

SUMMARY SLIDE DECK

#MagForum

MAGF©RUM 2017 Magnesium Minerals & Markets Conference Radisson Blu Hotel, Kraków, 11-13 June 2017



















IMF RMED Welcomes you to Kraków







Introduction



IMF RMED Welcomes you to Kraków





MagForum in Kraków: Why?





SPONSORS







EXHIBITORS





SUPPORTING PARTNERS







The world of magnesia

A world of diversity







The world of magnesia: source diversity

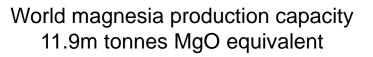
- Magnesia = magnesium oxide, MgO
- "Magnesia" = a group of magnesium compounds

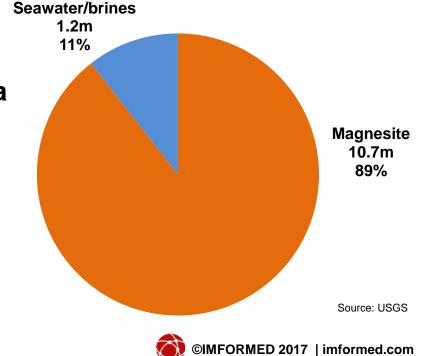
magnesium oxide magnesium carbonate magnesium hydroxide carbonate magnesium hydroxide

Two primary sources of magnesia

Natural magnesia from naturally occurring minerals

Synthetic magnesia from seawater, Mg salt brines





The world of magnesia: market diversity

			MAGNESIT	E & MAGNE	SIA		
RAW MAGNESITE	DEAD BURNED MAGNESIA	ELECTROFUSED MAGNESIA		CAUSTIC CALCINED MAGNESIA			MAGNESIUM METAL
	Refractory 93,95,97% MgO	Refractory 97%+ MgO	Electrical insulation	Synthetic CCM	Natura	al CCM	
Mg metal Fertiliser Glass, ceramics, rubber, insulation Paper, plastics, pigment filler Surface coating explosives	Refractory bricks Gunning mixes Castables Welding	Transformer steel coatings Refractory bricks	Cable insulation Electrical elements UV sensors Hi-tech ceramics	HP EFM electrical Mg metal Mg chemicals Pharmaceutical Ceramics UHP MgO	Magnesia cements	Insulation boards Sorel cement flooring Adhesives Concrete/cement Coatings Paints Abrasive wheels	
Pesticide carrier Landscaping			Store .		Agriculture Environmental	Animal feed Fertiliser Water/waste treatment FGD CCS	
			traditions	Ailk of. Bistoria	Ceramics Metallurgical flux Plastic filler Pesticide carrier Designer ceramics Foundry sand Coatings Absorbent Dessicant Flame retardant Lubricant additive Fuel additive Slag conditioner Hydrometallurgy		
					$\langle \rangle$	©IMFORMED 20 ⁴	17 imformed.com

Introduction



The world of magnesia: discussion points







Supply

- new capacities
- plant reductions/idling
- new/alternative sources

China

- demise of export quotas
- impact of environment & dynamite controls
- impact of costs taxes, trucking, energy
- structure of supply sector
- domestic demand
- Markets
 - steel outlook
 - other refractory markets
 - industrial/speciality opportunities
- Corporate landscape
 - RHI-Magnesia merger
 - more consolidation?





Status & outlook for the magnesia market

Moderator Mike O'Driscoll Director, IMFORMED, UK

Panellists

Evandro De Souza

Marketing Director for Overseas Markets, ZM Ropczyce, Poland

James F. King

Steel Consultant, UK

Andreas Kriegl

Head of Raw Material Supply, RHI AG, Austria

Michael Tsoukatos

Business Development Director, Grecian Magnesite SA, Greece

Questions & comments welcome from the audience Please state your name & affiliation









Programme – Monday Morning

- 08.30 **Opening Remarks,** Ismene Clarke, Director, IMFORMED, UK **Introduction,** Mike O'Driscoll, Director, IMFORMED, UK
- 08.45 Welcome Address Jerzy Gdula, Sales Director, ZM Ropczyce, Poland

KEYNOTE DISCUSSION PANEL

09.00 **Outlook for the magnesia industry** Moderator

Mike O'Driscoll, Director, IMFORMED, UK

Panellists

- Andreas Kriegl, Head of Raw Materials Supply, RHI AG, Austria
- Evandro De Souza, Marketing Director for Overseas Markets, ZM Ropczyce, Poland
- Michael Tsoukatos, Business Development Director, Grecian Magnesite SA, Greece
- James F. King, Steel Consultant, UK

09.45 COFFEE

REFRACTORY MARKET

- 10.45 **The changing face of the global refractories industry** Dr Richard Flook, Managing Principal, Mosman Resources Ltd, Australia
- 11.15 **The refractory materials industry in Poland: continuity despite change** Dr Jerzy Czechowski, Secretary, Refractory Materials Manufacturers Association of Poland, Poland
- 11.45 **Magnesia in refractories** Evandro De Souza, Marketing Director for Overseas Markets & Wiesław Zelik, Manager of Research and Development Center, Head of Technology, ZM Ropczyce, Poland







Programme – Monday Afternoon

SUPPLY TRENDS: CHINA | RUSSIA | NETHERLANDS

- 14.00 **Current status, structure, and outlook for China's magnesia industry** Zhao Haixin, Chief Investment Officer, Hejun Capital, China
- 14.30 Russian Magnezit: New efficiency, new quality and new opportunities for your business

Dmitry Borzov, Managing Director, Magnezit Group Europe GmbH, Germany

15.00 **Squeeze mining: the best solution to a solid future!** Frans Goorman, Technology Director, Nedmag, the Netherlands

15.30 COFFEE

RESOURCES: MAGNESITE | DOLOMITE | BRUCITE

- 16.00 **Magnesite and dolomite resources and production in Poland** Krzysztof Galos, Asst. Prof. Deputy Director for General Affairs, Mineral and Energy Economy Research Institute of the Polish Academy of Science, Poland
- 16.30 **Dolomite: supply and applications** Ted Dickson, TAK Industrial Mineral Consultancy, UK
- 17.00 **Brucite, Huntite, and Hydromagnesite: supply and markets** Dr Ian Wilson, Ian Wilson Consultancy, UK

17.30 CLOSE OF CONFERENCE DAY 1

18.30 NETWORKING DRINKS RECEPTION,

WIERZYNEK RESTAURANT SPONSORED BY RHI AG



RHI



Programme – Tuesday Morning

MARKETS 1: STEEL | CEMENT

- 08.30 **The prospects for steel production** James F. King, Steel Consultant, UK
- 09.00 **Cement and concrete markets: global outlook** Koen Coppenholle, Chief Executive, CEMBUREAU, Belgium
- 09.30 Magnesia cement boards: the next generation Sibel Hizlan, General Manager, AK ALEV, Turkey

10.00 COFFEE

MARKETS 2: FLAME RETARDANTS | PAPER |

HYDROMETALLURGY | ENVIRONMENT

- 10.30 **Overview of the magnesium chemicals market: focusing on magnesium hydroxide and flame retardants** Samantha Wietlisbach, Principal Analyst Chemical, IHS Markit, Switzerland
- 11.00 **The use of magnesium products in the pulp and paper industry** Rudolph März, Managing Director, Kürzeder & März Bleichhilfsmittel, Germany
- 11.30 **CCM in hydrometallurgy: outlook for the nickel market** Thomas Höhne-Sparborth, Director, Economics & Analytics, Roskill Information Services Ltd, UK
- 12.00 New horizons in environmental applications & use of magnesia seeds Yusuke Saito, Magnesia Division & Yoshihiro Nishimura, Fine Material Division, Ube Material Industries Ltd, Japan

12.30 LUNCH





Programme – Tuesday Afternoon

MARKETS 3: NON-REFRACTORY | WELDING

- 14.00 **Turkey's magnesite for non-refractory magnesia markets** Asım Bilge, Production Chief, Raw Materials, Kumas, Turkey
- 14.30 **Dead burned magnesia qualities for the welding industry** Sonja Larissegger, Technical Marketing Manager, RHI AG, Austria

15.00 COFFEE

NEW DEVELOPMENTS:

MIDDLE EAST | AUSTRALIA | SYNTHETIC MAGNESIA

- 15.30 **Development of a magnesite company in the Middle East** Nicolas Gangutia, Managing Director, Ganmag Magnesite Solutions, Spain
- 16.00 Development of the Winchester magnesite deposit, Northern Territory, Australia

Andrej Karpinski, Executive Chairman, Korab Resources Ltd, Australia

16.30 Recovering high purity magnesium compounds from salar brines and bitterns

Dr Tam Tran, Technical Director & Tony Crimmins, Executive Chairman, EcoMag Ltd, Australia

17.00 **Synthesising low carbon footprint, high quality magnesia** Paul Boudreault, Business Development, ECO2Magnesia, Canada

17.30 CLOSE OF CONFERENCE



MAG**F©RUM** 2017 Magnesium Minerals & Markets Conference Radisson Blu Hotel, Kraków, 11-13 June 2017

Programme – Wednesday

WEDNESDAY 14 JUNE 2017

FIELD TRIP TO ZM ROPCZYCE

- 07.45 Meet in Radisson Blu Hotel lobby
- 08.00 Bus departure for ZMR
- 10.00 Arrival at Ropczyce for introduction and safety briefing
- 10.30 Tour of ZMR plant
- 12.30 Lunch
- 14.30 Depart Ropczyce
- 16.00 Arrive Radisson Blu Hotel, Kraków







Your Chairpersons



Mike O'Driscoll Director, IMFORMED



Gerry Clarke Consultant

- Mine Geologist, graduated from University of Wales (Cardiff), Applied Mineralogist
- Lecturer in Economic Geology at Plymouth University
- Editor of *Industrial Minerals* magazine
- Executive Director of Metal Bulletin Plc
- Member of the Institute of Materials, Minerals and Mining
- Chartered Engineer.



Ted Dickson Consultant

- BSc Geology from Edinburgh University; MSc Mineral Exploration from the Royal School of Mines, London
- American Editor of *Industrial Minerals* magazine
- Consultant >23 years specialising in market intelligence for the industrial minerals



AGH University of Science & Technology AK Alev Akdeniz Mineral Kaynaklari A.S AMI Trading & Distribution LLC Andalucita SA Antea Cement - Titan Group ArcelorMittal Refractories Arciresa Bavmag Inc. Bras del Port SA BSR Van Uden Stevedoring BV **Buschle & Lepper SA** Carl Spaeter GmbH Cembureau European Cement Association CCCMC **CMC** Cometals Europe CMI Environment **CMI Industry Metals** Cofermin Rohstoffe GmbH & Co. KG EarthMetrix Inc. Eco2Magnesia EcoMag Ecotradex GmbH Europiren BV Ganmag Górka Cement Sp. Z o.o. Grecian Magnesite SA Haicheng RongLi Magnesium Co. Ltd Hejun Capital China Horn GmbH & Co. KG Ian Wilson Consultancy **IBAR Nordeste Ltda** IHS Markit Imerys Fused Minerals Hull Ltd **IMFORMED** Imperial Shipping

Interminex Handelsges. mbH KOMATEQ Korab Resources Ltd Kumas Manyezit Sanayi AS Kürzeder & März Bleichhilfsmittel Lehmann & Voss & Co. KG Liaoning Da Shi Qiao People's Government Liaoning Yingkou Commercial Bureau MAF Magnesite Magmacom Magnesia GmbH Magnesita Magnesita Refractories GmbH Magnesitas de Rubian SA Magnesitas Navarras SA Magnesium do Brasil SA Magnezit Group Magnezit Group Europe GmbH Magnifin Magnesiaprodukte GmbH Magus Marketing Pvt Ltd Martin Marietta Magnesia Specialties **Mayerton Refractories** Mayerton Refractories (Europe) Ltd MCD Ltd Meladore Midegasa Mine Feuerfest GmbH & Co. KG Institute of the Polish Acadamey of Science Mineralmahlwerk Hamm GmbH Minerals GmbH & Co. KG MIRTEC-Materials Industrial Research Center Mosman Resources Ltd Nedmag BV Normag GmbH Northeast Asia Magnesia Materials Exchange Orind Speical Refractories Pvt Ltd

Outokumpu Oy Pasek Peñoles SA de CV Possehl Erzkontor GmbH & Co. KG Possehl Erzkontor GmbH Organizačná Zložka Premier Magnesia LLC Protea Mining Chemicals REF Minerals GmbH Refractory Materials Manufacturers Assoc. of Poland Refratechnik Cement GmbH Refratechnik Holding GmbH RHI AG Roskill Information Services Russian Mining Chemical Co. Sibelco Europe SIM GmbH SMZ AS Jelsava Steel Consultant Steinbock Minerals Ltd Styromagnesit Steir. Magnesitindustrie GmbH TAK Industrial Mineral Consultancy Tanisho & Co. Ltd Ternamag SA Thyssenkrupp Raw Materials GmbH **Timab Magnesium** Titan Cement Co. SA Trasteel International **UBE Material Industries Ltd UBE Shipping & Logistics Ltd** Value Added Europe Vesuvius GmbH Weerulin GmbH Xilolite SA Yingkou Baoa Mineral Pty Ltd ZM Ropczyce SA

MAGFORUM 2017

Magnesium Minerals & Markets Conference







Picture Gallery

Cultura

MAGFORUM 2017

ZM

RHI

CogCola

Zakłady Magnezytow POPCZYCE" S.A. MAGFORUM 2017 Magnesium Minerals & Markets Conference Radisson Blu Hotel, Kraków, 11-13 June 2017

CAKLADY MAGNEZYTOWE "ROPCZYCE" S.A.

0



The programme covers all the points of view of the market; absolutely fantastic venue. Alex Aizpurua, Marketing Manager, Midegasa, Spain

Excellent depth of programme with several fields covered

Vassilis Kandiannis, Director, Magmacom SA, Greece

Overall top class, good location, and well organised Ted Dickson, TAK Industrial Mineral Consultancy, UK

Very good and interesting; good venue and very good organisation. Tomohiro Oki, Sales Manager, Tanisho & Co. Ltd, Japan

Nice combination of raw materials and end market issues; nice city and hotel. Alexandros Yfantis, Procurement Manager, Titan Cement Co. SA, Greece

Interesting, touching the exact points for current interest. Jerzy Gdula, Sales Director, ZM Ropczyce SA, Poland

Excellent, varied, and comprehensive programme Anthony McEneaney, Project Manager, RHI AG, Ireland

Top class panel discussion, could have been longer Pravin Kumar, Director, Magus Marketing Pvt Ltd, India

Thank you for the great organisation. We had a good experience again. Sibel Hizlan, AK ALEV, General Manager, Turkey





Missed attending **MagForum 2017**?

A set of presentations (as PDF) maybe purchased: Price £500 – please contact:

Ismene Clarke, T: +44 (0)208 224 0425; M: +44 (0)7905 771 494; E: <u>ismene@imformed.com</u>

Ensure you don't miss out on news and updates for the next **MagForum**!

Register here for news, articles, and Forum updates



Introduction





Networking and knowledge for the industrial minerals business





- Launched in January 2015
- Extensive experience & reputation
- Market research
- Specialist conferences















About our Forums

- Programmed with intelligence
- Moderated by experts
- To engage & serve the industry
- And we enjoy it!





Forthcoming Conferences in 2017

FLUORINE FORUM 2017 San Luis Potosí, Mexico 30 Oct-2 Nov 2017

The new meeting place for the global fluorine minerals and markets business

Visit to Mexichem mine and plant

Confirmed programme of leading experts

GRAPHITE SUPPLY CHAIN

5–7 November 2017 Balboa Bay Resort Newport Beach, California

The world's meeting place for the natural graphite industry, from mine to market

Graphite in refractories, foundry, steel

Impact of Li-ion batteries on graphite availability



Introduction



Industrial Mineral Forums & Research REFRACTORY RAW MATERIAL WORLD SOURCES

KEY - see notes below
ALUMINA
FUSED ALUMINA
ANDALUSITE
BAUXITE
CURONITE
CHROMITE
GRAPHITE
GRAPHITE
GRAPHITE DEAD BURNED MAGNESIA

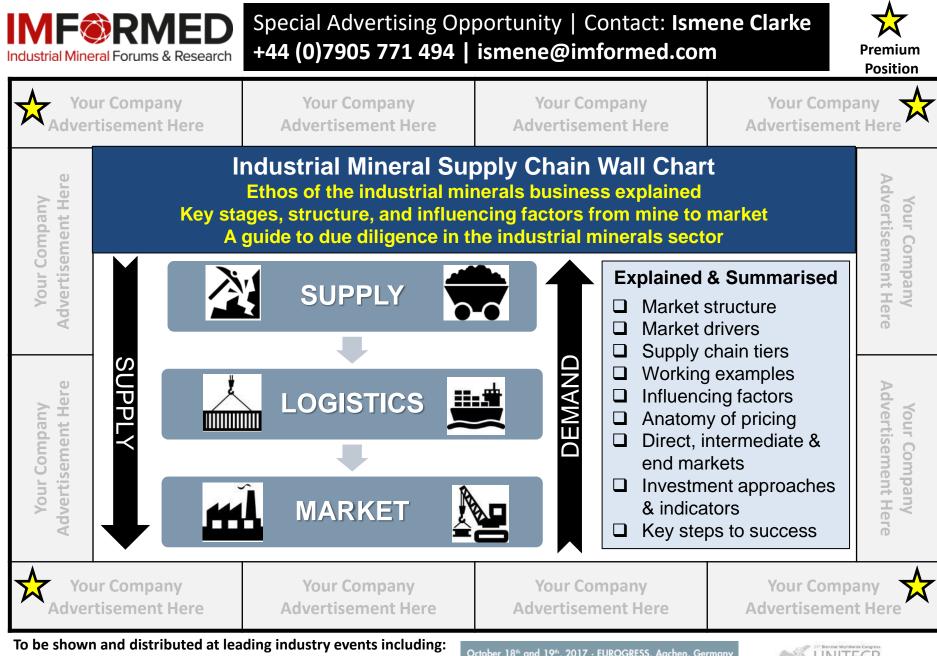
ZIRCON



PRIMARY WORLD SOURCES & PRODUCTION CAPACITY OF KEY REFRACTORY MINERALS

PICK UP YOUR COMPLIMENTARY COPY AT OUR STAND TODAY !!





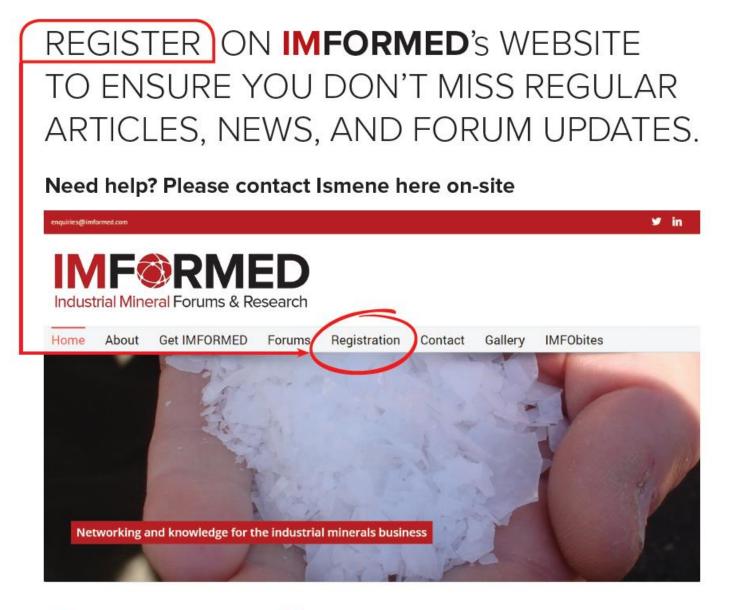
IMF@RMED Forums

October 18th and 19th, 2017 · EUROGRESS, Aachen, Germany

















Please join the MagForum Community



Linked in MAGF@RUM



#MagForum





Participate Learn Enjoy



Industrial Mineral Forums & Research Ltd

Networking and knowledge for the industrial minerals business

