

Digital Twins

A PRACTICAL SOLUTION TO ISLANDS OF THINGS



melissahoughton.dev



[melissahoughton](https://github.com/melissahoughton)



[melissa-houghton](https://www.linkedin.com/in/melissa-houghton)



[@meliss_houghton](https://twitter.com/meliss_houghton)



What are Digital Twins?



Where did
it start?



39

367

465

571

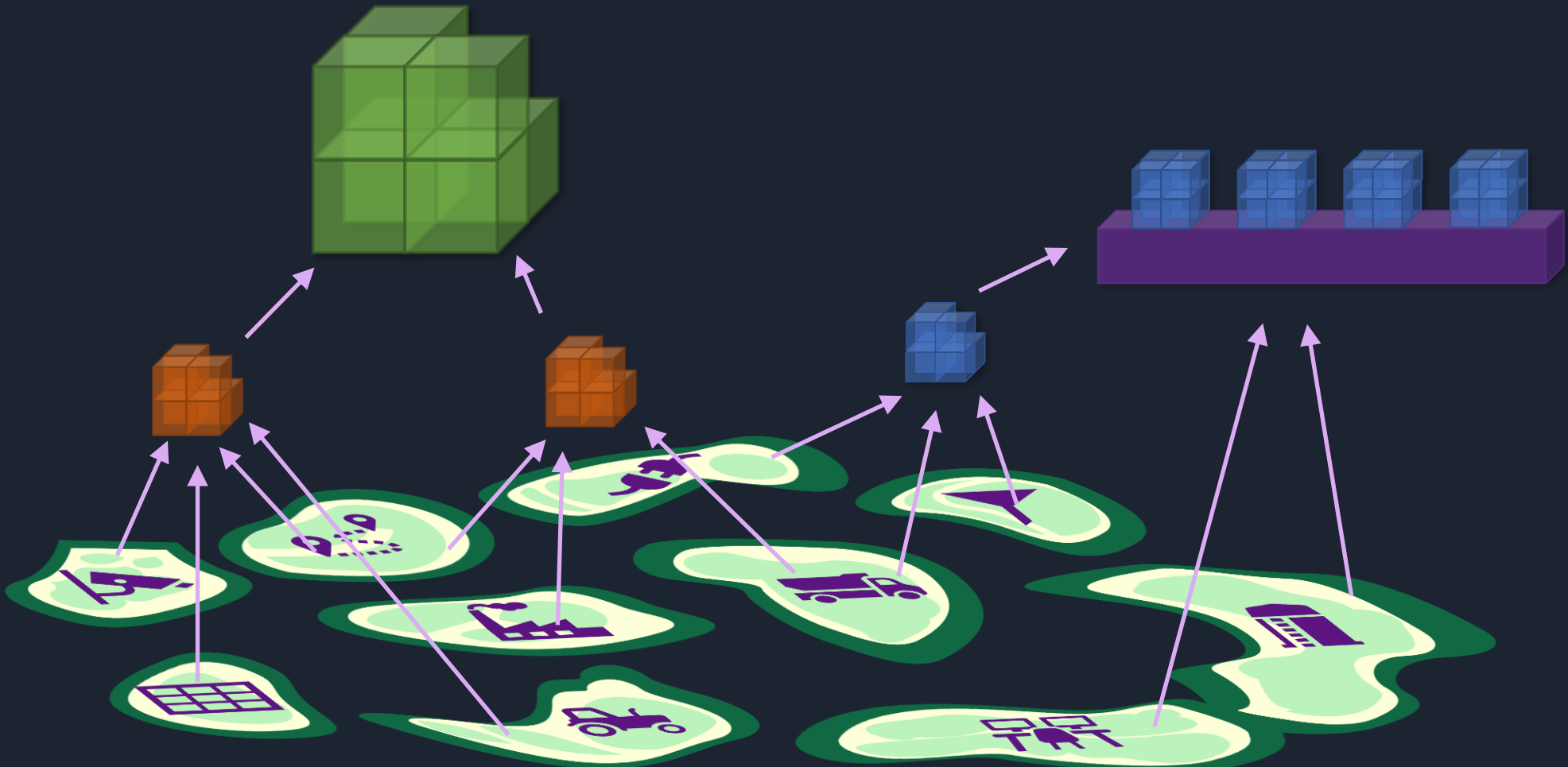
490

48

74% of all IoT
projects fail







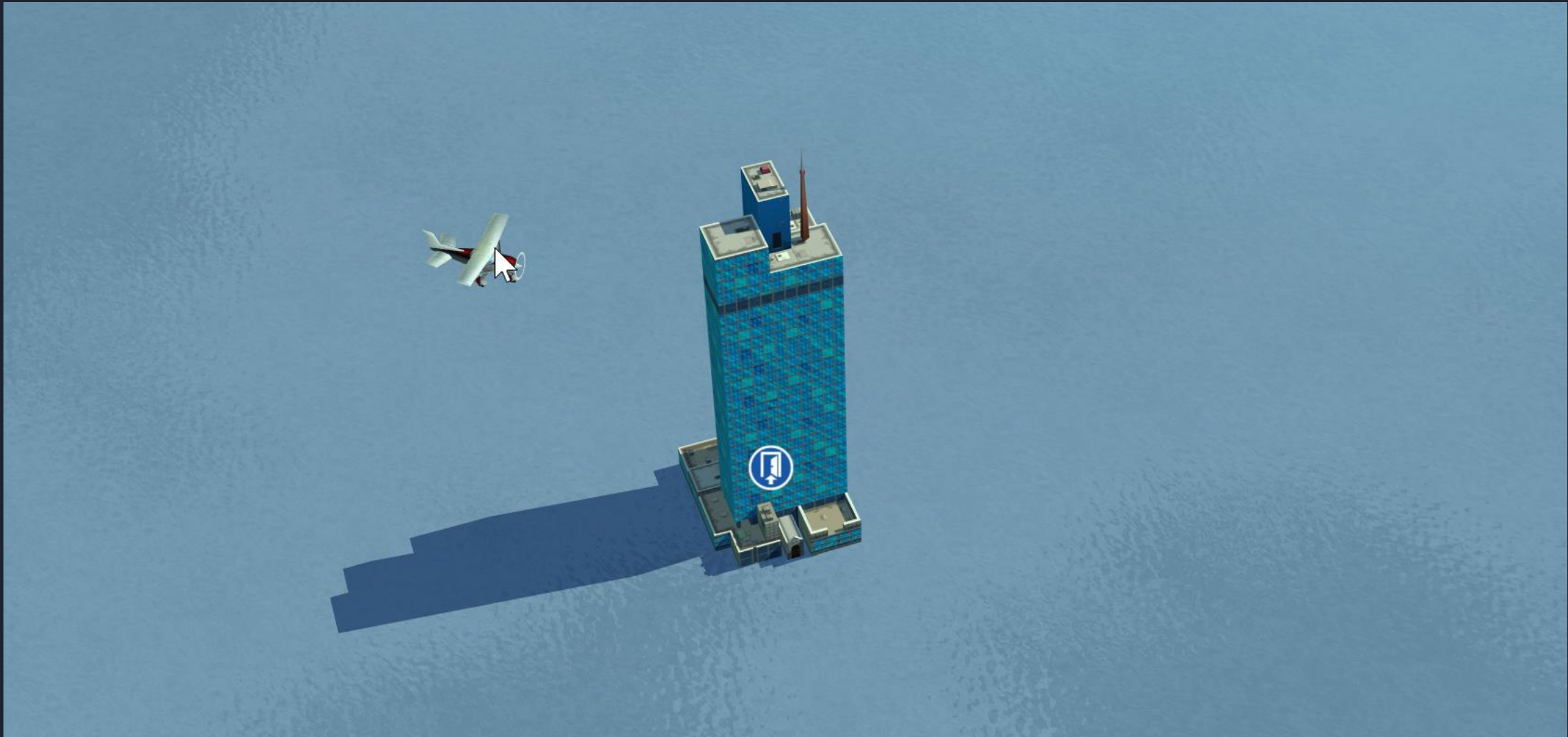
Telstra-Microsoft partnership signals new generation digital foundations for Australian businesses

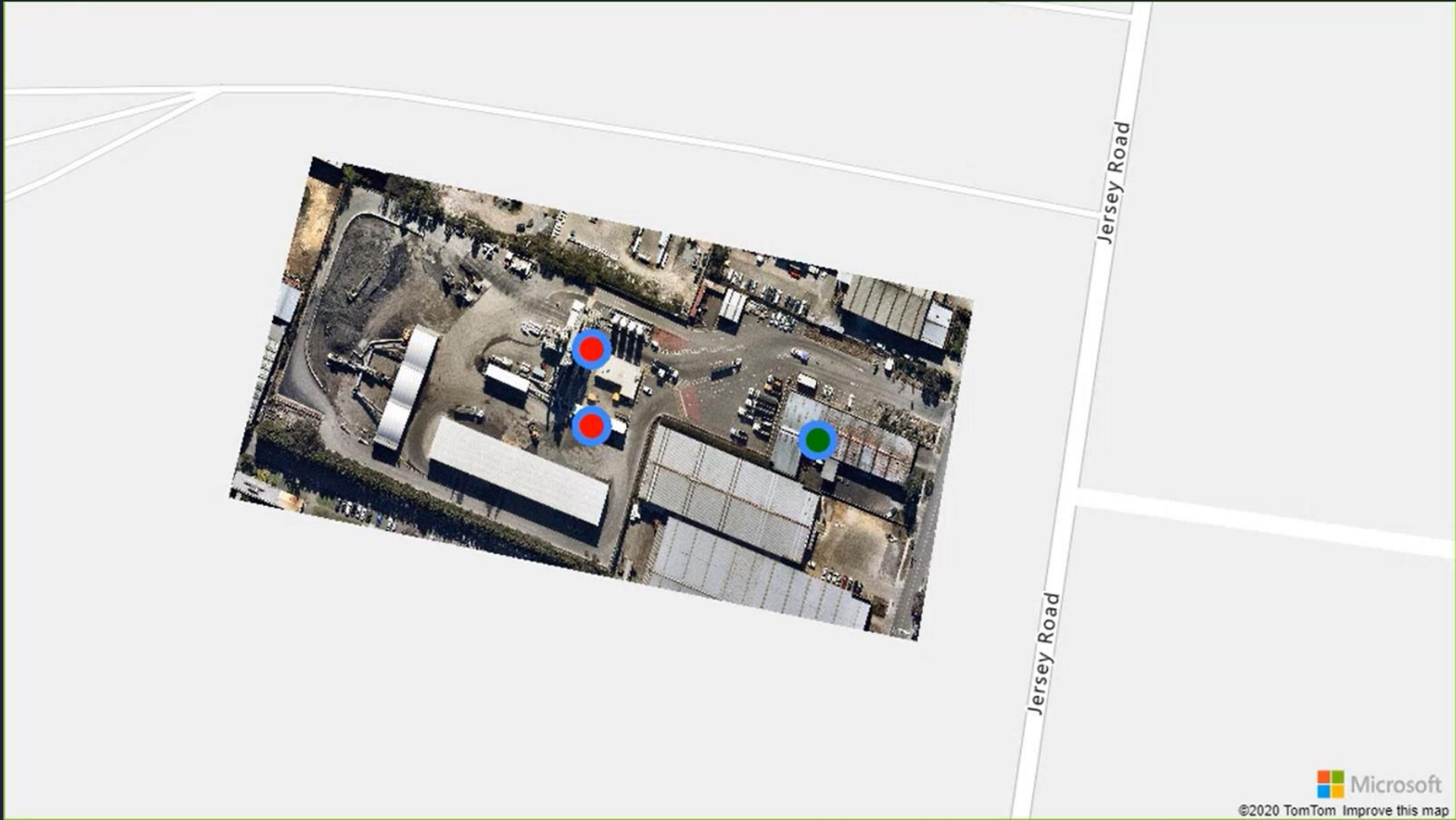
September 24, 2020 | Microsoft News Center



Companies collaborate on one of Australia's largest digital twin, emissions reduction initiatives, and drive transformative operational models









Azure Digital Twins

Core Capabilities of Azure Digital Twins



Open Modeling
Language



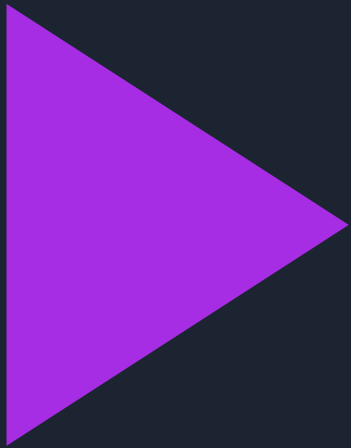
Live Execution
Environment



Input from IoT &
Business Systems



Output to TSI,
Storage & Analytics



Demo

Core Capabilities of Azure Digital Twins



Open Modeling
Language



Live Execution
Environment








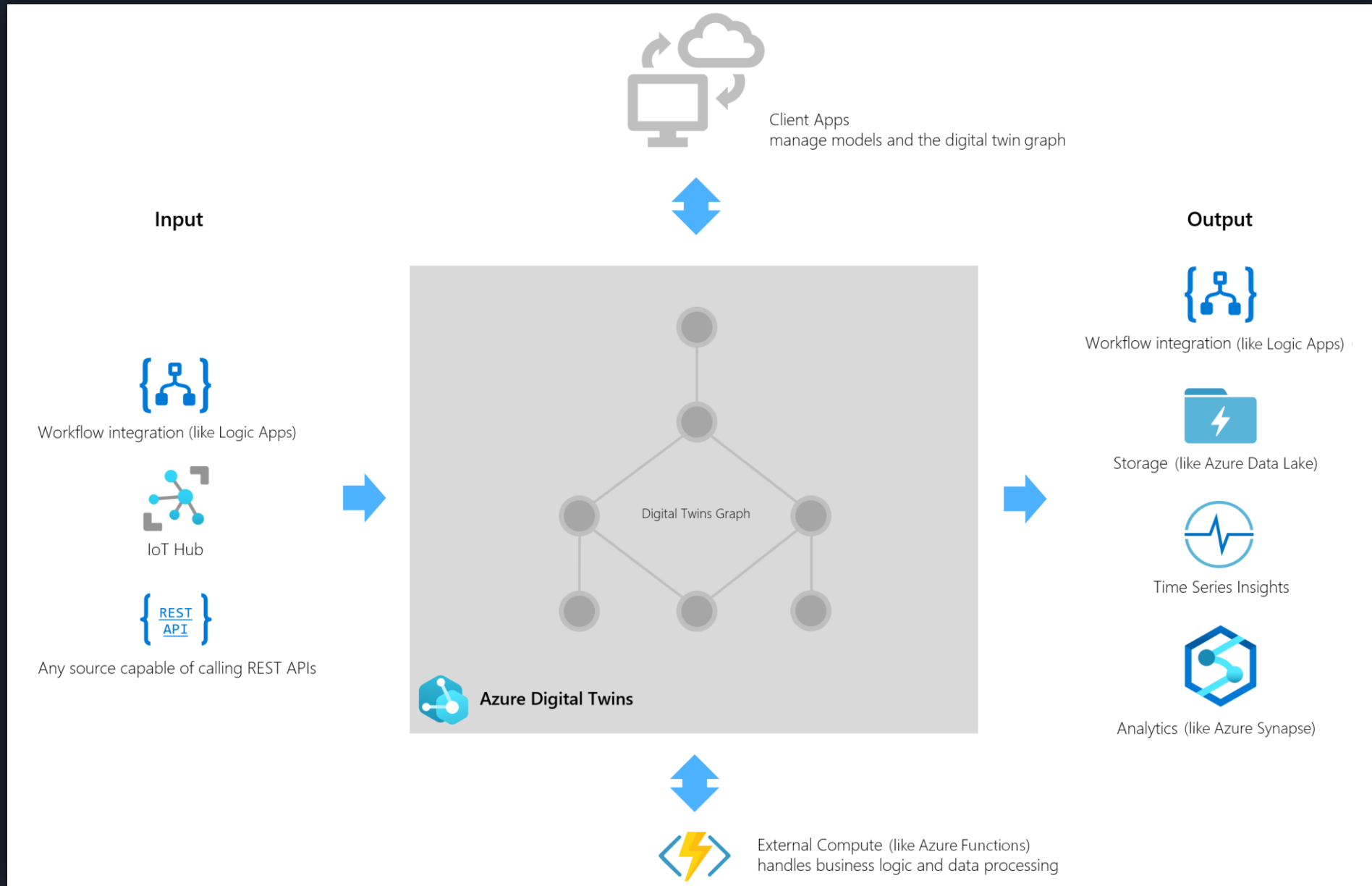
Input from IoT &
Business Systems

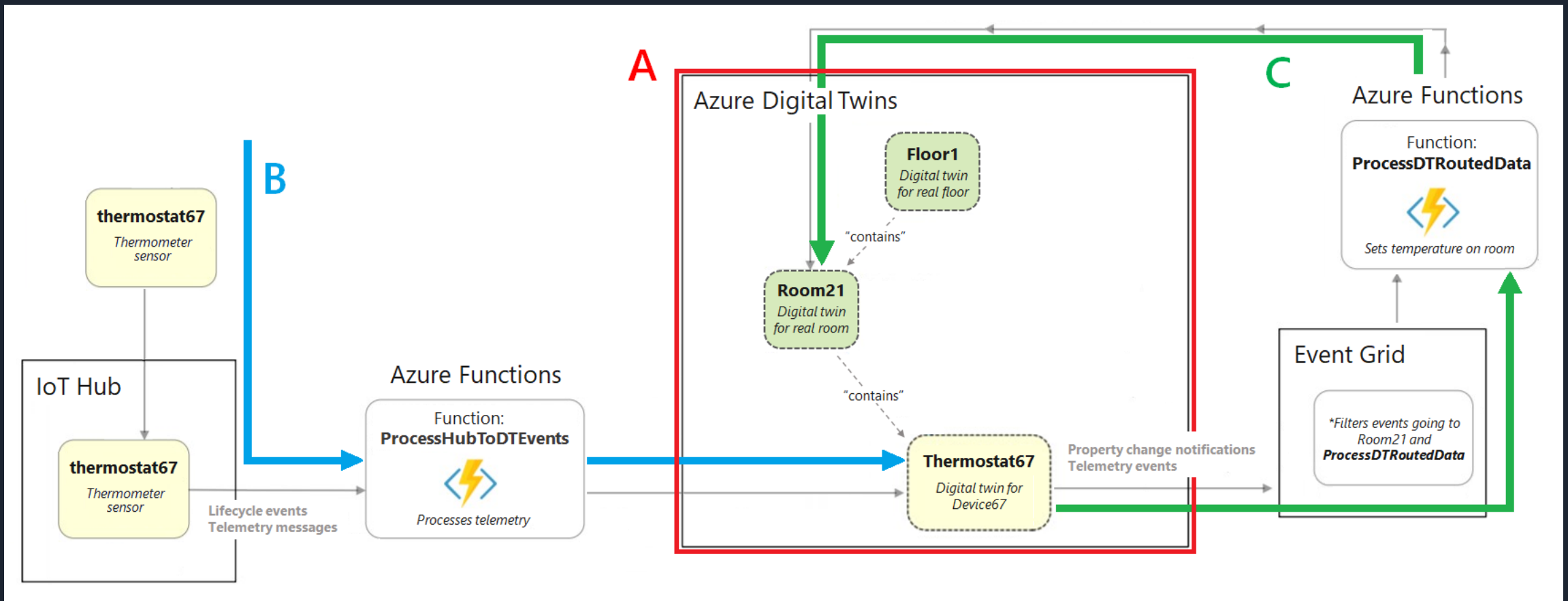


Output to TSI,
Storage & Analytics

Updated Capabilities in New Version of ADT

	PREVIOUS VERSION	NEW VERSION
 Flexible Modeling	Smart Spaces use cases focused	Custom models using the Digital Twins Definition Language (DTDl)
 Flexible Topology	Trees / hierarchies tailored to Smart Spaces use cases	Flexible general graph topology
 Richer Compute	Only Java script and limited debugging with User Defined Functions (UDFs)	Open compute model – use external compute for event and data processing
 Accessible Hub	IoT Hub within Azure Digital Twins	Bring your own IoT Hub to integrate IoT data with Azure Digital Twins
 Scalability	Scale limitations for devices, messages, graphs, scale units	New architecture with improved scalability





Azure Digital Twins Pricing

PRICE (USD)	
Message	\$1 per million messages
Operation	\$2.50 per million operations
Query unit	\$0.50 per million query units

Other Digital Twin Technology Providers



GE Digital



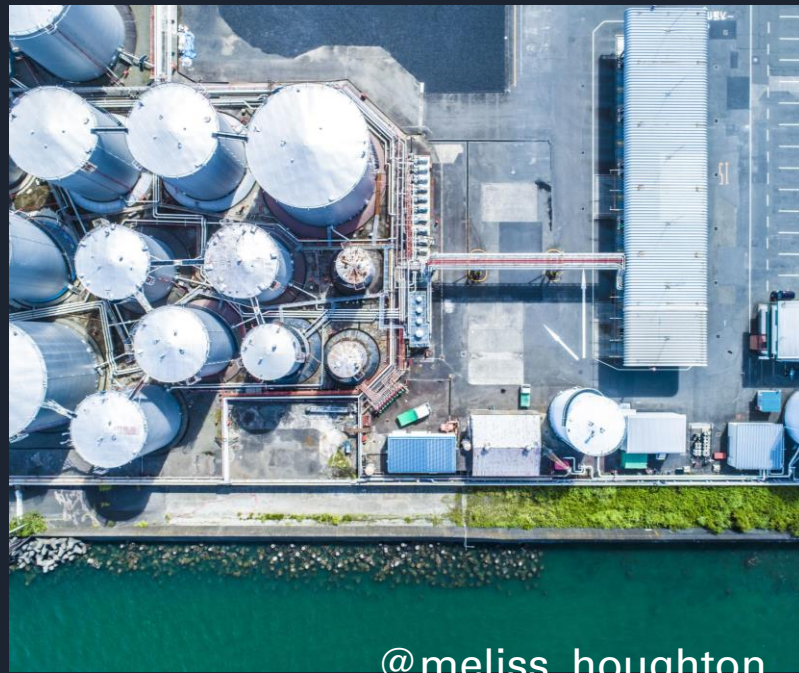
IBM



Siemens



Oracle



@meliss_houghton



Thank you

QUESTIONS?



melissahoughton.dev



[melissahoughton](https://github.com/melissahoughton)



[melissa-houghton](https://www.linkedin.com/in/melissa-houghton)



[@meliss_houghton](https://twitter.com/meliss_houghton)