

# Dragoman Digest

## Japan and the Netherlands set to close ranks and adopt US chip controls

*The collective front will, at least for the near future, severely hinder China's chipmaking ambitions*

Amid rising **US** pressure, **Japan** and the **Netherlands** are now [reportedly planning](#) new export controls on key chipmaking equipment. Washington has been lobbying allies to adopt measures promulgated in October, which require American companies to obtain a license to export advanced chip manufacturing equipment to **China**. Specifically, Japan and the Netherlands are looking to prevent companies under their jurisdiction from exporting equipment capable of making logic chips (chips that process data to complete a task, as opposed to memory chips that store data) at the 14-nanometre level and below. To make chip controls effective requires getting semiconductor manufacturing equipment majors – such as Japan's Tokyo Electron and Dutch ASML – to restrict exports.

The restrictions will not be without cost. While Dutch chipmaker ASML is [already](#) barred from selling its most advanced extreme ultraviolet lithography (EUV) machines capable of making logic chips, these restrictions will now extend to less-sophisticated deep ultraviolet lithography (DUV) machines. China accounted for [15 percent](#) of the ASMLs €18 billion total net sales in FY2021 and significant revenue loss is likely. The move is also something of a volte-face for the Netherlands and Japan, which had both earlier appeared to be strongly resisting US entreaties. Ultimately, alliance politics exigencies appear to have trumped commercial concerns. China has responded in turn by announcing a colossal [US\\$143](#) support package to subsidise the purchase of domestically produced semiconductors and equipment.

## Massive green hydrogen plant planned for Texas

*The plant is set to reap a suite of benefits for green hydrogen contained within the Inflation Reduction Act*

Last week, **US** industrial gas and chemicals company Air Products and power utility AES Corporation announced plans to build a [US\\$4 billion](#) green hydrogen production facility in Texas. The facility will be powered by 1.4 GW of wind and solar generation capacity. It is slated to generate over 73,000 metric tons of green hydrogen a year once operational in 2027, making it the largest such facility in the US and among the top 10 worldwide.

While green hydrogen has been offered up as a solution for hard-to-abate industries, it is not yet cost competitive with fossil fuel alternatives. According to S&P Global, as of September, the cost ([including capex](#)) of producing green hydrogen on the US Gulf Coast was US\$4.38/kg. Washington's flagship *Inflation Reduction Act* (IRA) changes the game. Measures introduced allow producers to 'stack' subsidies across the green hydrogen value chain. Any project producing clean energy can receive a 30 percent investment tax credit or a production tax credit worth 1.5 cents/kWh. Producers can also receive up to US\$3/kg in tax credits for green hydrogen produced, sold or used after 2022. The credit will be in place for 10 years.

The US is positioning itself to be a major green hydrogen producer and a net beneficiary of the difficulties involved with transporting hydrogen. The Hydrogen Council estimates suggest that shipping green hydrogen adds [US\\$2-3/kg](#) to the cost of production. This means that energy-intensive industry is likely to re-locate to jurisdictions with abundant clean energy. Companies from **Japan** and **Germany** for example, may have little choice but to relocate some operations to the US if they are serious about decarbonisation.

## Xi Jinping and MbS sign raft of agreements in Riyadh visit

*Deals have a distinctly energy and tech flavour*

**China** and the Kingdom of **Saudi Arabia** [signed](#) 35 memorandum of understandings (MOUs) worth US\$30 billion during paramount leader **Xi Jinping**'s visit to Riyadh last week. The trip was Xi's first visit to Saudi since 2016 and his third foreign visit since the beginning of the pandemic. Xi also attended the China-**GCC** summit and China-Arab summit.

Whether the MoUs will be realised is of course far from certain, though they do point to a strong political desire to deepen and expand the relationship. Among these is an agreement for China's Huawei to collaborate on cloud computing and build high-tech complexes in Saudi. This comes despite intense [pushback](#) from the **US** over Huawei's Gulf expansion. With US-Saudi ties at one of their low points in decades, China looks to be cashing in.

Deepening economic ties will not necessarily translate into strategic inroads. One notable absence in the slew of MoUs was any deals on defence. This is despite persistent, though quite possibly apocryphal rumours of Saudi purchases of Chinese drones. Nor is there any indication that China has the willingness to usurp the US in acting as the Kingdom's security guarantor. China's relatively strong [relationship](#) with **Iran** is another complicating factor. Instead, Saudi looks to be broadening its options rather than replacing the US as some breathless commentary has suggested. As Saudi's leadership is keen to point out Saudi is pursuing a "Saudi First" direction.

## EU obliges companies to ensure products are 'deforestation free'

*The overarching aim of the legislation is to protect biodiversity*

Last week, in further evidence of its growing commitment to biodiversity, the EU agreed to introduce a new law to [prevent](#) the import of products from deforested land. Companies will be required to issue a 'due diligence' statement proving that goods including wood, palm oil, soya and cattle have not led to deforestation or forest degradation anywhere in the world after December 2020. If passed, large companies will have 18 months to comply. The EU has said that after two years, it will consider extending the scope of the legislation to capture land with 'high carbon stocks' or 'high biodiversity value', as well as other commodities.

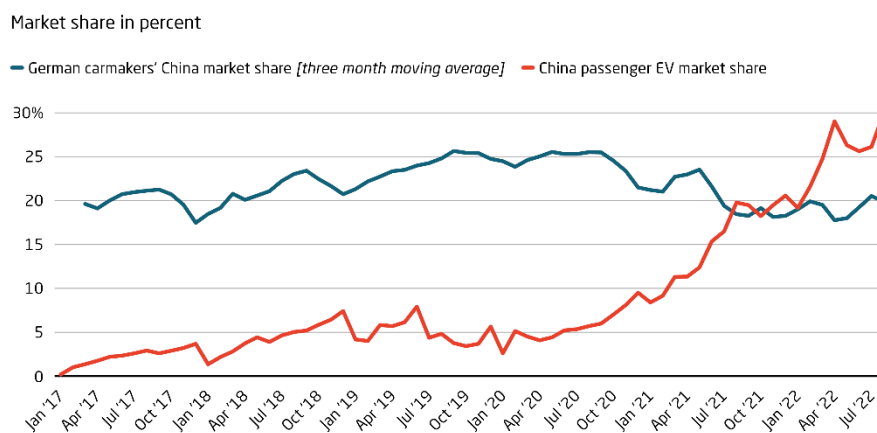
The law will mostly impact exports from large, agriculturally rich economies like **Brazil** which [accounts](#) for over 40 percent of global deforestation. The law may produce unintended consequences. The legislation is likely to disrupt Brussels' relations with Brazil, **Colombia** and **Indonesia**, which have already voiced strong objections. This may complicate the final push to ratify the EU-**Mercosur** (Brazil, **Argentina**, **Paraguay** and **Uruguay**) trade deal, and the revival of trade talks with Indonesia and **Malaysia**.

## German automakers fail to gain traction in China's booming EV market

*Germany's major automakers are caught between offshoring production and the need to maintain market share in China*

**German** automakers are struggling to maintain market share in what is for many, their single largest market, **China**. German automakers have been historically dominant in sales of internal combustion vehicles in China. However, their success has not been replicated in China's burgeoning EV sector. China currently accounts for 57 percent of all global EV sales (including battery electric vehicles, hydrogen vehicles and plug-in hybrids) – up from 26 percent in 2015. As EV penetration increases, German automakers are losing overall market share. In 2021, Germany's BMW and Mercedes-Benz held less than 0.3 percent of China's EV market.

### Chinese EV Market Share & German Market Share in China



German automakers' response has been to double down on the Chinese market. [Volkswagen](#) and [BMW](#) announced they will spend US\$2.2 billion and US\$1.4 billion, respectively, on local production capacity in China. This comes on top of earlier sizable investments. While China has long been established as an export base for the European market, German automakers claim the new investments are critical in regaining a foothold in the Chinese market and maintaining overall global competitiveness. While this may be beneficial for German automakers in China, it may lead to the hollowing out of Germany's production capacity in the longer term.