

ALTEO

From a distinguished past
to a new world of alumina



ALTEO: A world-leading producer of specialty aluminas

- **One of the world's leading integrated supplier of specialty alumina**
 - With **over 700 Kt of production capacity**
 - **600 customers** and 1000 delivered sites in 60 countries across the world
 - **Annual turnover around 280 M€**
- **Dedicated to non-metallurgical grade alumina**
 - Focus on development of specialty alumina for our key markets: **Ceramics, Refractories, Abrasives, Glass and Flame retardants**
 - Offer to our customers **a unique range of products**, from alumina hydrate to various grades of calcined, fused and tabular aluminas



ALTEO: a unique combination

• **A rich heritage**

- Gardanne was the first alumina refinery in the world, starting its Bayer operations back in 1894
- La Bâthie and Beyrède, started 1895 and 1906 respectively, with a long history of fused alumina production
- Move towards technical aluminas in the 1980s with first production of low soda aluminas and development of Altech
- Added tabular alumina to portfolio in 2002 with Teutschenthal (Alufin)



• **A new world of alumina**

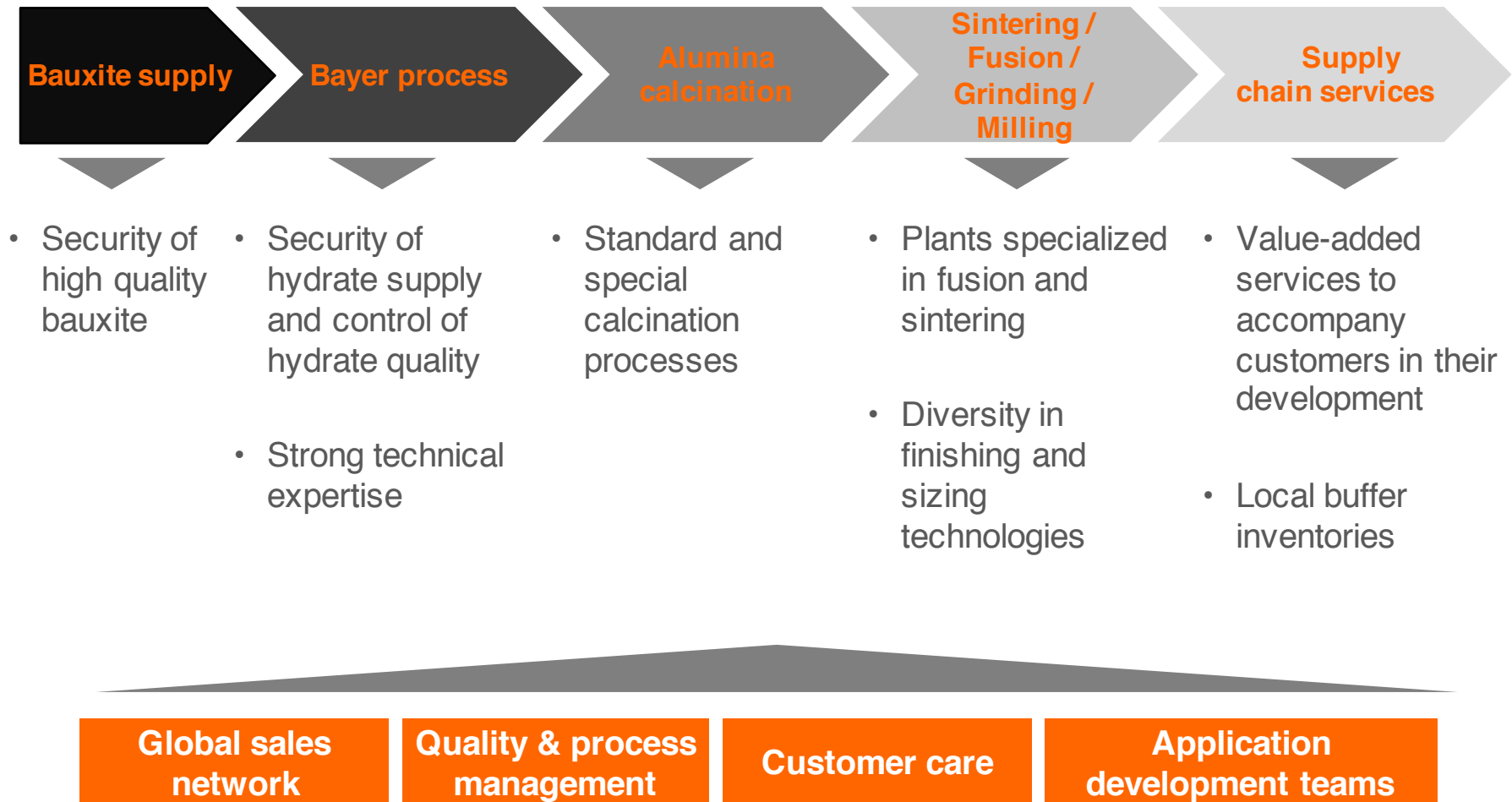
- **Entrepreneurship**: a new mindset moving from large multinational to a new independent industrial group
- **Innovation**: a new innovation strategy based on Application Business Development and R&D teams
- **Quality**: unique range of high value-added products and quality of services to our customers



To know more about our history and key facts, visit our website: www.alteo-alumina.com

A uniquely positioned integrated producer

As a fully-integrated manufacturer, ALTEO is present throughout the whole specialty alumina value chain



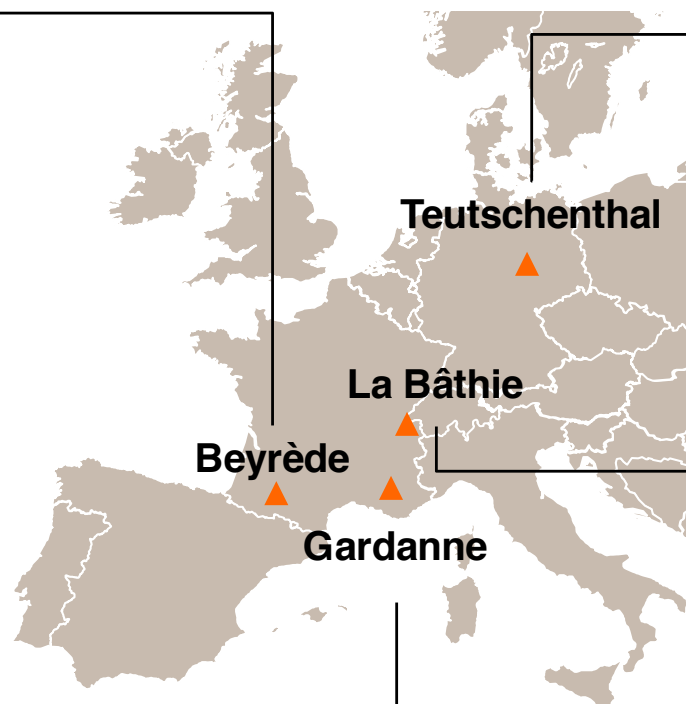
4 plants in Europe, over 700 employees



Capacity: 37 000 tpa
Main products: brown corundum, zirconia alumina, sintered bauxite
N° employees: 90



Capacity: 635 000 tpa
Main products: alumina trihydrate, calcined alumina
N° employees: 420



Capacity: 35 000 tpa
Main product: tabular alumina
N° employees: 45



Capacity: 34 000 tpa
Main products: white corundum, bubble alumina, silicon nitride
N° employees: 145

- Headquarters and R&D centre in Gardanne (France)
- Integrated HSEQ management system, all plants are certified **ISO 9001**, **ISO 14001**, **OHSAS18001** (and **ISO50001** for Alteo Teutschenthal)

A global and still growing commercial coverage

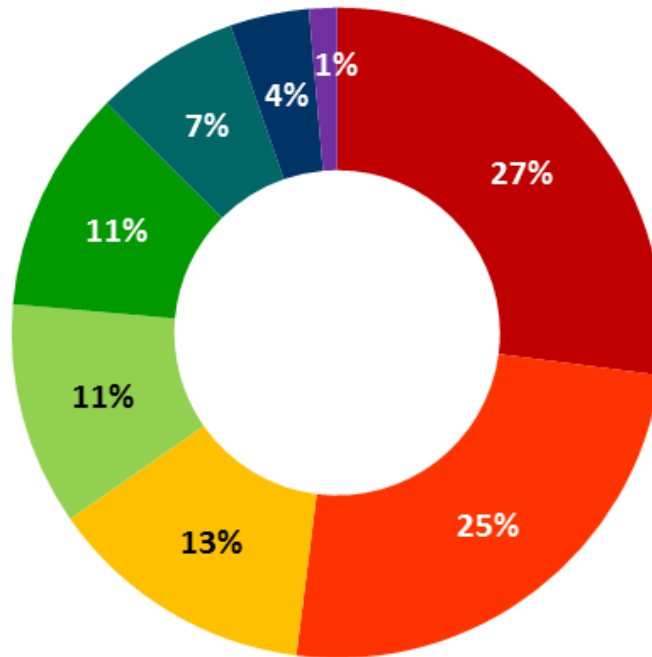


- 14 sales offices covering 45 countries
- Other developments in high growth markets through 84 specialized agents and distributors

Multiple products to serve multiple markets...

Sales by market

Consolidated sales turnover 2014



Refractory: kiln furniture, bricks and monolithics



Standard and technical ceramics: tiles grinding media, advanced ceramics



Abrasive: bonded and coated abrasives, blasting, polishing



Chemicals: catalysts, aluminium salts, titanium dioxide, surface treatment, zeolite



Feedstock: cement, fused alumina, refractory fibers, electrofused refractory, tabular alumina, spinel



Glass: packaging glass, flat glass (LCD), cover glass, tableware



Others: laminated flooring, brake linings, welding flux, aluminium filtration



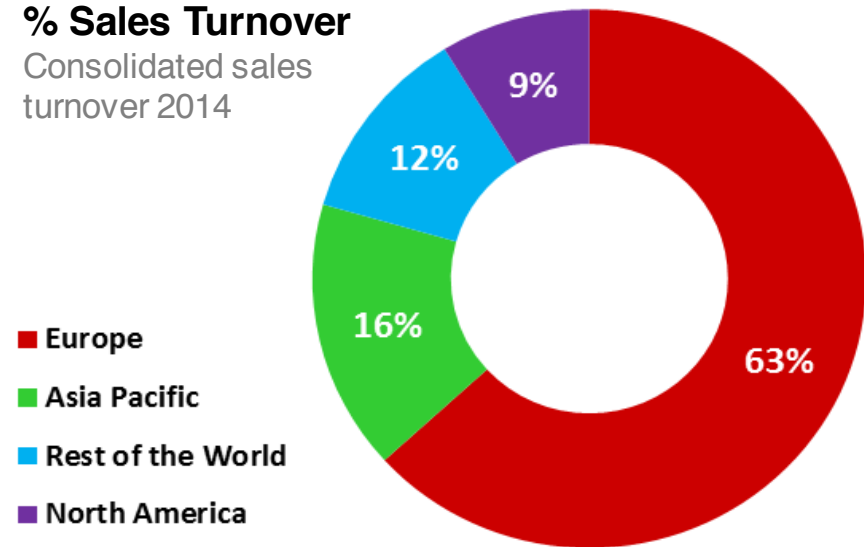
Flame retardant: fillers

- **A wide and diverse range of applications**, providing a greater business resilience
- **Strong and long-term relationships** with leading customers in each market
- Dedicated application teams focused on **providing technical and development support**

...all around the world.

**Sales outside Europe
have increased by
150%** over the last 6
years, especially in Asia

% Sales Turnover
Consolidated sales
turnover 2014

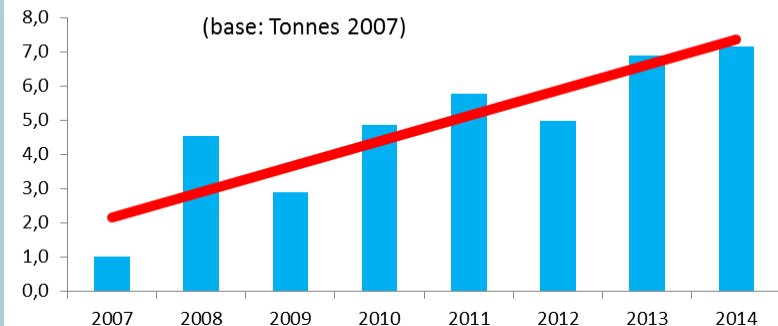


Focus on China

Thanks to local infrastructure implementation and focus on specialty products, **sales have grown by a factor of 7 in 7 years.**

Growth trend - sales to China

(base: Tonnes 2007)



Alteo's commitments

Operational
excellence

5 commitments

to meet our
customers'
expectations

and to grow
our business

HSE &
Sustainability

Product
range

Innovation
and R&D

Customer
care

Operational quality and reliability is key to our success

Our process-oriented approach based on **Lean principles** and ISO 9001 standard, is focused on **continuously improving the quality of the products and services** provided to our customers.



Our Analytical laboratory, is fully equipped and staffed to ensure **process control analyses, product release analyses and certification.**



And we are also investing in quality: for example, Alteo Gardanne has a **new grinding workshop**. With 2 state-of-the-art continuous grinding lines, Alteo can insure the best quality and **accompany the growing demand** for specialty ground calcined alumina.



A unique and wide range of products

Hydrate

- Coarse or fine
- Wet or dried
- **LVSH Series**
(Low viscosity dried hydrate)

Calcined aluminas

- **Soft, Hard and Ground** calcined aluminas
- **Low soda** aluminas
- **Superground low soda** aluminas
- **ARZ[®]** Series
- **DIGITa[®]** Series

Fused products

- **White** fused aluminas
- **Brown and Semi-friable** brown fused aluminas
- **Zirconia** aluminas
- Aluminium oxynitride - **ABRAL[®]**
- **Nitrides** products

Tabular alumina

Sintered bauxite

Bauxaline[®]

Customer Care at the heart of our business

To meet our customers' highest expectations, we further strengthened our Customer Care team and we will continue to improve our processes to **ensure the best service** possible.

Our commitment is to provide **full support** from the first call to the delivery of our products:

- with **technical help,**
- **packing solutions,**
- **shortest possible lead times.**



***Product development and innovation:
looking after customers' needs now and in the future***

ALTEO's innovation strategy is built upon



**A high-tech
application laboratory**

- Refractories, ceramics, tiles, glass, abrasives, flame retardants
- Technical experts
- State-of-the-art equipment

Long-term partnerships

- Customer collaborations
- University development projects

Product development and innovation: looking after customers' needs now and in the future

- ⇒ We continue to develop our key assets for “hi-tech” applications such as our world-class range of **low soda alumina products**
- ⇒ We also create products for new market opportunities and to match the expectations of our customers, for example:
- Refractories: **FLO-2**, a very fine grade that improves flowability in castables
 - Ceramics/Tiles: **DIGITal®**, a new and unique range of products dedicated to digital printing on ceramic tiles
 - Flame Retardants: **LVSH**, a new range of very low viscosity hydrates



Sustainable development: based on strong Health, Safety & Environmental commitments

Our group VALUES and QHSE policy aims at continuously

- **improving the quality** of the processes, products and services
- **reducing the impacts** on the health & safety of our employees and contractors
- **improving our relationships** with our neighboring communities
- **protecting the environment**



ALTEO has a threefold certification across the company:

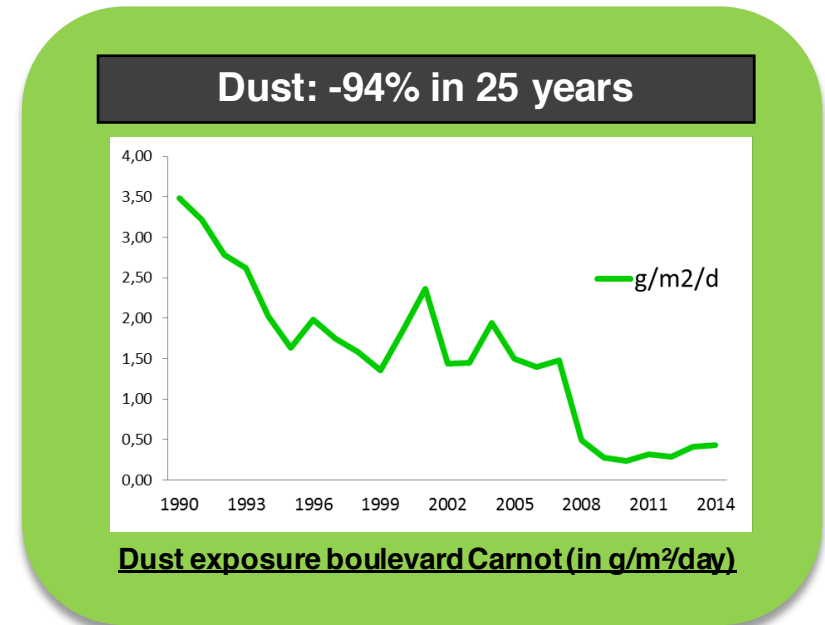
- **ISO 9001** for Quality management
- **ISO 14001** for its Environmental Protection approach
- **OHSAS 18001** for Occupational Health & Safety

Reducing our environmental footprint is a daily concern

Significant investments have been made to reduce air emissions.

In Gardanne plant:

- **SO₂: -99% in 10 years**
- **CO₂: -35% in 10 years**
- **Dust: -94% in 25 years**



Besides, Alteo Gardanne is implementing a **new high-yield combined heat & power unit**, a cogeneration project that will allow us to further improve energy efficiency.

Bauxite residue: a sustainable solution



With a 30 M€ investment in filtration equipment, Alteo makes its commitment clear to **stop rejection of bauxite residue into the sea before 2016.**

In parallel, Alteo is working on the development of our Bauxaline® product for substantial markets such as **construction** and **land remediation**.

Bauxaline® can replace part of the clay to **manufacture bricks or tiles**

New types of light aggregates to support **new sustainable building technologies**



Traps efficiently and once and for all **metallic pollutants out of contaminated water**

An excellent material for **confining soil pollution** and allowing **replanting**

ALTEO: your partner of choice

- **Operational excellence**
- **High value-added products**
- **Sustainability of supply**
- **Quality of service**
- **Innovation**



THANK YOU

Discover more about us at
www.alteo-alumina.com

