

GENESYS

DEVELOPED BY JUMPHASH

PARTNERSHIP OVERVIEW

The future of maintenance and operation.

Four products on one platform, from the substation to the store floor.



Engineering from GENE. Software from JUMPHASH.



■ OWNS AND DELIVERS

General Engineering d.o.o., Sarajevo: electrical networks, control systems, SCADA, automation and telecommunications. GENE owns GENESYS and delivers it to utilities.

gene.ba →

300+ **10+**

projects

years in power networks and SCADA

Source • GENE • gene.ba



■ BUILDS AND CO-INVESTS

JUMPHASH designs and builds GENESYS and co-funds its development. It is open to joint ventures and partnerships. It runs the robotics pilot and builds Haytham on the same platform.

jumphash.com →

- ✓ Designs and builds GENESYS
- ✓ Co-funds its development
- ✓ Runs the robotics pilot
- ✓ Builds Haytham on the same platform



€584 bn

Investment needed in EU electricity grids this decade.

European Commission • EU Action Plan for Grids • Nov 2023

40%

Share of Europe's distribution grids that are over 40 years old.

European Commission • EU Action Plan for Grids • Nov 2023

€375 to 425 bn

Investment needed in distribution grids by 2030.

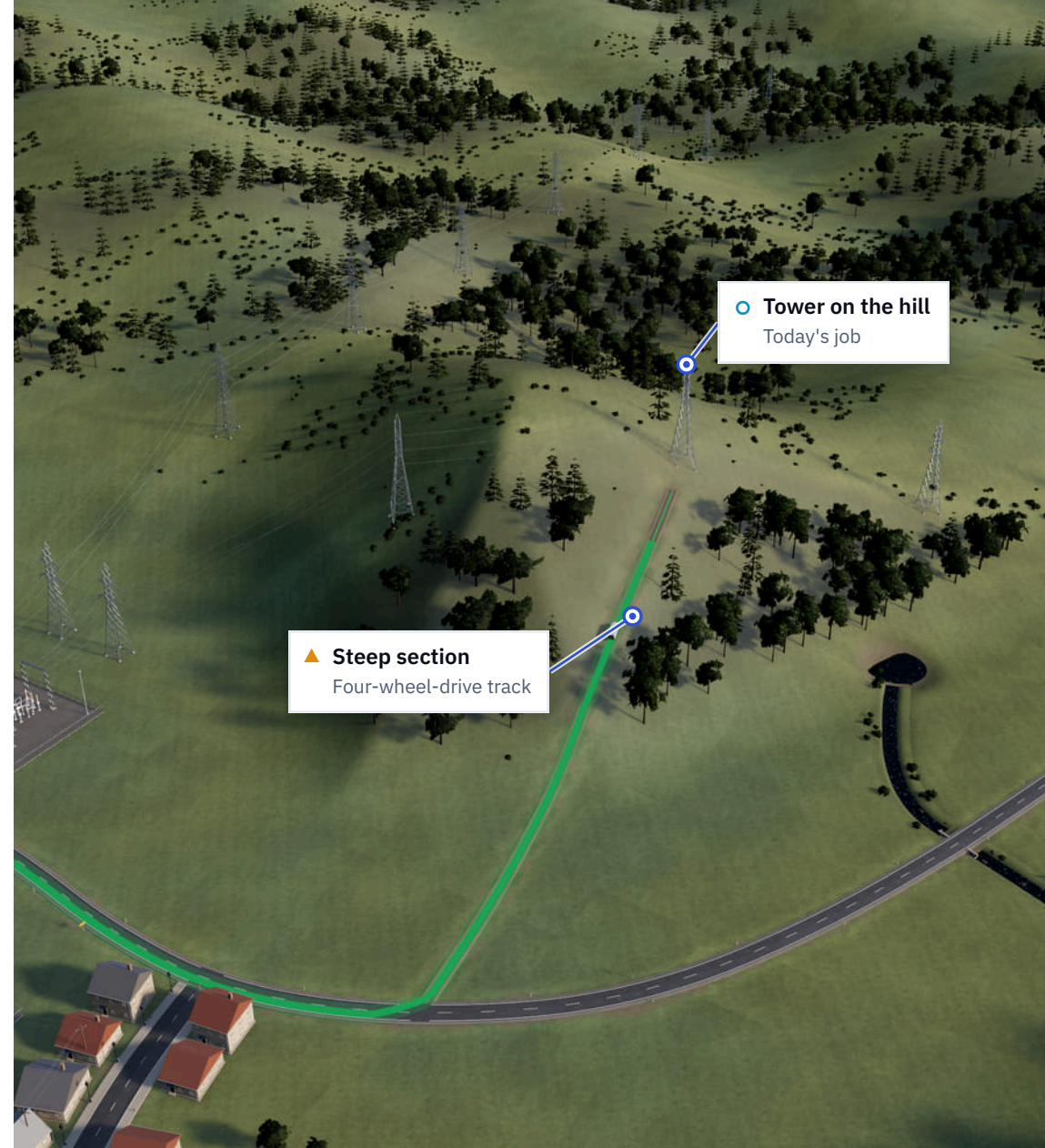
Industry estimate • EU Action Plan for Grids • Nov 2023

The same plan says distribution grids must become digital, monitored in real time and remotely controllable. Source: European Commission: European grids and the EU Action Plan for Grids.

The grid has to become digital while it is still in service.

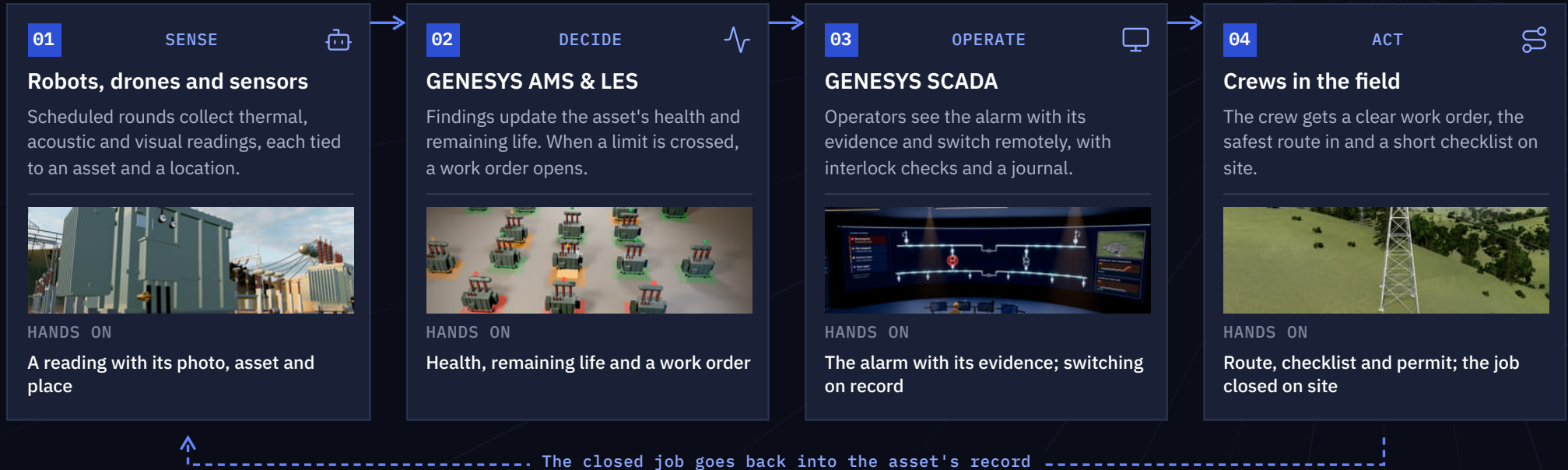
The grid stretches across valleys, forests and hills. Every line and every substation depends on the crews who keep it running, often far from the road, in every kind of weather.

Most of that grid already exists, and has to be maintained while it is modernised.



One loop from the field to the control room, and back to the crew.

THE PROBLEM Readings, records, alarms and crews usually live in different places, so findings wait.



→ From a robot's round to a crew on site, with nothing lost on the way.

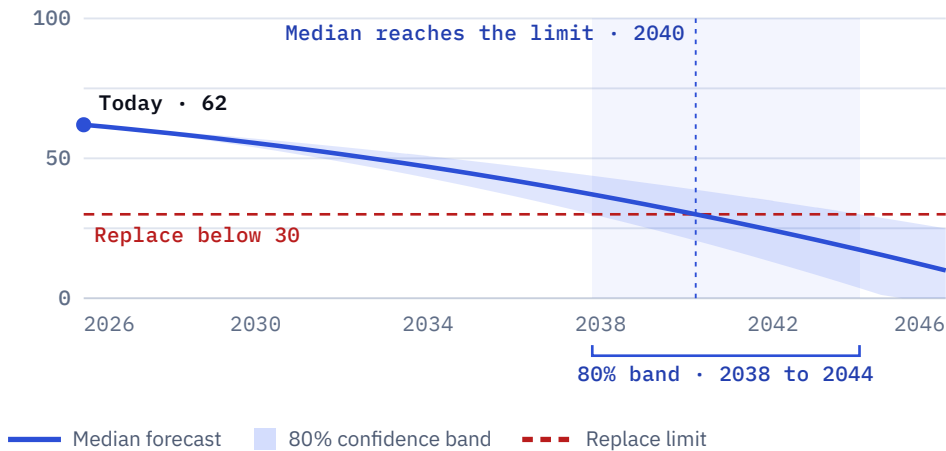
GENESYS

AMS & LES

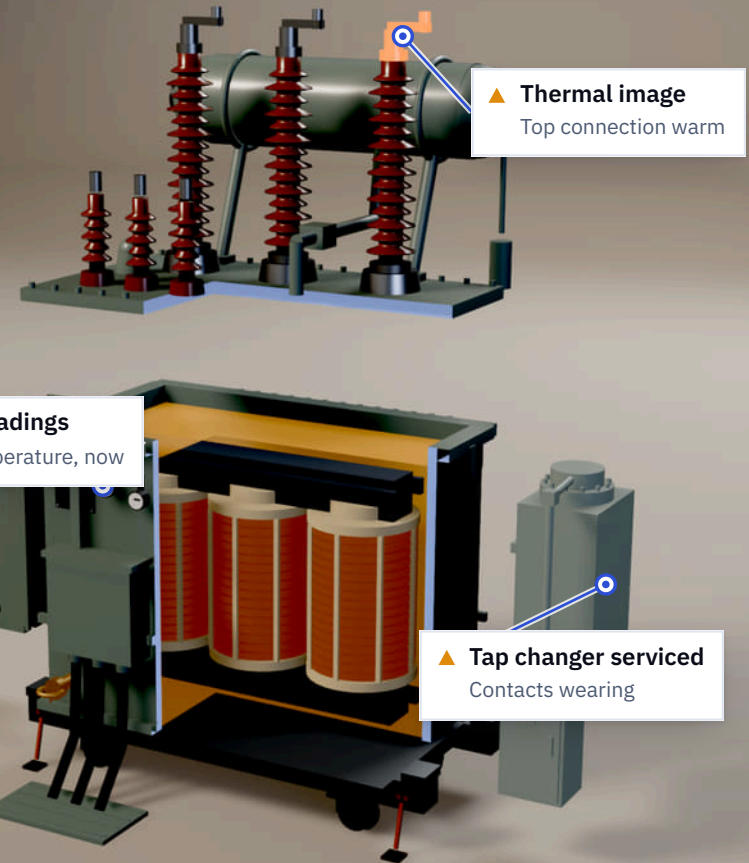
○ In development

One record per asset. Remaining life with the error bars shown.

TRANSFORMER, BAY THREE • HEALTH FORECAST



→ Plan the replacement window, not a guess.



Across the whole fleet, what needs attention first, and why.

FLEET BOARD · 152 ASSETS · 5 SITES

SITE	TRANSFORMERS	BREAKERS	LINES	RELAYS
Valley	▲ 4·1·0	◆ 10·3·2	▲ 5·1·0	▲ 12·2·0
Hilltop	▲ 3·1·0	◆ 7·2·1	◆ 4·2·1	▲ 9·2·0
Main substation	▲ 3·2·0	◆ 8·2·1	▲ 5·1·0	◆ 10·3·1
Riverside	◆ 2·1·1	◆ 5·2·1	▲ 3·1·0	▲ 7·2·0
North yard	▲ 1·1·0	▲ 4·1·0	● 3·0·0	◆ 7·1·1

● Good ▲ Watch ◆ Poor 4·1·0 = good · watch · poor; the shape shows the worst

→ Budgets go where they matter, and work is planned by condition, not by the calendar.

FROM THE BOARD TO THE PLAN

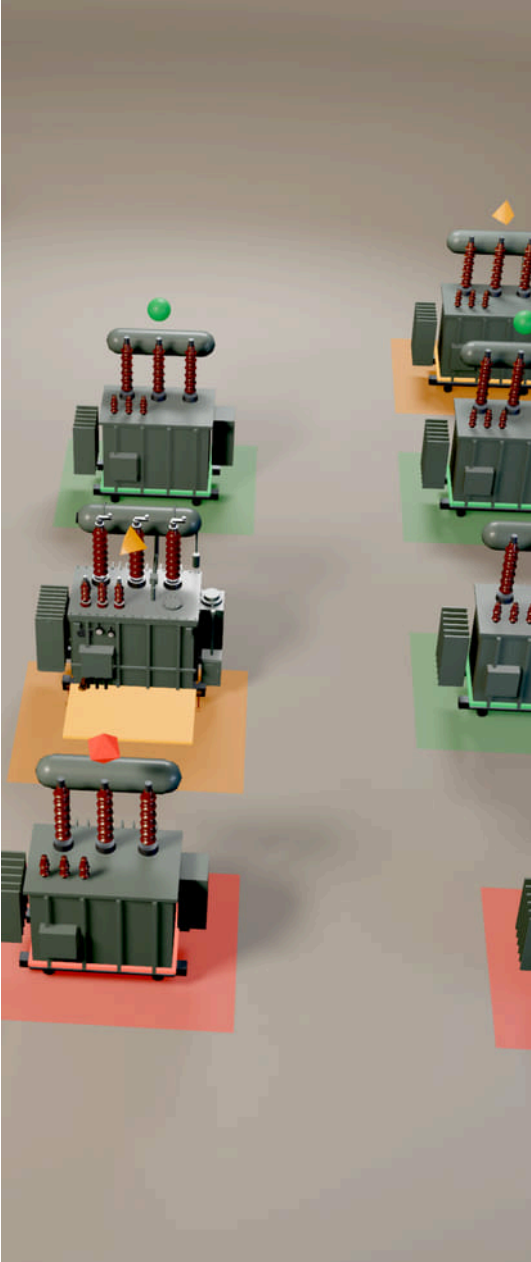
- 1

See the whole fleet
Every site and asset class in one matrix, with the worst state in each cell.
- 2

Attention first
Valley · breakers: 2 poor. One of them is the hill line breaker: health 38, 4.1 years left.
- 3

Into the plan
2026 Q4 · Hill line breaker, Valley substation: replace the gas seals and retest.

◆ Poor



GENESYS

SCADA

[In development](#)

The alarms that matter first,
with the evidence beside them.

GENESYS SCADA • ALARM SUMMARY • 5 ALARMS • 3 ACTIVE					P1 1 ▲ P2 2 ● P3 1 ◆ P4 1			
PRIO	TIME	DESCRIPTION	WHERE	STATE				
■ 1	14:02:11	Winding temperature high	Transformer, bay three	Active				
▲ 2	13:58:40	Gas pressure low	Hill line breaker	Active				
▲ 2	13:52:17	Cooling fans, group two, failed	Transformer, bay three	Active				
● 3	13:41:05	Remote unit link degraded	Valley substation	Returned to normal				
◆ 4	13:12:50	Station battery voltage low	Battery room	Shelved				

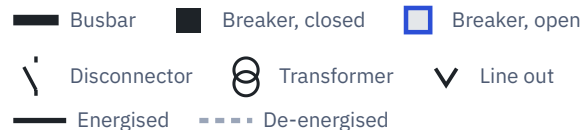
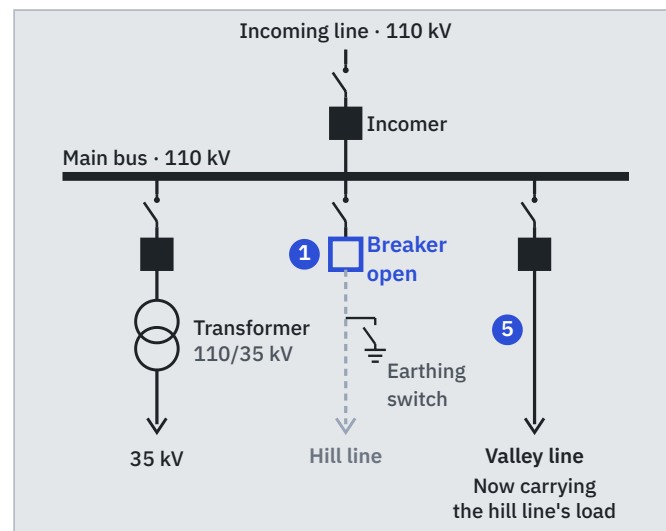
ISA-101 views stay grey until something is abnormal. Each ISA-18.2 priority has a shape as well as a colour.

→ One alarm that matters, first.



Checked against the interlocks. Confirmed twice. On record.

VALLEY SUBSTATION • 110 KV



SWITCHING ORDER • SIX STEPS

- 1 Select the breaker**
Open the breaker on the hill line.
- 2 Check the interlocks** **PASS**
4 checks, all passed.
- 3 Confirm: open the breaker**
The operator on shift.
- 4 Second confirmation**
A second operator, before the command is sent.
- 5 The breaker opens**
Position confirmed. The hill line is de-energised; the valley line carries its load.
- 6 On record**
Every step goes to the journal, with the operator and the time.

→ Every step checked, confirmed twice and on record.

○ Prototype in pilot

Robots do the rounds. Crews get the findings.

Main substation · today's round

● Round complete

The map shows a substation layout with a robot route (green line) starting at the GATE (1), going to the CONTROL BUILDING (6), then to TRANSFORMER, BAY THREE (3), and finally to the DOCK (7). Findings are marked: 'Unusual sound' (orange triangle) near BUSBAR 110 KV, 'Running hot' (red diamond) on TRANSFORMER, BAY THREE, and 'On watch' (orange triangle) on the SECOND TRANSFORMER.

Legend:
 - Green line: Robot route, done
 - Blue circle with number: Stop, as in the log
 - Red diamond: Finding
 - Orange triangle: On watch
 - Circle with two dots: Breaker

Inspection robot · round log
37 readings · 2 findings · round complete

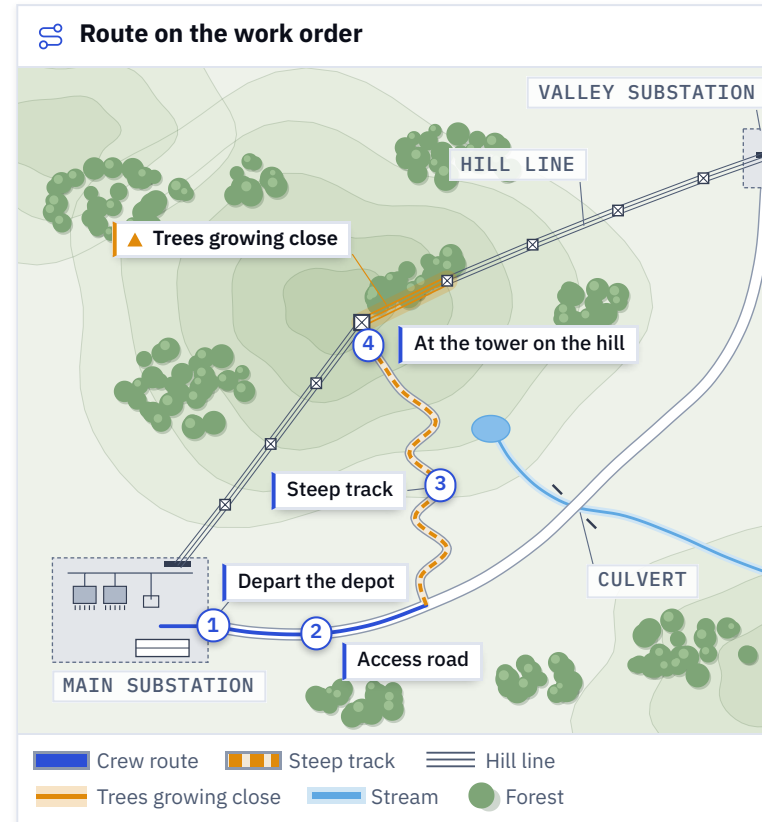
1	09:12 Gate	ready
2	09:16 Transformer, bay three	
	Thermal photo ◆ Finding	78.4 °C
	Thermal photo attached	
3	09:19 Transformer, bay three	62%
	Oil level	
	09:24 Breaker, bay three	
4	Sound recording ▲ On watch	41 dB
	Sound recording attached	
5	09:29 Breaker, bay three	closed
	Breaker position	
6	09:34 Control building	closed
	Cabinet doors	
7	09:40 Dock	37 readings
	Round ends	

→ Two findings, one work order, no wasted trip.





Out on the line, the crew sees the same picture.



WORK ORDER • LINE CREW

Trees growing close to the hill line

-  Line crew 1, two people
-  Span by the hill tower
-  Four-wheel-drive vehicle
-  Permit to work active

THE TRIP, STOP BY STOP

- 1 Depart the depot**
Four-wheel drive, saw and permit on board
- 2 Access road**
Gravel, along the valley floor to the track
- 3 Steep track**
Four-wheel drive only, in low gear
- 4 At the tower**
Clear the span, attach a photo, close the job

→ The right crew, the right kit, the first time.



Counts, dwell times and alerts from the cameras a store already has.

-  **Count.** Footfall, occupancy and conversion, for every interval of the day.
-  **Explain.** Dwell and queue time against the target for each zone, with the camera that saw it.
-  **Act.** Queue and staffing alerts that reach the right person, at the right moment.

▲ **Queue building at the tills**
Open a second till
 Checkout camera • just now
 Sent to the staff member on the floor

NEEDS ATTENTION FIRST

◆ Downtown	Queue building at the tills
▲ Riverside	Stockroom camera offline

 **Your cameras**
The ones the store already has.



 **In the cloud**
Nothing to install in the store.



 **On site, ForgeOS**
Video stays in the store.



 **Haytham Retail**
Counts, dwell, alerts.

→ The right person, at the right moment.

Now, next and later.



→ Partners who join now shape what comes next.

Partner in the future of maintenance and operation.

**GENE**

■ OWNS AND DELIVERS

Owens GENESYS, deploys it on utility sites, supports it in operation and brings ten years of field practice in power networks and SCADA.

**JUMPHASH**

■ BUILDS AND CO-INVESTS

Designs and builds the software, the interface system and the robotics data path, and co-funds development.

**Your organisation**

■ PILOTS AND SCALES

Brings a market, a technology, a site or capital to the next stage: utility deployments, robotics beyond pilot, or Haytham on new sites.

OWNER	GENE, General Engineering d.o.o., Sarajevo gene.ba		
DEVELOPER	JUMPHASH, developer and co-investor		
STATUS	○ AMS & LES and SCADA in development ○ Robotics prototype in pilot ○ Haytham Retail: built by JUMPHASH		
OPEN TO	Joint ventures, pilots, integration jumphash.com/genesys/partnership		

WAYS IN

 Utility pilot

 Technology partner

 Integration or reseller partner

 Robotics partner

 Joint venture

 Other

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TALK TO US

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jumphash.com/genesys/partnership



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Film “Partner with GENESYS”, 0:33, on the partnership page. Every arrangement is agreed case by case. Not an offer.