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# The Company

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For half a century now, ALUMINIUM S.A. is one of the leading players in the Greek heavy industries sector. The Company was established in 1960 as "Aluminium of Greece S.A." by Pechiney, the French metallurgy giant of that time, in order to exploit the rich bauxite deposits of Central Greece for producing alumina and aluminium.


The value of this investment, which proved a key strategic investment that drove economic growth and the development of know-how in Greece, multiplied over the years. In 2005, ALUMINIUM became a member of the MYTILINEOS Group and today is Europe's most important vertically integrated alumina and aluminium production and trading plant. With a significant investment plan in process, the annual production capacity for 2013 is estimated to reach 1.100,000 tons of alumina and 175,000 tons of aluminium, establishing the Company as the sector's largest producer in SE Europe.

It is safe to say that the dynamics of ALUMINIUM has been the cornerstone of the development of the Greek aluminium manufacturing industry, which today is employing directly and indirectly approximately 40,000 persons and is posting turnover figures in excess of 2 billion Euro or 0.7% of the country's GDP.

Installed in Agios Nikolaos, Viotia, on the northern coast of the Corinthian Gulf, the industrial complex of ALUMINIUM occupies an area of 750 hectares and employs directly 1,100 and indirectly more than 400 people, all of them residents in the wider region. From its establishment to this day, the Company has been a catalyst for local growth and is proud to support - and be supported by - generations of employees who are the driving force of an industry that is developing pioneering know-how at the global level.

With equal resolve, ALUMINIUM is also working to improve its social and environmental footprint, guided by the values of Corporate Social Responsibility and aiming to produce long-term benefits for the society. Adhering to globally accepted environmental management standards and carrying out significant "green" investments, ALUMINIUM is committed to minimising the unavoidable impact of its operations on the environment.





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# Delphi-Distomon

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DELPHI-DISTOMON S.A. is the second largest bauxite producer in Greece and in Europe, with an annual output of more than 650,000 tons. The Company's sites, which supply bauxite to ALUMINIUM, are located in the region of Amfissa, while its Technical Division, responsible for supervising production and research, is headquartered in the Prefecture of Fokida.

DELPHI-DISTOMON resulted from the merger of "Delphi Bauxites" with "Greek Distomon Bauxites". It has been operating as a subsidiary of "Aluminium of Greece S.A." until 2007, when it became a subsidiary of the MYTILINEOS Group.

The Company today employs approximately 100 persons, sourced in their majority from the local communities. The health and safety of its employees is a top priority for DELPHI-DISTOMON, which is posting one of the lowest accident incidence/severity rates in the mining sector.

DELPHI-DISTOMON is equally committed to respecting the environment. The Company ensures the strict adherence of its operations to the provisions of the environmental legislation and is investing in "green" initiatives, the most important of which is the rehabilitation of disturbed lands, dating back to 1972.

The second largest  
bauxite producer in  
Greece and in Europe.



# Milestones

**1960**

"Aluminium of Greece S.A." is established. The Company's principal shareholders are the PECHINEY Group, COMPADEC S.A., the Organisation for Industrial Development and Stavros Niarchos.

**1963**

Construction of the Company's industrial facilities in Agios Nikolaos, Viotia, begins.

**1966**

Plant opens and production is launched.

**1970**

The plant's facilities are expanded and production is doubled.

**1973**

The Company is listed on the Athens Exchange.

**1976**

Establishment of DELPHI-DISTOMON S.A.

**1976**

Installation of gas processing centres for removing the fluorine contained in the electrolysis gas emissions.

**1981 & 2000**

Investments are carried out to increase alumina and aluminium production.

**1986 - 1990**

Investments are carried out to automate the electrolysis process.

**2003**

The Pechiney Group is acquired by the ALCAN Group.

**2005**

MYTILINEOS Holdings S.A. acquires a majority stake in ALCAN.

**2006**

ALUMINIUM launches operation of the 1st Filter Press for Bauxite Residues Recovery.

**2007**

"Aluminium of Greece S.A." is merged by absorption with MYTILINEOS Holdings S.A., and the trading of the company's share on the Athens Exchange ceases. The Group's metallurgy business is separated from other activities and transferred to ALUMINIUM S.A.

DELPHI-DISTOMON becomes a subsidiary of MYTILINEOS Holdings S.A.

**2008**

Operation of the 2nd Filter Press for Bauxite Residues Recovery is launched.







# Products

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ALUMINIUM epitomises the impressive growth of the metallurgy sector in Greece during the last fifty years and the cutting-edge know-how, which only the sector's world leaders possess, in terms of industrial and trade practices. Product quality, technical support and customer service are areas where the company is striving for constant improvement of its performance.

The Company's Quality Management System has been certified in accordance with the ISO 9001:2008 International Standard, ensuring product quality. Furthermore, its chemical laboratory has been accredited by the Hellenic Accreditation System S.A. (ESYD) in accordance with the requirements of the ISO 17025:2004 International Standard, for the chemical analysis of bauxites, of alumina and of aluminium and its alloys.

## Bauxite

Bauxite, which is mined, among others, by DELPHI-DISTOMON, is the basic raw material for the production of alumina and aluminium. It is a mineral deposit rock formed by a mixture of metal oxides, named after the French city of Baux, where the ore's deposits were first found. In Greece, the most important known bauxite deposits are estimated at around 100 million tons and are located in the Mt Helikon - Mt Parnassus - Mt Giona zone. Greek bauxites are of diasporic type and are composed of 1 molecule of crystalline water per 1 molecule of alumina (aluminium oxide).

## Alumina

Alumina is the industrial product derived from bauxite ore and is used to produce primary cast aluminium as well as other non-metallurgical products (abrasives and insulating materials, refractory materials, detergents, pharmaceuticals and substances used in the treatment of water). Alumina, which is extracted from bauxite using the Bayer method, may be hydrated or calcined (dehydrated), depending on the degree to which it has been processed. Calcined alumina, also known as metallurgical grade alumina, is obtained by baking hydrated alumina in order to remove the quantities of water contained in it. The annual production capacity of Alumina is 800.00 tons.



## Aluminium

ALUMINIUM produces primary cast aluminium by electrolysing calcined alumina. In order to process primary cast aluminium and deliver the end products (billets, slabs and sows), the Company's production plant comprises the following:

- The Anodes Line, which produces assembled anodes and ensures their supply to the electrolysis potlines, with an annual output capacity of 90,000 tons of baked anodes.
- The Electrolysis Potlines, with an annual production capacity of 164,000 tons of liquid aluminium.
- The Casthouse, where the liquid metal is alloyed and formed in billets (124,000 tons) and slabs (40,000 tons).
- The Production Support Line, which ensures the reconstruction of the protective coating of the electrolytic cells (pots) and of the liquid metal transport ladles.

Product quality, technical support and customer service are areas where ALUMINIUM is striving for constant improvement of its performance.







# Infrastructures / Facilities

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The industrial complex of ALUMINIUM is one of Europe's most modern vertically integrated production plants and the largest of its kind in SE Europe. The complex, located in the coastal area of Agios Nikolaos, in the District of Sterea Ellada, is strategically positioned in the centre of the mountainous region defined by Mt Helikon, Mt Parnassus and Mt Giona - Greece's major bauxite deposits zone.

Infrastructures also include the nearby port, which allows direct access to sea transport and offers flexibility. Occupying a total area of 75 hectares, the Company's industrial complex comprises the following (in production flow sequence):

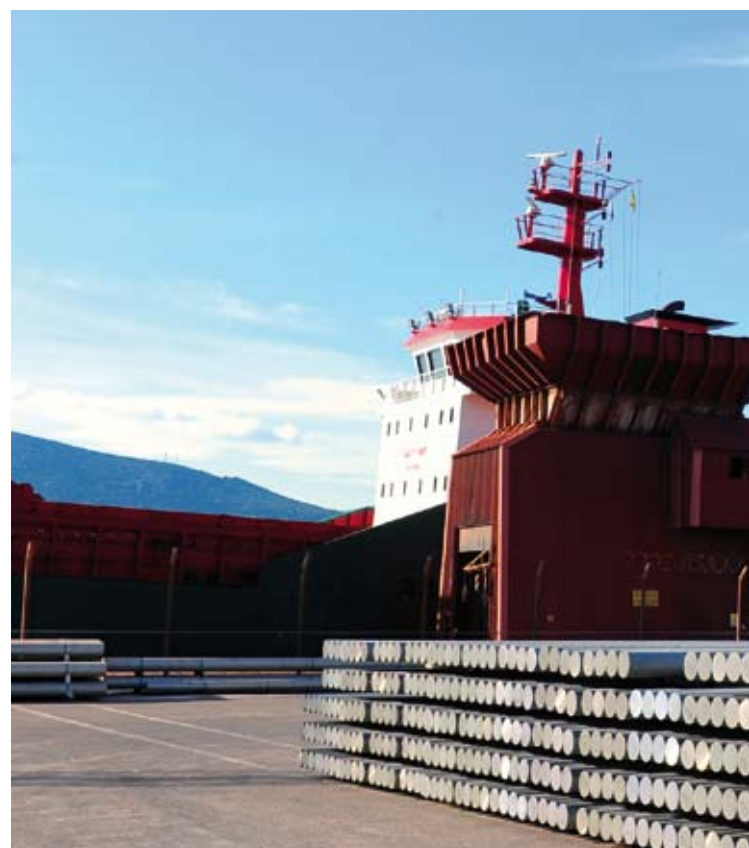
- The bauxite delivery and collection areas
- The alumina production plant
- The aluminium production plant
- The Cogeneration Plant
- The port facilities
- The anti-pollution facilities (gas treatment centers)
- The areas for storage of fuel and raw materials
- The central and local maintenance workshops
- The support activities network (Environment, Quality, Safety, Chemical Laboratory, IT, Medical Station, Personnel Management etc.)

It should be pointed out that during the three-year period from 2005 to 2007, the total energy, industrial and environmental investments carried out in the industrial complex of ALUMINIUM were the largest ever to be undertaken by a private company in Greece.

## The Port

The port facilities comprise of the dock, with a berthing capacity for vessels up to 40,000 tons, two port cranes, the calcined alumina, ship-loader, the liquid cargo receiving facilities and the necessary storage and warehousing spaces.

The port facilities also include the necessary equipment for preventing and/or fighting sea pollution incidents (radios, booms, absorbents material etc.).



One of Europe's most modern vertically integrated production plants and the largest of its kind in SE Europe.



### The Cogeneration Plant

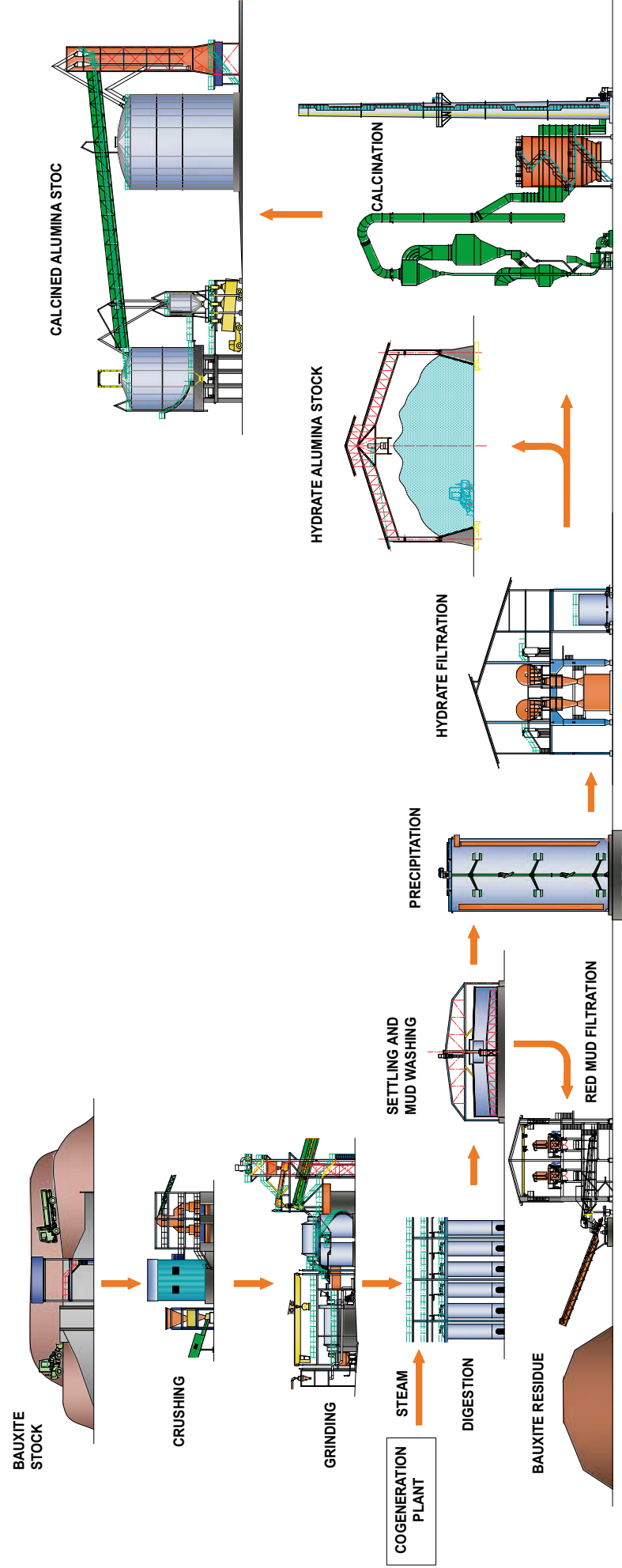
The 334 MW High Efficiency Combined Heat and Power (CHP) Plant, or Cogeneration Plant, is located in the south section of the complex. Having first entered into operation in 2008 it is an innovative investment - not only by Greek standards but also by those in the wider region of SE Europe. It operates using natural gas and produces steam, which is used in the alumina production process, as well as electricity, which can be injected into the national grid.

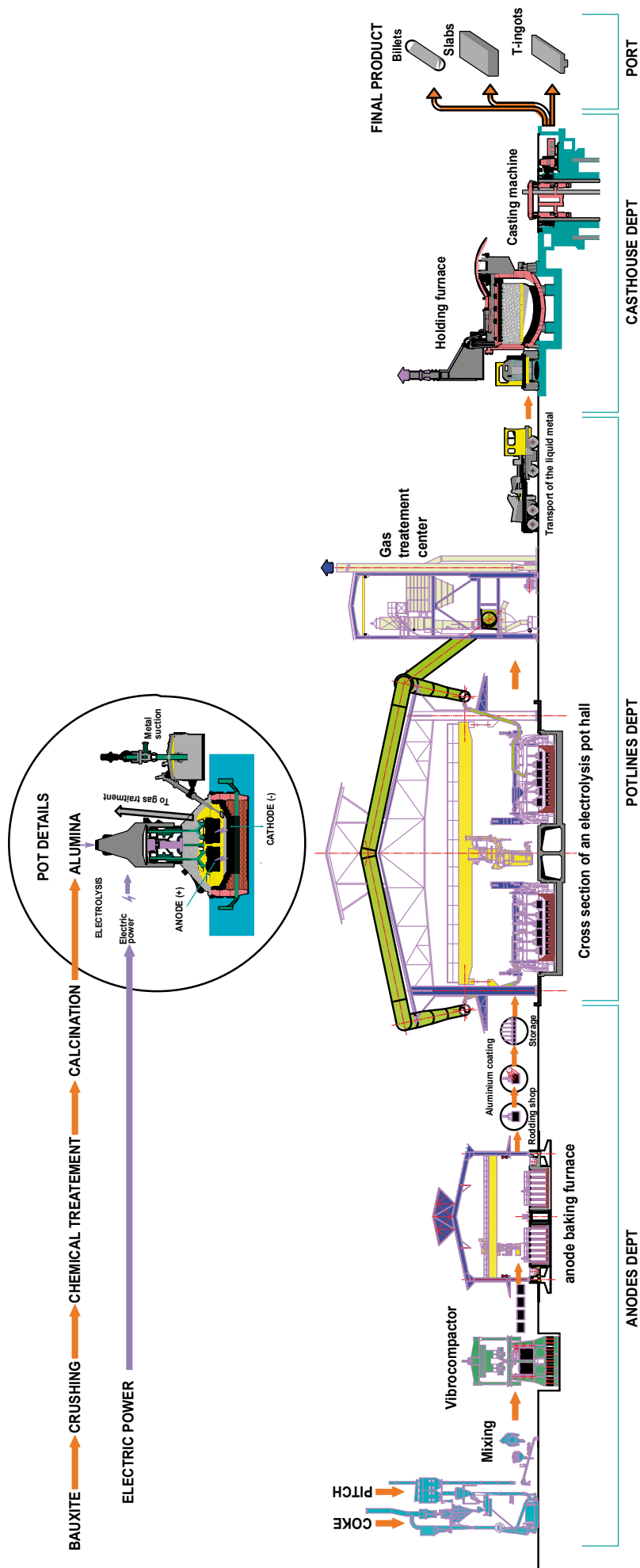
At the same time, the operation of the Cogeneration Plant helps to reduce significantly the use of heavy fuel oil in the plant and, consequently, to improve the plant's environmental performance.





# Production Chart Alumina





# Production Chart Aluminum



# Human Resources

A Company distinguishing itself in the competitive international environment owes its success primarily to its human capital. It relies on the know-how and talents of its people and invests continuously in their training. For ALUMINIUM, the development of its employees is deeply rooted in its "corporate DNA". Already since 1960, the Company's philosophy was based on training, equal opportunities, meritocracy and - above all - caring for the health and safety of its employees.

These values continue to serve today as the guiding principles in the practices followed and the attitudes adopted by the Company and by MYTILINEOS Group in its entirety. ALUMINIUM is investing continuously in the improvement of working conditions, in training opportunities and in special benefits, with the aim of creating an environment that allows all employees to prove their individual skills and strengths.

As is to be expected, the same people-centred approach is also followed by DELPHI-DISTOMON.

## Training

The education and training policy of ALUMINIUM concerns the provision of training to its personnel and the development of their skills. Training is planned on the basis of existing needs and corporate targets and focuses primarily on occupational health and safety and on the protection of the environment. The Company ensures the non-discriminatory nature of its training programmes - i.e. that they are targeted to all types of personnel (Executives, Administrative Employees and Technical & Labour Personnel).

The same training policy is also followed by DELPHI-DISTOMON which, due to the specific nature of its operations, places greater emphasis on training programmes regarding occupational health and safety.



# Corporate Social Responsibility

## Introduction

For ALUMINIUM, Corporate Social Responsibility, as both theory and applied action, is a precondition for its sustained growth and dynamism. The Company's commitment to ensuring the prosperity of its people, the development of society and the protection of the environment governs all aspects of its business strategy.

As a responsible corporate citizen, the Company invests and carries out innovative actions in three key areas: Occupational Health and Safety, coupled with Occupational Hazards Prevention; Environment; and Support of Local Communities.

ALUMINIUM has repeatedly gained distinctions from the European Aluminium Association and the International Aluminium Institute as a top performer in Occupational Health & Safety.

## Occupational Health and Safety

For both ALUMINIUM and DELPHI-DISTOMON, the effort to achieve the ultimate goal of "ZERO ACCIDENTS AND ZERO OCCUPATIONAL DISEASES" is a continuous process. Both companies, whose Occupational Health & Safety Management Systems are certified in accordance with the OHSAS 18001 International Standard and the ELOT 1801 Greek Standard, are constantly striving not only to improve working conditions but also to enhance the mechanisms applied for the prevention of hazards, through a number of commitments that include:

- Strict compliance with the provisions of the laws and with the applicable standards and internal guidelines.
- Continuous identification and assessment of hazards and adoption of the measures required to address them.
- Regular monitoring of personnel health and participation of personnel in corresponding training programmes.
- Promotion of quality preventive actions.
- Open and transparent communication between the Management and the corresponding Employee Committees regarding safety issues.

It should be mentioned here that ALUMINIUM has repeatedly gained distinctions from the European Aluminium Association and the International Aluminium Institute as a top performer in Occupational Health & Safety.





## Environment

The green policy of ALUMINIUM is not limited to balancing the unavoidable impact of its operations on the environment. The Company is committed to investing in environment-related actions, developing infrastructures and raising the environmental awareness of its people, in order to minimise its environmental footprint on the Greek landscape. With Environmental Management Systems that have been certified in accordance with the ISO 14001 International Standard, ALUMINIUM and DELPHI-DISTOMON comply with the applicable laws and carry out annual evaluations of their results in this area. Their priority is to apply modern policies for the protection of the environment and to constantly improve their environment-related performance. In line with this approach, the two companies give emphasis on the following four key areas:

The Company's key goal is to discharge the full quantity of bauxite residues ashore, in a specially formed area within its premises.

## Energy consumption

Sound energy management, reduction of energy consumption and the utilisation of renewable energy sources are key targets for ALUMINIUM. To this end, the Company conducts checks and carries out modernisation works in the aluminium production section as the major energy-consuming production activity, is supplied with the high-pressure steam produced by the Cogeneration Plant and, of course, carries out activities to sensitise its personnel to energy-saving practices.

## Pollution management and prevention

"The prevention of all hazards of permanent or accidental pollution and the development, testing and implementation of procedures for emergency response in extraordinary circumstances" is a core commitment of ALUMINIUM. To this end, the Company undertakes a broad range of actions, the most important of which are the following:

- Management of infrastructures and adoption of best available techniques
- Monitoring of gas emission levels and containment of the respective emissions at levels below those provided for by the applicable laws.
- Strict control of production processes and prevention of potential leakages.
- Readiness and completeness of the pollution fighting means available to address a potential sea pollution incident.
- Operation of the Cogeneration Plant, which has reduced the annual heavy fuel oil consumption by 60%.







### **Water consumption**

The rational management of groundwater is of particular importance to ALUMINIUM, as the Company is the major consumer of water in the region. The industrial complex, as well as the settlements around it, are supplied with water obtained exclusively from wells drilled and managed by the Company.

Similarly, DELPHI-DISTOMON aims to minimise water consumption by reusing the water collected from stagnating waters or obtained from natural separation in site workshops.

### **Waste disposal**

The management of solid waste is probably the greatest challenge faced by ALUMINIUM. The Company's coordinated actions in this area include, most notably, the utilisation of the bauxite residues which result as a by-product of the dissolution of the alumina contained in the bauxite ore. The Company's major related investments concern the operation of two bauxite residues recovery facilities (filter presses), with plans for the installation of additional two during 2011. At the same time, studies are being carried out to examine the potential for utilisation of bauxite residues in the production of other industrial materials. The Company's key goal is to discharge the full quantity of bauxite residues ashore, in a specially formed area within its premises.







## Society

From its establishment to this day, the activities of ALUMINIUM have been inextricably linked to the economic growth of the local community in this particular area of Central Greece. The Company's "traditional" commitment to hiring mainly residents in the Prefecture of Viotia and in the neighbouring Prefectures is only one aspect of its contribution. Its other aspects include the Company's acceptance by the local communities, its collaboration with the Local Government, the evaluation of local needs and the undertaking of initiatives to fulfil them.

ALUMINIUM today has an active presence, supporting infrastructures and actions to promote the social, cultural and sporting life of the local community. The Company assists the initiatives of volunteer organisations and cultural societies, the local scholarships fund and other public benefit bodies.

## "Aspra Spitia" settlement

In 1963, the installation of the industrial plant of "Aluminium of Greece S.A." away from the populated areas of the Prefecture of Viotia led to the need for the company to create a nearby, model working-class community to accommodate the families of its employees. Thus, the "Aspra Spitia" (literally, "White Houses") settlement was created at the picturesque Antikyra Cove - a settlement built to the European standards of that era by renowned Greek urban planner Constantinos Doxiadis. The infrastructures planned for this innovative community ensured its self-sufficiency and provided its inhabitants an uncommon level of quality of life. Later on, two expansions of the settlement, supervised by architects M. Fotiadis, Ch. Lembesis and P. Massouridis, developed further the configuration of the community. Today, "Aspra Spitia" is a modern village with a population of around 3,000 people, whose infrastructures keep being enhanced.

Schools, services, shops, open squares and cultural and sport facilities give to the village its character of an open, outward place where a broad range of cultural and sport activities are taking place.



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