

Al₂O₃ together

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QATALUM IS 'MADE IN QATAR'

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Al₂to₃gether

"Al₂to₃gether" is a name that symbolizes the work spirit of Qatalum, and reflects the Company's superiority and its ability to overcome challenges, as one team. "Al₂to₃gether" also helps remind employees of these great achievements on a daily basis. This magazine is a step in this direction, where team spirit is enhanced, and will provide an open forum to discuss the ideas and ambitious plans we aim to achieve, for the good of both the company and its employees. Last, but not least, the motto of our magazine is inspired by a symbol of aluminium oxide "Al₂O₃" which is the main raw material used by the aluminium industry in Qatar.

AL**100%**

Is it possible to recycle aluminium without loss of properties?

Qatalum is launching the EcoStep Initiative, an ambitious project, with the participation of local partners including Qatar's Wildlife Society – WWF, the initiative focused on developing decision-making tools, such as a scenario calculator that is testing ways to lower the carbon Footprints on power and water sectors and CO2 emissions caused by direct human action.




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CEO WELCOME MESSAGE



What a roller-coaster year it has been! We've seen strong growth, exciting new contracts with downstream companies, amazing new opportunities brought about by the shifts in global industry influence from the developed markets of the old world to the emerging markets of the Middle and Far East. Qatalum organised and hosted the largest ever Arab Aluminium conference in November – ARABAL 2012 – which broke all records in its successful hosting. From only producing our first aluminium in 2009, we have surpassed our design capacity of 585,000 tonnes per annum to now producing over 600,000 tonnes per annum.

Primary production in the GCC has the fastest growth of primary aluminium production outside China, largely because of aluminium's high versatility and the development of aluminium downstream industries.

“On the last point, there has never been a more exciting time to be working in this industry, and there is nowhere more exciting to be than here in Qatar. The opportunities for growth, diversification and innovation have barely scratched the surface, and we are proud to be at the forefront of the industry's future – here and internationally.”

As an example, we are very proud to have announced the signing, on 29th January at our office at Messaieed, of supply contracts with ALUNOOR and Qatar Aluminium Extrusion, for the sale of premium aluminium. Encouraging the local aluminium downstream industry is a key priority and commitment at Qatalum. These contracts represent the beginning of implementing such commitment towards Qatalum's participation in developing local industry in Qatar.

Obviously, a successful producer needs infrastructure, conducive regulation and demand for a product in order to thrive. And we fortunately have all of these criteria in place. But I would like to take this opportunity not to just talk about aluminium's future in the GCC, but to acknowledge an even greater resource: human capital.

A company is nothing without its personnel, and this extends from the Board of Directors and senior management down through departmental teams. Like a huge and complex piece of factory machinery, a company like this requires hundreds or thousands of components to work together. In my time here, I have seen the Qatalum team work together to solve challenges and leverage opportunities alike. None of our great achievements over 2012 would be possible without you all.

Thank you, and see you in the coming issue.

TOM PETTER JOHANSEN
CEO, Qatalum

Qatalum's commitment to health and safety, environmental concerns and positive social impact are three pillars of its vision – the so-called triple bottom line. Our CEO has said a little about the financial objectives of the company. I'd like to say a bit about the social, safety and environmental work we're doing.

On quality assurance, Qatalum has been awarded its ISO/TS 16949 certification. This Quality Management Systems requirement is central to the company's strategic vision. It will allow us to sell to the global automotive industry - something which works alongside our pursuit of economic diversification. It allows us to build and sell value-added components, of the highest quality, right here in Qatar and to the great international companies of the world.

Qatar's social and economic vision requires an intense focus on education and youth development and we are proud to share with you our commitments, efforts, and contributions in this area. Aluminium is a knowledge-based industry that requires highly skilled labour; we continually seek to extend our employees' knowledge and experience to the youth of Qatar. We have a strong and advanced Qatarisation policy that seeks to increase the number of local hires through such initiatives as the Qatalum Summer Internship Program. We help to train local talent, and to identify Qataris who have an interest in the industry and who are skilled and motivated to succeed, and making Qatalum a top choice of employment for Qataris.

On the environment, we are seeking to put in place further innovative solutions that improve on our advanced eco-friendly technology. We have set solid goals for reduction of CO₂, NO₂, PFC, and other emissions. Water usage and waste production are firmly on track to reaching our reduction targets. We have installed catalyst reduction systems and wet-scrubbing systems to reduce harmful emissions, and the use of water-efficient equipment throughout our facilities has assisted us in our goal of recycling or repurposing all non-hazardous waste. To facilitate our transformation of HSE policies into action, we have developed an extensive Environmental Management Manual detailing sources of environmental impact and Qatalum's approach to tackling each major area of focus, including climate change, water consumption, and waste management.

I would like to reiterate our CEO's thanks to all Qatalum employees, without whom none of the progress I have just outlined would have been possible. May the coming year be even better than the last.

Thank you, and see you in the coming issue.

KHALID MOHAMED LARAM
DCEO, Qatalum





DCEO WELCOME MESSAGE



THROUGH HOSTING OF ARABAL 2012, QATALUM REACHES OUT TO THE WORLD

COMPANY'S HOSTING OF IMPORTANT INTERNATIONAL CONFERENCE BRINGS THE HEAVYWEIGHTS OF THE INDUSTRY TO QATAR.

In late November 2012, Qatar for the first time hosted ARABAL – the now-annual Arab Aluminium Conference – one of the most important events on the global aluminium industry's calendar. Taking place for the 16th time, ARABAL was proudly sponsored and organised by Qatalum, and the entire event was suffused with a key theme: that ARABAL's location in Qatar illustrates the growing importance of the Qatari and Arab aluminium industries in the region and the world.

The numbers alone are impressive. More than 600 delegates attended – a record. 36 speakers presented – also a record. 140 companies from over 45 countries were represented – also a record. In its ambition and its scope, therefore, ARABAL 2012 represented a platform where large number of experts, industrialists and stakeholders could gather to promote the conference outputs, raise awareness, and open the door for everyone to share experiences and information and enhance communication between various stakeholders.

The 36 speakers gave presentations, workshops and discussions on various topics covering the aluminium sector, markets, and the outlook for the industry future, along with technology, environment, recycling, manufacturing industries, and investments – as well as the effect of the Arab Spring, the Chinese market, and the London Metal Exchange.

So what is ARABAL all about? ARABAL is the only conference dedicated to the Arab aluminium industry. It was launched in 1983 by the initiative of Kuwait Aluminium Company, with the participation of all companies, Arab aluminium smelters and at the presence of many stakeholders and international and regional institutions operating in the aluminium sector. As of 2011, the conference decided to convene on an annual rather than biennial basis due to the growing importance of and developments in the aluminium industry.





Day One of ARABAL was all about ‘tours’ – both real and virtual. As delegates poured into Doha from around the region and the world, many were keen to catch a glimpse of the Qatalum plant at Mesaieed Industrial City, and take in the latest techniques, equipment and organisational lay-out of which Qatalum is so proud.

ARABAL delegates were taken by bus to Mesaieed Industrial City. During the forty-minute tour of the facility - which they were informed had the capacity of approximately 35% of Qatar’s total power usage - delegates began with a viewing of Potline 2, then moved to the baking furnace, paste plant and anode rodding plant, before the metal fluxing and casthouse and power plant and zero energy building, which has zero net energy consumption and zero carbon emissions annually.

Before the Mesaieed tour, the day kicked off with a workshop presentation in front of 200 ARABAL delegates by Martin Abbott – CEO of the London Metal Exchange. The LME is since 1877 the world’s premier non-ferrous metals market, and which offers a range of futures and options contracts for non-ferrous, minor metals and steel.

This standing-room-only workshop was an invaluable opportunity for delegates to get a deep understanding of one of the least-understood links in the chain of the global metals industry. The LME provides a transparent

forum for all trading activity and as a result helps to ‘discover’ what the price of material will be months and years ahead, which helps the physical industry to plan forward in a world subject to often severe and rapid price movements.

Mr Abbott highlighted the mechanisms and techniques used in the LME, gave his review on market reality and presented market analysis from a historical point of view as well as future prospects.

As well as detailing the crucial hedging role the LME pays, he discussed controversies surrounding aluminium storage and he updated delegates on the current ownership status of the LME. For ARABAL delegates, understanding the history, the current role and the future of the LME was a rare insight into key part of the global industry – and something brought about by Qatalum’s organisation of the conference.

The second day of ARABAL saw a shift in theme, from general 'Tours' to an array of focused sessions and workshops, covering the GCC, power plants, technology and the Arab Spring. First of all, however, discussion centres on the shifts in global power and influence from the Old World to the emerging markets of the Middle and Far East.

The morning began with opening addresses to the plenary session by Mr. Mohammad Ali Al Naqi, ARABAL Chairman; HE Dr. Mohammed Al Sada, Minister of Energy and Industry – presented on his behalf by Mr. Abdulrahman Ahmed Al Shaibi – who also spoke as Qatalum Chairman. Mr. Al Shaibi, Chairman of ARABAL 2012 Organising Host Qatalum, took the audience through the steps that the company has taken in Qatar and the achievements realized in the aluminium industry and industrial sector. However, he sounded a word of caution: "Despite the impacts of the global economic crisis, our growth must be tempered with a long term perspective. In doing so, this makes us more flexible and able to cope with change with the least possible consequences".

He expressed gratitude to the Qatari government. The industrial sector in Qatar is moving on the right track, he noted, "supported by incentives and industrial benefits that aim to encourage industrial investment and to focus on industrial projects that are based on best available technology", something which can no longer be considered on a solely

national basis. To a packed plenary audience of experts and dignitaries he emphasised that aluminium "is truly an international industry, due to the interdependence between production and raw material hubs, the smelting and refining centres and the manufacturing industries".

Dr. Al Sada, through Mr. Al Shaibi, praised ARABAL as an "extraordinary opportunity for gauging the pulse of the industry and its developments across the globe". Worldwide, he argued, aluminium industry is in a state of restructuring. Economic downturns in Europe - most notably associated with the interminable eurozone instability - coupled with escalating power tariffs, lack of local resources, taxation and tightening of ecological regulations have already resulted in the shutdown number of European aluminium production facilities.

"We are seeing a spate of evolution and consolidation within the industry. The focus of the aluminium sector is steadily shifting, often away from those who were considered the traditional leaders. Middle-Eastern manufacturers are now increasingly emerging as serious contenders in the global aluminium market".

Mr. Svein Richard of Hydro Aluminium – whose joint venture with Qatar Petroleum spawned Qatalum – gave a comprehensive presentation, outlining Qatalum's strategic position in the global supply chain, and spoke of 'infinite aluminium' through strong increase in demand and recycling innovations. Mr Al Naqi, Chairman of the ARABAL Organising Committee, was pleased to announce the number of participants in this conference at close to 600, from 45 countries, and 140 companies – all record numbers. He outlined how things have changed since the first conference in 1983.

"Today, as we celebrate the sixteenth version of ARABAL 2012 in Doha, the region has seven smelters of primary aluminium with production capacity of up to 15% of global production" he said, adding that this was along with the other supporting projects such as calcined coal and projects that depend on smelters' products such as aluminium extrusion, cables and car wheels factories which supply global automotive companies.





The day continued with an extremely senior panel discussion - with no fewer than five CEOs sitting on it - on the “Future Prospects of Aluminium Industry in the GCC”. Another panel followed, covering “The Future Prospects of Expanding Local Use and Creating Local Demand”. Presentations on “Power Plant - Challenges, Difficulties & Experience” and “Reshaping the World Aluminium Balance” took attendees through the afternoon session, and the day finished with panel discussions on “Future Technologies” and the “Impact of the Arab Spring on Infrastructure and Economic Growth”.

The importance of aluminium in infrastructure development – itself an indispensable part of any positive future in the ‘Arab Spring’ countries – was a notable take-away, as was the important role that aluminium companies such as Qatalum can play in CSR initiatives, and social entrepreneurship as a whole. Responsibility cannot fall only on government’s to address to massive social and economic problems that exist.

The GCC panel discussion (“Future Prospects of the Aluminium Industry in the GCC”) was arguably the highlight of the conference as a whole, and most relevant to many of the regional delegates as well as the GCC smelter representatives. The headline take-away will be that the future prospects of the aluminium industry in the GCC is bright, however the industry will have its share of challenges to overcome: acquisition of local talent and downstream market movements key among them.

“The most pressing issue facing the industry in the region, is how to develop local talent and to retain them,” Mr. Abdullah S Busfar, Vice-President, Strategic

Business Unit Aluminium /Metal at Ma’aden said. According to Mr. Busfar, developing local manpower is a top priority, and the industry in the region has to work to develop local talent. Echoing the same opinion, Mr. Said al Masoudi, Deputy Chief Executive Officer of Sohar Aluminium said, “The biggest challenge facing us is to build local expertise as we are losing good and talented people to the oil and gas industry. We are working to train our staff, and we need to put all our efforts to retain the right kind of people needed for our industry.”

The importance of attracting and retaining local talent is something close to the heart of Qatalum’s management team too, something emphasised by Tom Petter Johansen, Qatalum’s CEO. Taking part in the panel discussion, he spoke of the company’s HR innovations and policies, and moved on to say that the company would seek to consolidate its base and would work to bring value added products. “We are developing our base and looking at new markets.”

On the subject of the company entering downstream segment, Mr Johansen said, though the company will not be directly involved in the downstream industry

in the country, it is fully committed to offer all kind of assistance in establishing in Qatar. "We will support it [downstream] proactively. We produce high quality products that can be utilized by the downstream industry," he said. Mr Johansen further said the market for the downstream is there and the government of Qatar is also encouraging for downstream industry in the country to utilize Qatalum products. In fact, as of February 2013, supply contracts have been signed with downstream companies in Qatar, putting into practice this important policy.

Discussion also centres on a prevailing opinion that there is a dearth of energy policy in some GCC countries.

"The issue of gas price and a clear energy policy is our top priority", said one speaker, also outlining the need to create a balance between demand and supply, due to an oversupply in that particular, non-Qatar, market.

In yet another topic on the environment, most of the panellists agreed that the aluminium industry in the region is giving lot of importance on the subject. Qatalum's CEO led the way: "At Qatalum we have the most energy efficient technology and we are continuously striving to be environment friendly. It is a never-ending process and for this we are recycling our waste to be processed in Qatar and used in Qatar," said Mr. Tom Petter Johansen.

The evening was rounded off with 'Qatari Night' – a celebration of the Qatari way of life, culture and traditions, held at the St. Regis hotel. Delegates were treated to folk music, dance, delicacies and a visit to a Qatari village, before a traditional and sumptuous dinner.

China, the Global Cost Curve, Automobiles, and the Environment dominated the final day of ARABAL 2012. The peculiar economics of China's aluminium industry, and its effect on the global cost curve were stand outs of the morning session, alongside the increased prevalence of aluminium in the auto industry, while sustainability and safety dominated the rest of the day.

Senior executives from Qatalum, Ma'aden, Soahr Aluminium, Dubal, Emal, Hydro, and other firms took part in panels, workshops and presentations – making

the future of GCC aluminium the main focus of the conference, through its relationship with the rest of the global industry and the macro economy. In the first session of the day, entitled "What will the Aluminium Industry Policy in China be for 2012-2013?" Mr. Paul Adkins, Director of AZ China Limited and Mr. Eric Zhang, Analyst at SMM presented on the peculiarities of the Chinese industry, which persists with enormous production despite heavily subsidised losses – in certain provinces in particular. As Adkins noted, China sits in the top quartile of the global cost curve, and its industry





consumes scarce energy resources, is forced to import raw materials, and jeopardizes environmental integrity, yet 10mt of new capacity are still to come online.

“Why on earth do the Chinese persist with making aluminium?” he asked rhetorically. “As Westerners and as analysts and corporates, we focus on the markets, the industry, equities, P&L, capital flows, ROI, etc. But by doing so, we can miss the key point: for the Chinese Communist Party, aluminium is an important conduit for the development, urbanization and modernization of China”, he said, reminding the audience that China’s aluminium industry has been privatized – if such a term is accurate in such a Statist country – for only one generation.

He finished by forecasting two main sources of growth in next five years: Emerging Asia –including the Gulf – and the Americas. Over 16 million tons of new aluminium capacity should hit the market by 2015, two thirds of this in China for domestic consumption. The Middle East too is well placed. “We see the Middle East as the leading provider for growing world metal needs ahead and Americas/Europe/South East Asia as increasing import players”.

On the growth of aluminium in automobiles, David Cutting, Director of J.D. Power Automotive Forecasting, spoke about the Global Light Vehicle Market – heavily dependent on aluminium – saying it has come a Long Way. In, 2012, Global Light Vehicle Sales are holding in positive territory, while in 2013, Global Light Vehicle Growth is forecast to be steady with moderate

risk. If there is one trend in the global automotive industry besides platform consolidation, however, it is uncertainty, Cutting argued.

The GLV Market is predicted to break through the 100 million barrier by mid-decade, almost doubling in size since the end of the 1990s. Emerging markets, led by China, India, Brazil and Russia, have driven much of the recent growth and are expected to remain key drivers to future growth. The day and the conference as a whole wrapped up with a Culture Night at Skeikh Faisal Bin Qassim al Thani Museum, with a tour of the museum followed by a dinner at Majlis hall, at which delegates could discuss the connections made, information shared and arguments put forth over three days of discussion about the aluminium industry at national, regional and international level.

ARABAL 2012 was an immense success, and it could not have worked without many months of tireless effort from many dozens of people within Qatalum. The management of the company, and the Preparatory Committee, would like to express their deepest thanks to everyone involved in making us able to host a major conference of which we can be justly proud.

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ALUMINIUM INDUSTRY; EQUILIBRIUM SHOWN BY MARKETS IS TEMPTING TO SUGGEST A DECLINE IN THE PLANNED INVESTMENTS

AFTER THE CRISIS, GLOBAL ECONOMIC DEVELOPMENT HAS POPULARISED NEW CONCEPTS IN INVESTMENT AND PRODUCTION. AS THERE IS NOT MUCH HOPE OF SUCCESS FOR INVESTMENT PROJECTS WITH POOR ECONOMIC VALUE, THESE NEW CONCEPTS BROUGHT WITH THEM GREAT CHALLENGES IN DISCERNING THE NATURE, SHAPE, AND SIZE OF WORTHWHILE PROJECTS AS WELL AS LEVELS OF EXPECTED RISKS.

Financial and economic indicators show that gulf countries tend to focus their investing activities on productive industrial sectors at all levels while drafting short and long-term plans. They aim at achieving sustainable growth rates and access to the most efficient standards for the exploitation of natural resources and wealth.

The global economy is still threatened by the serious decline in economic activities, as represented by the major productive sectors. This decline is a direct result of the successive crises facing the world and the rates of economical recession, taking into account the amount of variation in the level of recession or decline between one economy and another. The index of gross domestic product (GDP) have shown large variations between countries, continents, economic zones during the past few years. The American economy has grown slightly, ranging from – 3.5% in 2009 and + 2.4% expected at the end of this year. The growth rates of Germany

ranged between - 5.1% at the end of 2009 and + 0.3% expected at the end of this year. Similarly, France recorded a negative growth rate. This situation will probably continue until the end of 2013. The Euro zone had reached a negative growth rate, 4.3%, at the end of 2009. But it is expected to turn to positive 0.3% at the end of 2013. On the other hand, China has been achieving a significant growth in its economy.

It reached 9.2% at the end of 2009. However, the growth rate is expected to decline to 8.6% at the end of this year, which indicates that China is still the leader of the world economy. Asia, except Japan, had achieved a growth rate of 3.4% at the end of 2009 and the growth rate may reach 6.7% at the end of this year. Altogether, the growth rate of the global economy was negative at the end of 2009, but will probably reach + 3% at the end of this year. This indicates that the global economy has entered into a new stage and escaped the added pressure to achieve a stable growth rate.



Euro zone is deemed to be the heart of the financial crisis and the way out of it. Special attention has been lavished on it to measure the level of countries development at a global level. Accordingly, the zone is witnessing constant attempts by the major powers to conclude a guarantee agreement in an attempt to avoid financial problems. It seems that the Southern countries have far fewer choices than the Northern countries. The only choice they have is to move towards fiscal austerity for a period ranging between 2 to 5 years at the least. The financial and economic indicators show that many of the countries of the Euro zone will be obliged to apply internal mechanisms of contraction to restore their productive capacities and competitiveness and to constrain and keep the levels of the decline of economic activity under control.

The production of the industrial sector of the largest economies in the world has shown a slight movement in improving their competitive and growth rates. Whereas many countries are struggling to lower the decline rates and maintain them within reasonable rates. It is expected that the major industrialised nations will record variable growth rates in the coming years. The United States, for example, will probably record a growth rate of 2.6% during this year, compared to a rate of -11.2% at the end of 2009, the lowest rate since the financial crisis. The growth rates of Japan, Germany, China, and Russia will probably reach 3.8%, 2.4%, 12.8%, 4.3%, respectively. However, the Euro zone may reach a growth rate of 1.5% at the end of this year.

The Aluminium industry is one of the sectors that integrate with many viable industries in the world; accordingly, it is important to consider the demand indicators of all sectors to determine the type and volume of production. It is also important to take into consideration the reigning positive or negative expectations while planning the production process. In addition, it is essential to establish and maintain competitive production despite the changing circumstances surrounding the industry. The automobile industry, for instance, is one of the most in-demand aluminium industries. It can serve as an indicator of high demand on aluminium by the aluminium sector to identify the influence of the demand on the industry itself and on the economic and industrial activities of a large number of the countries of the world. A telling example is that the sales of automobiles have reached significant levels globally – 75 million in 2011.

The United states has, for instance, shown interest in the light trucks. The indicators reflect a steady growth, 3% driven by the benefits of balance of energy consumption and financeability in light of competitiveness based on sources of funding. In Europe, however, the indicators still reflect the continuing pressure. In Germany, for example, the indicators suggested a growing demand, although the auto sales fell by 4% in 2011 as a result of the serious recession that hit a large number of their productive sectors. This trend would enhance possibilities of reducing or closing some



industries. It is worth noting that the recession of local demand did not cause automobile manufacturers to reduce their production due to good demand indicators in the international markets during 2012 and 2013. This puts aluminium demand in the safe zone. In Asia, the indicators of active return are good and production will probably recover.

However, aluminium is also a high-demand product in the building and construction sector. The United States reached a high growth rate of 9.3% during 2011, while building permits rose by 5.7%. This indicates that the indicators held steady and rose gradually. The data given also indicates that the demand on housing may rise to reach a rate of 13.2% during 2013. In the Euro zone, on the other hand, the building and construction sector of Germany, for example, continued to perform well. It is driven by high rates of growth in the production of the major productive sectors. Nevertheless, the situation in other European countries is expected to be different when it comes to housing and industrial sectors, influence by inflexibility of granting credit, some austerity measures, and the decline of investments in general. In Asia, China leads the economic indicators in this sector, moving towards more social housing that meets the needs of the demand from all income groups.

The expectations of the medium-term market about the indicators of supply and demand for aluminium products show that they are effectively balanced. The figures have reflected an excess supply during the year 2014 till 2016.



Nevertheless, this will turn into deficit in 2016. Such balance mainly depends on the persistent recovery in the demand of universal markets and the demand indicators that come from China. The strong performance of the Chinese economy will maintain a neutral position towards imports of primary aluminium. The world, except China, will witness limited projects and expansions. The endeavours of increasing the production in the Gulf region, India, and Russia are still evaluated from the perspective of caution and hedging, depending on demand indicators in addition to the ability to provide the primary materials for the industry, bauxite in particular.

The increasing likelihood of closure of a large number of smelters in Europe and Australia, because of the increase in energy prices and environmental determinants, will lead to a shift in the scope of supply from Europe and Australia to regions that have energy resources and less strict environmental laws.

The data about the balance of the aluminium markets as a final result of the interaction over the next three years between the market forces, demand and supply, show that Russia and the Middle East will dominate the areas of net surplus of aluminium. For example, the surplus in Russia will reach 3.1 million tons in 2014, while it will reach 2.4 million tons in the Middle East in 2014. This is because of the registered investment of the countries in

the region and the investment that aims to strengthen productivity and raise high stakes of global demand. In contrast, both Europe and Asia will dominate the areas of deficit since the demand is higher than the supply. The market deficit reached 1.6 million tons in Asian countries in 2014. The deficit will persist in 2016 to reach 2.2 million tons. However, the deficit of the Euro zone will reach 227 thousand tons in 2014 and 337 thousand tons in 2016. At the global level, the balance of the market will record small surplus that will reach 223 thousand tons.

These trends come as a direct result of a combination of factors affecting the industry and the market directly and which are summarized in the continuing pressures and decline and the high cost of production due to high energy prices as well as the increasing likelihood of the closing of many smelters in the Euro zone. The deficit of the Asian countries, however, will be in favour of the demand due to their continued productive and economic activities and their engagement in many production projects, China in particular. This would raise the level of demand for aluminium in line with the operating level that has been recorded periodically.

It is clear that the ingredients for success appear to be more conservative and more difficult to be achieved. One explanation for this would be the interaction between the market forces, demand and supply, the market balance in addition to the impact of controls on emissions, energy prices, and sources of raw materials on industry growth. By contrast, owning the sources of wealth and energy for the aluminium industry is the most important step towards owning and localising the industry during the coming period, taking into account that many of the European and non-European countries are heading towards implementing more strict laws on the emissions generated from the transport sector. This would affect the demand for aluminium.

The rise in the price of metals such as zinc and copper also directly stimulates the demand for aluminium in the sectors of energy, transport and construction in particular.

The future holds new data on the global aluminium industry. The distribution of raw materials for the aluminium industry, energy resources needed, in addition to the availability of capital and financing sources represent important data in the context of expanding, developing, and localizing the industry on one hand.

However, the limited supply of raw materials in specific locations in the world is one of the most important factors that support idea of integrating the industrial entities in the world's aluminium industry. The production is being shifted from one country to another. The countries of this region are apt to be the first major destination for global shifts on the aluminium industry on the level of investments, acquisitions, and productivity.



ALUMINIUM & CARS

ALTHOUGH ALUMINIUM IS EXTENSIVELY USED IN THE CONSTRUCTION OF THE MODERN CAR, BOTH THE ALUMINIUM AND AUTOMOTIVE INDUSTRIES SHARE A SIMILAR HISTORY.

Aluminium was still a relatively new and unexplored material during the late 19th century but as the car came into existence, it became apparent that aluminium would have huge potential for the emerging automotive industry. The Mercedes 35 hp, a racecar first shown off in 1901, used an engine comprised of aluminium and Magnalium (an aluminium alloy). The Mercedes 35 hp dominated over other cars in races of the period, was quickly adapted for commercial sale and is now regarded as the first modern motor car.

However, it was only after World War II that aluminium, now a more accessible material, was incorporated far more into car design. The 1960's saw car engines mostly made from aluminium and the lightened weight provided better acceleration which made engines such as the Buick V8 incredibly popular with race drivers and such engines made their way into mass production vehicles.

Aluminium eventually made it's way outside the engine during the 1970's, where oil supply fears gave rise to studies on how to improve fuel consumption. As a result, at least 110kg of aluminium is used in the production of the average modern car today, which allows for a massive saving on fuel during the vehicle's lifetime. In recent years, whole vehicle bodies have started to be completely made from aluminium, with the Audi A8 being the first mass produced vehicle with an aluminium body.

Thanks to the weight savings provided by aluminium, today's cars have better overall performance and better fuel consumption, which in turn provides an environmental benefit by reducing harmful emissions. As a result, aluminium has become one of the most prominent materials used in modern car production and this usage is expected to increase.



QATALUM, takes part in Aluminium 2012 in Germany

Qatar Aluminium (Qatalum) has taken part in the world's leading international trade fair, Aluminium 2012, which was held in Messe Dusseldorf, Germany, from the 9th to the 11th of October.

The fair, which was in its ninth incarnation, is the world's most important platform for the aluminium industry and its application fields. As the leading B2B platform in the world for aluminium industry and its main applications, and where all the key industry players get together, the trade fair unites producers, processors, technology suppliers and consumers along the entire value chain - from raw materials through to semi-finished and finished products, surface treatment and producers of machinery, plant and equipment for aluminium processing.

At this session near Düsseldorf, innovative products and the latest technology and services from primary

aluminium production to semi-finished and finished products were showcased.

In 2012, roughly 25,000 visitors from 100 countries attended, to see 950 visitors across 75,000 sq metres of exhibition space. Qatalum was exhibiting a stand alongside several hundred other key players including aluminium producers, aluminium processors, aluminium technology and equipment providers and suppliers. The many thousand visitors were also able to see the foundry pavilion, a welding and joining pavilion, and magnesium, trade and recycling areas.

For Qatalum, contact with such a variety of industry experts and stakeholders is crucial to retaining its place at the cutting edge of industry innovation. With a production capacity of 600,000 tonnes per annum of primary aluminium, Qatalum will provide significant support for GCC aluminium production. At full operation, the facility is expected to enhance the national GDP by approximately \$1.5bn a year and lead to significant downstream diversification for the country. It is also an aluminium smelter with a low environmental impact.



QATALUM signs aluminum supply contracts with qatari downstream businesses

Qatalum has announced the signing, on 29th January, of supply contracts with ALUNOOR and Qatar Aluminium Extrusion, for the sale of premium aluminium. The signing of the contracts took place at the Qatalum office at Mesaieed.

Qatalum was represented by CEO Tom Petter Johansen and Deputy CEO Khalid Mohammed Laram; ALUNOOR was represented by Mr. Jassim Abdul Noor, Owner and General Manager; and Qatar Aluminium Extrusion was represented by Chairman Mr. Abdul Rahman Al Ansari.

The total volume of both contracts is approximately ten thousand tonnes for 2013 - of which close to 800 metric tonnes will be delivered monthly. Although a small amount by global downstream standards, the significance of the contracts is in the pioneering of a downstream aluminium industry in Qatar, exemplifying the support and cooperation between Qatalum and such downstream industries.

Deliveries to local customers started in mid-2012 on a trial basis during both the customers' ramp-up operations and to test the product at their facilities. The excellent quality of Qatalum products was appreciated by both customers, thus current contracts represent a long-term commitment for supply from Qatalum. The two companies who have signed these supply contracts have varied expertise and market focus. ALUNOOR has two broad profiles, in industry and construction, making up 20 and 80 per cent of its work, respectively. In construction, it produces windows, doors, metal curtains and building exteriors.

In industrial production, ALUNOOR makes products for other factories to use in the manufacturing process, such as mechanical devices and various high-end precision equipment. Qatar Aluminium Extrusion Company is an expert in aluminium extrusion and is involved in production of various products for domestic and business use.



QATALUM IS 'MADE IN QATAR'

Company to
sponsor and take
leading role in
“Made in Qatar”
exhibition

Qatalum is the Golden Sponsor of the “Made in Qatar” exhibition took place over 16-18th January, organised by the Qatar Chamber of Commerce.

The “Made in Qatar” exhibition is organised in collaboration with the Ministry of Energy and Industry and is a serious effort to contribute to the building of the national economy and enhance the performance of various sectors, especially in the field of industry, as the essential foundation to diversify sources of national income, and the best use of available resources.

As is widely known, under a far-sighted economic plan - the Qatar National Vision 2030 - Qatar is seeking to maximise revenue from natural resources, through modernisation of industry. The industrial sector is now one of the main backbones of the Qatari economy.

Major infrastructure projects, including industrial and freehold cities, are fuelling demand for building materials and, of course, aluminium.

To this end, the “Made in Qatar” exhibition has the objective of attracting investment in industry, in doing so contributing to the revitalisation of this sector - which is so important in diversifying national income, thanks to the progress of the industry in creating new job opportunities, and the establishment of domestic products replacing products imported from abroad.

A visible presentation of the role played by industry in sustainable development is open at the exhibition to all productive local companies and factories of local state and participating companies are given 18m2 room suites within the exhibition centre.

As Golden Sponsor of the exhibition, Qatalum had a great opportunity to promote its brand and products as a flagship Qatari company. As a crucial cog in the machine which is Qatar’s industrial sector, it is important that we remain visible, with the opportunity to show Qatar, the region and the world our people, technologies and strategic vision for the future.

By sponsoring such an important event instead of just participating in it, we feel we are supporting Qatar’s industrial sector as a whole, and giving impetus to the long term vision of the country.



Qatalum participated in the celebration of the national sports day of the state of Qatar, as part of Qatar Petroleum celebrations in Mesaieed, in line with the national initiative launched by his highness Sheikh Tamim Bin Hamad Al Thani, Deputy Emir and the heir apparent.

Qatalum management organised the technical and administrative employees and all the company divisions for their participation in this big event. "The participation in such an event is a national obligation that develops citizens' awareness of the importance of practicing sport to fortify the mind and the body, as well as in increasing morale and relations among staff, reflecting also Qatar's efforts in organising and hosting the most important global sporting event that is the 2022 World Cup finals".

Qatalum prepares to take part in this ceremony which is being organized by Qatar Petroleum's Industrial Cities Affairs Department. The ceremony includes a comprehensive program to employees and their families. A number of sporting games and other fun activities such as family and children competitions are scheduled in the day, and participation is open to all.

Qatalum endeavours to be part of the Qatar National Vision 2030, relying on the diversity of the resources of investment, providing competitive product in the international market, meeting the Qatar markets requirements and needs, supporting "Qatarization" by recruiting young talented university graduates in the company, besides giving training to the national employees, providing support to the various efforts contributing to the upkeep of the environment, and applying the standards of social responsibility.

For the second consecutive year

**QATALUM
CELEBRATES THE
QATAR NATIONAL
SPORTS DAY AS
PART OF QATAR
PETROLEUM'S
CELEBRATIONS
AT MESAIEED
INDUSTRIAL CITY**



QATALUM talks future of aluminium at QSTP symposium

Qatalum, the Qatari aluminium smelter, took part in the Aluminium Symposium, held at the Qatar Science Technology Park (QSTP). Sharing the podium alongside Hydro (the Norwegian producer), Qatar University and the Norwegian University of Science and Technology, Qatalum participated in a full day seminar covering the advantages and modalities of the usage of aluminium as a structural and engineering material.

The seminar title was “Aluminium - The Sustainable Modern Metal For The Future of Qatar”, and the importance of the event and audience was clear in the presence of several in-house experts and senior management from the company, and from the other institutions taking part, to discuss the future of the industry and the challenge and opportunities that await.

Qatalum’s CEO Mr. Tom Petter Johansen took advantage of the senior audience to give a wide-ranging and provocative presentation, which outlined Qatalum’s perspective on the trends in the global aluminium industry and forecasted usage growth in Qatar and the other GCC countries. Mr. Johansen took the assembled experts through a tour of the history of growth in aluminium demand, the multitude of opportunities for aluminium brought about by global mega trends, primary production in the GCC (the fastest growth of primary aluminium production outside China), and the reasons underpinning growth in primary aluminium capacity in the Gulf region including the metal’s high versatility and the development of aluminium downstream industries.

He also outlined specifically Qatar’s great downstream aluminium opportunities, and presented an informative slideshow of images of aluminium in architecture,

packaging and the automotive industry. “There has never been a more exciting time to be working in this industry, and there is nowhere more exciting to be than here in Qatar”, he said. “The opportunities for growth, diversification and innovation have barely scratched the surface, and Qatalum is proud to be at the forefront of the industry’s future – here and internationally”. The Aluminium Symposium took place at the Qatar Science and Technology Park – the national agency charged with executing applied research and delivering commercialized technologies in four themed areas: Energy, Environment, Health Sciences, and ICT.

QSTP members include small companies, international corporations and research institutes that have together committed to fund ventures, create intellectual property, enhance technology management skills, and develop innovative products in line with the scientific and research components of Qatar National Vision 2030.

GE WINS \$500M IN CONTRACTS AT EMAL

General Electric (GE) has received contracts totalling approximately \$500 million to provide equipment and long-term services, directly and via engineering procurement contractors, for the Emirates Aluminium (Emal) smelter complex in Abu Dhabi.

The project is expected to result in lower emissions, addressing the UAE's goal to achieve cleaner and more efficient industrial growth and enabling Emal to produce aluminum with better fuel efficiency.

GE will supply gas and steam turbines, generators and a plant-wide control system for the Phase 2 expansion project that will position Emal as one of the largest single-site aluminum producers in the world.

In addition, GE will provide its latest technology upgrades for its gas turbines currently operating Phase I of the Emal complex. The technology upgrades will include GE's latest DLN 2.6+ combustion technology, which is expected to lower nitrogen oxide (NOx) emissions, as well as extend the lifespan of gas turbine parts by up to three times.

GE's new equipment contract with Samsung C&T, the Korean engineering procurement and construction company building the new combined-cycle power plant for Emal phase 2, includes three Frame 9F 3-series gas turbine generators and two SC5 steam turbine

generators. When complete, the Emal Phase 2 power plant will have the capacity to generate more than 1,000 megawatts of power to support Emal's expanded operations.

GE's advanced technology 9F 3-series gas turbines deliver power with high efficiency, availability, reliability and low emissions. The gas turbine is a 50-hertz member of GE's family of F-class gas turbines, proven in more than 45 million hours of commercial service around the globe. GE's SC5 steam turbines provide high reliability and availability in today's demanding energy environment and utilise advanced technology enhancements for combined cycle applications with GE heavy-duty gas turbines.

The Emal aluminum complex is situated in the Khalifa Industrial Zone Abu Dhabi (KIZAD) in Al Taweelah, Abu Dhabi. Emal, a joint venture between Mubadala Development Co. and Dubai Aluminium, serves more than 150 customers around the globe.

As previously announced, Emal Phase I includes six GE Frame 9F 3-series gas turbines. Under the GE upgrade package, four of the units will receive DLN 2.6+ upgrades and six will receive compressor enhancements and cooling optimization packages. Installation of the first upgrade package is expected to begin in Q1 of 2013.

Under a separate contractual service agreement (CSA), which will replace the existing CSA for Phase 1, GE will deliver long-term maintenance support for GE gas turbines at both Emal Phase 1 and Phase 2. This agreement will help the complex with improved performance, predictable maintenance costs and will provide access to GE's latest technology and global experience. To date, GE has long-term agreements in place at more than 700 sites worldwide.

Through all components of the project, GE is tapping into the power of the Industrial Internet to help Emal's facility perform with more efficiency and predictability. By connecting data analytics, technological advancements and 130 years of power generation expertise, GE has customised a lifecycle solution that makes Emal's assets smarter and more adaptable to their operating environment. Active in the Middle East since the 1930s, GE's presence today comprises an array of established projects across the region via strategic partnerships, investments and solutions, with a focus on infrastructure development and major challenges such as cleaner energy and water scarcity.

Through business offerings that include power, water, health, aviation and more, GE is able to be a partner in the UAE's quest to solve its toughest challenges.