

Made in China 2025 Could Boost Copper Annual Demand by 232,000 tonnes by 2025

Study: The influence of "Made in China 2025" on copper end-use products

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Made in China 2025—an initiative established by the Chinese government to improve its manufacturing industry—has wide-reaching, global implications. The International Copper Association (ICA) commissioned Brilliance Consulting of China to analyze the impact this government program could have on future copper demand. The findings show *Made in China 2025* should increase the intensity of material use in a number of product areas.

Key Findings

- Demand for copper will grow by an additional 232,000 tonnes by 2025, as a result of the *Made in China 2025* plan.
- The plan is closely aligned with Industry 4.0* because it aims to improve overall manufacturing through the use of smart production.
- More efficient technologies require a larger amount of copper, which results in potential demand growth over the next 10 years.

Market Impact of *Made in China 2025*

Under the plan, China is expected to upgrade its industrial production to achieve higher efficiency and better environmental performance, through building smart factories. Consequently, copper intensity is projected to increase in markets mainly including electric power and transportation.



Growth Through Increased Intensity of Use

There are several specific applications that should help increase copper demand through *Made in China 2025*.

- The adoption of higher efficiency industrial motors and distribution transformers will require greater use of copper.
 - Copper intensity in higher efficiency motors is expected to increase from 0.87 kilograms of copper per kilowatt (kg/kW) in 2015 to 1.56 kg/kW in 2025.
 - Similarly, higher efficiency distribution transformers will also use more copper, with copper intensity increasing from the current 0.62 kg/kW to 0.73 kg/kW by 2025.
- Another boost for copper would come from developing a more advanced railway network.
 - Double-line railway construction would likely increase copper use per kilometer from the current 5.1 tonnes to 6 tonnes by 2025.
 - "Electrification" will be applied to newly-constructed railway systems in China—particularly passenger lines—requiring more copper due to the additional use of electrical equipment.
- Other sectors expected to show growth in copper demand through *Made in China 2025* include:
 - New energy vehicles – high efficiency motors and large capacity batteries will be developed and used by the industry to meet the requirements of a longer cruising range and better overall performance.
 - Wind power generation – the installation of offshore wind power, as well as the use of larger wind turbines, (over 5MV and 10MV) will be more common.

* Industry 4.0 is a name for the current trend of automation and data exchange in manufacturing technologies. Its goal is to advance the development of smart factories.

For more information on copper demand or ICA, visit www.copperalliance.org.

For more information on copper's use in sustainable energy, visit www.sustainablecopper.org.

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