# NANOELECTRONICS AND DIGITAL TECHNOLOGY ENABLING DISRUPTIVE INNOVATION

LUC VAN DEN HOVE - PRESIDENT AND CEO





**MEC'S MISSION** 

# IMEC'S MISSION

Imec is the world-leading R&D and innovation hub in nanoelectronics and digital technology.

As a trusted partner for companies, start-ups and academia we bring together brilliant minds from all over the world in a creative and stimulating environment.

By leveraging our world-class infrastructure and local and global ecosystem of diverse expert partners across a multitude of industries, we accelerate progress towards a connected, sustainable future.

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#### industry 72%

## 2016: ~**500M€**

#### government support 16%

#### funded programs | 11% (EU, ESA, ...)



# ~3,500 RESEARCHERS

# 75 DIFFERENT NATIONALITIES





# MOST ADVANCED MICROCHIP TECHNOLOGIES











# wearables & diagnostics healthcare within everybody's reach





# smart mobility connected driverless cars





smart manufacturing & logistics:
where humans and robots work together





# smart cities: Europe's largest smart city lab





# sustainable energy generation & storage smart energy systems













# **MEC** ECO SYSTEM

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## **APPLICATION PARTNERS**

### FABLESS & FABLITE

# MEC ECO SYSTEM

### IDMS & FOUNDRIES

### SUPPLIERS









# **MEC** ECO SYSTEM







# **MEC** ECO SYSTEM



**IMEC OPERATIONS** 





## investment ~2B€



100

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# COLLABORATIONS WITH CHINA



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### SHANGHAI HUAHONG GROUP (上海华虹集团)

- 2002: 0.18um & 0.13um CMOS technology cooperation
- > 2010: 65nm-55nm CMOS technology cooperation

#### CETC (中国电子科技集团)

- > 2004: Flash Memory Technology transfer
- > 2013: 3D process technology cooperation, phase one
- > 2014: 3D process technology cooperation, phase two
- > 2015-... : MEMS technology cooperation







# COLLABORATIONS WITH CHINA

### SMIC (中芯国际)

- > 2003: 0.13um CMOS technology transfer
- 2015: 14nm and below CMOS technology cooperation

### HUAWEI (华为)

- ▶ 2012: Wireless communication technology cooperation
- > 2013-...: Silicon Photonic technology cooperation
- > 2014-...: Core partner of IMEC for CMOS technology program







# TRAINING FOR CHINA IC DESIGN AND PROCESS TECHNOLOGY

#### CITEF (中国国际人才交流基金会)

From 2006-2014: 9 times 3-month classes reaching over 150 Chinese university professors From 2015: merged with MIITEC training program

#### MIITEC (工信部)

Started in 2014: frame agreement signed, I class of I month at imec Grows exponentially

2017: over 2'000 industry and executive people trained, totaling >45'000 contact hours Twenty 3-day domestic courses and three 30-day overseas hands-on courses at imec

#### **DUT** (大连理工大学)

From 2006-2014: various training courses at DUT for DUT professors and students

#### FUDAN university (复旦大学)

From 2017: Extensive cooperation program set up for dual degree master training, dual degree PhD training, guest lectures, staff exchange, joint technical workshops, etc.

Will be expanded to other top-ranked Chinese universities



# UNDEC embracing a better life