Machine Digital Twin

MQTT D-Adapter	HTTP D-Adapter

</> PT Lifecycle Alignment
Anomaly Detection
OEE Computation
...

OPC-UA
P-Adapter

Digital Department Layer

MQTT D-Adapter

HTTP D-Adapter

Multi-Process Station Department (Machine DTs Coordination)

MQTT P-Adapter

Digital Machine Layer

MQTT D-Adapter	HTTP D-Adapter	MQTT D-Adapter	HTTP D-Adapter	MQTT D-Adapter	HTTP D-Adapter	MQTT D-Adapter	HTTP D-Adapter
oven station		vacuum carrier		turntable		conveyor	
OPC-UA P-Adapter		OPC-UA P-Adapter		OPC-UA P-Adapter		OPC-UA P-Adapter	

Physical Layer

Controller: Siemens S7-1200