TURNING THE TIDE FOR SEMICONDUCTOR MANUFACTURING IN THE U.S.

KEY CONCLUSIONS FROM JOINT SIA-BCG REPORT ON SEMICONDUCTOR MANUFACTURING

1. SEMICONDUCTORS ARE CRITICAL FOR NATIONAL SECURITY & THE ECONOMY

- 5G
- Quantum computing
- Artificial intelligence
- Autonomous systems
- Space & hypersonics
- Cybersecurity

2. U.S. SHARE OF CHIP MANUFACTURING IS ERODING WHILE CHINA’S IS GROWING

- Share of Global Semiconductor Manufacturing 1990-2030E
  - 1990: 37% (U.S.), 0% (China)
  - 2000: 30% (U.S.), 10% (China)
  - 2010: 24% (U.S.), 10% (China)
  - 2020E: 14% (U.S.), 19% (China)
  - 2030E: 10% (U.S.), 24% (China)

3. INCENTIVES ARE NEEDED FOR AMERICA TO COMPETE

- Share of "white space" captured by US (excl. China)
  - 21% (2020) expected to increase to 41% (2030)

- US ranking among 6 global competitors (excl. China)
  - Currently ranked #2, expected to increase to #1 by 2030

- # of new fabs to be built in the US
  - 14 new fabs expected by 2020
  - 19 new fabs expected by 2030

- Expected Private Sector Investment
  - $174B by 2020
  - $279B by 2030