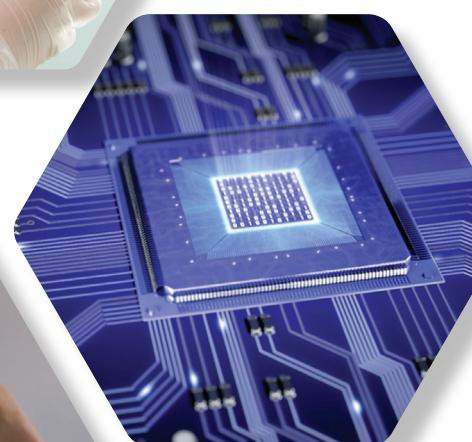


# COMMITMENT FOR SUSTAINABLE GROWTH

INNOVATION  
supporting  
ECONOMIC  
DEVELOPMENT  
&  
ECOLOGICAL  
TRANSITION



Activity  
report  
**2018**

# OUR COMMITMENT TO SUSTAINABLE GROWTH

Alteo – a global leader in speciality aluminas – continues the implementation of its sustainable growth strategy, based on 2 inseparable components:

- **CUSTOMER ORIENTATION**  
to supply high-quality products and services in order to support our customers in their growth
- **SUSTAINABLE DEVELOPMENT**  
in all of our activities

This sustainable development approach is based on the values of our company and is organised with all our stakeholders around 3 priority commitments:

- The **HEALTH AND SAFETY** of all our employees and partners
- The constant reduction of our **ENVIRONMENTAL FOOTPRINT**
- Our **SOCIAL RESPONSIBILITY**

For each of these points, objectives and indicators are defined and applied through the organisation.

Our approach to continuous improvement, operational excellence and the certification of our integrated management system according to the standards ISO 9001, ISO 14001, OHSAS 18001 and ISO 50001 bears witness to our ambition to achieve excellence.

This commitment for sustainable growth is the key to the success of our Group. It lives in the daily action of the women and men who work in our company.

It is through their commitment and the development of their skills that Alteo continuously improves its performance, in terms of customer satisfaction, and in the areas of health, safety, environment and energy. It is also through its involvement at a local level and by conducting its international affairs respectfully and ethically that Alteo wishes to build a better future.



## The members of the executive committee:

Frédéric RAMÉ  
*Chairman*

Marie-Hélène VERNISSE  
*Human Resources Director*

Xavier BAPST  
*Commercial Director*

Frédéric BUCHÈRE  
*Customer Services Director*

Jean-Marc DOUCET  
*Financial Director*

Eric DUCHENNE  
*Industrial and Sustainable Development Director*

Fabrice GAMEL  
*Production Director*

Jean-Paul LEREDDE  
*Quality, Methods and R&D Director*

# «OUR TRANSFORMATION ACCELERATED STILL FURTHER IN 2018»

Frédéric RAMÉ  
Chairman Alteo



« Based in Provence for 125 years, Alteo is a company that is profoundly attached to its region.

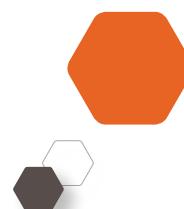
2018 saw many achievements that confirmed Alteo's commitment to sustainable growth.

Our engineering and R&D teams developed pioneering solutions to continue the reduction of the environmental footprint and all of our employees actively took part in the growth of our activities in accordance with the values of the Group.

## MOST NOTABLE OF THE NUMEROUS ACTIONS CARRIED OUT THIS YEAR:

- The development of new very high performance aluminas for the **electric vehicle battery** market.
- The opening of **new subsidiaries in India and Korea** and the **creation of a joint venture in China** to strengthen our worldwide leadership and sales (+26% in Asia in 2018).
- The improvement of the quality of the residual process water and the launch of a project to build a **new water treatment station based on an innovative CO<sub>2</sub> neutralization technology**.
- The continuation of our multi-year plan for **energy efficiency** and the **reduction of NOx emissions**.
- The implementation of a **large-scale scientific programme concerning research in the marine environment**.
- The implementation of an HSE Challenge aiming to **improve safety at work**.
- Our active participation in the **promotion of regional industries** with the opening of our plant to more than 600 visitors.
- The hiring of 92 new employees and the **digitisation of our induction procedure**.
- Aid with integration into employment through the renewal of the **system for operational preparation for collective employment** and the implementation of the **partnership « 1 sponsor - 1 job »** with the Southern Region.

Although 2018 once again involved the acceleration of our transformation, the year to come will see the concrete implementation of new projects, on economic as well as environmental and social levels. »



# GLOBAL LEADER IN SPECIALITY ALUMINAS

Alteo is an intermediate-sized enterprise based in Provence (France)

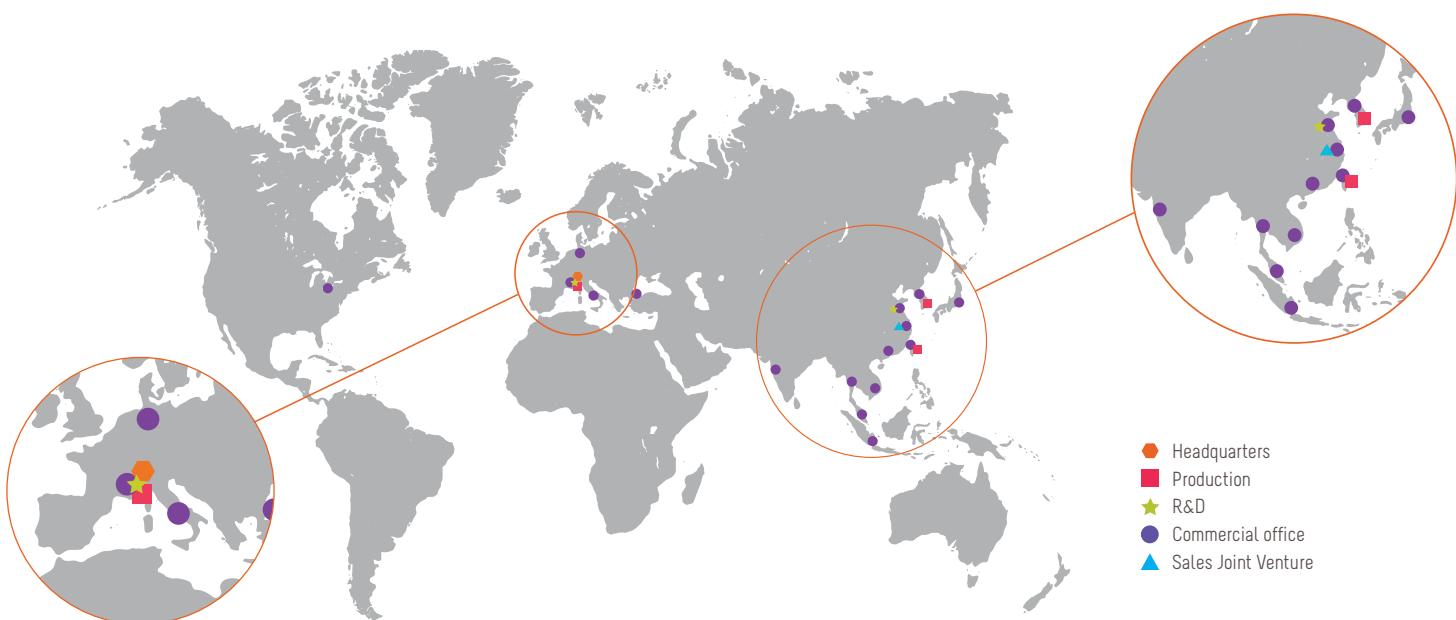
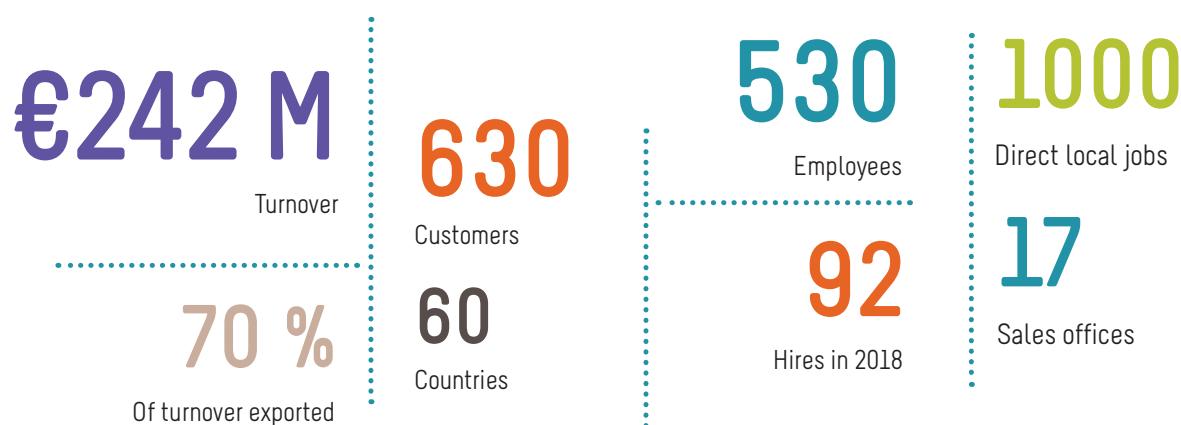
This year once again, we are strengthening our position as the global leader in speciality aluminas, with a presence in state-of-the-art markets, such as:

- New technologies such as **lithium-ion batteries** for electric vehicles and micro-electronics
- Environmental technologies for the **treatment of water or exhaust gases** (catalytic converters)
- New **refractory materials**
- **LCD glasses** for smart phones, tablets, ...

We rely on **bold R&D** and we constantly develop new products for new markets.



## KEY FIGURES



# NEW PREMIUM PRODUCTS AND SERVICES FOR NEW MARKETS

Our quality policy aims to constantly improve the performance of the services that we offer to our customers:

- Our priority is to fulfil our commitments, both concerning the quality of our products and our delivery deadlines.
- We propose commercial and logistic services that enable us to differentiate ourselves and retain our customers.
- We are continuing to adapt the existing products to respond to customer requirements and we focus our efforts on the development of new products with applications in our strategic markets.



We develop sustainable relationships with our customers through long-term partnerships, which can ensure the profitable growth of our activities.

## LOCAL PRODUCTION, GLOBAL REACH

Although we are intent on producing in Provence, we are expanding our commercial presence to win growing markets.

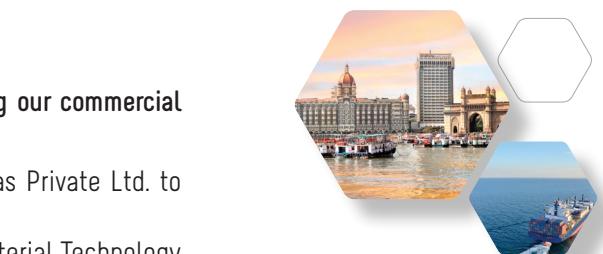
In Bombay, in India, we created the subsidiary Alteo India Aluminas Private Ltd. to support the boom in the technical ceramics and refractory markets.

In Suzhou, in China, our joint venture Alteo-Ginet Lithium Battery Material Technology is dedicated to the electric batteries market.

We are accelerating the commissioning of new grinders to fulfil the growing demand for premium products in our strategic markets.

An air-jet grinder was installed near Gardanne's factory and two new grinders have just increased the production capacity of the facility in Taiwan.

Furthermore, the construction of a new grinding facility has begun in Korea with commissioning planned in 2019.



## R&D IS INNOVATING FOR NEW MARKETS

Thanks to our teams based in Gardanne (France), we developed a range of super fine highly technical aluminas - SEPAL - particularly adapted to surface coatings for lithium-ion battery separators.



With the establishment of the Buyco collaborative platform, we have optimised the management of the transport of our 7,000 shipping containers.

Furthermore, a completely new system of labelling with RFID barcodes, the reorganisation of storage phases, monitoring a delivery indicator within the deadlines for each stage, etc. enables us to improve quality at each stage of the order.



At the beginning of 2019, a new High Purity Ground facility was also completed, which will produce purified alumina intended mainly for the micro-electronics market in Asia.



# AN EVERYDAY COMMITMENT TO HEALTH, SAFETY, ENVIRONMENT & ENERGY

Our health, safety, environment and energy policy is broken down into objectives, aiming to:

- Reduce the impact on the health and safety of our employees and subcontractors.
- Reduce our greenhouse gas emissions and increase our energy performance.
- Protect the environment and work with our neighbouring communities.

For this, we are committed to a **process of constant development** of our « health, safety and environment » culture, relying on the leadership of our supervisory teams and the involvement of all our employees and partners.

We are implementing an **energy management system** aiming to control and reduce our energy consumption and our greenhouse gas emissions, and we encourage the purchase of products and equipment that are energy friendly.



Furthermore, we are continuing investments aiming to meet the most demanding standards for the quality of water discharged to the sea and to develop, as part of the circular economy, the reuse of bauxite residue.

## DAY-TO-DAY RISK MANAGEMENT

We regularly monitor and control measurements of exposure:

- to inhalable dust
- to dangerous chemical agents
- to noise
- to vibrations
- to electromagnetic fields



## RISK PREVENTION A PROCESS OF COLLECTIVE IMPROVEMENT

Once a month, 50 managers host a « safety quarter hour » with their teams, in partnership with a specialised organisation. Amongst the 11 subjects revised on this occasion were working at height, confined spaces, the movement of machinery, etc. In 2018 nearly **318 sessions were organised, representing an increase of 40% compared to 2017.**

## THE WORK PERMIT: AN ADDITIONAL MEANS OF SAFETY

A working group, bringing together employees from all sectors of the factory, has defined a procedure and a guidance document to improve safety before performing works or activities outside production.

The analysis of risks and preventive measures proposed is compared with the situation on the ground by a manager, who either delivers or does not deliver the work permit.

**In 2018, this procedure has already been implemented in 2 plant production areas.**

## OBJECTIVE ZERO ACCIDENTS

In 2018, we recorded a TF1\* of 11.9 and a TF2\*\* of 15.6. In order to reduce the number of work-related accidents, we are committed to a process of continuous improvement in health and safety matters.

Thus, we have:

- Required compliance with all our HSE standards
- Maintained our vigilance with increased safety inspection rounds
- Declared and preventively analysed 17 potentially serious incidents
- Improved the prevention of risks and management on the ground
- Launched 2 major projects: the work permit & the safety commitment through an HSE Challenge

\* TF1 = (number of accidents with cessation of work/number of hours worked) x 1,000,000.

\*\* TF2 = (number of accidents with and without cessation of work/number of hours worked) x 1,000,000.

2018 data including the personnel of Alteo and external companies working on the site.



## EXCHANGE OF BEST PRACTICES WITH OUR PARTNERS

Each month, as part of the «Safety Discussions», we meet our 9 main service providers who are most affected by safety problems.

In order to raise employees' awareness of the various risks, a Safety day was organised on our site by our partner Ortec. Open to all, our employees and subcontractors took part in workshops on crane operation, high-pressure,...

Also, simulated exercises strengthen the best practices (amongst ourselves and elsewhere) so as to implement them or perpetuate them.

In 2018, a fire safety plan was tested with the services of SDIS (regional fire-fighting and rescue teams).



## THE HEALTH OF OUR EMPLOYEES: A CONSTANT COMMITMENT

Our medical service receives and supports our employees through numerous actions throughout the year.

- More than **290 examinations** at the medical centre
- Between **4 and 7 monthly inspection rounds are carried out on the ground**, focused on the wearing of individual protective equipment and ergonomic postures at the various work positions
- **Creation of a «Soda» training module** in which 58 persons took part
- An **influenza prevention campaign** with the use of an alternative homeopathic vaccination procedure

## THE HEALTH, SAFETY AND ENVIRONMENT CHALLENGE: 6 INTENSE MONTHS

How to further incentivise everyone to contribute to their safety?

Created in 2018, this new challenge encourages a proactive approach and initiatives on the ground, whatever the work position.

**370 active participants**, representing all employees and temporary staff in the plant workshops and the laboratories, took part in the operation.

Each month, different areas are chosen for intensive cleanliness operations. Accident-prevention actions are carried out with objectives fixed in each workshop.

## KEY SAFETY FIGURES IN 2018

**95**

Thematic Safety training sessions, 506 employees concerned

**1850**

Participants in "Safety quarter hours"

**1965**

Safety inspection rounds

**1323**

Persons trained in safety fundamentals during 104 sessions

**3**

Emergency situation exercises and 7 evacuation exercises

**506**

Persons concerned and **more than 630 hours of training** organised by the HSE service

## CHALLENGE HSE



# OUR UNDERTAKINGS FOR THE ENVIRONMENT

## CONCRETE COMMITMENTS FOR THE SUSTAINABLE DEVELOPMENT OF OUR ACTIVITIES

Since 2013, more than 40% of our investments were devoted to the improvement of environmental performance:

- €30 million for the residue treatment installations and the re-engineering of the industrial process that will be able to definitively stop discharges at sea,
- a supplementary investment in 2018 of nearly €7 million for the construction of the treatment station through the injection of CO<sub>2</sub>,
- €1.9 million euros dedicated to the campaign for monitoring at sea,
- more than €800,000 devoted to the reduction of dust fly-off over the production and storage sites.



## WATER MANAGEMENT

The management and the improvement of water quality are essential elements in our environmental policy.

AS A REMINDER, ALTEO DEFINITIVELY STOPPED ALL DISCHARGE OF RESIDUE TO THE SEA AT THE END OF 2015.

The installations necessary to the complete re-engineering of the industrial process:

- reduced by more than 99.95% our discharge of solid matters into water,
- reduced by more than 99.70% the discharge of metals.

## OUR ENVIRONMENT LABORATORY IS APPROVED BY THE WATER AGENCY

It performs daily tests that are highly standardised. In particular, it developed a method for analysing BOD5 which was approved by the Water Agency.



In 2018, more than €8M were dedicated to the environment, representing 50% of our overall investments.

## THE CONSTRUCTION OF THE WATER TREATMENT STATION BY INJECTION OF CO<sub>2</sub>

- This innovative technology for treating residual water with CO<sub>2</sub> is **unique** in the world of aluminas.
- Operational since the first quarter of 2019, this highly virtuous system reaches the required quality levels for pH and metallic elements.
- Furthermore, this installation consumes more than 6,000 tons of CO<sub>2</sub> per year, thus avoiding its discharge to the atmosphere.

For more information, flash this code to see the video (in French only):



## A SUPPLEMENTARY TREATMENT SOLUTION FOR 2 PARAMETERS

We have tested supplementary treatment technologies for reducing the thresholds of **BOD5** and **COD** in the effluent.

Pilots for three processes were completed in the 2<sup>nd</sup> half of 2018: **reverse osmosis, active carbon and biological treatment**. A project for a new industrial unit will be launched in 2019, for commissioning during 2020.



## A CAMPAIGN MONITORING DISCHARGES AT SEA PRAISED BY SCIENTISTS

In line with studies carried out over more than 25 years, we financed a large-scale campaign at sea in 2016-2017.

This programme involved the Calanques National Park, the committee on monitoring and information concerning discharges at sea (CSIRM), the services of the State and the scientific community. In November 2018, we presented the report to the administrative authorities.

« The CSIRM unanimously appreciated Alteo's efforts and recognised the extent and quality of the monitoring carried out in accordance with the objectives that were set for it.

It also recognises the considerable research effort and the rapid progress of the company in finalising a new process so that the liquid discharge is completely compliant with environmental standards. »



# OUR COMMITMENT FOR THE ENVIRONMENT

## THE REDUCTION OF DUST EMISSIONS IS CONTINUING

Our activities are developing but we are limiting dust fly-off through numerous actions implemented over the last few years, both at the production and the storage sites.

At the Gardanne plant, a continuous improvement project was implemented; all production and storage facilities are concerned.

- The working groups defined the actions to be put in place.
- Solutions were implemented: a liner and gravel was fitted in the loading zones, mist sprays installed in the train unloading zone, etc.

On the bauxite residue storage site, we have increased monitoring of the weather forecast and the anti-dust arrangements have been improved:

- **automatic sprinkling** of the traffic lanes,
- **3 water cannons** to spray the exploited plots with mist,
- **overlaying** of inactive (but exploited) plots
- **revegetation** of plots that are no longer exploited.

These actions combine their effects to amplify the results obtained during previous years.



## THE SELECTIVE SORTING OF INDUSTRIAL WASTE

In order to better sort waste and improve recycling, we have, for several years now, developed the use of specific skips per material.

In 2018, we recycled more than 85% of our waste.



## CLEAN & CHECK, THE DAY DEVOTED TO SORTING

Around fifteen representatives managed and coordinated this cleaning operation on the production and storage sites, resulting in 25 tonnes of waste collected and sorted, 10 tonnes more than in 2017.

## BAUXALINE®, 1<sup>ST</sup> CONCRETE CASE OF ORGANISING AN INDUSTRIAL CIRCULAR ECONOMY SECTOR AT THE SCALE OF A REGION

We were chosen by the Marseille Provence Chamber of Commerce and Industry and its partners as part of their approach to the recycling of industrial waste in the region. Because we are pioneers in the subject: in 10 years, the Gardanne plant recycled 10% of its residue, 5 times more than the average in the worldwide alumina industry.

This process was driven by the Bauxaline® Technologies R&D programme, which identified major opportunities for new uses.



## DE-POLLUTION OF SOILS: A 10% CONTRIBUTION OF BAUXALINE® DIVIDES POLLUTION BY 100

In matters of de-pollution of water and soil, Bauxaline® acts, thanks to its properties, like a sponge for metals. A low contribution of Bauxaline® can capture more than 99% of metallic and phosphate pollutants in water and soil.



## REAL OPPORTUNITIES AS A SECONDARY RAW MATERIAL FOR CONSTRUCTION MATERIALS AND STEELMAKING

Bauxaline® is used in the composition of expanded clay pellets with high phonic and thermal performance for the light concrete industry, which emits less CO<sub>2</sub>.

Also, this material loaded with iron can enter into the steelmaking cycle in a blast furnace or in casting. It can also co-recycle slag from steel production and stabilise solid waste with high leachable metals content, thanks to its metallic pollutant capture properties.



## THE ENERGY TRANSITION AT THE CORE OF ALTEO'S ACTIVITIES

For several decades, the Gardanne plant has been developing its industrial processes to optimise energy consumption and reduce greenhouse gas emissions.

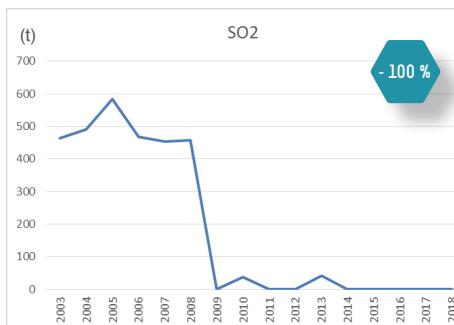
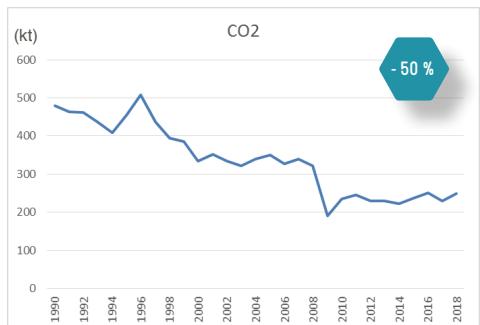
Our energy efficiency process comes within our «Health-Safety-Environment-Energy» management system.



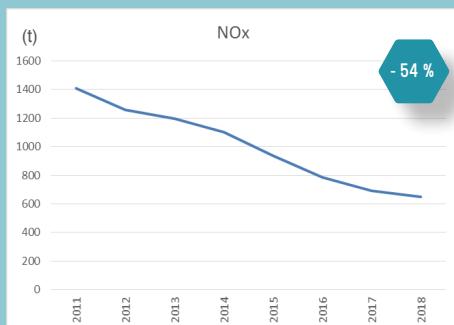
Alteo is also one of the very 1st French companies to obtain ISO 50001 certification for energy management.

We are continuing the implementation of the **multi-year energy efficiency plan (PPE)** designed in 2017. Composed of 59 actions, some of which supported by the ADEME (France's Agency for Environment and Energy Management), this PPE aims to **reduce the consumption of gas and electricity, and emissions of CO<sub>2</sub> by 5% by 2020**.

At mid-term, the objective of 3% has been achieved.



### REDUCTION IN EMISSIONS OF NOx BY 54% IN 7 YEARS



In 2018, we finalised our multi-year programme to improve **«low-NOx burners** in furnaces and kilns.

These operations represent an investment of more than €2 million and will be able to reduce NOx emissions even further in 2019.

## INCREASE ENERGY PERFORMANCE WITH COGENERATION

In partnership with **ENGIE Cofely**, we have finalised the installation of a high-performance cogeneration unit on our Gardanne site.

Simultaneously producing thermal energy and electricity, this new unit provides 10% of the steam used by our industrial process and can inject the electricity produced into the electricity distribution network (the equivalent of the consumption of a town of 20,000 inhabitants), thus releasing transport and production capacity on the regional electrical network. And what is more, increased the energy performance of 20% compared to separate production.

This clean technology, with a power of 12MWe, **complies fully within the objectives of COP21 and of the energy transition in France**.



# OUR SOCIAL RESPONSIBILITY



Our undertakings in matters of social responsibility are a key element in the success of our group and its economic performance. Our reputation in this area is ensured by the daily action of the women and men who make up our company. It is thanks to their commitment that Alteo is continuously improving its performance in the areas of health, safety, environment and sustainable development. Also, Alteo follows ethical rules in the conduct of business to ensure its commercial success over the long term. Based on more than a century of experience, we are building a responsible future.

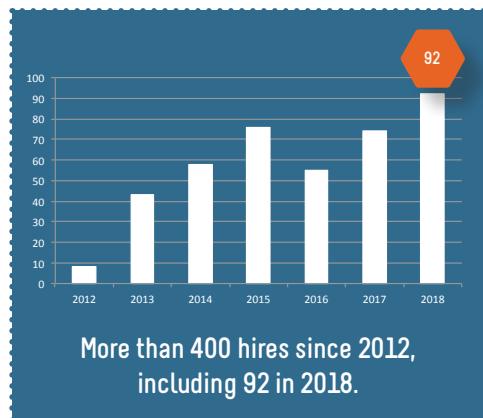
## HR INNOVATION AT THE SERVICE OF INTEGRATION

Since it was founded, Alteo has been a company which recruits, with great open-mindedness: attentive to all profiles, all careers and all ages, we constantly seek to renew ourselves to support the development of the speciality alumina markets throughout the world.

In 2018, we are continuing this recruitment process with the induction of more than 90 persons on permanent and temporary contracts, in highly varied jobs: engineers, administrative executives, maintenance technicians, chemistry operators, laboratory or packaging staff, ...

Given the growth in recruitment, we have not hesitated to redesign our integration process, for example, by developing professional training.

It is thanks to these new methods that we are ensuring our development while maintaining our skills over the long term.



## INTEGRATING ALTEO THE MODERN WAY: AN «ON-BOARDING» SYSTEM

We wanted to innovate and redesign the process of integrating our new recruits, so we partnered with the Marseille start-up LoocAtMe specialised in «on-boarding».

*INTERVIEW with Gérald Gaillard and Joan Germain, founders of LoocAtMe*

### What does LoocAtMe consist of?

Located in Marseille, LoocAtMe is a start-up which develops innovation in the field of human resources.

We have perfected an intelligent integration process: «adaptive on-boarding». The objective is the acculturation of new arrivals during the key period of integration into the company.

### What did you propose to Alteo?

Together with Alteo's teams, we created an integration course that is both digital

and face-to-face. Our application saves time and enables concentration on the essential: discussion and technical training on the ground.

### What is the advantage of this integration course for new employees?

The integration course developed for Alteo is entirely personalised. It disseminates the strategy, values and the commitment of the company to innovation and sustainable development. It is intended to cultivate and disseminate a feeling of belonging, helping these



## FOR HIGH-QUALITY PROFESSIONAL INSERTION

With a constantly-growing recruitment volume, we endeavour to support our talents when starting their jobs and in their development.

So, in 2018, we began a **complete overhaul of our integration process**, favouring the dissemination of our company's values to new entrants.

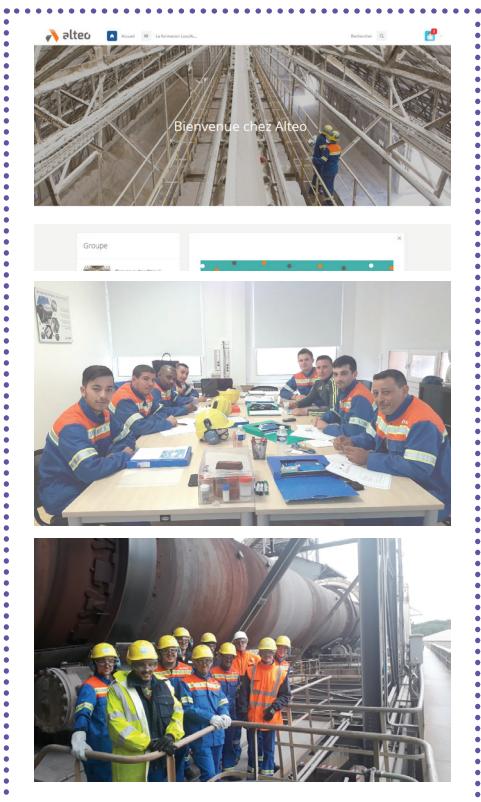
We have also developed **15 internal training courses**.

Designed by people on the ground and the HR teams, these courses can organise the process of integration and internal development during production.

**The results are conclusive: the persons trained are far quicker autonomous and operational.**

Lastly, in partnership with the French government employment agency, we are continuing to form our own talent pools through the «Operational preparation for collective employment» (POEC) programme.

Thus, **2 new sessions were organised in 2018, with a total of 17 persons trained**.



## OUR TEAMS ALWAYS IN THE SPOTLIGHT

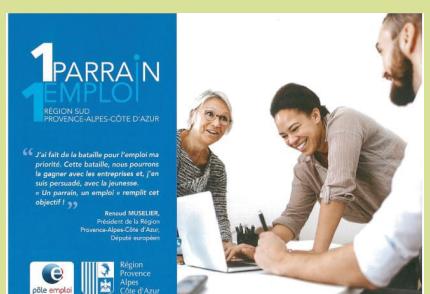
We organise programmes in order to highlight actions that are notable from a human or technical point of view, and to share them with all the staff.

**In 2018, 57 « Bravos » and « Thank You » were awarded to the teams who were particularly committed to driving our business forward.**



## 1 SPONSOR - 1 JOB

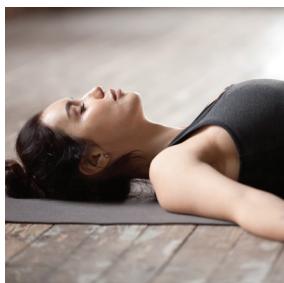
Committed to the «1 sponsor – 1 job» process put in place by the Sud-Provence Alpes-Côte d'Azur Region, our managers voluntarily support young people in the search of their first employment.



# OUR SOCIAL RESPONSIBILITY

## A COMPANY THAT PROMOTES THE QUALITY OF LIFE OF ITS EMPLOYEES

- «Discovery» workshops are offered each year at the place of work: health and well-being, relaxation therapy, osteopathy and ayurvedic self-massage.
- Nearly one million euros per year is devoted to social works by the Works Council. In 2018, 225 families benefited from aid from the Works Council for their holidays (tourist visits or holiday rentals) and 103 children went on summer camps proposed and co-financed by the Works Council.



## AN EVER MORE COLLABORATIVE INNOVATION

Alteo has joined the Open Innovation South Club, which stimulates collaboration between large groups and regional start-ups, to promote the emergence of new projects and future partnerships.



## ALTEO, A MAJOR PLAYER FOR THE DEVELOPMENT OF THE PROVENCE REGION

Our company forms part of the fundamental and long-term industry in the region which contributes to the creation of value and the development of local employment:

- We now have more than 480 employees at Gardanne and generate more than 1,000 direct jobs in the region.
- In 2018, more than 200 subcontractors worked on our site, and we generated €72 million of purchases in the region.

### We mobilise the logistical resources of the region:

- We are a major partner of the port of Marseille
  - 1 million tonnes of imports per year
  - 60 000 tonnes of bulk exports per year
  - **7 300** containers exported per year
- **Committed to inter-modal transport**, we favour alternatives to road transport: 2 trains importing raw materials per day.



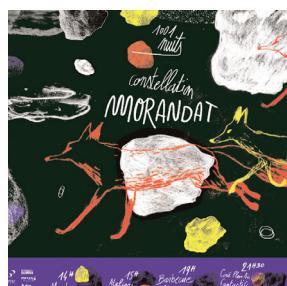
## AN EVERYDAY COMMITMENT TO THE TOWN

Attentive to the concerns and expectations of local residents, we endeavour to **transparently inform** them regarding safety, health and sustainable development matters.

Promoting our values, sharing our technical constraints and explaining our production techniques helps the population to a better understanding. This information can be freely accessed on our site [www.alteo-environnement-gardanne.fr](http://www.alteo-environnement-gardanne.fr) (in French only).

We enthusiastically participate in the increasing number of events that provide more information on regional industry and its active contribution to the life of the region.

Thus, we opened the plant to the public during the event **1001 nights** organised at Gardanne as part of **MP2018** (Marseille-Provence cultural event). We also took part in the roaming exhibition «**Portraits of Mediterranean industry**», which is displayed in Marseille, the airport of Marseille-Provence and thecamp (training campus) in Aix-en-Provence.



## EXPLAINING OUR PROFESSIONS TO YOUNG PEOPLE

By actively and regularly taking part in numerous events such as the Science Festival, the profession fair, the Industry Week, etc... Alteo gives concrete explanations of the professions of chemistry and industry to young people.

In 2018, we received more than 300 pupils and students on our site.



## AMBASSADOR FOR INDUSTRIAL TOURISM IN THE PAYS D'AIX

Alteo partners **each year** with the Gardanne tourist office for the «Indus'3 Days» event, in which we have participated since it began.

Thanks to this event and the numerous visits organised, notably by the tourist office, our employee presenters introduced our activity to **more than 600 visitors in 2018**.





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