

# CHINA REFRACTORY MINERALS **FORUM** 2021

Wednesday 3 November 2021

**ONLINE**



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Vesuvius Advanced Ceramics (China) Co. Ltd

***It's really a fantastic conference, especially for me and I learnt a lot from other speakers and those questions raised during the Forum. I look forward to the Forum in China.***

Michael Zhang, Assistant to President, RHI Magnesita, China

***As always, the selection of speakers, the presentation content and the level of detail is superb. I "participated, learnt, and enjoyed"!***

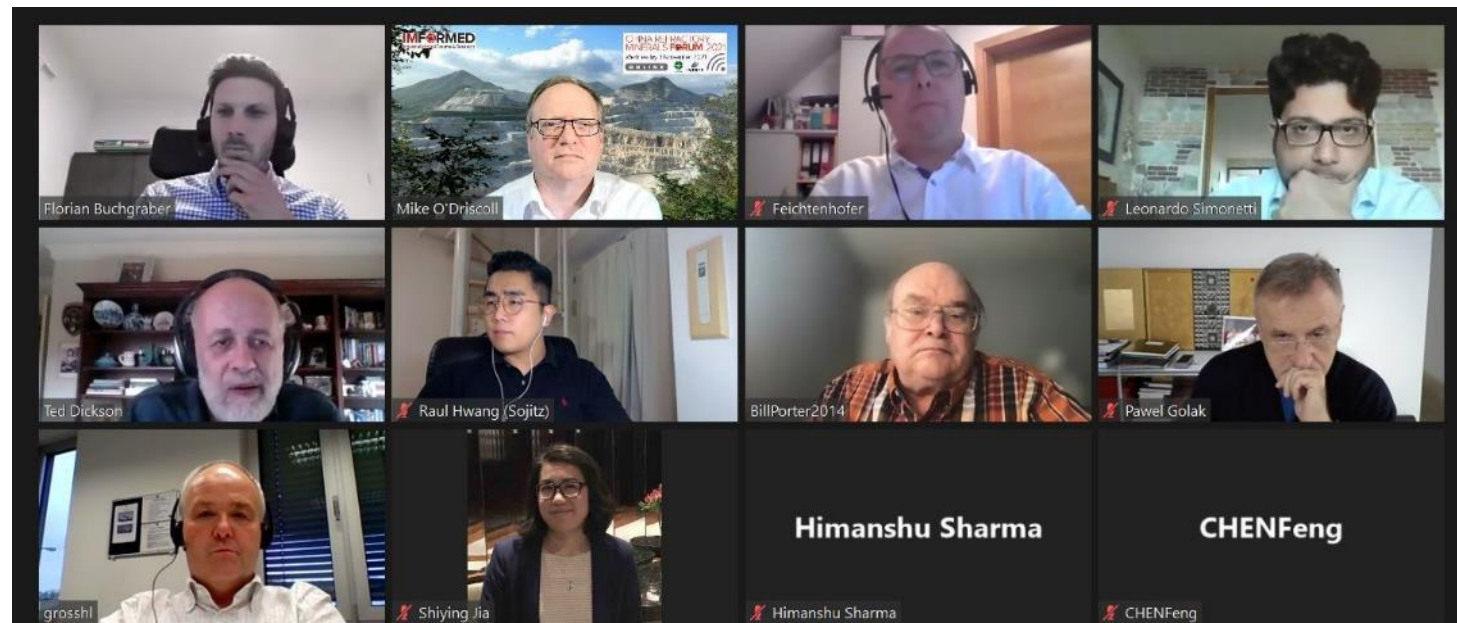
Jenny Warburton, General Manager China and Global Materials, HarbisonWalker International, USA

***Many thanks for the conference. The programme was excellent.***

Ted Dickson, Consultant, TAK Industrial Mineral Consultancy, UK

***Excellent programme and organisation. This is a good Forum, I will attend again.***

James Ying, Agent, Nedmag, Netherlands





PROGRAMME\*

All times shown are GMT  
(corresponding time zones  
shown)

\* All timings approximate; subject  
to change

USE LINK 1

GMT	CET+1	EDT-4	SGT+8	
10:00	11:00	06:00	18:00	<b>Welcome &amp; Introduction</b> Ismene Clarke & Mike O’Driscoll, Directors, INFORMED, UK
10:30	11:30	06:30	18:30	<b>China raw materials &amp; refractory market movement</b> Chen Feng, Sales Director China Refractory Producers & Qing Miao, Market Manager Refractory Producers & Investment Casting, Imerys, China
11:00	12:00	07:00	19:00	<b>Overview of strategy &amp; markets I</b> <b>“Green mining” in China</b> Marco Olszewsky, President APAC & China, RHI Magnesita, China
11:30	12:30	07:30	19:30	<b>Refractories: Essential and Growing Industries</b> Heiki Miki, Managing Executive Officer & Division Director – Overseas Business, Shinagawa Refractories Co. Ltd, Japan
12:00	13:00	08:00	20:00	<b>BREAK</b>

PROGRAMME\*

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shown)

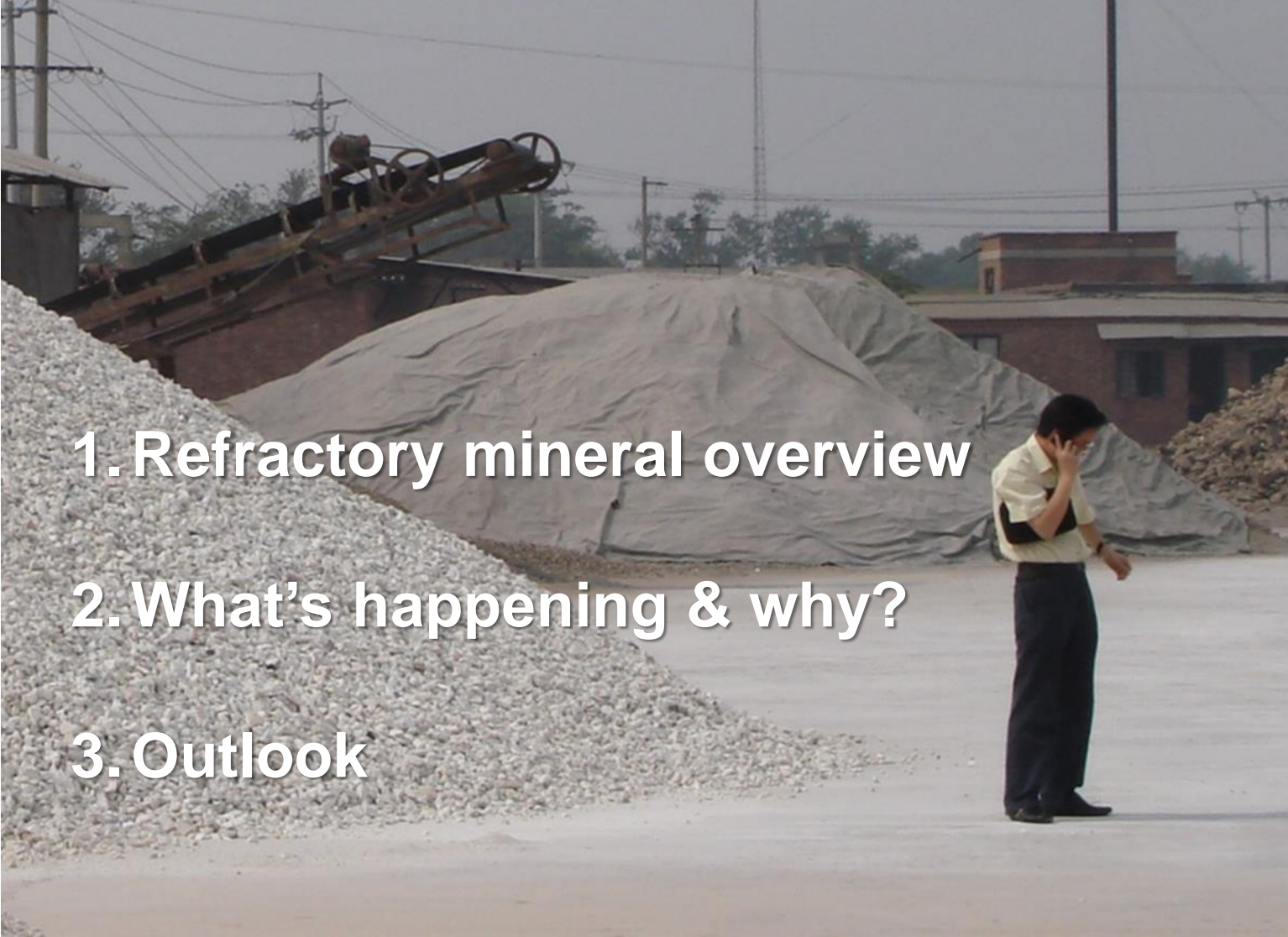
\* All timings approximate; subject  
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GMT	CET+1	EDT-4	SGT+8	
12:15	13:15	08:15	20:15	<b>High purity magnesia supply to new overseas refractory plant</b> Bill Porter, General Manager, PRCO America Inc., USA
12:45	13:45	08:45	20:45	<b>Refractory mineral market dynamics, trends &amp; outlook</b> Charles Compson, Marketing Director & Hans-Leo Gross, Global Product Line Manager Aggregates, Almatis GmbH, Germany
13:15	14:15	09:15	21:15	<b>China’s magnesia supply crisis in climate push</b> Shiying Jia, Director, China Magnesia Research, Replus Business (UK) Ltd, UK
13:45	14:45	09:45	21:45	<b>China – Europe logistics: Why is the supply chain failing?</b> James Devlin, CEO , China Mineral Processing (Sales) Europe
14:15	15:15	11:15	22:15	<b>ROUNDTABLE BREAKOUT SESSION</b> <i>Informal Networking</i> <ul style="list-style-type: none"><li>● REFRACTORY MINERAL SUPPLY</li><li>● REFRACTORY MINERAL MARKETS</li></ul>

USE LINK 1

USE LINK 2

# Outline



1. Refractory mineral overview

2. What's happening & why?

3. Outlook



# Refractory minerals overview

Categories | Chemistry | Source

Refractory classification	Industrial mineral (incl. synthetic)	Main chemical component	Primary source country
BASIC	Dead burned magnesia	85-99.8% MgO	China
	Fused magnesia	97-99.8% MgO	China
	Dead burned dolomite	56-62% MgO, 36-40% CaO	USA
	Chromite	>46% Cr <sub>2</sub> O <sub>3</sub>	South Africa
	Sintered/fused spinel	66-80% Al <sub>2</sub> O <sub>3</sub> , 21-33% MgO	China
	Olivine	40-50% MgO, 35-45% SiO <sub>2</sub>	Norway
ACIDIC	Calcined alumina	>99.5% Al <sub>2</sub> O <sub>3</sub>	China
	Fused alumina	94-99.5% Al <sub>2</sub> O <sub>3</sub>	China
High alumina	Calcined bauxite	85-88% Al <sub>2</sub> O <sub>3</sub>	China
	Sintered/fused mullite	40-75% Al <sub>2</sub> O <sub>3</sub>	USA
	Andalusite, sillimanite, kyanite	60-65% Al <sub>2</sub> O <sub>3</sub>	South Africa
Low alumina	Refractory clays	20-45% Al <sub>2</sub> O <sub>3</sub>	China
	Pyrophyllite	20-30% Al <sub>2</sub> O <sub>3</sub>	South Korea
Silica	Quartzite, silica sand	>97% SiO <sub>2</sub>	Regional
	Fused silica	>99.8% SiO <sub>2</sub>	USA
SPECIALISED	Zircon	66% ZrO <sub>2</sub> +HfO <sub>2</sub>	Australia
	Zirconia	>99% ZrO <sub>2</sub>	China
	Silicon carbide	>93% SiC	China
	Graphite	75-99% C	China
INSULATING	Diatomite	>75% SiO <sub>2</sub>	USA
	Perlite	65-80% SiO <sub>2</sub>	China
	Vermiculite	45% SiO <sub>2</sub>	South Africa



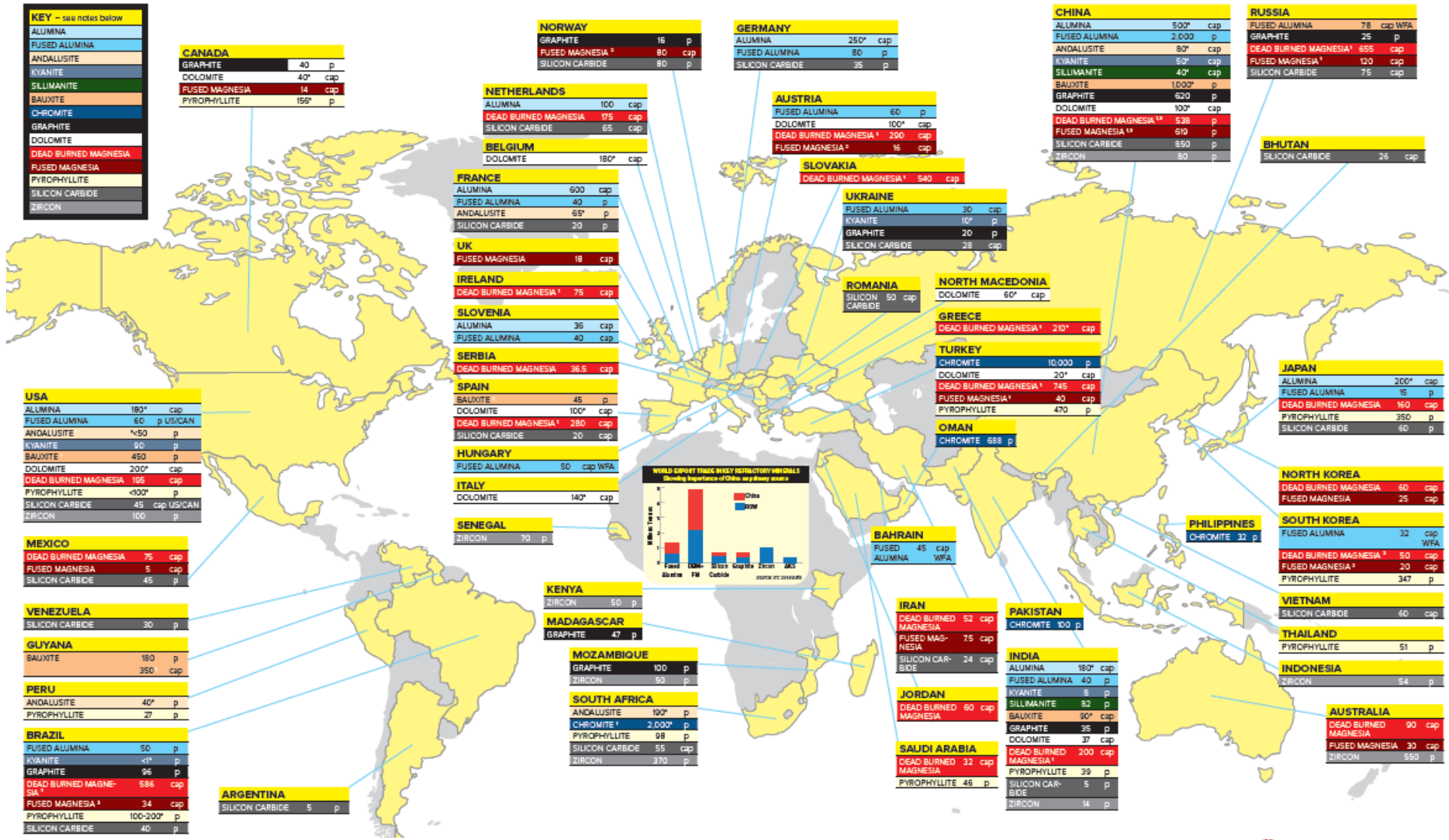
# Refractory minerals overview

World distribution of primary established sources of main minerals - detailed



New Edition  
2021

Contact us  
for a copy

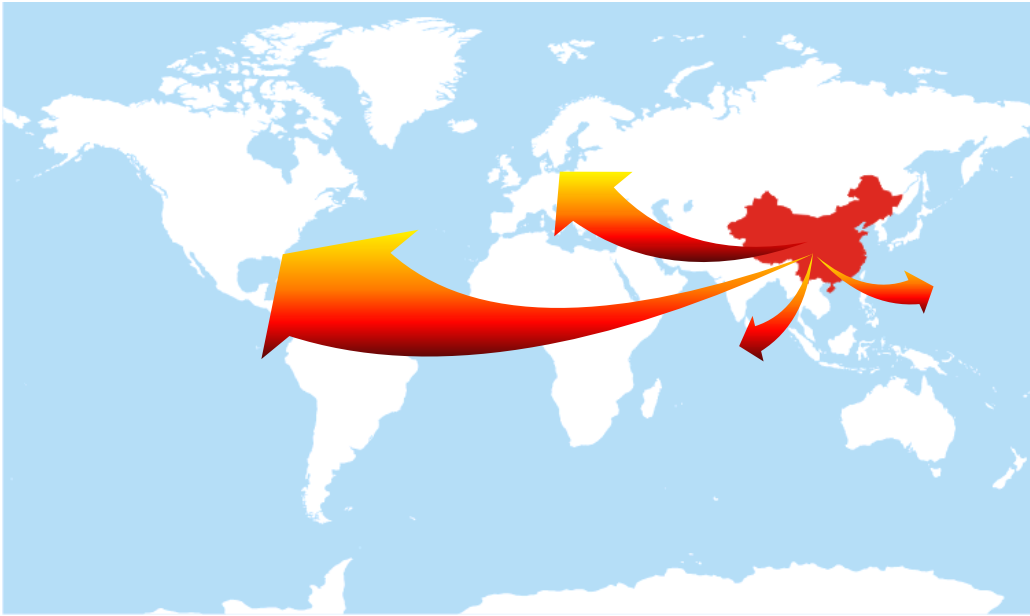


# Refractory minerals overview

Chinese export dominance

China refractory mineral exports  
≥10% share in world export volume 2019\*

Fused aluminas	60%
Magnesite & magnesias	56%
Graphite	45%
Silicon carbide	42%
Fireclay	21%
Natural abrasives	12%
Dolomite	11%



\* The year 2019 used as example to indicate typical scale of exports, since 2020/21 disrupted by ramifications of pandemic.





# What's happening & why?

Refractory mineral market hit by succession of Chinese storms



**2017 Perfect Storm #1**

**2021-22 Perfect Storm #2**

**Early warning signs?**

- 2003 SARS
- 2008 Beijing Olympics
- 2017-19+ anti-pollution drive

**But, this time the impact is being felt deeper and wider...**

**...and crucially, perhaps longer term**

**For free download of Mike O'Driscoll's full presentation please click [here](#)**



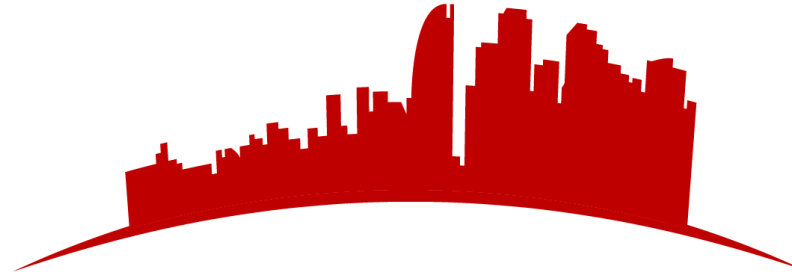
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12-14 September 2022



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# MINERAL RECYCLING **FORUM** 2022

Hilton Imperial Dubrovnik, 28-30 March 2022

Secondary raw material sources, supply, processing, and markets

# **INFORMED** *Rendezvous*

Grand Hotel Huis ter Duin (Noordwijk),  
Amsterdam, 24-26 April 2022



# OILFIELD MINERALS & MARKETS **FORUM** HOUSTON 2022

Hilton Houston Post Oak, Hilton, 23-25 May 2022

# **MAGFORUM** 2022

Magnesium Minerals & Markets Conference  
Grand Hotel Huis ter Duin (Noordwijk),  
Amsterdam — 7-9 June 2022



Field Trip to Nedmag Veendam operation

# CHINA REFRACTORY MINERALS **FORUM** 2022

InterContinental Dalian  
12-14 September 2022



Field Trip to Haimag Haicheng operation

# FLUORINE **FORUM** 2022

Pan Pacific Hanoi  
17-19 October 2022

**MASAN**  
HIGH-TECH MATERIALS



Field Trip to Masan Nui Phao operation

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- **Launched in January 2015**
- **Extensive experience & reputation**
- **Specialising in conferences & market research in:**
  - **Industrial Minerals Supply/Demand**
  - **Magnesia**
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  - **China**
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***Learn***  
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