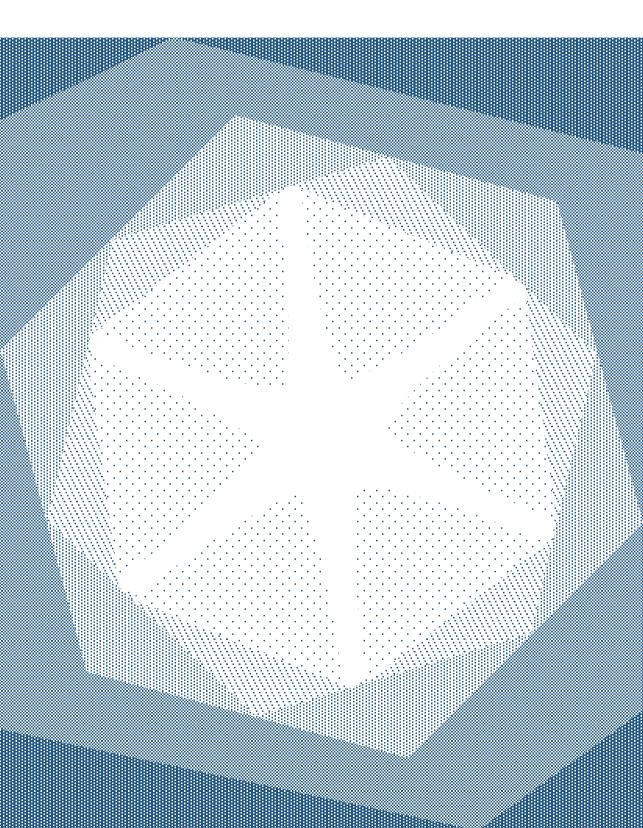
# Sixense

## 2018





### **Digital services and solutions**

Sixense is an international company with expertise in the fields of technical, digital and scientific solutions for the construction and industrial sectors. Sixense offers digital solutions based on its knowledge of geotechnics, the environment, and infrastructure. It's goal is to monitor, diagnose, and model sites and assets to enable clients to better analyse, understand and manage them within their surrounding environment.

#### **Revenue<sup>1</sup>**



#### **Employees**

#### **Order intake**

- -Mapping of rail lines, France
- -Topographic maps for a new high-speed rail line, UK
- -Instrumentation of the Bavigne Dam, Luxembourg
- -Inspection and structural audit, Saint-Joseph jetty in Ajaccio, France
- Monitoring of descaling operations, Tricastin nuclear power plant, France
- Earthquake protection reinforcement study, Tazi Palace Hotel, Morocco

Saint-Gobain tower, La Défense



#### SIXENSE

#### Pascal Berger, CEO, Sixense

# "Becoming the benchmark in innovative solutions for assets"

## What were the main highlights in 2018?

Sixense was founded quite recently, in 2016, and 2018 was a year of consolidation. We specialise in innovative solutions for asset design, construction and operation. We work in five business areas that span the entire asset life cycle: construction services, asset operation, risk management, data management and consulting. We have also organised the company in four business lines: Engineering, Monitoring, Asset Digitalisation and Platform Hosted Software Solutions. In 2018 we acquired the Perazio company to reinforce our asset digitalisation business line and we won iconic projects that will enable us to create benchmark solutions and introduce them across all our markets.

## What is the outlook for the current year?

The goal will be to put our new approach into practice and to win new key contracts for the company. We will also be strengthening synergies between our various activities by creating links between our areas of expertise and hosting all our solutions within a single digital platform. This will enable us to develop and deliver new solutions and services for our customers.



#### How do you plan to set yourself apart in digital solutions?

We are going to build on our strengths – our leadership in our traditional business lines and the in-depth knowledge of customers' asset life cycles and operational processes acquired within the VINCI Group. There are many start-ups moving into building and civil engineering, but very few have our combination of asset knowledge and digital solutions.



## Australia West Gate Tunnel



The West Gate Tunnel, set for completion in 2022, will provide an alternative route to the West Gate Bridge and faster, safer access to the centre of Melbourne and the western suburbs. The project also includes the addition of four new lanes to an existing highway and construction of a bridge to connect the tunnel to the road network and improve access to the port. Sixense teams are responsible for geotechnical analysis on the part of the project located in the tunnel and for environmental monitoring of the entire project.



## France Full BIM Project

Full BIM is aimed at boosting VINCI Autoroutes' ability to manage its assets via a single optimised and collaborative interface. The purpose of the project is to ensure uninterrupted information on the infrastructure life cycle, from construction to operation, and to facilitate dialogue between project participants and improve asset management coordination.

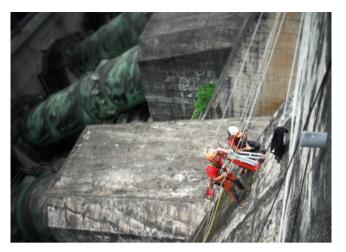
Full BIM ensures uniformity of methods, introduces common tools that communicate with each other (3D modelling, infrastructure management, maintenance and geographic information system) and sets up a central data aggregation and hypervision platform (database and hypervisor). single interface to coordinate road asset management



## France Wind farm

Sixense won the contract to perform an acoustic survey to ensure that a large wind farm in the Doubs department complies with noise regulations. To achieve this, the company developed an innovative method combining measurements and calculations in several stages to ensure a sufficient level of control during handover procedures. The client particularly appreciated the approach, which combined state-of-theart technical capabilities and innovation. The project boosts the partnership with the client, who plans to increase work with Sixense.





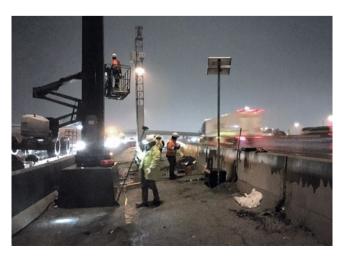
## Cameroon Song Loulou Dam

Sixense carried out diagnosis of corroded concrete and carried out laboratory testing and analysis to prepare refurbishment of the intake structure at the Song Loulou hydroelectric power plant, the country's largest.



## France Grand Paris

Sixense Soldata is involved in 14 Grand Paris Express and Eole works packages, for which it is installing and maintaining instrumentation and monitoring systems on adjacent structures.



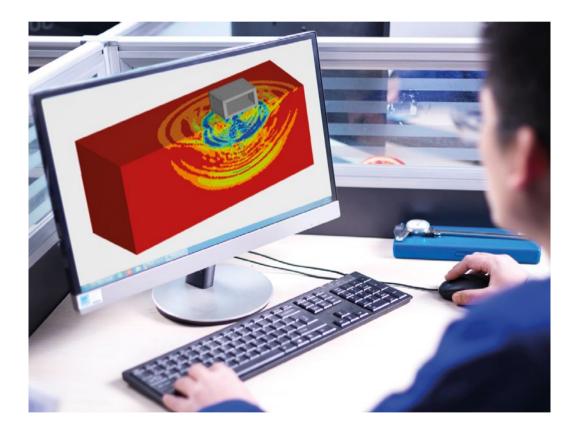
## Canada Kitchener rail corridor

Sixense is supplying, installing, operating and maintaining a monitoring programme covering the existing rail tunnel, a surface motorway and retaining structures.



## <sup>Belgium</sup> Test bunker

Sixense provided technical support for the design of a test bunker for hydrogen facilities. The bunker must withstand the effects of overpressure and projectiles in the event of an accidental equipment explosion while limiting the impact on the surroundings. To do this the Sixense teams digitally modelled the effects of an internal explosion and performed a study of the ground and foundations to verify limited transmission of vibrations to nearby structures and ensure maintenance of production lines in the event of an incident.





# 2(0)HH≒0)∏(0)

## Côte d'Ivoire Houphouët Boigny Bridge

Sixense took part in the refurbishment of the first bridge in the country's economic capital, which has spanned the lagoon for more than 60 years. The project will ensure ongoing safety for car, truck and train traffic across the bridge. The company carried out a detailed digital inspection of the structure, with a special focus on non-destructive testing to identify construction features and measure tension in the pre-stressing cables.





## **Greece** Satellite monitoring of a motorway

Sixense used satellite imagery to carry out historic analysis and continuous monitoring of geological movements on a 200 km section of the Athens-Patras motorway.



Sixense teams performed a corrosion protection investigation of the bridge to assess its condition and recommend compliance upgrades, together with works schedules and cost estimates.





#### France Flamanville nuclear plant

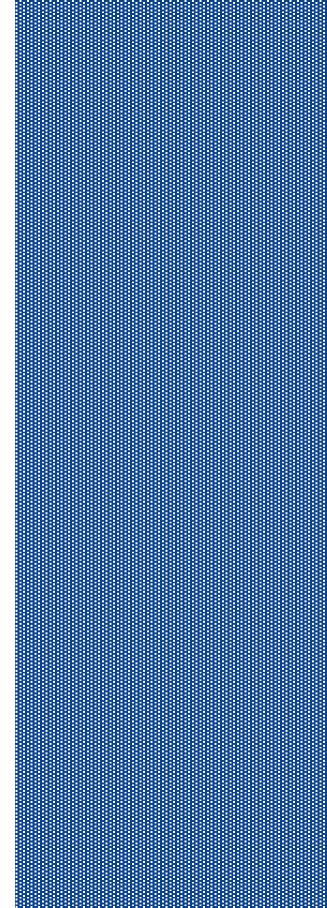
Sixense monitored the sealing work on the exterior surface of the inner containment of the plant's reactor buildings (Units 1 and 2).

Photo credits: Sixense photo library Inside front cover, page 05 Grand Paris and page 07 Tancarville: ©Philippe Beuf Page 02: ©WGTA Page 04: ©Shutterstock Page 06: ©Sixense Necs photo library Page 07: ©Vinvent Agie

**Design and layout:** Abmo

Soletanche Freyssinet is world leader in soil, structural and nuclear engineering. The Group brings together an unparalleled array of construction and engineering expertise and brands. Soletanche Bachy, Menard, Terre Armée, Freyssinet, Nuvia and Sixense provide technical excellence to ensure structure performance and sustainability. The Group supports the expansion of its brands by providing the resources to extend their worldwide networks and broaden their technology portfolios.

www.soletanchefreyssinet.com





in sixense-group