

FACILITY MONITORING & CONTROL SYSTEMS

FMCS Automation Solutions

Engineering resilient utility operations with Rockwell Automation control platforms.

CONTROL | SUPERVISION | DATA | LIFECYCLE SERVICES



One operating view across the entire utility environment

Ehouse integrates field control, supervisory operations and industrial data into a scalable facility platform.



Our FMCS business covers the full control lifecycle:

- Control philosophy, I/O definition and detailed design
- PLC, RIO, network and control-panel integration
- SCADA / HMI configuration, alarms and historian
- System integration with BMS, EMS and third-party equipment
- Commissioning, optimization, training and lifecycle support

A single accountable engineering partner - from design intent to stable plant operation.

A common FMCS platform for every major utility system

Standardized control objects create a consistent operator experience across diverse process packages.



Cooling & Heating

Sequencing
Interlocks
Duty / standby
Alarm & trend



Diesel Generation

Sequencing
Interlocks
Duty / standby
Alarm & trend



Boiler Plant

Sequencing
Interlocks
Duty / standby
Alarm & trend



Water & Drainage

Sequencing
Interlocks
Duty / standby
Alarm & trend



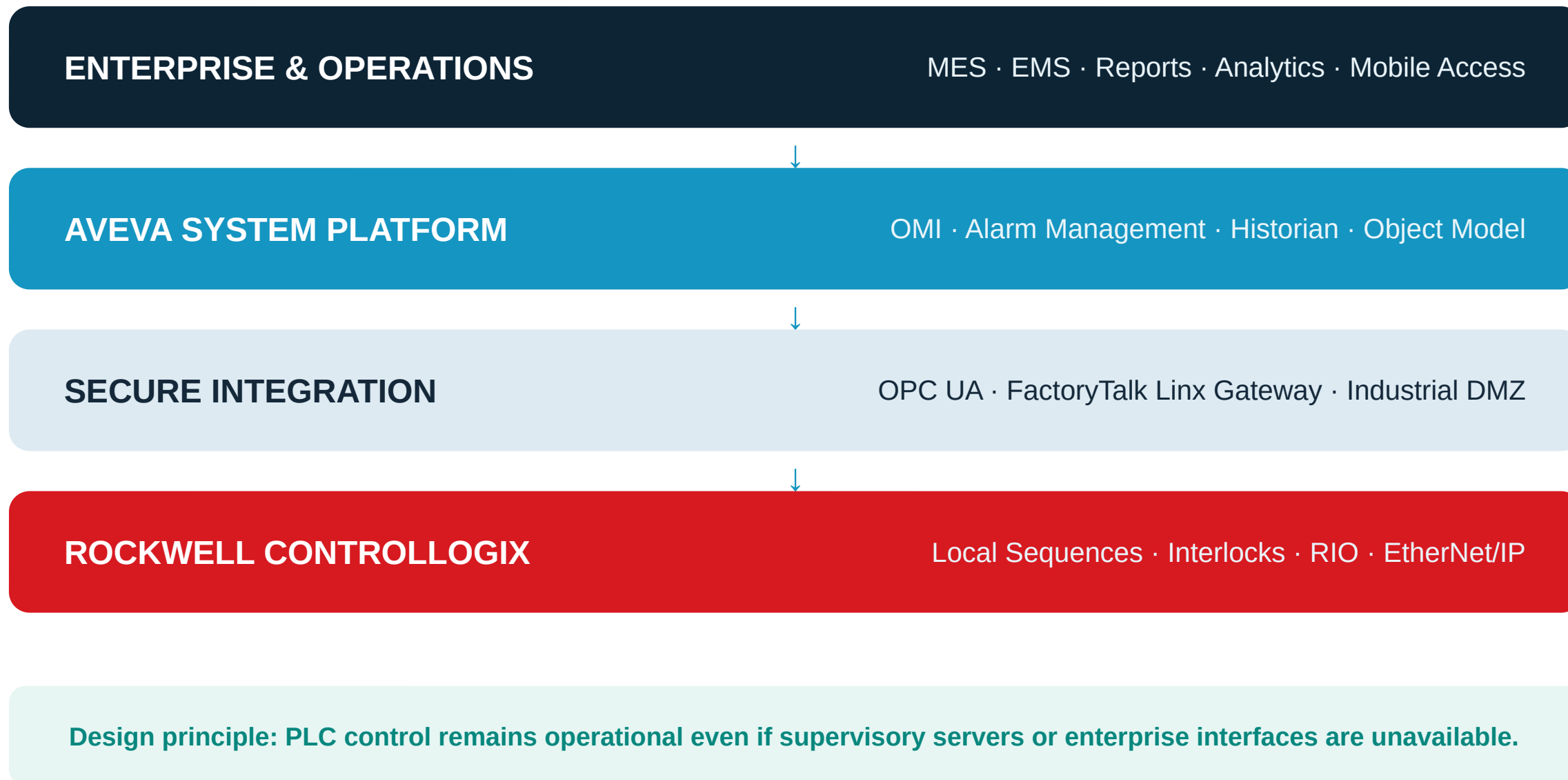
HVAC & Exhaust

Sequencing
Interlocks
Duty / standby
Alarm & trend

Additional integrations: electrical distribution · clean utilities · compressed air · environmental monitoring · time synchronization

Local control reliability with plant-wide operational intelligence

The architecture separates deterministic control, supervisory operations and enterprise data services.



A proven control foundation for complex facility utilities

Typical FMCS integration scope

- ControlLogix processors for process and utility control
- Controller and communication redundancy where required
- EtherNet/IP plant and remote-I/O connectivity
- Studio 5000 engineering and reusable control templates
- OPC UA or approved communication boundary to AVEVA

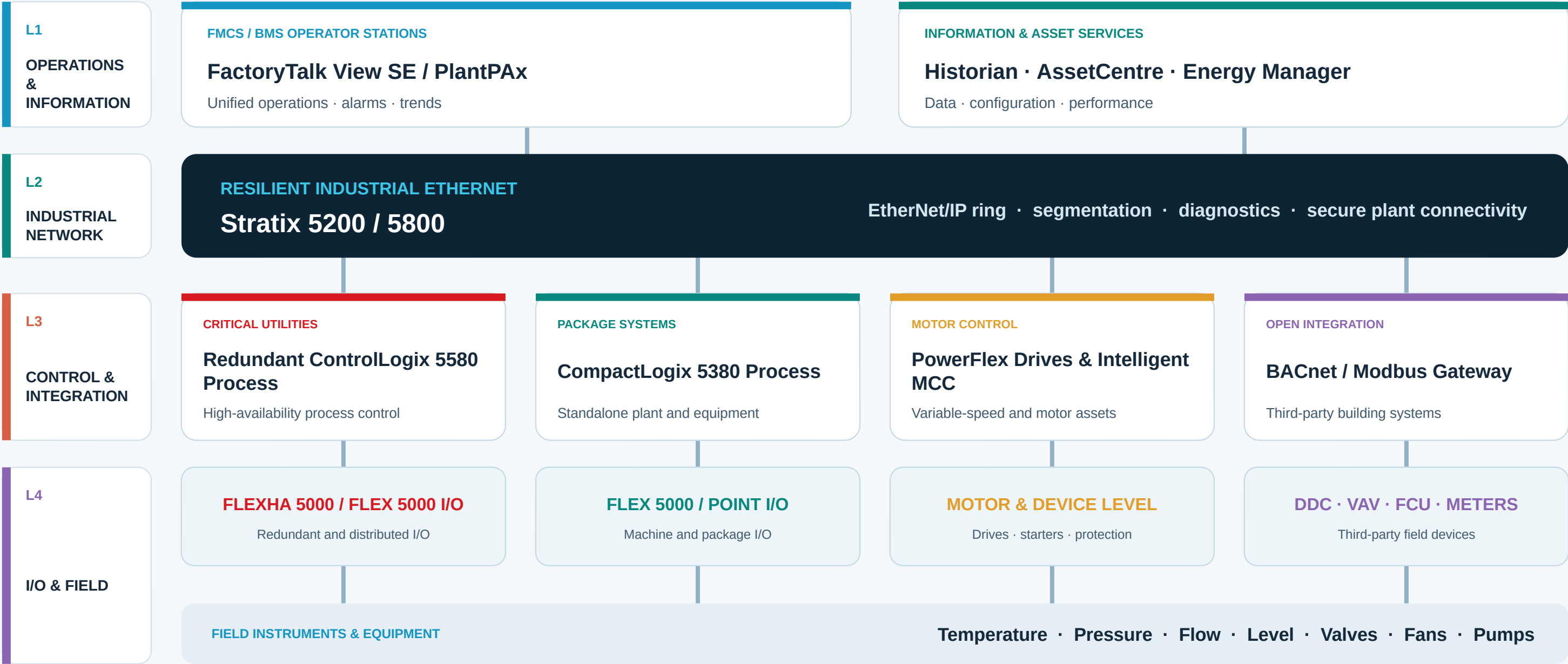


ENGINEERED FOR AVAILABILITY

Local autonomy · Redundant options · Fast diagnostics ·
Scalable I/O · Open information interfaces

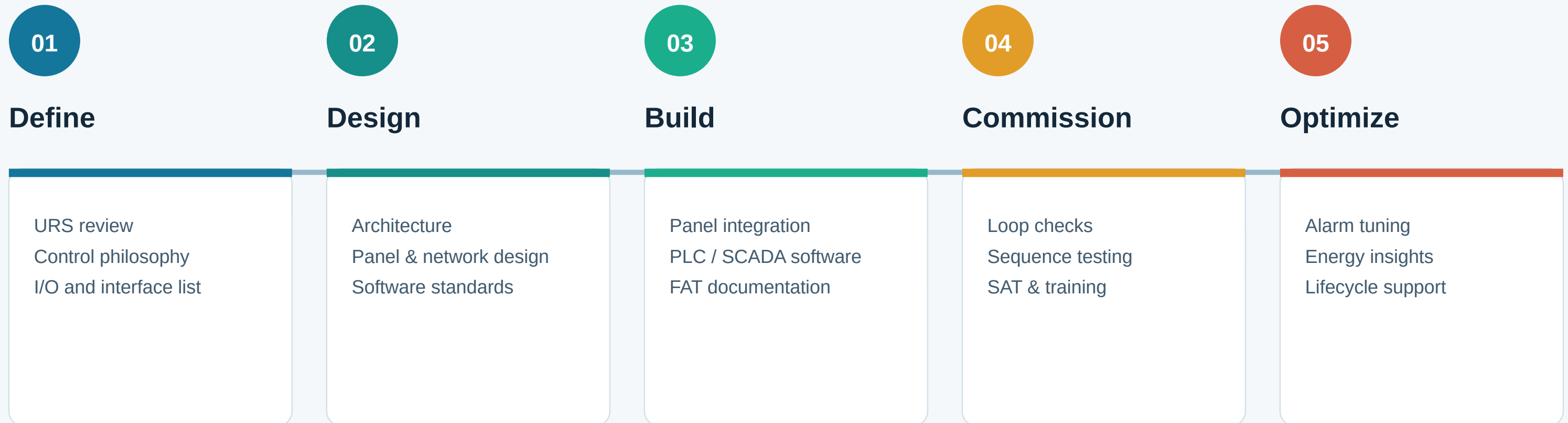
Rockwell-based FMCS system architecture

A presentation-ready layered model for plant-wide visibility, resilient networking and deterministic field control.



One engineering workflow from concept to lifecycle support

Structured deliverables and reusable standards reduce risk at each handover.



Core deliverables: control narrative · drawings · software · FAT/SAT records · training · as-built documentation

SMIC Lingang - large-scale semiconductor FMCS

Rockwell ControlLogix control with an AVEVA supervisory platform, according to the provided project material.



12,265

STATED CONTROL POINTS

7 main areas / 5 utility systems

PROJECT SCOPE

- Cooling and heating plant
- Diesel generation and boiler systems
- Water supply and drainage
- HVAC and exhaust control
- Distributed PLC and RIO architecture

A common FMCS model across utility center, production, substation, generation and warehouse areas.

Pharmaron Ningbo - pharmaceutical facility FMCS

A multi-building control solution using Rockwell ControlLogix with FactoryTalk View SE, according to the provided project material.



≈7,000

POINTS INCLUDING COMMUNICATIONS

4 standalone buildings

SOLUTION CONTENT

- FMCS supervisory and control functions
- BMS, EMS and utility-group integration
- Detailed design and construction drawings
- Installation guidance and commissioning
- Documentation and final acceptance support

Repeatable engineering standards for regulated, high-availability facility environments.

AMEC Shanghai - FMCS, energy and high-efficiency plant

Rockwell ControlLogix and AVEVA platform integration for a multi-building equipment-manufacturing campus.



≈1,500

CONTROL POINTS / 3 BUILDINGS

INTEGRATED SCOPE

- ControlLogix PLC and distributed I/O
- AVEVA supervisory operations platform
- Central utility group-control logic
- High-efficiency plant software
- Energy-management integration
- Connection to the existing phase-one ring network

A unified operational layer connects utility performance, energy visibility and facility control.

Turn facility complexity into a controlled operating system

01 Facility expertise

Control strategies designed around utility-process behavior.

02 Rockwell integration

ControlLogix, EtherNet/IP and secure information interfaces.

03 Platform engineering

AVEVA, historian, alarms and reusable supervisory objects.

04 Project delivery

Design, build, commissioning, training and documentation.

05 Scalable standards

Repeatable templates across systems, buildings and sites.

06 Lifecycle focus

Maintainability, diagnostics, optimization and expansion.

START WITH A PROJECT-SCOPING WORKSHOP

Confirm I/O scope · redundancy class · network topology · platform architecture · delivery responsibilities

Selected project experience across high-tech industries

FMCS, energy management, high-efficiency utility plants and MEP delivery references.

NO.	PROJECT	DELIVERED SCOPE	INDUSTRY / FACILITY
01	SMIC International - Lingang	FMCS · Energy Management · High-Efficiency Utility Plant	12-inch wafer fab
02	AMEC Shanghai - Large-Panel Production Plant	FMCS · Energy Management · High-Efficiency Utility Plant	Semiconductor etching equipment
03	Sanan Optoelectronics Hubei - No. 2 Front-end	FMCS	GaN chips
04	Infineon Technologies (Wuxi)	MEP General Contract	Semiconductor components
05	Sanan Optoelectronics Chongqing	FMCS	Semiconductor components
06	Yixing Zhonghuan Leading Engineering	MEP General Contract	Semiconductor silicon wafers
07	SK Hynix Semiconductor (Wuxi) - 8-inch Fab Phase I	Fab Construction · MEP General Contract	8-inch wafer fab
08	SK Hynix Semiconductor (Wuxi) - 8-inch Fab Phase II	Fab Construction · MEP General Contract	8-inch wafer fab
09	Hefei Visionox - Display Module R&D Base	MEP General Contract	Display modules
10	ZTE Heyuan Base	High-Efficiency Utility Plant · Energy Management	Semiconductor components
11	Xiamen Changelight Optoelectronics	High-Efficiency Utility Plant · Energy Management	Semiconductor components
12	Pharmaron Hangzhou Bay - High-Activity Workshop	FMCS · High-Efficiency Utility Plant · Energy Management	Biopharmaceuticals

Proven delivery across semiconductor, display and life-science facilities.