



Who's who in North American cement imports

Ad Ligthart
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CONSULTANTS

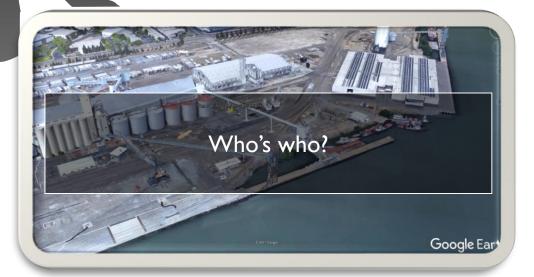
Cement Distribution Consultants an introduction

an introduction								
Market knowledge	Consulting	Project / interim management						
 The global cement industry on Google Earth. The most comprehensive global database on waterside cement plants, waterside grinding plants and terminals. www.cementdistribution.com (a free and comprehensive website on cement trade and distribution). Authors of the Handbook on Global Cement Trade and Distribution. 35 Years experience. 	 The ability to advise customers on every aspect of cement and clinker trade and distribution including strategical, economical, logistical, technical and operational aspects as well as sourcing, shipping, facilities, handling systems, etc., etc. A clear vision on port and facility design that can adapt to changing trade and industry conditions. Projects realised on every continent. Currently consultant to 5 terminal projects in North America of which the two largest cement terminals in the 	 Substantial experience in realising projects and managing complete logistical chains. Examples: Setting up and managing the cement and fly ash supply to a large construction project including self-discharging cement carriers, floating terminal, etc. Redevelopment of a large brown field bulk terminal. Setting up a fly ash import operating Resolving operational and managerial problems of a grinding facility. 						
	world.							



INTRODUCTION

To understand the dynamics of the current cement import situation in North America it is important to look behind the statistics. To understand what is going to happen in the coming years you need to look at the players. Why is there a wave of new terminal with so many of the existing terminals still mothballed? Where will the further growth of imports materialize? Who will do this? To get the answers we need to know who's who in North American cement imports,





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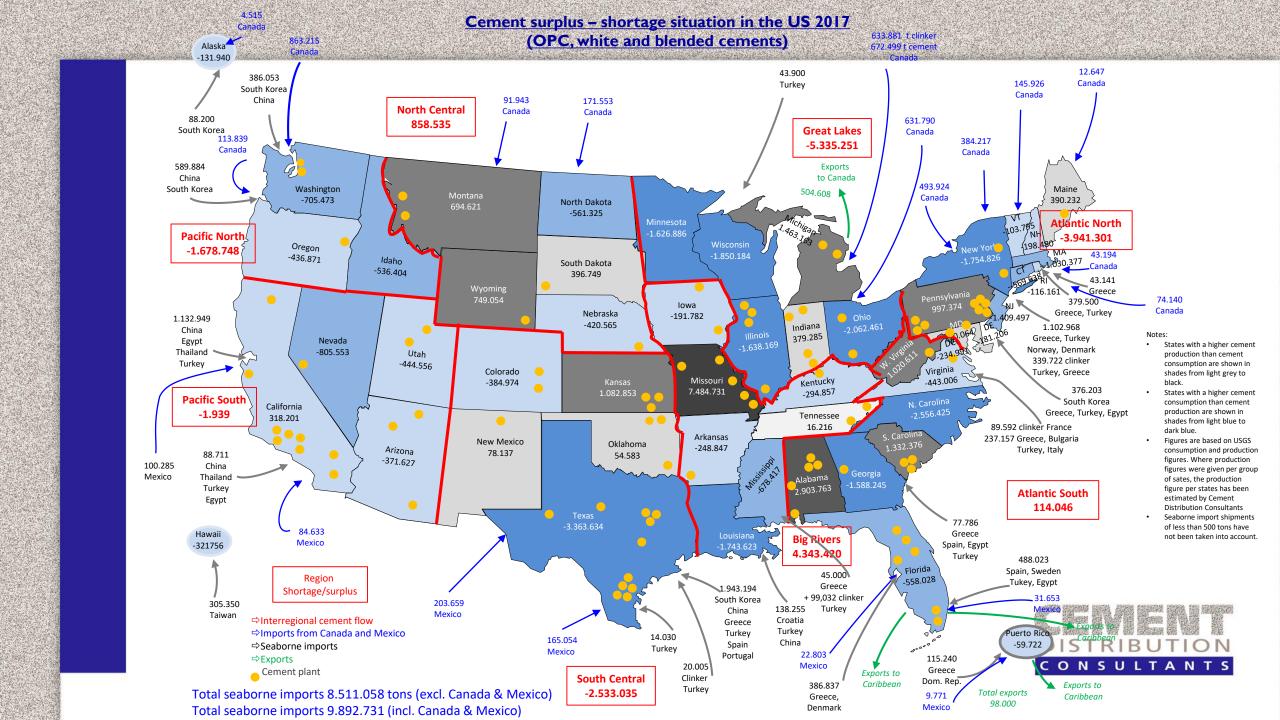
Final considerations



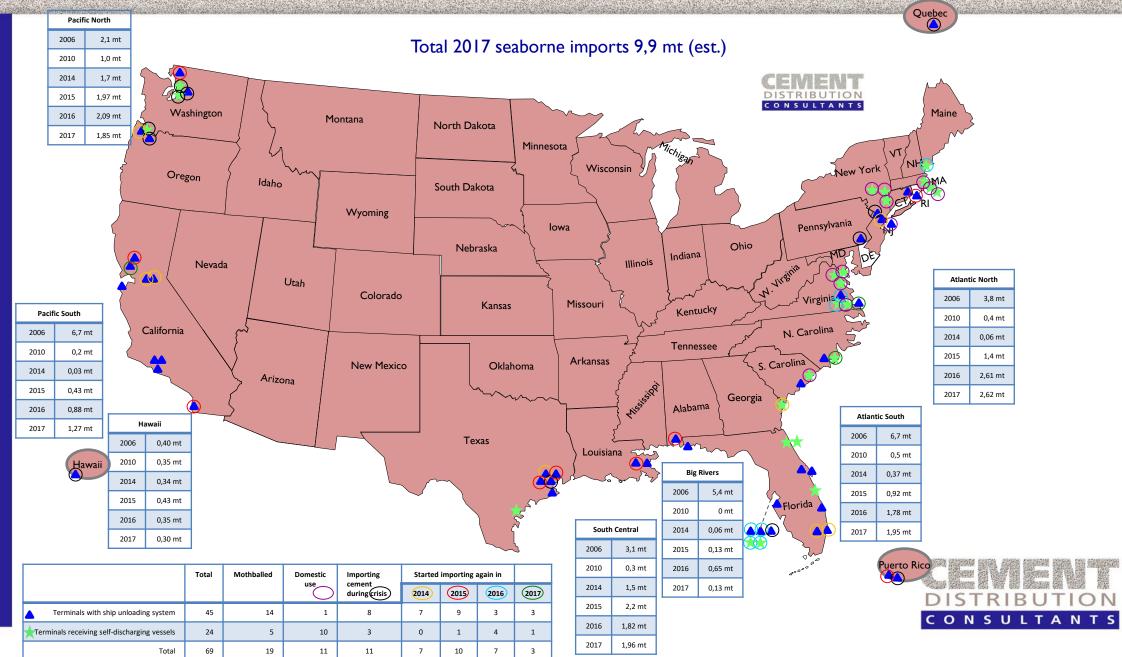


The current US import situation

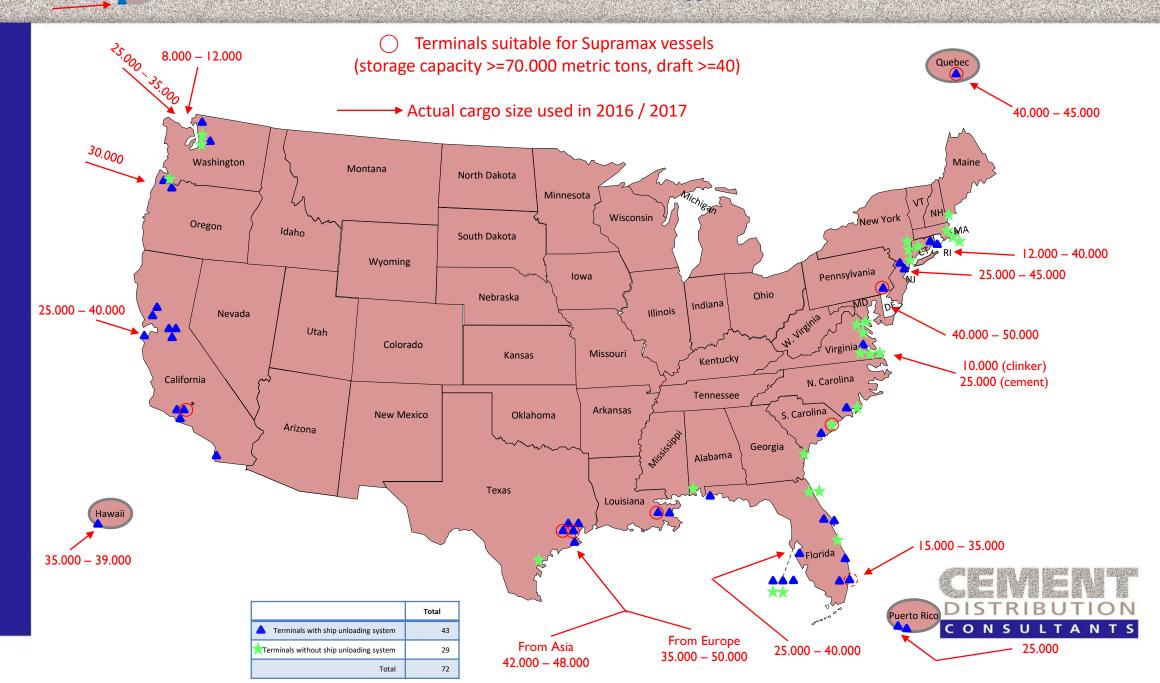




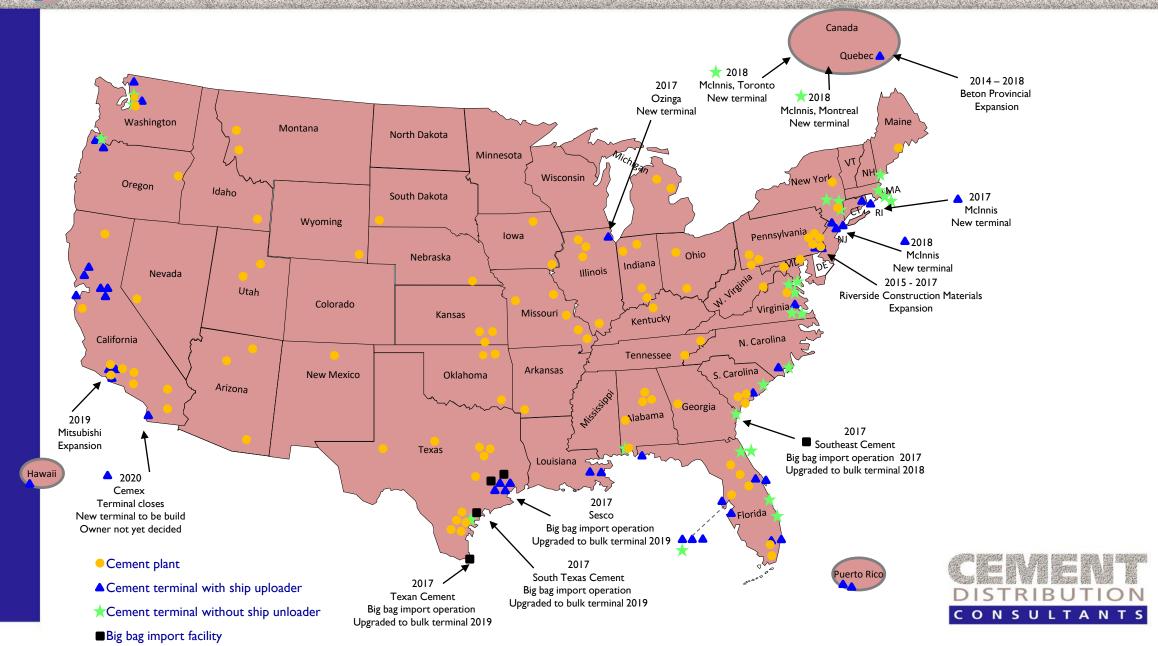


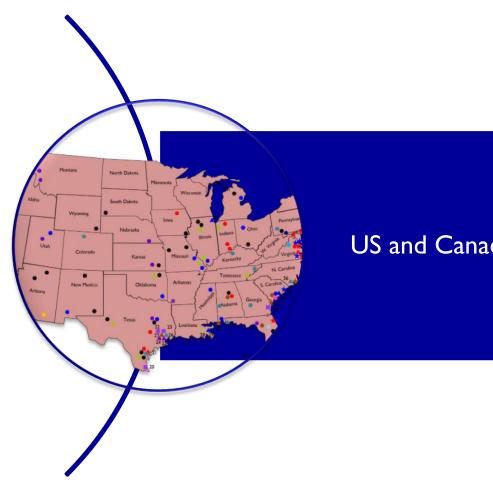


Are US terminals able to handle bigger vessels



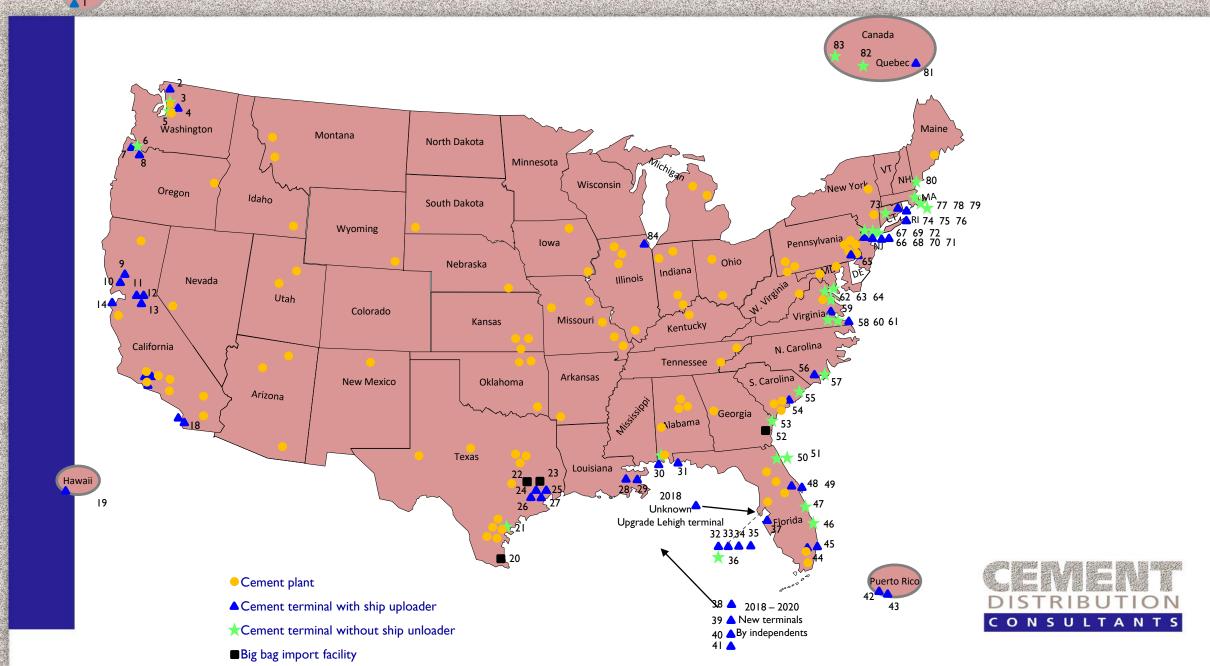








Seaborne cement terminal ownership







No.	Location	Owner	Туре	Remarks	No.	Location	Owner	Туре	Remarks
1	Anchorage AL	CPC (Taiheiyo)		Active	14	Redwood City CA	Cemex	_	Not active
2	Everett WA	Lehigh (Heidelberg)		Active	15	Los Angeles CA	CPC (Taiheiyo, Lehigh)		Not active
3	Seattle WA	LafargeHolcim		Active, cement supply from LH Canada	16	Long Beach CA	Cemex	A	Not active
4	Seattle WA	Lehigh (Heidelberg)	*	Active, cement supply from Lehigh Canada	17	Long Beach CA	Mitsubishi		Not active, preparing for expansions
5	Seattle WA	CPC (Taiheiyo)		Active	18	San Diego CA	Cemex		Received some white cement shipments from Mexico
6	Vancouver WA	LafargeHolcim	*	Active, cement supply from LH Canada	19	Barbers Point HI	Hawaiian (Ind)		Active
7	Portland OR	Ash Grove (CRH)	A	Active	20	Brownsville TX	Texan Cement (Ind)		Active, started 2017
8	Portland OR	CPC (Taiheiyo)		Active	21	Corpus Christi TX	Lehigh (Heidelberg)	*	Not active
9	Sacramento CA	Two Rivers (A&A, Lehigh)	A	Active	22	Houston TX	Sesco (Ind)		Active, white + grey cement
10	Sacramento CA	Cemex	A	Active	23	Houston TX	Royal White (Ind)		Active, white cement
11	Stockton CA	CPC (Taiheiyo)	^	Active	24	Houston TX	Houston Cem. East (CRH, Lehigh, Buzzi)	^	Active
12	Stockton CA	Sunshine (Lehigh)	^	Closed	25	Houston TX	Houston Cem. West (CRH, Lehigh, Buzzi)	A	Active
13	Stockton	Lehigh (Heidelberg)		Active (GGBFS)	26	Houston TX	Cemex		Active



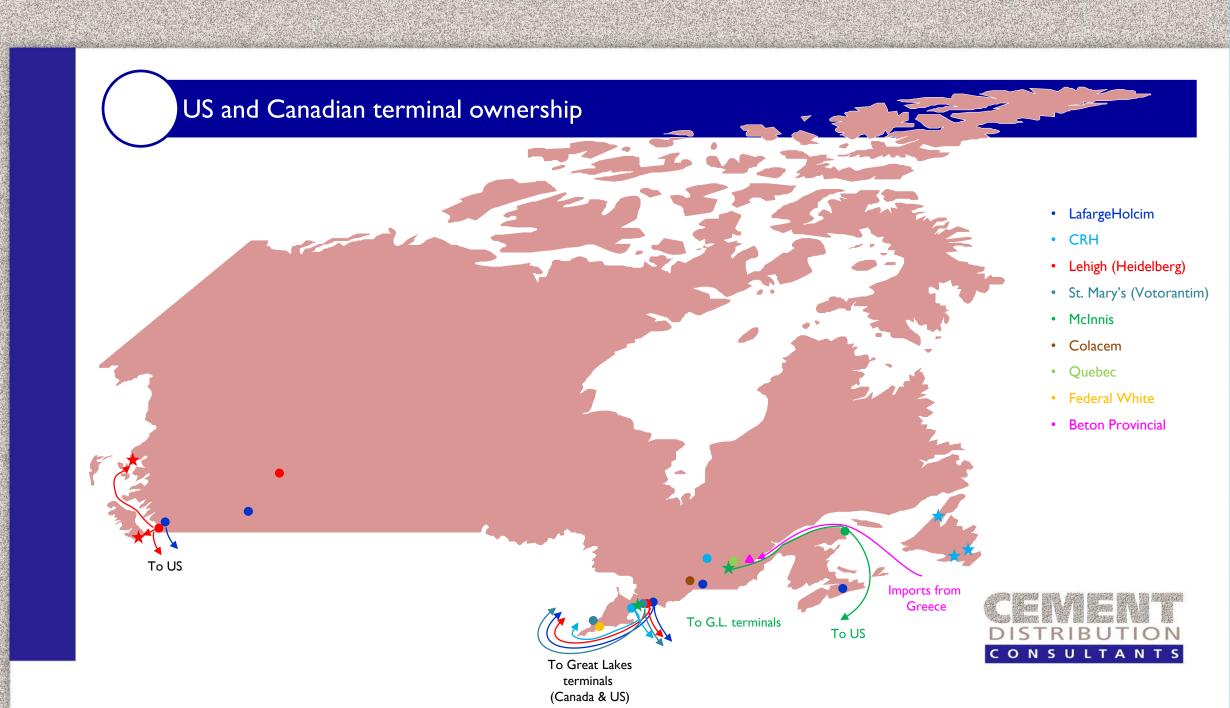


No.	Location	Owner	Туре	Remarks	I	No.	Location	Owner	Туре	Remarks
27	Houston, TX	Argos	_	Not active	4	14	Port Everglades FL	Lehigh (Heidelberg)	_	Active
28	New Orleans LA	Buzzi	A	Used for domestic distr.	4	45	Port Everglades FL	Cemex		Active, white cement shipments from Mexico
29	Reserve LA	LafargeHolcim		Used for domestic distr.	4	46	West Palm Beach FL	Cemex		Not active
30	Mobile AL	Argos		Active	4	47	Ft Pierce FL	Florida Sun (American)		Not active
31	Pensacola FL	Cemex		Not active	4	48	Port Canaveral FL	Cemex		Not active
32	Tampa FL	Argos		Not active, domestic supply by trucks	4	49	Port Canaveral FL	Lehigh (Heidelberg)		Not Active
33	Tampa FL	Titan		Active	5	50	Jacksonville FL	Lehigh (Heidelberg)		Not active (receives cement by road)
34	Tampa FL	Cemex	*	Active	5	51	Jacksonville FL	LafargeHolcim	*	Not active
35	Tampa FI	Cementir		Active, white cement	5	52	Savannah GA	Argos	*	Not active
36	Tampa FL	Unknown	?	Under construction	5	53	Savannah GA	Southeast (Ind)		Active, started 2017
37	Port Manatee FL	Eastern (American)		Active	5	54	Charleston SC	LafargeHolcim		Not active
38	Gulf Area	Independent		Expected 2018-2019	5	55	Georgetown SC	LafargeHolcim	*	Domestic use
39	Gulf Area	Independent		Expected 2018-2019	5	56	Wilmington NC	Argos	*	Not active
40	Gulf Area	Independent		Expected 2018-2019	5	57	Wilmington NC	Cemex		Not active
41	Gulf Area	Independent		Expected 2018-2019	5	58	Chesapeake VA	LafargeHolcim	*	Domestic use
42	San Juan PR	Argos		Active	5	59	Chesapeake VA	Titan		Active
43	San Juan PR	Cemex		Not active	6	60	Norfolk VA	Lehigh (Heidelberg)	*	Domestic use

No.	Location	Owner	Туре	Remarks	No.	Location	Owner	Туре	Remarks
61	Newport News VA	Pier X (Lehigh)	^	Active	73	New Haven CT	LafargeHolcim	*	Domestic
62	Baltimore Md	LafargeHolcim I	*	Domestic	74	Providence RI	LafargeHolcim		Active
63	Baltimore MD	LafargeHolcim 2	*	Domestic	75	Providence RI	Lehigh		Active
64	Baltimore MD	Lehigh	*	Domestic	76	Providence RI	McInnis (Ind)		Active
65	Bristol PA	Riverside (Ind)		Active	77	Boston MA	LafargeHolcim	*	Domestic + Canada
66	Newark NJ	Titan		Active	78	Boston MA	Lehigh	*	Domestic
67	Brooklyn NY	LafargeHolcim	*	Domestic	79	Boston MA	Dragon	*	Domestic
68	Brooklyn NY	Lehigh		Active	80	Newington NH	Dragon	*	Domestic
69	Bayonne NJ	LafargeHolcim	*	Domestic	81	Quebec QC	Beton Provincial (Ind)		Active
70	Brooklyn NY	NYC (Ind)		Domestic	82	St. Catharine QC	McInnis (Ind)	*	Domestic
71	Bronx NY	McInnis (Ind)		Under construction	83	Oshawa ON	McInnis (Ind)	*	Domestic
72	Queens NY	LafargeHolcim	*	Domestic	84	Chicago IL	Chicago (Ind)		Active (via New Orleans, slag)

Note: (Ind) = Independent = No cement production facility in US







The effect of type of ownership



The effect of type of ownership Seaborne clinker imports Seaborne Seaborne distribution distribution Plant Seaborne cement imports

Sales areas and cement flows in over supply situation.

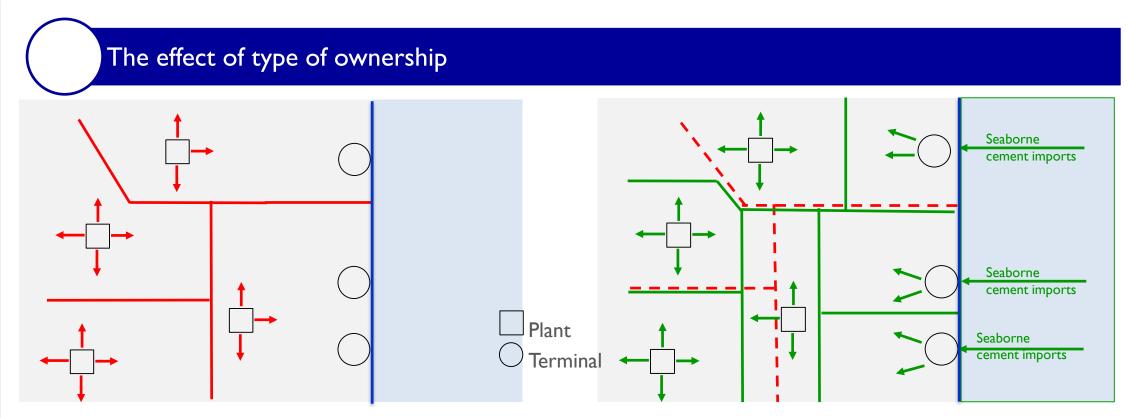
Sales areas and cement flows in a shortage situation.

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I) Production group with at least one cement plant on the coast.

In an oversupply situation all imports are stopped and terminals are used for domestic distribution only. In a shortage situation one (or more) of the materials are used for imports and the sales areas of each facility move more inland. In

both cases a maximum possible plant utilisation is achieved and market share receiving the same.



Sales areas and cement flows in over supply situation.

Sales areas and cement flows in a shortage situation.

2) Production group with inland plants and terminals.

In an oversupply situation all imports are stopped and terminals are mothballed. In a shortage situation the terminals import cement and the sales areas of the plants move inland. Plant utilisation stays as high as possible and market share remains the same. In practice this is not as easy as it seems!

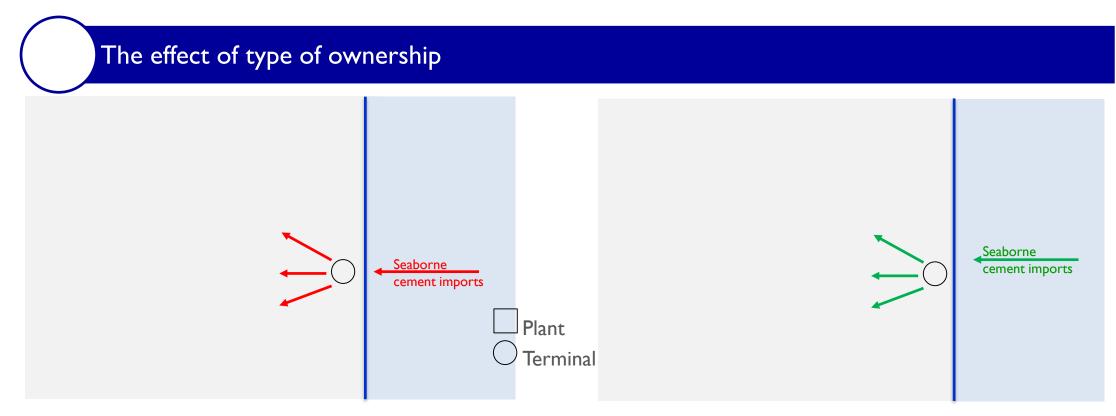
The effect of type of ownership **Transshipment** Seaborne cement imports Plant **Terminal**

Sales areas and cement flows in over supply situation.

Sales areas and cement flows in a shortage situation.

3) Production group with plants and terminals on the inland waterways.

In an oversupply situation all imports are stopped and all river terminals are supplied from the plants. In a shortage situation seaborne imports and transhipment supply part of the terminals. In both cases plant utilisation is as high as possible whilst market share remains the same.



Sales areas and cement flows in over supply situation.

Sales areas and cement flows in a shortage situation.

4) Ready mix group imports its own cement.

Both in oversupply and shortage situation the terminal imports cement but for the own use of the group only.





Sales areas and cement flows in over supply situation.

Sales areas and cement flows in a shortage situation.

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5) Terminal owned by cement trader.

Trading terminals usually only import in shortage situation. In an oversupply situation they are vulnerable as they do not have a guaranteed market and can be subject to antidumping duties.



The effect of ownership on overall trade margins (Example only!!)

Plant ownership 100%	Terminal ownership 100%	Plant ownership 100%	Terminal ownership 50%	Plant ownership 100%	Terminal ownership 0%
Same (multinational) o		Same (multinational) export plant and 50%	owner owns 100% of 6 of import terminal	Export plant owner has no ownership in import terminal	
Achieved total margin (20 + 6 +	per ton is B + C + F 50 = US\$76)		n per ton is B + C + 0,5 F + 25 = US\$51)	+ 0,5 F Achieved total margin per ton is B + C $(20 + 6 + 50 = US$26)$	

	Export plan	t	Shipping	Terminal				
A	В	С	D	E	F			
Pure production and loading cost	Improved prod.cost by exports	Marging (contribution) towards capital cost and profit	Shipping cost	Pure terminal operating cost	Marging Contribution towards capital cost and profit			
F.O.B CIF Ex. terminal								

\$60

All figures assumed and indicative only and in US\$/metric ton

\$36

B is the improved production cost over the <u>full</u> production of the export plant. When the production of a plant increases with 25% because of exports and production, cost savings are \$5 m/ton. As a result the contribution to the margin of the lower production cost per exported ton is \$20.

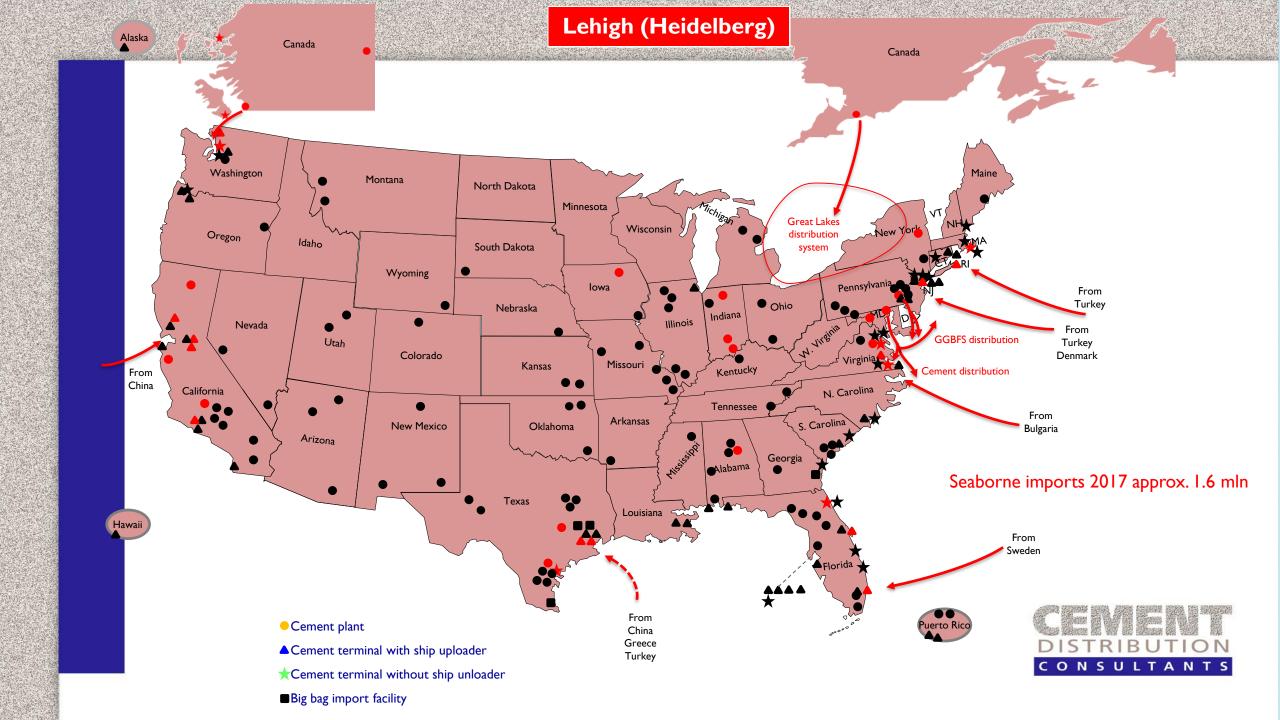
\$42

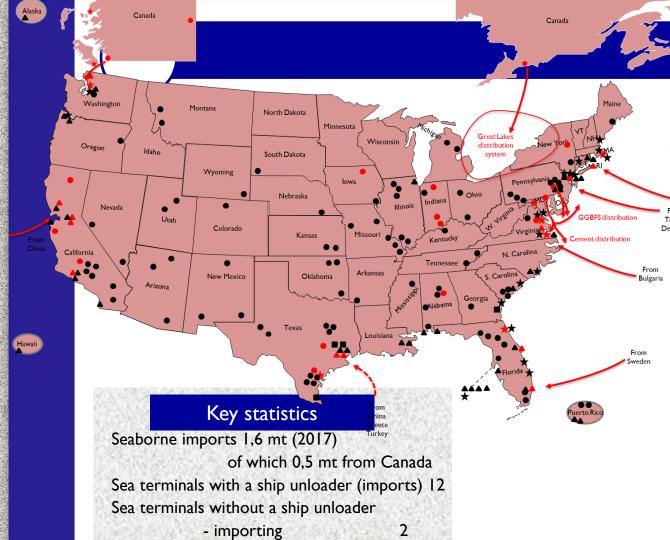


\$70









- domestic distribution

Great Lakes terminals

Big River terminals

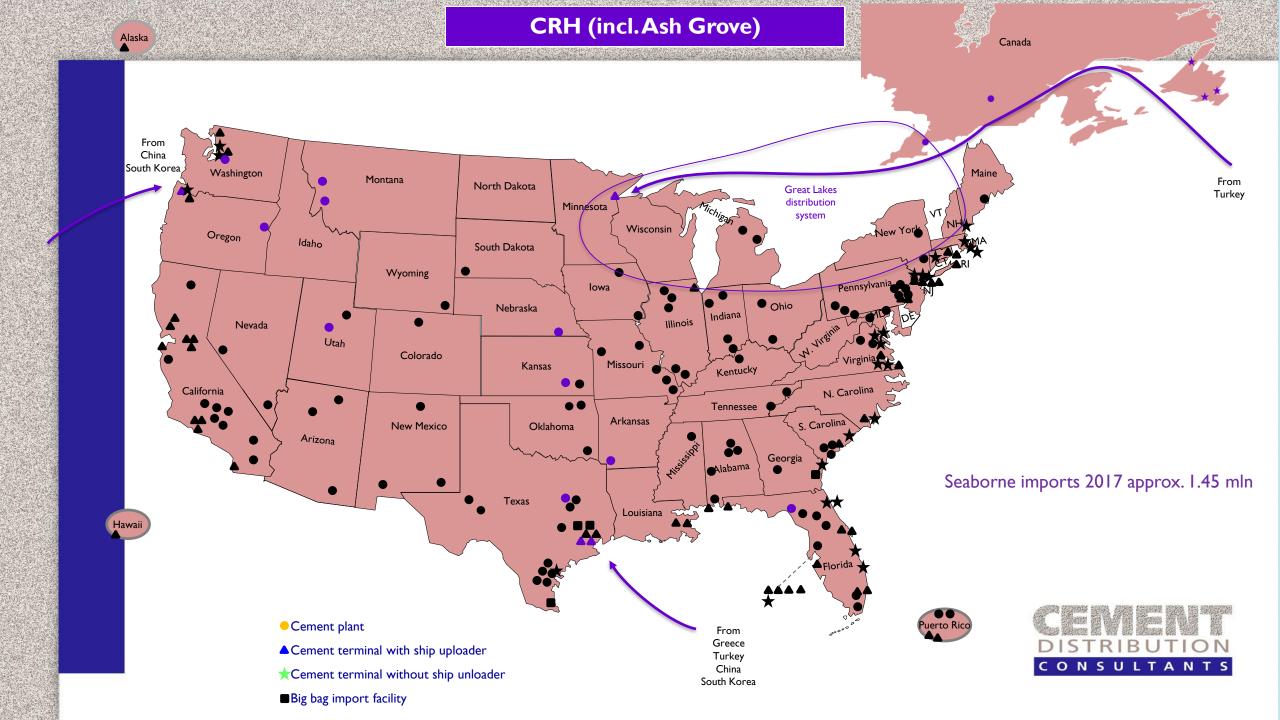
US cement plants

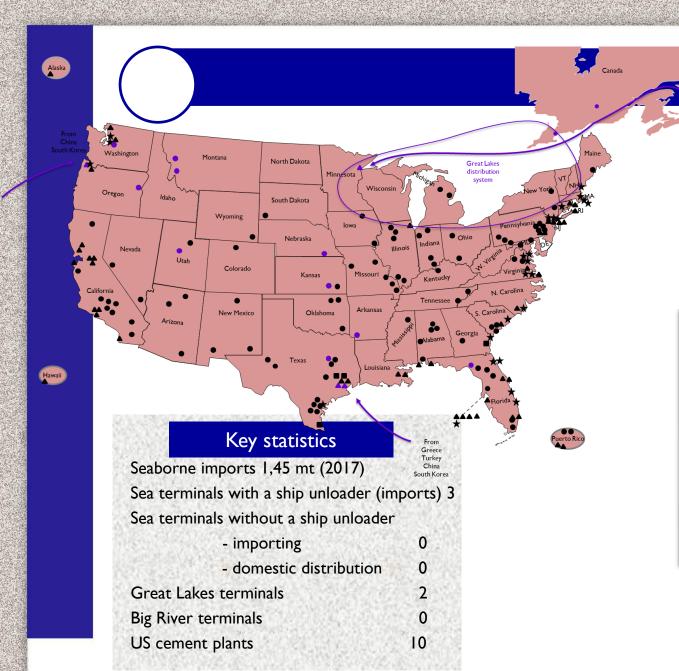
Lehigh (Heidelberg)

Lehigh has a substantial seaborne distribution and import facility network consisting of a distribution network in the northwest importing cement from Canada, a slag and Cement domestic distribution system in the Northeast and import impressive number of import terminals on all coasts. Lehigh also has a distribution networks on the Great Lakes.







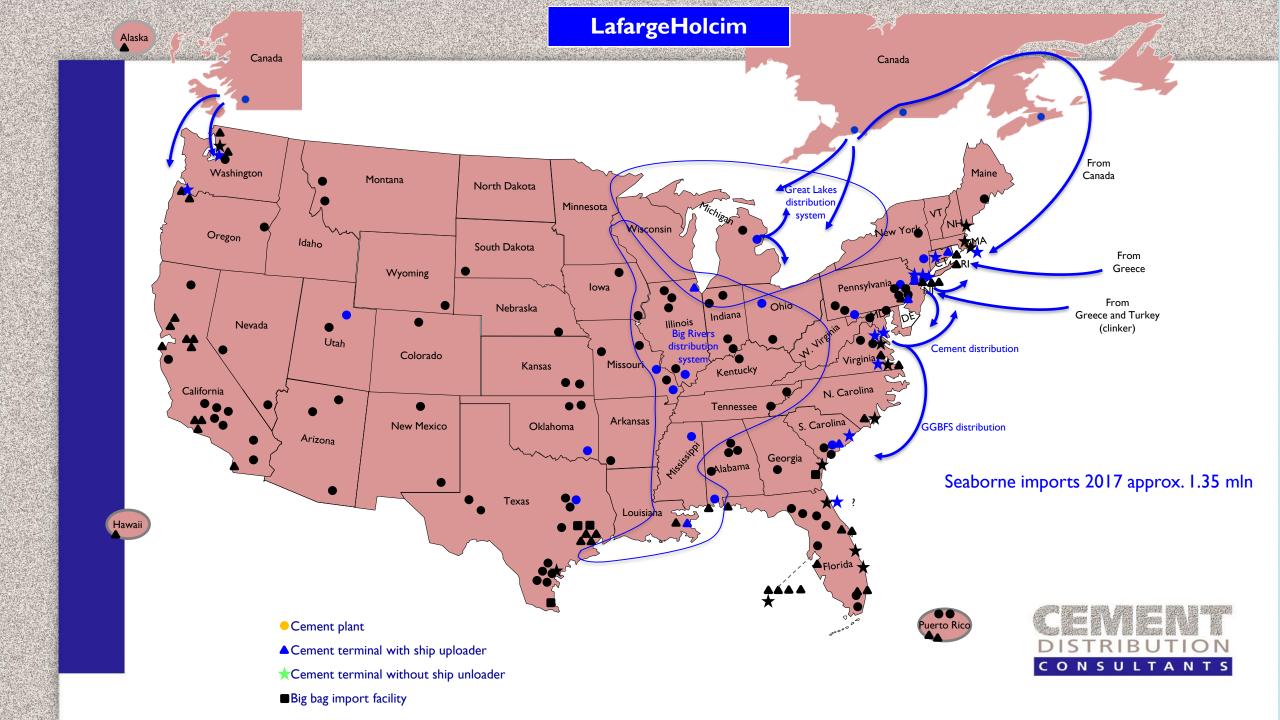


CRH (incl. Ash Grove)

CRH (incl. Ash Grove) has three large seaborne import terminals that support its cement plants very well. It also has a small distribution network on the Great Lakes to supply its ready mix assets in the US Great Lakes region. One of the Great Lakes terminals has been used for seaborne imports in 2017. The recently acquired cement plant in Florida, American cement (see separate sheet) has also two terminals.









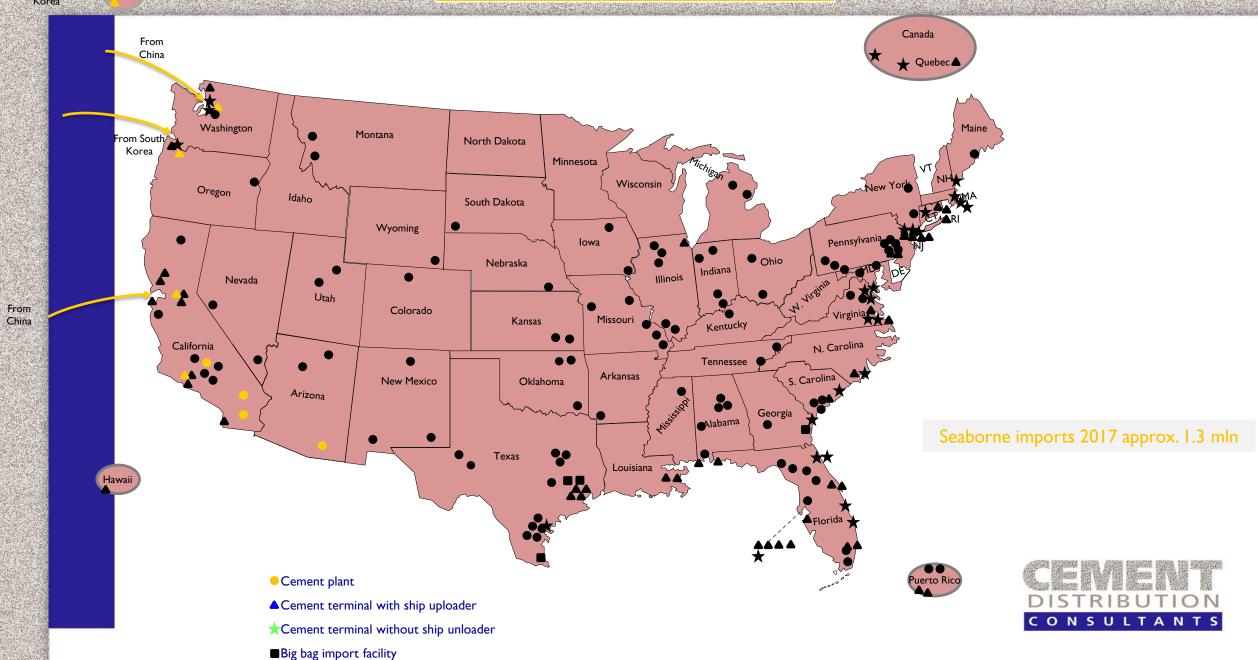
LafargeHolcim

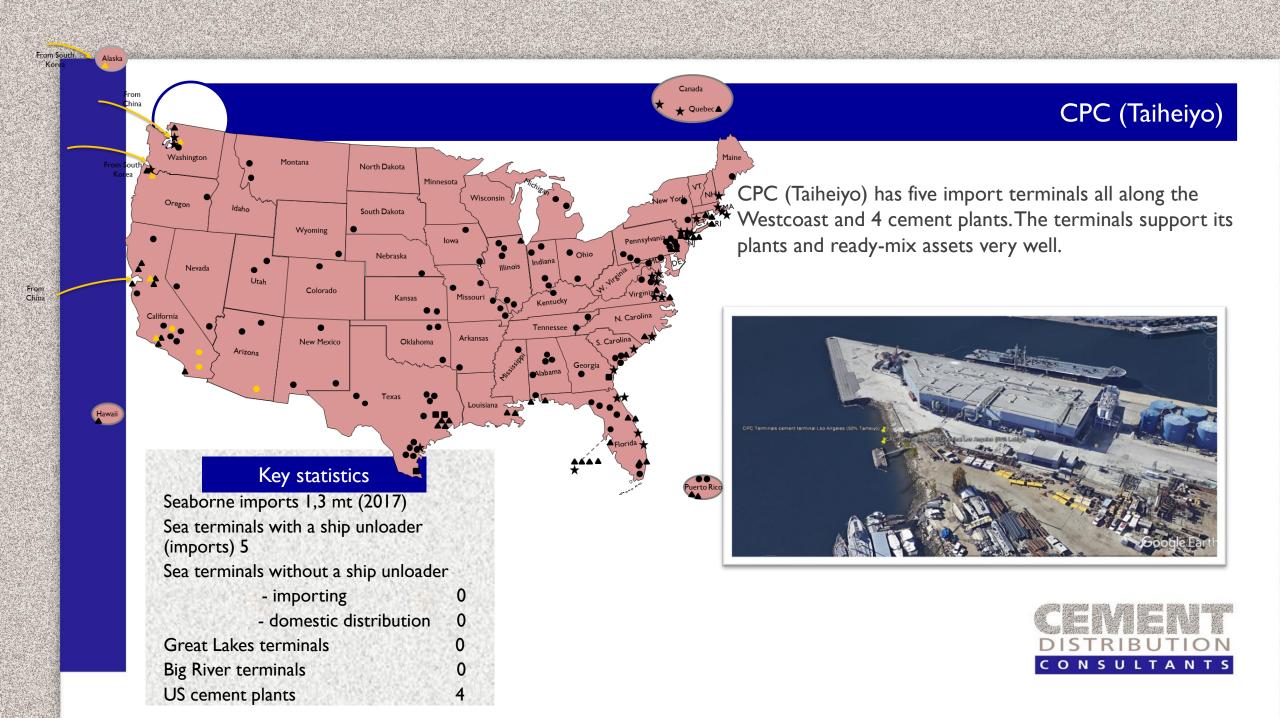
LafargeHolcim has an extensive seaborne distribution and import terminal network consisting of a distribution system in the Northwest bringing in cement from Canada, distribution system in the Northeast for slag and cement and import terminals on the East Coast and Mississippi. It also has distribution systems on the Great Lakes and the Big Rivers. The seaborne import figure of 2017 is a bit inflated as it included 0,35 mt clinker for the Ravenna plant during its modification.





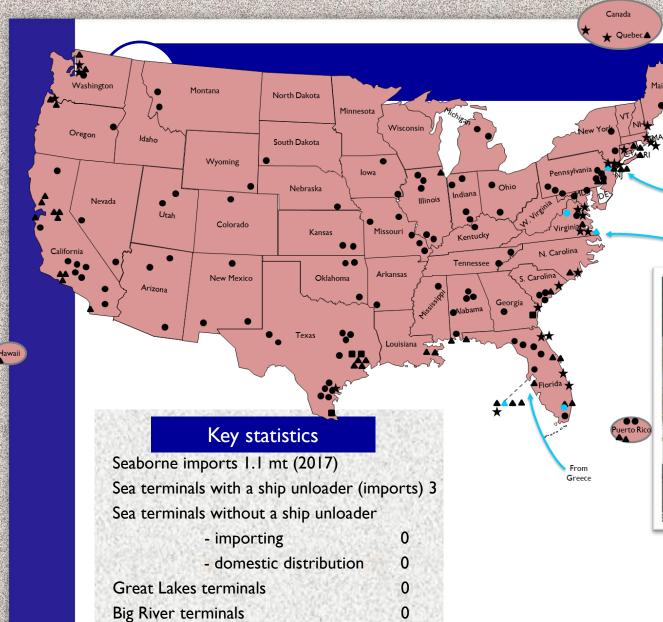
CPC (Taiheiyo)





Titan





US cement plants

Titan

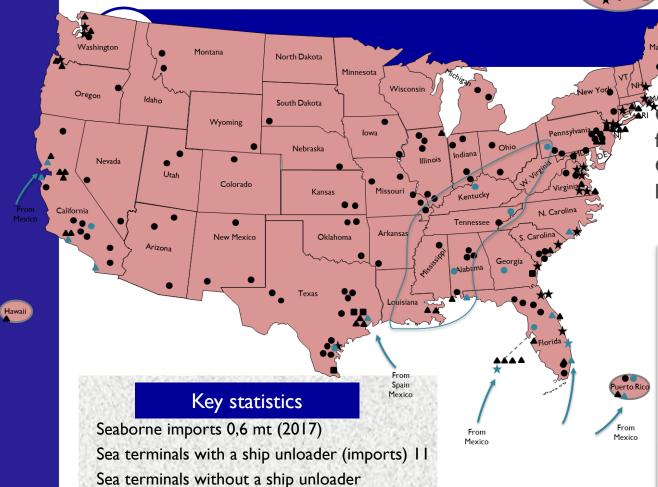
Titan has a two cement plants and three large import terminals on the US east coast between New York and Fiorida: Although this is a small network Titan is within the top five cement importers.

From Greece









10

- importing

Great Lakes terminals

Big River terminals

US cement plants

- domestic distribution

Cemex

Cemex has a large number of seaborne import terminals focussed on the Southwest, Southeast and Gulf coasts.

Quite a few of these terminals are still inactive. Cemex also has a distribution network on the Big Rivers.

Canada







Hawaii

Argos

Argos has a network focussed on the Gulf and Southeast coasts. It has six import terminals going back to the days that it did not have cement plants in the US. These terminals are partially inactive.



North Dakota South Dakota Wyoming Nebraska Colorado New Mexico Oklahoma Puerto Rice Key statistics Seaborne imports 0,54 mt (2017) Sea terminals with a ship unloader (imports) 4

0

0

0

Sea terminals without a ship unloader - importing

Great Lakes terminals

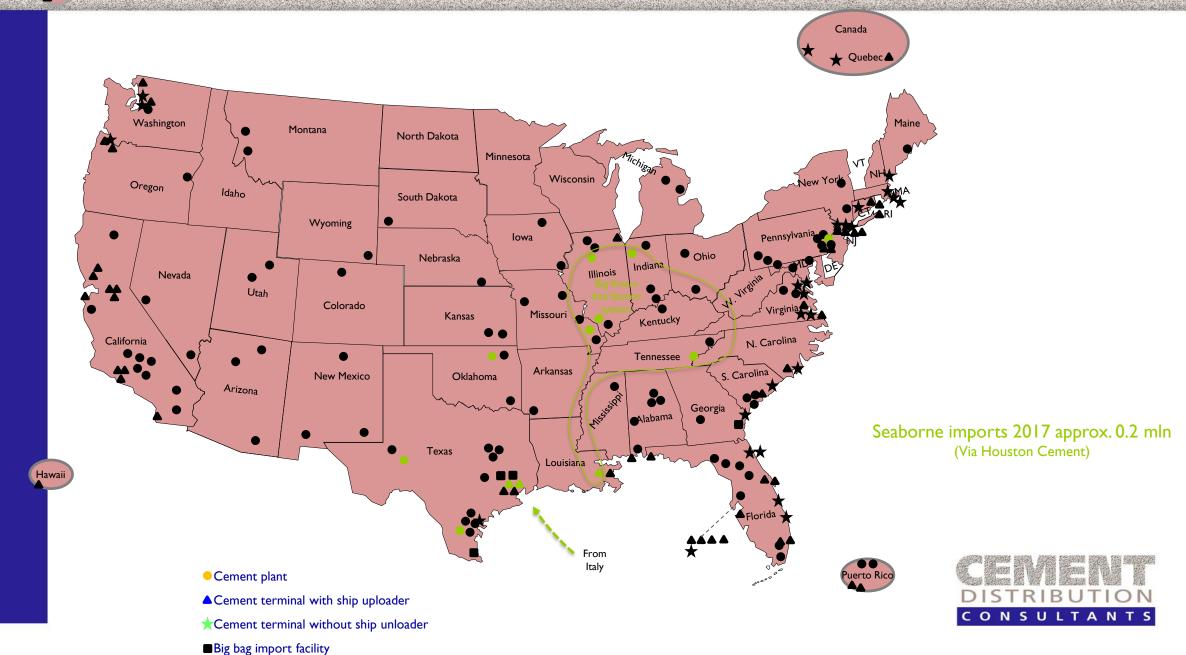
Big River terminals

US cement plants

- domestic distribution









Washingto Montana North Dakota Minnesota Wisconsin Oregon South Dakota Wyoming Nebraska Nevada Colorado Kansas New Mexico Key statistics Puerto Rico Seaborne imports 0,2 mt (2017) Sea terminals with a ship unloader (imports) 3 Sea terminals without a ship unloader 0 - importing - domestic distribution 0

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Great Lakes terminals

Big River terminals

US cement plants

Buzzi Unicem

Buzzi Unicem has an import terminal in New Orleans and a share in the two terminals of Houston cement. It has a distribution network on the Big Rivers

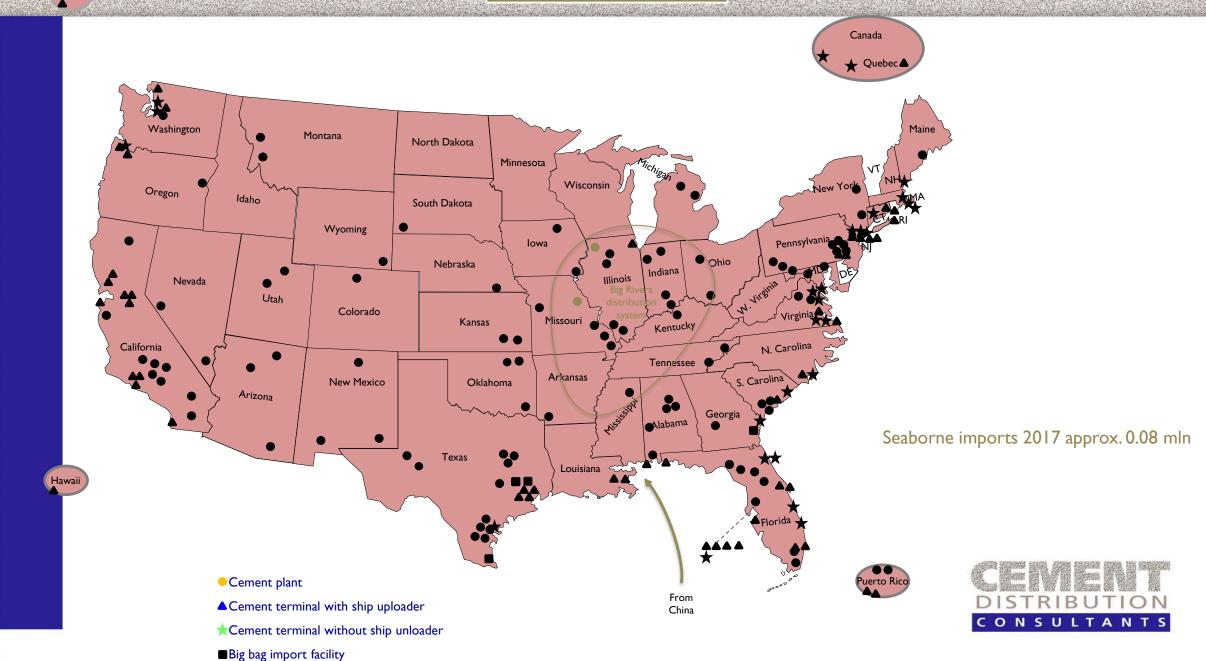
Canada

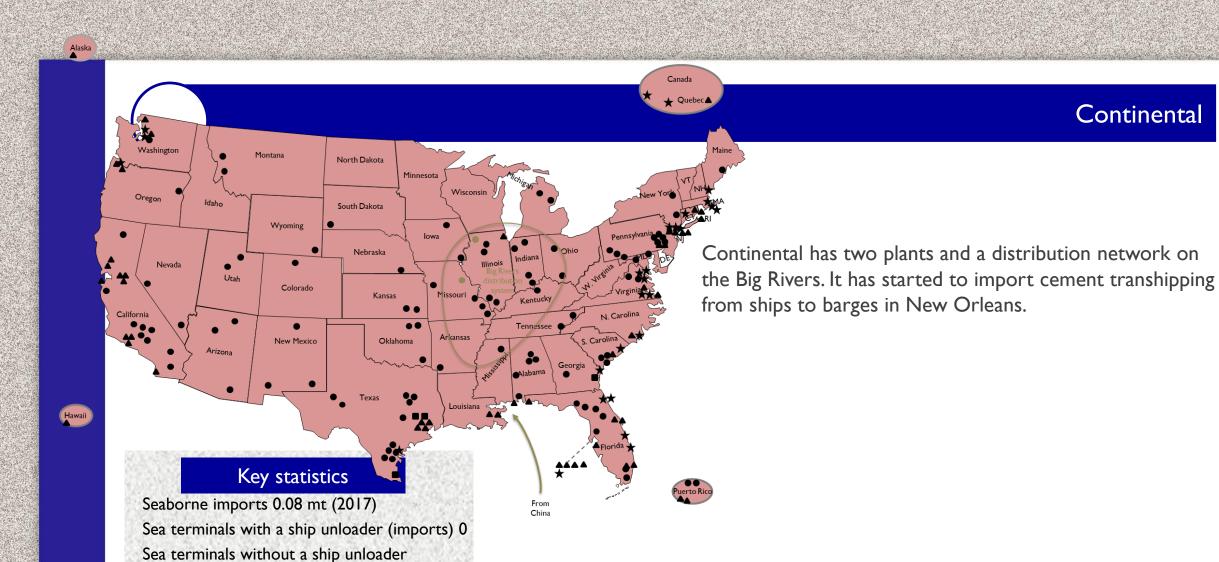
• Quebec





Continental





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- importing

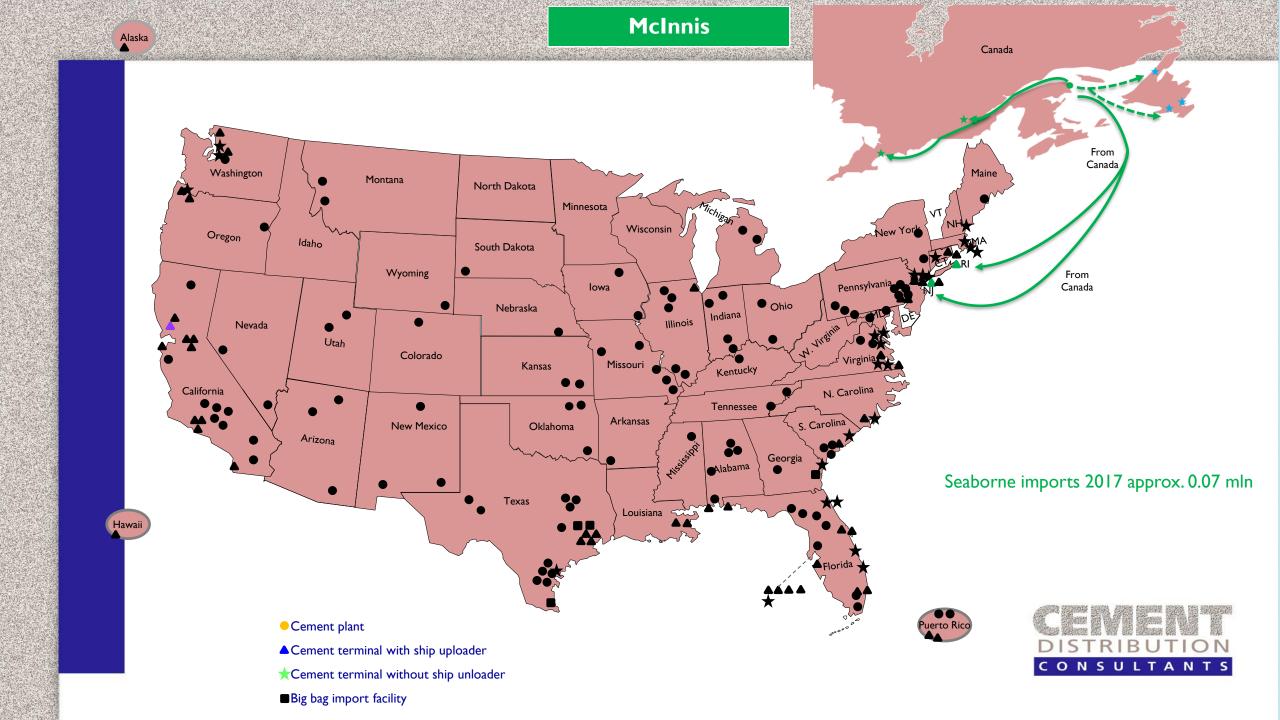
Great Lakes terminals

Big River terminals

US cement plants

- domestic distribution







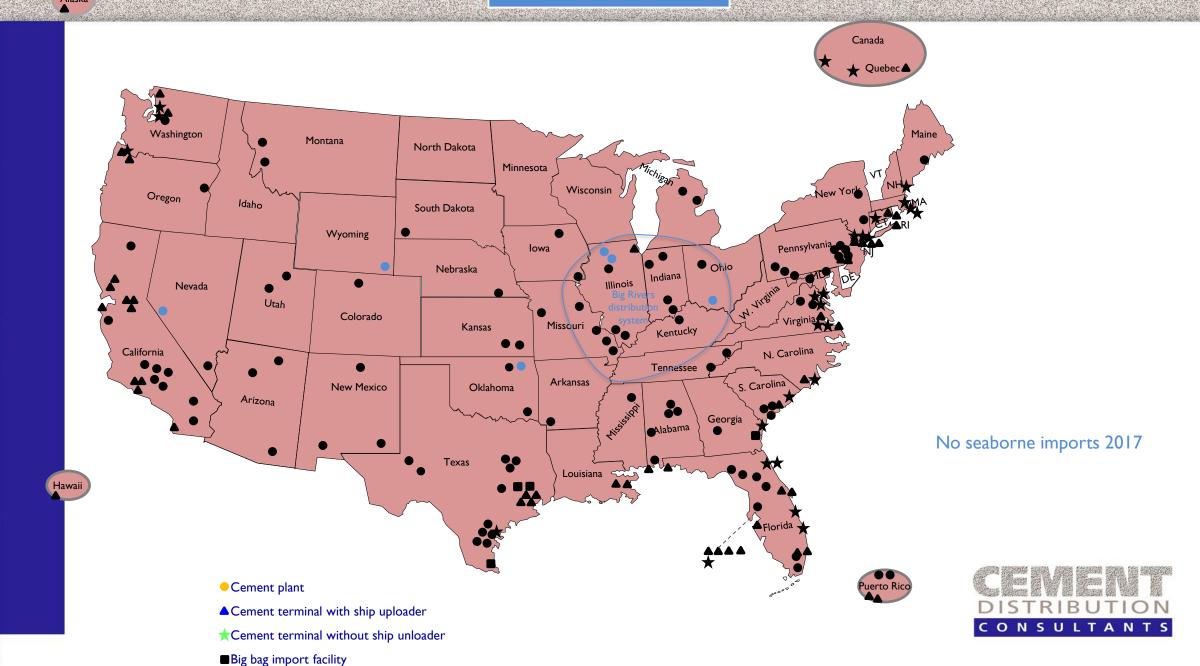
McInnis

McInn's has one operating import terminal in the US and one under construction supplied from its cement plant on the Canadian East coast. It has two terminals in Canada and also supplies the CRH terminals in Newfoundland.

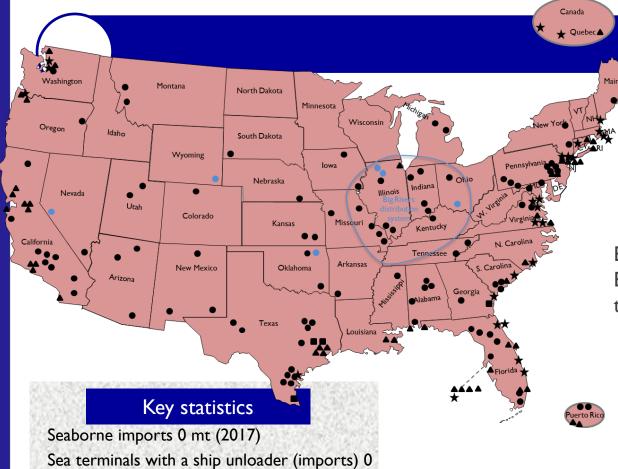




Eagle Materials







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Sea terminals without a ship unloader

- importing

Great Lakes terminals

Big River terminals

US cement plants

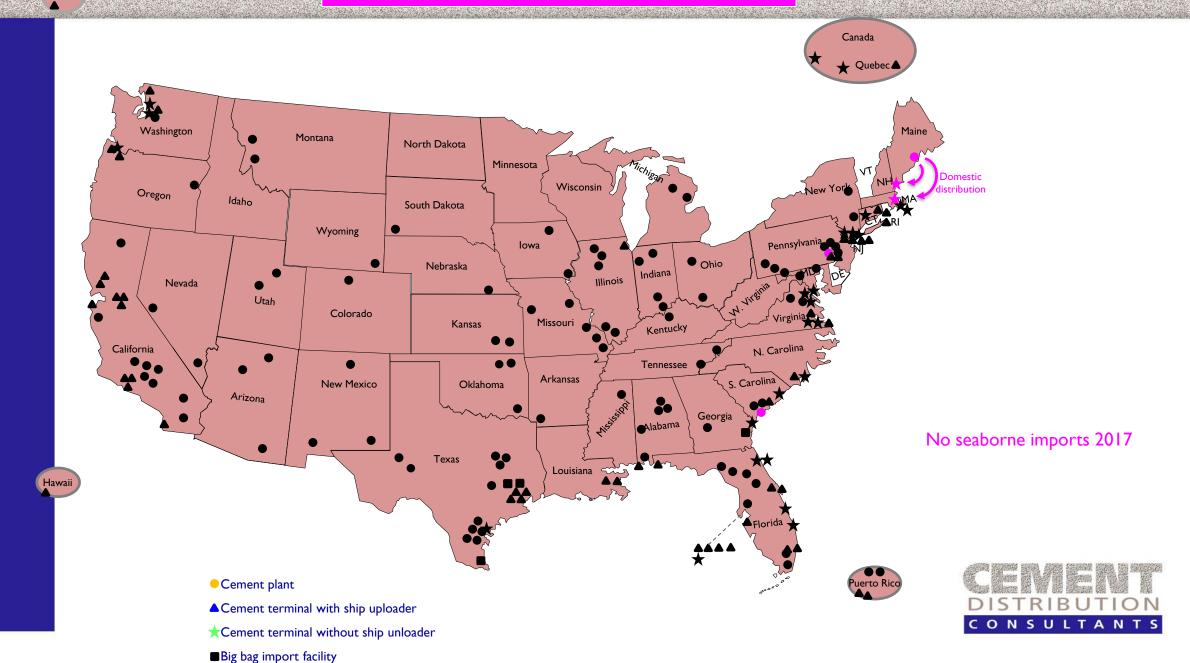
- domestic distribution

Eagle Materials

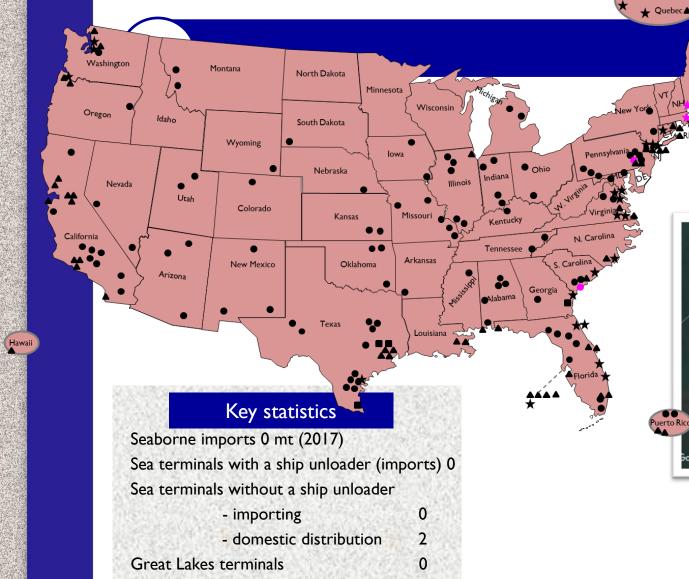
Eagle Materials has a GGBFS distribution network on the Big Rivers which possibly could be used for imports with transhipment from ship to barges in New Orleans



Elementia (Dragon, Keystone, Giant)







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Big River terminals

US cement plants

Elementia (Dragon, Keystone, Giant)

Elementia has two terminals for domestic sea distribution and three plants but lacks seaborne import capability.

Canada





Mitsubishi



North Dakota Minnesota Wisconsin Oregon South Dakota Wyoming Nebraska Colorado Kansas New Mexico Key statistics Seaborne imports 0 mt (2017) Sea terminals with a ship unloader (imports) I

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Sea terminals without a ship unloader

- importing

Great Lakes terminals

Big River terminals

US cement plants

- domestic distribution

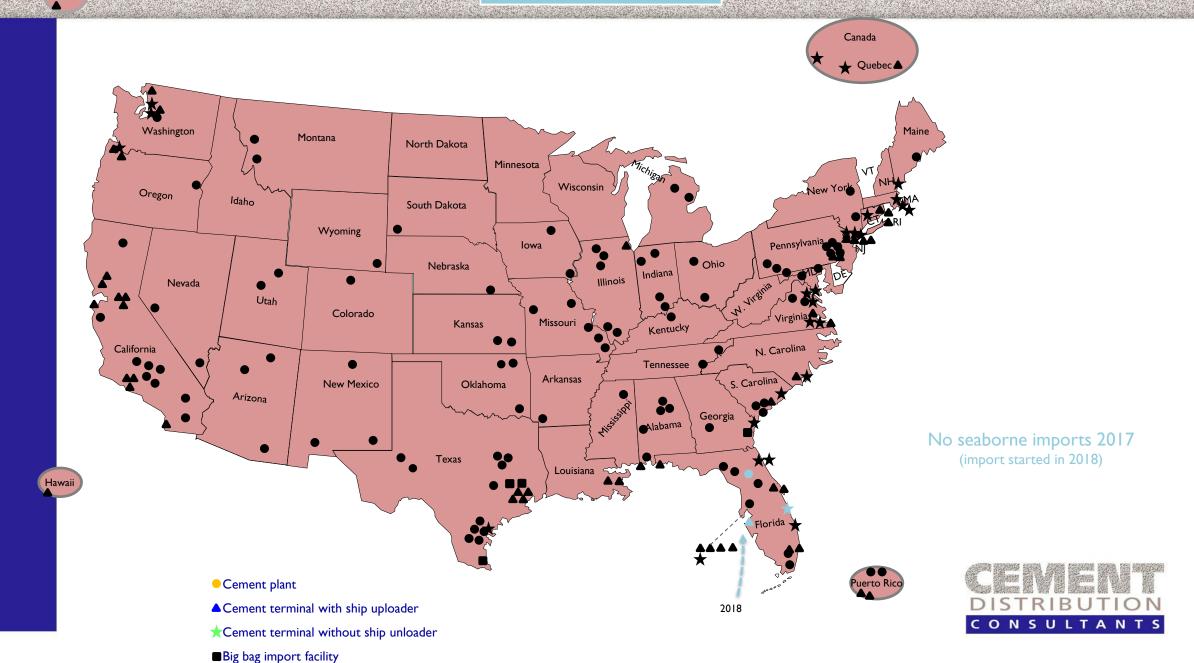
Mitsubishi

Mitsubishi has a large cement import terminal and one cement plant in California. The terminal is still not active but a substantial upgrade of the terminal has been planned.





American Cement





Montana North Dakota Minnesota South Dakota Wyoming Nebraska Utah Colorado Arkansas New Mexico Key statistics Seaborne imports 0 mt (2017) Sea terminals with a ship unloader (imports) I Sea terminals without a ship unloader - importing - domestic distribution 0 Great Lakes terminals 0

0

Big River terminals

US cement plants

American

American has one cement plant and two import terminals in Florida. One terminal has started importing in 2018.

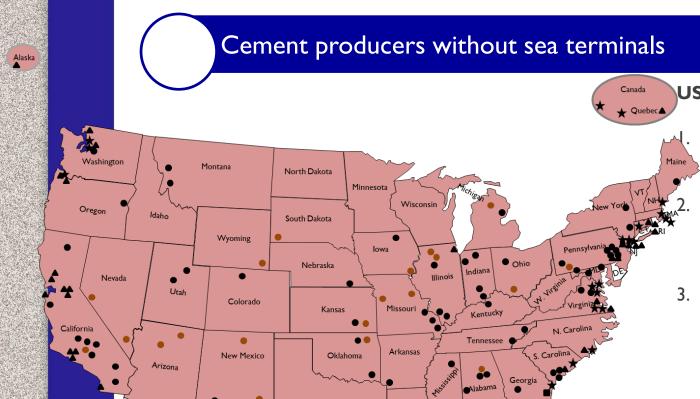
American cement has recently been acquired by CRH.





Cement producers without import terminal





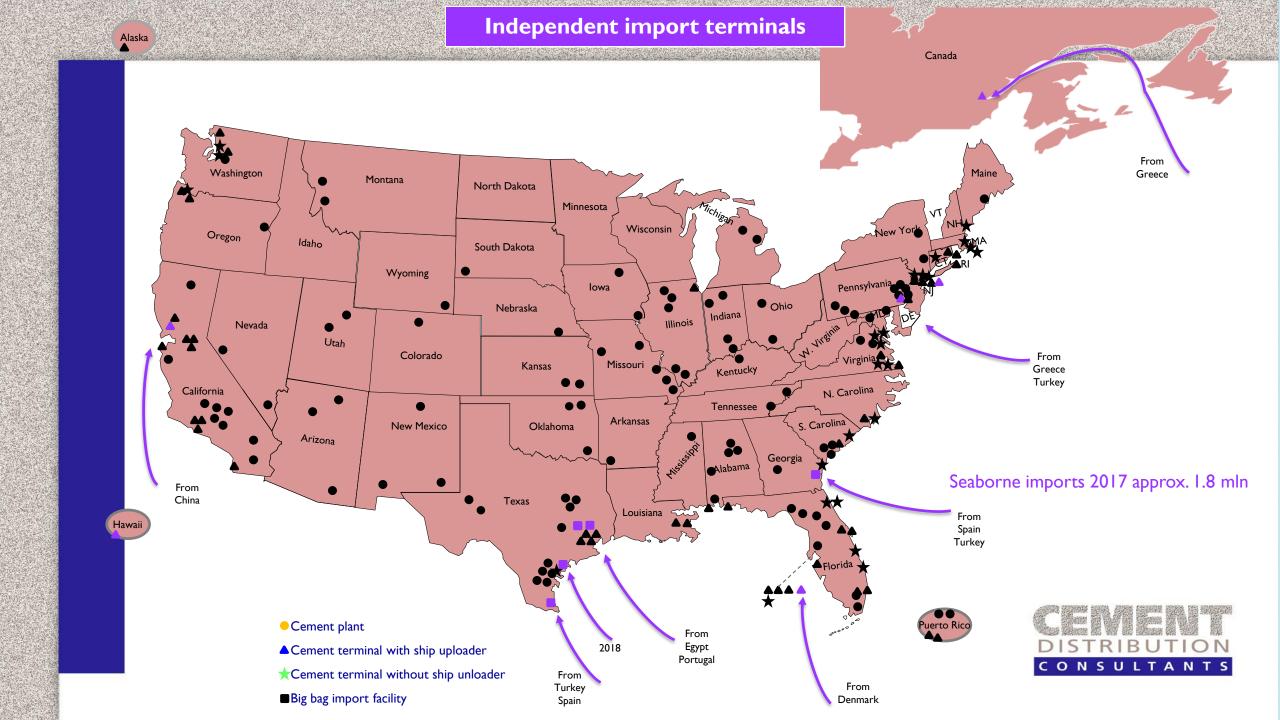
US cement producers without terminals for seaborne cement

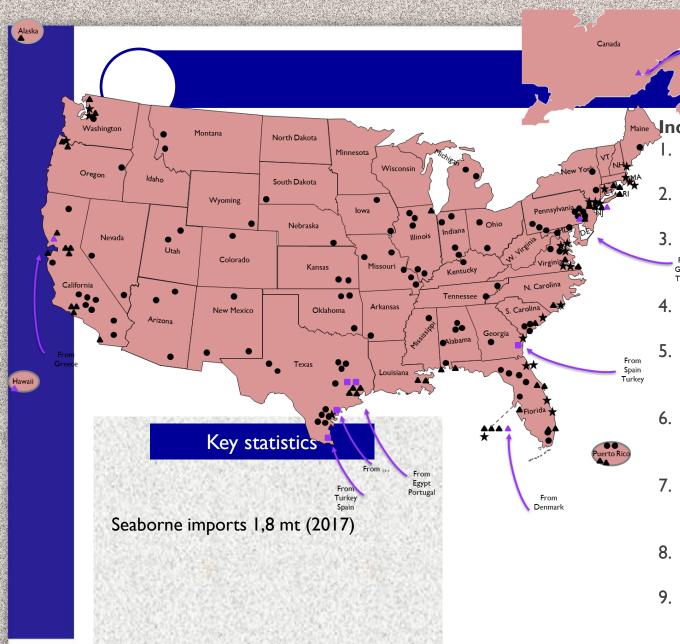
St. Mary's has an extensive network on the Great Lakes and can import more cement from Canada when needed.

CCC has several plants in Southcentral US with a rail network to distribute it. It imports cement by rai from its plants in Mexico and can expand on that.

Martin Marietta, National, Drake Armstrong, Capital, Royal and Summer have standalone cement plants. Some of these are in a location where the addition of seaborne import capability might be of interest.







Independent import terminals

Maine Independents

- . Hawaiian Cement has one import terminal and four distribution terminals and is the only importer in Hawaii.
- 2. Two Rivers terminal in Sacramento is 50% owned by A&A and 50% by Lehigh.
- 3. Riverside Construction Materials (owned by the Silvi Group) owns

 From the largest terminal in the US (170,000 tons of storage) and can

 Turke handle two different types of cement and a cementitious material.
- 4. NYC (Quadrozzi) has a small floating terminal in Brooklyn, NYC that receives its cement from domestic sources.
- Beton Provincial has a very large terminals in Quebec which receives several types of cement as well as cementitious material. The terminal has its own blending plant.
- 6. Chicago Cement (Ozinga) has a large river terminal in Chicago. It imports slag in large bulkcarriers that is transhipped in barges in the new Orleans area.
- 7. There are four big bag import operations of which three are in the process of upgrading to a bulk import terminal (SESCO, Texan Cement, South Texas Cement)
- South East cement in Savannah recently upgraded its big bag import operation to a bulk import terminal.
- 7. There is a substantial volume of white cement imports in big bags arriving in small shipments all over the CONSULTANTS



Final considerations



Final considerations

- I) In 2017 US seaborne imports reached 9.9 million tons. This is still a small figure compared to the 30 million tons of seaborne imports in 2006 before the crisis. If the US economy keeps growing, and especially if funding for a national infrastructure upgrade is approved, it should be possible to reach such import levels again.
- 2) With the growing seaborne imports North American cement producers have steadily reopened their mothballed terminals again but a number of them are still closed. Despite that there have been a significant number of new terminal projects and terminal expansions. All of these are by independents (companies without cement production capacity in North America).
- The growing cement imports by independents raise concerns regarding price stability and dumping. However independent imports so far have been quite disciplined, only importing within the overall cement shortage volume and keeping pricing stable. As such the combined reason for dumping (imports below fair value and harm done to local producers) does not apply. Moreover, most of the new terminal projects are based on ready mix ownership and as long as imports are for their own consumption it is not dumping either.
- 4) The revolutionary development of modular and even containerized (mini) grinding plants is having a major impact on global cement and clinker trade with a clear movement forwards clinker. The US so far has gone against this trend and has returned to large volume bulk cement imports. There is a case to be made for independent importers to move to clinker imports not only from an economic perspective but also (becoming in fact a cement producer) a strategic one.



THANK YOU



Disclaimer: All information in this presentation has been provided by Cement Distribution Consultants to the best of its knowledge and ability but can not be guaranteed.

