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Oil Markets Whitepaper II

How Should the Middle East Leverage IMO 2020 to Create a Fujairah Oil Products Benchmark?

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Contents

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How Should the Middle East Leverage IMO 2020 to Create a Fujairah Oil Products Benchmark?

In October 2016, the International Maritime Organization (IMO) reduced the sulfur limits for bunker fuels worldwide from 3.5% to 0.5% from the 1 January 2020, instead of the alternative of 2025. This two-decade old conversation was still a quasi-surprise to refiners and the shipping industry, prompting urgent rewrites of the market outlook. But this need not be a negative for the Middle East's oil market and ship owners – it can be a golden opportunity. Equipped with a new, vast and flexible refining network, the region has the tools to get ahead of the competition in the race for the 2020 finish line. But quick action is required.

Global market opinion is divided on whether there will be enough supply of 0.5% sulfur bunker fuel by 2020. Netherlands-based CE Delft expects there will be capacity to produce compliant fuels, despite its base-case scenario forecasting the global demand for marine fuels to increase by 6.6% to 320 million tons in 2020, from 300 million tons in 2012. Conversely, US-based Ensys said that up to 60%-75% of additional sulfur plant capacity will need to be built by 2020 to meet demand, compared with planned projects. The marine fuel industry is embarking on a fundamental shift and it is critical for the marine fuels market – one of the most actively traded worldwide – to ensure it is underpinned by robust methodology and pricing. Regional demand for gas oil and fuel oil is part of the conversation propelling efforts to establish an independent oil products benchmark in the Middle East, for example. So, with the low sulfur bunker fuel cap creeping closer, is there an opportunity to establish a Middle East oil products benchmark?

"Historically, a hub would need a certain amount of light pricing, trade and capacity. These are boxes that the UAE's Port of Fujairah, the world's second largest bunkering hub, has already ticked. However, trading regulations and standard operating practices around the world's major hubs have progressed."

IMO 2020

20
The IMO's decision to reduce sulfur limits is not a new conversation. It has been an evolving topic for two decades.

2025
Many oil and freight stakeholders thought an additional five years to comply to the 0.5% sulfur cap would be available, as a 2025 start date was on the cards. The IMO's decision to start implementation from 2020 triggered a wave of furrowed brows.

2
The market is keen to establish an independent benchmark via a price reporting agency (PRA). Platts and Argus, respectively, are the world's largest such agencies.

$5m
Retrofitting a vessel with scrubbers is not beleaguered ship owners' first choice, which is in large part due to the hefty $5 million price tag.

Evolution: Benchmarks

Creating a benchmark via an independent pricing agency – Platts and Argus, respectively, are the world's two biggest agencies – would help facilitate the development of a healthy derivatives market and mitigate financial risk.

The bar has been raised when it comes to establishing global trading hubs and independent benchmarks. Historically, a hub would need a certain amount of light pricing, trade and capacity. These are boxes that the UAE's Port of Fujairah, the world's second largest bunkering hub, has already ticked. However, trading regulations and standard operating practices around the world's major hubs have progressed.

There is a prerequisite to have a derivatives market in order to develop a trading hub in the Fujairah, as the days of back-to-back trading are long gone. Oil companies take positions and have significant volumes in storage, which means that sophisticated risk management must be part of the game. Nearly every volume of oil nowadays is hedged financially, which can only be done if there is an instrument available for hedging. The fuel oil that is stored and traded out of Fujairah, for example, only has the Singapore swap as an effective hedging instrument.

The Mean of Platts Arab Gulf (MOPAG) is already an important pricing point for the Middle East, Indian subcontinent and East Africa. All three regions use the price for their physical pricing, which has always been derived by using the price in Singapore minus freight. Historically, this system worked well as all fuel oil would go one-way from Europe, the Black Sea and the Baltic Sea via the Middle East to Singapore. This is no longer the case, as flows from the east head back to the west, from Singapore to the Middle East, for example. Consequently, the freight factor that is included in the assessment of the MOPAG is no longer a reliable figure to hedge fuel oil that is stored in Fujairah.

Successful benchmarks are borne from standardization, which provides a level playing field, transparency through access to information and a healthy dose of liquidity. The Middle East is progressing on all fronts, but more is needed. What are the most effective steps that the region can take to establish an independent, robust and widely used benchmark? ■

The Port of Fujairah

2nd
The Port of Fujairah is the world's second largest bunkering hub. Singapore has the top spot.

1983
The port has made rapid progress in widening its influence in global oil markets and building world-class infrastructure since it commenced full operations in 1983.

Workshop: Source of Whitepaper Findings

The Chatham House Rule was invoked at the meeting to encourage openness and the sharing of information: *"When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed."*

OPEN MIC: Following the Welcome Note and introduction of the Critical Question by the moderator and featured speakers, the Stream Discussions follow an open floor format whereby all participants were encouraged to proactively engage in the free flowing conversation.

COME PREPARED WITH RECOMMENDATIONS: All participants were encouraged to come to the table with "Recommended Strategies" in answer to the Critical Question.

SESSION A:
Shortlist 5 recommendations

SHORTLIST 5 RECOMMENDATIONS
The 1 hour sessions were broken into 3 parts:
- Commentary from featured speakers
- Open conversation with recommendations put forward
- Voting to identify top 5 recommendations per stream

SESSION B:
Reduce shortlist from 5 to 3 recommendations

SHORTLIST 3 RECOMMENDATIONS
The 1 hour sessions were broken into 3 parts:
- Commentary from featured speakers
- Author of each of the 5 shortlisted recommendations had 5 minutes to promote and defend their recommendation
- Voting reduced shortlist to 3 recommendations per stream

WORKING LUNCH:
Votes on the shortlist of 3 recommendations in each stream secured ranking in order of importance.

Structure:

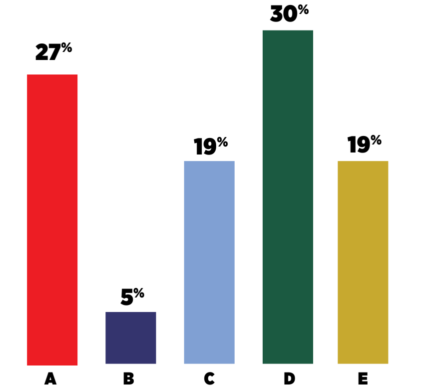
APRIL 22nd, 2018	
PLENARY SESSION	
STREAM 1 TOP 5 RECOMMENDATIONS ON HOW TO LEVERAGE IMO 2020 TO CREATE AN INDEPENDENT MIDDLE EAST BENCHMARK FOR OIL PRODUCTS?	**STREAM 2** TOP 5 RECOMMENDATIONS FOR MIDDLE EAST STAKEHOLDERS – TRADERS/REFINERS/SHIPPERS/PORTS – TO ADOPT BEFORE 2020 TO SUPPORT THE CREATION OF AN INDEPENDENT MIDDLE EAST OIL PRODUCTS BENCHMARK?
SESSION A SHORTLIST TOP 5 RECOMMENDATIONS	**SESSION A** SHORTLIST TOP 5 RECOMMENDATIONS
SESSION B TOP 5 RECOMMENDATIONS SHORTLISTED TO 3	**SESSION B** TOP 5 RECOMMENDATIONS SHORTLISTED TO 3
POLL SURVEY ON TOP 3 RECOMMENDATIONS IN EACH STREAM	
FINAL DECLARATION OF RECOMMENDATIONS AND CLOSING COMMENTS	

GIQ SURVEY 2018

How Should the Middle East Leverage IMO 2020 to Create a Regional Oil Benchmark?

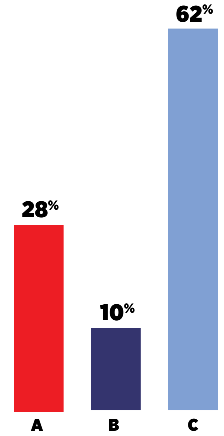
How can the Middle East leverage IMO 2020 to create a Fujairah/regional oil products benchmark?

A. Build significant capacity to refine low sulfur fuel
B. The Gulf's national shipping fleets should be world leaders in complying with IMO 2020
C. Regional ports should become robust enforcers of IMO 2020
D. Transparency, transparency and more transparency
E. Regional NOCs to make more oil available for spot market



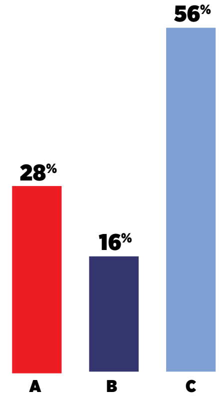
The Middle East should focus its efforts on establishing a benchmark for:

A. Fuel oil
B. Gas oil
C. Both

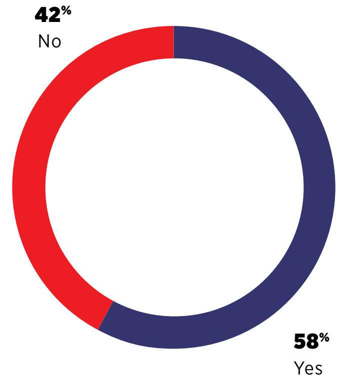


Who should take the lead in preparing the roadmap for IMO 2020?

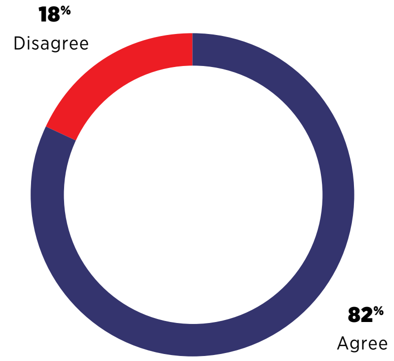
A. Shippers
B. Refiners
C. Port Authorities



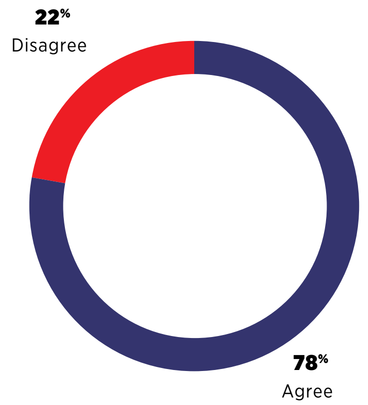
Will there be enough marine gas oil (MGO) and marine distillate oil to meet shipping demand when the sulfur cap comes into force in 2020?



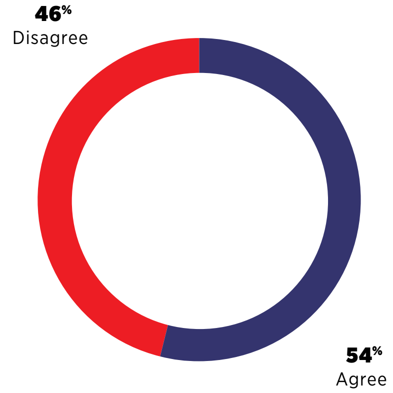
Creating a benchmark for Middle East oil products through a pricing reporting agency (PRA) is necessary to facilitate the development of a healthy derivatives market and mitigate financial risk.



The combination of more expensive bunker fuel and the high cost of retrofitting scrubbers will penalize owners of older shipping fleets over those of younger fleets.



The effect of IMO 2020 will shift the destination ports for crude tankers and loading ports for product tankers as changes within the global refining sector play out.



Source: GI Research; Q2 2018

EXECUTIVE SUMMARY – STREAM 1
Recommendations to Leverage IMO 2020 to Create an Independent Middle East Benchmark for Oil Products?

Two factors are evolving in parallel in the Middle East's oil industry and both are a springboard for positive change – especially if they join forces. Firstly, the time has come for the Middle East to have an independent oil products benchmark. This would help facilitate the development of a healthy derivatives market and improve access to fuels from all over the world. Oil product stored and traded out of the UAE's Port of Fujairah is done via the Singapore swap; an arguably a weak reflection of regional dynamics. The second factor is the IMO's 2020 ruling – a decision that will overhaul the bunkering fuels market in less than two years. So, how can these two shifts in the sector be jointly leveraged to create an independent and regional pricing architecture that will propel the Middle East's reputation as a global energy hub?

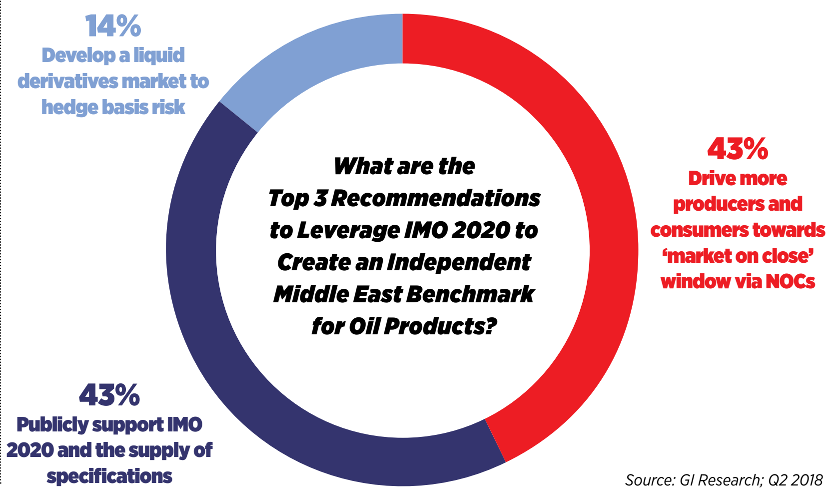
#1
The volume of oil flowing through the Strait of Hormuz, just north of Fujairah, made it the world's most important chokepoint in 2016. Approximately 18.5 million barrels a day passed through the Strait, which connects the Persian Gulf with the Gulf of Oman and the Arabian Sea.

"How best to marry two major shifts in the global oil market to leverage the Middle East's reputation as a global energy and trading hub?"

The region benefits from a good foundation; notably location and financial frameworks. The Port of Fujairah is the world's second largest bunkering hub and lies at the crossroads between Europe, Africa and Asia. It is also just 70 nautical miles south of the Strait of Hormuz; the world's most important chokepoint, with 18.5 million barrels passing through daily in 2016. The Port of Fujairah and other Middle Eastern ports also facilitate supply from the region's world-class refining facilities, which gives a stamp of credibility that an uninterrupted supply of lower-sulfur bunker fuel can be guaranteed. The UAE recently expanded its Ruwais refinery to over 900,000 barrels a day, while Kuwait's 615,000 barrels a day Al Zour refinery is due online in 2019, for example.

The Middle East also benefits from financial acumen. International investors have been increasingly impressed with Gulf countries' bid to diversify their oil exporting-centric economies, as per their National Visions. This economic maturity has spurred the growth of the region's financial hubs, including the Dubai International Financial Center (DIFC) and the Abu Dhabi Securities Exchange (ADX). National oil companies (NOCs) and international oil companies' (IOCs) increasingly sophisticated trading capabilities and expertise are also encouraging more international banks and their national peers to put their balance sheets to work in the region's energy markets. ■

2019
Kuwait's 615,000 barrels a day Al Zour refinery is due online next year. Plus, the UAE recently expanded its Ruwais refinery to over 900,000 barrels a day. Such projects add to the shine of the region's refining crown.



Source: GI Research; Q2 2018





STREAM 1
Top Three Recommendations

1. Drive More Producers and Consumers Towards the 'Market On Close' Window via NOCs

Signposts from the Middle East's most influential oil companies to guide producers (refiners) and consumers towards the 'market on close' (MOC) window will counter the wait and see approach being adopted by some. More participants on the MOC window is vital to bolster liquidity, which is in turn essential to establish an independent oil products benchmark. The Middle East is one of the last frontiers for oil trading; most of the world's energy hubs are saturated. So, more must be done by the 'biggest voices' in the the region's oil industry to highlight this opportunity, especially as the number of market participants today is significantly down on the volume in 2000. Liquidity is not a new nor region-specific challenge; it is a hurdle that must be scaled with the establishment of any benchmark. Plans are fast gaining momentum in the Middle East but the market cannot get there alone. Calling all NOCs.

2000
A sharp decline in the number of market players over the last eighteen years is a sore spot for traders. Participants are integral to boosting liquidity.

2. Publicly Support IMO 2020 and the Supply of Specifications

In a market awash with doubt and speculation, public support of a pending change goes a long way. Open support of IMO 2020 by governments, NOCs and all other stakeholders will deepen the sense of compliance within the oil industry, thus helping accelerate the flow of lower-sulfur fuel specifications and momentum behind an independent oil products benchmark. The guiding hands of governments and NOCs will also reduce opacity for international import-export partners, so shipowners entering Middle Eastern waters and ports understand and abide by the rulebook. A united voice is key to both ensuring compliance and supply of lower-sulfur fuel specifications; each link in the value chain must make their position clear. The Port of Fujairah has stated its full support of IMO 2020, for example. Creating an unbreakable bridge of clarity and communication between governments, NOCs and the wider market will be integral to fostering a level playing field.



> **"Liquidity is not a new nor region-specific challenge; it is a hurdle that must be scaled with the establishment of any benchmark. Plans to launch an independent oil products benchmark in the Middle East are fast gaining momentum."**

3. Develop a Liquid Derivatives Market to Hedge Basis Risk

A key factor hindering the creation of an independent oil products benchmark is that there is no liquid way to hedge basis risk. Current liquidity is insufficient, so more traders, greater price discovery and transparency are required to turn the tide. The IMO 2020 ruling and the pending rise of lower-sulfur fuels provides a golden window of opportunity to ramp up momentum. The level of acceptability and financial fluidity between banks and regional players – another cornerstone of establishing an independent oil products benchmark – will improve if the market sheds some of the basis risk. For example, small and independent traders face pressure from their lenders to hedge exposures, with a major component in the Middle East being basis risk. ■

STREAM 1
Other Recommendations

- ✓ **Ensure enough availability of LSFO and gas oil across the Middle East**
- ✓ **Focus on gas oil as it is more logical for it not to be a netback**
- ✓ **Refineries and traders to only produce/trade fuels with 0.5% sulfur content**
- ✓ **Sustain Fujairah's reputation as a transparent oil hub to build marine fuels business**
- ✓ **Change nothing: maintain current netback pricing structure with Singapore**

EXECUTIVE SUMMARY – STREAM 2

Recommendations for Middle East Stakeholders – Traders, Refiners, Shippers, Ports – to Adopt Before 2020 to Support the Creation of an Independent Middle East Oil Products Benchmark?

IMO 2020 is a significant jolt to the market; the sort that can trigger a domino effect. In this case, it is not only impacting the demand for volumes and blends at Middle Eastern refineries, but also accelerating momentum behind already-maturing conversations to establish an independent oil products benchmark in the region. Such a benchmark will better reflect the dynamics of what is the epicentre of the global oil market. Stepping stones to leverage IMO 2020 to support the creation of benchmarks must be quickly identified to take full advantage; the clock is ticking. Clarity is key to help stakeholders navigate the more sulfur-constrained world of post-2020, as high sulfur fuel oil (HSFO) was used for approximately 70% of the world's bunker fuel in 2016. Unsurprisingly, a rise in LSFO is anticipated.

To avoid expensive mistakes and backtracking, a bridge that unites robust strategies and clear understanding must be built to close the gap between the market's expectations and its capabilities. Cohesion along the value chain of stakeholders is paramount as each link has different agendas and restrictions. Ears must be willing to listen and learn, from the trading floors to the port docks. Ideally, each player should achieve the same pace of change. Signs of collaborative management would give market participants a much-needed confidence boost that the IMO's ruling will carry as much weight on the high seas as it will in local waters.

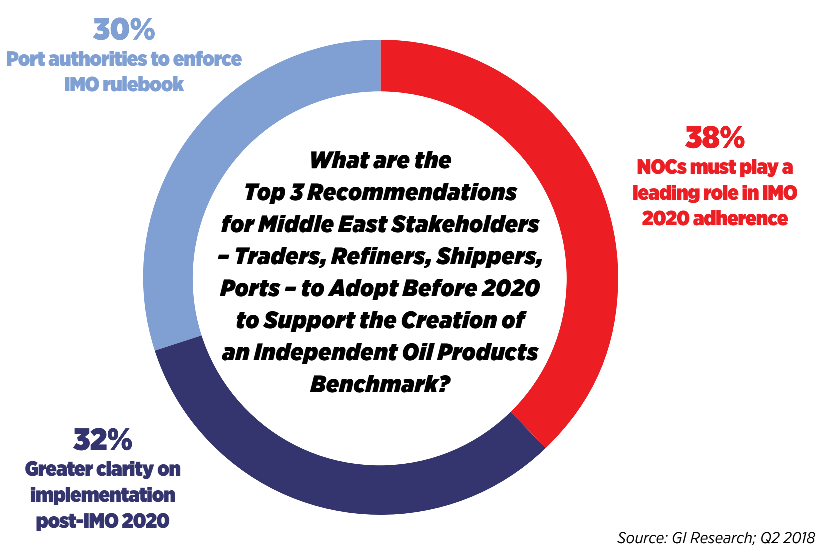
70%
High sulfur fuel oil (HSFO) was used for approximately 70% of the world's bunker fuel in 2016. Establishing an independent benchmark could help grease the wheels to facilitating the supply of a lower-sulfur grade.

Standardization is also critical to helping galvanize investors' support of associated infrastructure projects (refineries, pipelines, port facilities) as well as the ultimate creation of an oil products benchmark. Market liquidity is paramount and traders' confidence in IMO 2020 and a new benchmark will topple if loop holes breed non-compliance and subsequently invalidate forecasts for lower-sulfur fuels.

The quest for an independent oil products benchmark, spearheaded by the Port of Fujairah, is well underway. But the market needs more signposts to show how best to leverage the fast-changing dynamics by 2020. ■

> **"Market participants need a confidence boost that the IMO's ruling will carry as much weight on the high seas as it will in local waters."**

19
The number of months until the IMO 2020 ruling comes into play: January 1, 2020.



Source: GI Research; Q2 2018

STREAM 2
Top Three Recommendations

1. NOCs Must Play a Leading Role in IMO 2020 Adherence

IMO 2020 offers a golden opportunity for Middle Eastern NOCs to showcase their evolutionary spirit in the global energy markets. Siloed conversations amongst the region's leading players – such as Saudi Aramco, ADNOC, Kuwait Petroleum Corporation (KPC), Petroleum Development Oman (PDO) – could lead to fractured compliance and expensive mistakes. Budget concerns run deep already; Wood Mackenzie said bunker fuel costs could rise by up to $60 billion annually from 2020 in a full compliance scenario. An umbrella proposal amongst NOCs about how to collectively adhere to IMO 2020 would create a united message and have a higher chance of reducing costs and bolstering efficiency. Such unity would also reinforce Middle East countries' reputation as collaborative thought leaders in the global oil market. Preserving this reputation in what is a highly competitive market plays into realizing BP Outlook's forecast that the Middle East will remain the world's biggest oil producer up to 2040, accounting for over 34% of global liquids production. In-country and cross-border efforts amongst NOCs to help spearhead adherence will create a robust framework and close loopholes. The latter is especially vital for bolstering the market's faith in compliance; a necessity to establishing an independent oil products benchmark.

50,000
Monitoring IMO 2020 compliance is not an easy task. There are over 50,000 merchant ships trading internationally, transporting every kind of cargo and manned by over a million seafarers of virtually every nationality.

2. Greater Clarity on Implementation Post-IMO 2020

Alas, the market lacks a crystal ball to guarantee what IMO 2020 entails. Equally, the current level of clarity will not suffice. The opaque outlook is hindering investors' appetite to support new projects and policies, as well as tying the hands of proactive stakeholders who are prepping to comply. The ruling comes into 'force' in just 19 months. And yet ambiguity lingers over guidelines about best practices, fuel supply forecasts, demand for scrubbers and LNG bunkering, for example. One of the key stumbling blocks is that guidance from the 'lead' voice – the IMO – has been somewhat muted, leading to confused conversations in the wider market. "The total demand for oil products will not be dramatically altered, but the impact of the changes on the product mix is a major uncertainty in our forecast," the International Energy Agency (IEA) flagged in its Oil 2018 report. But signs that the IMO will turn up the volume are emerging. In February, the IMO's pollution prevention and response sub-committee recommended a ban on ships carrying marine fuels that do not comply with the new global sulfur fuel standard when it takes effect in 2020. Currently, the IMO 2020 ruling aims to stop ships from burning marine fuel with a sulfur content above 0.5%, but not from them carrying such supply. The IMO's recommendation earlier this year marks a significant step towards halting less-scrupulous shipowners. But more similar efforts to lift the veil of ambiguity on post-IMO 2020 are required to give stakeholders along the value chain – including traders and policy makers – confidence to accelerate momentum for an independent oil products benchmark.

5%
IMO 2020 aims to bring the global shipping industry into a 'greener' era. The sector is responsible for approximately 5% of global oil demand, which is similar to the combined demand for oil from Germany, France and the United Kingdom, according to the IEA.

3. Port Authorities to Enforce IMO Rulebook

Port authorities are on the front line of ensuring compliance to IMO 2020 across all waters, from ports to the high seas. This tall order requires significant coordination in-country and between ports worldwide to create a standardized rulebook between thousands of moving parts. There are over 50,000 merchant ships trading internationally alone, according to the International Chamber of Shipping (ICIS). The world fleet is registered in over 150 nations and is manned by over a million seafarers of virtually every nationality. Building trust and encouraging proactivity will strengthen compliance at each point of connectivity (every port) for ships, regardless of the flag they carry or the ocean they have travelled. Regionally, there cannot be one rule for the Port of Fujairah and another for Oman's Port of Duqm, for example. And there cannot be variations between the Middle East's port management and that of other major bunkering hubs, such as Singapore and Rotterdam. The 'spider web' of connectivity and communication amongst the world's ports must be robust, which will require some port operators to roll out educational programs to ensure staff meet a global standard for IMO 2020 compliance. Adherence to IMO 2020 must mirror a world-class orchestra, in which port operators are the conductors that ensure every ship complies to create a symphony. ■

2%
The international shipping industry accounts for about 2% of global carbon dioxide emissions – more than international aviation.

STREAM 2
Other Recommendations
- ✓ **Refiners and traders to jointly assure market of abundant and uninterrupted supply of compliant fuel oil**
- ✓ **Tanking companies to strengthen storage and blending compliance**
- ✓ **Blending products at storage terminals to be a short-term goal**
- ✓ **All refineries in Middle East to either convert to LSFO or create compliant blend**
- ✓ **The installation and upgrade of current oil refineries to be a long-term goal**
- ✓ **Enhanced collaboration critical to secure compliance**

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