

# Airside

ATC/ATM products designer



IP VCS & voice recorder



Smart Tower Suite

## Communicate open air

Air-traffic controllers have to make quick decisions on a daily basis, considering a large amount of information, sprung from numerous systems, independent from one another.

Integrating and analyzing that information, via an easy-to-use software interface, allows the controller to enhance and secure his decision-making and reduce his stress level.

With its 40plus year-long experience and prestigious worldwide client references, ENGIE Ineo designs, installs and maintains the critical information and telecommunication systems fitted, in France as well as abroad, in the control towers and centers in charge of air traffic.

By entrusting your construction, revamping or extension project to ENGIE Ineo, you will get to explore a whole range of products, services and solutions altogether reliable, high-performance and sustainable, that are suited to your control infrastructure needs, budget, organization and changes.



Integrated tower working position



# Runway-side

## Solutions integrator

Whether we deal with an airport near a city or a control center secluded from all public communication or energy networks, building a critical information and telecommunication system requires many expert skills: installation of sensors, optimization of energy networks, securization of information and transmission networks, implementation of hardened servers, automation, development and integration of bespoke software and peripheral devices, supervision, command of legal aspects & local technical standards...

### Airside infrastructures

Production and backup power plants, solar panels, runway lighting, lighting, navaids, weather stations, equipment monitoring & maintenance...

### Networks & telecommunications

HF/VHF, MW, VSAT, remote VHF stations, LAN/WAN, optical fiber loops, cybersecurity...

### ATC / ATM

Digital and analog radio systems (VCS), integrated towers, mobile towers, 2D/3D ATC simulators, time synchronization, AFTN/AMHS, AIS, ATIS, D-ATIS...

## A world of innovations

### Critical telecommunications

With the ICAO, ENGIE Ineo installs and maintains the air traffic VSAT telecom network for the South American subcontinent (REDDIG I & II networks - 16 stations). We provide this as well for the ASECNA and the ATNS on the African continent (AFISNET, SADC, NAFISAT networks). ENGIE Ineo is the world leader of VSAT networks dedicated to airway communications.

### ITWP : control and monitoring of airside systems

For the DGGT in Congo, our integrated consoles federate access to the monitoring/control features of the Ouesso airport fittings: runways lighting, access to runways and taxiways, weather data, navaids, information and alert dissemination, tower lighting, access control, CCTV, technical and regulatory documentation...

### High-availability architectures

Everywhere, we provide for operational security of technical architectures: continuity of service, network access and server redundancy, sensitive data security (availability, confidentiality, authenticity).

### Turnkey solutions

On behalf of the Indonesian Ministry of Telecommunications, ENGIE Ineo provided project management for the Ujung Pandang Area Control Center's modernization: civil engineering, power plant and energy distribution, VHF/HF, FH & VSAT, weather station, AIS, VCS, AFTN switch, message dissemination (D-ATIS), Navaids, traffic management system (EUROCAT X)... The Tripoli and Libreville control towers are also listed among our achievements.

### Optimization of electric networks – lighting

On the Brazzaville airport, ENGIE Ineo installed a 20-kV delivery station, the 2 x 600-kV power plant and the electric fittings for the stations, the technical unit and the ACC. That facility feeds the runways lighting system.





## They chose to trust us...

ENGIE Ineo possesses many client references in projects of airport infrastructures' building, extension or revamping in France, Africa, South America, Southeast Asia, Europe and the Middle East.

### France

DSNA, Aéroports de Paris, ENAC, SAGEB and other private operators

### International

Eurocontrol, SITA, IATA, ICAO, ASECNA (French-speaking Africa), LCAA (Lybia), SCAA (Seychelles), ATNS (South Africa), KCAA (Kenya), CAAZ (Zimbabwe), DGGT (Congo), OACA (Tunisia), RCAA (Rwanda), AIMPSI (Comoros), ONDA (Morocco), NAMA (Nigeria), CAMA (Yemen), GACA (Saudi Arabia), DINACA (Uruguay), INAC (Venezuela), CORPAC (Peru), DECEA (Brazil), UAEAC (Colombia), Ministry of Telecommunications (Indonésia)...

# 50

control towers & centers\*

# +40

runway infrastructures\*

# +200

ATC dedicated VSAT stations\*

\*2015 inventory

## About ENGIE Ineo

As a major player in electrical engineering, information and communications systems, and related services, ENGIE Ineo provides its public and private customers with overall solutions from design right through to maintenance.

With 15,600 employees and 300 facilities in France, ENGIE Ineo works on projects for industrial and tertiary-sector electrical installations, energy networks, public lighting, transportation and telecommunications infrastructures, overall security, energy production, information systems, and outsourcing.

ENGIE Ineo is part of ENGIE's Business Unit (BU) France BtoB. The France BtoB BU is a leader in energy efficiency markets and intends to remain the leader through 2020.

We operate in three key markets related to the energy transition: buildings and industry, cities and regions, major infrastructure.

With a workforce of 41,900 people and a turnover of 10.7 B€, the BU's comprehensive business model is based on 3 core business activities: services, energy retail and installation/maintenance.



ENGIE Ineo  
Aeronautics Export Department  
23, Rue du Général Valérie André - INOVEL Parc sud  
78140 VILLACOUBLAY  
T +33 (0)1 39 26 15 00 - F +33 (0)1 39 26 17 20

Aeronautics France Department  
16, Avenue Claude-Marie Perroud - Bât A - BP n° 34749  
31047 TOULOUSE Cedex 01  
T +33 (0)5 61 50 12 60 - F +33 (0)5 61 50 12 61

engie-ineo.fr

Photos crédits: ENGIE Ineo/Arnaud Bonnet, Enguerran Ouvray, Jérôme Kélagopian, Thinkstock/James Steidl, Ryan McKay



## AERONAUTICS

# Critical telecommunications and information systems



## Quality, services and creativity for air traffic control and airport infrastructures

ENGIE Ineo is committed along with you to provide the critical systems of telecommunications and information able to guarantee the security and reliability of your control center/tower as well as your runway infrastructures: sustainable development, technological watch, innovation, listening, quality requirement, cost control and adherence to commitments, high performance, availability, reliability.

### synergy

With its 300 locations, ENGIE Ineo constitutes a pool of resources and competencies capable of meeting your proximity requirements or expertise needs. You are always benefiting from a suitable service leveraging the synergy offered by our Group.

### teams

From assessment of needs to installation and onsite operational condition maintenance, our teams take responsibility for steering, executing, deploying and maintaining your projects, using critical environment-specific know-how anywhere on the planet.

### services

ENGIE Ineo provides a range of services suited to your project requirements: products, project management, supply and logistics, studies, integration, installation and commissioning, training, maintenance, remote and onsite technical assistance...



Intertek

Certified management process



Intertek