S4GA

MEDIUM-INTENSITY

SOLAR PRO AIRFIELD LIGHTING SYSTEM

ABOUT S4GA

WE OPERATE GLOBALLY

S4GA is an airfield lighting company that designs, manufactures, and supplies certified airfield lighting systems to civil and military customers worldwide.

As of 2026, S4GA delivered over 250 applications to more than 70 countries. Airports operated by VINCI, Fraport, USAF, Bundeswehr and other reputable companies are successfully using S4GA airfield lighting solutions.

We offer complete solar and mobile airfield lighting systems. All products are manufactured in Poland. S4GA holds ISO 9001-2015 Certificate.

SOLAR PRO AIRFIELD LIGHTING SYSTEM

FEASIBILITY STUDY

Testing of S4GA equipment to make sure it will operate on solar energy as long as airport requires.

AIRFIELD LIGHTING DESIGN

Airfield lighting design prepared together with certificates, manuals, and test reports required by the airport.

EQUIPMENT MANUFACTURING

All products are manufactured in Poland. S4GA holds ISO 9001_2015 Certificate.

INSTALLATION &TRAINING

Installation takes one week S4GA offers supervision of installation and provides training.

MAINTENANCE SUPPORT

99% of troubleshooting cases are successfully solved by S4GA tech support team remotely.

MEDIUM-INTENSITY SOLAR PRO PRODUCT PORTFOLIO

APPROACH

SP-401SM SOLAR APPROACH LIGHT

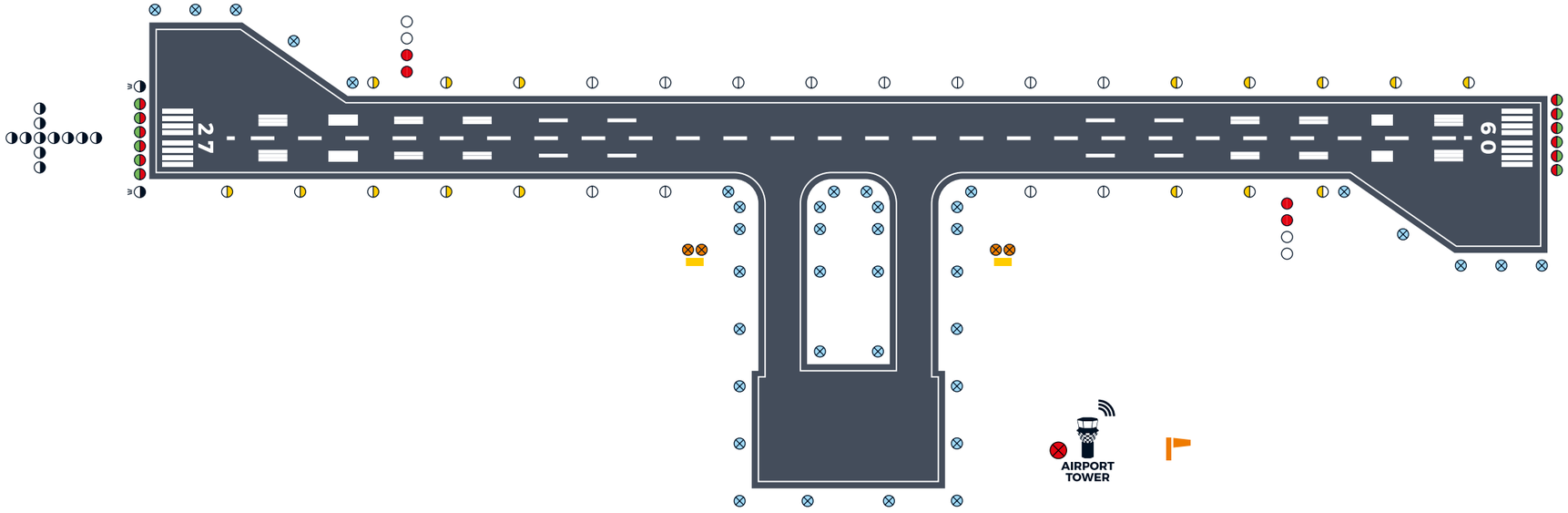
Medium intensity
White (clear)
Remote control
NVG-compatible
1 800 cd light output
Operates 365 days on solar

SP-401SM SOLAR RUNWAY THRESHOLD IDENTIFICATION LIGHT

Medium intensity
Flashing white
GPS synchronization
Remote control
NVG-compatible
Operates 365 days on solar

LED PRECISION APPROACH PATH INDICATOR

LED multi-lamp type
Remote control
10 km+ visibility
NVG-compatible
Power supply: 110-230VAC, 24VDC, 6.6 Amp



RUNWAY

SP-401SM SOLAR RUNWAY EDGE LIGHT

Medium intensity
White/white, white/yellow, yellow/red
1 200 cd light output
Remote control
NVG-compatible
Operates 365 days on solar

SP-401SM SOLAR RUNWAY THRESHOLD END LIGHT

Medium intensity
Bidirectional red/green
320 / 450 cd light output
Remote control
NVG-compatible
Operates 365 days on solar

SP-401SM SOLAR TURNING PAD LIGHT

Omnidirectional blue
11 cd light output
Remote control
NVG-compatible
Operates 365 days on solar

SP-200 LIRE / LIRH SOLAR LED INSET LIGHT

LED type
High intensity
White/white, white/yellow, yellow/red, red/green
Remote control

LED AIRPORT BEACON LIGHT

LED type
Over 2.000 cd light output
Flashing White, White/Green
Power supply: 110-230 VAC, 24 VDC

TAXIWAY & APRON

SP-301S SOLAR TAXIWAY EDGE LIGHT

Omnidirectional blue
6 cd light output
Remote control
NVG-compatible
Operates 365 days on solar

SP-301S SOLAR OBSTRUCTION LIGHT

Low intensity, type A
Omnidirectional red
21 cd light output
Remote control
NVG-compatible
Operates 365 days on solar

SOLAR RUNWAY GUARD LIGHT

LED type
Flashing yellow
3 500 cd light output
Remote control
Operates 365 days on solar

TAXIWAY RETROREFLECTIVE MARKER

Weather resistant
Jet blast resistant
Frangible
Maintenance-free

WIND CONES & SIGNS

WIND DIRECTION INDICATOR

Weather resistant
Internally Illuminated

AIRPORT GUIDANCE SIGN

Weather resistant
Internally Illuminated

SOLAR ENGINES & POWER SUPPLY

SE-700 SOLAR ENGINE MAX

Solar panel: 720 W
Battery capacity: 3000 Wh (expandable to 6000 Wh)
Designed for: PAPI System

SE-350 SOLAR ENGINE OPTIMA

Solar panel: 360 W
Battery capacity: 1320 Wh (expandable to 2640 Wh)
Designed for: Airport Guidance Sign - Large, Group of Solar LED Inset Lights

SE-180 SOLAR ENGINE COMPACT

Solar panel: 185 W
Battery capacity: 1440 Wh (expandable to 2880 Wh)
Designed for: Airport Guidance Sign - Small / Medium

SE-40 SOLAR ENGINE MINI

Solar panel: 40 W
Battery capacity: 336 Wh
Designed for: Wind Direction Indicator, Solar Runway Guard Light, Solar LED Inset Light

UPS-3000 UNINTERRUPTIBLE POWER SUPPLY UNIT

3000 W total capacity
Rugged pelican housing

ACCESSORIES

OCT-401 CHARGER FOR 10X SP-401 AIRFIELD LIGHTS

DIGITAL INCLINOMETER FOR LED PAPI

AGL CONTROL & MONITORING

AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM (ALCMS)

Custom airfield layout
Individual light status display
Grouping of lights: up to 150 circuits
6-step Light Intensity Setup (optionally 6-steps)
Operating mode setup (Visible/NVG/Remote/Autonomous)
Scenarios selection

UR-201 CONTROL AND MONITORING UNIT

Airfield lighting control panel
Automatic failure alarm via SMS
Remote activation via VHF, GSM
Remote airfield lighting diagnostics
Obligatory part of ALCMS

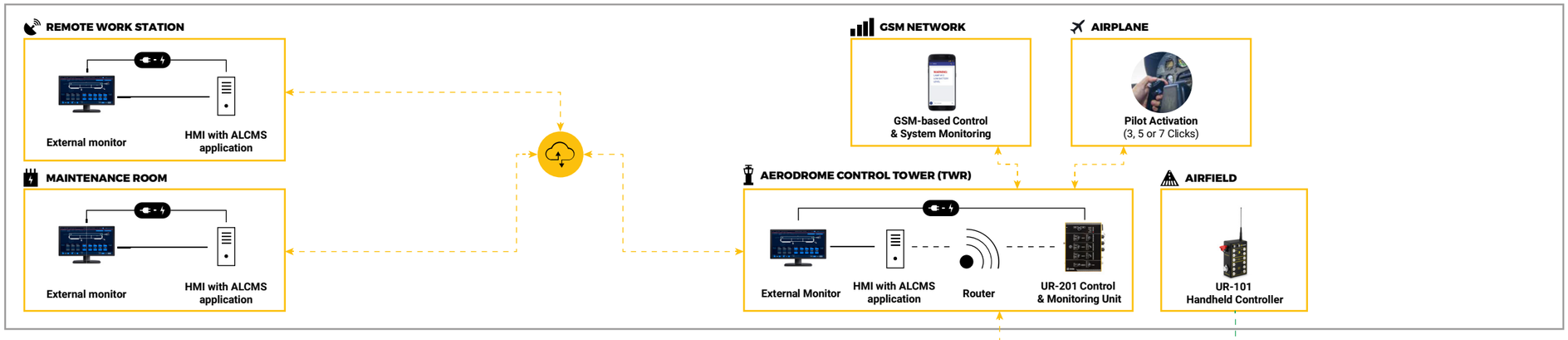
UR-101 HANDHELD CONTROLLER

Grouping of lights: up to 5 groups
3-step light intensity setup
Operating mode setup (Visible/NVG/dusk-till-dawn)

ALCMS

AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM

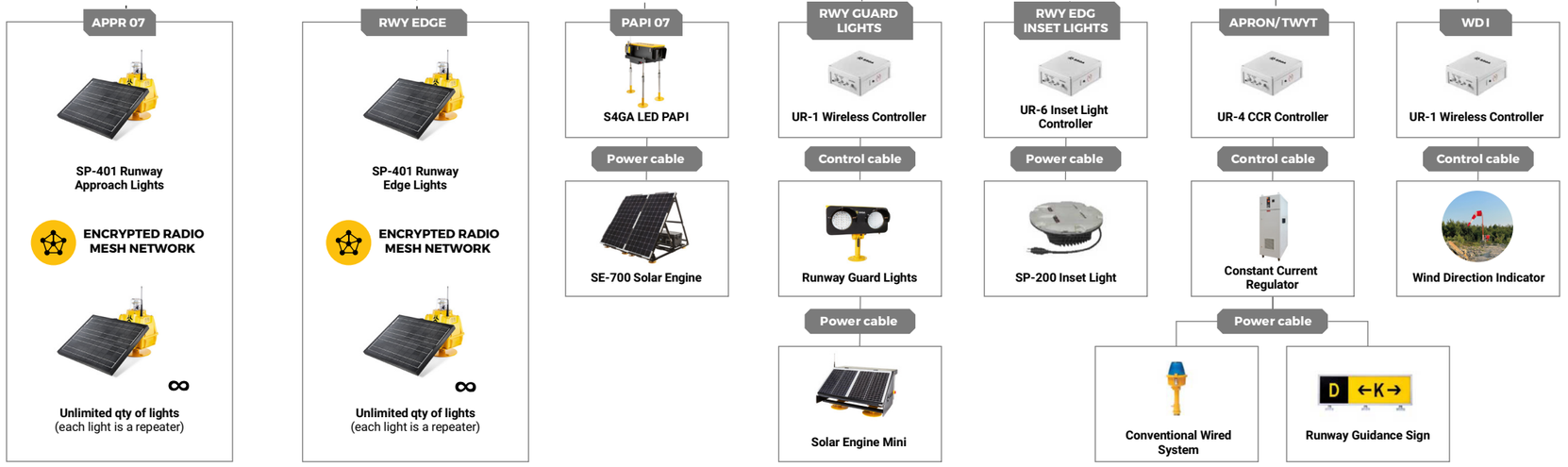
Provides remote control and Individual Light Status Monitoring of S4GA solar airfield lighting from the ATC Tower or maintenance center



ENCRYPTED AUTHENTICATED

Control system communicates with the airfield lighting VIA encrypted and authenticated radio mesh network

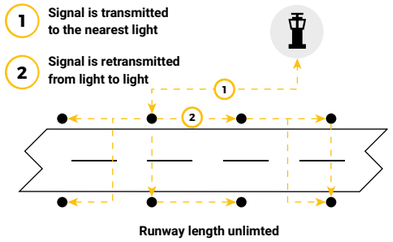
MONITORING SYSTEM



WIRELESS MESH NETWORK

EACH LIGHT IS A TRANSMITTER

1. Signal is transmitted to the nearest light
2. Signal is retransmitted from light to light



OPERATING RANGE AND FREQUENCY

Control TWR to the nearest light	Up to 1.5 km 868 MHz, Mesh
Handheld Controller to the nearest light	Up to 1.5 km 868 MHz, Mesh
Communication between the lights	Up to 1.5 km 868 MHz, Mesh
Pilot Activation (3, 5 or 7 clicks)	Up to 20 km 118-136 MHz
GSM network	Unlimited 900/1800 MHz
Remote work station (WLAN)	Unlimited Internet Connection

MONITORING SYSTEM

MAIN FEATURES

- Real-time monitoring (27 parameters)
- Individual Light Status Monitoring
- System Performance Reporting
- Automatic failure notifications
- Automatic alarm emails
- Prioritization of warning information (critical failure on top)
- Predictive & preventive maintenance

CONTROL SYSTEM

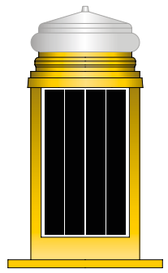
MAIN FEATURES

- Grouping of lights: up to 150 circuits
- Light intensity: up to 100 levels
- Customized airfield layout
- Operates in special modes
- NVG, Remote, Autonomous
- Pilot controlled activation
- Timer adjustment (15 – 120 minutes)

CONTROL SYSTEM

Necessary System Updates can be performed remotely by the S4GA Support Team

WHY IS S4GA BETTER?

S4GA SOLAR AIRFIELD LIGHT	OTHER SOLAR LIGHT
	
AIRFIELD FIXTURE DESIGN	**MARINE LANTERN DESIGN** Not suitable for airport use
COMPLIANT Compliant with ICAO, FAA, MOS, EASA, NATO STANAG Entire unit frangibility certified 240 kph jet blast resistance certified 10+ km high visibility confirmed 50+ certificates available	**NON-COMPLIANT** Non-compliant with ICAO No certification on frangibility Not tested on jet blast resistance Hardly visible from far distance
PERMANENT 20+ years system lifespan Solar collection covers 100% of energy needs	**TEMPORARY** 7 years maximum system lifespan Not enough solar collection
PROTECTED FROM BLACKOUT Reliable wireless network Backup power source Backup control	**UNRELIABLE** Poor wireless connection No backup power source Limited control
ALCMS MONITORING Individual light status monitoring Preventive maintenance diagnostics	**NO MONITORING** No data on the status of the system No data on individual light status No data on maintenance
EASY MAINTENANCE All compartments are replaceable Low battery cost	**EXPENSIVE MAINTENANCE** Non-replaceable parts Expensive batteries required

AIRFIELD LIGHTING SUPPORT SERVICES

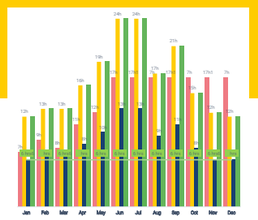
S4GA offers a full range of expert airfield lighting system support services designed for airport engineers, consultants, and industry experts. We provide our clients with services and trainings on-site, as well as at the S4GA Center Of Excellence located in Poland.

Source: Vinci Airports

SOLAR AIRFIELD LIGHTING DESIGN

Prepared by experienced airport designers and performed in compliance with ICAO, FAA, EASA, CASA.

FEASIBILITY STUDY



Determines the optimal schedule for the usage of S4GA Solar Airfield Lights system without the risk of insufficient solar energy causing them to deplete.

INSTALLATION TRAINING

Equips installers with the necessary knowledge and skills to properly install and verify key operating parameters of S4GA solar airfield lighting.

COMMISSIONING SUPPORT

Ensures optimal performance, integration, and functionality of our equipment.

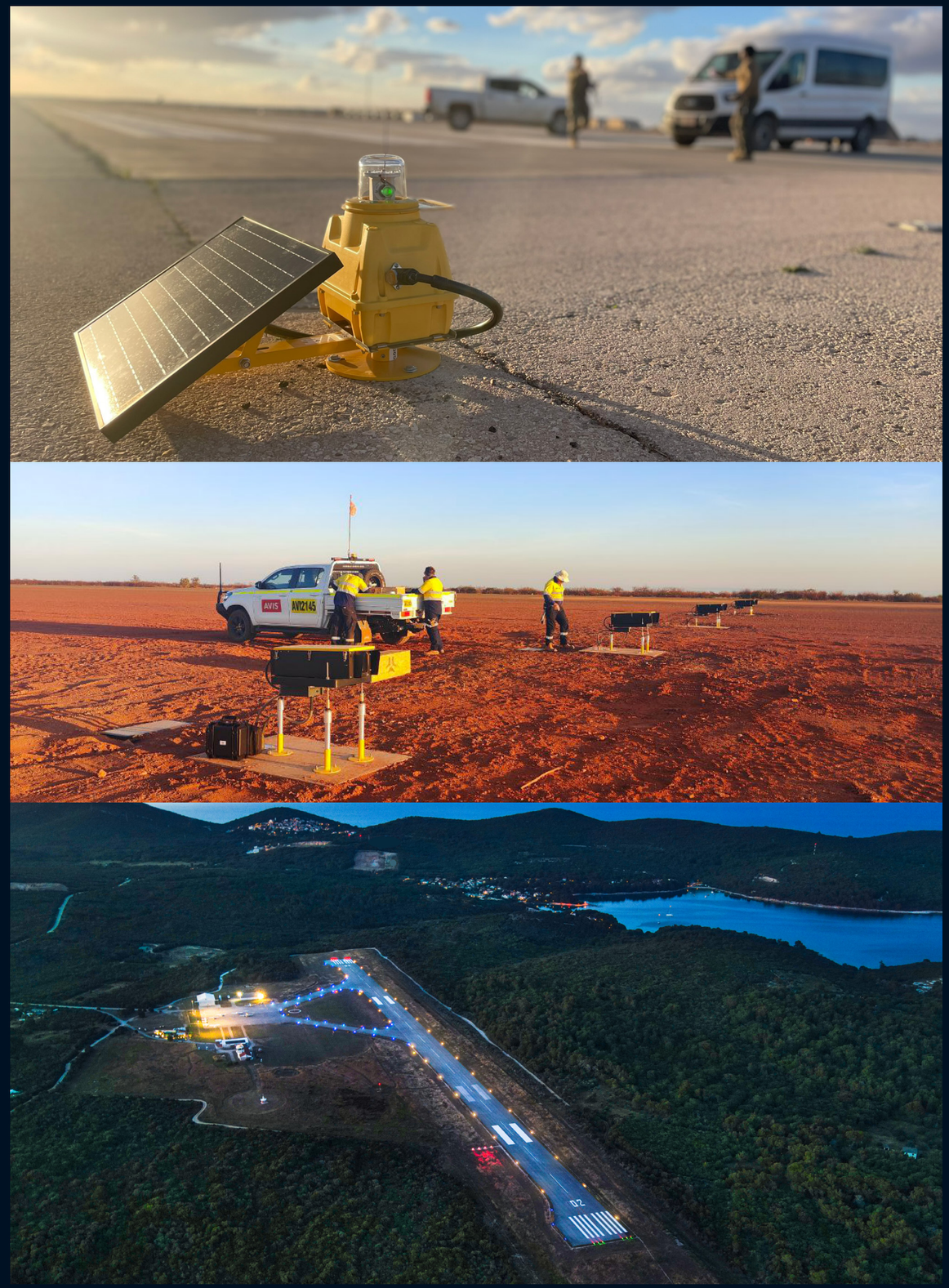
PROVEN. TRUSTED.
DEPLOYED. WORLDWIDE.

Used by civil and military airports worldwide to ensure safe, reliable runway operations.
Trusted in 70+ countries for resilient and sustainable airfield lighting.

250+
Applications

10+
Years

70+
Countries



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WORLD'S SAFEST RUNWAY LIGHTING