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Sulphur supply and demand outlook

Fertilizer Technology and Outlook Conference, Hyatt Regency, Jacksonville, Florida, USA

Claira Lloyd, Sulphur Editor 14 November 2018 London
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- One of the world's leading PRAs, Argus is a team of 900 staff members in 19 global offices
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 - US and European natural gas
 - NGLs
 - US and European environmental markets













Agenda

- Supply and demand overview
- 2018, another unexpected year
- Near term production and demand
- Regional focus
- Beyond 2019
- Key takeaways



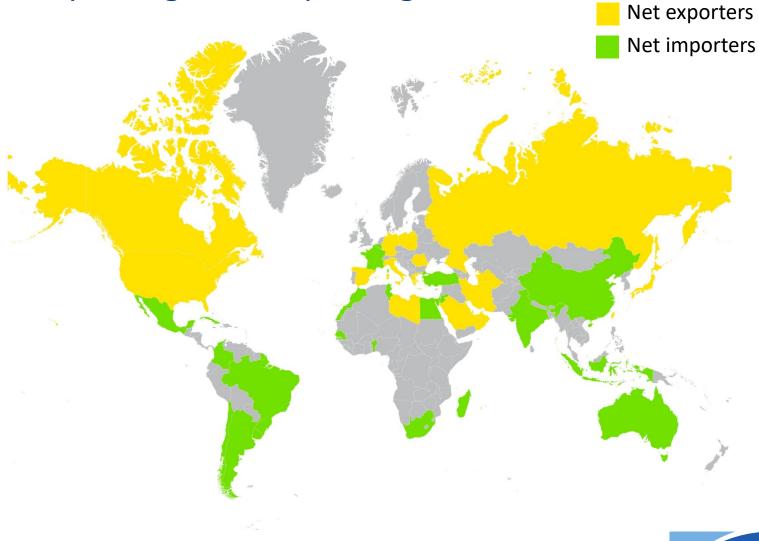
Supply and demand overview

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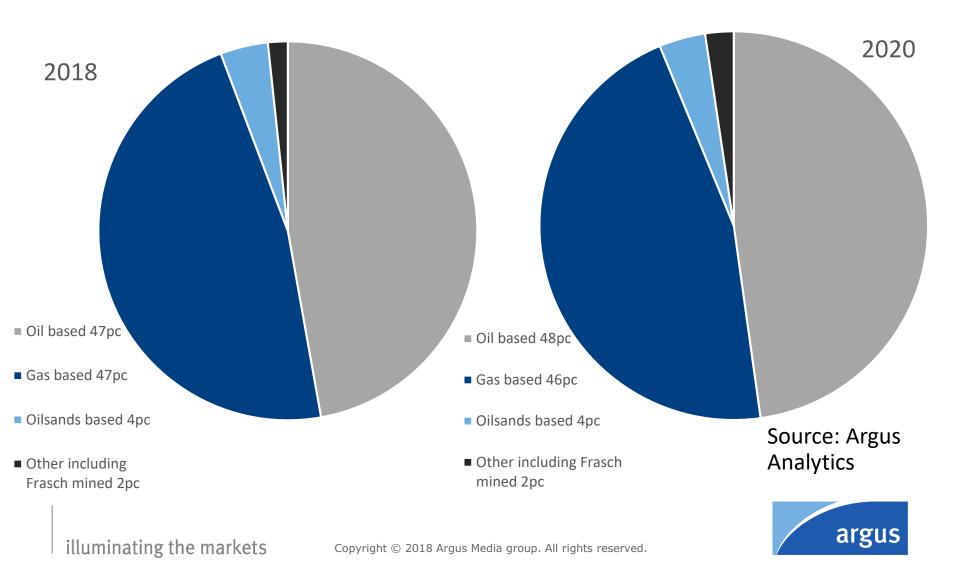
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Net importing and exporting countries

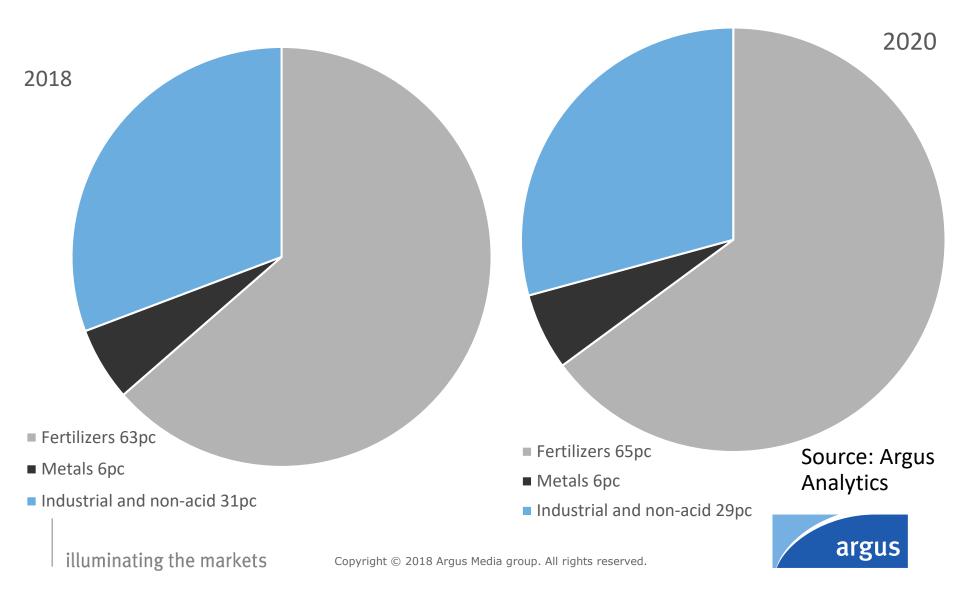




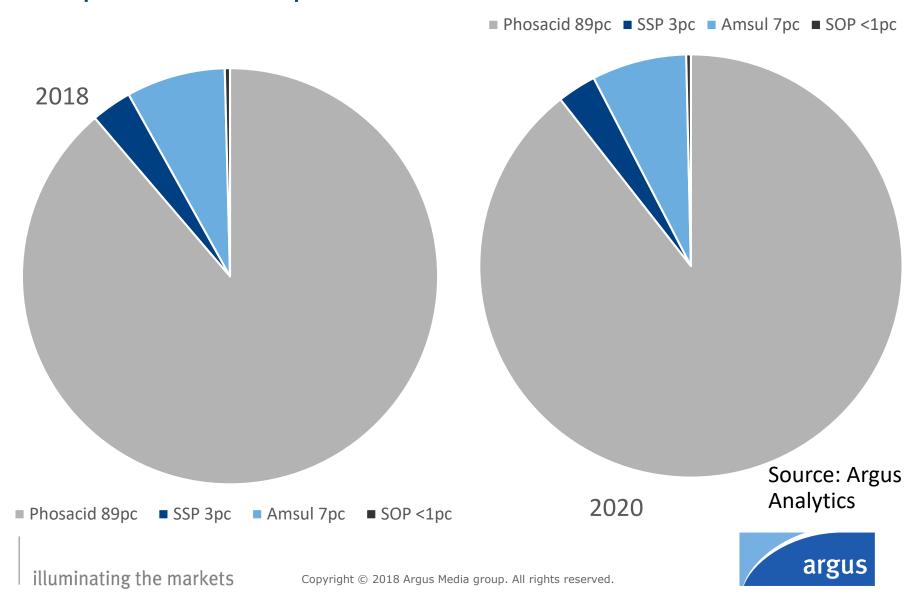
Elemental sulphur production



Sulphur consumption

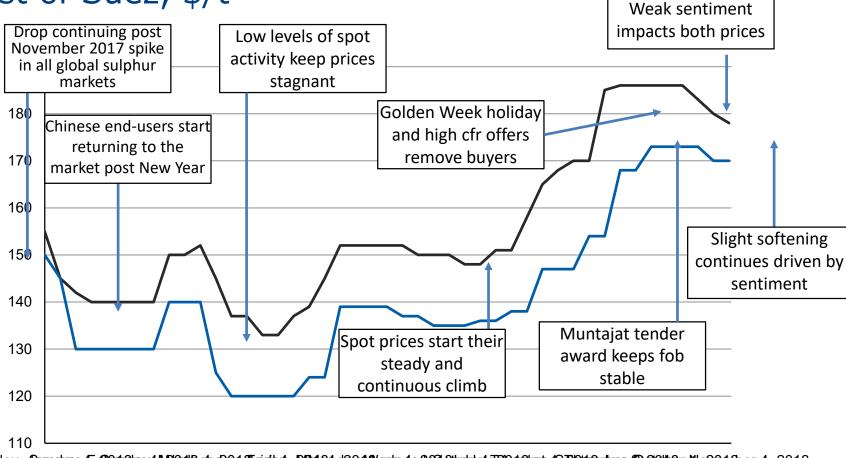


Sulphur consumption for fertilizers









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—China cfr high granular price

—Middle East fob high price

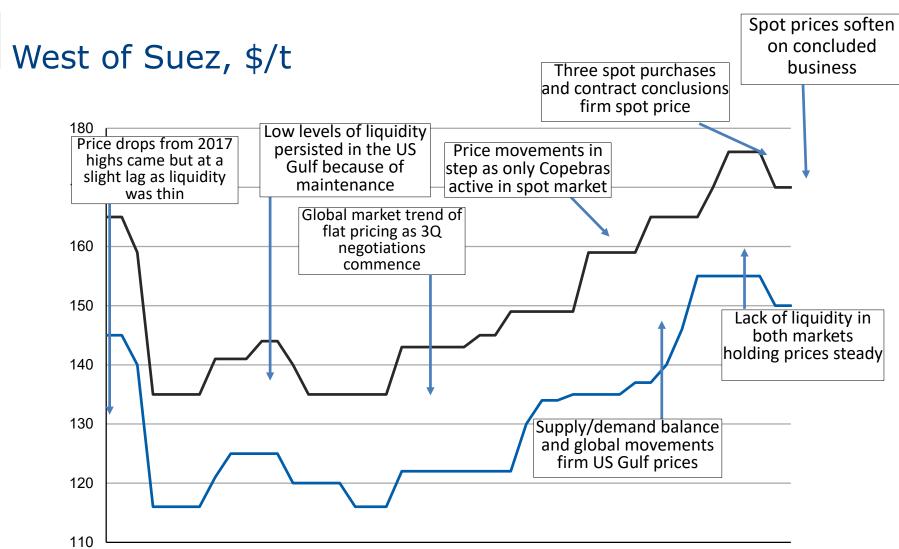
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Sulphur

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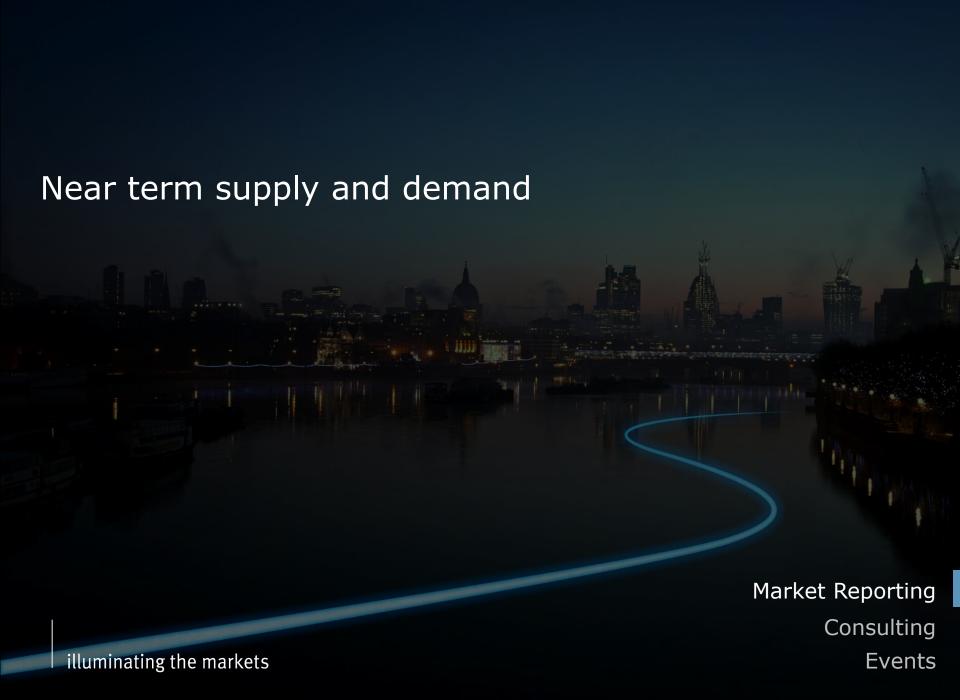
Thursday, Samutary, 4F, 4800 th Balay 4, M244 th Balay 4, Sulphur

-Brazil cfr high price —US Gulf fob high price

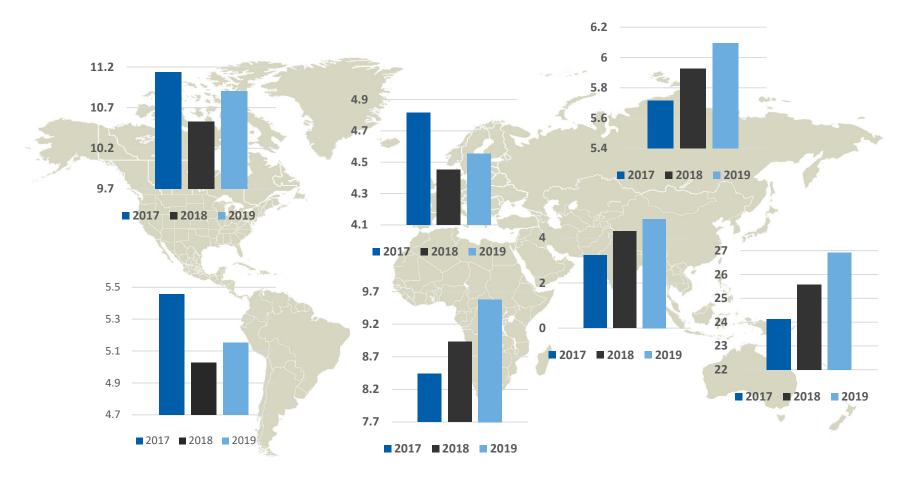
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Regional demand, mn t



Source: Argus Analytics



Demand highlights





Changes in supply to China

USA tariffs

 Removes up to 300,000t/yr from the supply chain

Iranian sanctions

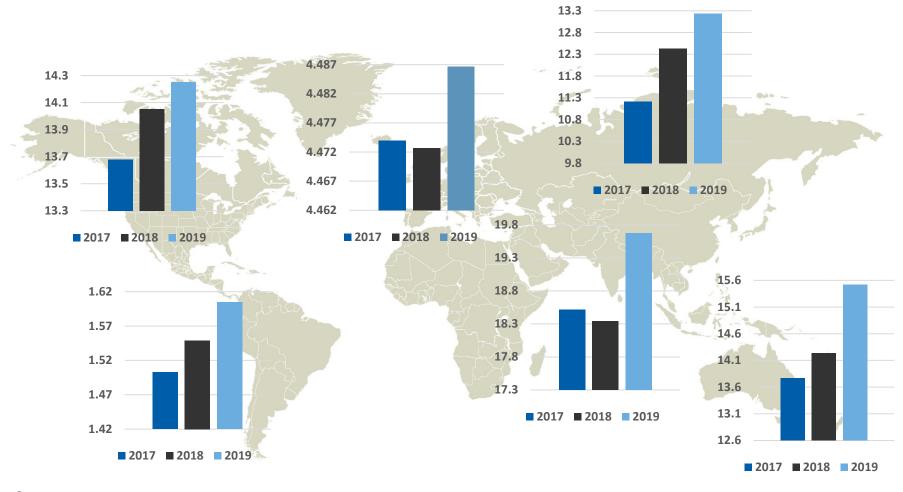
- Chartering difficulties and freight increases
- Limited financing for sulphur purchases

Middle East supply

Sulphur producers shifting supply focus



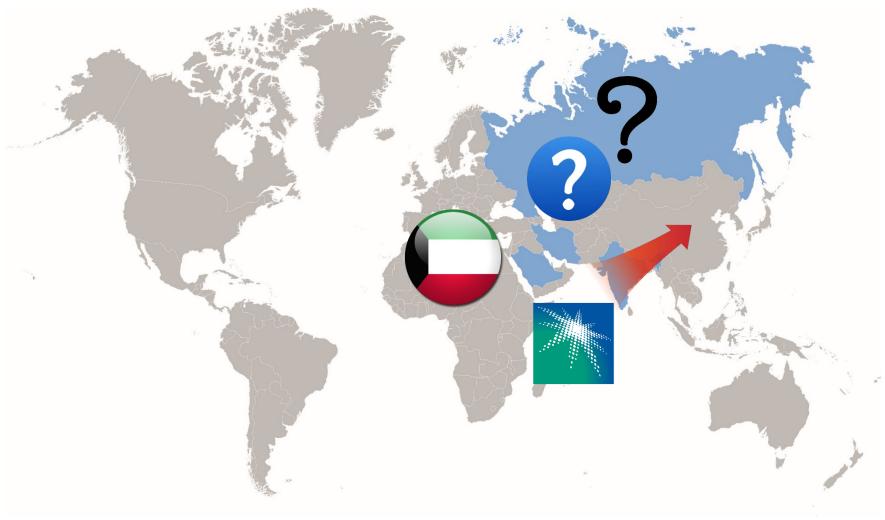
Regional production, mn t



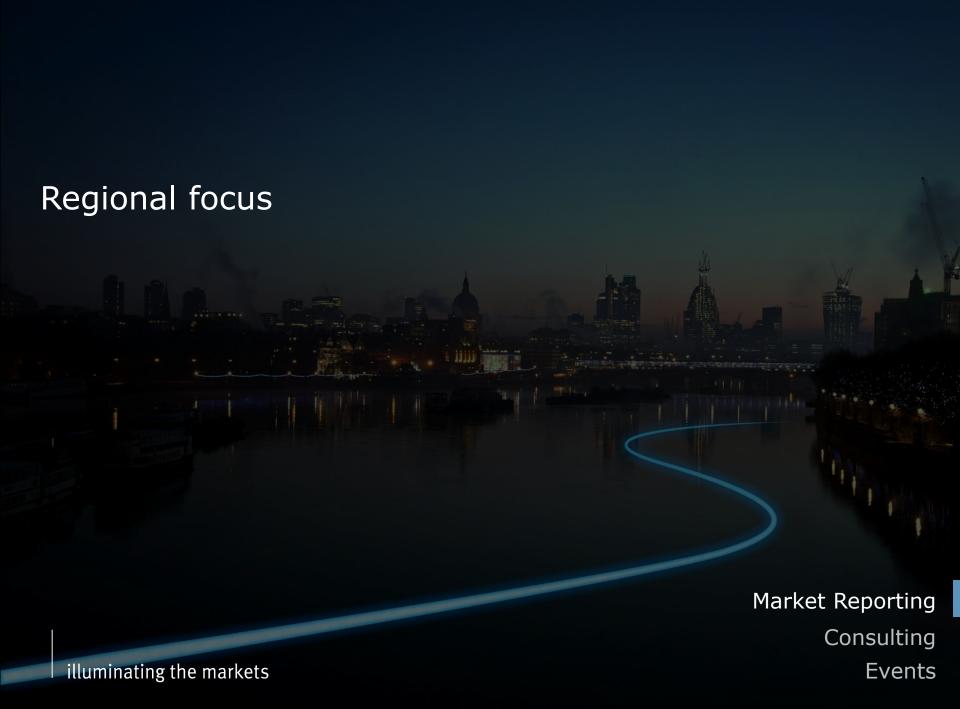
Source: Argus Analytics



Production highlights

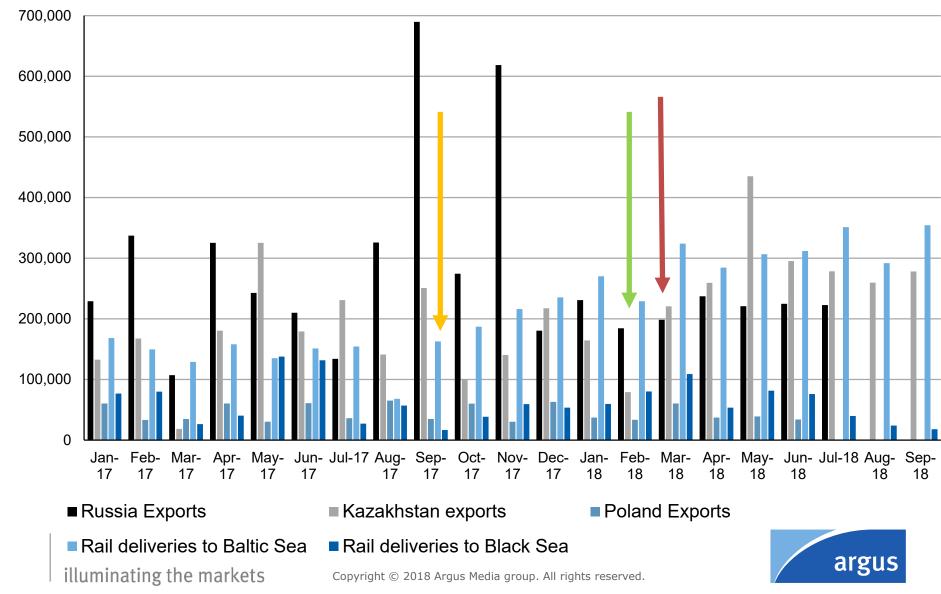






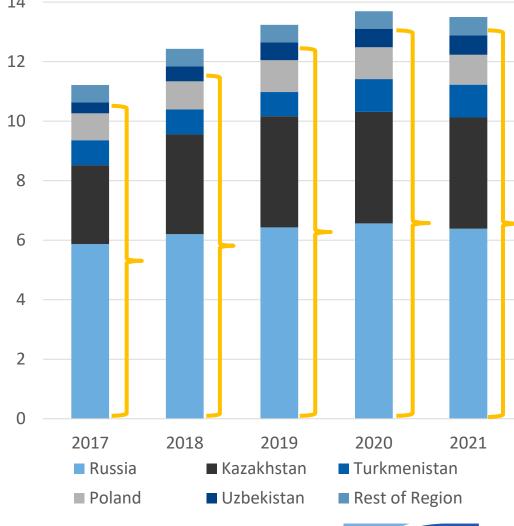
Sources: GTT, Russian rail

Increasing liquidity in the Baltic Sea, t



East European production 2017-2021, mn t

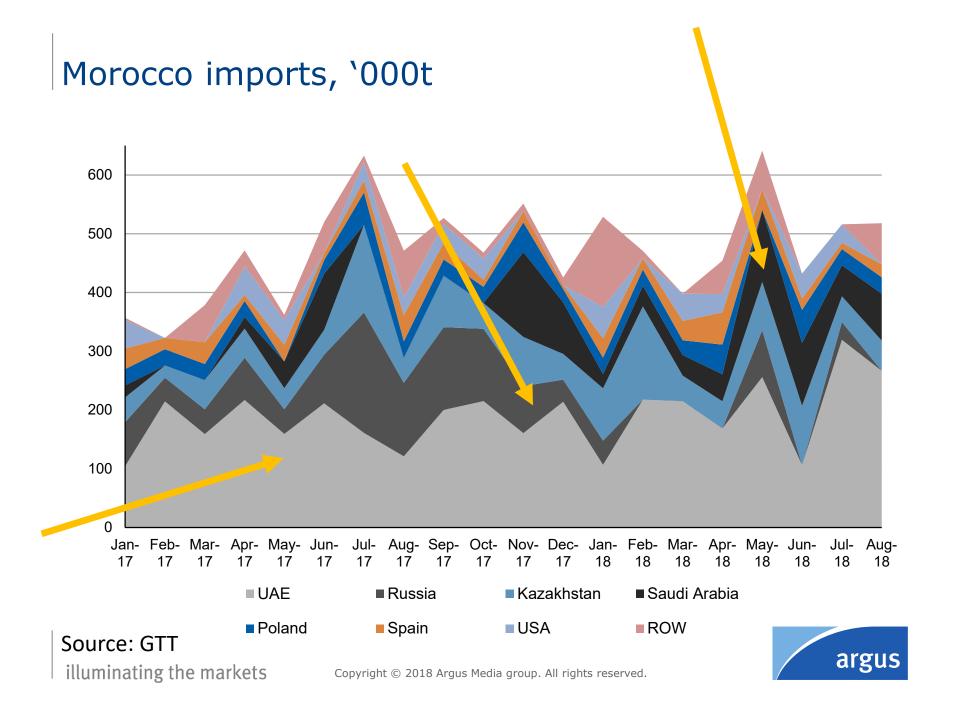
- Production to increase from 13.5 mn t in 2017 ¹² to 17.9 mn t in 2021
- Winter weather limitations are a factor
- Stocks are estimated at 6mn t in 2017, growing 6 to 9.6mn t in 2021
- Effective supply will always be approx 1mn t under production capacity



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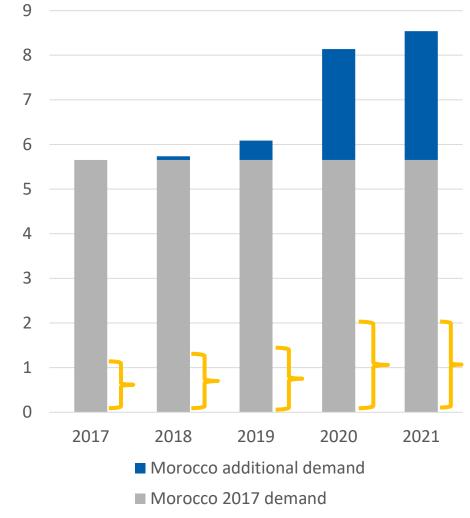
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Morocco demand increases 2017-2021

- Between 2017-2021 Jorf Phosphate Hub demand increases by 828,000t
- UAE to continue to hold position as number one supply market because of December agreement
- Question around the return of Russia as a key contributor to the Moroccan supply chain



Source: Argus Analytics



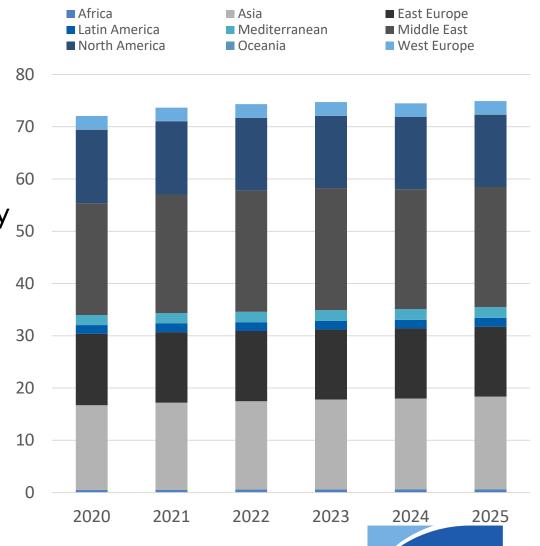


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2020-2025 global production, mn t

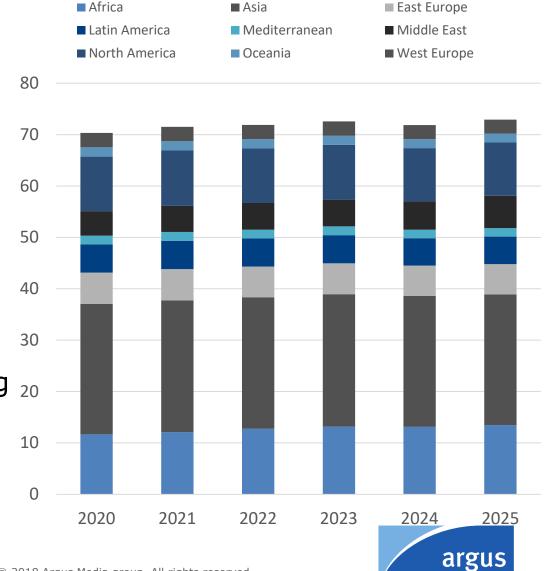
- Kuwaiti and Qatari increase market share
- Eastern European production holds steady
- Chinese production to boost Asia's supply position
- North America to become third biggest sulphur producing region

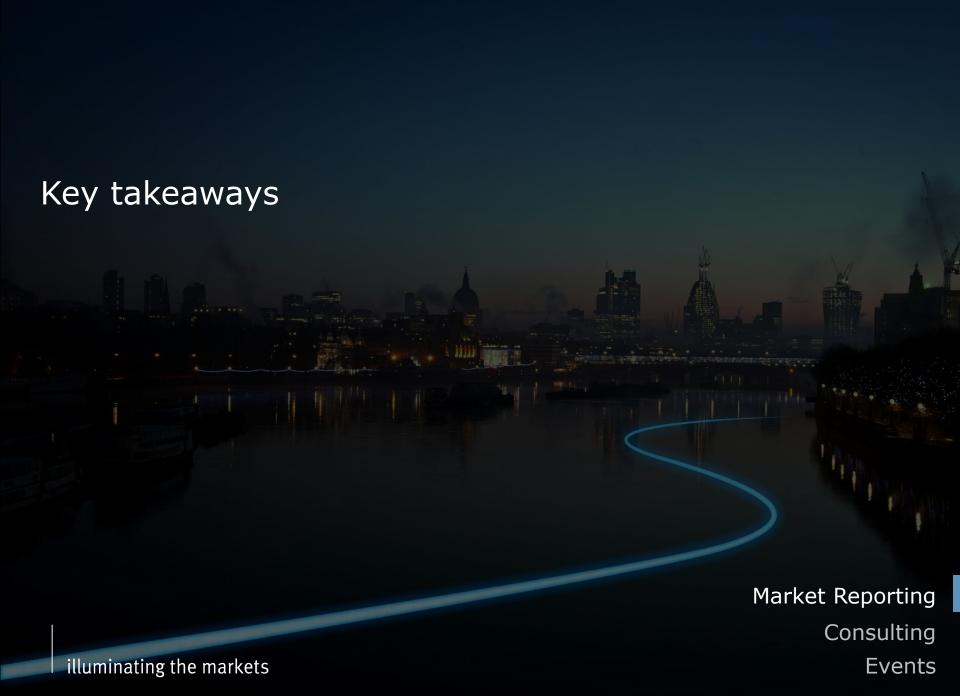


Source: Argus Analytics

2020-2025 global demand, mn t

- China demand increase could be offset by domestic supply
- Saudi demand to lead Middle East increases
- Africa to see the biggest of regional demand increases
- USA demand diminishing 20 slightly, along with West Europe





Key takeaways

Supply

 More of the yellow stuff is coming, but delays and unexpected outages are a constant

Demand

 New demand is coming but limited to a few regions

Trade

 Term contract demand diverting tonnes from the spot market



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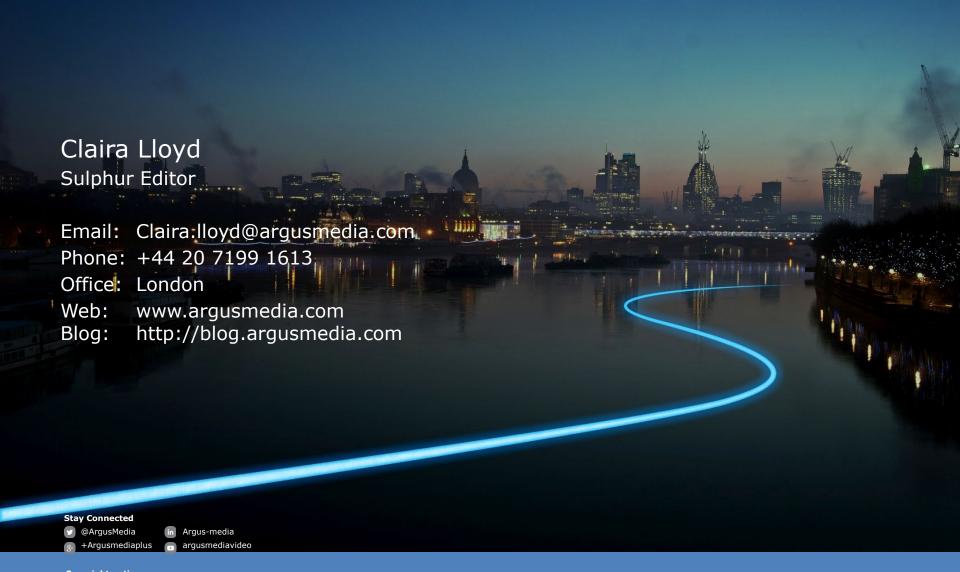
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