



西門子數位工業軟體  
Siemens Digital Industry Software

# 往數位企業必經之路 與 西門子發展趨勢

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# 數位企業源起

AR / 5G

個人化

元宇宙

高性價比

ESG

# 複雜且爆炸環境

安全性

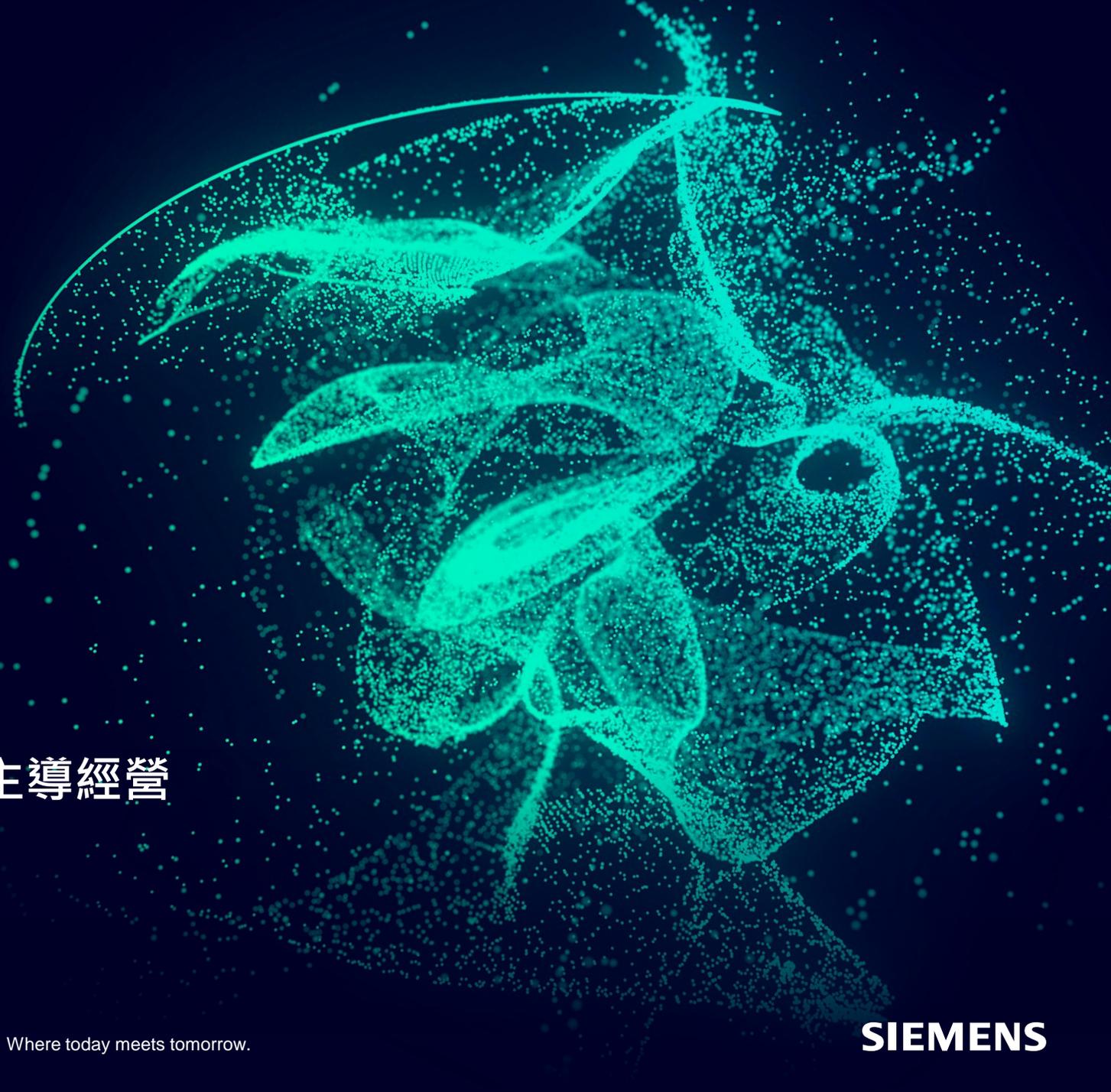
智能化

更有效率

融合

靈活性

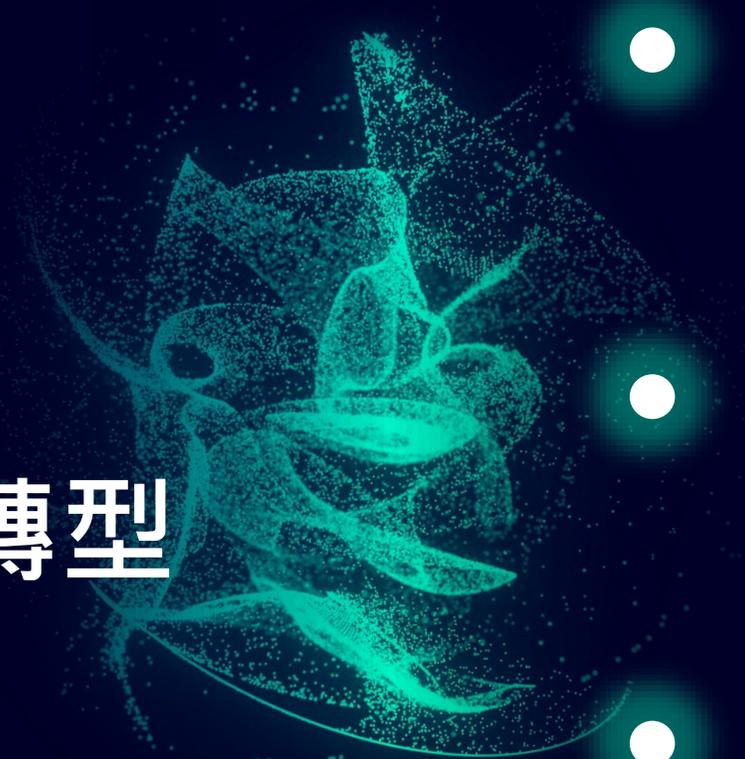
全球化



# 將複雜性 轉化為競爭優勢

前5%的公司通過利用數位能力來主導經營

未來競爭優勢  
依賴於  
全面的數字化轉型



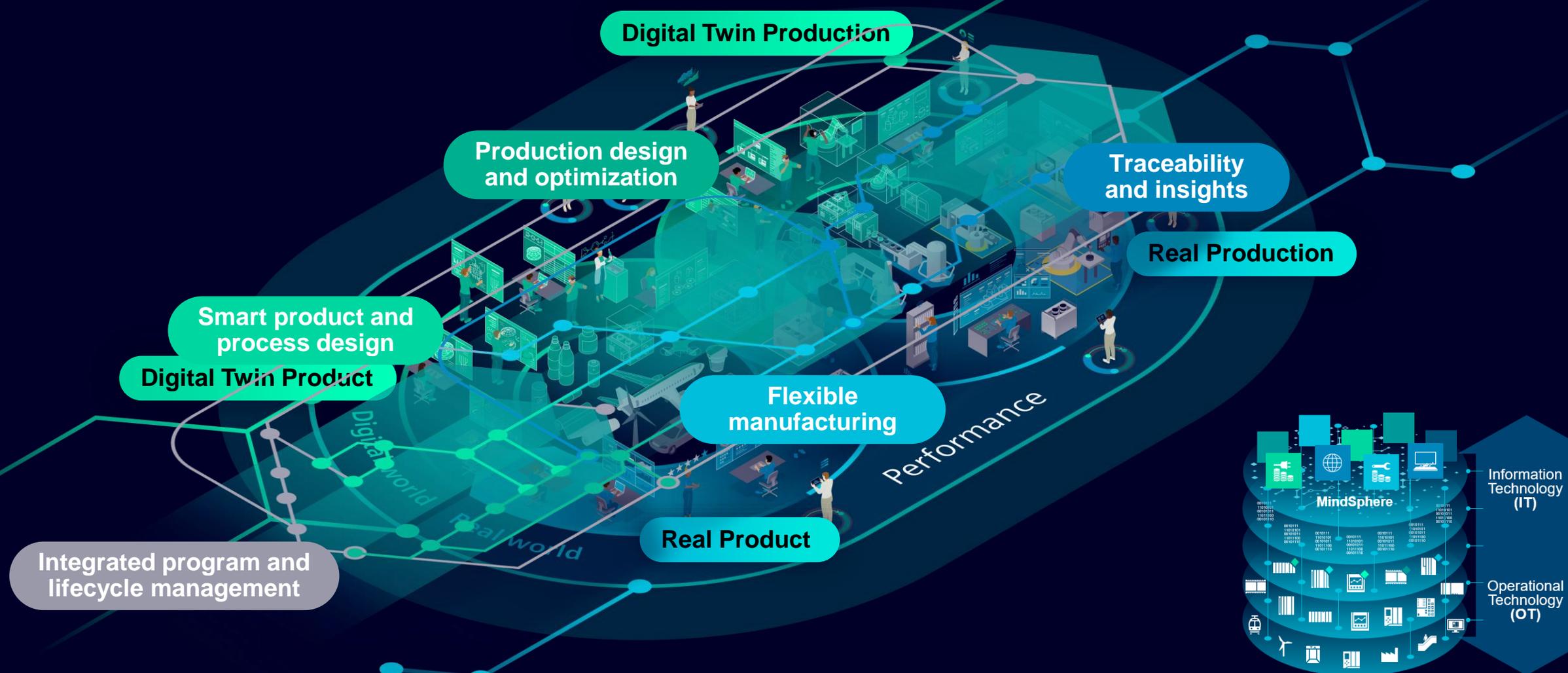
- **Technology**
- **People**
- **Processes**

# 成功的數位化轉型基於公司戰略

- 1 定義最大的差距和變化的步伐
- 2 平衡成本與轉型回報
- 3 尋找能夠共同成長的合作夥伴關係

# 製造業 數位企業的目標

實現整個價值鏈中 數位世界和現實世界之間的閉環連接，實現明智的決策與產品創新



# Real

# Digital

結合現實世界和數位世界 —  
從無限數據中創造無限機會

Real

Digital

# 數位化企業

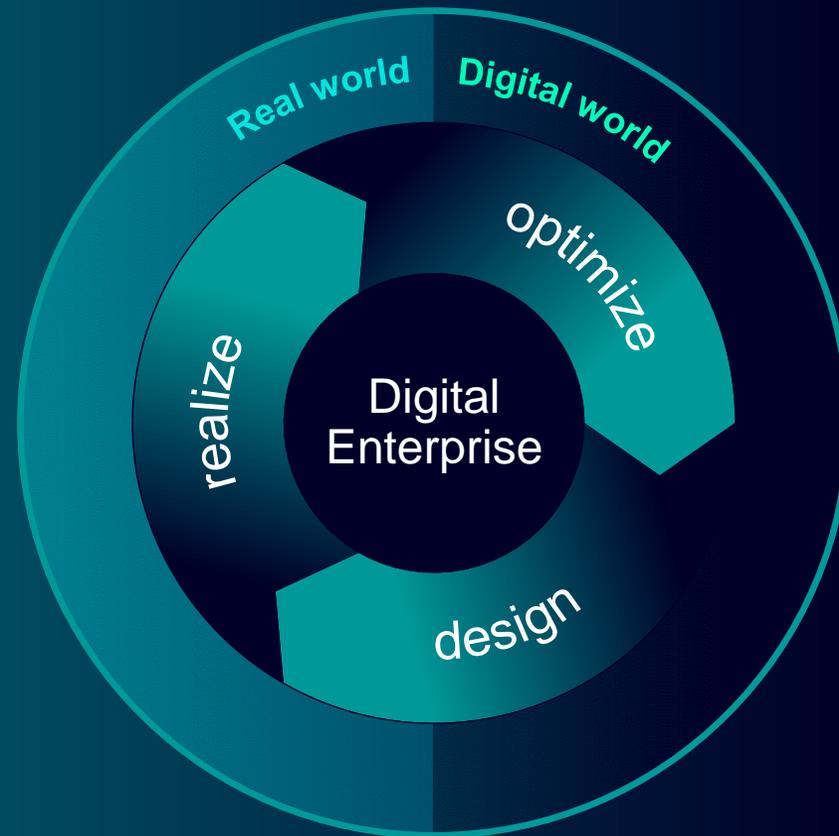
結合現實世界和數位世界  
通過全面的數位孿生

**Real  
world**



**Digital  
world**

# 數位化企業

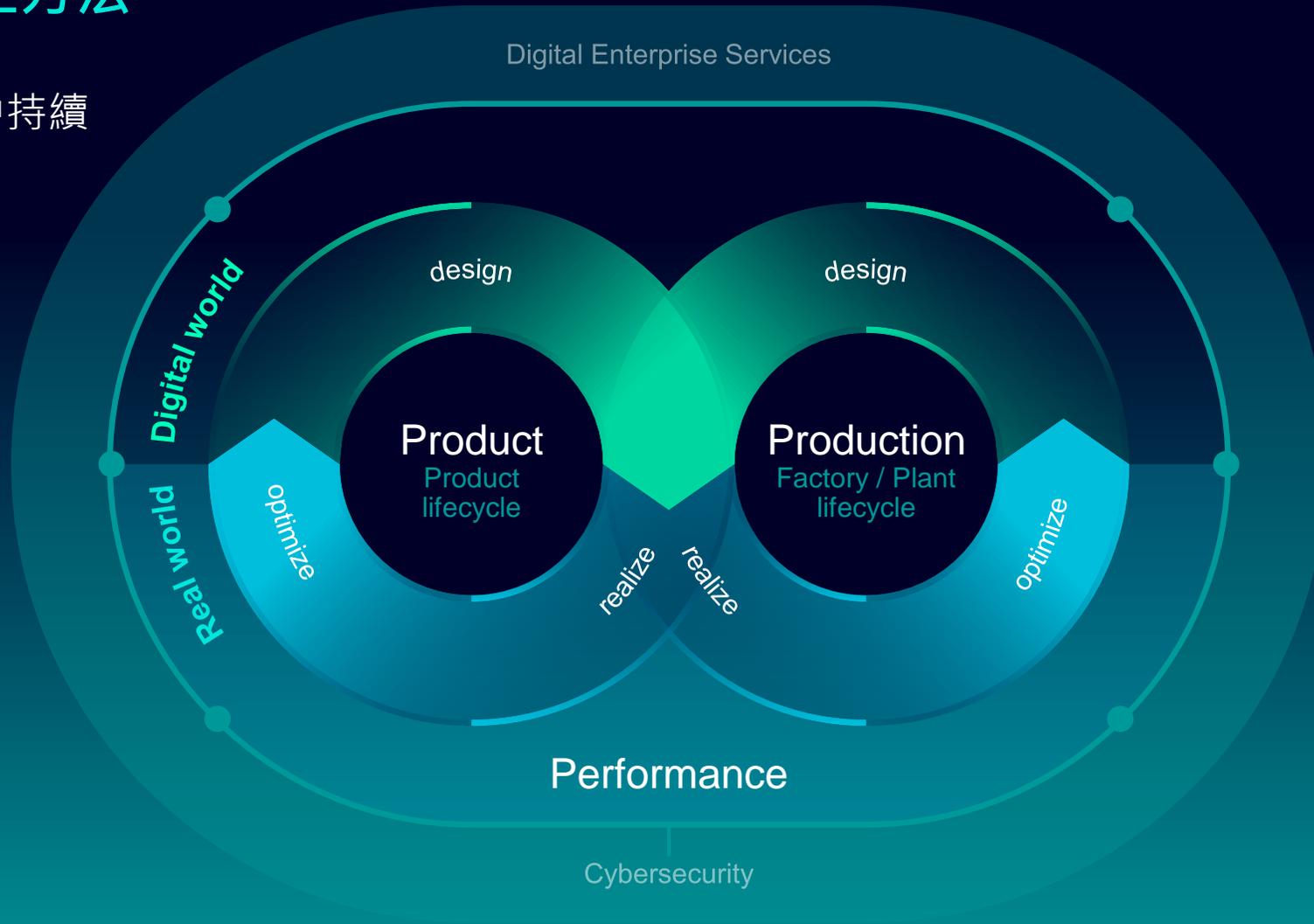


快速、靈活、可持續地  
採取行動

通過從設計、規劃、工程、  
運營和優化的無縫集成

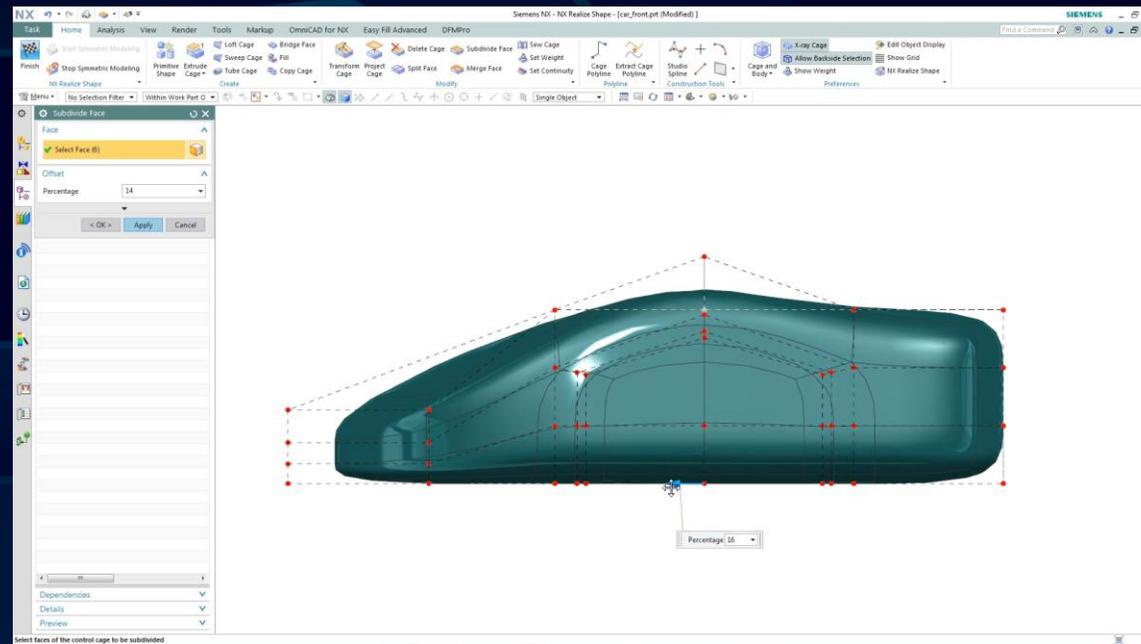
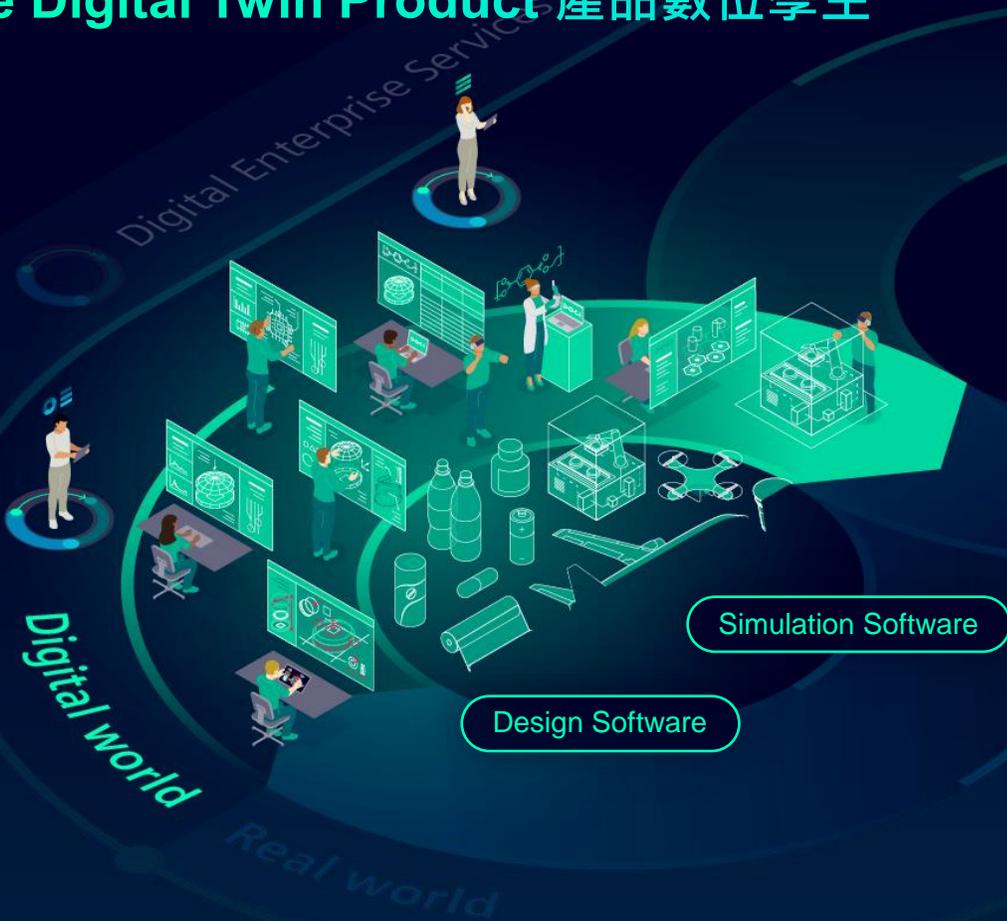
# 數位化企業 全面的數位孿生方法

在數據驅動型行業中持續  
改進產品和生產



# 數位化企業

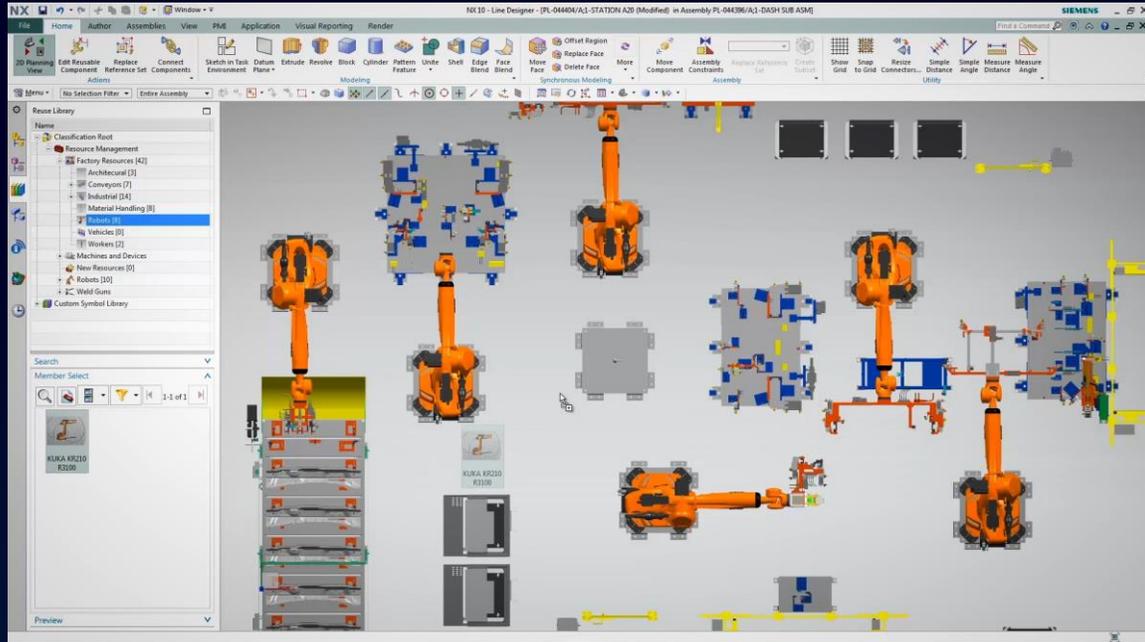
## The Digital Twin Product 產品數位孿生



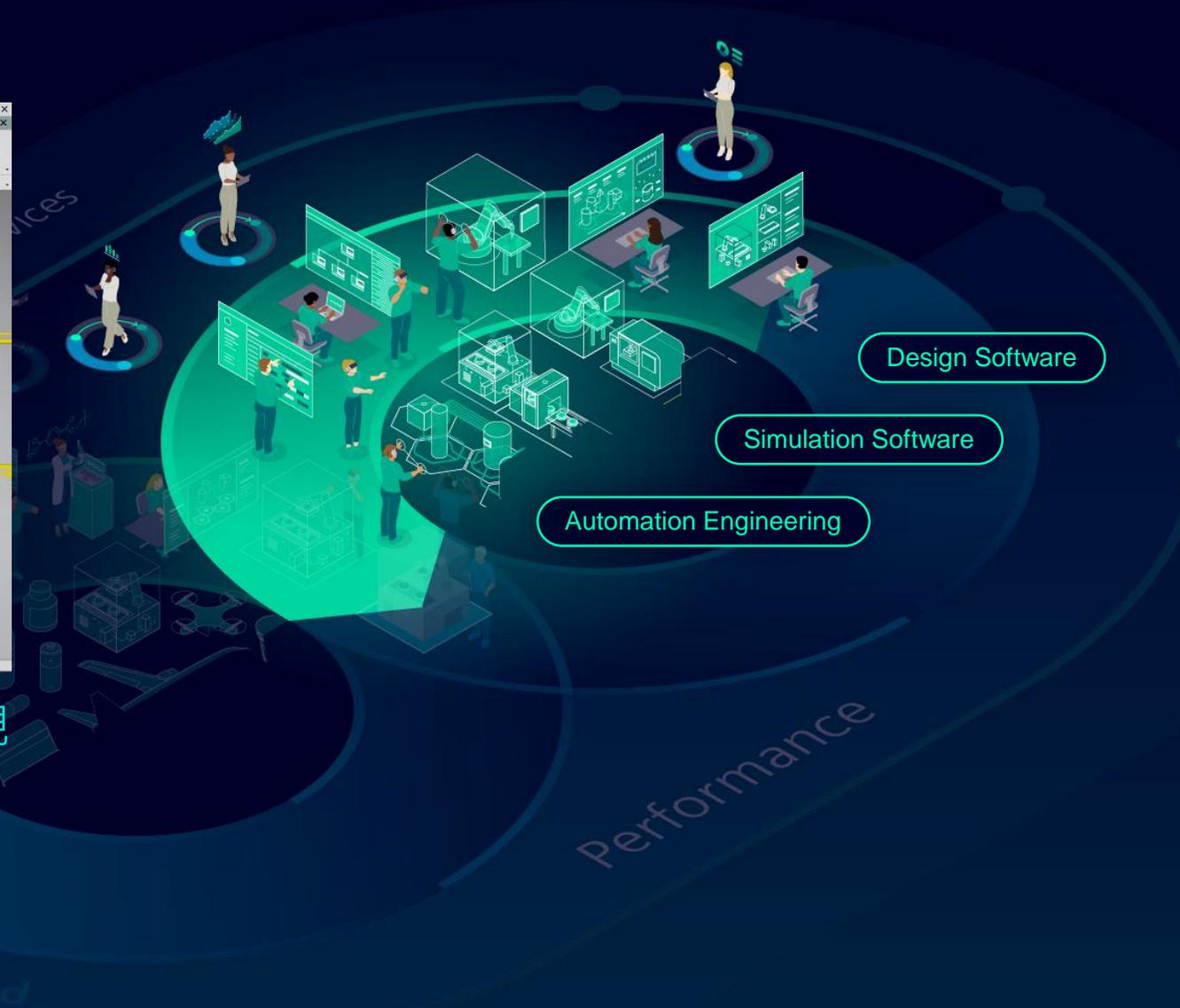
以數位方式設計、模擬和驗證產品，包括機械和多物理場、電子和軟體管理

# 數位化企業

## The Digital Twin Production 生產數位孿生

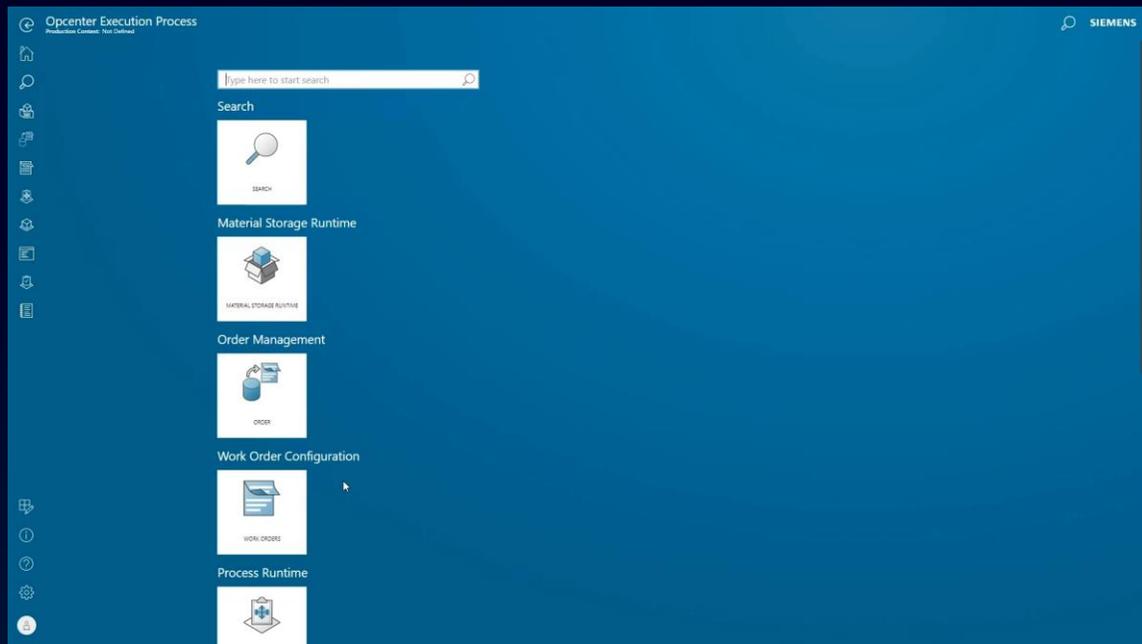


通過 PLC 代碼生成和虛擬調試，以數位化方式規劃、類比、預測和優化生產。

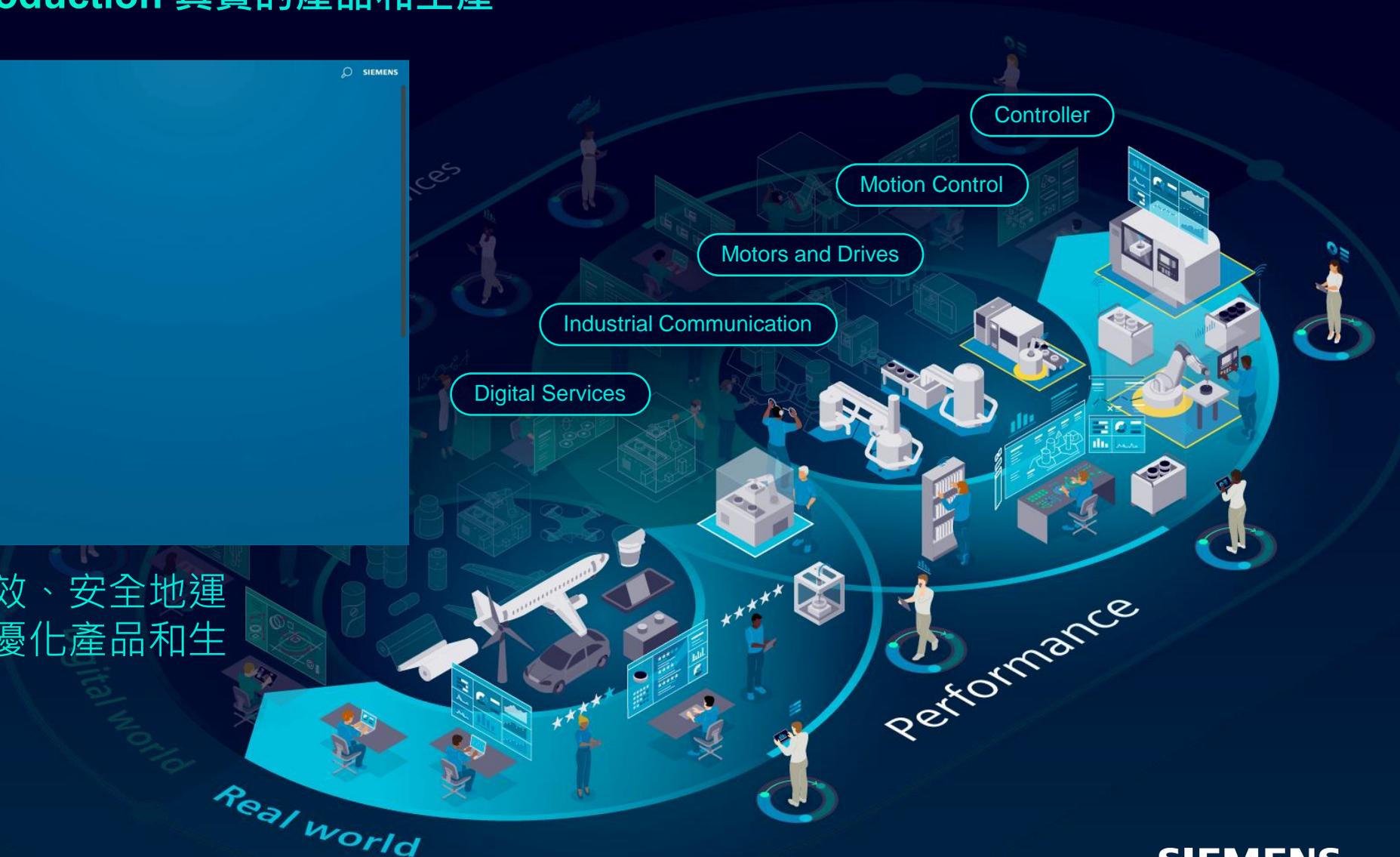


# 數位化企業

The real product and production 真實的產品和生產



通過完全集成的自動化高效、安全地運行生產，並通過數據洞察優化產品和生產。

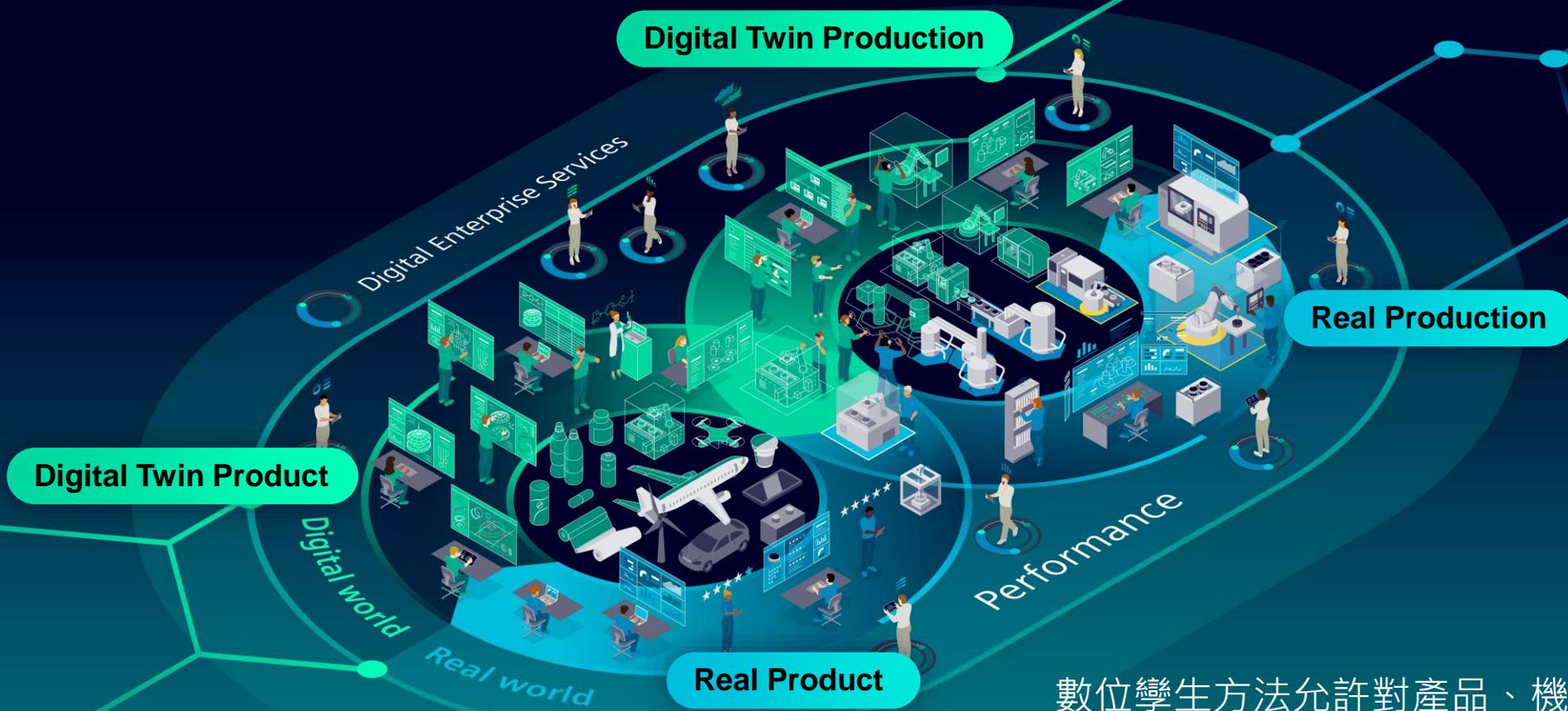


# 數位化企業 真實與數位 相結合



第一次就把事情做好  
得益於模擬和驗證

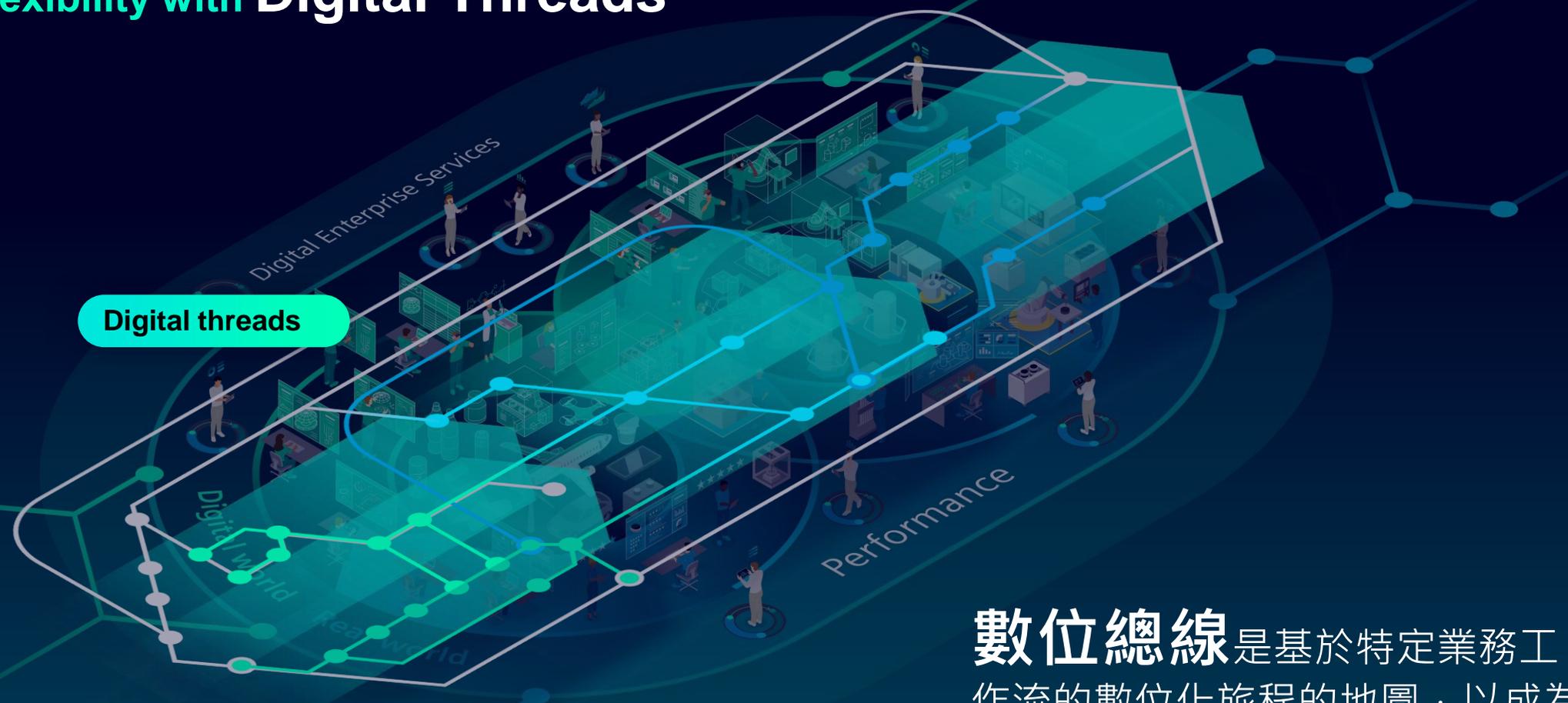
# 數位化企業 全面數位孿生方法



數位孿生方法允許對產品、機器、生產線和整個工廠進行逼真的模擬和驗證，這是靈活高效製造的基礎。

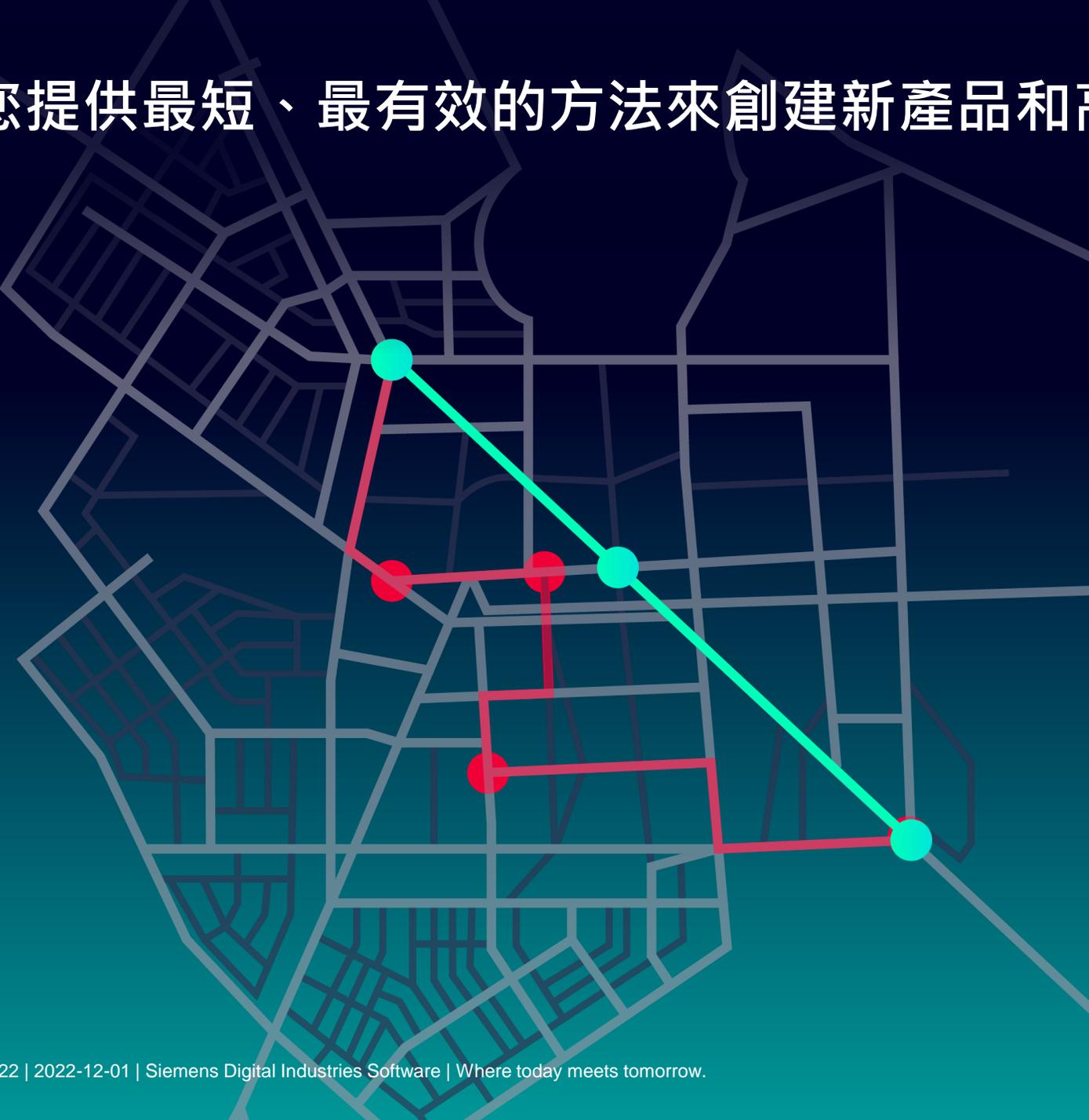
# 數位化企業

## Next level flexibility with Digital Threads



**數位總線**是基於特定業務工作流的數位化旅程的地圖，以成為真正的數位化企業。

# 數位總線 為您提供最短、最有效的方法來創建新產品和高效生產



# 數位化能讓您 快速自信的決策

Take the next  
subway train Line 4  
**in 1 minute**

Time to destination: 8 minutes



# 將 OT 和 IT 結合在一起 – 用於數據驅動型決策的數據智慧

數位化企業有助於創新和  
競爭

- 從感測器到邊緣再到雲

Digital Enterprise Services

design

Product  
Product  
cycle

realize

realize

Performance  
Security



App Development

Cloud

Manufacturing Execution System

Edge Computing

Field devices, sensors, motors, and drives

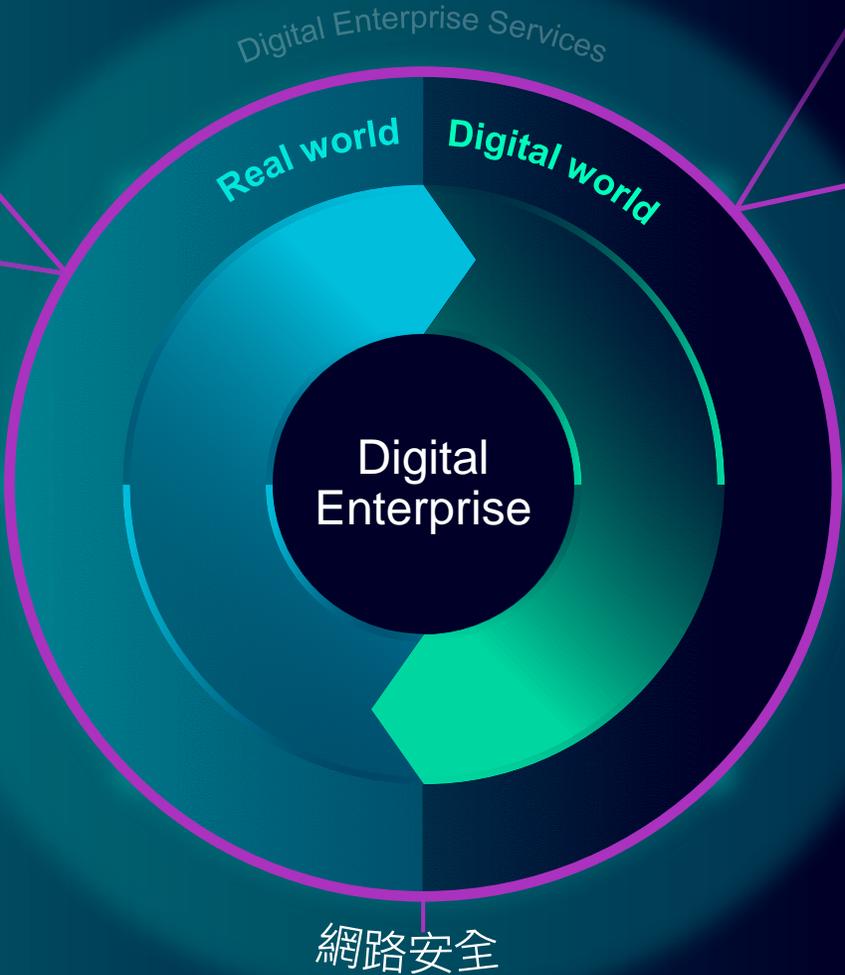
Controller

IT  
Information  
Technology

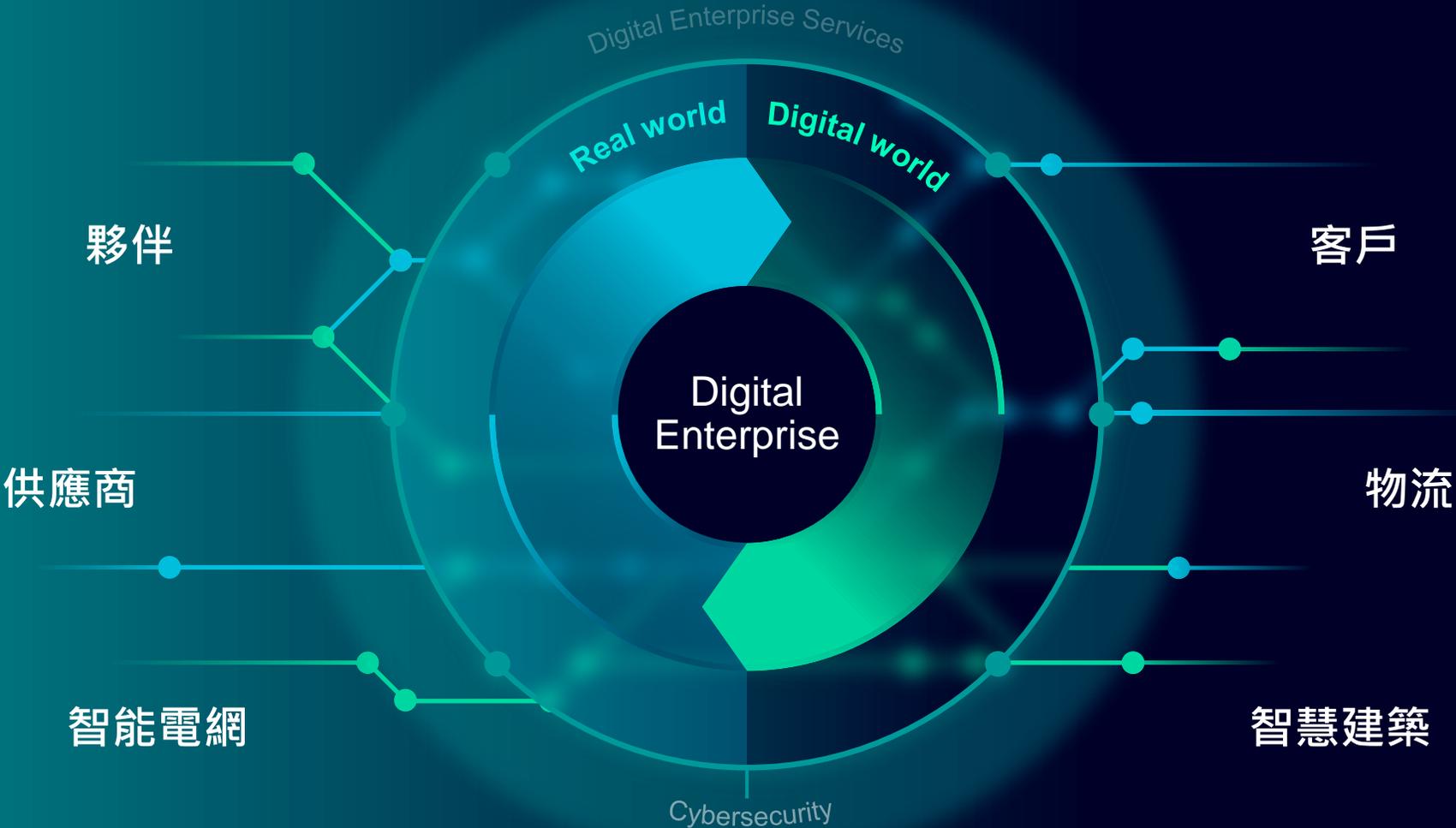
Operational  
Technology

OT

# 多層安全 跨所有級別



# 將所有相關數據與開放的協作數據模型連結起來



# 整合尖端技術

## Industrial 5G



## Cloud



## Additive Manufacturing

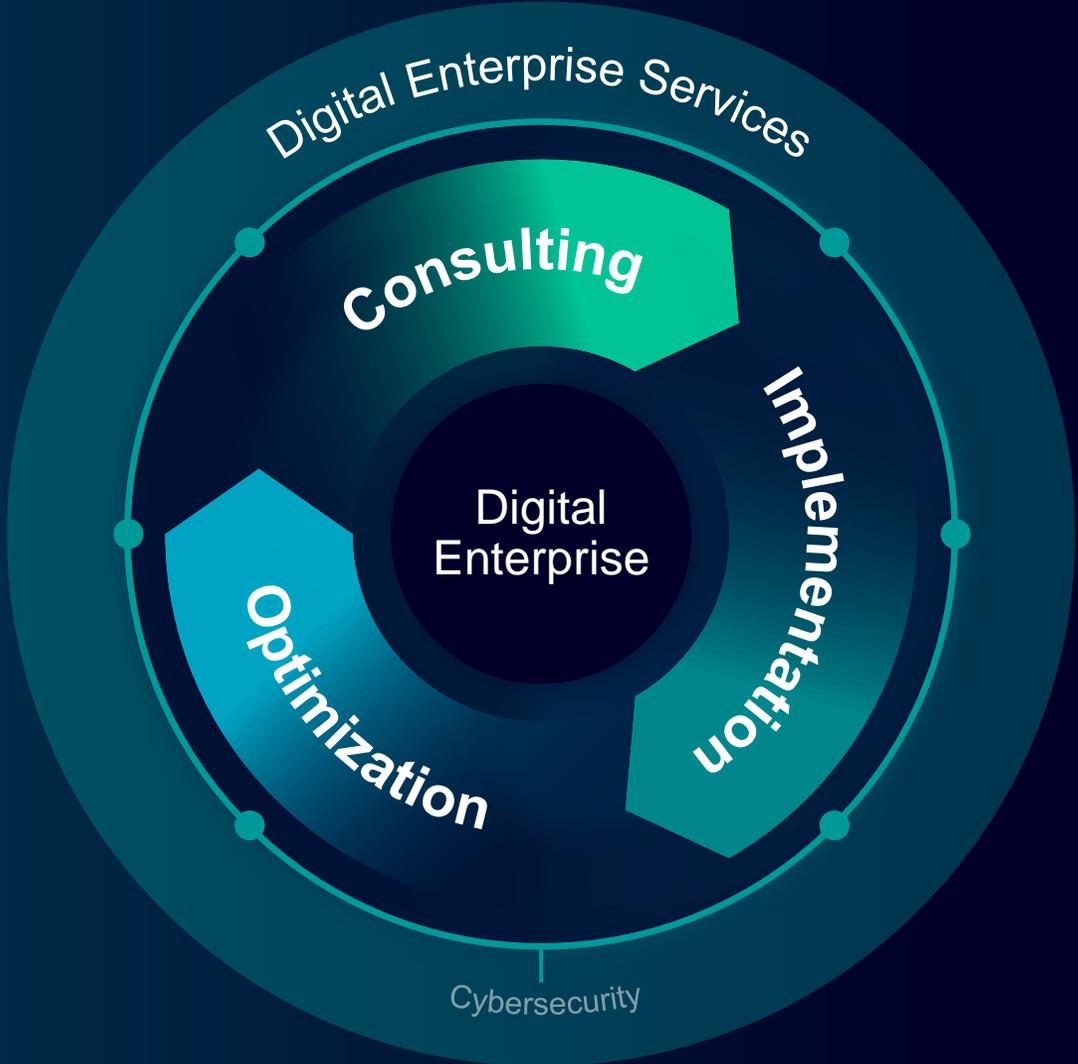


## Artificial Intelligence

## Industrial Edge



# 伴隨整個 數字化轉型



# 這才是真正的 數字化企業



# 西門子數位工業軟體發展趨勢

# 西門子數位工業軟體的全新方向



## Xcelerator

一個整合的軟體和服務組合，用於電子和機械設計、系統模擬、製造、運營和生命週期分析。它還支持使用低代碼的快速APP開發平台，以輕鬆構建、整合和擴展現有數據和系統。它模糊了傳統獨立工程領域（如電氣、機械和軟體）與IT/OT之間的界限，讓您快速且可預見地走向未來。

全面數位孿生

個性化適應性

開放生態系統

Where today meets tomorrow.

# 西門子 Xcelerator 雲解決方案組合 (XaaS)

雲就緒

Xcelerator Cloud Ready Portfolio



應用開發平台

Mendix

軟件即服務應用程序

SaaS Industry Apps



工業物聯網即服務解決方案

Mindsphere



SIEMENS

mechanical

applications

IoT-analytics

electronics

# Xcelerator

design realize optimize

simulation

operations

# 西門子 Xcelerator 解決方案產品組合

產品工程軟體

模擬和測試解決方案

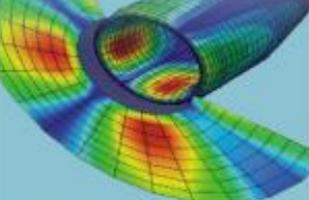
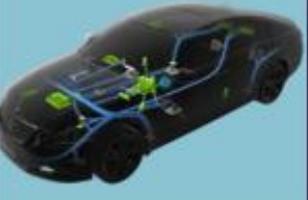
電子系統

生命週期協同軟體

製造工程

製造營運管理

雲解決方案

<b>PES</b> Product Engineering Software	<b>STS</b> Simulation and Test Solutions	<b>IES</b> Integrated Electronic System	<b>LCS</b> Lifecycle Collaboration Software	<b>MFE</b> Manufacturing Engineering	<b>MoM</b> Manufacturing Operations Management	<b>CS</b> Cloud Solution
End-to-end design and engineering	Simulation, test and systems engineering	EE/Software design, simulation and manufacturing	Collaboration; Process, Change and BOM Management	Process design and simulation; NC programming	MES, Quality, HMI and Production	Plant and Product Analytics
<b>NX</b> Fibersim Syncrofit Mastertrim	<b>1D System Sim</b> <b>3D Simulation</b> STAR-CCM TASS <b>TEST</b>	<b>Capital</b> <b>Valor</b> <b>MAD</b>	<b>Teamcenter</b> <b>Polarion</b>	<b>Tecnomatix</b> TC Manufacturing <b>NX CAM</b>	<b>Simatic UA</b> <b>Preactor</b> <b>QMS</b>	<b>MindSphere</b> <b>Mendix</b>
						
Design & engineer better products faster	Enabling closed-loop Systems / Performance Design & Validation	Product design and engineering for EE/Software	Collaborate & innovate more intelligently	Build & support products more efficiently	Realize products faster and increase quality	Collect and analyze data to optimize plants, products, and machine

Product-driven Services

# SIEMENS 與 NVIDIA 攜手打造工業元宇宙

Wednesday, June 29, 2022



## Siemens and NVIDIA to Enable Industrial Metaverse

- Partnership to transform the manufacturing industry with immersive experiences across the lifecycle from design through operation
- Companies will connect NVIDIA Omniverse and Siemens Xcelerator platforms to enable full-fidelity digital twins and connect software-defined AI systems from edge to cloud

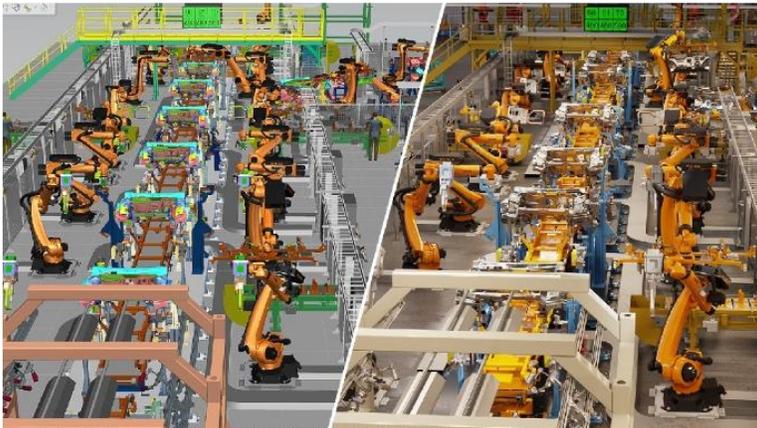
Siemens, a leader in industrial automation, is a pioneer in accelerating the industrial metaverse to a new level. As a first step, Siemens is launching its Xcelerator platform, and NVIDIA is launching its Omniverse physics-based digital twin platform with increased confidence.

## Creating the Industrial Metaverse: Siemens Xcelerator + NVIDIA Omniverse

By Dirk Didascalou • June 29, 2022 • 4 MIN READ

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Print



Siemens Xcelerator (left) connects to NVIDIA Omniverse (right) to enable a full-design-fidelity, photorealistic, real-time digital twin.

Siemens Xcelerator and NVIDIA Omniverse are bringing together the virtual and physical worlds to provide new insights and efficiencies for product design and manufacturing through physically accurate virtual world simulation, data analytics, and AI.

This partnership combines NVIDIA's Omniverse, which offers real-time, full-design fidelity photorealistic visualization, with Siemens Xcelerator's real-world engineering and physics-based simulation to deliver the industrial metaverse. This enables industrial companies of all sizes to create closed-loop digital twins with real-time performance data, ideal for running simulations and AI-accelerated processes for advanced applications such as autonomous factories that rely on intelligent sensors and connected devices. Now, manufacturers can better respond to customer demands, reduce downtime, and adapt to supply chain uncertainty while achieving sustainability and quality targets.



Dirk Didascalou, CTO  
Siemens Digital Industries

### The building blocks of the industrial metaverse

Siemens Xcelerator offers the industry's most comprehensive digital twin—representing the mechanical, electrical/electronic, and software domains interacting together. All to help customers rapidly create today's cutting-edge smart products and production processes. The digital twin of the product is a precise virtual representation of a physical product that matches the product's physical form, function, and behavior.

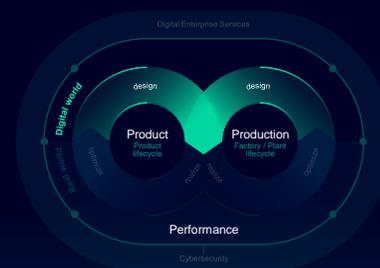
SIEMENS



# 開始成功的數字化轉型

## 數字化企業

結合現實世界和數位世界，在數據驅動的行業中持續改進產品和生產。



## Digital Twins

用於產品、機器、生產線和整套設備的精確模擬和驗證。它們是靈活高效製造的基礎。



## Digital Threads

是基於特定業務工作流的數位化旅程的地圖，有助於成為真正的數字化企業。



## Digital Services

服務專家將在整個數位化過程中陪伴和支援您，說明您應對當今的挑戰。



# Thank you~

Alan Chen 陳松盈  
Senior PreSales Manager

Siemens Digital Industries Software (TW) Co., Ltd.  
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