



Welcome Remarks

Laith Altimime
President SEMI Europe



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TOGETHER



**SEMICON[®]
EUROPA**

Strategic Partnership

**SEMICON[®]
EUROPA**



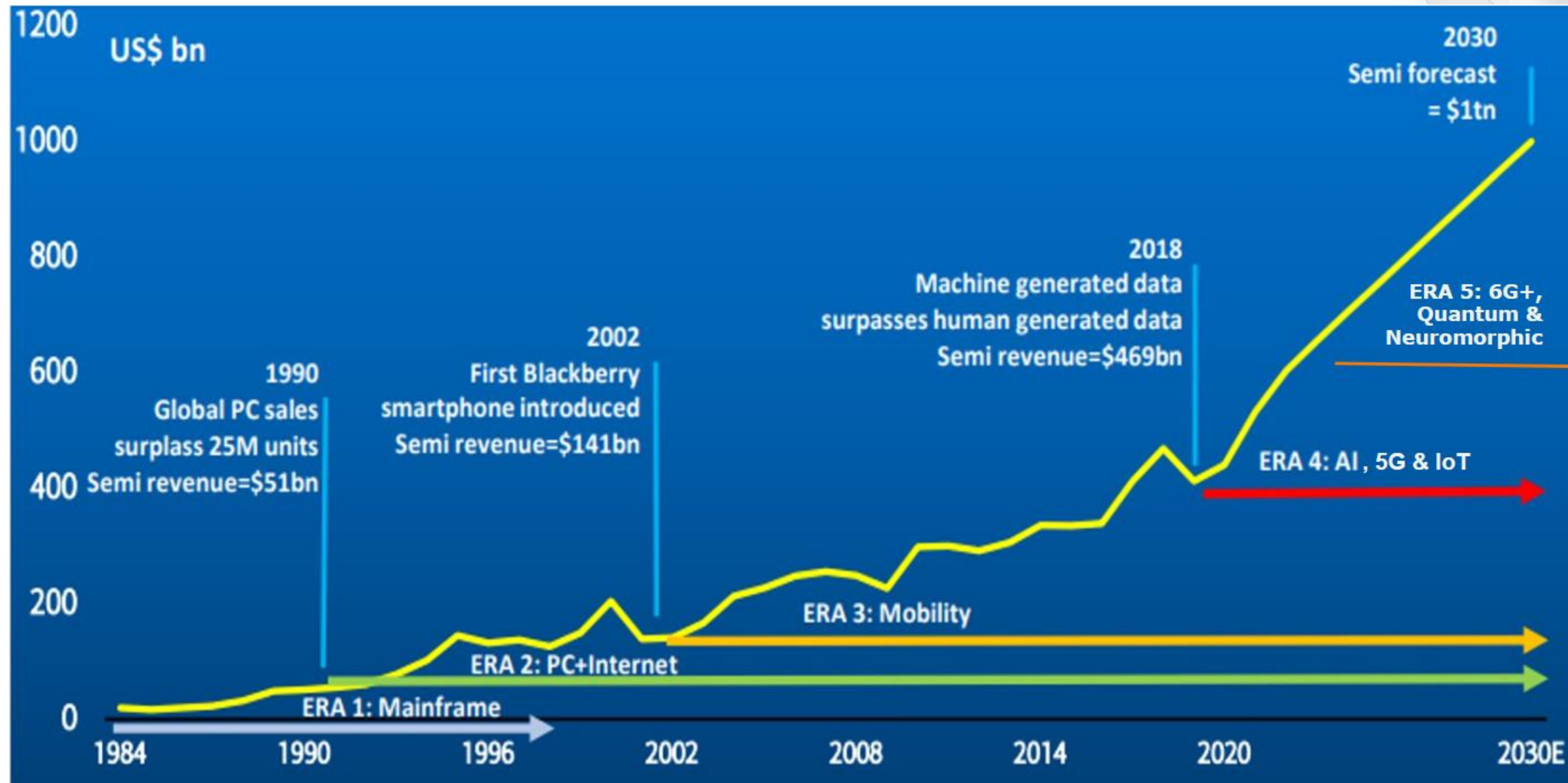
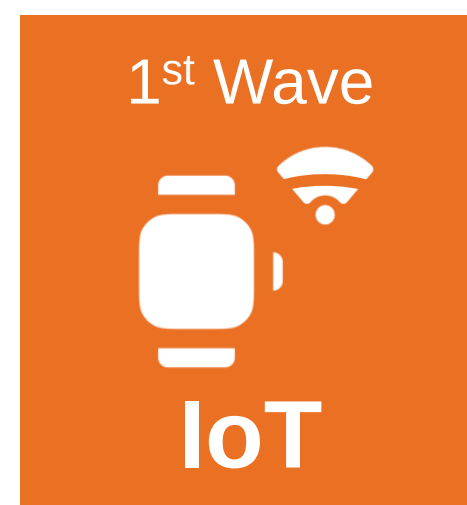
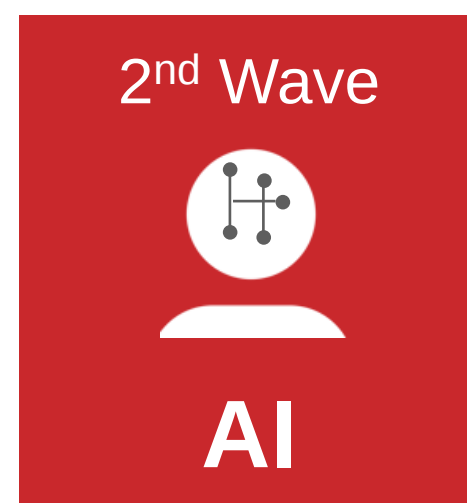
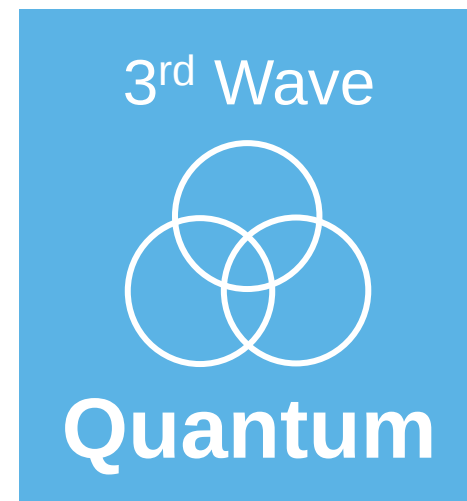
Messe München

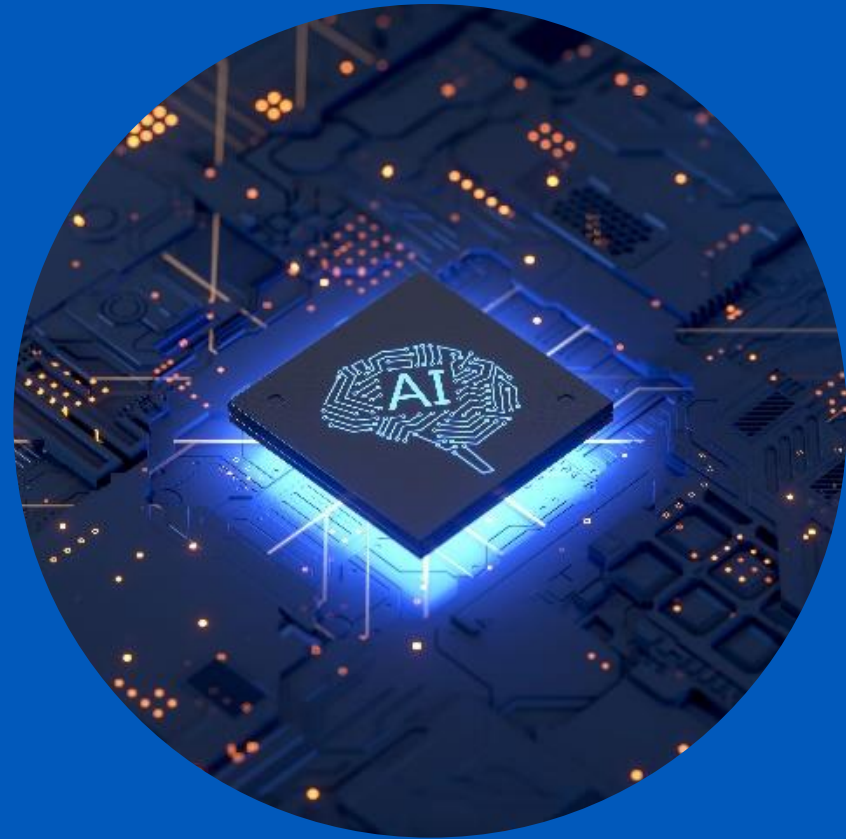
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**SEMICON[®]
EUROPA**

Industry Exponential Growth to \$1 tn

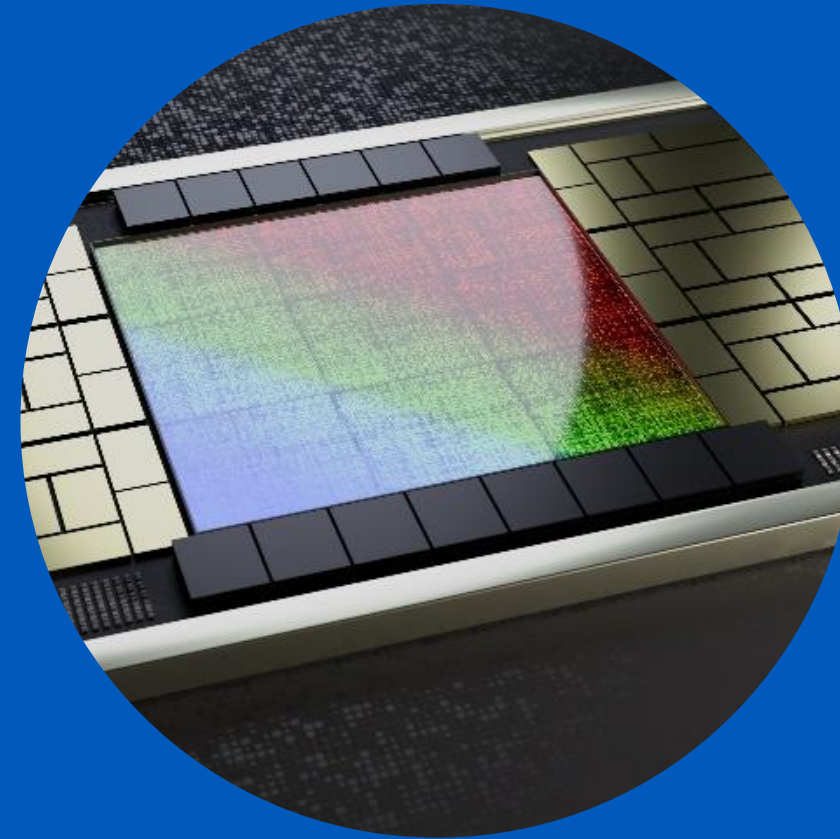




**Artificial
Intelligence**



**Sustainability &
Decarbonization**



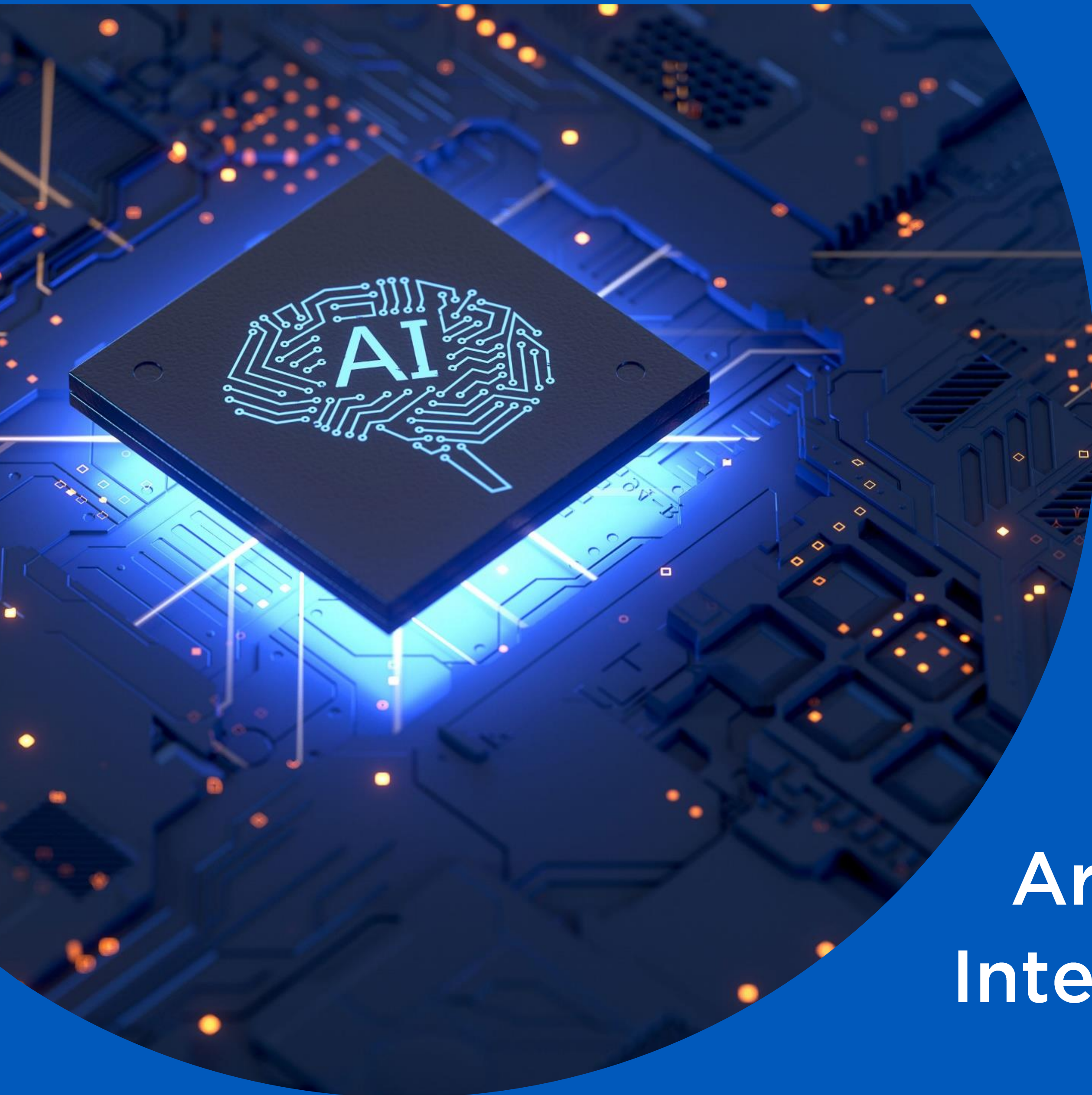
**Chiplets & Advanced
Packaging**



**Geopolitical
Tensions & Resilience**



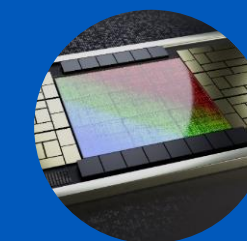
**War for
Talent**



Artificial Intelligence



Sustainability &
Decarbonization



Chiplets & Advanced
Packaging

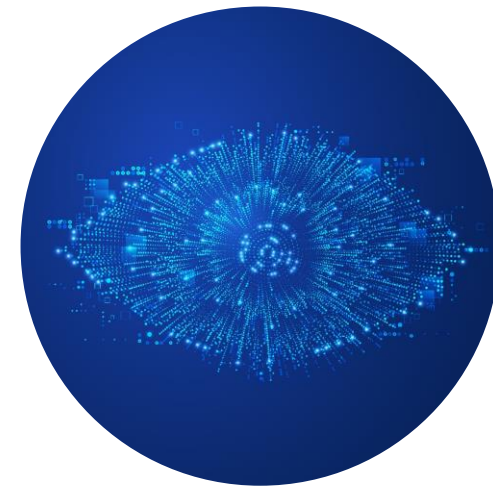


Geopolitical Tensions &
Resilience



War for Talent

AI



Computer Vision

RECOGNITION, DETECTION



RPA*

AUTOMATE REPETITIVE
PROCESSES



Causal AI

UNDERSTAND PATTERNS AND
COMPLEX SYSTEMS



Advanced Optimization

IMPROVE PROCESSES



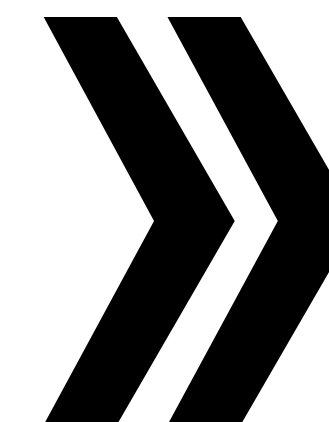
Foresight Analytics

ANTICIPATE THE FUTURE



NLP**

CLUSTERING, CLASSIFICATION,
INFORMATION RETRIEVAL &
IDEATION



GEN AI

CONTENT & DATA
CREATION

AI in the semiconductor industry

Rising demand...



Assistant systems like
drowsiness detection



Pattern recognition
& image analysis in
healthcare



Real-time traffic data
analysis & route
optimization



Over **\$250 bn** in hardware market size today and growing



AI in the semiconductor industry Rising demand...

Over **\$250 bn** in hardware market size today and growing

...and opportunities

Full scalable digital twin at wafer and machine level for epitaxial growth ensuring optimal and stable conditions for high-quality output by combining the strength of AI with a digital twin.

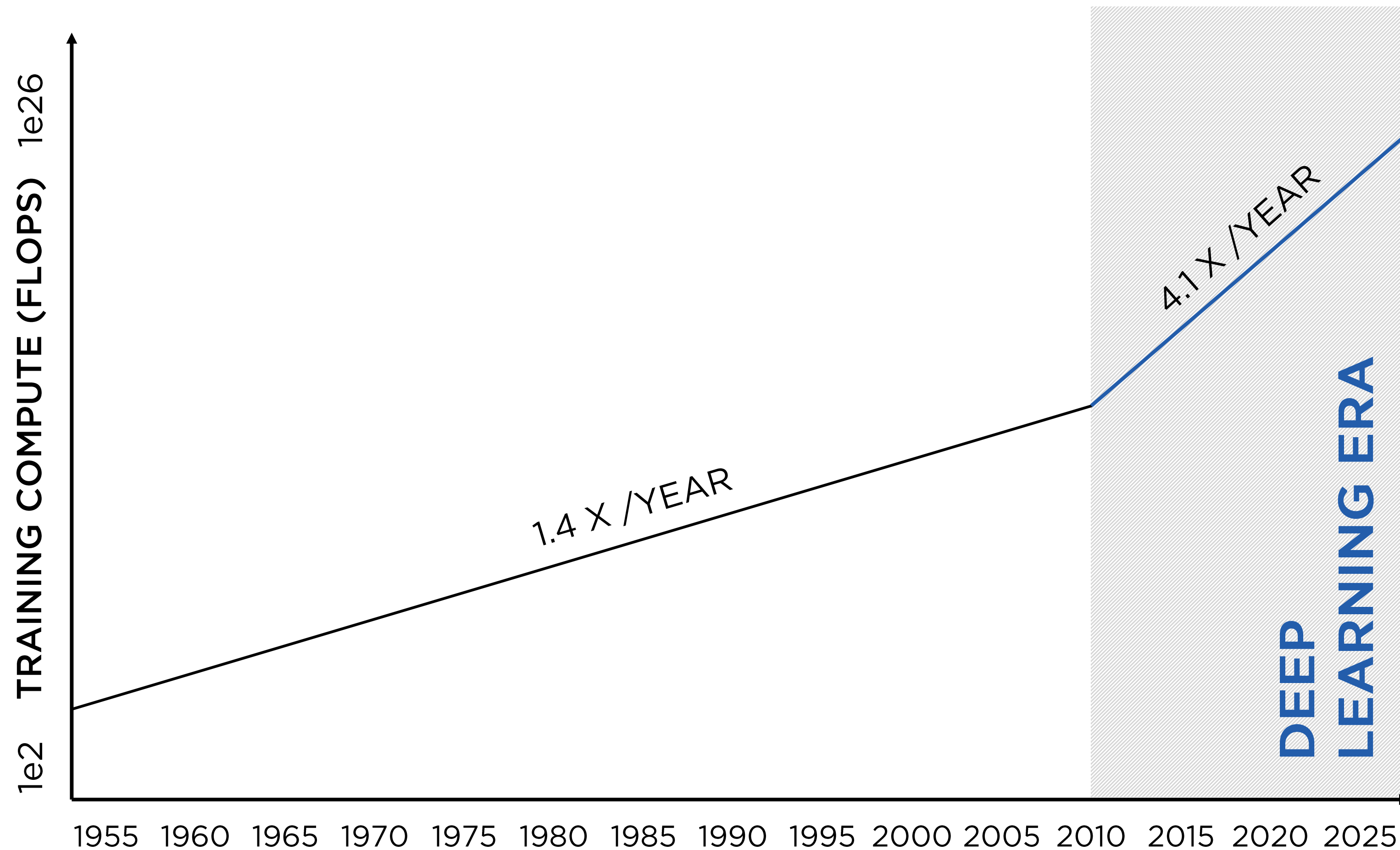


+5 % OEE



-2 % TTM

AI Compute Power Demand



Computational power
doubling roughly every
100 days

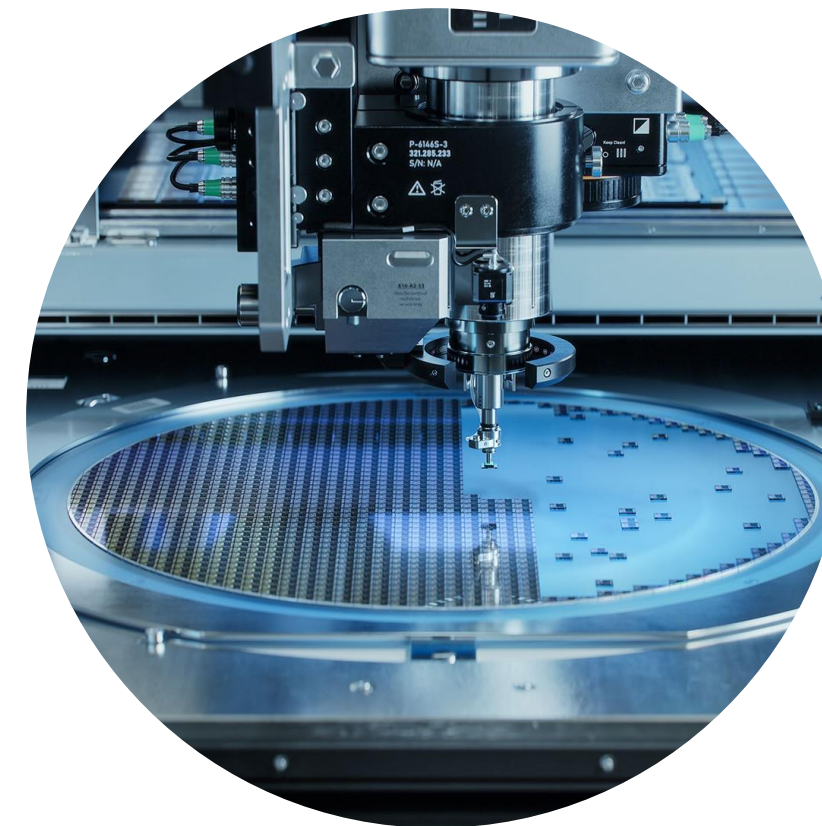
Europe's Microelectronics Ecosystem

European
Excellence



Semiconductor
Research

Semiconductor for
Automotive, IOT, MS/
RF, Sensors, Power



Lithography
Equipment &
Materials

Mobile Network
Equipment



RTOS

umec c22 leti

SUPPLIERS

AEM AFORE Air Liquide AIXTRON ASM ASML BASF BenQ mks Atotech MERCK

Fraunhofer VTT

Besi

c-met

DAS
Environmental Experts.

EDWARDS

E V G

evatec
process systems

umicore

OKMETIC

OVIVO

RECIF
Technologies

pico sun

Schneider
Electric

siltronic
perfect silicon solutions

soitec

SPTS
A KLA Company

SUSS MicroTec

TRUMPF

VAT

ZEISS

DESIGN & MANUFACTURING

amun
OSRAM

arm

BOSCH

cadence

GlobalFoundries

Infineon

intel

Melexis
INSPIRED ENGINEERING

nexperia

NXP

tsmc

SIEMENS
Mentor
Graphics

ST
life.augmented

II-VI

xfab

Onsemi: \$2 bn Investment in Czech Republic Semiconductor Plant Expansion



- **Investment Overview:** \$2 bn investment to expand existing semiconductor manufacturing facility in the Czech Republic.
- **Focus on SiC:** Development of vertically integrated silicon carbide manufacturing capabilities at the site.
- **Supply Chain Enhancement:** Strengthen the advanced power semiconductor supply chain for European and global customers.
- **Support for Key Industries:** Provide critical manufacturing for energy-efficient chips.



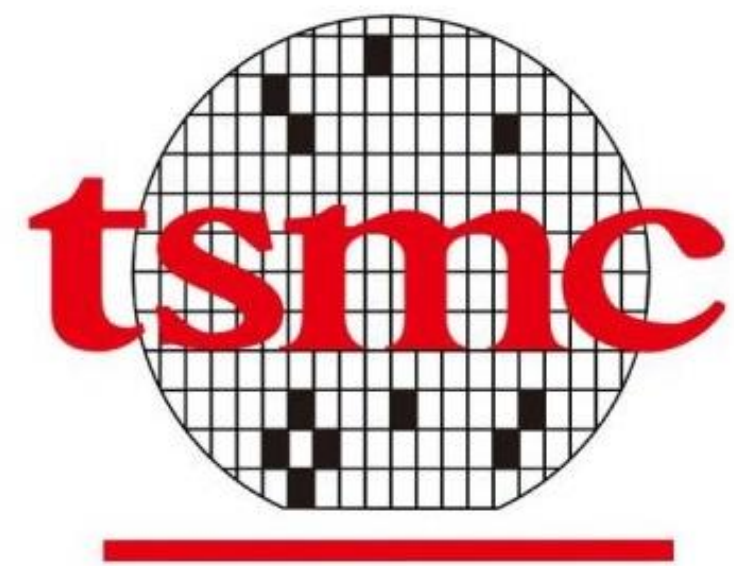
STMicroelectronics: World's First Fully Integrated Silicon Carbide Facility in Italy

- **Major Investment:** Projected €5 bn multi-year investment, with €2 bn from the Italian State under the EU Chips Act.
- **Catania Silicon Carbide Campus:** Centralizes ST's vertically integrated SiC capabilities—from R&D to manufacturing.
- **Focus on Electrification:** Supports automotive and industrial sectors in enhancing energy efficiency and electrification efforts.
- **Innovative Technology:** Pioneering advancements SiC technology for improved performance and sustainability.

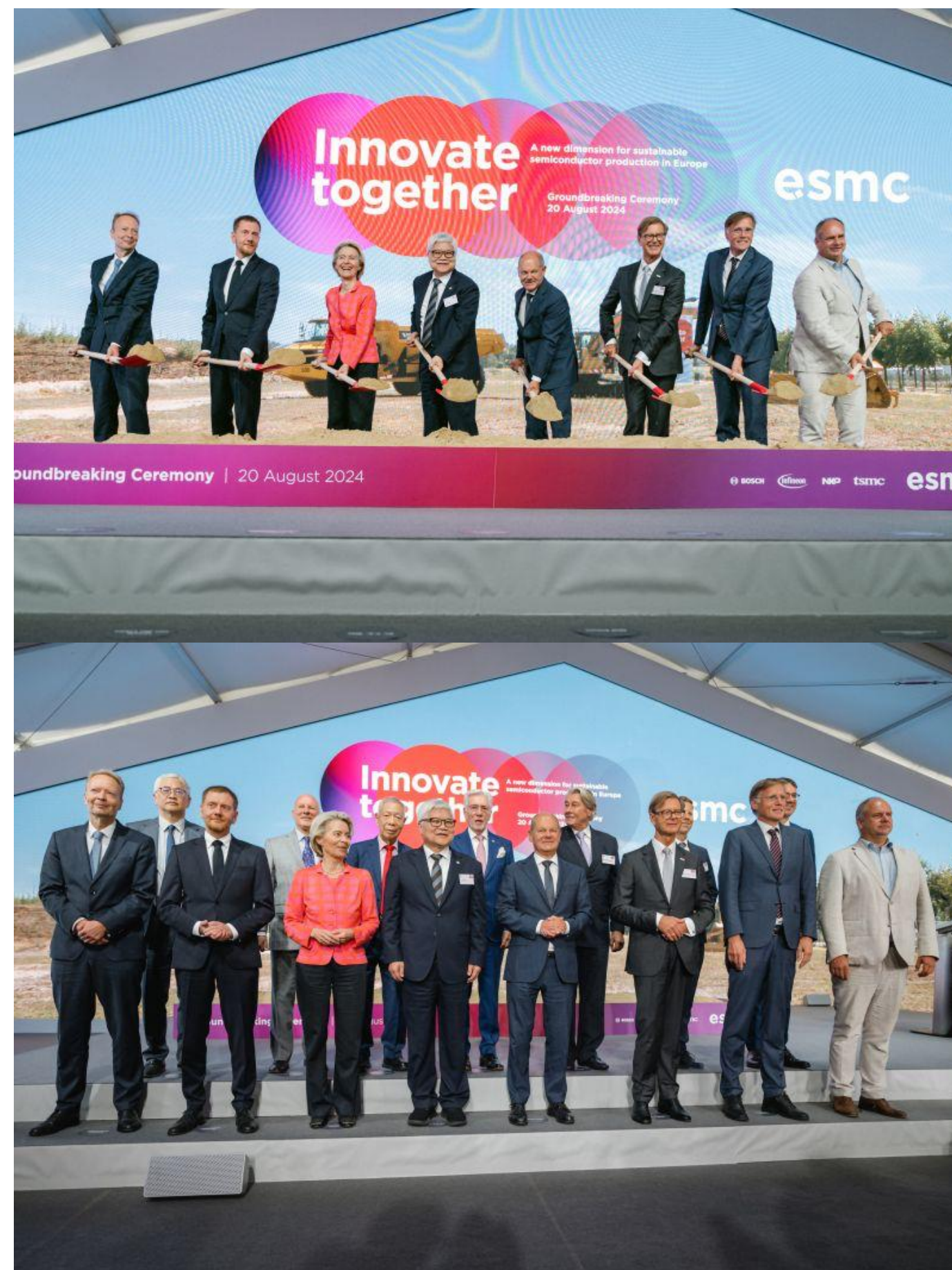


TSMC Groundbreaking Ceremony for First German Plant

Dresden, August 2024



**TAIWAN'S TSMC TO BREAK
GROUND ON GERMANY PLANT**

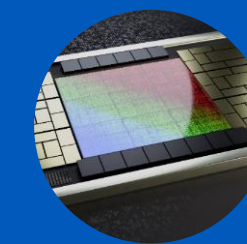




War for Talent



Sustainability &
Decarbonization



Chiplets & Advanced
Packaging



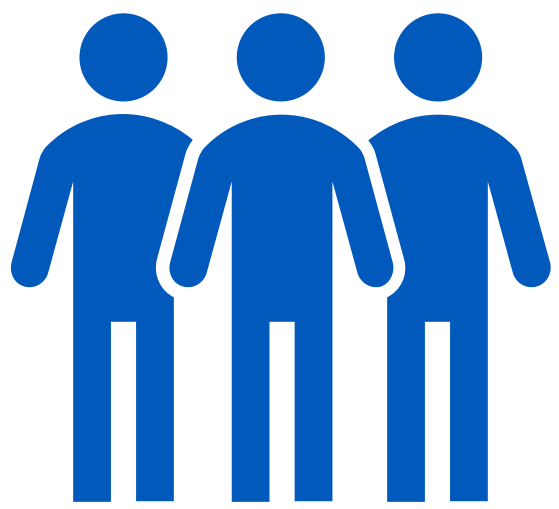
Geopolitical Tensions &
Resilience



War for Talent

Skills in the Semiconductor Industry

What are the current challenges?



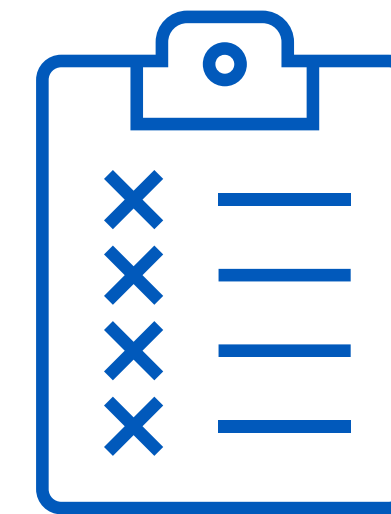
Not enough people with the right motivation and skills



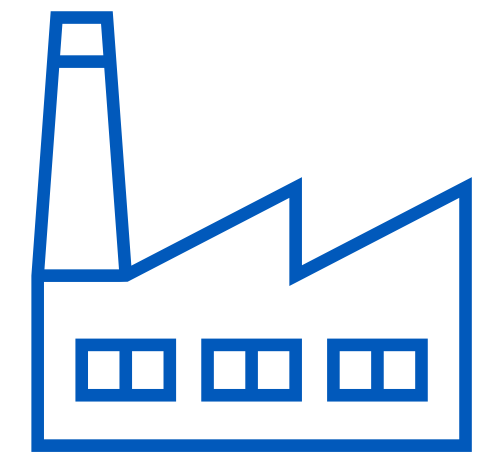
The industry has image challenges



Sector does not reflect and benefit from the full diversity of Europe's society and talents



Skills requirements are changing – substantial future skills missing



Industry is ramping up at a fast pace, missing staff is a bottleneck for growth

SEMI Europe Initiatives – Talent & Diversity

EC Funded Projects



- Innovative VET Courses
- Image Campaign
- Network of Stakeholders and Policy Advice



- Skills Intelligence
- E-learning Platform
- Led to European Chips Skills Alliance



- Summer School
- Student Ambassadors
- Education Leaders Board



- Industry-led Data and Research
- Mentorship and Ambassador Programs, Pioneer Award
- Online Training Platform

RESCHIP4EU



- Double-degree MsC in Embedded Systems
- SEMI and Higher Education Institutions from 5 Countries
- Student Exchange and Scholarship Programs

SEMI Initiatives

- 20 Under 30 Award
- Chip Quest Challenge
- Talent Forum
- Future Workforce Forum
- High Tech U
- SEMI University
- Careers Platform
- Award, Industry Leader in Diversity & Inclusion
- Podcast & Webinar Series
- Blog Article Series, Role Models & Rising Stars
- Blog Article Series, Inclusion & Workplace
- Event Video Testimonials
- Chip In Documentary Film

European Chips Skills Academy

Alliance between academia and industry to develop a decentralized Academy to meet the growing demands for skills.



European Chips Diversity Alliance

Alliance to lower the barriers and enhance participation from under-represented groups by providing data, operational tools, trainings, and engagement programs.





SEMI UNIVERSITY

Online learning
platform created
for the
semiconductor
industry



SEMI EUROPE 20 UNDER 30 FUTURE LEADERS OF THE MICROELECTRONICS INDUSTRY



Abel Andemichael
PCB Layout Designer



Alicia Pang Li Si
Senior Metrology
Process Engineer



Anne-Mary YEBOAH
Technology Manager



Annika Schnell
Application Specialist



Augustin Detruit
Production Manager



Charis Kalantzi
Lead Application
Engineer



David Coenen
Senior Researcher



Elisabeth Brierley
Sustainability Graduate



Felix Holtsch
Engineer II - Product
Specialist



Felix Kohler
Use Case Manager



Giulia Cioffi
Asic Digital Design,
Staff Engineer



James McGrath
CVD Process Engineer



Kamal Rudra
R&D Integration
Engineer



Lizzie Boakes
Researcher



Luca Sinkó
R&D Team Leader -
SRP Application



Mouadh Ayache
Senior Engineer



Pascal Fasel
Process Engineer/Project
Manager



Pheobe Kuo
Customer Engineer



Steve Kalkbrenner
Senior Software Developer



Thibaud Rebotier
Senior Industrial
Engineer



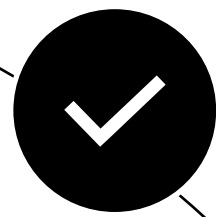
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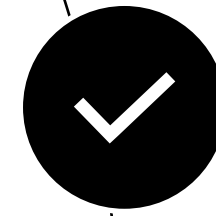


UNPRECEDENTED
GLOBAL CHALLENGES TO

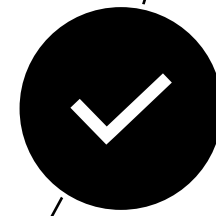
\$1tn



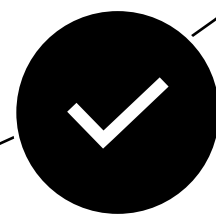
GEOPOLITICS



TALENT SHORTAGE



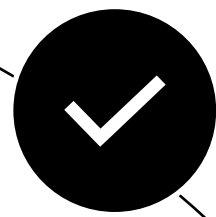
CLIMATE CHANGE



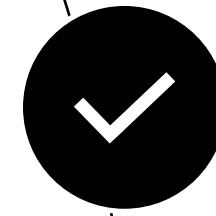
SUPPLY CHAIN DISRUPTIONS



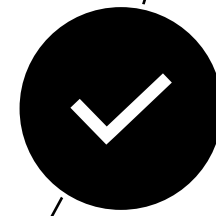
UNPRECEDENTED
SEMI
ACTIONS



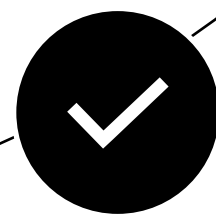
GEOPOLITICS
SEMI INTERNATIONAL POLICY SUMMIT (SIPS)



TALENT SHORTAGE
WORK FORCE DEVELOPMENT INITIATIVES



CLIMATE CHANGE
SEMICONDUCTOR CLIMATE CONSORTIUM (SCC)



SUPPLY CHAIN DISRUPTIONS
SUPPLY CHAIN MANAGEMENT (SCM)

SIPS SEMI INTERNATIONAL POLICY SUMMIT

SIPS Tokyo | December 10, 2024



*Global collaboration to address the
industry's most pressing challenges:*

Talent, Climate, and PFAS

SEMI Europe Forest

Our commitment to reducing SEMICON Europa's carbon footprint

- 1 Planted 805 trees
- 2 Supported the prevention of 3 tonnes of CO₂ emissions
- 3 Funded the removal of 3 tonnes of CO₂ from atmosphere
- 4 Restored 10 m² of habitat



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SEMICON Europa

Highlights



SEMICON[®]
EUROPA

CxO Summit Speakers



Jari Kiranet
Executive Director
Chips JU



Gustav Kalbe
Acting Director of
DG CNCT - EU COMMISSION



Luc Van den hove
President & CEO
imec



Kai Beckman
Member of the Executive
Board
CEO Electronics
Merck KGaA



John Behnke
General Manager Smart
Manufacturing
INFICON



Katharina Westrich
Global VP of Electronics,
Semiconductors & Simulation,
Siemens



Stephan Haferl
CEO
Comet



Pierre Barnabé
CEO
Soitec



Frederic Godemel
Executive Vice President
Schneider Electric



Barbara Frenkel
Member of the Executive
Board Purchase
Porsche AG



Carlos Mazure
Chief Strategy Officer,
Institute of
Microelectronics - A*STAR



ITF Chip into the
FUTURE

4 YEARS
imec

semi

SUPPORTED BY
ChipsJü

EU Chips Act: a game changer for the **digital economy**

November 12, 2024 ■ Munich, Germany

Advanced Packaging Conference Committee


ADVANTEST

amun
OSRAM


Besi
 **BOSCH**

cea leti

 **Cohu**

CATAPULT
Compound Semiconductor Applications



evatec
process systems

 **Fraunhofer**
IZM

 **GlobalFoundries™**

Henkel

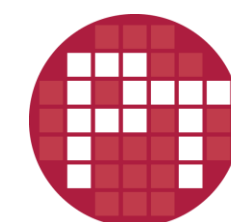
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 **infineon**

JCET

 **mks** | **Atotech**

NXP

 **PacTech**
member of nagase group

 **PandA Europe**
chip packaging
and
assembly consultants




life.augmented

 **YOLE**
Group

Fab Management Forum Committee



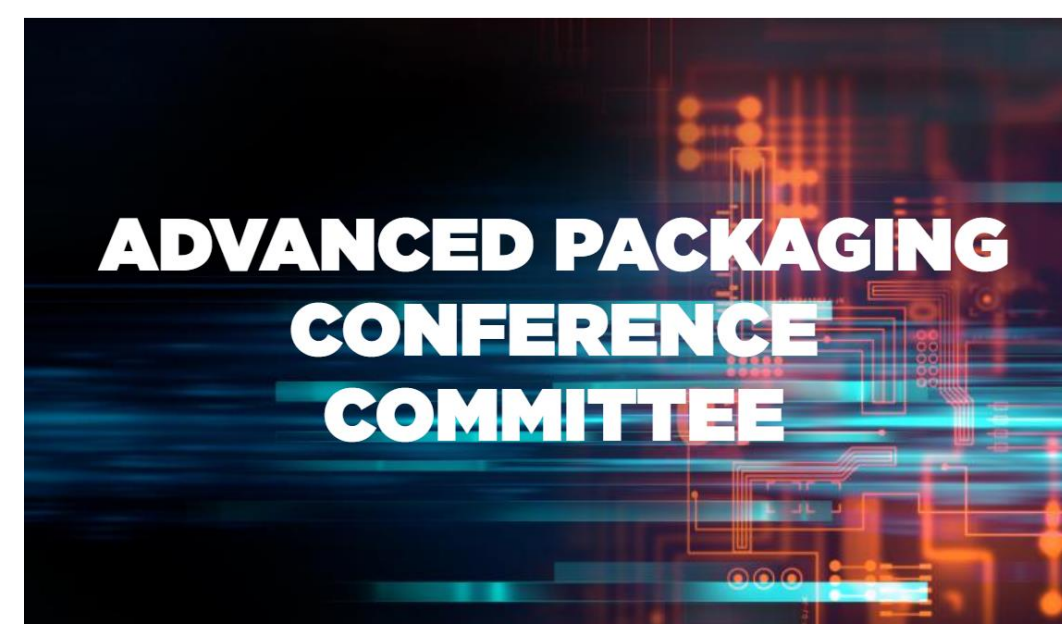
MEMS & Imaging Sensors Summit Committee



SEMICON Technology Committee



SEMI Europe Committees and Councils



Meet the SEMIs
Thursday, Nov 14 | 5:30 pm



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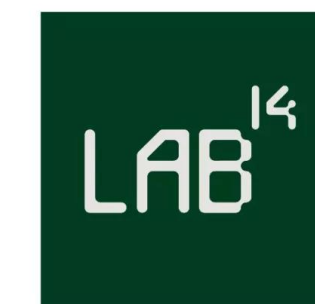
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LYNCEUS

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President SEMI Europe



Cassandra Melvin
Senior Director, Business
Development and Operations



Christopher Frieling
Director, Advocacy and Public
Policy



Pantelitsa Markus
Senior Manager, Strategic
Programs



Victoria Cummings
Senior Manager, Workforce
Development & EU projects



Ana Bernardo
Manager, Technology Programs



Maria Daniela Perez
Manager, Communications



Reviliani Gani
Senior Manager, Diversity and
Workforce Development



Robert Sellnow
Senior Manager, Events and
Exhibition Sales



Wilfried Wollbold
Manager, Event Operations &
Exhibition Sales



Lain Healey
Manager, Events & Exhibition
Sales



Salil Gupte
Manager, Sales and Key Accounts



Monica Kim
EU Projects Accounting Manager



Sitong He
Communication Manager



Kartikey Srivastava
Senior Specialist,
Communications



Jatin Mendiratta
Communications Coordinator



Daria Lieberman
Senior Specialist, Member
Service, Admin & Finance



Stefano Ramundo Orlando
Manager, Advocacy and Public
Policy



Irene Da Pont
Intern, Junior Advocacy
Coordinator



Aiden Durrant
Intern, Marketing & Diversity
Projects



ISS INDUSTRY
STRATEGY
SYMPOSIUM

Europe

March 12-14, 2025 | Sopot, Poland

Ready to join us in Poland?

**Look under your chair for the
ISS Europe Golden Ticket!**



**ONE LUCKY
WINNER!**

**LOOK UNDER YOUR
CHAIR FOR THE
GOLDEN TICKET**

STRONGER
TOGETHER

**Wishing you a great
SEMICON Europa 2024**