



TRANSITIONING TO A CIRCULAR ECONOMY WITH VIRTUALS TWINS

Manuel Rei
Semiconductor Industry Solution
Experience Director



3DEXPERIENCE®



Dassault Systèmes office locations in United Kingdom to support you in your innovative projects.



OFFICE

Cambridge

Cambridge Science Park - Unit 2
Milton road CB4 0FJ Cambridge,
United Kingdom



OFFICE

Culham

Culham Science Park Abingdon
Road OX14 3DB Abingdon, United
Kingdom



OFFICE

Hammersmith Grove

12 Hammersmith Grove 9th Floor
W6 0NW Hammersmith, United
Kingdom



OFFICE

Knutsford

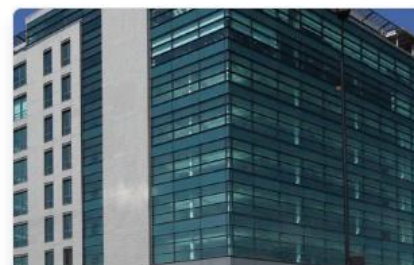
Dassault Systemes UK Limited
Building No. 3, Unit L1E, Booths
Park, Chelford Road WA16 8G...



OFFICE

Nottingham

Strelley Hall. Main Street. Strelley
NG8 6PE Nottingham, United
Kingdom



OFFICE

Sheffield

City Gate 8 St Marys Gate S1 4LW
Sheffield, United Kingdom



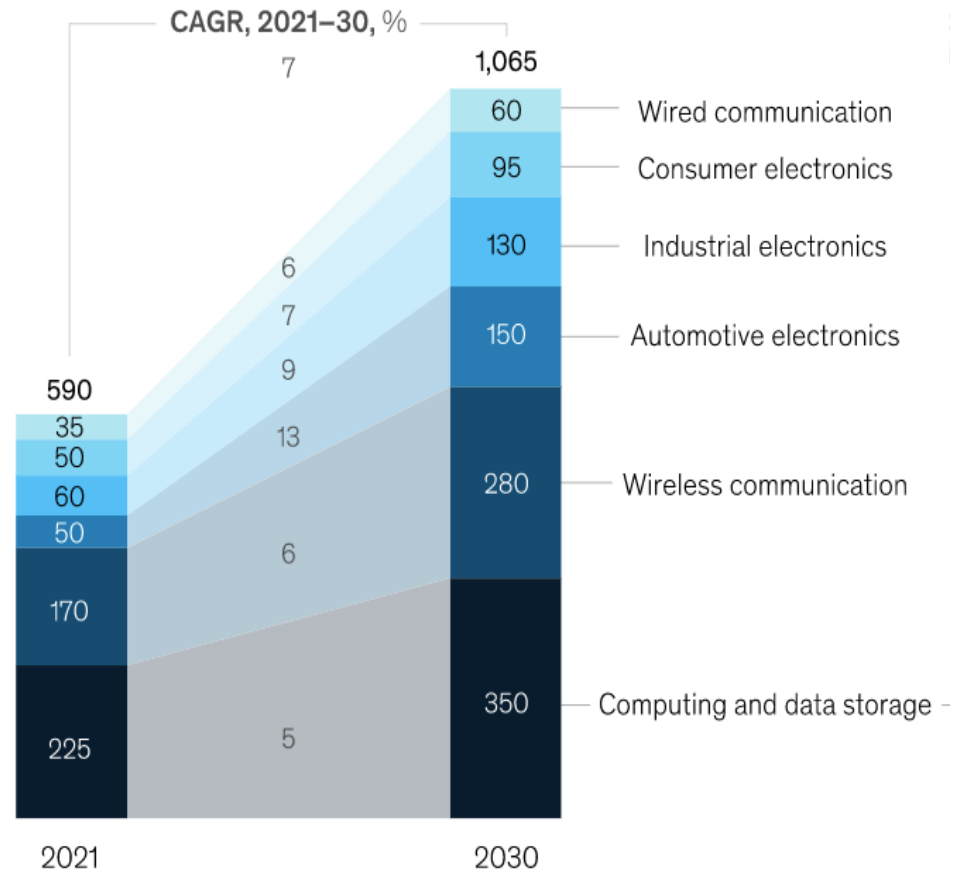
OFFICE

Warwick

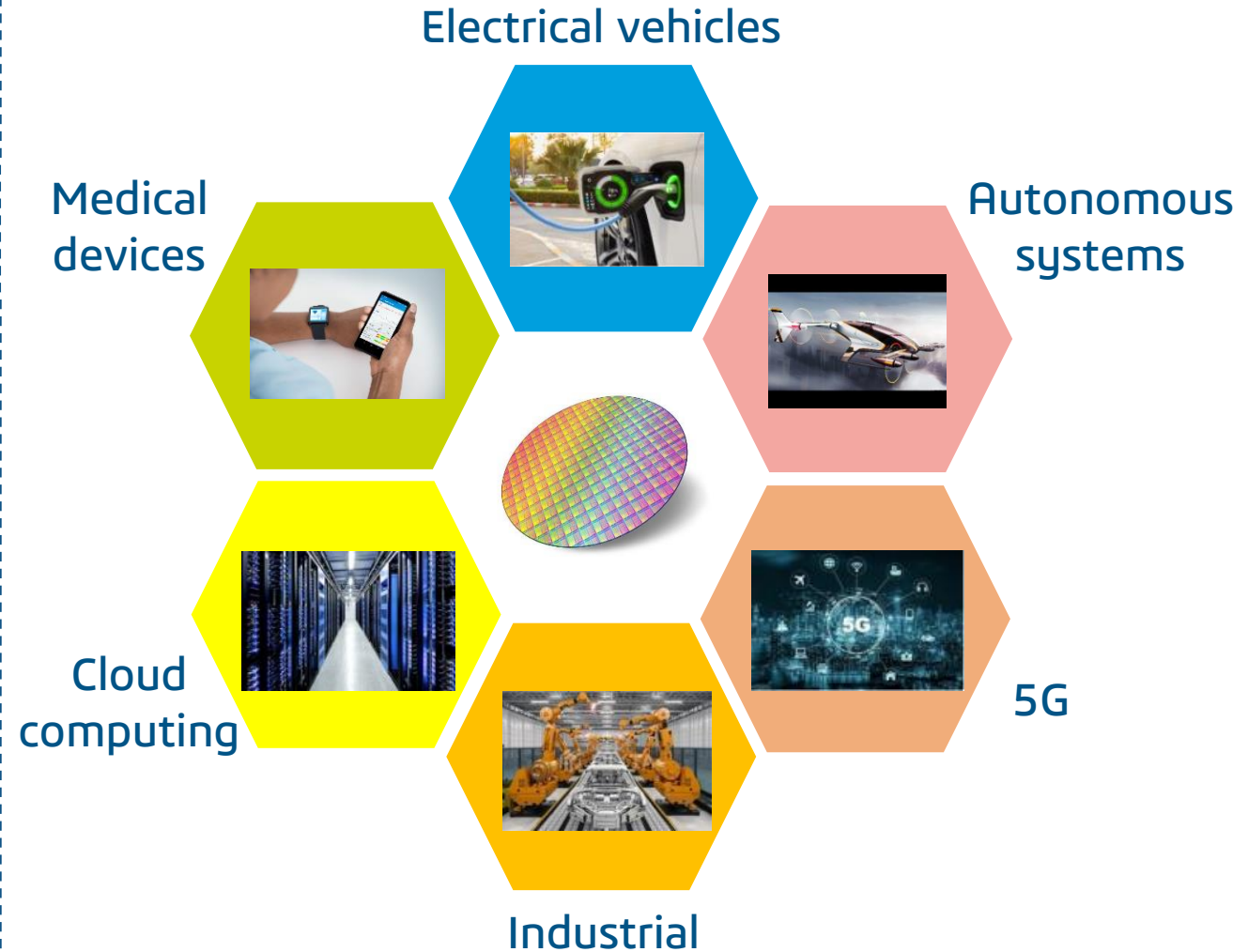
The Wood - 1st Floor Opus 40
Business Park CV34 5AH Warwick,
United Kingdom

SEMICONDUCTOR | FUEL OF OUR CONNECTED WORLD

Global semiconductor market value by vertical, indicative, \$ billion



Source : McKinsey & Company



SEMICONDUCTOR | VALUE CHAIN CHALLENGES

Innovation

'More Moore' & 'More than Moore'

Systems Complexity

Advanced technology & sensor fusion

Supply

Resilient Supply

Sovereignty

Global to Local

Sustainability

Reduce, Reliable, Repair, Reuse, Refurbish, Recycle

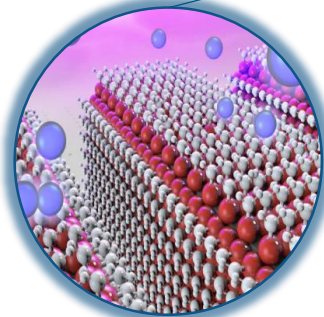
OUR BELIEF



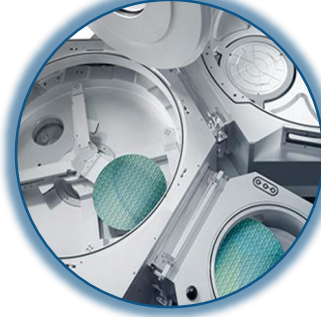
Virtual worlds
extend and improve
the Real world

INTRODUCING VIRTUAL TWIN EXPERIENCES

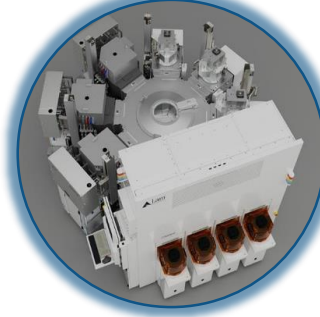
DASSAULT SYSTEMES SOLUTIONS TO CONNECT VIRTUAL TWINS FOR DESIGN AND OPERATIONS AGILITY AND RESILIENCE



Reactor Virtual Twin



Process Virtual Twin



Equipment Virtual Twin



Factory Virtual Twin



Ecosystem Virtual Twin



Industry Solution Experiences

High Performance Semi

Concurrent Equipment Engineering

High Tech Smart Factory

Keep Them Running

↓ Risks on Materials & Components

↓ Time to Market

↑ On Time Customer Quals

↑ Quality ↓ Cost

↑ Sourcing Sustainability

↓ Post Release Changes

↓ Material Inventory



DIGITAL INFRASTRUCTURE VIRTUAL TWIN

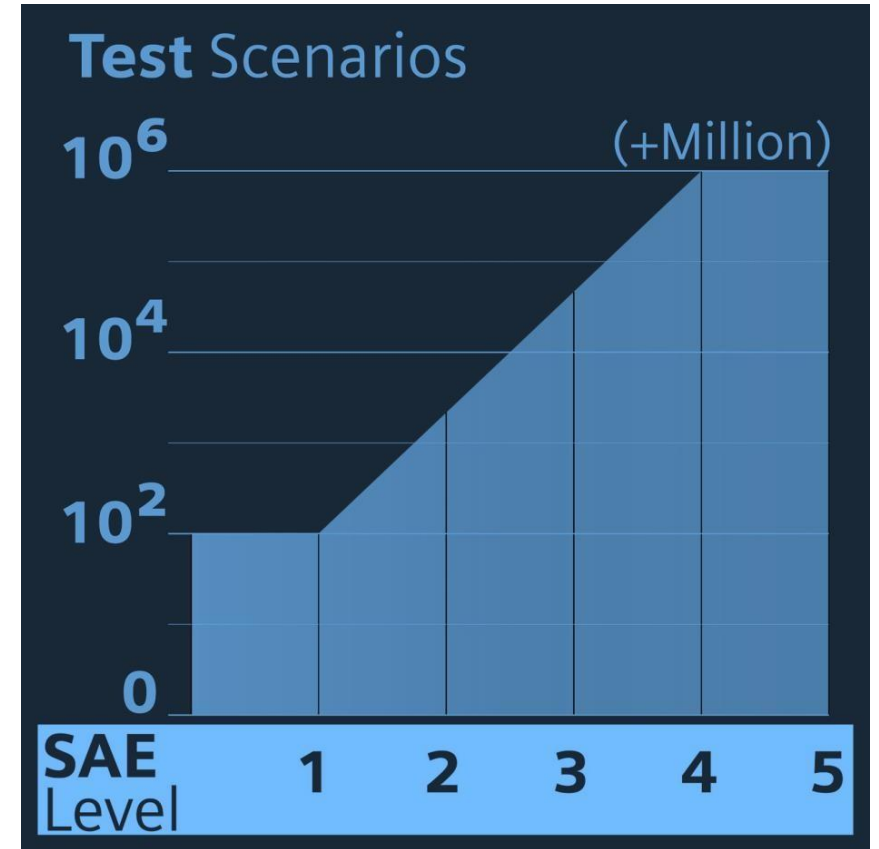
Semiconductor Cleanroom / Fab Virtual Twin

SEMICONDUCTOR
CLEANROOM INFRASTRUCTURE
Virtual Twin Experience

AUTONOMOUS VEHICLE VERIFICATION & VALIDATION

"8+ billion miles of testing is needed"

Akio Toyoda, CEO of Toyota
Paris Auto Show 2016



AUTONOMOUS VEHICLE VIRTUAL TWIN



DIGITAL INFRASTRUCTURE VIRTUAL TWIN

Data Center Virtual Twin



3DEXPERIENCE™

Optimize your air flow
management



VIRTUAL TWINS ARE KEY TO ENABLE SUSTAINABLE AND GREENER SEMICONDUCTORS



Greener electronics sustainability will come from using virtual twins to design, produce, use, and dispose of electronic based experiences

**DISCOVER MORE
ON 3DS.COM**

