
it-objects
Integration of Autonomous Systems
is the New Challenge
Why critical infrastructure needs mission control?
Keynote · Dr. Erik Heimann

Critical infrastructure under pressure

THE SITUATION



JANUARY 2025 LAUKAA · FINLAND

Police investigate a possible drone sighting in the no-fly zone over the Nammo explosives plant.



MAY 2026 HELSINKI · FINLAND

Drone alert shuts Helsinki-Vantaa for three hours. Two million people warned to stay indoors.

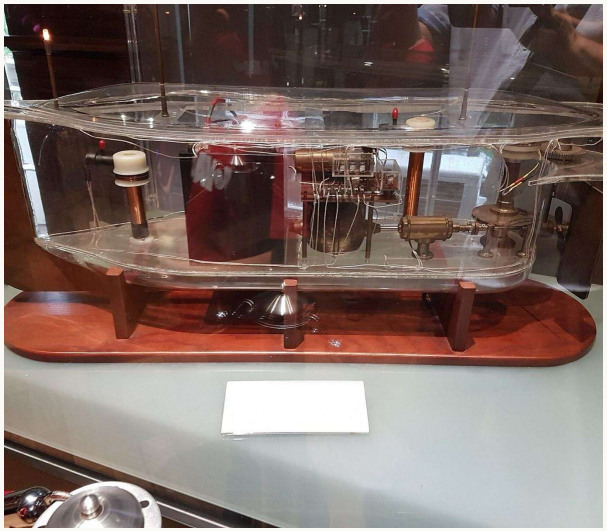


AUGUST 2026 LEIPZIG · GERMANY

Drone with a possible explosive device on the apron. Airport shut down.

Drones are nothing new

HISTORY



1898 ON WATER

Nikola Tesla steers a boat by radio at Madison Square Garden



1927 ON LAND

A radio-controlled car drives through New Orleans with nobody at the wheel



1941 IN THE AIR

Churchill watches the launch of a Queen Bee target drone

Drones are a commodity now

THE NEW REALITY



MARKET

$44 bilion

Global civil drone market today.
Set to double by 2035.
2026: 2.5 million registered drone opterators in Europe



ATTACK DRONE
~ $20,000

VS



INTERCEPTOR MISSILE
~ $4,000,000

ASYMMETRY

1 : 200

2026 Iran war: cheap drones against Gulf bases and tankers in the Strait of Hormuz, often answered by missiles that cost millions.

The hardware is ready. The integration is not.

THE GAP

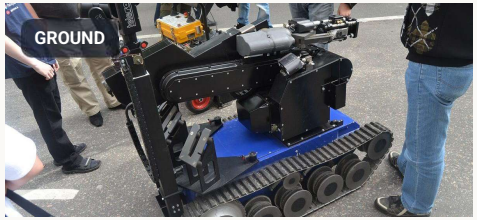
DRONE · VENDOR A





Operator A · App A · Screen A

ROBOT · VENDOR B

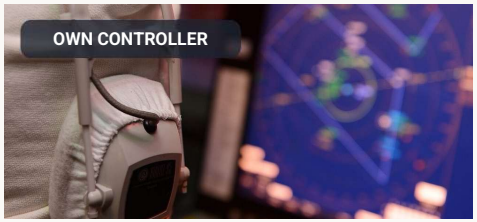




Operator B · App B · Screen B

SHIP · VENDOR C





Operator C · App C · Screen C

?

One picture?

3 vendors, 3 apps, 3 operators. **Nobody sees the whole picture.**

From isolation to integration

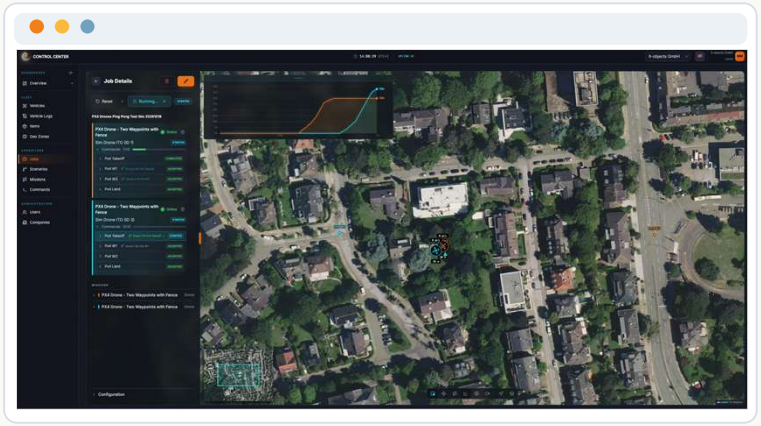
THE NUCLEUS

ANY DOMAIN



ANY VENDOR

QUANTUM SYSTEMS | DJI | KONGSBERG



MISSION CONTROL CENTER

COMMUNICATION
Connects every unit and operator in one network

ORCHESTRATION
Plans the mission and assigns tasks across the fleet

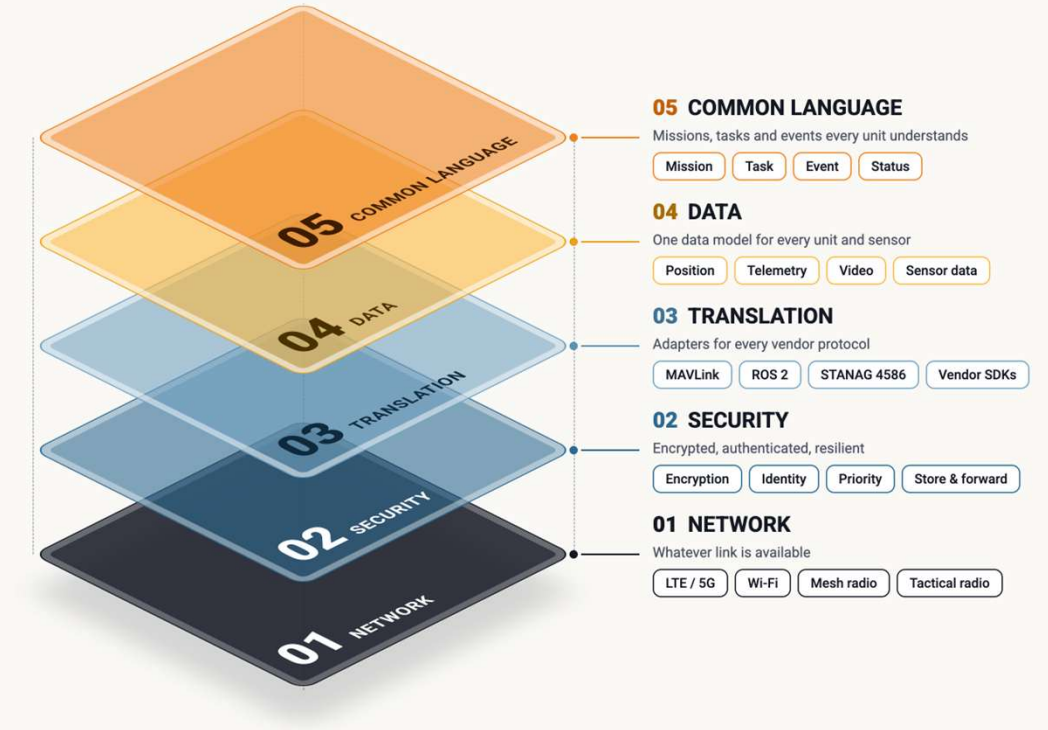
SIMULATION
Tests the mission before a single unit takes off

SOVEREIGNTY
On-premise or sovereign cloud. Your data stays yours.

INTEGRATION End-to-end into existing operations: planning, logistics, maintenance, reporting

Communication. One language for the whole fleet.

MISSION CONTROL CENTER



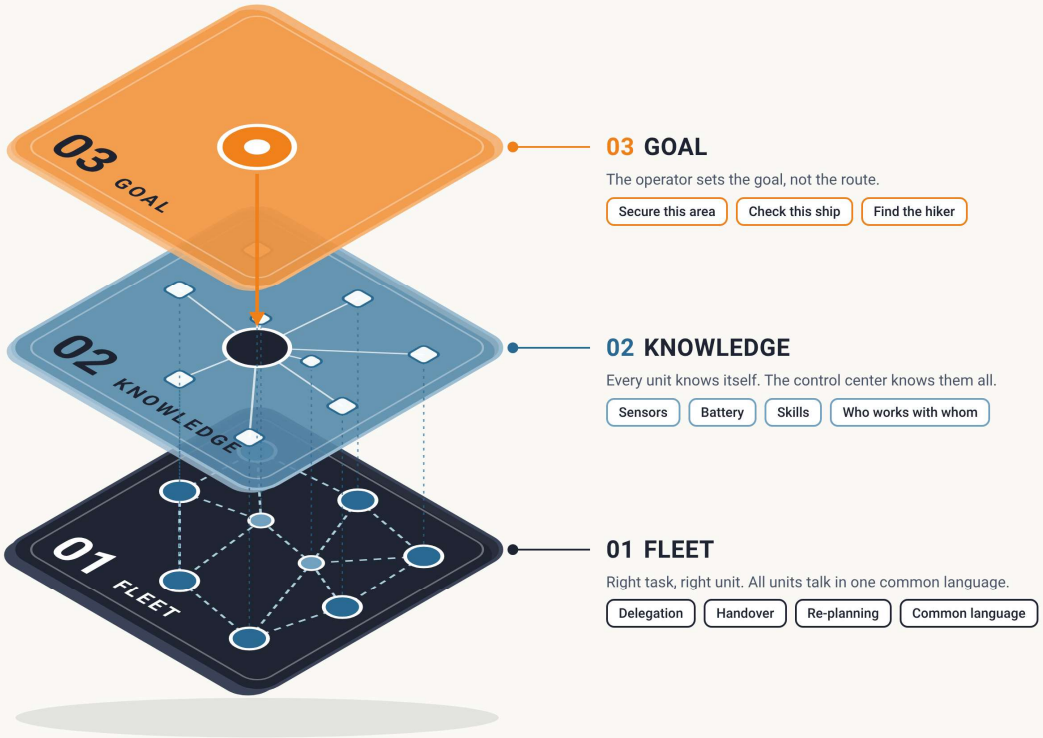
01 **Every unit, one mission**
Air, ground and sea are connected securely, whatever the vendor.

02 **One shared picture**
Every operator sees the same live situation.

03 **Any vendor, any data format**
Different protocols are translated into one common language.

Orchestration. Right task, right unit.

MISSION CONTROL CENTER



03 GOAL

The operator sets the goal, not the route.

Secure this area | Check this ship | Find the hiker

02 KNOWLEDGE

Every unit knows itself. The control center knows them all.

Sensors | Battery | Skills | Who works with whom

01 FLEET

Right task, right unit. All units talk in one common language.

Delegation | Handover | Re-planning | Common language

01 Goal, not joystick

The operator sets the goal.
The system plans routes and tasks.

02 Right task, right unit

Each task goes to the unit that fits best: air, ground or sea.

03 Re-plans on the fly

If a unit drops out or the situation changes, the mission adapts.

Simulation. Test before take-off.

MISSION CONTROL CENTER



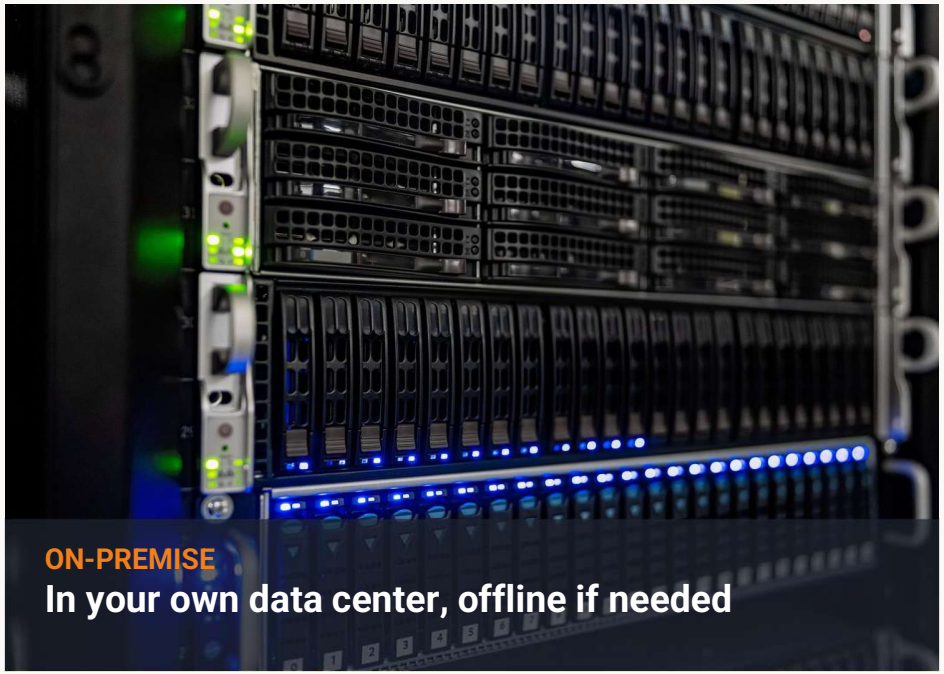
01 **Digital twin first**
Every mission runs virtually before a single unit gets armed.

02 **See gaps early**
Conflicts, blind spots and battery limits show up in advance.

03 **Train without risk**
Operators practise rare scenarios safely, again and again.

Sovereignty. Your data, your rules.

MISSION CONTROL CENTER



ON-PREMISE

In your own data center, offline if needed



SOVEREIGN CLOUD

European cloud under European law

WHAT THE CONTROL CENTER GIVES YOU

From blind spots to the whole picture.

01

Full situational awareness

Every unit, sensor and event in one live picture. Minutes instead of hours.

02

Scale without more staff

Scale business processes with autonomous systems, not headcount.

03

Freedom of choice

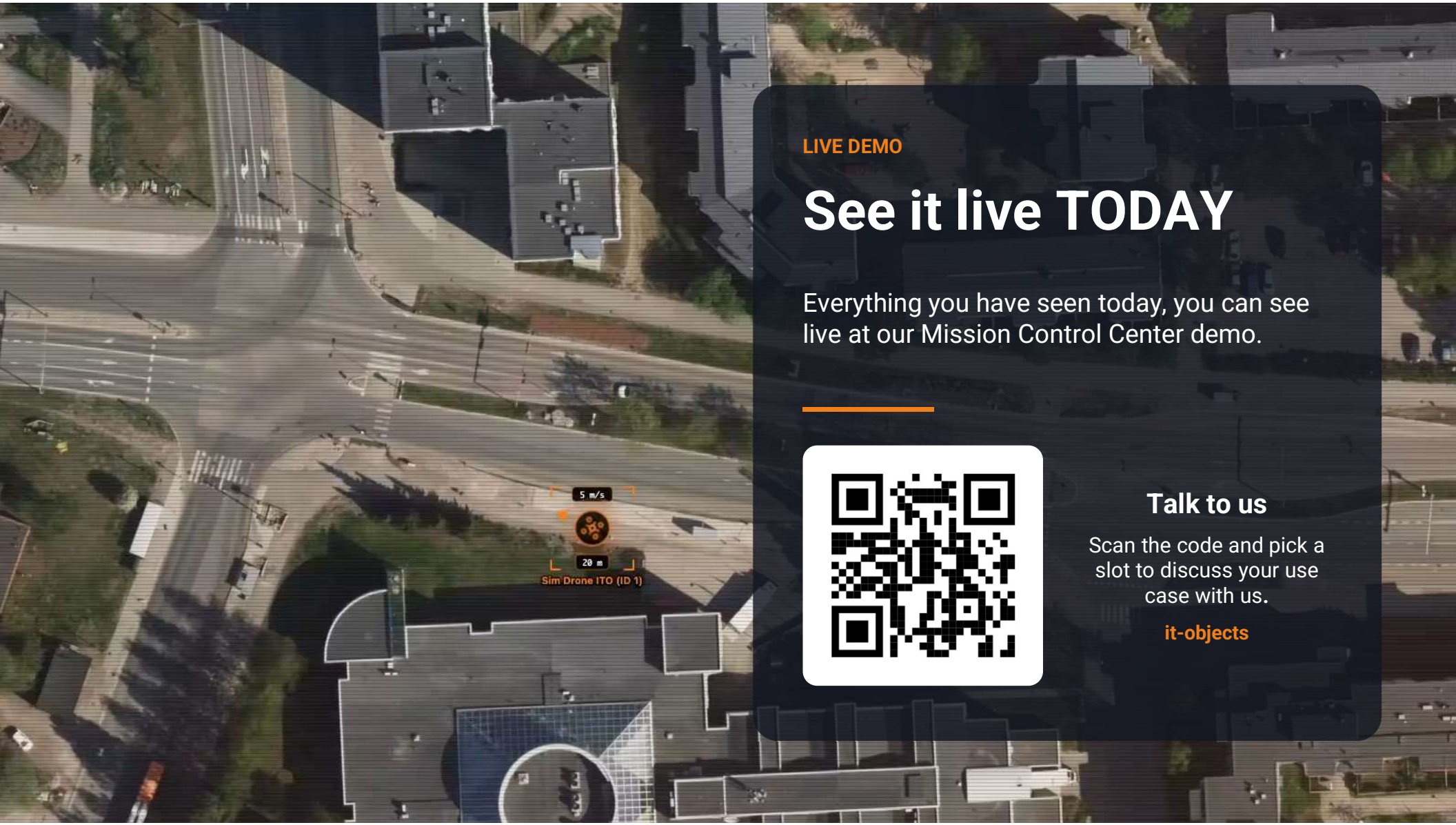
Any vendor, any domain. No lock-in, new hardware plugs in tomorrow.

04

Under your control

On-premises or sovereign cloud. Your data, your rules.

Drones are a commodity. Integration is not.



LIVE DEMO

See it live TODAY

Everything you have seen today, you can see live at our Mission Control Center demo.

Talk to us

Scan the code and pick a slot to discuss your use case with us.

it-objects