NXTGEN Hightech &

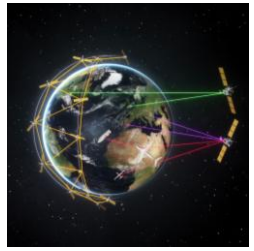
Semicon – the future of semicon equipment

Our impact

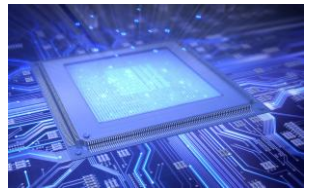
From vision to realization

Durable economic growth for the future generations

- Improve our competitive position
- Extra € 6-9B growth by 2040





Solutions for societal challenges

- Handsfree agricultural & food production value chain
- Cleaner & attainable energy
- Lab-on-chip/Organ-on-Chip equipment for animal-test-free pharma/medicine production
- Safer communication through light/laser
- Energy efficient, heterogenously integrated chips
- Automated production of light-weight materials/ composites

Empowered to excel

330+ partners

90% companies, 2/3 SMEs, 1/4 start-up/scale-up, knowledge organizations, regional agencies, trade associations, government

60 projects

Development of **high tech equipment & systems, manufacturing** & talent

€ 970M total investment

including **€ 450M contribution from the National Growth Fund**

6

application domains

Agrifood, biomedical, composites, energy, semicon, laser satcom

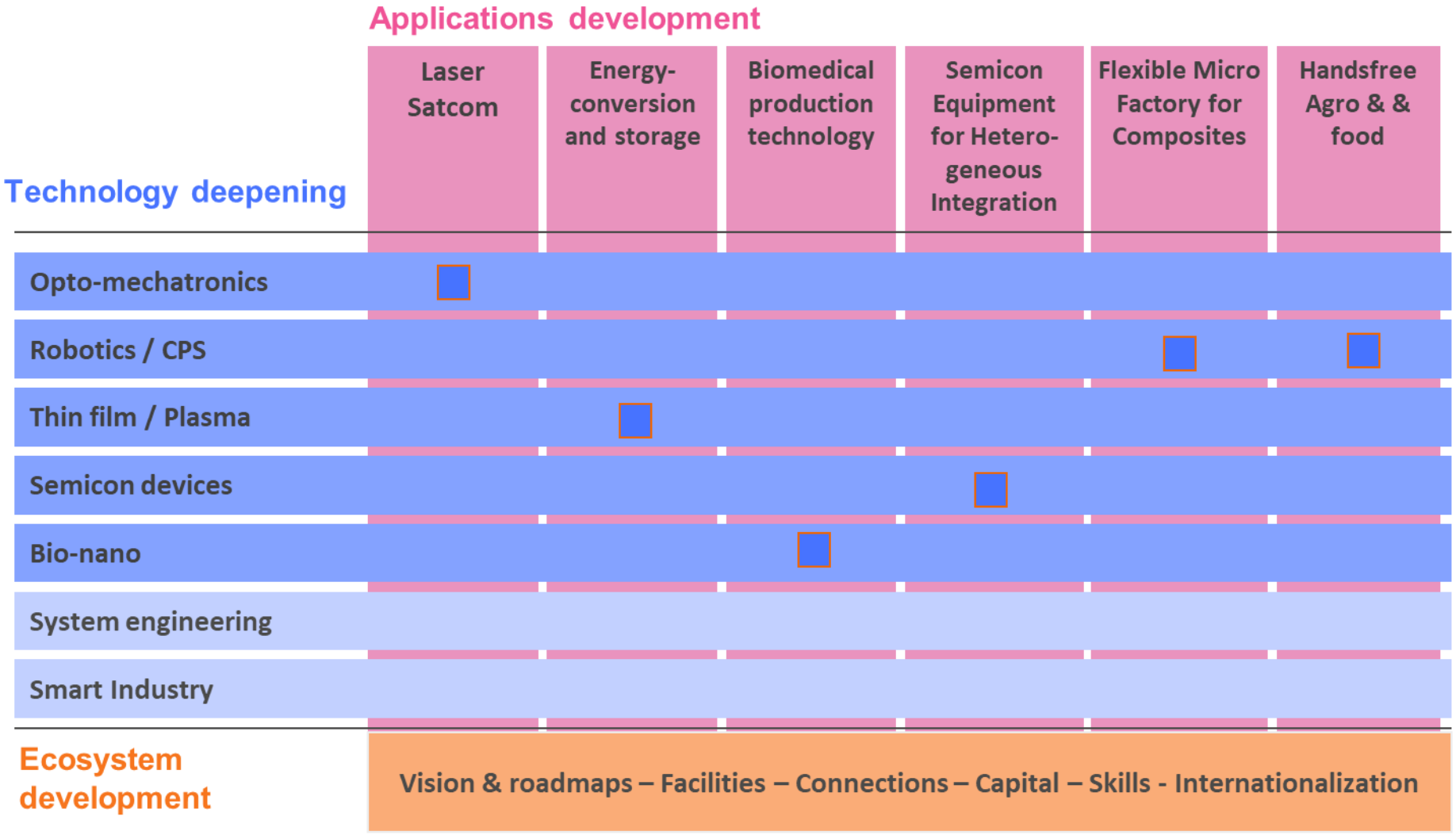
7

key technologies

∞

ecosystem development & internationalization

Program structure



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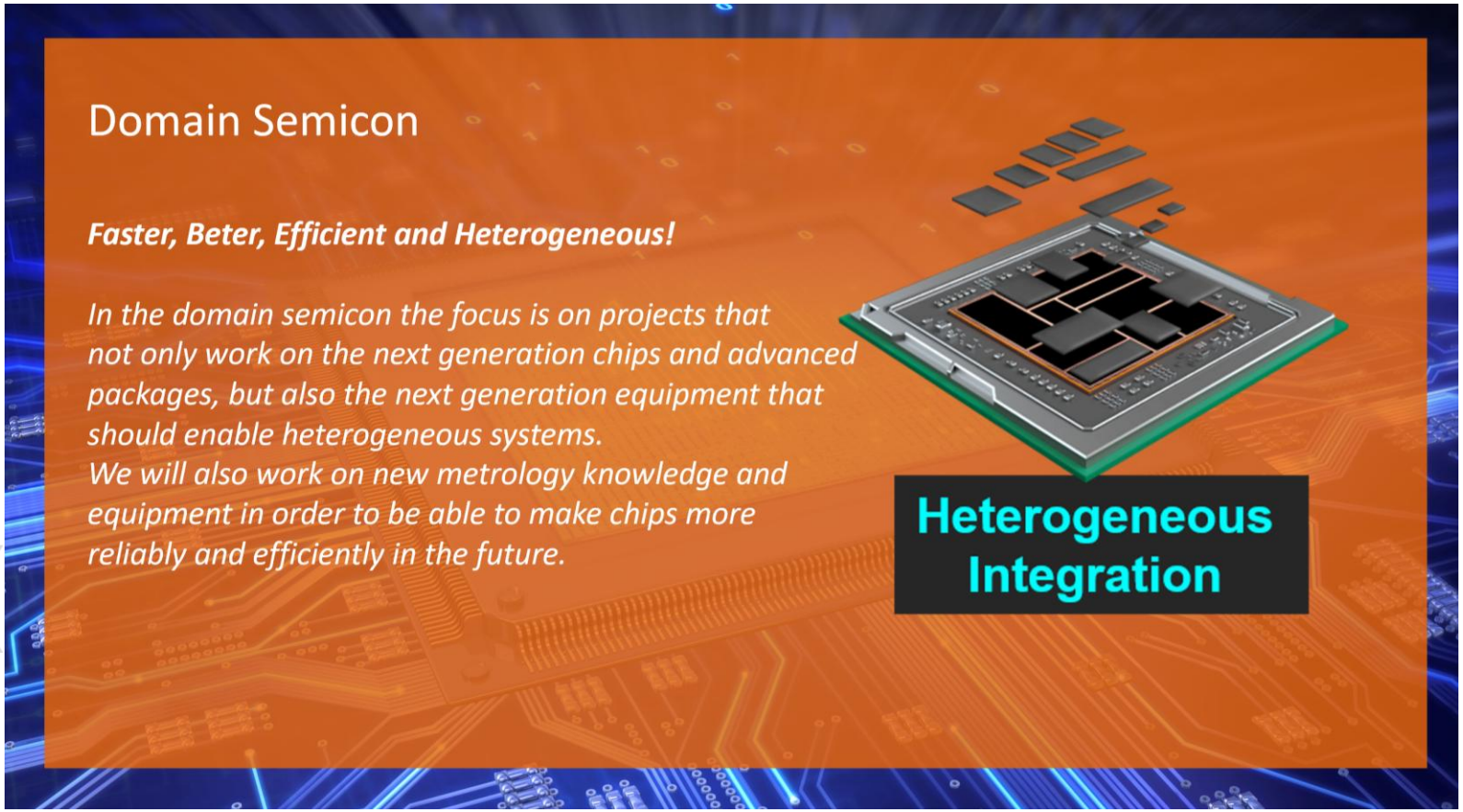

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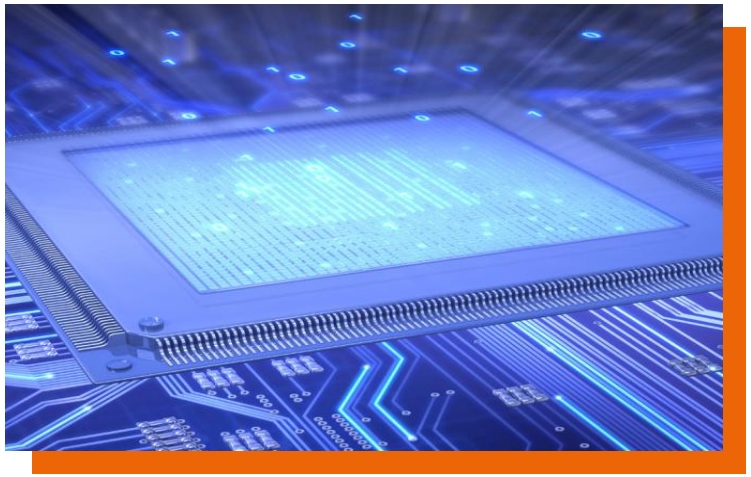
Semicon, project partners



NEARFIELD INSTRUMENTS
AMSYSTEMS
delmic
KEIRON
TU Delft
opnt. TIME PROVISIONING
Etteplan
VTEC LASERS & SENSORS
SALLAND Engineering
TNO
IMS TAKING YOU STEPS AHEAD
UNIVERSITY OF TWENTE.
Lam RESEARCH
NXP
phix
REDEN
work floor
Technolution
itec equipment + automation tech
QUIX QUANTUM
LIONIX INTERNATIONAL
PHOTONFIRST Integrated Photonics Sensing
CITC
nexperia Chip Integration Technology Center
DEMCON
ASML
BOSCH
morphotonics
SOLMATES THIN FILM EQUIPMENT A Lam Research Company
ItoM
MicroAlign
boschman advanced packaging technology
TU/e
chilas
MASEVON GROUP
ARCNL ADVANCED RESEARCH CENTER FOR NANOLITHOGRAPHY
TEMPRESS Innovating the future

Semicon – the NXTGEN ecosystem

NXTGEN SEMICON EQUIPMENT DOMAIN VALUECHAIN

LionIX International
ASML
DEMCON
University of Twente.
morphotonics
TU/e
Lam Research
chilas
NXP

Etteplan
TNO
KEIRON
AMSYSTEMS
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ARCNL Advanced Research Center for Nanolithography
SALLAND Engineering
NEARFIELD INSTRUMENTS
IMS Taking you steps ahead
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QUIX QUANTUM
VTEC Lasers & Sensors
work floor
opnt. Time Provisioning
MASÉVON GROUP

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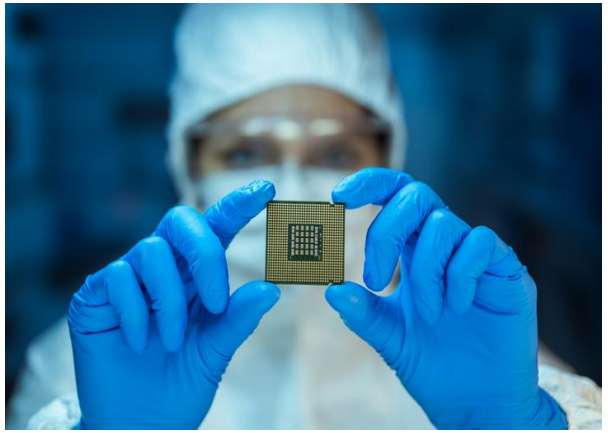
Semicon, the challenges



- Faster moving and more precise positioning
  => New design-, propulsion- and metrology principles
- Perform in extreme conditions and various physical domains
  => thermical, vacuum, cryo, acoustic, vibrational,
- Using of emerging technologies for improving performance
  => topology optimization, metamaterials, 3D printing,
- Data driven and model based AI techniques for realtime and causal processes
  => machine learning, neural networks, adaptive algorithms

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Semicon, project goals

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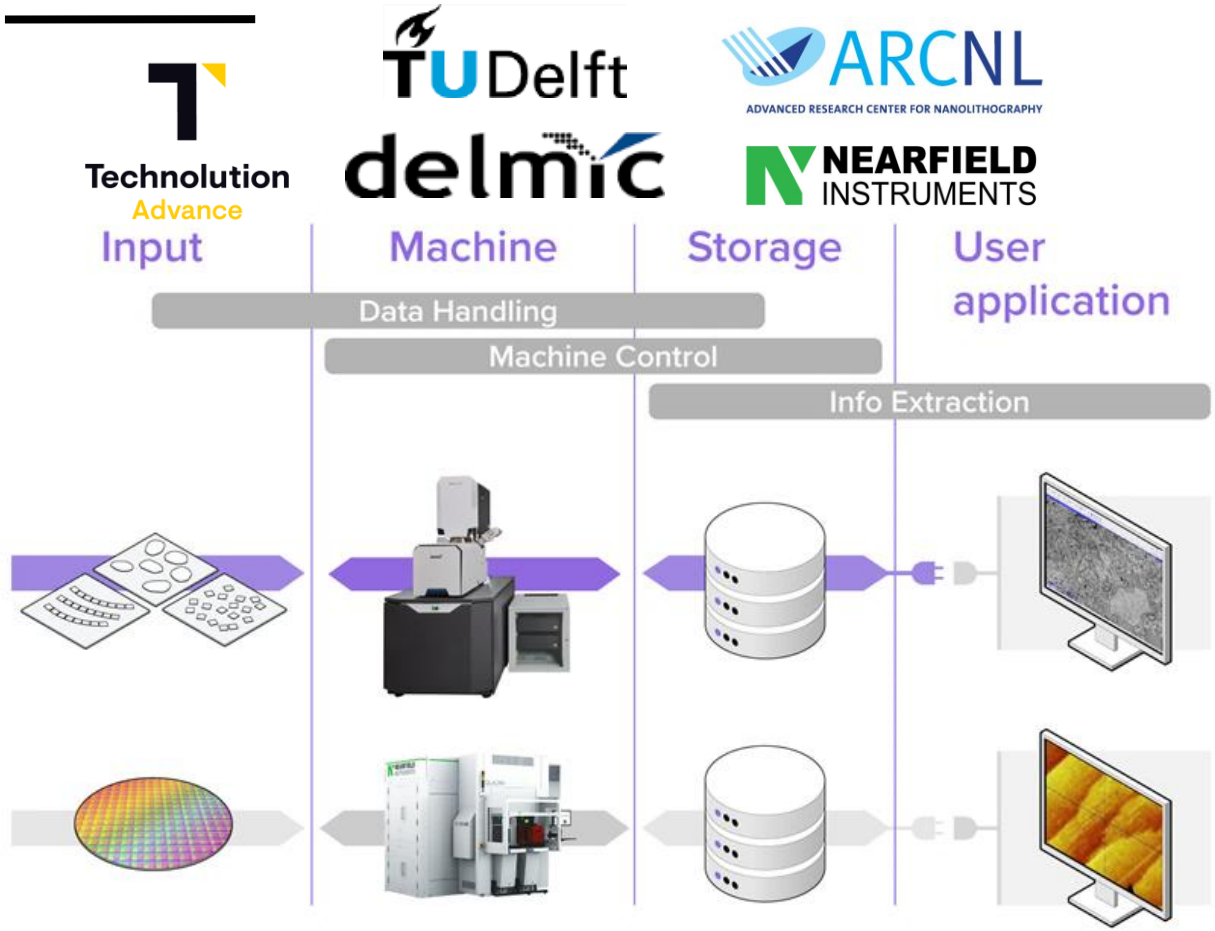
Semicon, project goals



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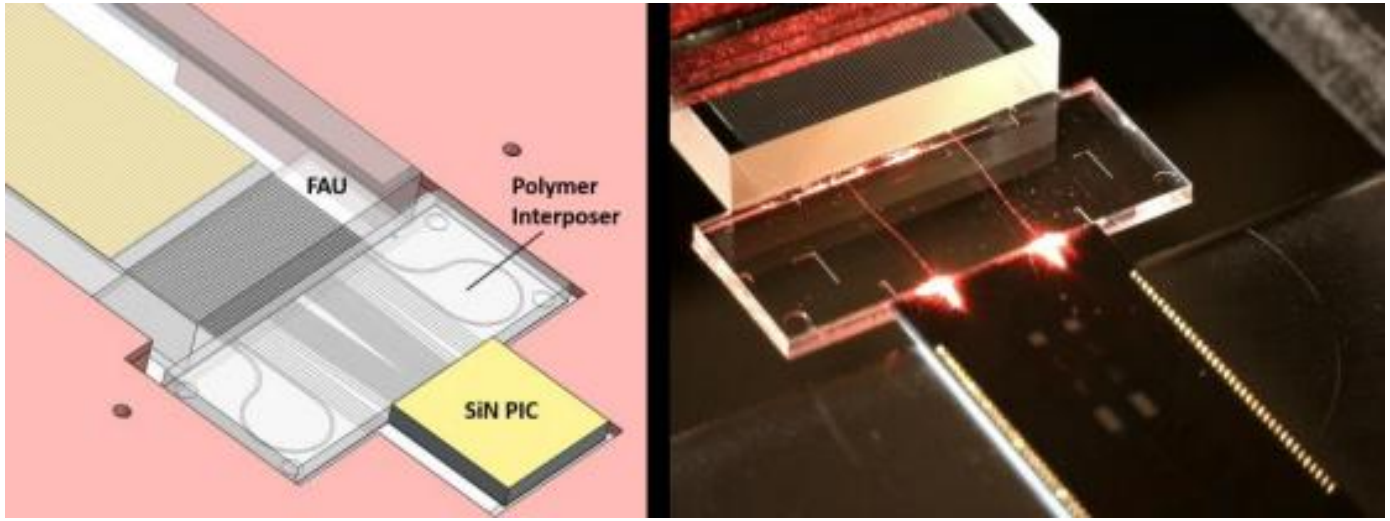
Semicon, project goals

CITC

Chip Integration
Technology Center



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Semicon, project goals

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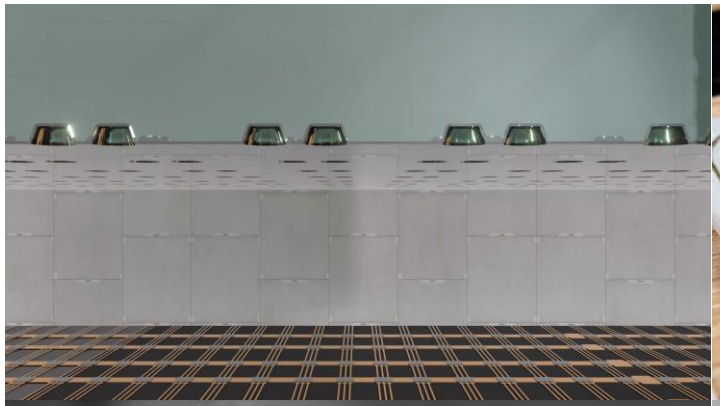


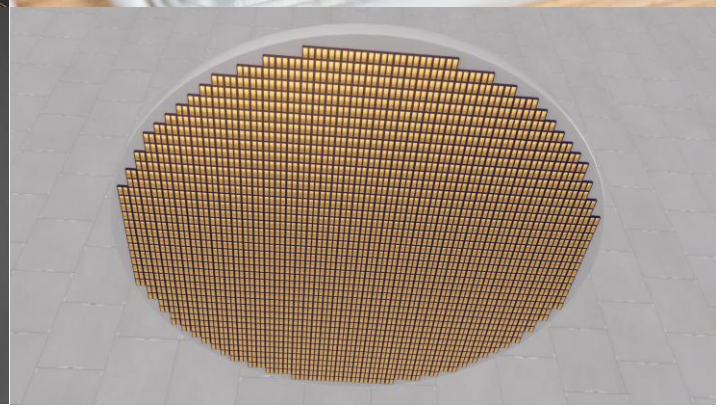

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Semicon, project goals

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