CHIP FOUR ALLIANCE PLUS THE NETHERLANDS: DE-RISKING FROM CHINA AND RUSSIA?

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Executive Summary

1. The Chip Four Alliance, a proposal of the Biden administration, aims to secure American and Allied access to vital chips and deny the entry of American adversaries, namely China and Russia, on trade and national security grounds.

2. The Alliance aims to provide a forum for governments and companies to discuss and coordinate policies on supply chain security, workforce development, research and development (R&D), and subsidy harmonisation. However, unresolved challenges remain within the Alliance regarding American market regulations.

3. Unlike virtually any other commodity (such as oil), semiconductors can only be sourced from a small group of countries and their respective companies.

4. National security agencies are concerned that China and Russia are gaining access to weapons-grade semiconductors through financial investments in the Chip Four Alliance countries.

5. Prior to the Chip Four Alliance, Chinese and Russian companies had already made substantial investments in these countries and established linkages across the entire value chain, including in R&D.

6. The most active Chinese company has been the Semiconductor Manufacturing International Corporation (SMIC), a partially state-owned listed company headquartered in Shanghai and incorporated in the Cayman Islands. State-owned, Moscow-headquartered RUSNANO is the most active Russian semiconductor player in the Chip Four countries and the Netherlands.

7. Even with a forced share sale, Chinese companies can utilise the domestic legal system in question to extend the process. Up until recently companies such as SMIC with controlling shares enjoyed the same investor rights, including access to intellectual property and R&D projects, as other major investors.

8. This same principle holds true for Russian companies such as RUSNANO or Rostec in these same countries. Even if both China and Russia were somehow completely ejected from these countries, they still could absorb technology and knowhow considered at least near state-of-the-art as recently as 2023.

9. This knowledge adds to established engineering knowhow that exists across Chinese and Russian semiconductor industries to produce legacy chips. As China currently spends more on importing chips than it does oil, there is a strong incentive to scale up production.

10. China and Russia have established the core structure of an alternative semiconductor industry that covers most of the value chain. However, it is unclear if they possess the latest design tools, such as deep ultraviolet lithography.

11. Such an alternative industrial structure would likely prioritise mass production of both legacy chips and their most recently acquired chip designs and other technologies prior to their ejection from Chip Four and Dutch environments.