Taking the Plunge: Making a Modal Shift

Comparing port cases in the U.S. and Europe

Dr. Janaina (Jane) Siegler
Agenda

The Maritime Movement in the World

Overview of maritime movement
- United States
- Europe

Case comparison
- #1 Inland Ports in the US
- #1 Inland Ports in Europe

Q&A
The Maritime Movement in the World
The U.S. Maritime Movement
Figure 1: Ports and navigable waterways in the United States.

Source: US Army Corps of Engineers
NORTH AMERICA
US Inland Waterways

• Length: About 20,000 Km for the whole system (3,780 km only for the Mississippi)

• Traffic: About 600,000,000 t/year

• New Orleans is the dominant port for the export of grains in the U.S. (50% of grain, soybean and prepared feed exports move by barge) and has a significant trade in U.S. export coal, though Norfolk is the largest export port in trading metallurgical coal in particular.

Source: U.S. Army Corps of Engineers officers
<table>
<thead>
<tr>
<th>Rank</th>
<th>Top Commodities by Value</th>
<th>Mode (percent)</th>
<th>Billions of Dollars (2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Air</td>
<td>Pipeline</td>
</tr>
<tr>
<td>1</td>
<td>Electronics</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Motorized vehicles</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>Mixed freight</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>Machinery</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Gasoline</td>
<td>0</td>
<td>31</td>
</tr>
<tr>
<td>6</td>
<td>Coal n.e.c.</td>
<td>0</td>
<td>57</td>
</tr>
<tr>
<td>7</td>
<td>Pharmaceuticals</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>Fuel oils</td>
<td>0</td>
<td>27</td>
</tr>
<tr>
<td>9</td>
<td>Misc. mfg. prods.</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>Other foodstuffs</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>Plastics/rubber</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>Textiles/leather</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>Crude petroleum</td>
<td>0</td>
<td>49</td>
</tr>
<tr>
<td>14</td>
<td>Base metals</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>Precision instruments</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Other commodities</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>

n.e.c. = not elsewhere classified
Note: Other includes: multiple modes & mail, no domestic mode, and other and unknown.
Table 7: Growth in Domestic Tonnage under Baseline, Optimistic, and Pessimistic Scenarios, 2012 – 2045

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
<th>2012 (millions)</th>
<th>2045 (millions)</th>
<th>2045</th>
<th>Compound Annual Growth Rate 2012-2045 (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Live animals/fish</td>
<td>98.7</td>
<td>141.9</td>
<td>155.4</td>
<td>Base: 1.1, High: 1.4, Low: 0.8</td>
</tr>
<tr>
<td>02</td>
<td>Cereal grains</td>
<td>870.9</td>
<td>1212.1</td>
<td>1329.6</td>
<td>Base: 1.0, High: 1.3, Low: 0.7</td>
</tr>
<tr>
<td>03</td>
<td>Other agriculture products</td>
<td>438.9</td>
<td>552.2</td>
<td>606.2</td>
<td>Base: 0.7, High: 1.0, Low: 0.4</td>
</tr>
<tr>
<td>04</td>
<td>Animal feed</td>
<td>286.5</td>
<td>456.2</td>
<td>500.3</td>
<td>Base: 1.4, High: 1.7, Low: 1.1</td>
</tr>
<tr>
<td>05</td>
<td>Meat/seafood</td>
<td>84.9</td>
<td>138.9</td>
<td>152.3</td>
<td>Base: 1.5, High: 1.8, Low: 1.2</td>
</tr>
<tr>
<td>06</td>
<td>Milled grain products</td>
<td>112.1</td>
<td>189.7</td>
<td>208.0</td>
<td>Base: 1.6, High: 1.9, Low: 1.3</td>
</tr>
<tr>
<td>07</td>
<td>Other foodstuffs</td>
<td>619.9</td>
<td>1041.5</td>
<td>1142.7</td>
<td>Base: 1.6, High: 1.9, Low: 1.2</td>
</tr>
<tr>
<td>08</td>
<td>Alcoholic beverages</td>
<td>99.4</td>
<td>157.3</td>
<td>172.8</td>
<td>Base: 1.4, High: 1.7, Low: 1.1</td>
</tr>
<tr>
<td>09</td>
<td>Tobacco products</td>
<td>3.0</td>
<td>0.9</td>
<td>1.0</td>
<td>Base: -3.6, High: -3.4, Low: -4.0</td>
</tr>
<tr>
<td>10</td>
<td>Building stone</td>
<td>30.8</td>
<td>56.9</td>
<td>62.3</td>
<td>Base: 1.9, High: 2.2, Low: 1.5</td>
</tr>
<tr>
<td>11</td>
<td>Natural sands</td>
<td>538.0</td>
<td>848.8</td>
<td>930.6</td>
<td>Base: 1.4, High: 1.7, Low: 1.1</td>
</tr>
<tr>
<td>12</td>
<td>Gravel</td>
<td>1735.6</td>
<td>2434.8</td>
<td>2670.2</td>
<td>Base: 1.0, High: 1.3, Low: 0.7</td>
</tr>
<tr>
<td>13</td>
<td>Nonmetallic minerals</td>
<td>148.1</td>
<td>272.3</td>
<td>298.8</td>
<td>Base: 1.9, High: 2.1, Low: 1.5</td>
</tr>
<tr>
<td>14</td>
<td>Metallic ores</td>
<td>75.8</td>
<td>75.9</td>
<td>83.3</td>
<td>Base: 0.0, High: 0.3, Low: -0.3</td>
</tr>
<tr>
<td>15</td>
<td>Coal</td>
<td>996.7</td>
<td>539.8</td>
<td>497.9</td>
<td>Base: -1.8, High: -1.6, Low: -2.1</td>
</tr>
<tr>
<td>16</td>
<td>Crude petroleum</td>
<td>365.1</td>
<td>393.6</td>
<td>430.5</td>
<td>Base: 0.2, High: 0.5, Low: 0.0</td>
</tr>
<tr>
<td>17</td>
<td>Gasoline</td>
<td>1043.4</td>
<td>960.9</td>
<td>1050.6</td>
<td>Base: -0.2, High: 0.0, Low: -0.6</td>
</tr>
<tr>
<td>18</td>
<td>Fuel oils</td>
<td>801.6</td>
<td>650.3</td>
<td>709.3</td>
<td>Base: -0.6, High: -0.4, Low: -0.9</td>
</tr>
<tr>
<td>19</td>
<td>Coal &amp; petroleum prod.</td>
<td>2223.3</td>
<td>3893.1</td>
<td>4263.9</td>
<td>Base: 1.7, High: 2.0, Low: 1.4</td>
</tr>
<tr>
<td>20</td>
<td>Basic chemicals</td>
<td>328.7</td>
<td>491.4</td>
<td>537.8</td>
<td>Base: 1.2, High: 1.5, Low: 0.9</td>
</tr>
<tr>
<td>21</td>
<td>Pharmaceuticals</td>
<td>16.1</td>
<td>40.0</td>
<td>43.9</td>
<td>Base: 2.8, High: 3.1, Low: 2.4</td>
</tr>
</tbody>
</table>
Europe Maritime Movement
Supply Chain Management & Port of Rotterdam
Supply Chain Management & Port of Rotterdam

Liquid bulk is almost half of the throughput of 466 million ton in 2015...
Supply Chain Management & Port of Rotterdam

Crude oil: 103 million ton

Oil products: 89 million ton

LNG: 2 million ton

Other Liquid Bulk: 31 million ton (chemicals, vegoils, biofuels)
Supply Chain Management & Port of Rotterdam

Changes in growth

- Total Containers: 7,413,548
- Total TEU: 12,385,168
Supply Chain Management & Port of Rotterdam

The future ...

**Portvision 2030**

- In 2030 Rotterdam is the leading European hub for global and intra European cargo.
- Rotterdam connects its customers in the hinterland via an integrated network.
- Rotterdam is frontrunner in sustainable and efficient supply chains.

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The future ....

Trends and developments

- Economies of scale for both sea- and landside
- Strengthening of hinterland connections
- Modal shift: essential for processing the growing freight flows

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The future ....
Rhine River

- Length: 1320 Km
- Traffic: 330.000.000 Tons/year
- Facts of importance: The Rhine constitutes the backbone of inland navigation in Europe. It is used by more than two-thirds of all goods carried by inland waterway. New markets are booming; these include the transport of containers, weight-intensive goods, chemicals and passengers.

Source: CCNR
Case Comparison

#1 Inland Ports in the Americas and Europe
Are there unexplored opportunities to expand the utilization of the Ohio River as a preferred mode of transportation for some of the supply chains that are part of thousands of companies in the Cincinnati tristate region?

If there are opportunities, what would be the main industries to focus?

Within the main industries, which could be the possible companies?

What kind of cargos should be the focus: inbound, outbound, backhaul/ reverse logistics?

Finally, if efforts should be done to attract companies to the region, which industries should be the focus?
Origin-Destination Analysis
## Ohio River OD Analysis

<table>
<thead>
<tr>
<th>Commodities</th>
<th>Inbound</th>
<th></th>
<th>Outbound</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal, Lignite, and Coal Coke</td>
<td>99.69</td>
<td>59.89%</td>
<td>93.40</td>
<td>62.08%</td>
</tr>
<tr>
<td>Crude Petroleum</td>
<td>33.12</td>
<td>19.90%</td>
<td>31.55</td>
<td>20.97%</td>
</tr>
<tr>
<td>Petroleum Products</td>
<td>16.38</td>
<td>9.84%</td>
<td>0.59</td>
<td>0.39%</td>
</tr>
<tr>
<td>Chemical Fertilizers</td>
<td>9.98</td>
<td>5.99%</td>
<td>11.21</td>
<td>7.45%</td>
</tr>
<tr>
<td>Chemicals excluding Fertilizers</td>
<td>2.19</td>
<td>1.32%</td>
<td>0.44</td>
<td>0.29%</td>
</tr>
<tr>
<td>Lumber, Logs, Wood Chips, and Pulp</td>
<td>1.99</td>
<td>1.20%</td>
<td>0.72</td>
<td>0.48%</td>
</tr>
<tr>
<td>Sand, Gravel, Shells, Clay, Salt, Slag</td>
<td>1.15</td>
<td>0.69%</td>
<td>1.28</td>
<td>0.85%</td>
</tr>
<tr>
<td>Iron Ore, Iron, and Steel Waste, Scrap</td>
<td>0.72</td>
<td>0.43%</td>
<td>2.51</td>
<td>1.67%</td>
</tr>
<tr>
<td>Non-Ferrous Ores and Scrap</td>
<td>0.61</td>
<td>0.37%</td>
<td>1.19</td>
<td>0.79%</td>
</tr>
<tr>
<td>Primary Non-Metal Products</td>
<td>0.33</td>
<td>0.20%</td>
<td>3.75</td>
<td>2.49%</td>
</tr>
<tr>
<td>Primary Metal Products</td>
<td>0.30</td>
<td>0.18%</td>
<td>2.38</td>
<td>1.58%</td>
</tr>
<tr>
<td>Food and Food Products</td>
<td>0.00</td>
<td>0.00%</td>
<td>0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td>Manufactured Goods</td>
<td>0.00</td>
<td>0.00%</td>
<td>1.41</td>
<td>0.94%</td>
</tr>
<tr>
<td>Unknown and non Classified Products</td>
<td>0.00</td>
<td>0.00%</td>
<td>0.03</td>
<td>0.02%</td>
</tr>
</tbody>
</table>

| Total                                    | 166.45      | 1.00  | 150.46      | 1.00  |

**Table 3: Flow of Commodities – Ohio River System**

Source: The authors, based on The Waterborne Commerce Statistics Center, 2015
Ohio River OD Analysis

Figure 27: Gross GDP US - 1990 - 2016
Source: Bureau of Economic Analysis, 2017
REGION'S ECONOMY: CLUSTERS AND STRATEGY FOR THE FUTURE
Full Portfolio View of Related Clusters
CORBA Region’s Clusters Snapshot

- **Ohio**
  - Hamilton, Clermont, Brown, Adams, Scioto
- **Kentucky**
  - Trimble, Carrol, Gallatin, Boone, Kenton, Campbell, Pendleton, Bracken, Mason, Lewis
- **Indiana**
  - Jefferson, Switzerland, Ohio, and Dearborn

19 counties

Figure 2: CORBA Region highlighted in the US Cluster Map
Source: [http://clustermapping.us/region/custom/corba_region_by_jsiegler](http://clustermapping.us/region/custom/corba_region_by_jsiegler)
Cluster Portfolio

33 Traded Clusters

- Aerospace & Defense: 5.25k
- Automotive: 8.30k
- Biopharma: 900
- Business Services: 64.1k
- Construction: 3.55k
- Distribution & eCommerce: 36.1k
- Downstream Chemicals: 4.50k
- Downstream Metals: 2.60k
- Education: 13.5k
- Electric Power: 1.75k
- Environmental Services: 473
- Financial Services: 12.3k
- Food Processing: 8.3k
- Footwear: 20.0
Automotive

Automotive Cluster
Employment by State, 2014
Automotive Sub-Clusters

Automotive Cluster
Employment by Subcluster, 2014

- Automotive Parts
- Motor Vehicles
- Metal Mills and Foundries
- Gasoline Engines and Engine Parts
- Small Vehicles
- Military Vehicles and Tanks

Employment, 2014
Supply Chain ANALYSIS

Supply chain network
Source: Lambert and Cooper (1998)

https://superhindex.com/maps/
<table>
<thead>
<tr>
<th>3361MV</th>
<th>Motor vehicles, bodies and trailers, and parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>33611</td>
<td>Automobile manufacturing</td>
</tr>
<tr>
<td>33612</td>
<td>Light truck and utility vehicle manufacturing</td>
</tr>
<tr>
<td>336120</td>
<td>Heavy duty truck manufacturing</td>
</tr>
<tr>
<td>33621</td>
<td>Motor vehicle body manufacturing</td>
</tr>
<tr>
<td>336212</td>
<td>Truck trailer manufacturing</td>
</tr>
<tr>
<td>336213</td>
<td>Motor home manufacturing</td>
</tr>
<tr>
<td>336214</td>
<td>Travel trailer and camper manufacturing</td>
</tr>
<tr>
<td>33630</td>
<td>Motor vehicle gasoline engine and engine parts manufacturing</td>
</tr>
<tr>
<td>336320</td>
<td>Motor vehicle electrical and electronic equipment manufacturing</td>
</tr>
<tr>
<td>3363A0</td>
<td>Motor vehicle steering, suspension component (except spring), and brake systems manufacturing</td>
</tr>
<tr>
<td>336350</td>
<td>Motor vehicle transmission and power train parts manufacturing</td>
</tr>
<tr>
<td>336360</td>
<td>Motor vehicle seating and interior trim manufacturing</td>
</tr>
<tr>
<td>336370</td>
<td>Motor vehicle metal stamping</td>
</tr>
<tr>
<td>336390</td>
<td>Other motor vehicle parts manufacturing</td>
</tr>
</tbody>
</table>

Source: Bureau of Economic Analysis, Bureau of Economic Analysis
Industry Input-Output (I-O) accounts for the years 1997-2016. These data were released on November 2, 2017

The I-O accounts show how industries interact; specifically, they show how industries provide input to, and use output from, each other to produce Gross Domestic Product (GDP). These accounts provide detailed information on the flows of the goods and services that comprise the production process of industries.
The same roads are used for passengers and cargo.
In the US, even though they exist, alternative modes for cargo transportation are underutilized.

Use of Modes of Cargo for Inland Transportation in the US (Motor vehicles, bodies, and parts 1997-2016)

- Air: 76%
- Rail: 12%
- Water: 1%
- Truck: 11%

Source: Siegler, 2018
Based on Bureau of Economic Analysis, 2017

Figure 3-4  Freight Flows by Highway, Railroad, and Waterway: 2011


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## Value of Shipments by Transportation Mode: 2012, 2015, and 2045

(Billions of 2012 dollars)

<table>
<thead>
<tr>
<th>Mode</th>
<th>2012 Total</th>
<th>Domestic</th>
<th>Exports</th>
<th>Imports</th>
<th>2015 Total</th>
<th>Domestic</th>
<th>Exports</th>
<th>Imports</th>
<th>2045 Total</th>
<th>Domestic</th>
<th>Exports</th>
<th>Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>17,805</td>
<td>14,058</td>
<td>1,522</td>
<td>2,215</td>
<td>19,258</td>
<td>15,072</td>
<td>1,699</td>
<td>2,487</td>
<td>37,080</td>
<td>22,499</td>
<td>6,474</td>
<td>8,106</td>
</tr>
<tr>
<td><strong>Truck</strong></td>
<td>11,011</td>
<td>10,333</td>
<td>367</td>
<td>311</td>
<td>11,718</td>
<td>10,994</td>
<td>382</td>
<td>342</td>
<td>18,735</td>
<td>16,270</td>
<td>1,247</td>
<td>1,218</td>
</tr>
<tr>
<td><strong>Rail</strong></td>
<td>569</td>
<td>417</td>
<td>59</td>
<td>93</td>
<td>617</td>
<td>451</td>
<td>62</td>
<td>104</td>
<td>1,058</td>
<td>652</td>
<td>153</td>
<td>253</td>
</tr>
<tr>
<td><strong>Water</strong></td>
<td>617</td>
<td>274</td>
<td>71</td>
<td>272</td>
<td>636</td>
<td>304</td>
<td>99</td>
<td>233</td>
<td>1,021</td>
<td>345</td>
<td>272</td>
<td>405</td>
</tr>
<tr>
<td><strong>Air, air &amp; truck</strong></td>
<td>1,044</td>
<td>138</td>
<td>434</td>
<td>472</td>
<td>1,194</td>
<td>152</td>
<td>466</td>
<td>576</td>
<td>5,133</td>
<td>330</td>
<td>2,449</td>
<td>2,354</td>
</tr>
<tr>
<td><strong>Multiple modes &amp; mail</strong></td>
<td>3,275</td>
<td>1,752</td>
<td>573</td>
<td>949</td>
<td>3,599</td>
<td>1,875</td>
<td>658</td>
<td>1,065</td>
<td>9,152</td>
<td>3,404</td>
<td>2,262</td>
<td>3,485</td>
</tr>
<tr>
<td><strong>Pipeline</strong></td>
<td>1,250</td>
<td>1,143</td>
<td>9</td>
<td>97</td>
<td>1,410</td>
<td>1,295</td>
<td>10</td>
<td>105</td>
<td>1,656</td>
<td>1,498</td>
<td>15</td>
<td>144</td>
</tr>
<tr>
<td><strong>Other &amp; unknown</strong></td>
<td>40</td>
<td>1</td>
<td>17</td>
<td>22</td>
<td>83</td>
<td>1</td>
<td>21</td>
<td>61</td>
<td>325</td>
<td>0</td>
<td>76</td>
<td>248</td>
</tr>
</tbody>
</table>

Source: Bureau of Transportation Statistics
In the US, even though they exist, alternative modes for cargo transportation are underutilized.

Use of Modes of Cargo for Inland Transportation in the US (Motor vehicles, bodies, and parts 1997-2016)

Source: Siegler, 2018
Based on Bureau of Economic Analysis, 2017
Trucking Industry Today...

Analysis: Rising US truck rates compel shippers to rethink practices

Satish Jindel, President, SJ Consulting Group | Feb 14, 2018 11:30AM EST

Rising freight cost

This year promises to be a great year for US truckers. The demand and supply imbalance is shaping up to be of the kind not seen in the last 20-plus years, and spot market rates are up in double digits, even exceeding 20 percent over just a few months ago.

It is no surprise, then, that shippers are complaining and fearing a huge increase in transportation costs. For those who keep informed of developments impacting this spike in prices, this should not come as a shock.

The factors impacting the hikes are outside the control of the industry. Trucking capacity reduction results from factors such as the declining appeal of driver jobs among young people; the poor quality of life for drivers away from home for several days each week; crumbling infrastructure causing delays on roads; and the Dec. 18 rollout of the electronic logging device mandate.

Simultaneously, demand has increased rapidly because of the national focus on “America First” efforts by large corporations to expand manufacturing activity in the United States, which has increased industrial production index by 3.5 percent; and greater demand for faster delivery by consumers driven by free shipping promotions by online retailers.

The carriers, no doubt, are viewing this as an opportunity to price their capacity at the highest level the market will support, to the chagrin of many shippers. The shippers fail to realize that the for-hire trucking industry with $300 billion in revenue generates less than $25 billion in operating income.

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Shortage of Truck Drivers in America

The truck driver shortage is expected to surge to 239,000 by 2022. And the ATA estimates that the industry needs on average **100,000 new drivers each year** over the next decade.
Sister Port in Europe: Duisburg

duisport – more than a port

duisport’s role in intercontinental rail solutions
Total handling of the duisport group

Million tons

<table>
<thead>
<tr>
<th>Year</th>
<th>Truck</th>
<th>Rail</th>
<th>Ship</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>13.6</td>
<td>6.4</td>
<td>6.3</td>
</tr>
<tr>
<td>2011</td>
<td>10.0</td>
<td>15.5</td>
<td>14.5</td>
</tr>
<tr>
<td>2013</td>
<td>15.8</td>
<td>15.1</td>
<td>19.2</td>
</tr>
<tr>
<td>2014</td>
<td>16.3</td>
<td>17.1</td>
<td>16.6</td>
</tr>
<tr>
<td>2015</td>
<td>15.0</td>
<td>15.6</td>
<td>17.1</td>
</tr>
<tr>
<td>2016</td>
<td>18.0</td>
<td>18.0</td>
<td>17.1</td>
</tr>
</tbody>
</table>
In 2016, Duisburg inland port in Germany handled larger volume in TEU Container than all ports in the US but three.
The Duisport Group focuses its activities on three business segments:

**Duisport – Integrated solution provider**

- **Infra- & Suprastructure**
- **Logistic services**
- **Packaging logistics**

Multi-purpose port with diverse warehouse and storage spaces as well as market-oriented and customer-oriented service concepts.
Wide-ranging international network

duisport is the largest international hub in Europe
Visit of Chinese President Xi Jinping at duisport

- State Visit of the Chinese President Xi Jinping in the Port of Duisburg on 29 March 2014
- Focus was on the arrival of the “Yuxinou” train, which connects the cities of Chongqing and Duisburg
- The Yuxinou train symbolizes the new Silk Road for the Chinese government
- Duisburg is the only European port to offer multiple transcontinental train connections to China
- In Chongqing and Duisburg, two of the most important logistics turntables in China and Central Europe are connected to each other by rail

⇒ Visit of the Chinese President underlines the importance of the industrial and logistics location North Rhine-Westphalia
Best Practice: Rail connections to China

Together with partners duisport develops rail connections to China

- Collaboration with different operators offering railfreight solutions Duisburg-China v.v.
- Numerous destinations in China including Shanghai, Beijing, Wuhan, Suzhou and Chongqing
- Monthly about 130 departures and arrivals
- Lead time: 11 – 18 days one way
- Main products China-Duisburg: Electronic products, consumer goods
- Main products Duisburg-China: Consumer goods, luxury goods, finished vehicles from German car manufacturers, spare parts for automotive and mechanical engineering industry
Chinese companies in Germany

Companies in North Rhine-Westphalia

Number of Chinese Companies in Germany
Number of Chinese employees of Chinese Companies per federal state

- 5 - 700
- 201 - 500
- 501 - 2,600

 Already more than 1000 Chinese enterprises have identified the advantages of the location North Rhine-Westphalia
Key Findings and Recommendations
From a Country Perspective

• Structural Perspective
• Connections among ports and different modal of transportation

• Communications Perspective
• One-stop-shop website
  • Data
    • Available
    • Appealing
    • Always current
From a Port Perspective

• Structural Perspective
  • Partnership with other ports and different modals of transportation
  • 3PL mind set

• Communications Perspective
  • One-stop-shop website
    • Data
      • Available
      • Appealing
      • Always current
From a Port Perspective

- Offer connections
- Transhipment
- Intermodal & Multimodal
- 3PL service mindset
Cincinnati's German Heritage Attracted Mubea to Northern Kentucky

Mubea came to U.S. to support a never-built Volkswagen plant. It's stayed to support almost all major OEMs.

TEXT BY BILL GERDES // PHOTOS BY AARON BORON

Several factors come into play when a company is looking for a place to build a plant, especially if the location is not within the company’s home country.

So when Mubea, a family owner-operated company founded in Attendorn, Germany in 1916, decided to build a plant in the United States, the Cincinnati German community across the Ohio River from the potential site in Florence, Kentucky, was one of the influencing factors in the site selection.

The Greater Cincinnati area is one of the most German metropolitan areas in America. So German, in fact, that it has a neighborhood called Over-the-Rhine, a tongue-in-cheek reference to the Miami and

Video Duisburg Port: https://goo.gl/MnfcYp
Suggestions?

Questions?

Thanks!

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