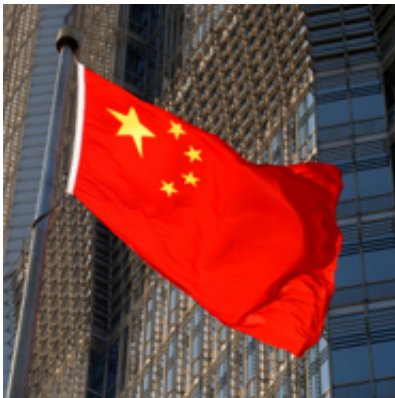# China to develop prototype super, super computer in 2017

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China plans to develop a prototype exascale computer by the end of the year, state media said Tuesday, as it seeks to win a global race to be the first to build a machine capable of a billion, billion calculations per second.

If successful, the achievement would cement its place as a leading power in the world of supercomputing.

The Asian giant built the world's fastest supercomputer, the Sunway TaihuLight machine, in June last year, which was twice as fast as the previous number one.

It used only locally made microchips, making it the first time a country has taken the top spot without using US technology.

Exascale computers are even more powerful, and can execute at least one quintillion (a billion billion) calculations per second.

Though a prototype was in the pipeline, a complete version of such a machine would take a few more years to complete, Xinhua news agency cited Zhang Ting, application engineer at the National Supercomputer Center in the port city of Tianjin, as saying.

"A complete computing system of the exascale [supercomputer](#) and its applications can only be expected in 2020, and will be 200 times more powerful than the country's first petaflop computer Tianhe-1, recognised as the world's fastest in 2010," said Zhang.

The exascale computer could have applications in big data and cloud computing work, he added, noting that its prototype would lead the world in data transmission efficiency as well as calculation speed.

As of last June, China for the first time had more top-ranked supercomputers than the US, with 167 compared to 165, according to a survey by supercomputer tracking website Top500.org.

Of the top 10 fastest computers, two are in China and five in the US as of November, the ranking said. Others are in Japan and Switzerland.

China has poured money into big-ticket science and technology projects as it seeks to become a high-tech leader.

But despite some gains the country's scientific output still lags behind, and its universities generally fare poorly in global rankings.

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