

United States Senate

WASHINGTON, DC 20510-0908

April 28, 2022

The Honorable Janet Yellen
Secretary
U.S. Department of the Treasury
1500 Pennsylvania Avenue NW
Washington, D.C. 20220

Dear Secretary Yellen:

It has come to our attention that Alphawave IP Group, a London- and Toronto-based, Chinese-funded developer of semiconductor intellectual property (IP) used in the design of advanced-node Integrated Circuits (IC), has announced its intent to acquire U.S.-based OpenFive, a leading developer of system-on-chip (SoC) intellectual property (IP). We write to convey our strong concern with this announcement, given Alphawave's dependence on Chinese-based financing, its role as a key supplier of critical semiconductor IP to China, and the strong possibility that an acquisition would mean sharing state-of-the-art IC design tools from U.S. companies with Chinese entities. As such, we urge a Committee on Foreign Investment in the U.S. (CFIUS) review of the OpenFive acquisition.

One of Alphawave's key commercial focuses is to provide cutting-edge semiconductor IP to the Chinese market, contributing directly to the Chinese Communist Party's (CCP) Made In China 2025 industrial plan and implicating U.S. national security interests as a result. Alphawave's access to the Chinese market is facilitated through two particular China-based "Product Partnerships." These impart significant financial value to Alphawave, with combined initial licensing fees reaching approximately \$150 million – accounting for three-quarters of the company's bookings in a recent financial disclosure, according to the *Financial Times*¹ – and are poised to play a firm's role in the company's ongoing efforts to "drive further success in China."²

One of Alphawave's two product partners, Verisilicon Microelectronics, is the largest IC design-services company based in China. Another is Wise Road Capital, a Beijing-based private equity fund backed by a combination of private and state entities. Wise Road reportedly enjoys a 10 percent stake in Alphawave, as well as an agreement to license Alphawave's IP to Chinese companies to develop ICs containing Alphawave's advanced semiconductor design IP. Wise Road also exhibits a concerning pattern of cultivating investments and ownership stakes in non-Chinese semiconductor enterprises, acquiring their cutting-edge assets and IP, and, in most cases, then relocating them to China. This behavior attracted CFIUS's attention last year, when, in March 2021, Wise Road attempted to purchase Korean-based Magnachip Semiconductor Corp.

¹ <https://www.ft.com/content/1a5458c3-10b9-46d9-a7cc-f24a58ee6023>

² <https://sec.report/nsm/Alphawave-Ip-Group-P-L-C/Portal/NI-000024176/NI-000024176>

Wise Road backed away from this deal after failing to secure approval from CFIUS, which cited “risks to the national security of the United States” that would result from the transaction.³

CFIUS was right to raise these concerns. Wise Road is positioned to transfer and license cutting-edge semiconductor IP, including IP produced or acquired by Alphawave, to a wide range of customers in China whose identities and activities cannot be monitored reliably. Thus, products using this IP would form the foundation of a leading-edge, indigenous supply chain in China to power the CCP’s efforts in 5G, data networking, supercomputing, and other critical industries. The downstream recipients of this technology would be nearly impossible to track, and federal regulators would likely struggle to establish which are on the U.S. Bureau of Industry and Security’s Entity List or subject to other restrictions.

Now, we urge CFIUS to apply the same level of scrutiny to Alphawave’s proposed acquisition of OpenFive, in light of Wise Road’s equity investment in Alphawave and its arrangement to license Alphawave’s advanced semiconductor IP – including OpenFive’s system-on-chip IP – to Chinese private and state users. The OpenFive acquisition would nearly double⁴ the number of connectivity-focused IPs available to Alphawave customers, as well as accelerate Alphawave’s roadmap for advanced connectivity solutions. As with the Wise Road-Magnachip case, it would also risk undermining U.S. trade and export policies given the strong possibility that Alphawave would redeploy OpenFive’s IP outside the U.S. That would mean furnishing Chinese semiconductor companies with advanced IP developed through U.S. technology, thus enabling the CCP to develop next-generation products in advanced semiconductor processes. Such an effort would impact U.S. national security interests, particularly given Alphawave’s continued access to U.S. technologies, as well as its use of joint domiciles outside the U.S. and beyond the jurisdiction of American export controls.

For these reasons, we urge CFIUS to conduct a review of Alphawave’s OpenFive acquisition. Should it do so, we also request that the Committee carefully scrutinize Alphawave’s business and investor relationships, as well as its current business strategies and their impact on U.S. export control laws and broader U.S. national security interests.

Thank you for your attention to this matter.

Sincerely,



Marco Rubio
U.S. Senator



Todd Young
U.S. Senator

³ <https://www.reuters.com/business/us-treasury-says-china-private-equitys-magnachip-purchase-poses-security-risks-2021-08-31/>

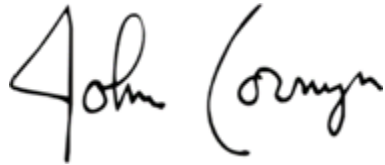
⁴ <https://www.prnewswire.com/in/news-releases/alphawave-ip-announces-definitive-agreement-to-acquire-entire-openfive-business-unit-from-sifive-for-us-210m-in-cash-809567481.html>



Tom Cotton
U.S. Senator



Josh Hawley
U.S. Senator



John Cornyn
U.S. Senator