LEGAL STATEMENT

The purpose of the information in this presentation is to guide ICA programs and provide members with information to make independent business decisions.
Antitrust Guidelines for Copper Industry
Trade Association Meetings

The following guidelines with respect to compliance with antitrust laws of the United States, Japan and European Community are intended to govern the conduct of participants in copper industry trade association meetings, both at the meeting itself and in informal discussions before or after the formal meeting.

**Price:** Competitors should not discuss future prices (including terms of sale) of their products. There is no blanket prohibition against the mention of or reference to current or past prices but limits must be observed. Such references or mentions should occur only when necessary in connection with the development of association programs. For example, reference to a particular price level in comparing the cost of a copper product to a competing product is permitted. Whenever possible, such references should be discussed in advance with legal counsel.

**Competitive Information:** Competitors should not discuss the market share of a particular copper producer or copper fabricator's products. Furthermore, nothing should be said at a meeting which could be interpreted as suggesting prearranged market shares for such products or producer production levels. The overall market share of copper products may be discussed with regard to competition with non-copper products and general market acceptance.

**New Products:** Competitors should not encourage or discourage the introduction of a new product by another competitor or reveal a particular copper company’s plans to change the production rate of an existing product or to introduce a new product. No company should disclose to another company whether it is in a position to make or market a new product. New products may be discussed in a technical manner or from the standpoints of competition with non-copper products and general market acceptance. In addition, proposed methods for and results of field and laboratory testing can be considered.

**The Role of Legal Counsel:** Legal counsel attends association meetings to advise association staff and other meeting attendees regarding the antitrust laws and to see that none of the matters discussed or materials distributed raise even the appearance of antitrust improprieties. During the course of a meeting, if counsel believes that the discussion is turning to a sensitive or inappropriate subject, counsel will express that belief and request that the attendees return the discussion to a less sensitive area.

A paper entitled ‘Copper Industry Trade Associations and Antitrust Laws’ is available upon request.

10/92, 5/93, 10/10

1. Other foreign competition laws apply to International Copper Association, Ltd. (ICA)'s activities worldwide.
Impact of China’s Belt and Road Initiative

October 5th 2018, London
Shanghai MarchWIN Consulting Co., Ltd.
Background

September 7th, 2013 - The initiative of building the Silk Road Economic Belt was raised for the first time.

- On Sep. 7th, 2013, President Xi Jinping made a speech titled "Promote People-to-People Friendship and Create a Better Future" at Kazakhstan's Nazarbayev University.

October 3rd, 2013 - The initiative of building the 21st-Century Maritime Silk Road was raised for the first time.

- On Oct. 3rd, 2013, President Xi Jinping made a speech titled "Constructing Jointly the China - ASEAN Community of Common Destiny" at Indonesia's Parliament.

# "BRI" refers to the Belt and Road Initiative, the Initiative of building the Silk Road Economic Belt and the 21st-Century Maritime Silk Road.

Land-based silk road

- Focus on jointly building a new Eurasian Land Bridge and developing China-Mongolia-Russia, China-Central Asia-West Asia and China-Indochina Peninsula economic corridors by taking advantage of international transport routes, relying on core cities along the Belt and Road and using key economic industrial parks as cooperation platforms.

Maritime silk road

- Focus on jointly building smooth, secure and efficient transport routes connecting major sea ports along the Belt and Road. The China-Pakistan Economic Corridor and the Bangladesh-China-India-Myanmar Economic Corridor are closely related to the Belt and Road Initiative, and therefore require closer cooperation and greater progress.
Geographical Reach

Source: Mercator Institute for China Studies
### 64 Countries

<table>
<thead>
<tr>
<th>NE Asia</th>
<th>C Asia</th>
<th>S Asia</th>
<th>SE Asia</th>
<th>W Asia &amp; N Africa</th>
<th>CE Europe</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Russia</td>
<td>1 Turkmenistan</td>
<td>1 Sri Lanka</td>
<td>1 Vietnam</td>
<td>1 Afghanistan</td>
<td>1 Poland</td>
<td>6</td>
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<tr>
<td>2 Mongolia</td>
<td>2 Uzbekistan</td>
<td>2 Maldives</td>
<td>2 Lao</td>
<td>2 Iran</td>
<td>2 Czech</td>
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<tr>
<td>3 Kyrgyz</td>
<td>3 Pakistan</td>
<td>3 Cambodia</td>
<td>3 Turkey</td>
<td>3 Syrian</td>
<td>3 Slovak</td>
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<tr>
<td>4 Tajikistan</td>
<td>4 India</td>
<td>4 Myanmar</td>
<td>4 Lebanon</td>
<td>4 Hungary</td>
<td>4 Croatia</td>
<td>6</td>
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<tr>
<td>5 Kazakhstan</td>
<td>5 Bangladesh</td>
<td>5 Thailand</td>
<td>5 Israel</td>
<td>5 Slovakia</td>
<td>5 Romania</td>
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<tr>
<td>6 Nepal</td>
<td>6 Malaysia</td>
<td>6 Singapore</td>
<td>6 Iraq</td>
<td>6 Bulgaria</td>
<td>6 Serbia</td>
<td>6</td>
</tr>
<tr>
<td>7 Bhutan</td>
<td>7 Indonesia</td>
<td>7 Philippines</td>
<td>7 Jordan</td>
<td>7 Romania</td>
<td>7 Montenegro</td>
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</tr>
<tr>
<td>8 Brunei</td>
<td>8 Qatar</td>
<td>8 Saudi Arabia</td>
<td>8 Yemen</td>
<td>8 Macedonia</td>
<td>8 Bosnia &amp; Herzegovina</td>
<td>6</td>
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<tr>
<td>9 Timor-Leste</td>
<td>9 UAE</td>
<td>9 Palestine</td>
<td>9 Oman</td>
<td>9 Albania</td>
<td>9 Estonia</td>
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<td>10 Fiji</td>
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<td>11</td>
<td>11</td>
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<td>6</td>
</tr>
</tbody>
</table>

- China is open to the countries that are willing to join.
Population and GDP

The 64's population accounts for **43.5%** of the world's people in 2016.

64's GDP accounts for **16.1%** of world GDP in 2016.

Source: World Bank
Economic Potential

Forecast on 64 GDP Growth

Forecast on Electricity Consumption

<table>
<thead>
<tr>
<th>Year</th>
<th>Region</th>
<th>Electricity Consumption per capita per year (kWh/a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>BRI 64 Countries</td>
<td>1,600</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>4,082</td>
</tr>
<tr>
<td></td>
<td>OECD</td>
<td>7,945</td>
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<tr>
<td></td>
<td>World</td>
<td>3,027</td>
</tr>
<tr>
<td>2020 E</td>
<td>BRI 64 Countries</td>
<td>2,024</td>
</tr>
<tr>
<td>2030 E</td>
<td>BRI 64 Countries</td>
<td>4,166</td>
</tr>
</tbody>
</table>

Source: China State Grid Energy Research Institute Co., Ltd, CEEC (China Energy Engineering Co., Ltd), China State Grid Energy Research Institute Co., Ltd, CEC (China Electricity Council), IEA, BP, UN
Select Impact

Driven investment is mainly focusing on infrastructure development

- Energy and Power
  - Power generation & power grid
  - Oil pipeline, gas pipeline
  - Petroleum processing

- Transport
  - Highway
  - High-speed rail, low speed rail and urban rail
  - Port

- Telecommunication

Note: The study covers power and transport in copper demand only, due to data availability.
Material Demand Methodology

Belt Road Initiative

Increase in Copper Demand

Indirect Impact

Hypothesis

- Indirect impact is largely brought by an improved infrastructure system and a likely growth of local economy.
- 5 years lagging period for BRI indirect impact – starts in 2018.
- Material substitution is NOT considered.

Market and Application

- Aircon and refrigeration
- Other appliances
- Building construction

Direct Impact

Infrastructure development by imported equipment from China

- Power (generation + grid)
- Transport (railway + highway)
Power Infrastructure

Power contracting projects include thermal, hydro and renewable power generation plus power grid.

Copper intensive power equipment and products include power cables, transformers and switchgears.

Source: ICA, MarchWIN

Source: MarchWIN
Transport Infrastructure

Transport infrastructure projects

China companies involved

Railway and highway system constructions are key focused areas.

Source: ICA, MarchWIN

China companies transport contracting projects completed kilometers in BR 64

Estimated copper demand

Source: ICA, MarchWIN
Forecast – Direct Impact

- **BRI directly brings an increased copper demand by infrastructure investment and development.**
- **China’s future investment to the BR infrastructure development is likely to carry historical momentum and trend.**

<table>
<thead>
<tr>
<th>Period</th>
<th>BRI - 1st 5 years</th>
<th>2013 to 2017</th>
<th>1.25 million tonnes</th>
<th>0.25 million tonnes/a</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013 to 2017</td>
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</table>

<table>
<thead>
<tr>
<th>Period</th>
<th>BRI - 2nd 5 years</th>
<th>2018 to 2022</th>
<th>1.58 million tonnes</th>
<th>0.32 million tonnes/a</th>
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</thead>
<tbody>
<tr>
<td>2018 to 2022</td>
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<table>
<thead>
<tr>
<th>Period</th>
<th>BRI - 3rd 5 years</th>
<th>2023 to 2027</th>
<th>2.10 million tonnes</th>
<th>0.42 million tonnes/a</th>
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<tr>
<td>2023 to 2027</td>
<td></td>
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</table>

**Source:** MarchWIN
Forecast – Indirect Impact

- **BRI also indirectly brings an increased copper demand by growth in appliance and house’s demand.**
- **This is largely driven by an improved infrastructure system and a likely growth in local economy.**

5 years lag of BRI's indirect impact (hypothesis)

Source: IWCC/ICA, MarchWIN
Forecast

Source: IWCC/ICA, MarchWIN