



# GAIN

Newsletter #1, November 2016

## EDITORIAL

# Welcome to our first GAIN Newsletter!

**JIM O'BRIEN**, UEPG Honorary-President, GAIN Convener



It was just over six months ago when the GAIN meeting, kindly hosted by ASPASA, was held in Cape Town. We had key representatives from China, Australia, the United States, Latin America and Europe, with inputs from Canada and New Zealand. Together we represented some 60% of the global aggregates production of over 40 billion tonnes.

We openly discussed all operational aspects of the aggregates industry. We found many issues common to different global regions, yet those different regions have different approaches and solutions. We exchanged valuable experiences, "gems of wisdom" and best practices. Several areas were identified for ongoing follow-up, which we knew will help strengthen the industry globally.

This newsletter is to promote that follow-up, by helping us to keep us in touch say every six months. Each GAIN member has kindly submitted a brief update on key developments and events in their region.

I hope these updates will stimulate us all to keep in regular touch and to keep sharing our valuable experiences and ideas.



# News from China

**YOUYI HU**, President of the China Aggregates Association (CAA)



## Rapid Industry Modernization and Growth is now taking place in China

Mr Youyi Hu, President of China Aggregates Association, was recently interviewed by China Mining News, and he said that China aggregates industry is facing important opportunities, and a revolution through modernization is taking place.

He pointed out that aggregates are absolutely essential to the construction of new buildings, roads, bridges, water supply and other infrastructure. In China, the annual output of aggregates has now reached 20 billion tonnes. The industry association, CAA, is now 35 years old and is constantly growing, encompassing both large and small producers, all with an increasingly "green" agenda.

Right now, China's aggregates industry is in a period of reform and innovation. In 2013, there were more than 28,000 large-scale enterprises. In order to protect resources and the environment, local governments have introduced policies to progressively close more than 10,000 small companies operating with outdated technology. This has developed the market place for new aggregates enterprises using the most modern technology.

Since then, China has built over 200 mega-quarries. This in turn has driven the development of over 3,000 equipment manufacturers, nearly 20 of which are from foreign countries. At present, there are also more than 100 enterprises which are capable of recycling solid wastes into various products, gradually forming a new business model. In general, enterprises are also becoming more dedicated to environmental protection and to improving quarry ecology.

As the world aggregates demand continues to grow, particularly in China, there are opportunities to build a worldwide aggregates supply chain. Youyi Hu pointed out that the aggregates industry is a traditional one, but now it will be modernized by building a new industry system incorporating leading-edge Chinese technology.

The current National Development and Reform Commission, the Provinces and Autonomous Regions are all producing new development plans for towns and infrastructure. The industry is therefore seeing a further expansion as well as modernization in this decade. This high demand will push the aggregates industry to a new level, and therefore it is also a great opportunity for equipment suppliers.

China has a big aggregates market in both volume and turnover, but until now the industry is not included in national scientific research and statistical reporting systems. The industry therefore needs to build its own research, design, quality control and statistical systems.

Overall, Youyi Hu believes that the Chinese aggregates industry is entering a new historical era. He believes that opening the doors to more international cooperation benefits both the industry in China as well as globally.

It was for that reason that the CAA Secretary-General, Mr Jixian Han, led the Chinese delegation at the GAIN meeting in Cape Town in April 2016.



## Third International Aggregates Conference, December 2016

As part of this modernization and internationalization strategy, CAA is striving to build a broader range of international exchanges through its annual International Aggregates Conference, the first of which was held in 2014. The Third International Aggregates Conference will be held on December 13-15, 2016, in Guangzhou, China.

This year it will also include the First China International Recycling Conference. Both have English simultaneous translation, to enable and welcome the expected international participation from ASEAN countries, Europe, the Americas and Australia. The program will also include the CAA Annual Meeting and the First National Aggregates Competition.

CAA would like to take the special opportunity via this newsletter to cordially welcome all GAIN members to attend this very important and exciting event.

# News from the United States

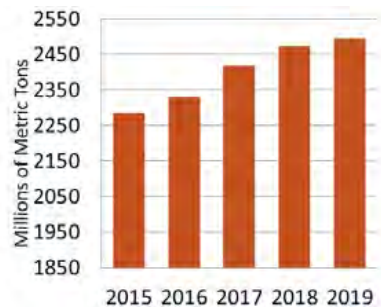


**MICHAEL W JOHNSON**, President and CEO of the National Stone, Sand & Gravel Association (NSSGA)



## Production Tonnage Trends for 2016 and Beyond

Following slow economic growth, demand for aggregate continues to climb at a measured pace. The delay in full funding of the new, long-term U.S. federal highway construction bill (FAST Act) caused by Congressional inaction will result in its impact being realized 2017. Nationally, private, commercial, and public construction are expected to remain fairly stable with moderate increases as the American economy slowly recovers through the end of 2016.



## Forecasts for 2017

Moderate gains are expected in construction in the U.S. in 2017 resulting in a commensurate demand for aggregates. A report from Dodge Data and Analytics said that total U.S. construction starts will increase five percent. Single-family homes are expected to climb 12 percent, while multifamily housing starts will remain flat. Commercial building will increase six percent after a 12 percent gain in 2016. Manufacturing plant construction will increase six percent after steep declines the past two years. Public works projects will be buoyed by the new federal transportation bill (FAST Act) and the recently-passed Water Resources Development Act (WRDA), increasing six percent, reversing a three percent decline in 2016.

## U.S. Regulatory Issues Facing the U.S. Aggregates Industry

**New Silica Exposure Standard:** NSSGA will file its initial legal brief in November, supporting our longstanding position that the U.S. Occupational Safety & Health Administration (OSHA) cannot justify its 50 percent reduction of the workplace exposure limit for silica. NSSGA is preparing formal comments in anticipation of an OSHA-like silica standard for quarrying operations to be proposed by the U.S. Mine Safety & Health Administration.

**Toxic Substances Control Act (TSCA):** The U.S. Environmental Protection Agency (EPA) will issue proposed rules in December 2016, including the risk assessment process the agency will adopt, and a list of ten chemicals for expedited regulatory action. The list is likely to include commercial asbestos. NSSGA will fight any attempt by the agency to further regulate non-asbestiform mineral cleavage fragments.

**ANSES:** U.S. producers are extremely concerned by the French ANSES document that equates amphibole cleavage fragments with asbestos. NSSGA and individual producer companies are engaged in an ongoing dialogue with our colleagues in France and the EU and stand ready to assist as the French engage their regulators on this issue.

**Waters of the U.S.:** NSSGA's litigation continues opposing the Waters of the U.S. rule, which would dramatically increase permitting and mitigation costs for new aggregates operations and expansions.

## Mine Safety and Health Administration (MSHA):

Recently, MSHA praised the industry for its stellar safety record. 2016 is trending to be safest ever, in terms of fatalities. Aggregates closed out 2015 with the lowest-ever rate of injuries.

**Civil penalties rule:** MSHA's proposed civil penalties reform rule unnecessarily hikes violation fines of federal safety standards by between 50 and 80 percent. The rule would do nothing to enable operators to better manage for safety.

**Workplace exams rule:** The proposal requires that workplace examinations be done at the beginning of a shift and cover any areas that could conceivably be worked during that period. The proposal adds compliance costs and legal liability for operators. NSSGA argues that pre-shift exams would reduce operator effectiveness in detecting hazards throughout the workday.

**Pattern of Violations (POV):** NSSGA opposes the POV rule as it permits MSHA to skirt Constitutional protections for operator's right of Due Process in adjudicating citations. NSSGA's litigation against the rule is expected to be heard in early 2017 with a decision later that year.

## U.S. Legislative Issues

**Timber Innovation Act:** Legislation was introduced in both the U.S. House of Representatives and Senate by pro-lumber members to direct government funding towards studying the benefits of wood over traditional construction materials in tall residential and commercial projects over 10 stories. NSSGA is opposing this legislation on questionable safety and long-term structural viability of tall wood buildings.

**FY 2017 Appropriations:** Due to Congressional inaction, additional funding increases authorized as part of the Fixing America's Surface Transportation (FAST) Act will not be available until FY2017 funding is approved. Congress is expected to return for a post-election "lame duck" session in early December to deal with funding the federal government's activities next year.

## Major NSSGA Events in 2017

**NSSGA's Annual Convention**, held in conjunction with CONEXPO/CON-AGG, March 7-10, 2017, Las Vegas, NV

**NSSGA Young Leaders 25th Anniversary**, April 19-22, 2017, Chandler, Ariz.

**NSSGA Leadership and Networking Summit**, June 12-14, 2017, Colorado Springs, Colo.

**NSSGA Legislative and Policy Forum**, Oct. 16-18, 2017, Washington, D.C.

## President-elect Donald Trump's \$1 Trillion Promise

Trump's come-from-behind victory surprised many pundits, pollsters and political insiders who did not expect that millions of rural American voters would come out in force in support of the Republican candidate. Due to the complex election system in the United States where it is more important to win individual states, Hillary Clinton actually received 200,000 more votes than Donald Trump nationally. History will likely show that this was the narrowest margin of victory in U.S. history in a presidential election.

With the votes counted, the focus now turns to Trump's election promises the top of which for the aggregates industry is that in his first 100 days he said that he will push legislation that would "spur \$1 trillion in infrastructure investment over 10 years."

"We are going to fix our inner cities, and rebuild our highways, bridges, tunnels, airports, schools hospitals. We are going to rebuild our infrastructure, which will become, by the way, second to none and we will put millions of our people to work as we rebuild it," Trump said the day after the election.

During the campaign, he indicated that through public-private partnerships and private investments with tax incentives. He indicated that the investment would be "revenue neutral" so not to impact the U.S. federal government's budget.

# News from Canada - Ontario

**NORMAN CHEESMAN**, Executive Director, Ontario Stone, Sand & Gravel Association (OSSGA)



## New Aggregates Legislation is being introduced

OSSGA is reviewing and lobbying on the long-awaited Aggregate Resources and Mining Modernization Act (ARMMA), a bill the government is putting forward to amend and modernize both the Aggregate Resources Act (ARA) and Mining Act.

According to a press release issued by the government as the legislation was tabled, the Aggregate Resources and Mining Modernization Act, if passed, would create a modern framework to help aggregate companies and communities across the province to continue building roads, hospitals, schools and other vital infrastructure projects with these resources by:

- Better outlining and overseeing regulations for aggregate companies
- Updating fees and royalties on aggregates to ensure fairness to companies while supporting communities
- Increasing public participation in the extraction application process

The legislation would also enhance environmental accountability in the aggregates sector by balancing economic growth and job creation with the protection of vital resources like farmland, groundwater and air. Once passed, Ontario will move forward with regulatory and policy changes to set specific fees and requirements through consultation with the public, stakeholders and aboriginal communities.

## Access to Resources - Shaping Land Use in the Greater Golden Horseshoe

OSSGA had been intensively involved in the consultations concerning land use around the so-called Greater Golden Horseshoe area around Toronto, where access to resources has become extremely difficult.

The government has issued a new guide on the Growth Plan for the Greater Golden Horseshoe, the Greenbelt Plan, the Oak Ridges Moraine Conservation Plan; and the Niagara Escarpment Plan.



The proposed revisions are designed to help build complete communities and curb sprawl, support agriculture, protect natural heritage and water, grow the Greenbelt, integrate infrastructure, improve plan implementation and measure performance, promote awareness and increase engagement. OSSGA welcomed the guide, although it does not contain all the provisions for which it had campaigned.

# News from Canada - Alberta

**SANDRA STEMMER**, Executive Director, Alberta Sand & Gravel Association (ASGA)



## How the ASGA Truck Registry is a win for Alberta

The Alberta Sand and Gravel Association (ASGA) has a mission to represent the interests of Alberta sand and gravel operators on key industry related issues, proposed regulatory changes, and education of aggregate consumers. The Association also advocates for the environmentally responsible and orderly development of this valuable nonrenewable natural resource.

A proud initiative since 2005, the Alberta Sand and Gravel Association's Truck Registry highlights the partnerships between aggregate producers, haulers, municipalities, and communities. In fact, the Registry is cited as the model for Alberta, and has been researched by other jurisdictions interested in establishing similar registries.

The success of this exceptional initiative continues to improve as municipal governments realize the benefits, and incorporate registration as a requirement in their Road Haul Agreements. These communities become partners in improving overall sand and gravel operations, accountability, and stewardship within – and beyond – their jurisdictions.

Likewise, being part of the Registry illustrates a commitment by aggregate producers to uphold their haulers to a high standard of operation. When breaches to the minimum operating standards are reported, there is a formal record generated and the hauler is held to account.

Here's how it works...Producers start the process by registering truck and driver information into the ASGA Truck Registry database. The database assigns a unique four-digit identifying number, and decal packages are sent to the registered driver. Each truck will display two large decals, one small, and two-year renewal decals. Registration is valid for one year, and all operational trucks are required to have current registration.



A centralized toll-free number is prominent on the decals. Concerned citizens have a clear way to identify the truck, and Call Centre information to provide details on incidents such as driver behaviour or infractions. The 24-hour toll free answering service documents complaint information and sends a notice to the ASGA database as well as to the producer who registered the vehicle. Once a producer is notified of a complaint, they log into their secured access to view and follow-up on the reported incident. Once addressed, they enter relevant information, including any disciplinary action taken, and close the file. To allow for a resolution, the substance of the complaint is discussed with the driver; however, information identifying the caller is not shared.

Decals remain with the vehicle for its life on the road. Over 3,000 vehicles register annually in Alberta. In the absence of a truck registry, it is difficult to identify trucks and know who to call; so they call the local municipal government office. By implementing truck registration as a requirement within development permits and haul road agreements, municipalities receive far fewer complaints, and are relieved from managing the complaints.

Best of all – there is no cost to municipalities! The registry and associated costs are paid for by ASGA member companies, and the ASGA office actively manages all components of the registry on behalf of our membership. In fact, Alberta Transportation requires that all contractors working on provincial or municipal contracts participate as a condition of their contracts, with the ASGA program cited as the model.

In summary, benefits are derived not only within local communities, but province-wide. Standard requirements across Alberta provide truckers and their employers with minimum operating protocols when working for ASGA member companies. An annual review of concerns raised by the public allows ASGA to address issues, publish reports, develop education programs and implement best practices. Focusing on key areas helps foster increasingly responsible operation by those who haul aggregate products in Alberta, and an improved commitment for the communities in which our members operate.

# News from Canada – British Columbia



**PAUL ALLARD**, Executive Director, British Columbia Stone, Sand & Gravel Association (BCSSGA)



## Our Challenges and Opportunities

The BC Stone, Sand & Gravel Association is the voice of the aggregate industry in British Columbia. This 2016 year has been a very busy year for all aggregate producers in the larger cities and municipalities throughout British Columbia. Our Federal Government has pledged to spend billions more dollars on infrastructure construction/rehabilitation across Canada in the next 5 years, which bodes well for the aggregate industry.

New Government policies threaten to make our business more complicated and costly, but it is something the industry will have to learn to appreciate and accept. New permitting fees for mines are now in effect and some of the fees are extraordinarily high for the larger producers. New legislation within the Health, Safety & Reclamation Code for Mines in British Columbia is under review and being incorporated into the new Code expected to be completed early in 2017. The main focus of the Code review is on ensuring that qualified people are performing the activities that require specialization (certified electricians, mechanics, etc) and that safety protocols are enhanced.

We are also entering a phase whereby the Provincial Government is insisting on having the industry acquire water licenses for ground water usage within a mine site. The fees are not considered onerous by industry but the application process is slow and time consuming. In the final result, the "Public Purse" (Government Agencies) is our largest customer and so those costs are passed along to those consumers.

Perhaps the greatest challenge the industry faces is its labour force. It is estimated that the aggregate industry will require an additional 10,000 workers over the next 5 to 7 years, to replace those that retire or leave the industry. Our association has been involved in several labour shortage taskforce reports that clearly outline that we must retain our current workers and attract those that perhaps do not consider our industry as a job opportunity. There are many women and immigrants who are great candidates for our industry, and we are working hard to let them know where and when we have jobs available.

Although we support the majority of the changes made by the BC Government, we somehow feel that the entire picture of the mining industry is under-represented. As an under-appreciated industry, aggregate producers throughout BC need to be

recognized for their contributions to the overall mining industry's wellbeing and the economic benefits it produces for British Columbians. Here is our story.

## The Economic Importance of our Aggregates Industry

British Columbians consume over 55 million tonnes of aggregate annually, representing almost 13 metric tonnes per year for every man, woman and child in the Province. Approximately 2.2 million tonnes of aggregate is shipped internationally. This is a recurring theme in British Columbia and the demand is steady. Infrastructure construction and repairs, hospitals, schools and office buildings, residential construction and government projects, all require the aggregate industry to remain viable and competitive.

Aggregate production occurs in over 700 publicly and privately held permitted mine sites in British Columbia and provides more than 3500 direct jobs in the aggregate production business. As well as the direct production labour force, for every aggregate production worker, we create another 6.7 jobs that are dependent upon the aggregate industry.

The aggregate industry in British Columbia is alive and well. We are looking forward to the coming years of fantastic opportunities to build and in some cases rebuild our infrastructure in British Columbia. We are delighted to be a member of GAIN.

# News from Australia

**KEN SLATTERY**, CEO, Cement, Concrete, Aggregates Association (CCAA)



## Construction Materials Industry Conference

Australia's biennial Construction Materials Industry Conference (CMIC) was held over three days in October, hosted by Cement Concrete and Aggregates Australia (CCAA) and the Institute of Quarrying Australia (IQA).

The growing confidence of the Australian heavy construction materials industry was highlighted by the record number of participants in attendance; while speakers often spoke to the solid pipeline of construction activity underway. In these market conditions the theme of this year's conference – 'Capability and Innovation' – could not have been more fitting.

In an ever-changing business environment and with growing stakeholder expectations, building capability and driving innovation are seen to be essential for prosperity. CMIC16 offered an unparalleled opportunity for the construction materials industry to wrestle with these challenges with both Australian and international delegates from USA, New Zealand, Canada, Hong Kong, New Caledonia, Philippines, South Africa and the UAE.



## National Environment Health & Safety Awards

CMIC16 was also about celebrating innovation and best practice from our industry with the presentation of CCAA's National Environmental Health & Safety Awards. For example, a power-generating downhill conveyor system and a remote-controlled miniature vehicle fitted with infrared cameras to inspect confined spaces were named the industry's top environmental health and safety innovations for 2016. These Awards inspire new thinking and ways of working that can be adopted not just within our industry, but beyond.

## Extractive Resources Demand and Supply Study

The release of a Extractive Resources Demand and Supply Study undertaken by Victoria's State Government has highlighted the need to protect extractive materials from incompatible development, ensure they are able to be sourced close to market and that key transport corridors are maintained.

Driven largely by population growth, the report estimates that 34% of Victoria's requirements for quarry products by 2050 will need to be sourced from new quarries that have not yet been planned. CCAA is calling on the Victorian Government to appropriately protect strategic quarry resource areas so that affordable infrastructure is able to be delivered into the future.

CCAA was instrumental in lobbying government to conduct this study and in supporting data collection through industry. The Study provides independent and compelling evidence to support CCAA's policy priorities for extractive resources.

## A Strategic Framework for Environmental Regulation

CCAA is currently developing a strategic framework for improving the environmental regulations impact on our industry. Environmental regulations in Australia are characterised by inconsistent approaches across State authorities that result in delays to development approvals, disproportionate and overly complex licensing conditions, additional costs, and uncertainty for the industry.

The purpose of the strategic framework is to provide a consistent narrative for industry to engage with regulators on reducing 'green tape' within the industry. Further work will be undertaken in 2017 under the following three broad themes:

1. Developing the industry's environmental credentials;
2. Improving relationships with regulators and government decision-makers; and
3. Contributing to policy development.

# News from New Zealand

**ROGER PARTON**, Chief Executive, Aggregates & Quarrying Association (AQA)



## Annual Conference and Industry Awards

New Zealand's quarry industry chose the country's leading wine region – Marlborough – as the venue for its 2016 conference. But it was quarries from the adjoining region of Canterbury who took out most of the industry honours.



*Road Metals Murray Francis and the company's health and safety manager Amanda Burke accepted the company's win in the GBC Winstone Aggregates Safety Award from WorkSafe's Mark Pizey*

Road Metals also won the Institute of Quarrying NZ awards for engineering, operations and quarry leadership. Three Canterbury quarries also took the annual MIMICO environmental awards with Isaacs Construction getting special recognition for its unique model where all its commercial activities - quarrying, dairy farming and a salmon farm – were used to finance the conservation goals of its Trust owners.

## Health and Safety

The quarry industry has had a much better year for Health and Safety in the year to date with no fatalities recorded to November 2016, compared to four in 2015. However, some smaller quarries in particular face a real challenge meeting an end of year deadline for all quarries to have qualified, competency-proven managers in place. There are fears some small quarries may not be in a position to legally re-open in 2017 as the Government's WorkSafe agency increases compliance requirements. WorkSafe continues to target an estimated 1000+ unregistered quarries, mostly small backblock operations producing low volumes but presenting the highest health and safety risks. In addition to its efforts to avoid accidents, WorkSafe continues to promote the message that the biggest risk to workers is industrial-related illness by a factor of 10 to 1.

## The Economy and Aggregates Production

The New Zealand economy continues to enjoy good growth, in what some commentators were earlier calling 'rock star' performance. While NZ quarries are certainly continuing to benefit from good on-going demand for aggregate, there are signals that things have flattened a little. One factor is that the rebuild demand of Christchurch after the 2010/11 quakes has begun to ease.

Agriculture plays an important part in the NZ economy via limestone. However roadmaking and building dominate demand. The building industry softened in 2015 to use 10m tonnes of aggregate following three years of growth from 6m to 11.7m tonnes in 2014.

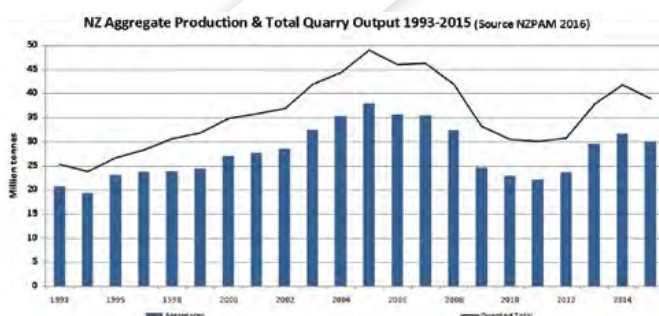
## Politics and Access to Resources

In October, the triennial elections for New Zealand's local authorities – around 70 councils – were held. Former Labour Party leader Phil Goff took the Auckland mayoralty and other Labour MPs or members were elected in Christchurch, Wellington and Rotorua. However, the National-led Government maintains a strong poll lead over Labour with the next General Election due by November 2017.

The NZ quarry sector is now looking to newly-elected councils to get a sense of any improvement in council policies which have tended to rope off access to urban/urban fringe quarry sites. There are particular concerns with Auckland, New Zealand's largest city, where the Council recently signalled it wants to do away with a current dividing line between rural and urban parts of the city to assist with accelerating house prices and increasing demand for new homes. Quarries fear this could see urban encroachment on the few remaining areas where quarries operate within the greater Auckland area.

A number of other councils are also implementing new 10 year district plans which uphold a controversial Supreme Court decision which maintains that no economic activity can take place in areas of outstanding natural landscape. These is seen as potentially meaning adverse and perverse impacts on quarries such as no longer being able to extract river shingle in flood zones which sit in areas of outstanding natural landscape.

The AQA continues its efforts to promote a better understanding of the importance of quarries to New Zealand's economic progress and their commitment to sustainable environmental management.



*Aggregates production (vertical bars) and total quarry output (curve) in New Zealand between 1993 and 2015. NZ produced some 39m tonnes of assorted aggregates in 2015, equating to 8.5t per capita in 2015.*



# News from South Africa

**NICO PIENAAR**, CEO, Aggregate and Sand Producers' Association of South Africa (ASPASA)



## The Economy and Aggregates Production

The economy in South Africa continues to improve, with an annual GDP growth rate of 3.3% reported in mid 2016. The mining and quarrying sector combined was reported as growing at 11.8%. National aggregates production is estimated at 110 million tonnes; this is equivalent to only 2.5 tonnes/capita, which indicates significant future growth potential. ASPASA represents 75% of national production, with 35 members operating at 117 quarries employing about 12,000 including

associated contractors.

The quarrying industry in South Africa, like the mining industry, is very heavily regulated. ASPASA continues to lobby for better access to resources to minimize long transport distances. Recently the National Environmental Management Act has been amended, with particular funding requirements for the rehabilitation of worked out mines and quarries. The principal challenge to responsible operators comes from the illegal industry, against which ASPASA continues to campaign.

## Excellence in Safety Performance and Awards

In South Africa, the quarrying industry is noted to have some of the highest health & safety and environmental standards in the world. In particular in 2015, the aggregates sector has not reported a single fatality. Overall compliance with ASPASA's strict voluntary health and safety standards, based on ISO18001 standards, reflected an average score of 84%, with over 50% of companies recording scores over 90%. Over 120 rigorous independent audits have been completed in 2015.

Several companies recently received safety awards at the recent IOQ/ASPASA Conference in Cape Town.



*Anthea Sheldon of SPH Kundalila receives her Safety Practitioners Award for excellent performance from Aspasa chairman, Gert Coffee*



*Gert Coffee presents Salva Govinden of Afrisam Newcastle the special award for Outstanding Quarry Development*



*The picture shows Dineshree Pillay of Umhlali Quarry, a top independent quarry, receiving her Safety Practitioner's Award for excellent performance from Gert Coffee, ASPASA Chairman.*

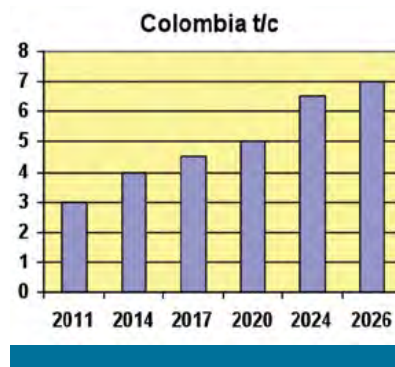
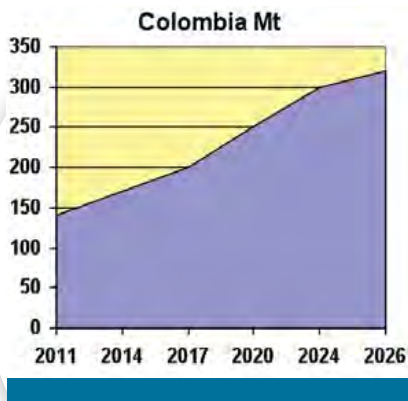
# News from Colombia

CARLOS FERNANDO FORERO BONELL, CEO, ASOGRAVAS, Colombia



## Growth in Aggregates Demand in Colombia

Colombia is experiencing a strong growth in aggregates demand, projected to double from 160mt in 2016 to 320mt in 2026. The industry now has 53,000 direct and indirect employees.



This is being driven by economic growth, necessitating major investment infrastructure. For example at the moment, 100 tunnels are being built.

Likewise a growing population and rising standards living are creating huge demands new housing, commercial buildings, schools, hospitals and other social structures. Another positive impetus will come from the Peace Process between the Government and FARC.



## Challenges of Access to Resources

Colombia has a huge challenge in meeting this growing market for aggregates, as the country has the highest concentration per square kilometre of biodiversity in the world, consequently with much of the land area designated as national parks and ecologically-protected zones. Furthermore the mountainous terrain and deficits to road infrastructure make transport from remote hardrock quarries very difficult and costly. In order to get better future access to hardrock extraction, ASOGRAVAS is developing a Quarry Best Practice Code for launching in early 2017.

## Survey of Challenges in the Quarrying Sector

In the second quarter of 2016, ASOGRAVAS launched a survey of its members on the main industry challenges. Of those who responded, 56% reported a decline in production, with only 11% reporting an increase. As to the biggest challenges, 23% pointed to the illegal industry, 19% pointed to infrastructural deficits, while 34% pointed to environmental and permitting constraints. Others pointed to poor

margins and to deficits in the availability of plant, spare parts and explosives, while some pointed to a lack of qualified operating personnel. ASOGRAVAS is addressing all these industry challenges proactively.

## Proposed River Mining Code

For all these reasons, there is now a focus on riverbed extraction of sand and gravel. This has met public opposition if poorly managed extraction leads to downstream pollution and a negative impact on ecology. Accordingly, ASOGRAVAS is now proposing a voluntary River Mining Code to the Environmental Authorities for the responsible management of riverbed extraction.



It is setting the bar very high through incorporating strict rules of operation based on river flow, water replenishment, sedimentation both under rainstorm and drought conditions.

The outcome will be very important to ASOGRAVAS members, as well as to the wider stakeholders and the economic development of Colombia.

# News from Brazil

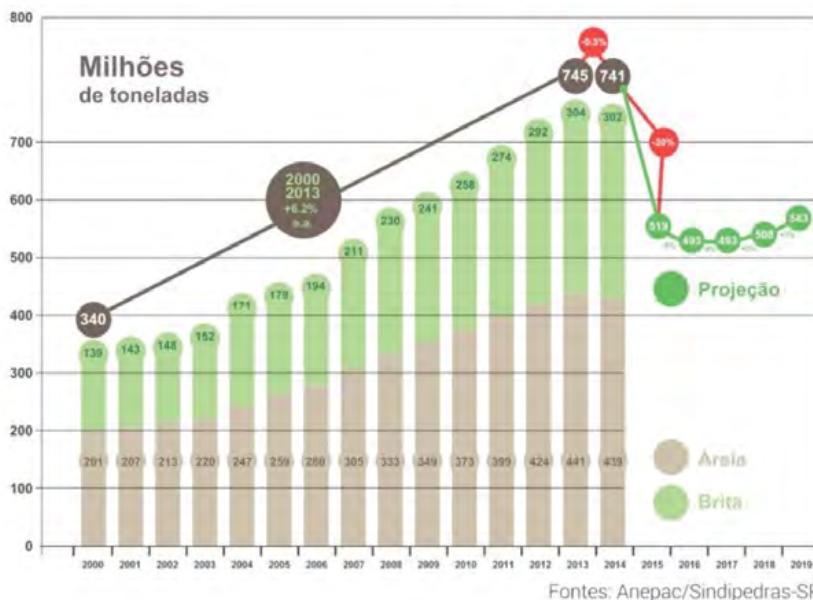
FERNANDO VALVERDE, CEO, ANEPAC, Brazil



## Perspectives on Aggregates Production in Brazil

Up to 2014, Brazil enjoyed 15 years of continuous growth in aggregates production, reaching a total of 741 million tonnes, equivalent to 3.7 tonnes per capita, produced by 3,000 companies employing 75,000 people. This represented a remarkable compound annual growth rate of 6.2% between 2000 and 2014 (see graph below)

Gráfico 3: Perspectivas do setor de agregados (2015 - 2019)



However, an economic crisis hit the country in 2015, which together with a post-Olympics decline, led to a decline of 30% in production to an estimated 519 million tonnes. The year 2016 is anticipated to see a further decline of 5% to about 493 million tonnes. It is anticipated to return to economic growth thereafter, with production estimated to return to the 2008 level by 2019.

There is confidence that production levels will recover in the future due to the enormous pent-up demand for housing and infrastructure in Brazil. When the country returns to continued economic growth, an estimated consumption of 5 tonnes per capita is possible, requiring a national output of 1 billion tonnes.



# News from Europe

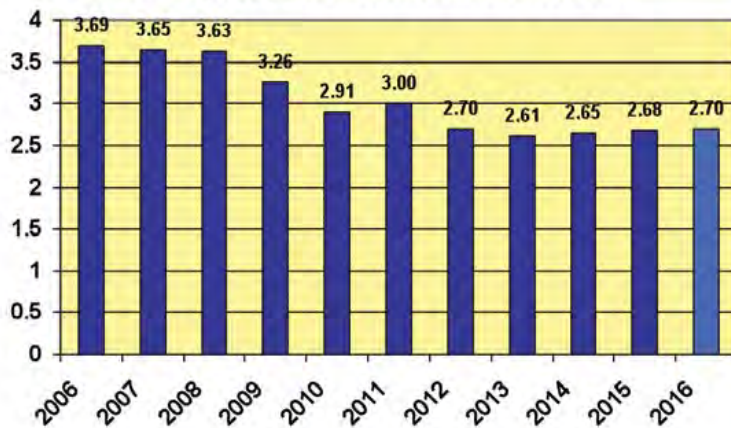
**DIRK FINCKE**, Secretary-General, European Aggregates Association (UEPG)



## European Economy and Production Trends

The European economy is demonstrating resilience against the challenges of the Brexit vote, the immigration crisis, regional economic difficulties with minority governments in some Member States. The good news is that the production of aggregates in Europe continues to recover slowly from the major recession of 2008-2010, reaching an estimated 2.7 billion tonnes in 2016, equating to just over 5 tonnes per capita. The 15,000 aggregates companies produce from 25,000 quarries and pits, employing just over 200,000 people.

**EU+EFTA Production in billions tonnes**



## Developments in the Circular Economy and Recycling

Over the last eight years, the European Commission's Raw Materials Strategy has been focusing on re-invigorating the extraction of raw materials including aggregates across Europe. As a result, many Member States have developed national aggregates policies and plans, setting out a roadmap for protecting and developing natural resources, thereby also promoting employment and economic recovery.

In the context of aggregates, the focus has now turned to recycling, with the purpose of reducing of re-utilizing Europe's largest waste stream, namely construction and demolition waste, through an initiative designated as the Circular Economy Package. In recent years, the level of recycling has risen slowly, currently with about 8% of European aggregates demand being recycled materials. Some countries achieve over 20% recycling rates, typically those with higher urbanization where there are greater economical advantages in recycling. The aspiration is to at double that European level of recycling in the years ahead.

However, further progress is often frustrated by over-zealous regulation on recycled materials as "waste", associated permitting difficulties and a poor market image of recycled materials. In response, with the strong support of UEPG, the European Commission has developed a Construction & Demolition Waste Management Protocol. This lays out new guidance for waste identification, separation, logistics, processing and quality management, with which UEPG's Recycling Task Force is

actively cooperating. UEPG hopes that this initiative will create a better regulatory environment for recycling going forward.

## Sustainable Development Awards 2016

Every three years, UEPG runs its flagship Sustainable Development Awards. Each member country is invited to submit entries, and in many cases these are winners of national competitions, thus ensuring entries of a very high standard. The awards are adjudicated by a completely independent jury.



*UEPG President, Jesús Ortiz (in top picture), introduced the prestigious ceremony. This year there were 41 entries from 10 countries. Every entry received a Certificate of Excellence, with eight top awards at the sole discretion of the jury. Bottom picture shows presentation of the Special Award for Biodiversity. In it left to right are Peter Woodward, ceremony moderator, with three of the judges, namely Jonas Satkúnas of EuroGeoSurveys, Jean-Pierre Damm of IndustriAll and Angelo Caserta of Birdlife Europe, presenting the award plaque to Majju Räsänen of Rudus Oy (a CRH plc company), with Jesús Ortiz, UEPG President.*

# News from Europe - Update on Respirable Crystalline Silica (RCS)

**MARTIN ISLES**, Chairman of the RCS Working Group, UEPG



## IARC Classification and the EU Carcinogens and Mutagens Directive

In 1997, the International Agency for Research on Cancer (IARC) declared Respirable Crystalline Silica (RCS) to be a Class 1 Human Carcinogen in its Monograph Volume 68; see <https://monographs.iarc.fr/ENG/Monographs/vol100C/mono100C-14.pdf>. Since then exposure to RCS has been regulated at national level within the European Union.

In May 2016, after several years of discussion at European level, the European Commission proposed to regulate RCS exposure by amending the Carcinogens and Mutagens Directive (CMD) to include Respirable Crystalline Silica (RCS) for the first time. The proposals are now being debated across the EU institutions - currently the issue is with the politicians (MEPs) in the European Parliament. The final decisions on the CMD are now expected around mid-2017, after which there will be a 2-year window for Member States to transpose the changes into national law.

The main obligations under the CMD, as proposed, are:

- The Binding Limit Value must be transposed into Member States' national legislation based on, but not higher than, the EU limit.
- Substitution (replacement) of the process by which RCS is generated (but not RCS as a substance)
- Use of closed systems (if replacement is not technically feasible), i.e. encapsulation; hoods; etc.
- Exposure reduction 'as low as technically possible' – i.e. without constraint of cost
- If requested, inform competent authorities re exposures, etc
- Restrict access to areas of risk
- Strict requirements for employee information and training
- Strict hygiene and health surveillance
- Medical record-keeping for 40 years.

The current Occupational Exposure Limit (OEL) proposed by the European Commission is 0.1 mg/m<sup>3</sup> (respirable fraction, 8-hour time-weighted average) for introduction throughout all 28 EU member states. However, the European Trade Union Confederation, aided by the European Trade Union Institute, is calling for the proposed pan-European limit to be halved to 0.05 mg/m<sup>3</sup>. UEPG and NEPSI are lobbying strongly for the 0.1 mg/m<sup>3</sup> OEL, on the basis of continued industry voluntary action as a signatory to the NEPSI Agreement (see below). While the OEL applies only to EU nations, regulators in other jurisdictions may well choose to adopt the EU value.

## The Importance of NEPSI

NEPSI (<http://www.nepsi.eu>) is the European Network for Silica - an international bi-partite multi-sectoral social dialogue agreement between 15 diverse industries and their 'social partners', i.e. the trade unions. Signed back in 2006, the NEPSI Agreement was and is unique as it includes a:

- Good Practice Guide – with an extensive range of Task Sheets
- Commitment to 'report' at site level every 2 years –  
producing 12 key performance indicators characterizing the engineering and management control of RCS.

2016 marks the 10th anniversary of NEPSI which now faces new challenges in its evolution, viz: a new EU regulatory regime and finding effective ways of sharing the benefits of this proven scheme with non-members of NEPSI such as the European construction industry. NEPSI Reporting shows that in the European aggregates industry there is a steady reduction in potential exposure to RCS, along with continuously increasing technical controls, and improving levels of information, instruction and training.

## Health Surveillance for RCS

After many years of debate, the UK Health and Safety Executive has issued a useful revised guidance in January 2016 concerning employee health surveillance for RCS, see: <http://www.hse.gov.uk/pubns/priced/healthsurveillance.pdf>. It is likely that other regulators may adopt similar guidance in the near future.

## Harmonised Classification for RCS?

An alert has been transmitted to Government ministries in France concerning the risk of severe silicosis linked to the use of reconstituted stone containing high percentages of crystalline silica. ANSES, the French Agency for Food, Environmental and Occupational Health & Safety, intends to explore the feasibility of a proposal for harmonised classification and labelling of Crystalline Silica at European level. It is understood that such a proposal would be submitted to the European Chemical Agency by March 2017. This could mean that aggregates and added-value products such as concrete might need to be labelled as potentially carcinogenic.

## Implications for the Aggregates Industry

Producers will first need to assess their materials for silica content and likelihood of employee exposure approaching or exceeding the OEL. If such risks exist, then much higher standards of dust control will be required in those quarries, crushing

and screening plants, recycling depots, etc., to ensure that employee health is not affected by the work that they do. This will require statistically valid personal sampling of RCS exposure in the workplace, plus rigorous occupational health monitoring of workers.

Inclusion of RCS in the CMD raises the prospect of a more challenging interface with local residents and others when an operating company looks to extend an existing site permit, or secure permits for new locations.

# Concluding Messages

**JIM O'BRIEN**, UEPG Honorary-President, GAIN Convener



To conclude this, our first newsletter, I would like to sincerely thank all those who contributed articles. These depicted some dynamic trends of market growth in most regions, significant success in improving safety, while facing ever-increasing challenges of tighter regulation of occupational health and the operating environment, with the universal challenge of ongoing access to resources. I am sure we will successfully address all these challenges and avail of the opportunities these also bring.

I hope you have found this first newsletter to be interesting, useful, informative and enjoyable to read. As you have seen, much is happening in our industry, so the next newsletter, hopefully with updates from across the globe, is planned for mid-2017.

It is also particularly opportune, as we reach the end of 2016, to wish you all a very Happy Holiday Season, Happy Christmas and a very Healthy, Wealthy and Sustainable 2017.

In closing, as the main purpose of this newsletter is in fact to keep all us in touch, opposite is the updated list of GAIN Contacts.

## Post-Script

Just as we go to press, all GAIN Members are very saddened to hear of the recent earthquakes and associated devastation that has hit New Zealand. Our sincere sympathies go to those who lost their lives and livelihoods. We are sure that the great people of New Zealand will quickly and resolutely recover.

Country/ Region	Association	Website	Contact Email
Australia	CCAA	<a href="http://www.ccaa.com.au">www.ccaa.com.au</a>	<b>Ken Slattery</b> Ken.slattery@ccaa.com.au
Brazil	ANEPAC	<a href="http://www.anepac.org.br">www.anepac.org.br</a>	<b>Fernando Valverde</b> Fernando.valverde@anepac.org.br
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# The GAIN Map of the World



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