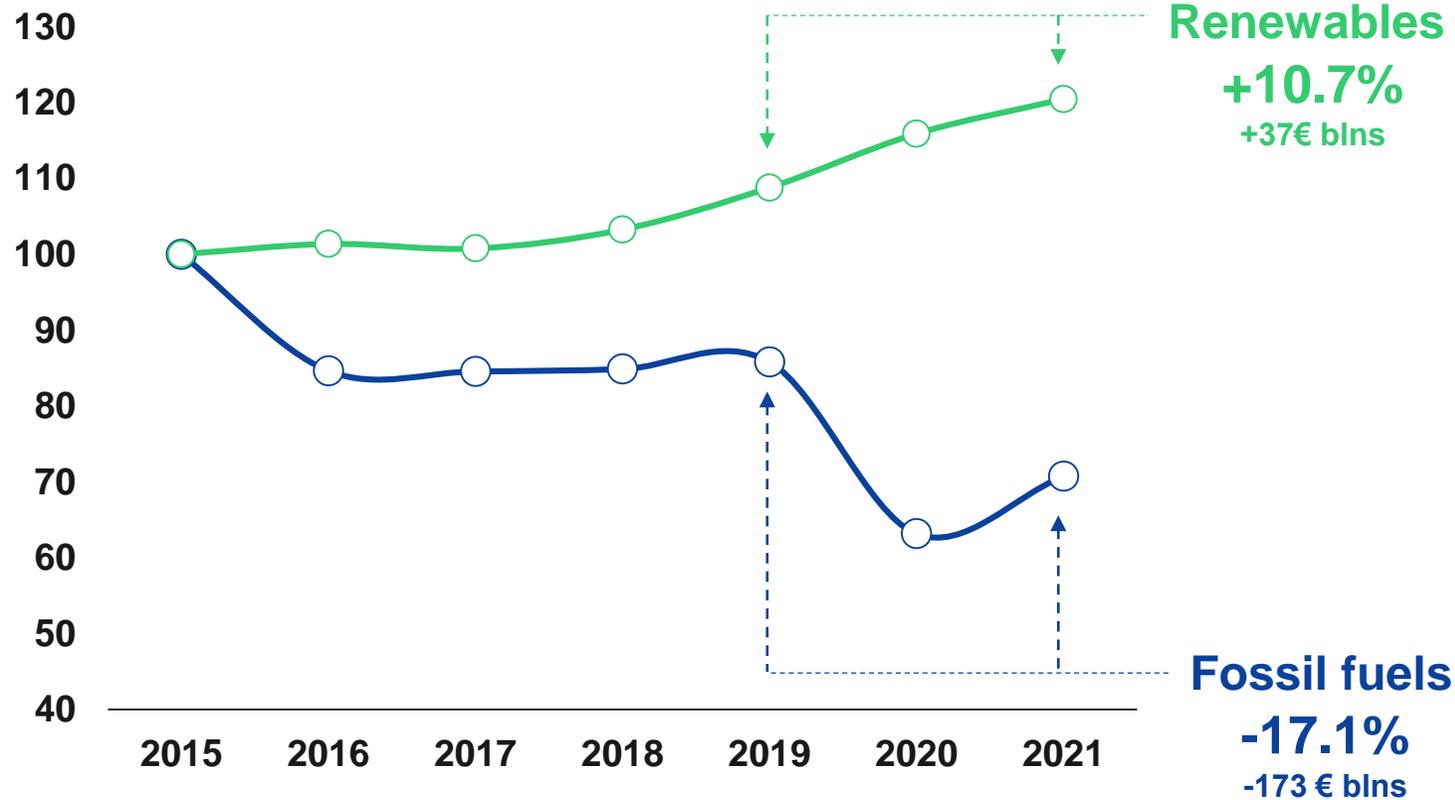
**Italy** O&G manufacturing companies account for approx. 10% of total Russian import market for O&G machinery

Impact of EU sanctions package will likely be felt **both in a direct** (see previous page) **and indirect** (through lower demand for machinery components) **manner**.

# Renewables gathered the bulk of new investments in 2020-'21 ...

O&G investments fell 17% below the pre-pandemic levels in 2021

Global energy investments, 2015-2021  
in current \$ , 2015=100



Prometeia calculations based on IEA, World Energy Investment 2021

Thanks to a favorable economic and political environment, to the growing attention paid to ESG standards (even by O&G majors) and to a widespread popular support, **renewables dominated the energy investments landscape** in recent years. 2021 was not an exception, and “green” investments surged to a fresh record. **For each dollar invested in energy in 2021, 32 \$c were devoted to renewables – 6 \$c more than in 2019**

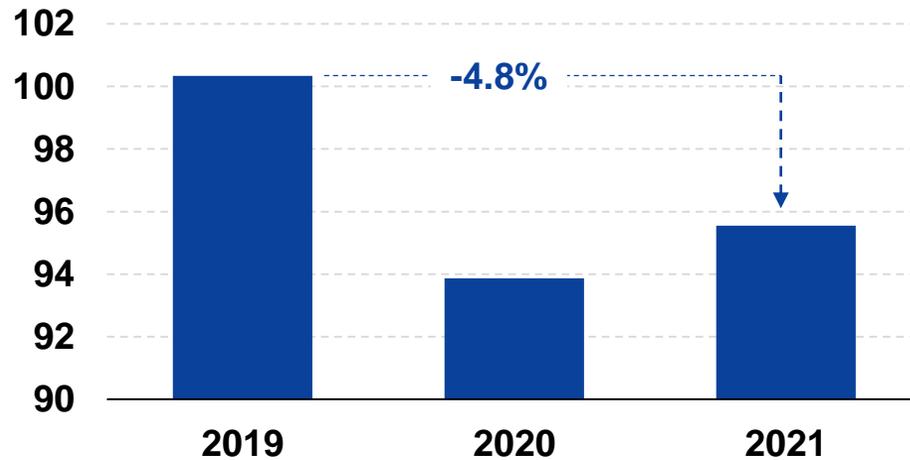


**For each dollar invested in energy in 2021, still 68 \$c have been directed to fossil fuels exploitation.** Prices and revenues recovered in 2021, albeit **not enough to persuade the O&G companies to devote additional spending to upstream activities.** Indeed, pandemic-related uncertainties on oil demand, the speed of energy transitions and the large spare capacity held by OPEC countries triggered a conservative approach both for majors and National Oil Companies (NOCs).

# ... as lower demand impacted on fossil fuels production ...

Opec countries finalized an unprecedented production cut in mid-2020. Gas output proved far more resilient

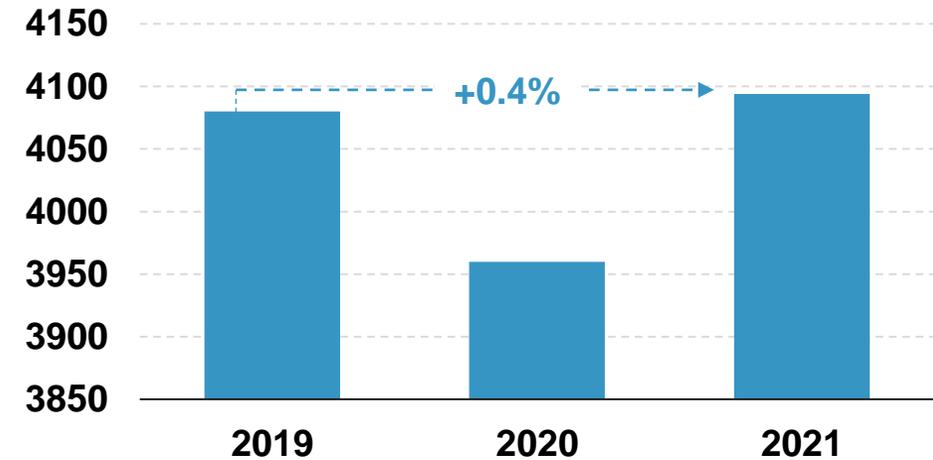
**World Oil Production**  
mln b/d



of which:

Region	Change (mln b/d)
OPEC	-8.8
NAFTA	-2.0
Oth. NON OPEC	-3.1

**World Natural Gas production**  
bln cubic meters



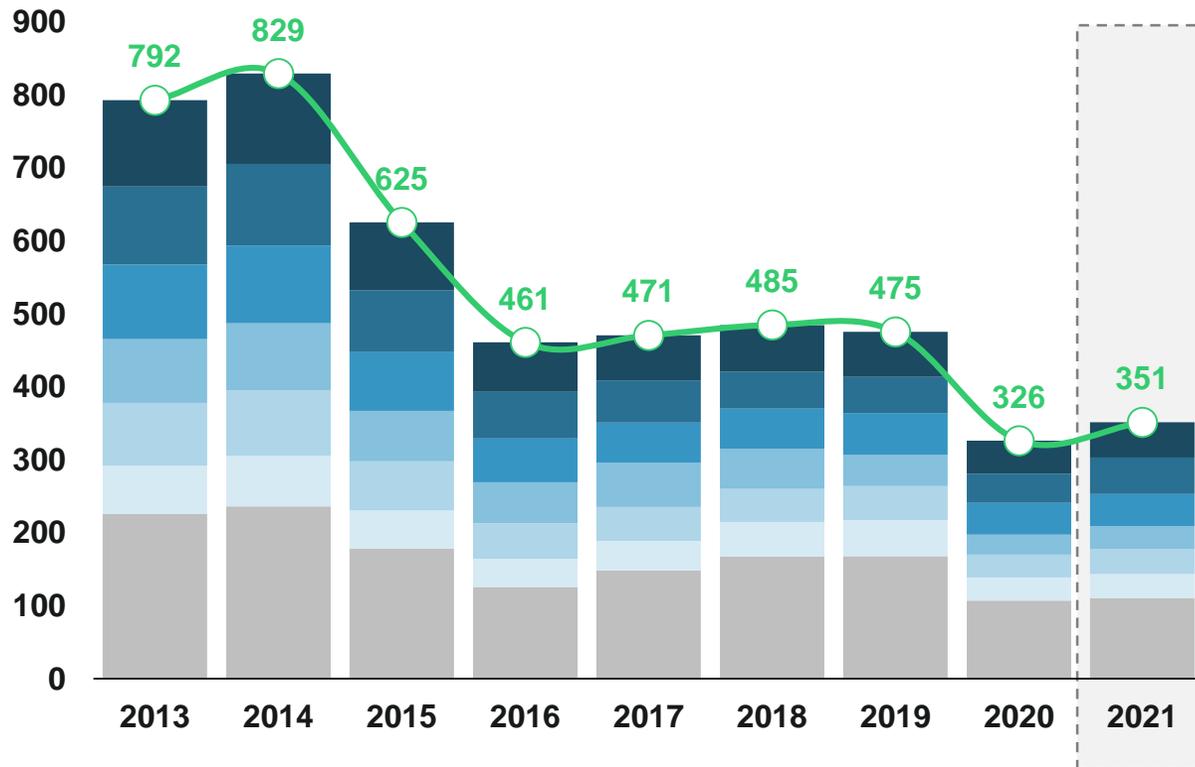
of which:

Region	Change (bln cubic meters)
NAFTA	7.8
MIDDLE EAST	2.1
ASIA-PACIFIC	3.3
EUROPE	-14.2
ROW	-5.0

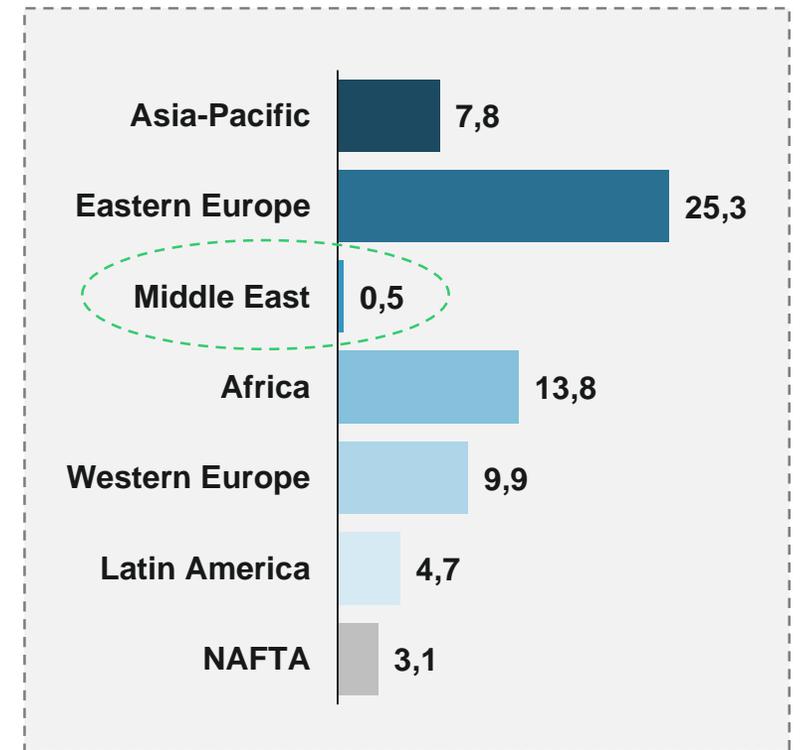
# ... and O&G spending showed no appreciable rebound

Upstream industry struggled to boost investments over the years and 2021 was no exception

**Global O&G Upstream Investments, 2013-2021**  
in \$ blns , 2015=100



**Global O&G Upstream Investments, 2021 / 2020**  
% chg

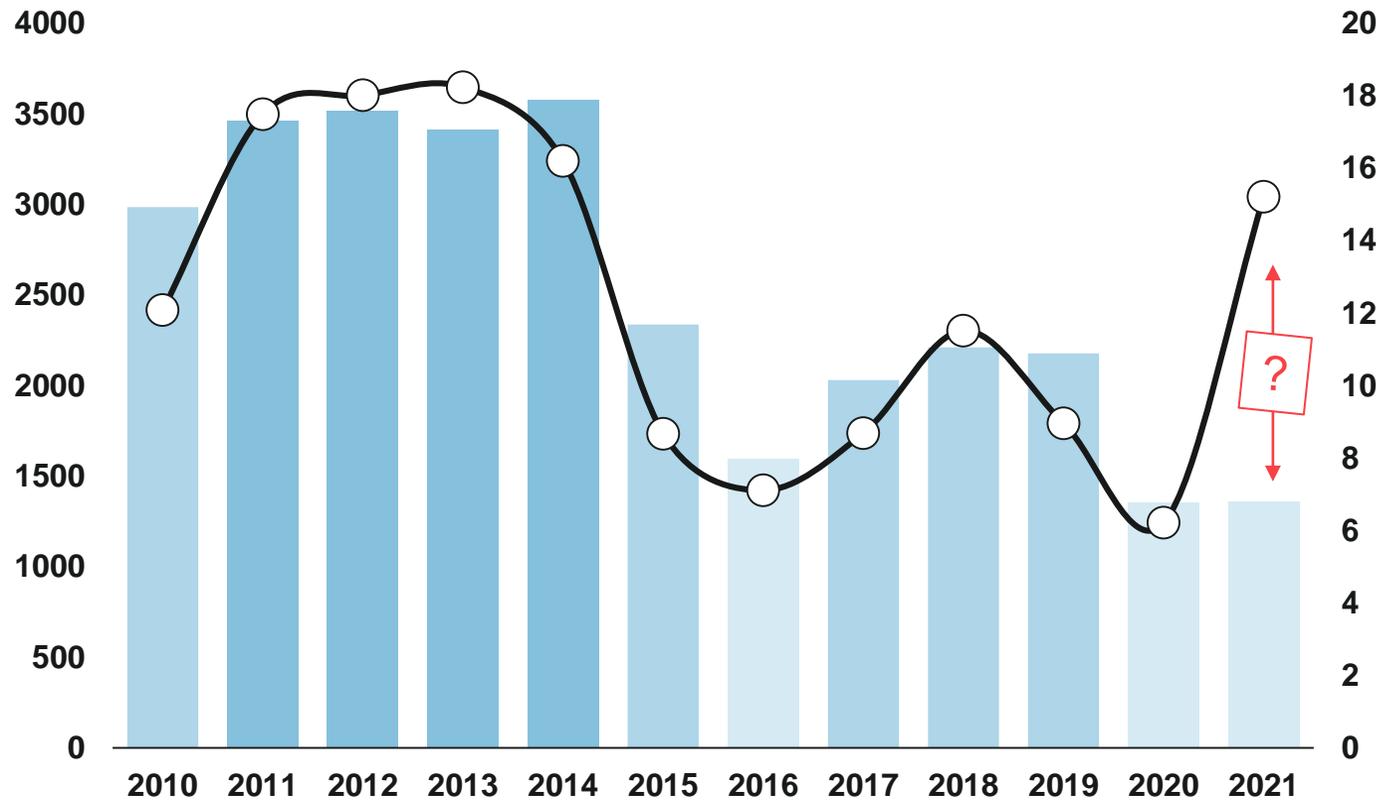


# O&G rig numbers highlight the lack of investments in 2021

Global drilling activity flat y-o-y in 2021 compared to 2020, ~37% lower than in 2019, despite the price recovery

## O&G: drilling activity and prices

Rig Count (#) and average price for Nat. Gas (LNG Asia ) and Crude Oil (Brent)\*



O&G prices (\$/mmbtu), right axis  
Oil drilling activity (rig count), left axis

## 2021 vs 2019

Oil price Brent	<b>+10.5%</b>
Nat. Gas price LNG Asia	<b>+232.9%</b>
Nat. Gas+Oil price*	<b>+69.8%</b>

Drilling activity (O&G) **-37.5%**

\* Brent (\$/mmbtu) and LNG Asia (\$/mmbtu), weighted according to relative production volumes



Prometeia calculations based on Baker Hughes World Rig Count data

# What hindered the recovery in O&G investments?

A combination of factors, ranging from voluntary oil production cuts to sustainability push

## Uncertainty



2020 economic downturn was not triggered by a typical economic weakness - rather by external factors, thus making the prediction of oil consumption path extremely problematic. **Pandemic hiccups** and the emerging of Covid-19 variants, uncertainties related to the **US shale industry recovery** and **unprecedented amount of OPEC spare capacity** (how much and when the supply comes back following the mid-2020 cuts?) acted as a **significant investment deterrent for oil majors investments**.

## Voluntary output cuts



In the wake of 2020 pandemic-induced crash in oil prices, the OPEC+ (I.e. OPEC and Russia) cumulatively cut a historic 9.6 million barrels per day of crude production. Overall, the **lower production levels led to a drop in E&P investments**, which is particularly evident in the most financial-distressed members, to an extent that many of them (such as Angola, Libya, Nigeria) were unable to increase production to the necessary to meet the individual output target.

## Capital discipline



Instead of drilling at whatever costs (largely contributing to oil and gas ranking among the worst performing sector in the past years) in the aftermath of the pandemic US oil majors focused on their most profitable oil projects while shelving the others. As **O&G companies maintained the focus on capital discipline** (and returns to investors) the solid rebound in oil prices from late-2020 failed to trigger a steep recovery in exploration and production expenditure.

## ESG standards

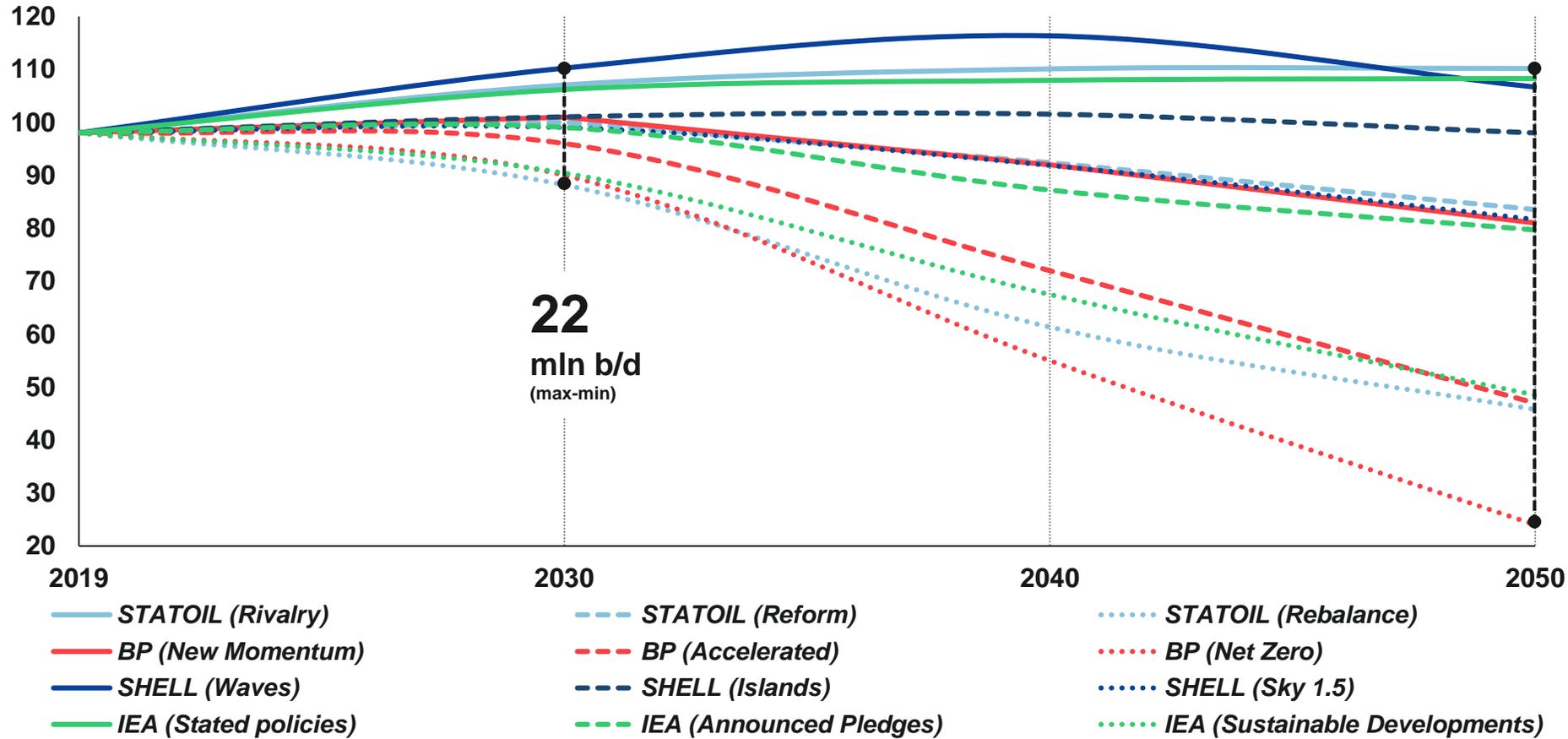


Corporations performance are nowadays measured not solely by the ability to generate returns, but even on **how those returns are generated**. Even though the pressure of ESG standards is being felt throughout the entire O&G value chain, the upstream is the sector faced the most scrutiny for its impacts on the environment. Lower access to financing, investor demands to decarbonize, and the “oil-demand-will-soon-peak” paradigm led the supermajors to shift incremental resources to renewables – **divesting from O&G E&P activities**

# What next?

So many different scenarios for oil (and energy) consumption growth path

**World Oil consumption under different scenarios**  
mln b/d, growth path to 2050



**86**  
mln b/d  
(max-min)

Prometeia calculation based on  
IEA «World Energy Outlook 2021»  
SHELL «The Energy Transformation  
Scenarios»  
BP «Energy Outlook 2022»  
STATOIL «Energy Perspectives  
2021»

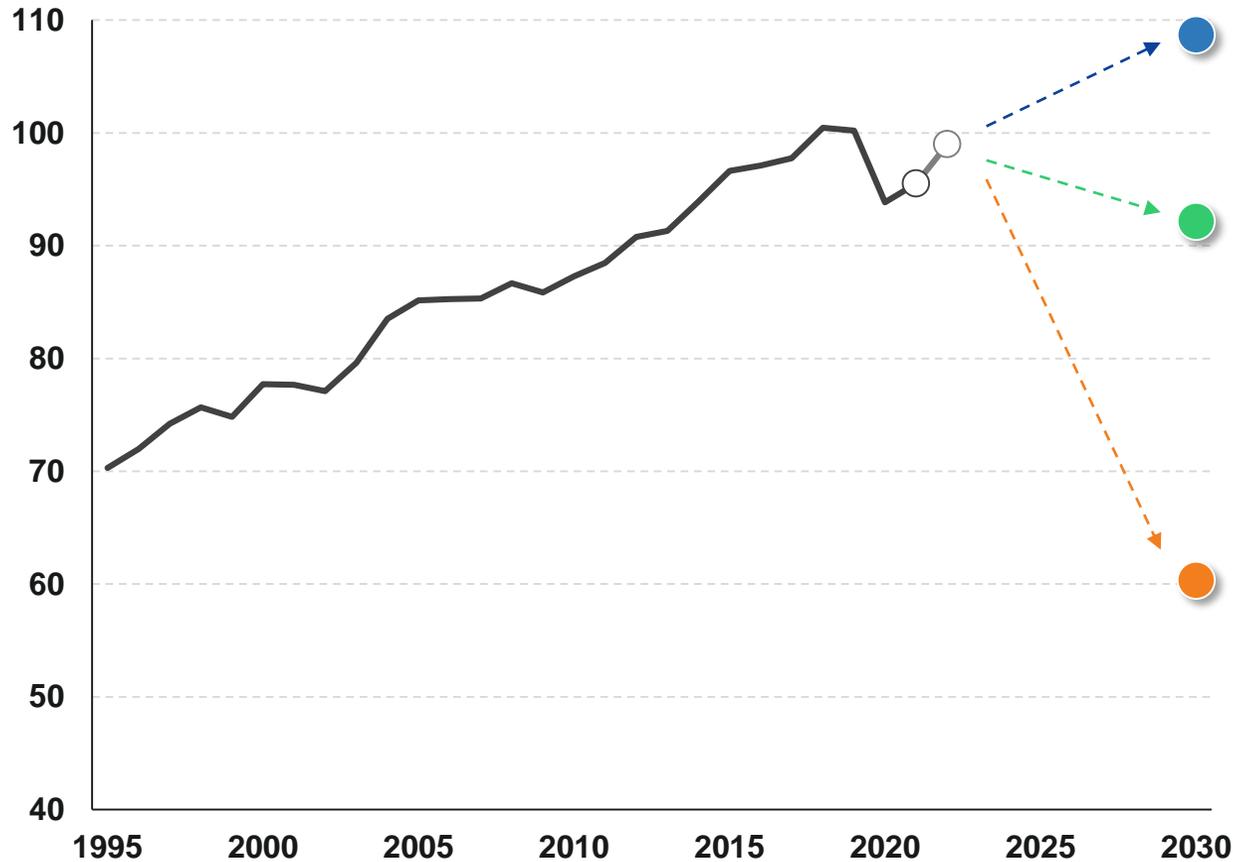


# What next?

Even the most “sustainable” projections require a growth in global O&G spending

World Oil Production (2007-2021) and 2030 IEA Projections

mIn b/d



Under IEA’s WEO\* 2021 “Stated Policies Scenario” the World will need approx. 108 mb/d of oil in 2030. **48+ mb/d of new capacity** will be then needed to close the gap between production and demand

Under IEA’s International Energy Outlook\* 2021 “Sustainable Development Scenario” the World would still need approx. 92.1 mb/d of oil in 2030. Approx. **32 mb/d of new capacity** will be needed to close the gap between production and demand

Given natural declines rates, **producers need to invest in order just to keep production flat.** Decline rates are in the region of 6% per year. Assuming **no new investment in oil upstream**, world production would reduce by approx. 35 mb/d in 2030 (almost -40%) compared to 2021 levels



Prometeia calculations based on EIA data, IEA, WEO 2021 scenario.

# What next?

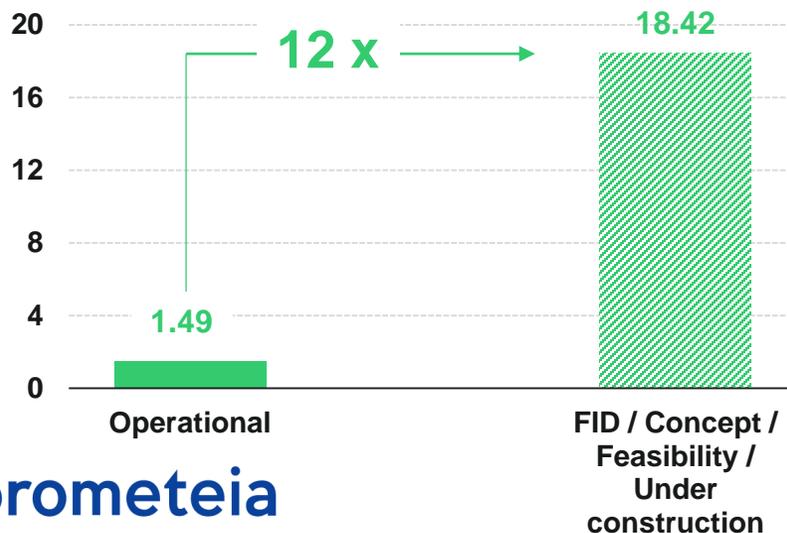
## 2 “bright spots” for the future

### Hydrogen

According to IEA, as of 2021 17 governments have already released hydrogen strategies, and more than 20 have announced they are working to develop hydrogen programs. **Hydrogen is one of the pillars of the net zero economy.** In the wake of the exponential growth that the hydrogen economy will experience in the coming decade, global demand for specialized components (such as zero-leakage valves) and higher technologies materials (hydrogen resistant alloys, low temperature elastomers) used in hydrogen applications will also grow, offering **sound growth opportunities for companies at the forefront of innovation.**

Global electrolysis capacity: operating and projected to 2030

As of 2021, mln ton H2 / y



Prometeia calculations based on IEA, Hydrogen Project Database 2021.

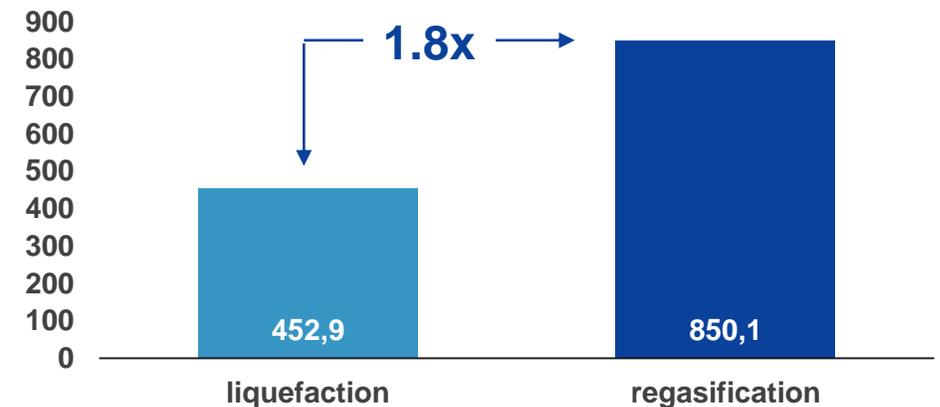


### Liquefied Natural Gas (LNG)

While at global scale there is significant regasification capacity, as far as concerns liquefaction terminals (the most expensive piece of the entire LNG chain) the situation is far different. In the coming years, **structural rise in natural gas demand** (to replace coal and other more polluting fuels) in a high price environment is expected to **underpin a fresh wave of investments in LNG liquefaction capacity.** From this point of view, the EU aim to diversify from Russian gas represent an unprecedented bullish signal both to LNG exporters (Qatar, USA) as well as for pipe developers in MENA ad Mediterranean region.

Global LNG import / export capacity

MT / y



Prometeia calculations based on IGU World LNG Report 2021

all rights reserved

# Confidentiality

---

Any partial or total reproduction of its content is prohibited without written consent by Prometeia and Confindustria Bergamo

Copyright © 2022 Prometeia / IVS-Confindustria Bergamo

# Contacts

---

## Prometeia

---

**Giuseppe Schirone**  
Principal

[giuseppe.schirone@prometeia.com](mailto:giuseppe.schirone@prometeia.com)

Mobile 3351436883

Phone 0516480911

Department Strategie Industriali Territoriali

Location Bologna

**Federico Ferrari**  
Specialist

[federico.ferrari@prometeia.com](mailto:federico.ferrari@prometeia.com)

Mobile 3441434827

Phone 0516480911

Department Strategie Industriali Territoriali

Location Bologna

**Giampaolo Morittu**  
Specialist

[giampaolo.morittu@prometeia.com](mailto:giampaolo.morittu@prometeia.com)

Mobile 3442760227

Phone 0516480911

Department Strategie Industriali Territoriali

Location Bologna

**Francesca Maltempi**  
Junior Economist

[francesca.maltempi@prometeia.com](mailto:francesca.maltempi@prometeia.com)

Phone 0516480911

Department Strategie Industriali Territoriali

Location Bologna

## Confindustria Bergamo

---

**Massimo Longhi**  
Resp. Studi e Internazionalizzazione

[m.longhi@confindustriabergamo.it](mailto:m.longhi@confindustriabergamo.it)

Phone 035275284

Location Bergamo

## IVS

---

**Luca Pandolfi**  
Project Manager

[l.pandolfi@confindustriabergamo.it](mailto:l.pandolfi@confindustriabergamo.it)

Phone 035275381

Location Bergamo



# Contacts

---

## Bologna

Via Guglielmo Marconi, 43  
+39 051 6480911  
italy@prometeia.com

## Londra

Dashwood House 69 Old Broad Street  
EC2M 1QS  
+44 (0) 207 786 3525  
uk@prometeia.com

## Il Cairo

Smart Village - Concordia Building, B2111  
Km 28 Cairo Alex Desert Road  
6 of October City, Giza  
egypt@prometeia.com

## Milano

Via Brera, 18  
Viale Monza, 265  
+39 02 80505845  
italy@prometeia.com

## Istanbul

River Plaza, Kat 19  
Büyükdere Caddesi Bahar Sokak  
No. 13, 34394  
| Levent | Istanbul | Turkey  
+ 90 212 709 02 80 – 81 – 82  
turkey@prometeia.com

## Mosca

ul. Ilyinka, 4  
Capital Business Center Office 308  
+7 (916) 215 0692  
russia@prometeia.com

## Roma

Via Tirso, 26  
italy@prometeia.com



Prometeia



@PrometeiaGroup



Prometeiagroup



Prometeia

[www.prometeia.com](http://www.prometeia.com)

