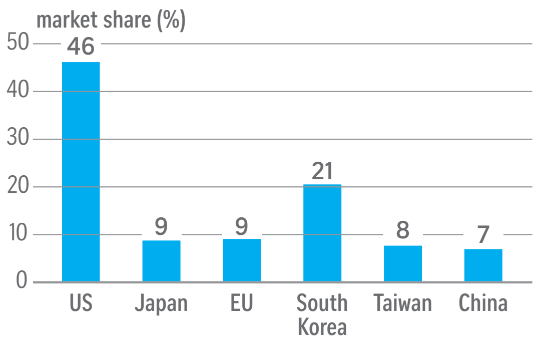
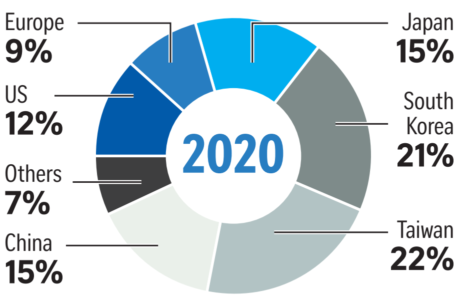
How the chips fall worldwide

The United States dominates the global semiconductor industry despite competition from other countries. Its firms have the largest market share and lead the world in cutting-edge devices as well as in research and development, design and process technology. Asian economies, however, are catching up, with the big four of Japan, South Korea, Taiwan and China taken together a close second behind the US in market share. While Asean is not known as a major manufacturing hub, it has been home to chip production since the 1970s and in 2019 accounted for 22.5 per cent of global semiconductor exports.

GLOBAL INDUSTRY OVERVIEW



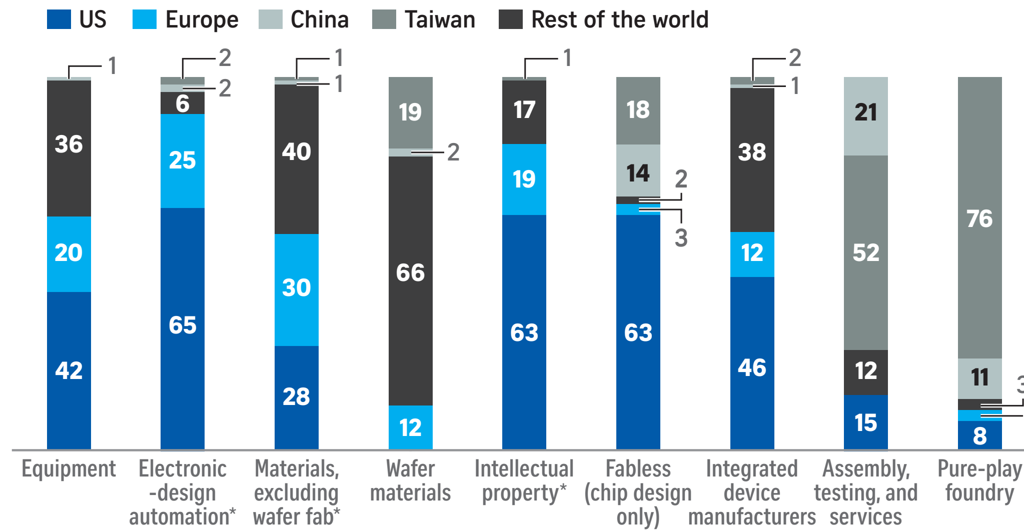
GLOBAL MANUFACTURING CAPACITY



ASEAN'S INVOLVEMENT IN THE GLOBAL VALUE CHAINS

- Second-largest semiconductor exporter globally, with a **22.5%** share of global semiconductor exports
- **Five** Asean states are among the world's top 15 semiconductor exporters

2020 SALES ALONG THE VALUE CHAIN



NOTE: *Based on 2018 sales

SPREAD OF SPECIALISATION IN THE SEMICONDUCTOR VALUE CHAIN ACROSS ASEAN

R&D and IC design
- Malaysia
- Philippines
- Singapore
- Thailand
- Vietnam

Wafer fabrication
- Malaysia
- Singapore

Backend manufacturing
- Malaysia
- Vietnam
- Philippines
- Indonesia
- Thailand

Engineering software
- Singapore
- Thailand

Wafer production
- Malaysia
- Singapore

Equipment production
- Malaysia
- Singapore

Sources: SEMICONDUCTOR INDUSTRY ASSOCIATION, BOSTON CONSULTING GROUP, MCKINSEY & COMPANY, EY
STRAITS TIMES GRAPHICS