

World Cement Industry Status, Trends & Outlook for 2024 Conquering the Global Market

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OUTLINE

- I. **About the World Cement Association**
- II. **Global Cement Market Outlook Trends and Forecast 2024**
- III. **Market Demand Projections and Regional Dynamics**
- IV. **Addressing Regional Dynamics and Cement Prices**
- V. **Cement Industry Trends: Carbon Capture Technology & Sustainability**
- VI. **The Surplus in China - Global Cement Trade – Conquering the Global Market**
- VII. **Industry Dynamics and Market Leadership**
- VIII. **Divergent Priorities and Strategies**
- IX. **Conclusion - Warnings for the future of the cement industry in the world**

World Cement Association: “Voice of the Cement Industry”

“Our aim is to bring together the capabilities of cement producers worldwide with equal rights for all regardless of size, nationality or group”

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The Largest Network of Independent Cement Producers



- All corporate members have the same voting weight
- Members Include
 - Cement producers
 - Suppliers and service providers to the cement industry
 - ClimateTech companies
- Board members are from China, France, Ireland, Saudi Arabia, South Africa, Tanzania, Turkey and UK

The World Cement Association



- WCA is a not-for-profit association, founded in 2016 and based in London, with offices in Beijing and Dubai
- WCA Chairman is CNBM from China
- Members are cement producers and cement industry stakeholders
- Our key priorities are:
 - To give a voice to independent cement producers
 - A Practical help for members to improve sustainability and operational performance
 - To facilitate and encourage decarbonisation of the cement industry

Key activities of World Cement Association: “Conferences”



WCA WORLD CEMENT ASSOCIATION

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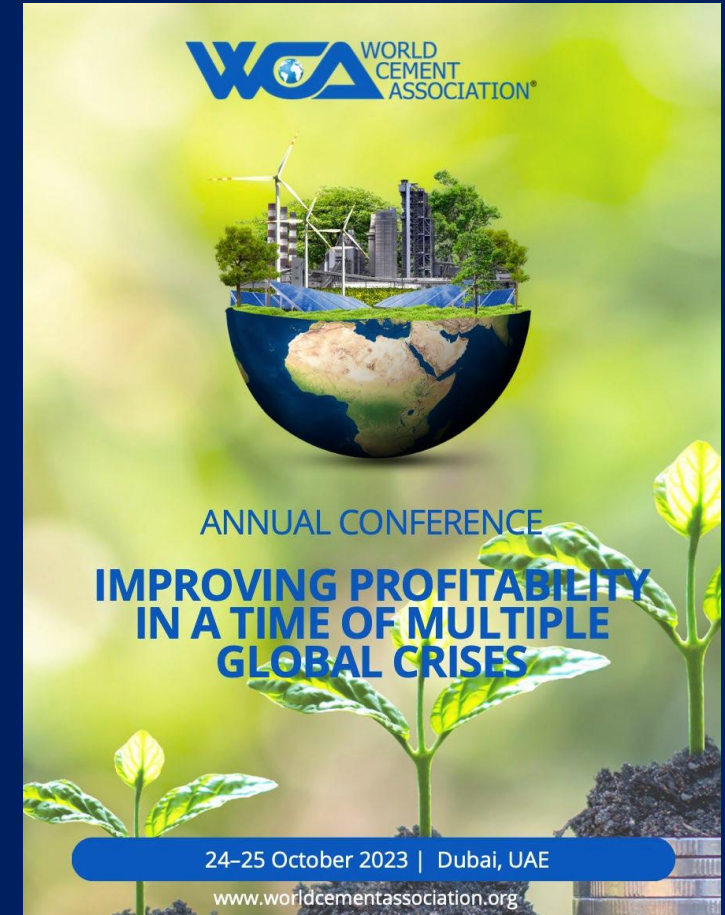
WCA ANNUAL CONFERENCE

25–28 September 2022 | Emirates Towers, Dubai, UAE

NAVIGATING THE CLIMATE CHALLENGE:
REDUCING CARBON AND REDUCING COSTS

The poster features a central image of a globe with a cement plant and wind turbines on top, symbolizing sustainable industry. The background is a clear blue sky.

- WCA holds an annual conferences in Dubai, London, Paris, Shanghai, Istanbul, Nanjing
- Subjects such as
 - Improving profitability in a time of multiple global crises
 - The climate challenge



WCA WORLD CEMENT ASSOCIATION

ANNUAL CONFERENCE

**IMPROVING PROFITABILITY
IN A TIME OF MULTIPLE
GLOBAL CRISES**

24–25 October 2023 | Dubai, UAE

www.worldcementassociation.org

The poster features a central image of a globe with a cement plant and wind turbines on top, symbolizing sustainable industry. The background is a soft, green, bokeh-style light. In the foreground, there are several small green plants growing out of a pile of soil.

Recognising excellence and outstanding achievement in the cement industry.

WCA will be presenting Awards in 4 categories.

Awards”



1

MODEL PLANT

Eligibility: Integrated cement plants

Criteria: Energy efficiency, emissions, productivity, maintenance, safety record, management systems



2

CLIMATE ACTION

Eligibility: Integrated cement plants

Criteria: Specific CO2 emissions for clinker and cement at plant level, Initiatives taken to reduce climate impact and address barrier to lower emissions (e.g. availability of SCMs)



3

INNOVATION

Eligibility: WCA Members (including corporate and associate members)

Criteria: We are looking for a company that has developed and implemented a technical innovation that can be shared with other companies and has made (or has the potential to make) a significant contribution to the industry in terms of energy efficiency, emissions, productivity or maintenance/reliability.



4

HEALTH & SAFETY

Eligibility: Integrated cement plants

Criteria: We are looking for a company or integrated cement plant that has developed a way to improve safety that can be shared with other companies. We will look at quantitative data such as reduction in lost time accidents but our main assessment will be of the initiative taken and the potential for its potential contribution to the wider industry.

Key activities of World Cement Association: “*NETWORKING*”

WCA Launches Cement Industry Networking Platform in Collaboration with WCN

London 30 October 2023 - The World Cement Association (WCA) announced today the official launch of its specialist networking platform, The Cement Network in cooperation with The World Cement Network (WCN).

This innovative platform is designed to cultivate collaboration within the sector, enable the development of talent and offer expert Human Resources services. The Cement Network will serve the global cement industry by bringing together professionals and organizations from around the globe.

This initiative harnesses the power of digital technology to unite industry experts, cement producers, suppliers, and service providers on a single platform.

Key features of The Cement Network are:

1. **Networking Opportunities:** Connect with professionals from diverse backgrounds, fostering collaboration and opening doors to potential partnerships.
2. **Job Marketplace:** Explore career opportunities and connect with recruiters and talent within the cement industry.
3. **Corporate Job Postings:** Discover and apply for job openings at prominent industry players.
4. **Coaching:** Access industry experts who will support your personal and professional development.

"The Cement Network serves as a unifying platform for industry professional, encouraging innovation and sustainable practices while addressing the ever-evolving challenges faced by the cement sector. By facilitating an open exchange of ideas and fostering collaboration, the WCA aims to steer the industry toward a more efficient, and prosperous future," said WCA's Founder and Director, Emir Adiguzel.

REGISTER YOUR COMPANY



www.worldcementnetwork.com

Key activities of World Cement Association: “*NETWORKING*”

One of our key activities is building networks and sharing knowledge



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Key activities of World Cement Association: “Benchmarking”

- In Phase I we looked at energy and emissions

		Average	Best			Average	Best
Clinker SPC kWh/t clinker	Overall	58.4	43.2	Clinker SHC MJ/t clinker	Overall	3,174	2,781
	Ball Mill	67.7	58.0		4 Stage PH	3,427	3,139
	VRM	57.7	45.1		5 Stage PH	3,167	2,860
	Roller Press	52.6	43.2		6 Stage PH	3,073	2,781
Cement grinding SPC kWh/t cement	Overall	32.5	25.4	CO ₂ emissions KG/t	Clinker	857	720
	Ball Mill	35.0	26.7		Cement	677	560
	RP + BM	32.8	29.5				
	VRM	31.5	25.4				

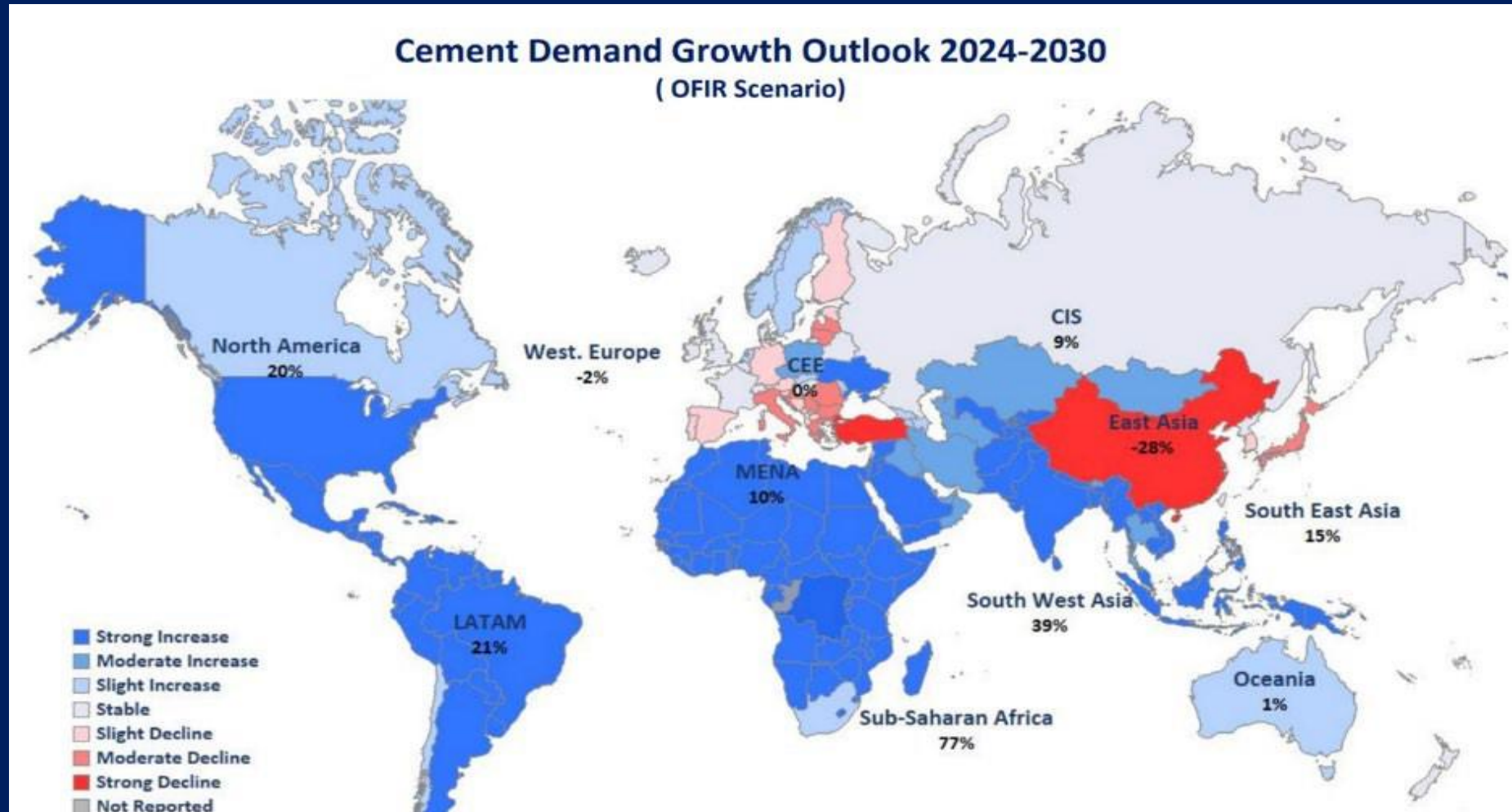
- Phase II: Maintenance, Phase III Productivity and Industry 4.0
- Common Issues and Difficulties
 - Limited automation
 - ID and other fan power consumption
 - High bag house pressure drop
 - High O₂ level at main stack
 - High power consumption

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“Global Cement Demand Stagnates”

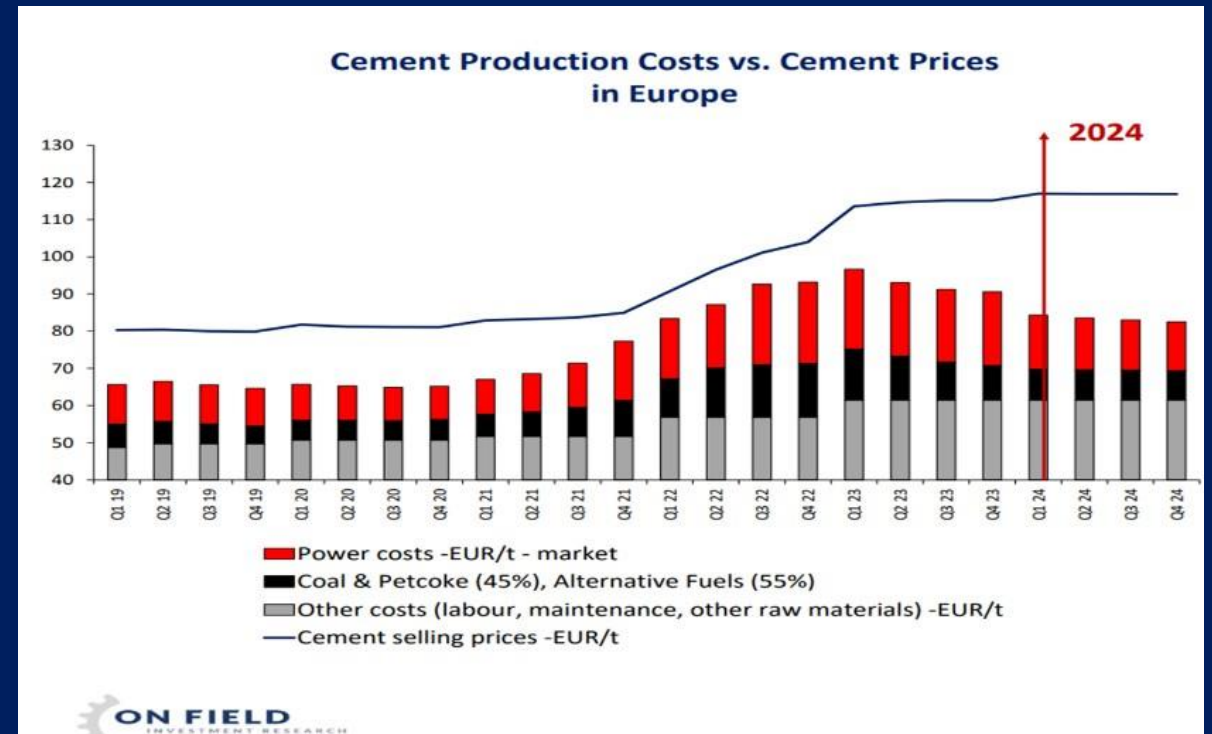
According to On Field® Research recently made global cement market demand is expected to be flat in the period 2024-2030 except for increases in the Middle East, India, and Africa. Weakest cement markets are anticipated to be Turkey, China, and Europe, whereas the best cement markets in the world will be Sub-Saharan Africa (with a projected growth of +77% by 2030) and India (growth of +42%) and North America (+20%) in the foreseeable future.



Regional Dynamics and Cement Prices

The good news is that the cement industry is poised to sustain its gross margin expansion especially in Europe, primarily driven by higher cement prices and significantly reduced fuel costs, despite anticipated weak global demand.

- Challenges and Cost Pressures
- Post-Covid Reality for the Cement Industry
- Resilience and Discipline
- Contrasting Developments in Mature and Emerging Markets for 2024



Advancements in Carbon Capture Technology

“Is it the Turning Point in the History of the World Cement Industry?”

- Carbon capture Technology is not developing fast enough as most have anticipated in the world.
- At the present technology level, the investment requirement is more than the capital cost of a cement plant.
- The adoption of carbon capture (CC) technology, while promising, is still in its early stages and faces challenges in terms of scalability and cost-effectiveness.
- Additionally, the issue of where to store captured CO₂ poses a considerable challenge on a global scale, as suitable storage sites must be identified and developed.
- These plants, which may lack the efficiency and infrastructure necessary for successful integration of CC units, face the prospect of closure. Such closures would not only affect the businesses themselves but also have broader implications for the supply of cement in Europe and the USA.
- In summary, the challenges faced by smaller cement producers in adopting CC technology may have far-reaching consequences beyond their individual operations. The potential closure of older plants could exacerbate cement shortages in Europe and the USA, leading to increased prices and broader economic impacts.
- Consequently, in markets like Europe, the new CO₂ regulations may practically annihilate local cement clinker production, European consumers may soon face cement prices over 250 Euro per ton unless we see a massive amount of cement imports.





W C A A N N U A L C O N F E R E N C E

25–28 September 2022 | Emirates Towers, Dubai, UAE

**NAVIGATING THE
CLIMATE CHALLENGE:
REDUCING CARBON AND REDUCING COSTS**

**THE OLD STRATEGY
(A FEW YEARS AGO!)**

Strategy of as annual reports

HEIDELBERGCEMENT: “Cement and Aggregates form the basis of our dual resource and growth strategy.” (p. 43)

HOLCIM: “At the heart of our strategy are the production and distribution of cement and aggregates.” (p. 19)

LAFARGE: “We have two strategic priorities: cement in emerging markets, and innovative products and solutions.” (p. 24)

CEMEX: “By managing our cement, ready-mix concrete, and aggregates assets as one integrated business we further improve efficiency and profitability.” (p. 16)

THE NEW STRATEGY
(2024)

STRATEGY IN ANNUAL REPORTS

Holcim: is a global leader in innovative and sustainable building solutions, on a mission to decarbonize buildings, with a continuous focus put on innovative products.

HeidelbergMaterials: Our focus is on expanding our portfolio of sustainable products, rapidly and significantly reducing our CO₂ emissions,

Cemex : Our latest performance demonstrates our commitment to climate action, circularity, and natural resource management

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Chinese Cement Industry's Situation is Critical

- Per capita cement consumption in 2023 was 1882 kg
- Total cement production capacity is approx. 4 Billion tons
- Total production capacity as cement clinker 2.1 Billion tons
- Clinker produced in 2023 was 1.77 Billion tons
- **Structural surplus cement clinker is more than 350 Million tons**
- Average kiln utilization rate is approximately 57%
- Total exportable clinker & cement capacity is estimated to be around 60 Million tons
(China exported 36,7 Mio tons in 2006)

Possible Solutions

- ✓ Closing down inefficient and old kilns
- ✓ Increase usage of waste and alternative raw materials
- ✓ Change of cement standards
- ✓ Investing abroad either in green field or transferring excess production capacity overseas
- ✓ Ban imports and promote exports of cement clinker by
 - ✓ Subsidizing transport costs
 - ✓ Acquiring overseas import facilities
 - ✓ Establishing an International Trade Company

 <p>中国建材 CNBM</p> <p>CNBM (SINOMA-TIANSHAN, ABT 338 MILLION TONS)</p>	 <p>CONCH</p> <p>CONCH CEMENT (ABT 221 MILLION TONS)</p>	 <p>BBMG 金隅冀东水泥</p> <p>BBMG CEMENT (ABT 102 MILLION TONS)</p>	 <p>HONGSHI 冀东水泥</p> <p>HONGSHI CEMENT (ABT 66 MILLION TONS)</p>
 <p>华闻水泥 CR CEMENT</p> <p>CHINA RESOURCES CEMENT (ABT 65 MILLION TONS)</p>	 <p>华新水泥 HUAXIN CEMENT</p> <p>HUAXIN CEMENT (ABT 64 MILLION TONS)</p>	 <p>TCC THE FUTURE IS WORTH IT</p> <p>TAIWAN CEMENT CORP (ABT 56 MILLION TONS)</p>	 <p>山水集团 SUNNSY SUNNYS GROUP</p> <p>SUNNSY CEMENT (ABT 50 MILLION TONS)</p>

Expansion and Diversification Efforts

Chinese cement producers must continue to expand abroad with the aim of diversifying and balancing their portfolio in view of saturated domestic market in China. Chinese cement producers are slowly taking leadership in several overseas markets. (On Field Research)



Capacity addition by local players and new entrants is visible in most emerging markets. India will be adding 1 billion tons of new capacity by year 2030.

Time for Change in Cement Industry

- China comprises over one-third of all global dry bulk commodity import volumes
 - Largest importer or exporter of coal, iron ore, user of vessels for Grain, Bauxite and alumina, Phosphate rock,
- There is a big opportunity for Chinese Cement Companies to transfer their knowledge and assets to Overseas markets
- Using the great advantage of already handling large portion of global dry bulk trade China has an opportunity to transform this potential into bulk cement clinker exports while taking over the control of worldwide dry bulk cargo trade by establishing international dry bulk Trade company
- The exit strategy of several multinationals in cement industry offers a unique opportunity to take over assets and become a global player

A dry bulk vessel unloading coal



Conquering the Global Market - Global Cement Trade Exports As An Opportunity ?

Questions

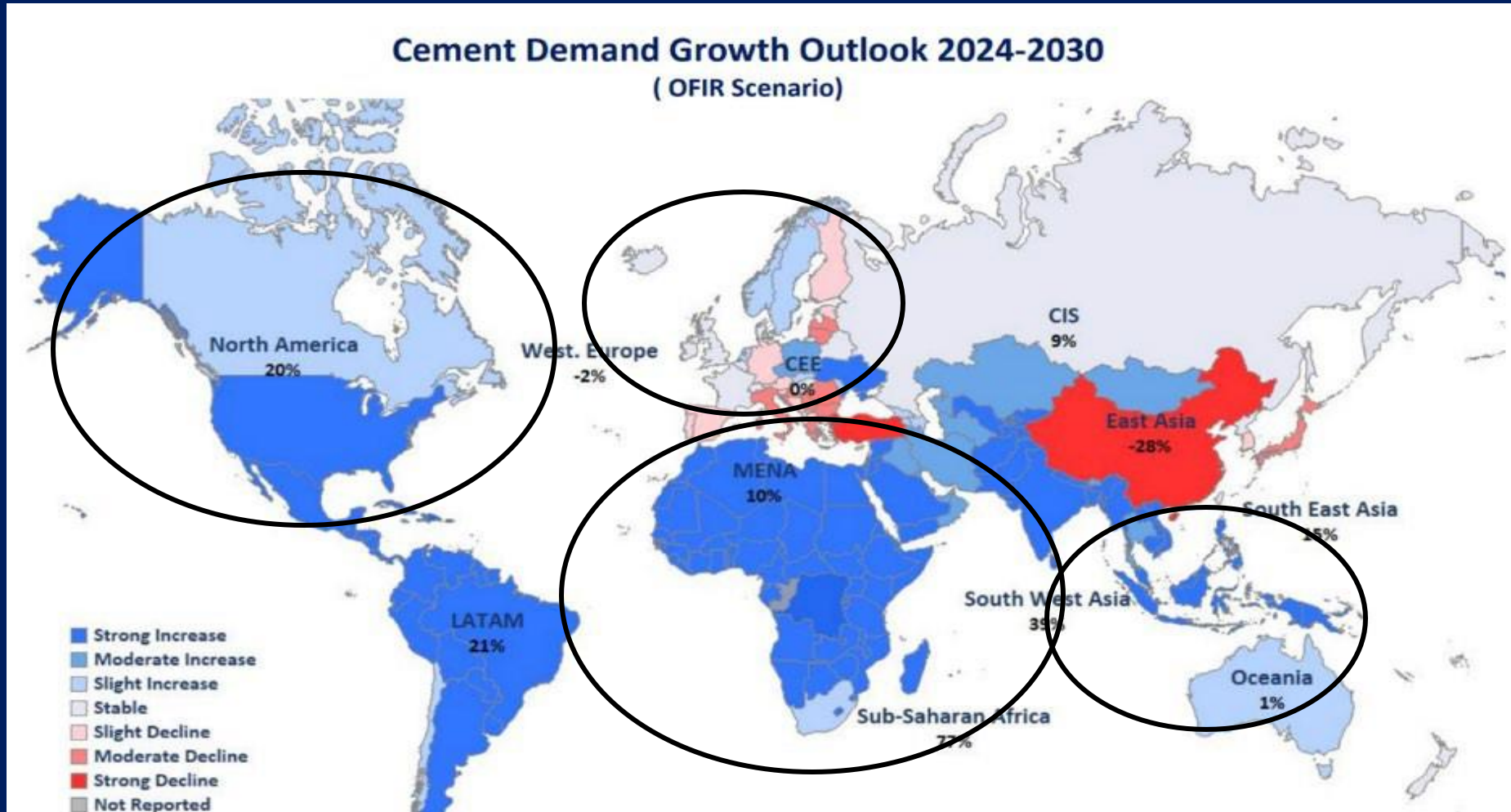
- Why do Global cement companies have their international trading company?
- What are the products global trade companies buy and sell? Where are the cement import markets?
- What is the difference between a sales department and global trade office?
- How to create a synergy by establishing a global trade unit? What is the cost of an international trade unit?
- What are the top challenges to become a leader in global trade? How to be competitive on production cost, logistic and transport, Carbon cost?
- What is the real opportunity for CNBM and ANHUI CONCH in establishing a global trade company?

Answers

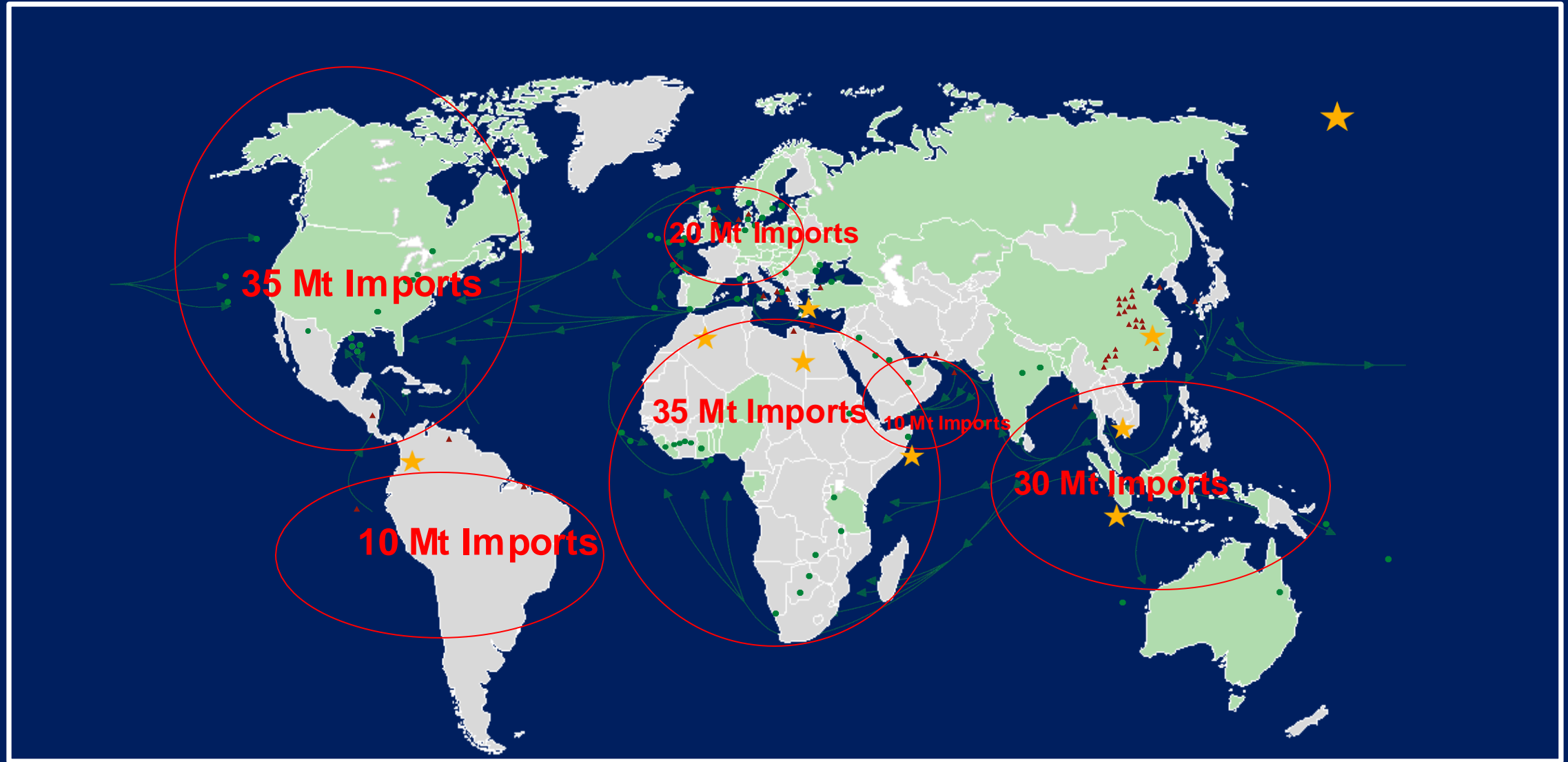
- A Competitive advantage & a strategic tool, they all have international trade company since 40 years
- All raw materials mainly dry bulk products
- Global trade office benefits of the market opportunities and obtains an additional margin
- China is the largest importer of dry bulk cargoes can make use of same vessels for exports. The cost of an international trade unit is less than 1 US\$ per ton traded.
- The challenge to become a leader in global trade is to control strategic flows and capture major import markets. The key is to minimize the logistic and transport cost
- The opportunity is to capture 100Million tons import market and to consolidate export power

“Where are Export Markets”

According to On Field® Research the best cement markets in the world will be Sub-Saharan Africa (with a projected growth of +77% by 2030) and India (growth of +42%) and North America (+20%) in the foreseeable future.



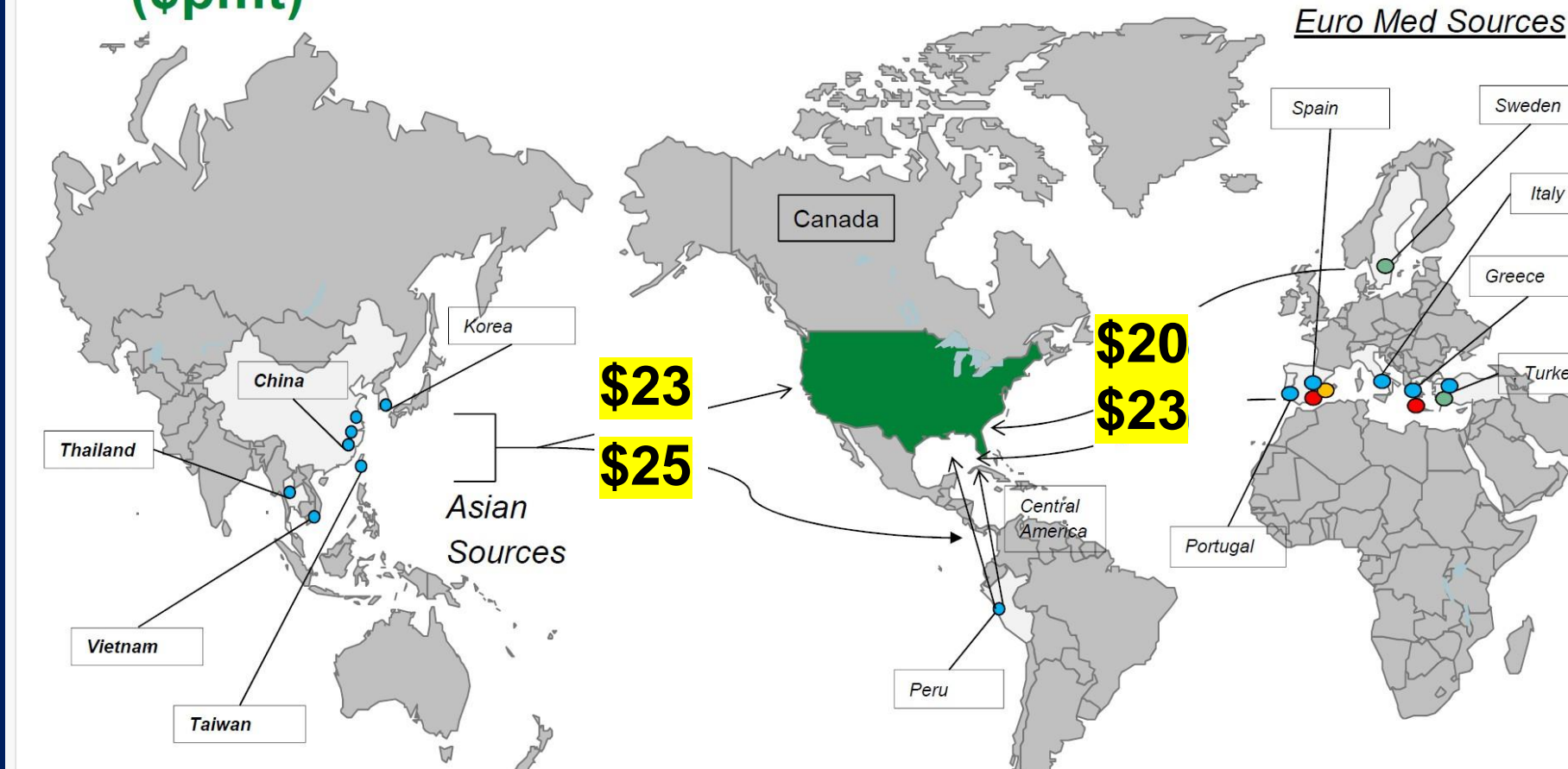
CEMENT & CLINKER IMPORT MARKETS IN THE WORLD



TOTAL CEMENT AND CLINKER SEABORN IMPORT DEMAND IN THE WORLD IS ESTIMATED TO BE ABOUT 140 Mt

Conquering the Global Cement Market

■ What will be the transport cost for reaching USA?
(\$pmt)



Transport cost in bulk to USA is not expensive due to low freight rates

Global Cement Trade - Export Opportunity?

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Divergent Priorities and Strategies

- The priorities and strategies of Western cement multinationals diverge significantly from those of regional and local leaders in emerging markets. This contrast is evident through actions such as withdrawing from high potential cement markets, redirecting investments towards non-cement ventures in developed countries, and emphasizing areas like software applications, digitalization, and green products in mature markets.
- The Global multinational cement groups can access large funding for expensive Carbon Capture Projects whereas independent companies cannot, consequently will have to exit the industry
- Recognizing these disparities underscores the critical need for collaboration within the World Cement Association, enabling the exchange of knowledge and alignment on long-term objectives. The distinct differences in getting access to international funds, and priorities between major European cement companies and their counterparts in emerging markets reflect unique regional challenges, regulatory landscapes, and market dynamics.
- Consequently, many independent cement groups recognize the value of joining forces within the World Cement Association, the largest network of independent cement producers committed to addressing the real agendas of emerging market producers over the long term.



Conclusion - Warnings for the future of the cement industry

- In conclusion, the global cement industry stands at a pivotal juncture, navigating through diverse trends and forecasts that shape its trajectory in the coming years.
 - For the first time in history cement production can be a net zero industry
 - Large multinational companies are receiving and investing Billions of Dollars of funds to put in place extremely expensive carbon capture units. What will do other independent cement companies?
 - World cement industry has huge over capacity of more than one Billion tons ! Can we ship the surplus?
- While the especially European cement industry exhibits resilience through sustained gross margin expansion driven by higher prices and reduced fuel costs, challenges persist, especially in emerging markets where free market dynamics prevail, and sustainable practices and alternatives remain underutilized.
- The industry's commitment to sustainability demonstrates its dedication to environmental stewardship and innovation, despite divergent priorities and strategies between Western multinationals and regional emerging market leaders.
- Collaboration among independent companies, facilitated through **World Cement Association**, emerges as a crucial avenue for knowledge exchange and alignment on long-term objectives, ensuring the industry's equal treatment, resilience and adaptation to evolving market dynamics ,therefore survival of the independent cement industry.



**REGISTER YOUR COMPANY TODAY AND JOIN THE
WORLD'S LARGEST INDEPENDENT CEMENT
ASSOCIATION AND SUPPORT OUR LEADERSHIP**



www.worldcementassociation.org