

**Sustainability in the aluminum industry: the case of Alcoa
with Rosa M. García Piñeiro, Vice President, Global Sustainability at Alcoa**

Rosa M. García Piñeiro gave us an overview of the recent trends in sustainability in the aluminum industry. She considers that Europe is in advance as compared to other regions and should remain in advance for the next ten coming years.

Sustainability came in the agenda in the 80's - 90's, with a higher interest of stakeholders to know more about the business performance. Alcoa's CEO realized as early as 1951 that an aluminum company had a social responsibility. With this purpose in mind, he launched a foundation on this same year which is still active today. The endowment made this private foundation the 5th largest corporate foundation in the US and facilitates opportunities to engage and create shared value in the communities where Alcoa operates.

Alcoa is currently in the process of splitting into two companies. An upstream company active in mining, refining, smelting, casting and rolling business, that will keep the name Alcoa, and a downstream company dedicated to value added manufacturing in the automotive, aerospace, industrial, building and construction business, among others. This new company will be named Arconic.

She went on describing the main issues for an aluminum company like Alcoa:

- Mining in Amazonia and Jarrah Forest in Australia which are two of the most protected areas in the world,
- Management of activities in countries with weak rule of law like Guinea and Saudi Arabia,
- The possibility to exert options to expand activities: this depends on reputation and therefore track record,
- The access to energy is essential as it accounts for a great part of the industrial cost. The energy supply strongly depends on government interactions.
- The consequences for the aluminum industry of the environmental accident that happened in Brazil November 2015. The collapse of a mining tail dam killed 24 people, contaminated 600 kilometers of river and damaged villages. The initial estimation of remediation cost was \$1 billion and is reaching now \$24 billion. Besides the financial consequences, the reputation damage for BHP Billiton and Vale is also high. The high social cost of this accident could lead to overregulation for the mining industry.

Aluminum is still a great market and the forecasts are excellent in terms of demand growth. But as China supplies nowadays more than half of the aluminum used in the world and has a coal-based energy, this leads to high CO₂ emissions from the industry as a whole.

There are opportunities to make things differently and overcome the challenge in terms of growth of the world population and urbanization, climate risk and depletion of natural resources. The goal of Alcoa is to maintain the license to operate by creating a net positive impact in the society. This is, acknowledging that aluminum production has a footprint in terms of natural resources consumption and generation of emissions to air, water and soil, Alcoa strives to generate a handprint (the value of the products manufactured to the society, the shared value creation in the communities, the innovation generated and commercialized to enable efficiency improvements in other sectors, etc.) that compensates the footprint and therefore generates a positive value to the society.

Rosa M. García Piñeiro highlighted the CSR action plan of Alcoa:

- Commitment to long term targets to reduce the environmental footprint. To ensure their implementation Alcoa has included performance indicators that account for 20% of the performance pay of the leadership of the company which are related to sustainability criteria.
- Relationship with the communities raises also issues. For example, in Amazonia Alcoa pays royalties to the communities but at the beginning there were neither infrastructures nor education programs. In this context preserving the culture of the communities involved imposes new solutions. Alcoa brings in NGO's to build capacities for the communities to understand how to manage their income and create a frame to manage resources. A framework has been created including:
 - a sustainability index,
 - a sustainability local development program,
 - a sustainability Jurunti fund,
 - a Council associating the public authorities and members of the civil society.
- The life cycle of products is being assessed considering the value of every ton of avoided energy emission (e.g. aluminum providing for lighter cars or planes). This analysis is a work in progress.
- Alcoa foundation is the philanthropic arm and focuses for half of its resources on environment, education and communities' enhancement and for the other half on strategic projects at global level in the areas of biodiversity conservation and climate change prevention.

The CSR strategy is under revision for New Alcoa keeping in mind the goal to deliver a net positive value for society.

Q&A's:

- Perspectives on the aluminum market:

Aluminum is needed in many products and will continue to be used because it helps to overcome the social challenges, like mobility or food preservation.

Aluminum is widely used in products with a long life span like in building and transportation; therefore there is not enough scrap available to cover the demand of aluminum only through recycling. Virgin metal is still needed and will continue to be needed in the coming years.

Information released on CSR:

Alcoa is a listed company and its information, including the CSR information is public like in the CSR annual report.

Inclusion of CSR criteria in operational decisions:

- Whether to keep activities in Guinea: Alcoa has been present for 40 years through a JV with the government and other private companies. It has the responsibility to manage and oversight the operations which includes a dedicated and costly compliance team.

- When the creation of a JV in Saudi Arabia was considered, no gender diversity was allowed. After discussions and evolutions to the regulatory environment, there is now the possibility to employ women in support functions like finance, legal or communication. This is a first step to help women to access to professional activities.

Compliance organization:

There is a huge network of correspondents in every single unit and monthly trainings in compliance are organized. The compliance program is very extensive.

Precision on the life cycle impact of aluminum:

Impact of an aluminum ton is much higher than a steel ton but life cycle shows that the impact on the long term is more efficient in the use phase. Also at the end of life aluminum can be indefinitely recycled. It is a permanent material but collection is a complicated issue especially for products used

by people like cans.

CSR criteria used for the managers' bonuses:

Bonuses indicators relate for example to diversity, CO2 emissions or safety numbers with concrete targets to reach.