

# PROGRESS REPORT

2017



# Company profile

The Entrepose Group is an international contractor specialised in designing, building and operating infrastructures for production, transport and storage in the oil and gas industry and other energy sectors. The company works worldwide onshore, offshore and underground projects.



ONSHORE



OFFSHORE



UNDERGROUND

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**Entrepose uses its wide reaching portfolio of expertise and the complementarity of its business lines as an essential asset in a rapidly changing market.** In 2017, most of our business lines consolidated their activity, and brought in significant successes, considering that investments are struggling to return to growth. The group demonstrated its resilience. Its turnover has increased by 2% in comparison with 2016, for a total of 805 million euros.

However, profitability remains tricky due to difficulties encountered by some of the Group's business lines, which have suffered the after-effects of market volatility. Entrepose Contracting for example, has finished two sizeable projects but has no projects lined up for the time being. Entrepose Drilling is another example, as the subsidiary continues to be impacted by a shrinking international export market, while domestic prospects for offshore drilling are minimal. But 2017 was also a year of noteworthy successes.

**We should note the delivery by VINCI Environnement of the Energy Recovery Unit in North Yorkshire, England, and the delivery of cryogenic tanks on the Yamal gas site by Entrepose Contracting** nearly a year ahead of the initial schedule – and this in spite of extreme conditions and the complexity of the Siberian site. These projects, that were carried out respectively in partnership with VINCI Construction UK and VINCI Construction Grands Projets, have highlighted the operational excellence of our teams and the synergies – cultivated both at the level of the VINCI Group and at the heart of Entrepose – as illustrated by the cooperation of several of Group entities. VINCI Environnement has also confirmed its recovery. It now embodies the

Group's aspiration to guide the development of coordinated renewable energy sources – biomass in particular. **Finally, Spiecapag has once again achieved an exceptional operating income this year.** It has thus continued the construction of three sections of the Trans Adriatic Pipeline in Greece and Albania, and also performed several major projects.

In terms of safety, performance has clearly improved for the sixth year running. This is the result of the constant vigilance and the commitment of all of our employees, and underlines the effectiveness of the procedures initiated by our subsidiaries. I would like to congratulate them for that.

**The year 2017 marked an upturn for several of our business lines. We are starting 2018 confidently.** Most of our subsidiaries have a satisfactory order book, which allows them to face the future with renewed ambition. Geoclean, whose business had fallen off in recent years in a morose economic context, has considerably increased its turnover and profitability. It has been able to apply its expertise to capitalize on the new opportunities offered by the recent developments in FSRU. The acquisition of Intech, in Brazil, at the start of 2017 and the opening of commercial sales offices in Chile and Mexico presage our intention to grow in South America, an area where only Geostock was operating, and to enhance local relationships with our clients. Finally, the efforts made by Entrepose, which are in particular part of its capacity to offer innovative, bespoke solutions and its ability to guide its clients through multi-sector integrated bids gives us a glimpse of a promising future.

BENOÎT LECINQ

Entrepose  
CEO

# OPERATIONAL EXCELLENCE AND SYNERGIES CONTRIBUTING TO INTERNATIONAL DEVELOPMENT

Through the combined expertise of its subsidiaries, Entrepouse is a unique turnkey contractor for the energy industry that can offer its clients all the essential business lines for onshore, offshore and underground infrastructure.

While this complementary may be unique, today it is ingrained in the Group’s DNA. It is embodied through strengthening interdisciplinary approaches, including within VINCI’s construction division, and continuing the development strategies that have been favoured since 2014.






Our operational excellence serves as its foundation. This commitment echoes Entrepouse’s intention to confirm its ability to overcome technical challenges and the most complex environments, such as the construction of cryogenic tanks for liquefied natural gas on the Yamal peninsula in Siberia. Beyond the sustained R & D efforts and the deployment of an integrated management system from 2017, pooling key resources is now a major strategy for Entrepouse. In this way, it seeks to optimise the collaboration between entities and implement combined solutions as part of a structure of decentralised and independant subsidiaires.

The synergies that the Group is cultivating between its entities is also at the heart of this strategy. In this context, offers involving different business lines are forging our capacity to propose a full range of expertise, combining in particular surface facilities (Entrepouse Contracting)

and underground storage (Geostock), as was the case for the Shalapa project that also involved Entrepouse Istana Karang Laut, our Indonesian subsidiary. It is illustrated by the pipelines (Spiecapag) and horizontal directional drilling works (HDI) performed on behalf of TIGF in France. Beyond a global understanding of the project and centralised coordination, they ensure mastery of logistics and budget optimisation. In this way, our ambition is to guide our clients through each stage of the Engineering, Procurement, Construction and Commissiong (EPCC) projects on which we work - including seeking financing, which is proving to be a real issue in a context where investments are rare, in spite of a fragile upturn.

The final strategic priority for the Group: geographical expansion. This fulfills our desire to cultivate the privileged relationship that we have with our clients, and local visibility. It also reflects changes to the market, particularly the increasing number of small or medium-sized players and the emergence of national oil companies. It involves lasting implantation in countries where the Group performs large projects, in order to increase the longevity of our business there. For example, in South America, the HDI Latam subsidiary opened in Mexico in 2015, only one year after the opening of the sister company Entrepouse de México and the integration of Intech, in Brazil, which has been a long-term partner for more than 20 years. The recent creation of Entrepouse International Network (EIN) is also intended to structure our local subsidiaries and enable the Group to reinforce its position as an international global player.

THE ENTREPOSE GROUP IS ORGANISED INTO FIVE BUSINESS LINES, PLUS A NETWORK OF CROSS-CUTTING, REGIONAL SUBSIDIARIES.

ONSHORE			OFFSHORE	UNDERGROUND	
ENERGY RECOVERY	OIL & GAS AND INDUSTRIAL INFRASTRUCTURE	ONSHORE PIPELINES	OFFSHORE WORKS	UNDERGROUND STORAGE	NETWORK OF REGIONAL SUBSIDIARIES WITH CROSS-CUTTING EXPERTISE
					
VINCI ENVIRONNEMENT	ENTREPOSE CONTRACTING	SPIECAPAG	GEOCEAN	GEOSTOCK	ENTREPOSE INTERNATIONAL NETWORK (EIN)
VINCI Environment UK	Entrepouse IKL	Spiecapag Régions France		Geostock Sandia	Entrepouse Algérie
VINCI Environnement Central Europe	Entrepouse Industries	Spiecapag Australia		Geostock Asia	Entrepouse DBN Nigeria
	Entrepouse CMPEA	HDI		UGS	Entrepouse Asia
	Entrepouse de México			Geogreen	Intech
				Entrepouse Drilling	



ENTREPOSE GROUP  
EXECUTIVE COMMITTEE



**Benoît Lecinq**  
CEO



**Cheikh Daff**  
Vice President Human  
Resources



**Vincent Boillot**  
Chief Financial Officer



**Bruno Maerten**  
Senior Vice President  
Development



**Alain Panhard**  
Managing Director,  
Entrepose International  
Network



**Bruno Guy  
de Chamisso**  
Managing Director,  
Spiecapag



**Pascal Baylocq**  
Managing Director,  
Geostock



**Fabrice Novel**  
Managing Director,  
Geocean



**Frédéric Peigné**  
Managing Director,  
VINCI Environnement

MANAGEMENT AND  
COORDINATION COMMITTEE

The Management and Coordination Committee brings together members of the Executive Committee and the Group's senior executives. Its role is to ensure broad discussion of Group strategy and development.

**Jérôme Bannier**  
Managing Director, Entrepose Drilling

**Olivier Balloy**  
Operations Director, Spiecapag

**Philippe Besson**  
Senior Vice President, Business  
Development, Geocean

**Alexandre Bougeant**  
Managing Director, Entrepose Services

**Gaël Cailleaux**  
Operations Director,  
Entrepose Contracting

**Patrick Genoud**  
Senior Vice President, Business  
development, Entrepose Contracting

**Dominique Lebtahi**  
Deputy Managing Director, Operations &  
HSEQ, Geostock

**Denis Pellerin**  
Managing Director, HDI

**Jacquelin de La Porte des Vaux**  
Senior Vice President Business  
Development, Onshore

**Franck Rogez**  
R & D Director, Entrepose Group

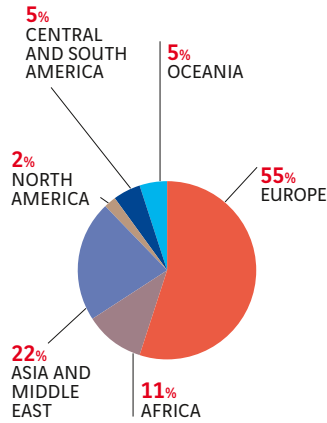
**Fabienne Sooriah**  
Deputy Managing Director, Business  
Development & International, Geostock

**Stéphane Tourneur**  
Communications Director, Entrepose Group

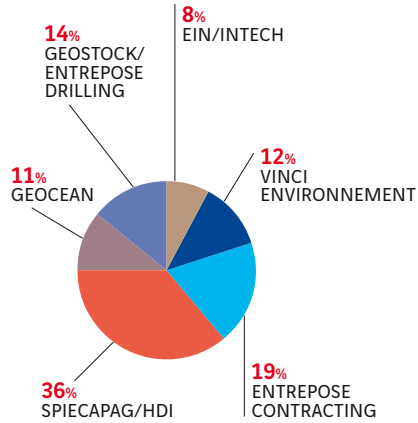
**Hugues Toussaint**  
Management System Director,  
Entrepose Group

**Daniel Vadon**  
Managing Director, Entrepose de México

BREAKDOWN OF TURNOVER  
BY GEOGRAPHIC ZONE



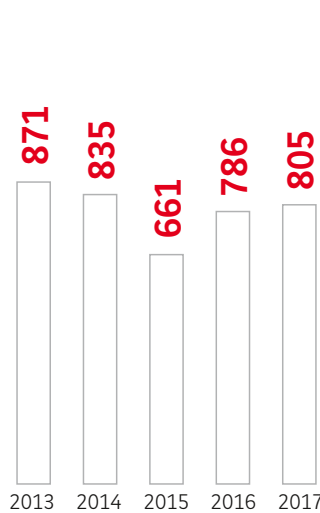
BREAKDOWN OF TURNOVER  
BY BUSINESS LINE



**805 M€**  
in turnover

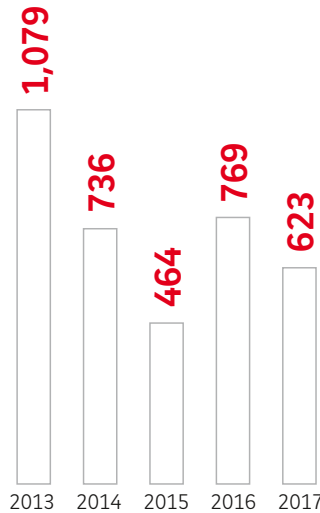
**2,900**  
permanent  
employees

**251**  
worksites  
in progress  
in 2017



**TURNOVER** (in €m)\*

\* Management figure including the portion of sales from jointly-owned companies.



**ORDER BOOK** (in €m)

INTERNATIONAL  
SAFETY DAY  
As the primary  
value of the  
Entrepose Group,  
safety is at the  
heart of the projects  
carried out by its  
teams.



## SAFETY: A VALUE THAT IS CULTIVATED AT ALL LEVELS OF THE GROUP

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**Safety is an essential value for all of the employees in the Entrepose Group. This is clear in all of their activities (projects, operations, etc.) even in what can sometimes be complex environments.**

This is evident in the clear improvement in safety performances in 2017, after a year that already showed promising figures. This progress underlines the consistency and the appropriateness of the methods and tools deployed, particularly as part of the “Safety, I care!” programme.

### Improved performance

Although they are marred by the death of an employee in Algeria, the safety Group's results did improve in 2017. This marks the sixth consecutive year of improvement, whilst the number of manhours increased by 23%. The total recordable injury frequency rate (TRIFR) fell significantly to 2.3 compared with 3.5 the previous year, and even 4.21 in 2014. The lost time injury frequency rate (LTIFR) was also better this year – at 0.6 compared with 1.5 in 2016. This largely surpasses the targets set by the CAP 2020 plan, testifying to the unwavering commitment of the Entrepose teams. They have been made aware of the risks and the prevention measures, trained in how to act in emergency situations and teams perform remarkable work demonstrating

their perfect mastery and involvement. At Geoclean, for example, the Protis barge has celebrated four years without lost time injury, just like another subsidiary Geostock, which recorded zero accidents during the year. These results contribute to proving the operational excellence of Entrepose’s teams with regards to safety in the eyes of our clients.

### A well-rooted safety culture within our subsidiaries

Entrepose’s safety policy, which is driven by the Executive Management, reveals itself through a proactive risk prevention procedure and a clear desire to promote and develop a strong safety culture. It places value on transparency and shared vigilance to properly prepare and perform projects. Feedback from Observation & Intervention by employees and the Prestart meetings are perfect illustrations of this approach. Daily feedback is therefore received from the worksites that is consolidated in practices guides, training and other communication tools.

In addition to the impetus from the Group, and beyond the six HSE principles, the subsidiaries have implemented the Golden rules that cover the main risks inherent in the activities they offer. This dynamic is the cornerstone of Entrepose’s objective of “zero accidents”.

Several unifying campaigns are organised every year at the Group level, such as the Health, Safety and Environment Challenge, or VINCI Construction’s International Safety Week, the fourth edition of which was held in 2017. These events, which involve all staff, allow subsidiaries to promote innovative initiatives and to share them with the Group.

In this manner, Spiecapag deployed its *Finish strong* approach on the Val de Saône project, which was then taken up and adapted by Entrepose Contracting on the Siberian worksite in Yamal LNG. This programme, which aims to maintain the vigilance and attention paid to safety through the end of the project and demobilisation, is now deployed by all the entities in the Group. In the same manner, Entrepose Algérie (EIN) organised its own Safety Day on Workers’ Day, 24 February 2017. With workshops, films and even site cleaning staged throughout the day, it was also an opportunity to reward employees who had made the best suggestions for safety initiatives over the year.

As for Geostock, it has developed two methodologies whose purpose is to guide its clients. The Asset Integrity Management System ensures safety management and optimises storage facility performance as well as controlling ageing. Induced seismicity, on the other hand, consists of assessing the potential risk created by the construction of an underground storage facility. The Group also implements considerable means (training courses, tools, etc.) in order to instill a shared culture across all of the worksites with its regular partners and subcontractors – as they are integral parts of project safety performance.

### Innovative methods and training programmes that are promising for our continuous improvement

In 2017, the Group decided to strengthen the competency of its teams in terms of investigating and analysing root causes. An ambitious training programme on the TapRoot® method and systematic investigation in the event of a serious accident were set up. This method, which is recognised by our most demanding clients, applies equally to accidents, near-misses and any non-compliances in product quality. It is now an integral part of Entrepose’s safety culture. Also, over the last few years, our managers have attended “Managing with Safety” training from VINCI Construction, also called *Safety Leadership* at Entrepose.

It pertains to manager behaviour regarding safety. In 2017, VINCI Construction developed a new version of this training, which takes a particular interest in the organisational and human factors. It means better understanding the individual mechanisms in risk-taking in order to anticipate and prevent them. This module is currently being rolled out for the top management of divisions in VINCI Construction, and will be available to intermediate-level management in Entrepose starting mid-2018. Entrepose invests a significant amount of working hours in training its employees and subcontractors each year. In this manner, in 2017, 1.2% of operational hours were used to train staff on safety. This year, particular emphasis will be placed on training supervisors and providing specific educational resources.

### The Health, Safety and Environment Challenge dynamic

The digital format of the Health, Safety and Environment Challenge, adopted since 2016, has once again been a great success. Thirty-one initiatives were submitted by employees from Entrepose and promoted on the intranet platform. The awards ceremony took place on 8 February 2018 at the Cité de l’Eau in Colombes (France). The prizewinners, selected through an online vote, were awarded for their initiatives on the themes of Management & Organisation, Technique, Equipment & Tools, and Human Aspects & Training. Special prizes were also awarded by the Jury to company actions on the themes of working conditions and corporate social responsibility.

2017 HEALTH, SAFETY  
AND ENVIRONMENT  
CHALLENGE  
The prizewinners  
received their trophy  
from members of the  
Executive Committee,  
after a discussion on  
the initiatives launched  
within the subsidiaries.

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0.6  
A LTIFR  
that dropped  
sharply in 2017





# COMPLEMENTARY BUSINESS LINES, WHICH MEET THE CHALLENGES OF THE ENTIRE ENERGY CHAIN

Through the entire world, Entrepose’s entities combine their expertise and perform their onshore, offshore and underground activities to build infrastructure for production, transport and storage in the energy industries.

## ONSHORE

As a global player in onshore infrastructure for the energy industry value chain, Entrepose relies on its resources in engineering, manufacturing and construction that, combined with its expertise in project management and its mastery of logistics and procurement, have made it a top -ranking reference for the most complex turnkey projects.

### Energy Recovery

Through its subsidiary VINCI Environnement and its waste processing activity, Entrepose has been designing and creating turnkey projects with a great number of structures to its credit around the world. Outside France, the development of its activity in Great Britain and in Belgium has set the pace for 2017, allowing it to enjoy renewed growth, with activity that accounts for 12% of Group turnover.

### Oil & Gas and industrial infrastructure

Entrepose specialises in onshore infrastructure for the production, processing, storage and transport of oil and gas. Large international projects undertaken



by Entrepose Contracting in Latin America and Russia, and the local subsidiaries that make up Entrepose International Network (EIN) have enabled this business line to perform 27% of the Group’s activity in 2017.

### Onshore pipelines

With a reputation for the quality of its offering and its ability to take on large-scale projects, Spiecapag has seen its growth increase from the performance of major worksites, particularly in Europe this year, and with the assistance of its subsidiary HDI (Horizontal Directional Drilling). Its success therefore establishes its development, which is embodied by an activity that represented 40% of overall turnover in 2017.



## OFFSHORE

Through its subsidiary Geocan, which has been deploying its expertise in pipelines, outfalls, land-falls and other coastal developments for 30 years, Entrepose masters all the skills for designing and building the offshore structures required to carry oil products or to collect, transport or discharge water. In addition to the recent FSRU market, in which its expertise enabled it to win two contracts in Bangladesh, Geocan is continuing to carry out its R & D policy, particularly in collecting cold sea water for air-conditioning (SWAC). Offshore activity is on the rise again, particularly in Africa and South America, and accounted for 11% of the Group’s turnover.



## UNDERGROUND

As a leader in the underground storage of liquid, liquefied or gaseous hydrocarbons, Geostock also handles the associated processes and surface facilities. Its contracts range from feasibility or detailed studies to construction management and operation. Its expertise is complemented by that of Entrepose Drilling in deep drilling, which continues to grow in the geothermal market and salt drilling. This means that the Group can offer its clients a full range of expertise in the underground domain. With its international standing, Geostock has consolidated its positions, after a return to growth in 2016; its performances now account for 14% of overall turnover.



AN ABILITY TO ADAPT  
TO LOGISTICAL AND  
HUMAN CHALLENGES

Entrepose completed  
lots 0 and 5 on the  
Val de Saône project in  
difficult conditions (rock  
and steep escarpments).



# Our projects

Teams from Entrepose and its subsidiaries  
worked on over 251 projects in 2017.  
Overview of the main projects...



## ONSHORE

Pipeline construction

TRANS ADRIATIC PIPELINE  
Once achieved, this project will have witnessed 400 km of pipeline laid by Spiecapag.

16

17

### GREECE/ALBANIA

## A strategic pipeline project at the borders of Europe

Spiecapag continued EPC construction of three lots of 48-inch onshore pipelines as part of the TAP project (Trans Adriatic Pipeline), on which it has been working since mid-2016. One lot represents 185km in Greece between Kipoi and Kavala and the two other lots will cover 215 km in Albania between Bilisht and Tropoje. The pre-commissioning will occur in mid-2018 in Greece and in mid-2019 in Albania.

In 2017, HDI also worked on several lots. In particular, they performed seven horizontal directional drillings of lengths ranging from 500m-850m, 48 inches in diameter. Once completed, the 878 km long TAP will connect to the Trans Anatolian Pipeline (TANAP) at the border of Greece and Turkey. Eventually, the TAP project will make it possible to route gas from the Shah Deniz 2 gas field in Azerbaijan to Europe.



## ONSHORE

Pipeline construction and horizontal directional drilling

## FRANCE

## 43 km of gas pipelines → crossing fields

In February 2017, the consortium made up of Spiecapag and A. Hak signed a contract for lot 5 of the Val de Saône project, which involved constructing 43 km of 48-inch gas pipelines, as well as two switching stations, in the extension of the Arc de Dierrey, for which it completed lot 3b in 2015. The teams succeeded in meeting the human and logistical challenges, which included the very short construction and production times, or coping with unqualified staff with insufficient HSE knowledge, hired mostly from local communities. This meant that Spiecapag had to train them and adapt its construction methods. Measures planned to avoid disrupting the local flora and fauna also highlighted the Group's commitment to preserving the environment and the ecosystems of areas in which it operates.



## FRANCE

## A great year for horizontal directional drilling

HDI has again displayed, over the course of the year, its ability to perform drilling under natural or artificial obstacles without trenching, no matter the type of environment encountered.

It also led several projects in France. Besides the three directional drilling performed in the clayey soil of the Beaujolais terroir at the beginning of 2017 for its client Bessac TPC, the Entrepouse subsidiary has particularly illustrated its expertise in other types of soil. It carried out eight drilling campaigns performed in a complex geographical area with clayey and limestone soils, of which part was located in urban area, in Sarlat. In chalky soil, it also performed two drillings under a river near Rouen, of which the first, 1,330 m long, was intended for fibre-optics.

## ← Replacing a pipeline under the riverbed

Between June and December 2017, HDI and Spiecapag Régions France worked together to offer TIGF a turnkey solution to replace 500 m of gas pipeline under the Garonne river.

HDI therefore performed directional drilling over 385 m so that the new 350 mm diameter pipeline could be installed without trenching, 20 meters under the riverbed.



## ONSHORE

Energy recovery

## FRANCE

## A new turnkey ERU completed

In October, the Syndicat Intercommunautaire du Littoral issued the completion certificate for the works on the new multi-sector waste processing unit in Echillais, near Rochefort, to VINCI Environnement. The previous plant was replaced in order to greatly increase its capacity. 200,000 people, or nearly one resident out of three in Charente-Maritime will have their waste treated by this centre. It will produce, through cogeneration, heat for a nearby airbase through an underground network, and electricity for the Enedis public network sufficient to power 11,000 households.



## FRANCE

## Commissioning a mechanical-biological pretreatment unit

In Saint-Laurent-Blangy, in the Hauts-de-France region, a consortium consisting of VINCI Environnement, SITA and A3 Architectes completed the construction of a mechanical-biological pretreatment (MBPT) unit in mid-2017 for the Syndicat Mixte Artois Valorisation (SMAV). With a capacity to treat 35,000 tonnes per year, it helps refine the sorting process to better direct household waste towards the appropriate channel for recycling. It uses BRS®, a proprietary technology from VINCI Environnement. The combined action of rotating the waste, raising the temperature, and the attrition of the inert objects helps break down fermentable materials into fine pieces, which can be easily recovered by screening.



## BELGIUM

## Kick-off of the works to modernise the Charleroi ERU

At the end of the year, VINCI Environnement started work on replacing one of the two incineration lines at the ERU in Charleroi that were commissioned in the 1970s, in order to process 46,500 tonnes of household waste and 8,500 tonnes of industrial waste per year, whilst recovering the energy produced as electricity and heat.



**ONSHORE**

Energy recovery



The Cornwall ERU is the first for VINCI Environnement in England

**THE UNITED KINGDOM**

## VINCI Environnement delivers a new Energy Recovery Unit

**In March 2017, VINCI Environnement UK delivered the energy recovery unit in Cornwall, England.**

One of the priorities for VINCI Environnement is limiting the environmental impact, throughout the entire life cycle of the plant. In addition to the use of an extensive green roof (Sedum), measures were taken in particular to help to reduce the centre's water consumption by collecting rainwater. Construction was also marked by the desire to invest in a local approach,

with the use of materials such as Cornish granite. With two high-capacity roller furnaces (16 tonnes per hour), the centre in Cornwall can process and recover up to 240,000 tonnes of residual waste every year. Its acceptance now means that more than 160,000 MWh of renewable electricity can be generated: enough to power 40,000 households and to deliver heat to local industries.

**ONSHORE**

Energy recovery

**THE UNITED KINGDOM**

## 320,000 tonnes of waste recovered in North Yorkshire County

**VINCI Environnement has strengthened its position in England by starting up a second multi-sector waste recovery centre in North Yorkshire.** It was delivered at the end of 2017 after nearly three years of work. The energy recovery unit (ERU) designed by its engineers furnishes a renewable source of electricity. All household waste is treated and separated. Optimal recovery has been achieved through the use of three distinct procedures: the "materials route", biogas production and thermal treatment. AmeyCespa, the deputy project owner and future operator of the unit, awarded the contract to VINCI Environment UK. This consortium that came about through the synergy of VINCI Environnement and VINCI Construction UK, was contracted to design, build, and commission the thermal energy recovery unit.

The ERU, which is the largest plant ever built by VINCI Environnement, will process 320,000 tonnes of waste per year. The facility will produce 25 MW of electricity from renewable sources, equivalent to the consumption of about 40,000 households.

VINCI Environnement's expertise in the field of energy recovery from waste has moreover made it possible to recommend optimised technical procedures that will ultimately guarantee that operating costs are perfectly controlled.

From an environmental perspective, the city of York and the county of North Yorkshire should see significant benefits. Every year, its 760,000 inhabitants generate over 520,000 tons of waste. With the new multi-sector centre, the region should be able to reduce its use of landfills by 90% and attain an energy recovery level of 50% by 2020.

**A MAJOR REFERENCE**

The North Yorkshire ERU is the largest plant constructed by VINCI Environnement



## UNDERGROUND

Underground storage and vertical drilling

## ITALY

## Underground storage goes digital →

Since 2016, Geostock has been working as technical assistant to the owner, Ital Gas Storage S.p.A.. The project is for the underground part of the Cornegliano Laudense (Northern Italy) natural gas storage. It involves creating two vertical wells and twelve horizontal wells in clusters on two platforms, located 1,400 m deep. As the 3D seismic campaign was completed in mid-2017, Geostock now continues to provide technical assistance for the latest updates of digital models, as well as during start-up of the wells.



## FRANCE

## ← A double oil drilling campaign

**Vermilion Rep undertook an oil well drilling campaign in the Parisian basin in January 2017.**

The platforms are located in the Chuelles region (100 km south of Paris) and are a few kilometres apart. This four-well campaign, with a drilled depth of 1,500 m, lasted for four months. Building on its success, Entrepore Drilling has continued with a second four-well drilling campaign that was completed in February 2018.

## FRANCE

### Entrepore Drilling: multiple spheres of expertise

**Entrepore Drilling also displayed its expertise by successfully completing several projects in France.**

It has thus executed a deviated well 1,690 m deep (for 1,745 m drilled), in the city of Marboz whose goal was to increase production of brine for its client Inovyn, as well as two 3,030 m deep deviated wells for Kem One in Vauvert. Beyond these works, the subsidiary pursued its geothermal activities by constructing a well 2,090 m deep, within the scope of facilities renovations on the site and the geothermal doublet in La Courneuve.



## ONSHORE

Oil &amp; Gas and industrial infrastructure



## MEXICO

## Synergies at the heart of a LPG storage project in Mexico

**In Coatzacoalcos in the state of Veracruz (Mexico), Entrepore Contracting is working on an EPC project to create surface facilities for an underground LPG storage in a salt cavern.**

The project, called Shalapa, is benefiting from the synergies within the Entrepore Group. For example, the dehydration system for the entire project was designed, built, and delivered to the site by Entrepore Istana Karang Laut, the Indonesian subsidiary of Entrepore Contracting. Geostock provided engineering and technical assistance to the owner, CYDSA, for the

underground storage and during the construction phase. It will operate and maintain the site for 20 years through its subsidiary Geostock de México. But the involvement of other VINCI entities must be underlined. Such as Menard, which implemented the vertical drains system to improve the soil, Freyssinet took care of the cathodic protection system on the metal piping. In the same manner, Comsip put its staff to work for commissioning. Actemium provided the CCTV system and Cimesa provided administrative assistance.

## A FOUNDING PROJECT

The operational excellence deployed by the Entrepore teams during the Shalapa project supported the Group's establishment in Mexico, where two subsidiaries have been operating since 2015.



## ONSHORE

Horizontal directional drilling & pipeline construction and repair



### MEXICO

## HDI Latam's main expertise: directional drilling and direct pipe

The aim of this gas pipeline project is to carry natural gas from south Texas (USA) to Tuxpan, in the State of Veracruz, following an underwater route along the Gulf of Mexico. It will then feed CFE power plants, in particular those at the heart of the States of Tamaulipas and Veracruz. GDI SICIM Pipelines S.A. DE C.V., which was awarded the EPC contract for the Tamiahua Landfall Pipeline and its facilities in Altamira, conferred five sets of Horizontal Directional Drilling (HDD) to HDI Latam and the direct pipe landfall to minimise the environmental impact in vulnerable areas. The teams from HDI and HDI Latam, a subsidiary based in Mexico that was created in 2016, are now working on the first horizontal directional drilling and the direct pipe engineering phase.



### BRAZIL

## Intech consolidates its positions in Brazil

In 2017, Intech made several projects a reality. In order to strengthen the supply of gas to the largest steel mill in Latin America, in Volta Redonda, on behalf of Gas Natural Fenosa, it notably executed a 10-inch diameter carbon pipeline of 12 km long. In Sao José dos Campos, it also completed works to move a gas pipeline for its client Comgas, for which it undertook directional drilling in order to cross a road and a river, without interrupting use. Moreover, the Brazilian subsidiary of Entropose International Network intends to increase its work maintaining pipelines. It is within this scope that it executed a contract during the last quarter 2017 for a 9-point inspection of the Gasbel gas pipeline, following acquisition by Nova Transportadora do Sudeste.

## OFFSHORE



### CHILE

## Supplying water to a copper mine at 3,000 m altitude

At the heart of the project performed on behalf of BHP Billiton, Geoclean was awarded the installation, engineering, prefabrication and execution of three offshore wells, two water intakes, and an outfall for a desalination plant destined to supply water for the Escondida copper mine, at an altitude of 3,000 m. Geoclean proved its worth during installation of the water intakes, made up of a 500 m long microtunnel with an internal diameter of 2 m, ending with a 450-tonne concrete suction pipe, laid and anchored to the seabed. The operation required not only careful and precise operations, but also the use of specialised tools and equipment, such as an Abyss subsea excavator and a jack-up barge equipped with a diving hoist system, remote-operated vehicles and a concrete mixer.

### PERU

## Subsea piping and associated fittings for a refinery in Chile

Last September, Geoclean Peru signed a contract with RELAPASAA for the installation of Terminal 4 in the La Pampilla Refinery. The works consist in the design, procurement, and installation of 18" diameter pipelines, electric power cable and fibre-optic cable between the refinery and a single-point mooring system located at about 4 km from shore, in about 18 m water depth. It also includes the installation of the monobuoy system and associated equipment. The pipelines and cables will be protected by a breakwater and preserved from corrosion by an impressed current system. Geoclean Peru is now carrying out the design and procurement activities, with offshore operations are anticipated to start in October 2018.



**160,000 m<sup>3</sup>:**

the unitary capacity  
of the 4 cryogenic LNG tanks

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## ONSHORE

Oil & Gas and industrial infrastructure



### EXTREME CONDITIONS

A bespoke construction unit for operations was created, to allow employees to work in complete safety all year long in an Arctic environment.

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## RUSSIA

# Yamal LNG: a showcase for Entrepore's operational excellence

**In 2017, the Entrepore Contracting – VINCI Construction Grands Projets consortium completed the Gargantuan project to create the Yamal LNG cryogenic tanks** in Siberia, Russia, only 400 km from the North Pole. 1,400 people worked on this site over the last four years. The work finished nearly an entire year ahead of schedule, with the “Christophe de Margerie” LNG icebreaker tanker inaugurated by the Russian President Vladimir Putin on 8 December. The synergies that were cultivated in the Group, in particular the participation of Entrepore Industries, which designed 112 roof sectors each

with a length of 40 m, were one of the keys to the success of the worksite. The project covered the performance of engineering, construction and the commissioning of 4 total integrity cryogenic tanks (including a 9% nickel steel inner tank with prestressed concrete full containment) with a unitary capacity of 160,000 m<sup>3</sup>.

The erection of these structures, considering the temperatures that could fall as low as -40°C, the logistical constraints, and the complexity of digging the foundations in frozen ground, demonstrated the Group's capacity to mobilise all of its expertise for this exceptional project, and its operational excellence.



ONSHORE

Pipeline construction  
and Oil & Gas and industrial infrastructure



AUSTRALIA

## Pipeline construction in Queensland



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**Spiecapag Australia was awarded a contract by Jemena, a company that owns and operates a diverse portfolio of energy and water transportation assets across the east coast of Australia, for the construction of a section of the Northern Gas Pipeline (NGP) that crosses Queensland.**

The contract was awarded for construction of 142 km of high pressure DN300 steel gas line and associated facility works from the Queensland border to the pipeline's end-point at Mt Isa. The project was launched in late June 2017 for completion scheduled by July 2018. Once completed, the 622 km NGP will run from Tennant Creek and connect gas fields in the Northern Territory with customers in the Eastern Gas Market. Along with all stakeholders, the Entropose subsidiary has been committed to contributing to the social and economic vitality of the region. 22% of the jobs created were filled by local indigenous employees.

AUSTRALIA

## A pipeline project marked by environmental considerations

**In the heart of the Victorian Northern Interconnect Expansion (VNIE) pipeline project, despite tough weather conditions and severe flooding, Spiecapag Australia successfully built 162 km of 16- and 18-inch pipelines, delivered in 2017 to their client APA.** The Entropose subsidiary is committed to preserving the local ecosystem and worked hard to drastically limit the environmental impact of the works, particularly in Chiltern-Mt Pilot National Park. The high standard of the work in the national park resulted in Spiecapag Australia winning a national environmental award.

AUSTRALIA

## Successful cooldown of the Wheatstone LNG tanks

**Entropose Contracting, in consortium with VINCI Construction Grands Projets and Thiess, executed the cooldown of the tanks of the Wheatstone project, on behalf of Bechtel for Chevron.**

The project, which was launched in 2012, involved EPC construction of two LNG tanks with a unitary capacity of 150,000 m<sup>3</sup> as well as two 120,000 m<sup>3</sup> condensate storage tanks.

On average, 500 people have been employed on the construction site, which represents around 3,5 million hours of work. The first LNG production took place in early October 2017 with delivery occurring just weeks later. Thanks to Wheatstone, which will produce close to 9 million tonnes of LNG per year, Australia rises to the top as the largest LNG producer in the world, ahead of Qatar.



ONSHORE

Oil & Gas and industrial infrastructure

BANGLADESH

## Entropose IKL exports its expertise



**The Indonesian subsidiary confirmed its regional presence in 2017 - it was awarded two new contracts for the construction and extension of condensate refineries in Bangladesh.**

It relied in particular on the experience it acquired during phase 1 of the EPC project on a refinery with a capacity of 4,000 PBD performed in consortium on behalf of Sylhet Gas Fields Limited (SGFL), subsidiary of Petrobangla. This is why it was conferred the contract for phase 2, which consisted in building a catalytic reforming unit with a capacity of 3,000 BPD and the associated facilities.

The contract won from Partex, for the engineering, procurement and supervision of a 10,000 BPD capacity refinery also came into effect, demonstrating that Entropose IKL's skills are recognised beyond national borders.



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OFFSHORE

MALAYSIA

## Pre-commissioning of pipelines between two offshore platforms



**From June to August 2017, Entropose Asia, a local subsidiary of EIN, carried out pre-commissioning operations for its client Sapura Offshore Sdn Bhd, for the creation of an offshore pipeline with a diameter of 16 inches and a length of 35 km, between platforms B15 and B11 off the Sarawak, in Malaysia.** Performing the project required the work of 35 people distributed over two platforms. This project particularly highlighted Entropose's capacity to meet exceptionally high technical standards (Det Norske Veritas, DNV) as well as standards for safety, with specific training provided to all the operational teams.





## OFFSHORE



FSRU, A PROMISING MARKET  
Geocean's resources allow it to position itself as a key actor in an activity that is expanding quickly.

### BANGLADESH

## The first two contracts for FSRU infrastructure, drivers for growth

Geocean's present dynamic is also sustained by two independent contracts won in Bangladesh, for the construction of certain fixed infrastructure related to two LNG floating storage and regasification Terminals (FSRU). They are currently being executed offshore Moheshkhali Island, located in Cox's Bazar District in the south-east of the country. Both of these projects are performed jointly with the Norwegian company MacGregor, within a consortium led by Geocean, and executed for two separate clients: Excelebrate Energy Bangladesh Limited, Bangladeshi subsidiary of the American pioneer on the FSRU market, and Summit LNG Terminal Co. (Pvt.) Ltd., Bangladeshi subsidiary of Summit Power International Pte. Ltd.,

a leading infrastructure developer and operator in South Asia. The European consortium will deliver the various components of the fixed infrastructure on a turnkey basis. These include permanent mooring systems, subsea pipelines to transport gas from vessels to shore, connection and gas transfer systems between vessels and subsea pipelines, onshore gas manifolds and connection to the existing grid. Delivery is planned for April 2018 and late 2018 to early 2019. These new FSRUs will enable Petrobangla, the national oil and gas company of Bangladesh, to sustain the country's development by diversifying its energy resources through the importation and regasification of LNG acquired on international markets.

## UNDERGROUND

Underground storage and vertical drilling

### FRENCH POLYNESIA

## A major drilling project in the Pacific Ocean →

**At the heart of the Telsite 2 project to install instruments on the Mururoa atoll to study its geotechnical evolution,** Entrepouse Drilling dug three vertical wells with depths from 320 to 720 m on behalf of the CEA (the French Alternative Energies and Atomic Energy Commission). Beyond geology and drilling in sea water sludge, the complexity of the project could also be attributed to its remote location. This meant that all the equipment for drilling and lifting had to be brought by boat, before demobilisation in December last year, as was the case for the nuclear sources that allowed for the logs.



### VIETNAM, TURKEY AND CHINA

## ← Geostock continues its quest for a foothold in Asian markets

Besides the projects underway throughout the world and work on the sites it operates, particularly in Latin America, the Entrepouse Group specialist in underground storage won several noteworthy contracts this year. Its client Tianchen Engineering Corporation reconfirmed its confidence in the technical assistance provided on the construction of the natural gas storage at Toz Golü in Turkey, for which Geostock had mobilized its teams starting in 2014. With its multi-sector expertise, the subsidiary will also provide services on a LPG storage project in Vietnam, and propane storage in China where it will also carry out exploration and general engineering studies in addition.



## ONSHORE

Oil & Gas and industrial infrastructure



### ALGERIA

#### EPC construction contract for fuel depot infrastructure launched

In May 2017, Entrepote Algérie signed an EPC contract with Naftal, a subsidiary of Sonatrach, to build infrastructure within the El Eulma fuel depot, 100 km west of Constantine. The first of its kind for the Entrepote subsidiary, this project echoes its willingness to broaden its EPC expertise and develop its design office. The teams are responsible for engineering, procurement, construction, and starting up three 20,000 m<sup>3</sup> diesel storage containers, one 3,000 m<sup>3</sup> fire-fighting tank, and the associated network of pipelines. The sheet metal used to build the infrastructure will be prefabricated by Entrepote Industries. Two deliveries have already been sent by the Dunkirk factory and received on site. The project is expected to last for 18 months and mobilise 124 people at its peak period.

### NIGERIA

## Delivery of a greenfield project for the construction of a gas processing unit

In the Niger Delta of Nigeria, Entrepote DBN (EIN) completed its greenfield project for the development and construction of a gas treatment unit with 75 MMSCFD<sup>(1)</sup> trains for its client Seplat in 2017.

The project included detailed studies, purchasing, transporting skids from Dubai to the work site, civil engineering works, racks and pipework, their installation and connection to existing pipelines, skids and units, electricity and instrumentation, as well as pre-commissioning and commissioning of the units.

It took a team of almost 200 one year to install everything on site. Close collaboration between Entrepote teams and its client greatly contributed to the success of the project, allowing the tight deadlines to be met. The result has underlined our recognised expertise in successfully delivering projects in areas considered to be “high-risk”.

(1) Million standard cubic feet per day

### ALGERIA

#### Renovation of satellite units on an oil field in Algeria

Entrepote Algeria (EIN) was chosen by the Japanese company JGC to carry out electromechanical assembly work on satellite units in the southern area of the Hassi Messaoud oil field. This work is part of a global improvement plan launched by Sonatrach, the Algerian national hydrocarbons company, which intends to increase the productivity of the field. It includes both operations to renovate the seven satellites in the southern zone and bringing the satellite units up to a satisfactory level. The project began in August and will keep more than 250 people busy over two years, with a peak of nearly 400 people during the most intense period. Entrepote Algeria will assemble the equipment, the steel structure, the piping, the electrical installation and the instrumentation of the satellite units.

## OFFSHORE

### EGYPT

#### Express pipeline replacement →

Geocean has executed an EPC contract for pipeline replacement work in the East Port Said Power Station in Egypt, for the Malaysian company EDRA. The work consisted in replacing cooling system pipelines (intake and outfall lines) of the power plant. Damaged GRP pipelines were then replaced by four new HDPE lines, 2,50 m diameter and 200 m long each. The main challenge of the project was to carry out the replacement during a very short period of 30 days of plant shutdown. Beyond procedures and careful preparation, Geocean deployed tailor-made solutions in order to install and fit the pipelines within the given timeframes.



### CAMEROON

## 2,200 m of subsea pipeline

In Cameroon, the national refining company Sonara contracted Geocean to replace a subsea pipeline near Limbé, in the southwest of the country, to connect a conventional buoy mooring (CBM) system to the refinery onshore. This turnkey contract included engineering, supply, production and installation of equipment (the pipeline and PLEM<sup>(1)</sup>) onshore and offshore. The 2,200 m-long concrete-coated pipe 30-inch diameter (close to 76 cm) was installed using Geocean's Protis barge in a location prone to large swells. In progress since September 2016, the work was finalised at the end of 2017.

(1) Pipeline end manifold



# Responsability and values

**As a responsible player in the energy sector, Entrepose's ambition is to continue its pursuit and to enhance its exemplary approach with all stakeholders, in terms of human resources, respect for the environment, ethics, safety and social responsibility.**

## HUMAN RESOURCES

**The human resources policy is part of the strategic thrust initiated by Entrepose since 2014 and feeds into the synergies cultivated at the heart of its business lines.** As an active part of the Group's strategy, it seeks to develop the expertise and the long-term professional careers of its employees. It guarantees a common culture that contributes to operational excellence, a commercial ambition and a real quest for innovation.

### **The First Entrepose Convention: a Success**

In March 2017, the first Entrepose Convention was held. Driven by the pace of the presentations, networking sessions, workshops and roundtable discussions in the heart of Paris, it was an opportunity to grasp the issues and challenges faced by the Group. It gave rise to many discussions over the course of two days that increased cohesion between the teams after welcoming VINCI Environnement into the Group.

### **An ambitious training policy**

Training is absolutely essential to build a corporate culture, both for the personal development of the employees and the operational excellence of the Group and its subsidiaries. The year 2017 was an opportunity to build on the structure of the training on offer to employees. In total, 40,000 hours were devoted to training, an increase of more than 50%. Training was provided to nearly 1,300 employees, mostly in professional and technical fields (53%), but also covered health and safety (22%).

Two training courses were also created: Sales+ and Me&We. The first, intended for sales forces, aims to meet the challenges of changes in the market and the synergies cultivated within the Group. The second, in partnership with HEC (French business school), focuses on leadership, and is intended for members of the Management Committee, Steering and Coordination Committee and the Executive Committee (see page 8). In terms of safety, a value and absolute commitment for Entrepose, the TapRoot® method was presented to HSE

teams and operational managers in order to expand the range of activities, after a fruitful trial run by Spiecapag in 2016. This method is used to determine the causes of accidents, incidents or near-misses.

### **It's up to you: sourcing ideas in-house in favor of the Group**

Entrepose intends to build on the experience and the innovative spirit of its teams, through all of its activities. At the heart of this co-development approach is the launch of a digital platform called "It's up to you" that invites employees to submit projects for concrete actions and innovations that can help to bring the CAP 2020 strategic plan to life, and encourage team spirit, solidarity, and a better understanding of the challenges faced by the Group's entities.

### **Workforce and diversity**

The Group's workforce totals 2,964 employees, thanks to the new projects throughout the world this year. 17% of employees are now women, of which 40% hold a position as manager.

Entrepose has also worked on an agreement on tele-working, which was submitted to the staff representative bodies at the start of 2018, before it was signed and implemented in early April.







LOCAL RECRUITMENT

More than 80% of the workforce for the TAP project was recruited locally.

SOCIAL COMMITMENT

Using local expertise and resources

Entrepose believes that it is important to support the economic development of the region where it works. 30% of the purchases made by Spiecapag for the TAP project were from local subcontractors. The same goes for labour. 81% of the subsidiary’s staff that worked in Greece and Albania were recruited locally. Social criteria are determined in order to facilitate the insertion or reinsertion of workers. The same logic applies at DBN, where 83% of the company’s employees are nationals. This local policy increased this year by 9%, particularly for managerial positions. This approach is echoed by Entrepose Algérie, which favours local employment for its projects, as does Geoclean at nearly 70%. The subsidiary notably employs young people with no qualifications, who are trained for several months before being promoted in-house, particularly as welding assistants or assembly mechanic assistants.

Getting involved in developing regions

Communication Liaison Officers (CLO) are sent to many worksites or to local communities to facilitate relations with the stakeholders (residents, local authorities, local communities). At Spiecapag, this work often takes the form of campaigns to raise awareness on safety, for a young audience. Also, as part of each project, the subsidiary contributes to improving standards of living by renovating different facilities such as roads, pavements, etc.

Developing talents

At the start of 2018, Entrepose began discussions to build a partnership with Unis Cité, a French association that helps young entrepreneurs in disadvantaged neighborhoods. Relationships with schools are also created to encourage the development of talents. Spiecapag, a member of the professional association IPLOCA, supports awarding grants to students who



THE ODYSSEA RACE

Just as last year, over a hundred Group employees contributed to the fight against breast cancer.

want to pursue a career in pipeline construction. It also works closely with the Egletons school, which trains worksite supervisors. Entrepose DBN is financing training on construction project management specifically for recent Nigerian graduates, while Entrepose de México is getting involved with educational institutions such as Universidad Tecnológica del Sureste as part of the Shalapa project near Veracruz.

Working with the disabled

Beyond maintaining and developing employment for employees with disabilities in the Group, Entrepose takes action in two priority areas: raising employee awareness and using ESAT (French establishments for work reserved for disabled people), which is increasing.

In particular, in 2017, Geoclean organised breakfasts with Trajeo’h, the association from the VINCI Group dedicated to workers with disabilities in the company. Geostock also held awareness-raising sessions with Trajeo’h about “dys-type” illnesses for French Disability Week. Three teams of runners, one of which was running as a partnership with an association for young disabled people, were on the starting line for the 14<sup>th</sup> edition of the Reuil-Malmaison inter-company solidarity race organised in May 2017 by the Special Olympics, for people with mental disabilities. For the fourth year, Entrepose has also been a partner of Ovale & Sens, an adapted section of a rugby club (MLSGP 78) for people with mental or psychological disabilities.

Collective initiatives supported by employees

More than 100 runners from Entrepose took part in the 2017 edition of the Odyssey charity race to raise money for the Gustave Roussy Institute. Their commitment to run 5 or 10 km raised €7,800 for research on breast cancer. After the devastating earthquake that struck in Mexico on 19 September last year, a surge of solidarity immediately developed within the Entrepose de México subsidiary, involving both general management and employees. They collected and donated food, medicine, and tools to the Mexican branch of the Red Cross.



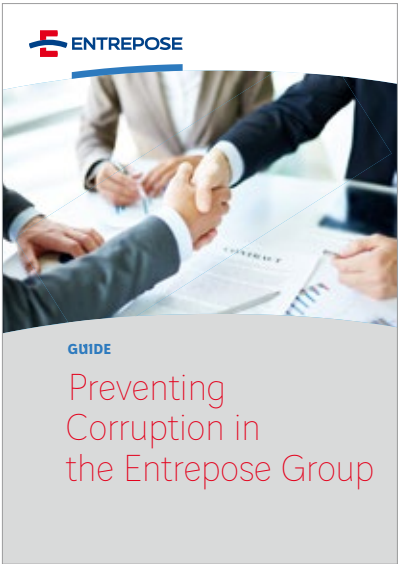
EARTHQUAKE IN MEXICO CITY

Teams from Entrepose worked to offer material assistance to people affected by the catastrophe.



# ETHICS

To address ethical issues and the shared expectations of customers and stakeholders, Entrepose adopted the VINCI Code of Ethics and Compliance. Over the years, many other actions have been taken to flesh out this proactive approach. In addition to creating a specific committee, composed of the Corporate Secretary, the Vice President of Human Resources, a member of the Executive Committee and the Ethics &



ANTI-CORRUPTION GUIDE  
Its publication in the first quarter of 2018 reflects the Group's intention to increase its employees' awareness of risky situations.

Compliance Officer, and publishing the Corporate and Social Responsibility Charter, the Group also drafted two guides about corruption and prevention, and initiated an awareness-raising process on these issues in several departments and for the entire sales force.

Once again this year, in response to the Sapin II Law in France, the anti-corruption guide was reviewed. It defines the different behaviours that are banned, as they may represent acts of corruption or influence peddling. This is an appendix to the company rules and regulations and has already been brought to the attention of people with access to work places or premises where people are recruited (via intranet, distributed on the first day, etc.).

Spiecapag implemented and used a platform that allows compliance managers to audit the ethical position of a partner or subcontractor on the TAP project. This is a perfect illustration of Entrepose's intention to continually set higher standards, in consistency with ISO 37001, which entered into force in 2017.

# QUALITY

**The harmonisation of Entrepose's management systems, which began in 2016, is making great strides.** The unifying project, which is a key component of the CAP 2020 strategic plan, is intended to improve the Group's operational excellence and encourage synergies between subsidiaries to better meet the expectations of customers and other interested parties. Thanks to the involvement of the teams, most of the company's future processes have been redefined, with continual concern for simplification and performance. They will

be progressively deployed in the subsidiaries over 2018 and 2019 to synchronise all management systems. The Group's aim is to have this new shared operating model certified by the end of 2018. This collaborative effort represents a remarkable opportunity to promote and formalise the best practices within the Group. It also makes it possible to integrate all of the requirements of the latest versions of quality standard ISO 9001, safety standard ISO 45001 and environmental standard ISO 14001.



PROACTIVE SUPPORT FOR THE ACTORS OF INNOVATION  
Entrepose is working in conjunction with all the members of Citeph (Evolen) to develop the innovations of the future.

# INNOVATION

**The year 2017 witnessed continuing synergies cultivated and strengthened between the different subsidiaries. This was encouraged by the integration of the R & D support function to the IMS, as well as synergies between Entrepose and VINCI Construction.**

It is part of the global approach already underway to offer its customers combined proposals which can meet energy challenges and the developments in the market and its business lines. This dynamic, which involves all of the subsidiaries of VINCI Construction, has enabled the Group to increase its collaboration with its sister companies. This is illustrated by the emergence of two projects undertaken in partnership with Entrepose Contracting and VINCI Construction Grands Projets, on the optimisation of liquefied natural gas storage tanks. Additionally, Geoclean has been involved in other transversal projects.

The technological partnership between VINCI Construction and the French Alternative Energies and Atomic Energy Commission (CEA), signed in January 2017, was a major period for R & D action for the Entrepose Group. It allowed us to begin a hydrogen storage research project. This orientation reflects the intent of Geostock to deploy underground energy storage solutions in non-carbon forms (compressed air and hydrogen). The work undertaken with the CEA will open the way to a lasting collaboration that will continue

with other projects in 2018, which will make use of artificial intelligence.

These synergies were also expressed through Entrepose's involvement in the selection or facilitating the subjects covered by Citeph - a programme developed with the Evolen association that facilitates access to private financing for innovative research projects in the energy fields. Geostock and Entrepose Contracting were thereby involved in technical monitoring for two of the projects.

Project digitalisation, from engineering design to worksite, is a priority for the R & D actions undertaken by Entrepose. These actions are propelled by VINCI Construction with the support of Sixense, a company from the Soletanche-Freyssinet Group specialised in digital services and solutions for our industries. The aim is, in particular, to facilitate data capture, sequencing and processing. EIN has therefore launched a proof of concept (POC) for determining the location of parts in storage areas. Spiecapag, on its side, has continued its digital actions on fleet management, in order to manage the traceability of its construction machinery, their fuel consumption and inspection, with a dedicated application for tablet computers and smartphones. These developments support the Group's ambition in its quest for operational excellence, and will increase in number in the coming years.



TOMORROW'S ENVIRONMENT

In Mexico, Entrepouse has invited pupils from around the Shalapa site to express their vision of the environment by painting on the school walls.



ENVIRONMENT

Limiting the environmental impact of its activities is a fundamental concern for Entrepouse.

Beyond the need to meet the increasing demands of clients, its commitment is notably part of complying with the Social Responsibility Charter published at the start of 2015.

In this way, the Group’s quarterly environmental reporting illustrates its intention to reduce its footprint on all sites. For example, the consumption of resources and amount of waste produced and the associated costs are analyzed. The consumption of hazardous waste fell once again this year by 80% compared with the previous fiscal year, whilst fuel

consumption was down by 30% due to the optimised management of the vehicle fleet. These results illustrate the strong involvement of managers and the efforts made to raise employees awareness with a 60% increase in training hours on the environment.

The Group’s subsidiaries are indeed working to bring the strategy to life. 2017 was an opportunity for Geoccean to implement an Environmental Management System (EMS) with the aim of obtaining ISO 14001 certification in 2018. This will allow it to join the ranks of Spiecapag, Entrepouse Contracting and most recently Entrepouse Drilling.

**30%:**  
the reduction in  
fuel consumption  
at the Group level



RAISING AWARENESS ABOUT THE ENVIRONMENT

The teams working on the Shalapa project continued their operations to raising awareness about the environment.

At the heart of the projects on which they work, and paying close attention to local issues and concerns, the teams also deploy initiatives to protect the environment.

Spiecapag’s commitment to preserving biodiversity was illustrated in Greece (TAP) by replanting the 40,000 species of plants that were temporarily moved for the intrinsic needs of the worksite, in addition to processing wastes and treating water.

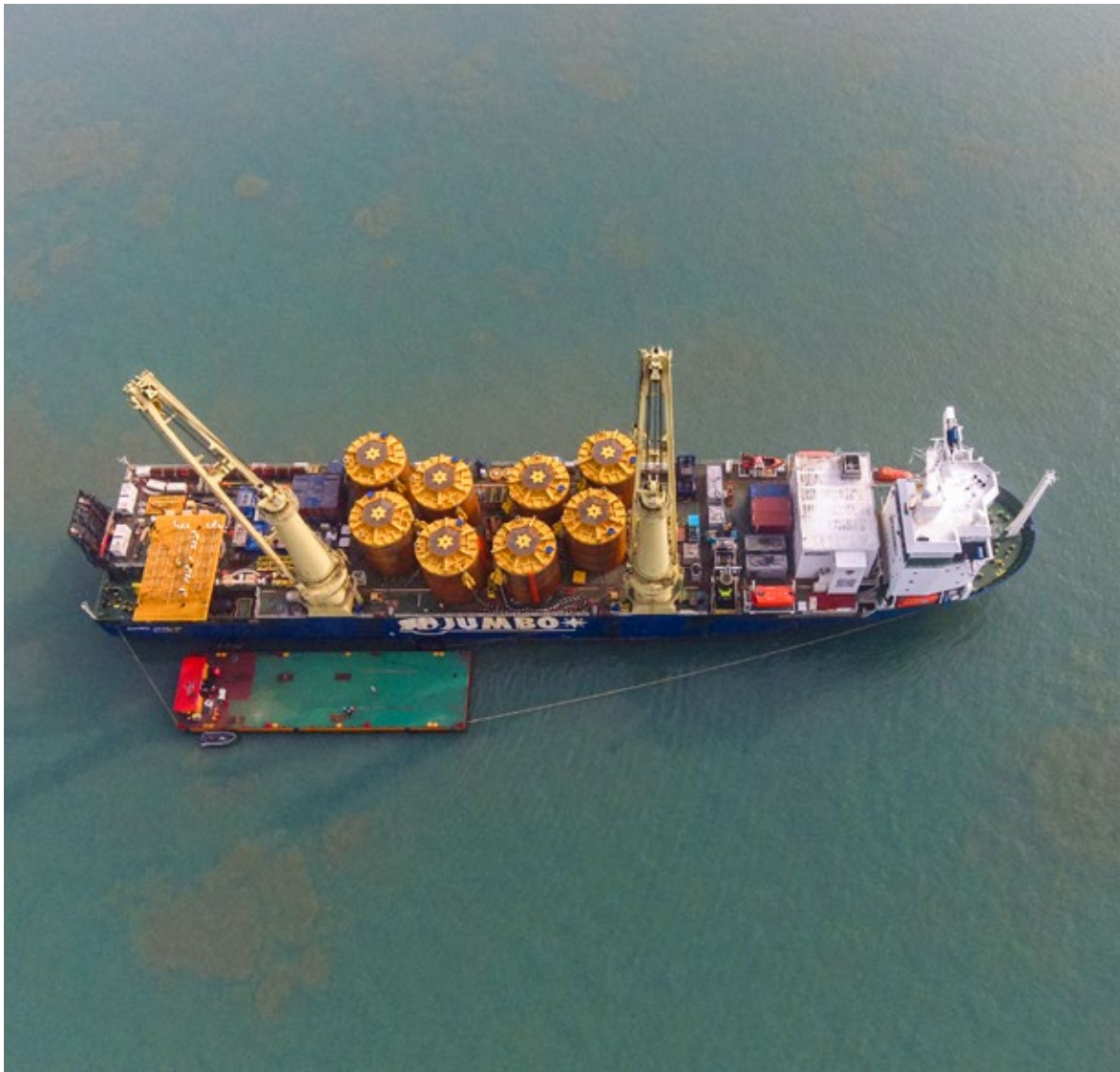
In the same manner, recovering of the excavated earth and controlling erosion, which are the prerogative of any worksite performed by the company, were accompanied by actions taken to protect fauna, particularly white-clawed crayfish on the Val de Saône project. Entrepouse Algérie extended reporting on CO<sub>2</sub> consumption as well as the traceability and sorting of waste by Entrepouse and its subcontractors, through an agreement signed with specialised organisations. In Nigeria, Entrepouse DBN implemented waste sorting on all of its worksites and now gives a detailed report on environmental figures regarding its activities. VINCI Environnement is, for its part, spearheading

the transcription of the energy transition for the Entrepouse Group. It continued development of proprietary solutions such as its new DeNOx technology, which allows gasses to be recycled before they are processed. Additionally, it demonstrates its intention to develop its offering as an international designer and builder of turnkey projects for renewable energy sources and energy recovery.



Replanting an area of the TAP project.





Shipping of suction piles for the Excelerate FSRU project performed by Geoceen in Bangladesh

**ENTREPOSE**

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