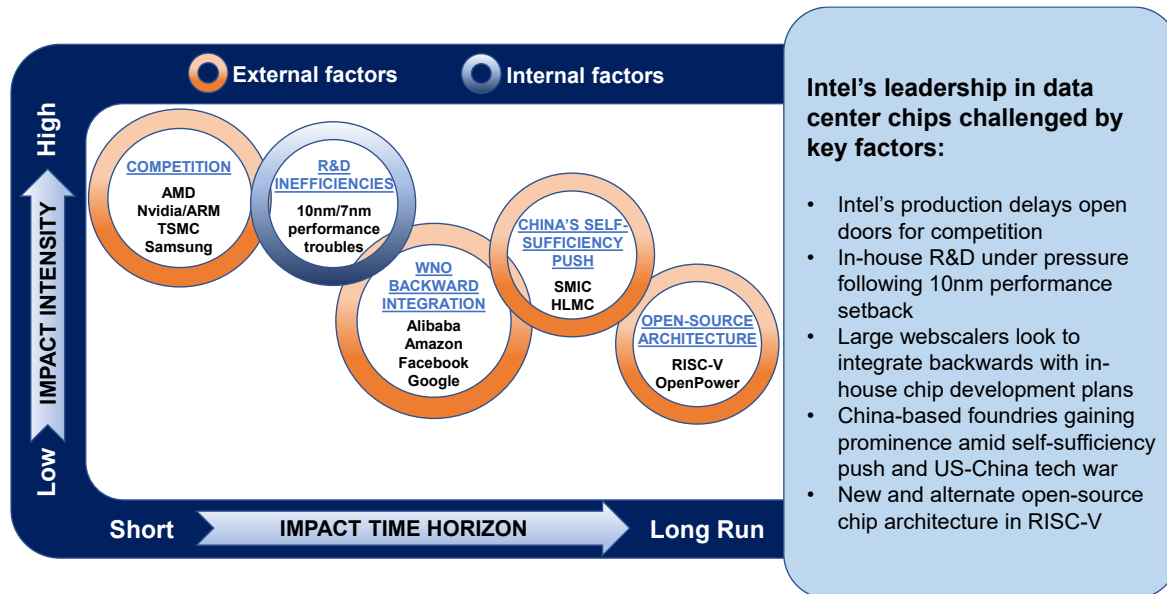


Figure 2: A framework of key factors challenging Intel



Source: MTN Consulting

As shown, the current manufacturing challenge related to R&D inefficiencies is primarily a short-term problem, with significant overall impact. It's the only major factor created by Intel itself. The other factors are external to the company, yet have huge potential to harm the company's data center position. Specifically, increased rivalry with the emergence of players like AMD, Nvidia/ARM, and Taiwan Semiconductor Manufacturing Company (TSMC) will have the highest imminent impact. Other key factors, such as in-house chip development plans by large webscalers, emergence of China-based fabs amid self-sufficiency push stirred by U.S.-China tech war, and alternative architecture in RISC-V, will further impact Intel's market leadership in the medium to long run.

## Intel competes with diverse rivals across the chip value chain

Intel's biggest short-run worry is to tackle the rivals in the DC chips business, who are more than just the obvious trio of AMD, Nvidia, and Arm. That is because Intel is perhaps the only major chipmaker currently with an end-to-end presence in the semiconductor value chain.

To understand this better, Figure 3 below encapsulates the key players and their respective functions across different activities of the value chain.