

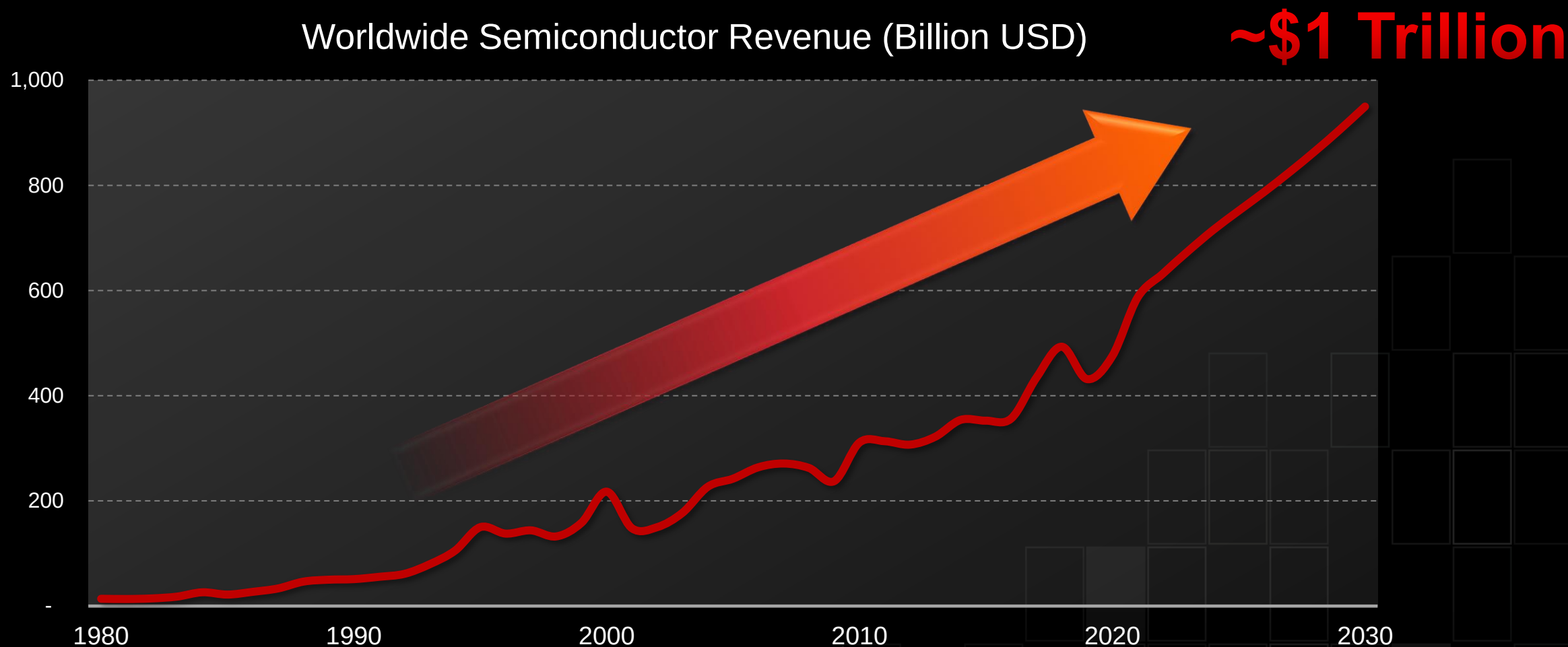


Unleash Innovation

Advanced CMOS drives sustainable semiconductor market growth

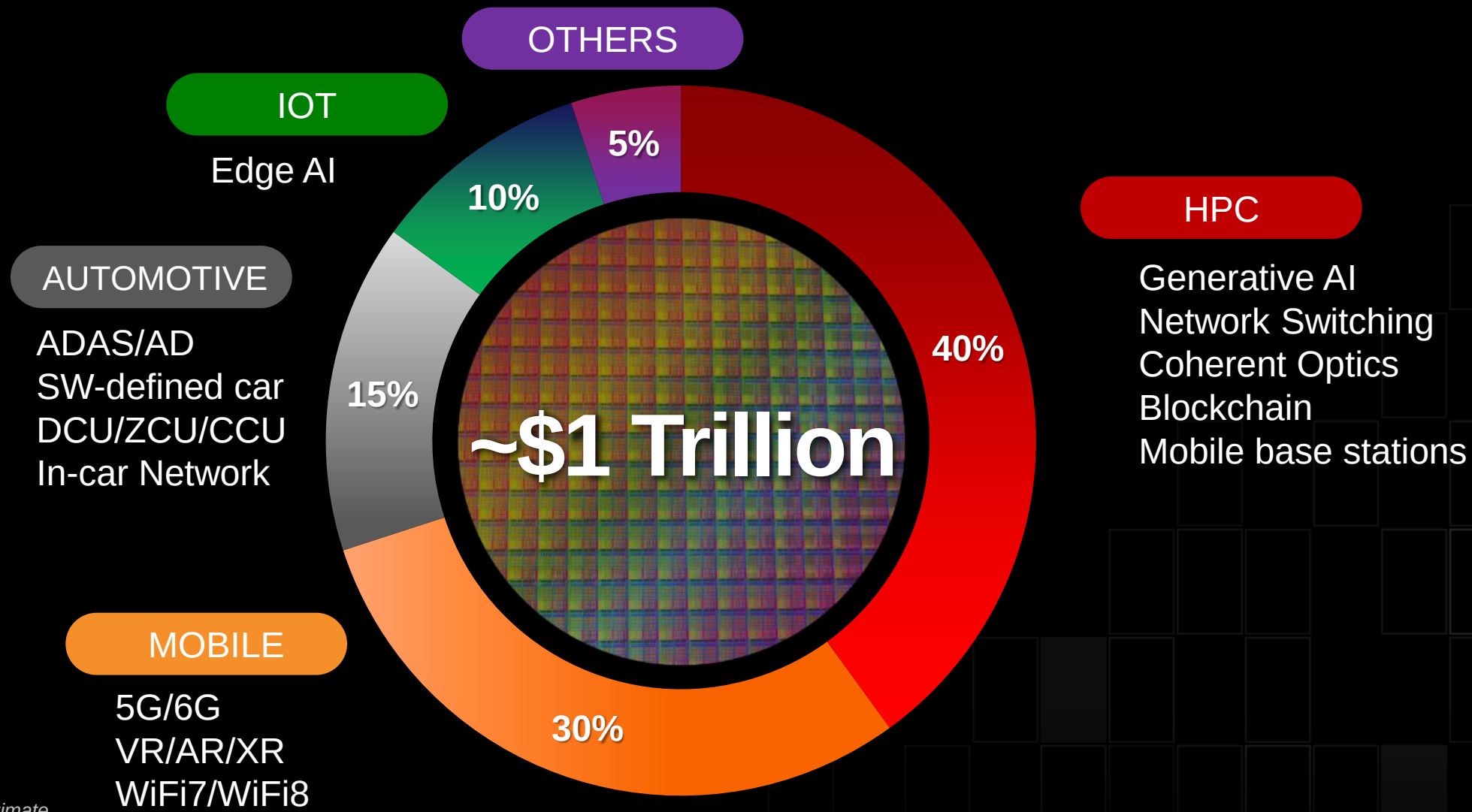
Paul de Bot
General Manager, TSMC Europe

... that drive the **Semiconductor market growth** ...



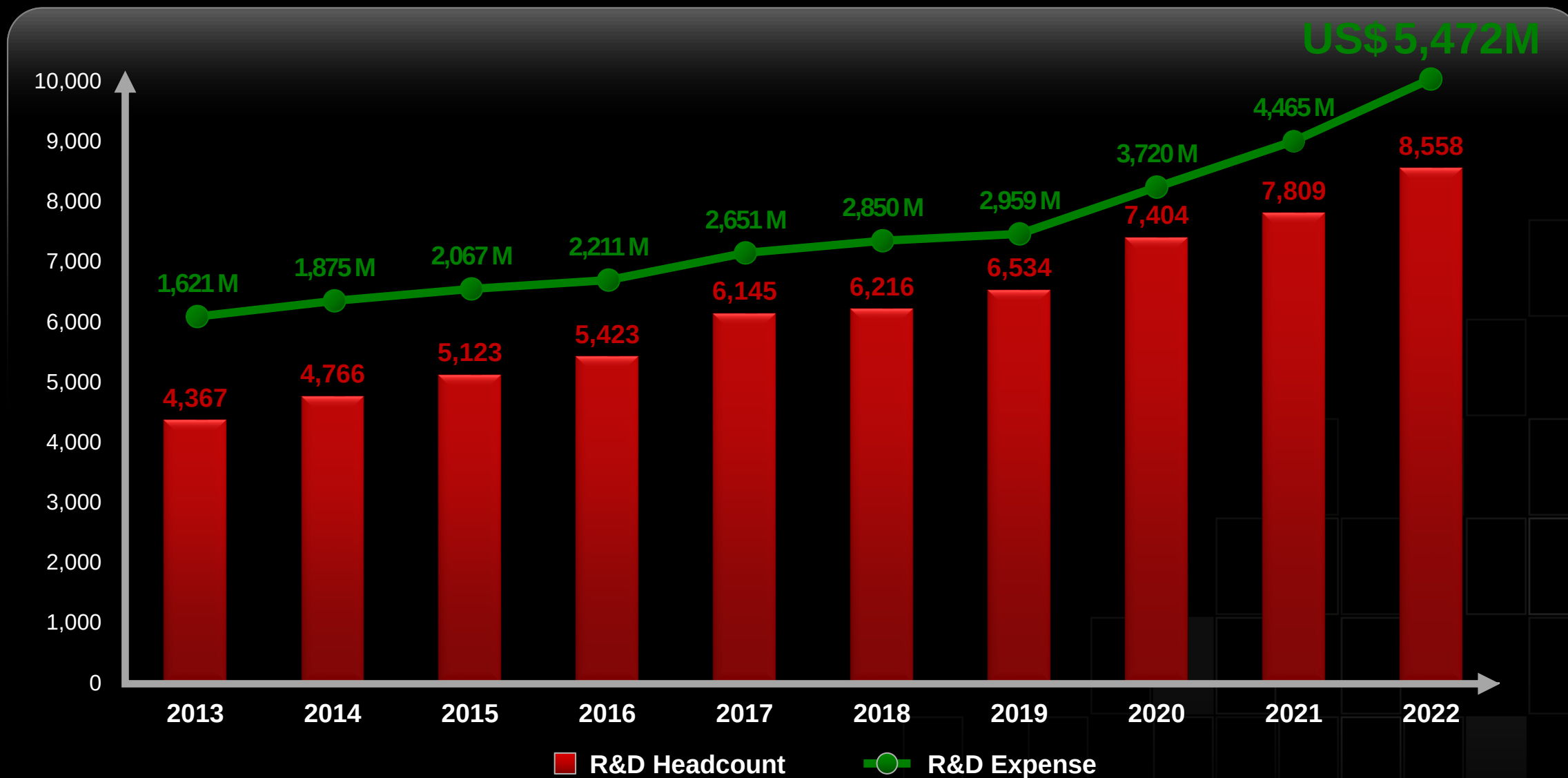
Source: TSMC

... in all relevant segments



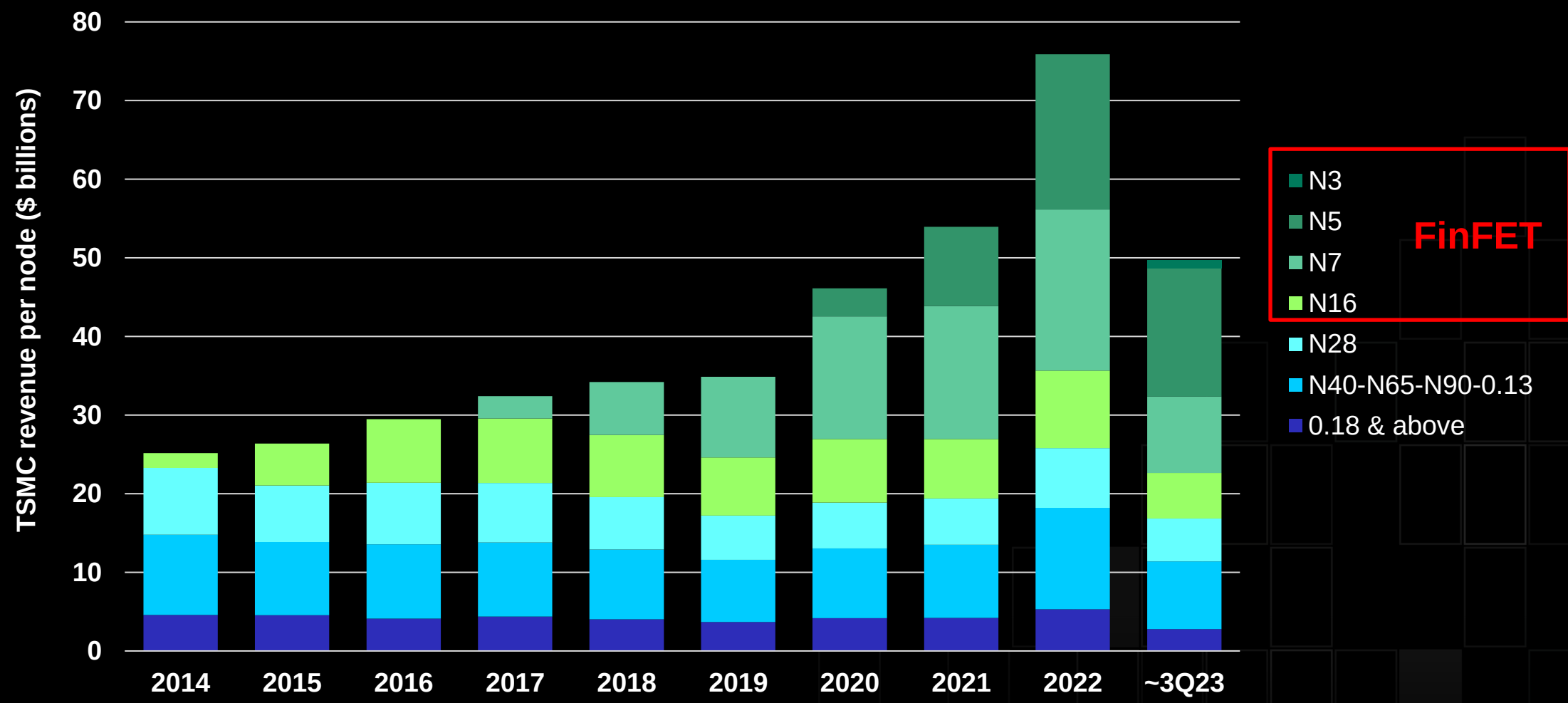
Source: TSMC Estimate

Investing in the Future

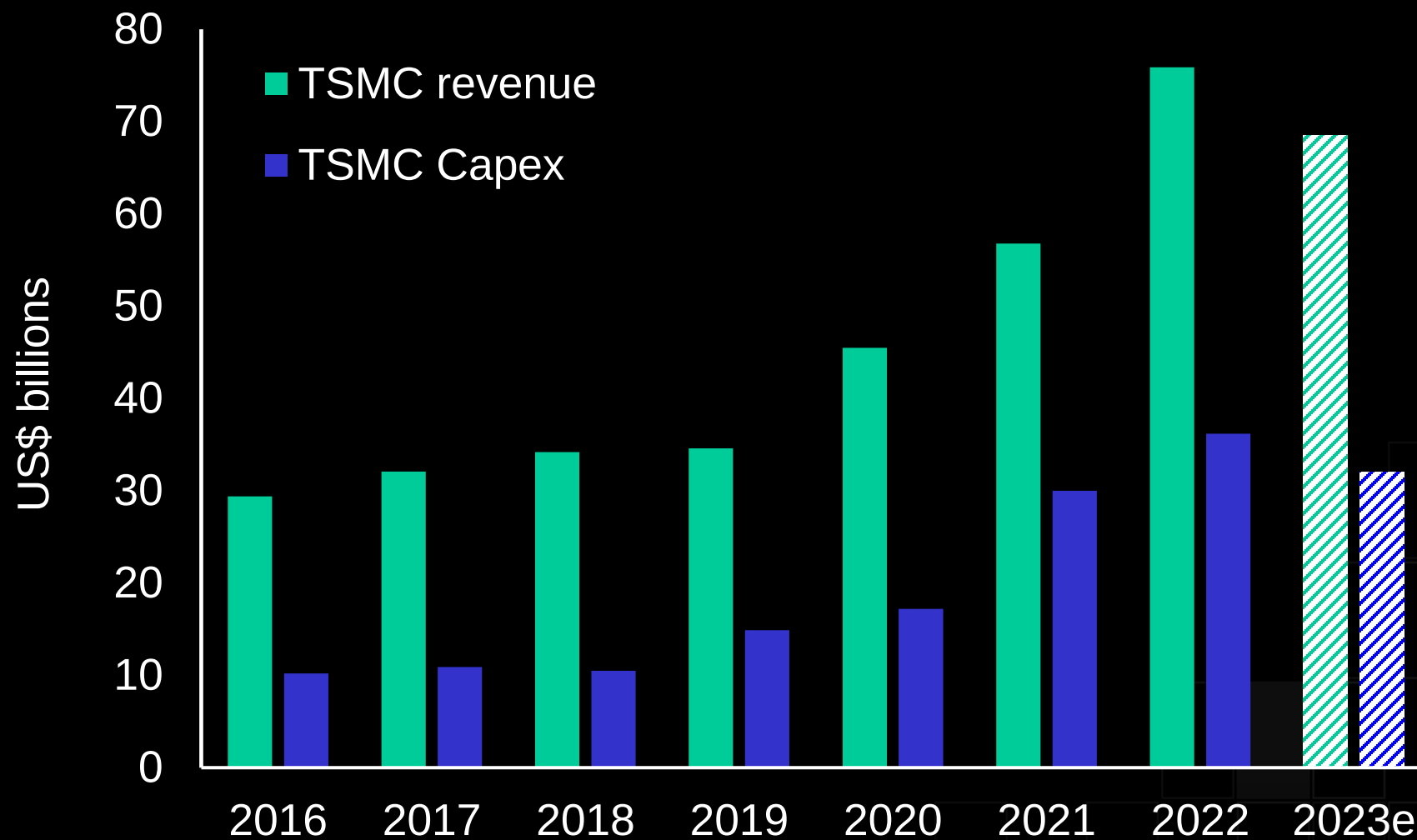


TSMC Business growth driven by advanced nodes

FinFET contribute > 65% of revenue



To support this market growth, TSMC invests



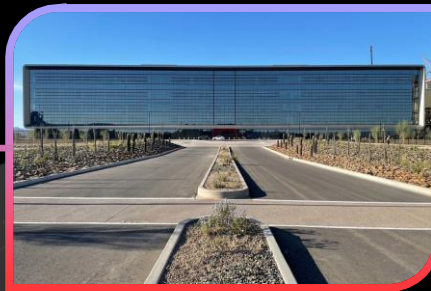
TSMC Continues to build new fabs



Expanding Global Manufacturing Footprint for 12"

TSMC, Bosch, Infineon, and NXP establish Joint Venture to bring Advanced Semiconductor Manufacturing to Europe

Fab 21



ESMC

Dresden, Germany
Production: End'27
Nodes: N28 to N12

Fab 16



Fab 23



Green Manufacturing

Net Zero Emissions

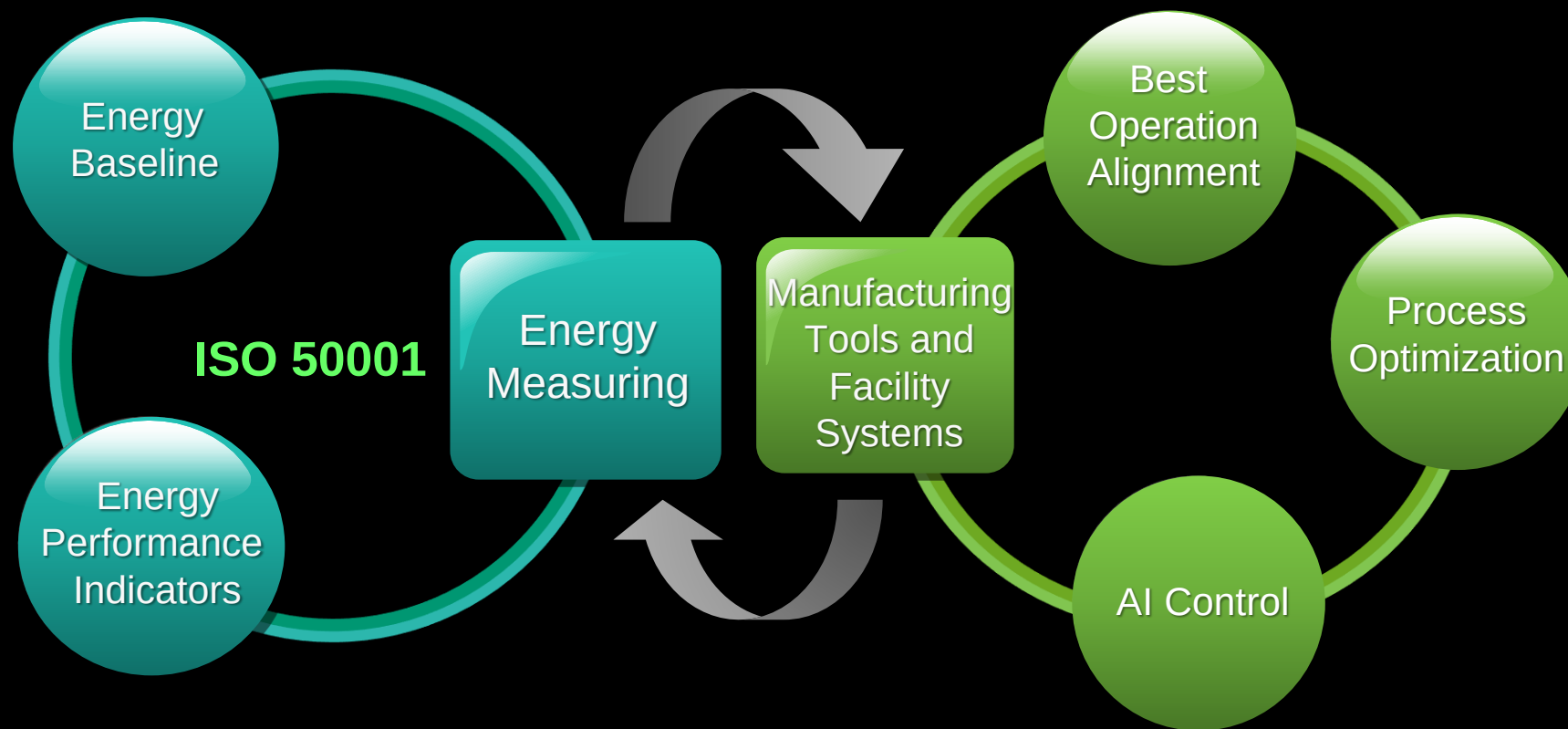
Reach Net Zero Emissions by 2050

World's First Semiconductor Company to Join RE100

Use 100% Renewable Energy by 2040



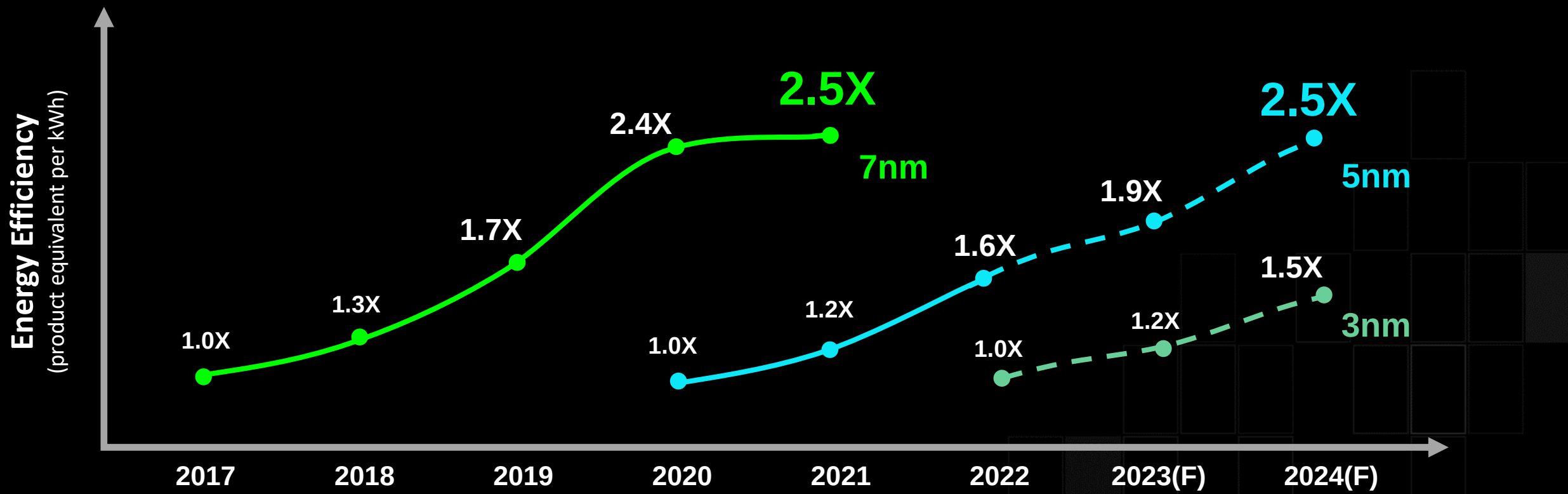
Ways to Reduce Energy Consumption



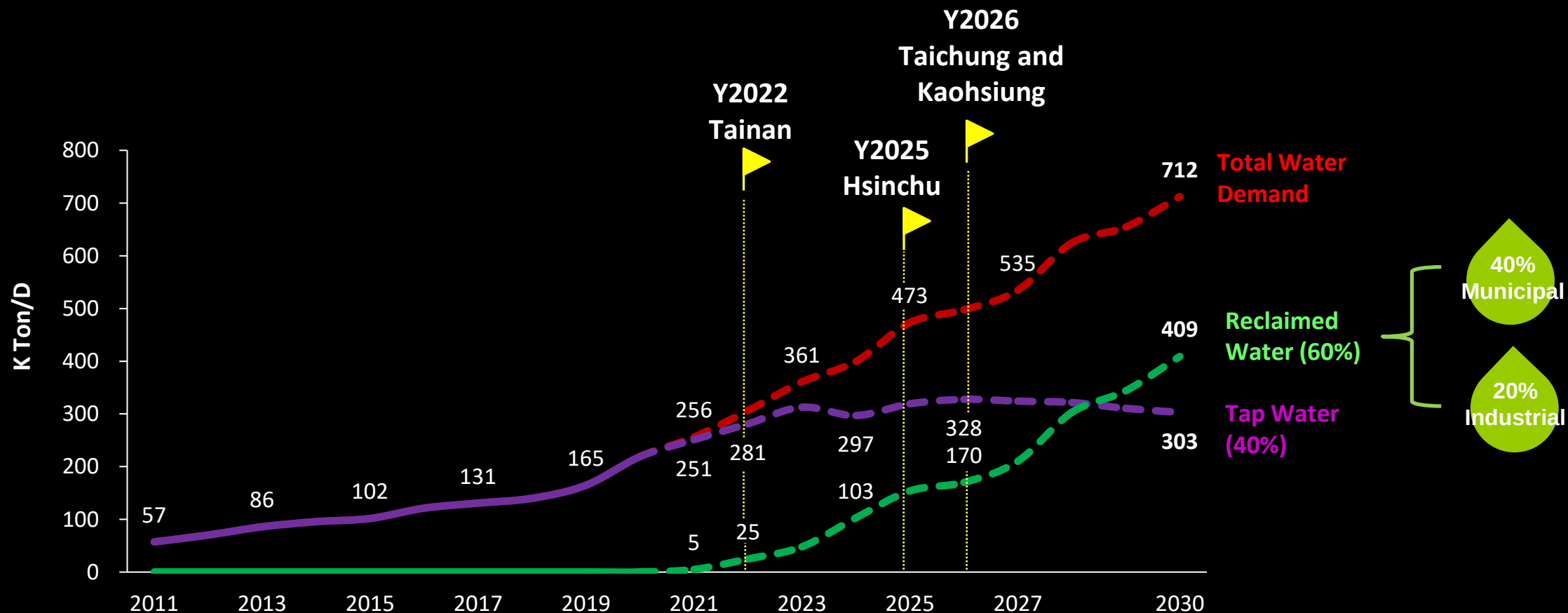
- Accumulated Energy Saved from 2016-2022 Reached 3,100 GW-h (31億度電)

2.5X Production Energy Efficiency

- Launch Industry’s First “New Generation Tool Energy Conservation Program”
- Patented Chiller System with AI Capabilities Significantly Improves Cooling Efficiency



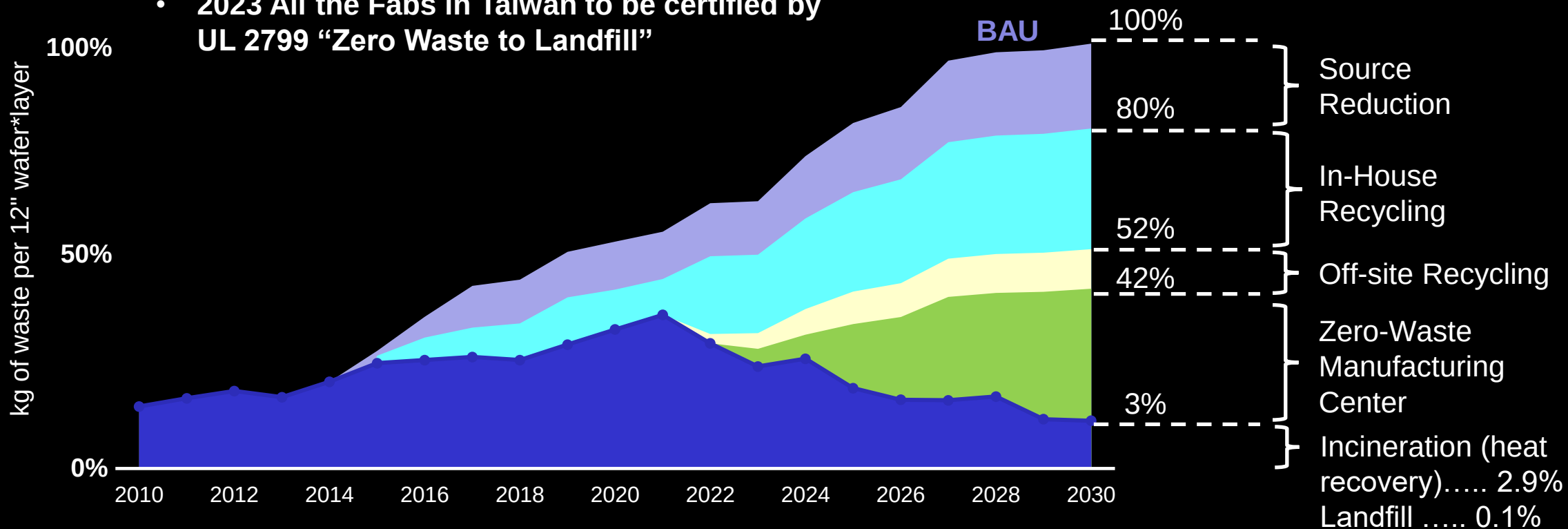
Roadmap of Developing Diverse Water Sources



Waste Management Strategies and Goals

TSMC Waste Management Roadmap

- 2023 All the Fabs in Taiwan to be certified by UL 2799 “Zero Waste to Landfill”



Zero-waste Manufacturing Center

- A novel circular economy model, aims to purify waste resources into semiconductor-grade materials that will return to TSMC manufacturing processes.



Summary

- Semiconductor market approaching \$1T
- TSMC invests in innovation & capacity to enable this market growth
- TSMC expands global footprint to support customer requirements
- Roadmap towards net-zero and zero-waste