

GAIN

Newsletter #3, December 2017

EDITORIAL

Welcome to our third GAIN Newsletter!

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



The future of long-distance road transport of aggregates in Latin America, the double-articulated "Bitren": read more inside!

I am delighted to present our third GAIN newsletter which tells of a busy, successful and growing aggregates industry during 2017 in six continents across the globe, for the first time including India, Japan and Chile. In compiling the newsletter, I was again struck by the similarity of our challenges across different regions, yet with complementary solutions that we can so profitably share. I am ever more convinced of the huge potential of GAIN in advancing our industry globally.

The articles give a flavour for the huge dedication of the associations in each region. Each is promoting a stronger, more technically advanced, more efficient, greener, safer, more sustainable and responsible aggregates industry. Each is boosting its industry performance through training and mentoring, constantly improving its public relations with its stakeholders and broader society. The industry is at an exciting stage of development in all regions, particularly in Asia, Africa and Latin America.

Each region also has been promoting its mission through major conferences, in particular in recent months in Colombia, Argentina, China and Europe. Through these conferences, the industry has enhanced its dialogue with federal, provincial and local authorities, developing an even higher level of cooperation in promoting national infrastructure. The industry also raised the level of engagement with environmental authorities and NGOs. It has, I believe, moved into a new era.

The industry can look forward to 2018 with confidence based on our shared knowledge and experience. Never before has the friendship between GAIN members been so positive. It is therefore with great anticipation that I look forward to the biennial GAIN meeting in Barcelona in May 21-23, details of which you will find at the end of the newsletter.

With our Spanish and Catalan hosts, we are fine-tuning the detailed agenda and program. As always, it will be a meeting of GAIN friends, a unique opportunity to chat and exchange gems of wisdom with global peers.

Meantime,

Season's Greetings to all!

Jim.



ASIA

News from China

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



The 4th International Aggregates Conference in Xuzhou

On December 9-11, 2017, the Chinese Aggregates Association (CAA) held its 4th International Aggregates Conference in Xuzhou, Jiangsu Province, China. There was a record attendance with 700 representatives from many provinces and municipalities in China, as well as aggregates producing companies and major machinery producers. Also attending were 45 experts from academic and other learned institutions. There were also international representatives from the Global Aggregates Information Network (GAIN), including Mr Jaume Puig from Europe, Mr Nico Pienaar from South Africa and Mr Ramesh Bhatawdekar from India & Malaysia.



Views of the very large attendance at the 4th International Aggregates Conference in Xuzhou

In his opening speech, President Hu Youyi outlined the continued rapid development of the aggregates industry "4.0" in China and in particular the strengthening of its environmental focus and performance. He underlined the rapid technological development of machinery produced in China and its associated increasing improvements in process performance, energy efficiency and environmental excellence. Accordingly, he expected that the future performance of the quarrying industry in China would be amongst world leaders. Flagship projects included the provision of quality ballast for the rapidly-expanding G-Series High-Speed Trains.

The main conference themes were green mining, quarry rehabilitation technologies, increased efficiency in aggregates production and the growing demand for manufactured sand. Mr Puig provided updates on the evolution of the



CAA President Mr Youyi Hu with Mr Jaume Puig, representing GAIN at the Conference



CAA Vice-President Mr Yao Shaowu with Mr Nico Pienaar, Director of ASPASA

aggregates industry in Europe and Latin America and welcomed CAA participation in the next GAIN meeting to be held in Barcelona in May 2018. Mr Pienaar spoke about surface mining in South Africa and Mr Bhatawdekar spoke on the new ANN predictive modelling for blasting.

The conference also included the CAA annual meeting, the 2nd International Recycling Conference and the national calligraphy, painting and photographic awards depicting the new "China Dream". It also included the 2nd national aggregates competition and the loader of China champions contest, both awards demonstrating the continued development of excellence in the Chinese aggregates industry.



Founding of the CAA Green Mining Branch in X'ian

On November 10, 2017, the founding meeting of China Aggregates Association Green Mine Branch was held in Xi'an. A total of more than 200 people from industry associations, leaders of relevant local departments, aggregates enterprises and media representatives attended the conference. The main leaders and distinguished guests attending the conference amongst many others included the former political commissar of the Armed Forces Gold Forces, Vice-President Xu Tianyou of the China Mining Association and President Hu Youyi of the China Aggregates Association.

Former political commissar of the Armed Police Gold Forces, full-time vice president of China Mining Association Xu Tian gave the keynote address to the General Assembly. Then Mr Lin Yuan, the new president of China Aggregates Association Green Mining Branch, emphasised that the establishment of this new green mine branch would lead all producers progressively from "messy" to large-scale industrialization; from industrialization to greening; and from the greening to the ecological excellence in the next step.

Mr Sun Weixing, secretary general of China Aggregate Association, read out the decision on setting up a green mining branch. Finally, China Aggregates Association President Hu Youyi pointed out that after half a year's careful preparation, the Green Mine Branch was now established as a very important milestone in the greening of the aggregates industry in China.



President Hu Youyi giving the keynote presentation at the Green Mining Branch of the China Aggregates Association

President Xu Tian, President Hu Youyi and President Lin Yuan unveiling the Green Mining Branch of the China Aggregates Association

Founding of Green Aggregates Academic Institute in Zaozhuang

On October 29, 2017, the groundbreaking ceremony for academic research institute of the aggregates industry and the signing ceremony of the Power China Anhui Changjiu Advanced Materials Company Shensan Project was held in Zaozhuang. At the same venue, the "Forum on High-efficiency Energy-saving Green Aggregate" was held. Both meetings focused on the mechanism of aggregates industry to achieve green development, putting forward the same respect for life and the environment, so that the aggregates industry should adhere to the green development path, and also play a more crucial role in the field of future construction.



Opening ceremony of the academic research centre at Zaozhang in October



Signing of the agreement to set up the 70 million ton crushing machinery contract Shensan Project

President Hu Youyi made a keynote speech entitled "The Scientific and Green Development of Aggregates", underlining the industry's new technology, new equipment, new ideas and new developments. He indicated that as the government keeps shutting down small mining enterprises, a nationwide ban on mining on natural sand & gravel may occur in the future. The industry therefore needs an in-depth study of the future sourcing, production and application of aggregates, specifically, the mechanism for aggregate enterprises to meet the requirements of concrete use and performance; concrete enterprises need to adjust the process, formula and usage habits, to adapt to the new mechanism of aggregates production.

News from India

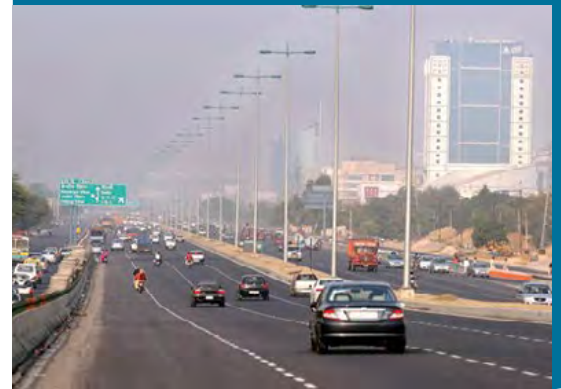
RAMESH BHATAWDEKAR, International Fellow of the University of Technology, Malaysia

(Editor's note: No aggregates association yet exists in India, though the rapid economic growth already makes it the second largest market after China. We thank Mr Bhatawdekar for giving us this initial insight on India)



India, the second largest global consumer of aggregates, is said to be the new landmark for the world construction industry market. The 6,000 km Golden Quadrilateral Highway Project, completed in 2013, links the key cities of Delhi, Mumbai, Belgaum and Chennai (shown below). Investment in various infrastructure projects such as railways, roads, port development and construction of new airports is identified. Building construction will accordingly post solid gains in the years ahead, boosting aggregates demand in India.

There is as yet no definitive source for aggregates tonnages in India. However the Freedonia Group provides the estimated data in the table below. However, in addition to the table, aggregates are also extensively required for railways. Therefore it is estimated that the present demand for aggregates in India is some 5.5 billion tons



INDIA: Construction Aggregates Demand (million tons)

Source: The Freedonia Group, Inc.

YEAR	2000	2005	2010	2015	2020
CONSTRUCTION AGGREGATES DEMAND	1010	1415	2210	3330	5075
BY TYPE:					
Sand	300	400	630	950	1430
Crushed Stone	400	560	880	1310	2050
Gravel	300	405	630	950	1450
Other	10	50	70	120	145
BY MARKET:					
Non-Building Construction	670	965	1510	2300	3520
Nonresidential Building Construction	190	270	430	640	970
Residential Building Construction	150	180	270	390	585

It is worth mentioning the top 10 infrastructure upcoming projects in India, which are:

Name of project	Highlights of infrastructure projects	Est'd cost US\$ billion
1. Sagarmala	All ports being development for faster movement of goods	188
2. Bharatmala	5000 km road Gujrat to Mizoram	2.2
3. Mumbai Trans-Harbour Link	Country's longest sea bridge at 22.5 km + Shivaji Memorial	3.4
4. Arunachal Pradesh on rail	Arunachal Pradesh on the railway map of India. India's longest rail-cum-road bridge –the 4.94-km long Bogibeel bridge over Brahmaputra	
5. Setu Bharatam	Overhaul of 1,500 British-era bridges. Replacing 208 railway crossings with Rail Over Bridge	7.9
6. Rashtriya Rajmarg Zila Sanjoyokta Pariyojna	Connecting 100 district head quarters with world class highways of 6,600 KM length	9.4
7. Inland Waterways	Inland waterways at Ganga, Brahmaputra and Mahanadi rivers and Pradeep port development	9.7
8. Gujarat-Gorakhpur gas pipeline	1987-km pipeline will carry 3.75 million tons per year of LPG and move from Kandla to Gorakhpur via Ahmedabad, Ujjain, Bhopal, Kanpur, Allahabad, Varanasi and Lucknow	
9. Chardham-Highway Project	900 km national highway at Uttarakhand	1.9
10. Highest bridge of the world on the river Chenab	The tallest bridge in the world over the river Chenab at Doda (359 metre above the river)	0.19

The Government has approved the development of 18 airports, namely Mopa in Goa, Navi in Mumbai, Shirdi and Sindhudurg in Maharashtra, Bijapur, Gulbarga, Hasan and Shimoga in Karnataka, Kannur in Kerala, Pakyong in Sikkim, Karaikal in Puducherry, Dholera in Gujarat and Bhogapuram in Andhra Pradesh. India will be spending US\$ 63 Billion for 100 Airports in II Tier cities in next 15 years.

Import of sand from Malaysia and Cambodia raises hope of finding new avenues to tide over the river sand crisis in Tamil Nadu. The first consignment of 55,000 tons of river sand from Sungai Pahang Port in Malaysia to Chennai in Tamil Nadu was received in September 2017. Many metro cities utilize Malaysian sand for construction purposes.

News from Japan

ISAMU YAMAMOTO, Secretary-General, Japanese Crushed Stone Association (JCSA)



Introduction to the Japanese Crushed Stone Association (JCSA)

The JCSA is an aggregates producers' association in the quarrying industry, representing 800 of the total of 1300 operating companies in all of Japan. The total national production of crushed stone aggregates from quarrying is 200 million tons/year and JCSA is the biggest aggregate producer association. The JCSA head office is in Tokyo and there are 9 regions and under these are 47

sub-districts.

Besides being Secretary-General of JCSA, Mr Yamamoto is also Secretary of younger owners' group named Ichigankai (that is, 2nd and 3rd generation quarry owners). Ichigankai has visited quarries in Germany, Italy, France and the UK in the past to learn more about European aggregates technology and business, supported by crusher manufacturers and construction machinery manufacturers.

There are other associations representing Japanese sand and gravel producers, as well as light-weight aggregates producers and slag (manufactured) aggregates producers. Taken all together, the total aggregates production in Japan is 350 million tons/year.



A state-of-the-art quarry in Japan



Ichigankai group on a visit to quarry in Italy

There are following key issues in the Japan crushed stone industry

An unusual feature of the Japanese crushed stone business is that the construction companies effectively control the market. Construction contracts are typically awarded by the Ministry of Land, Infrastructure and Transport or the department of civil engineering of the local authority to a construction company. The construction company then organizes its subcontracting specialized companies that will undertake the actual construction work and in turn to quarry operators to supply the necessary materials such as crushed stone. This puts the primary company in a very strong position compared to subcontracting specialized contractors and building materials suppliers. This hierarchy can sometimes expose aggregates producers to only part-payment, a very unsatisfactory situation.

The second issue is a treatment of dehydrated cake (sludge) generated when crushed stones are produced by wet process (due to frequent clay intrusions) since it is classified industrial waste. The cake is allowed to dry and keep it in the plant but it cannot be transported outside of the quarry to use on other projects. Hence the JCSA wishes to learn more about filter presses and more beneficial use of fines.

The third is a securing of future resources for crushed stone production. It is extremely difficult to develop protected forested areas because of the need to prevent soil subsidence, falling of the mountains and water resources. Since there are many reserved areas, it has become a bottleneck for the development of crushed stone quarry.

Furthermore, the industry has a severe shortage of young employees. Due to the progress of ageing and the decrease of birthrate in Japan, the shortage of workers in the crushed stone business is becoming a serious social issue. Neither are there sufficient young drivers to transport crushed stone to the construction sites.

NORTH AMERICA

News from the United States



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



Some Reflections on the Year 2017

As we look toward the possibilities of 2018 with the optimism and hope that a new year often brings, we want to first reflect on 2017 and what the actions or inactions of the U.S. Congress and the administration mean for the aggregates industry in the U.S.

This year was a transition year swept in by grand expectations of change designed to lay the groundwork for the plans of a president who ran as an outsider and a businessman who knew how to literally rebuild America. Promises of robust infrastructure investment, corporate tax reform, and regulatory streamlining set the agenda in January but as December closes, we have seen only incremental movement on change directly impacting the stone, sand and gravel industry. As Congress enters an election year, hope springs eternal that the Republican party, currently controlling the U.S. house, senate, and white house will make good on some of the promises to invest and further streamline.



Martin Marietta's Ward Nye, an NSSGA member, testifies on the importance of infrastructure investment before the U.S. Congress



NSSGA's Emily Coyner prior to a U.S. Supreme Court hearing on the Waters of the U.S. Rule

Investing in Roads, Highways, and Bridges

Infrastructure investment in the U.S. was once a bipartisan issue supported by routine authorization packages known in part as "Highway Bills" and yearly "THUD" (Transportation Housing and Urban Development) appropriations or spending bills. With the absence of project itemization in these bills (a process known as earmarking) the days of routine enactment of these bills are left far behind. Further, with a reluctance to raise the taxes on fuel which funds U.S. highways, the road to passage is further complicated. Yet, NSSGA keeps its simple and believes that the best way to advance a Highway Bill and shore up the Highway Trust Fund, at least for the next decade, is to in fact raise the fuel tax.

Projects need predictability and the state of U.S. infrastructure is such that we need immediate and long-term investment. The privatization of our nation's roads and selling off municipal assets to raise capital is short-sighted and uncertain. NSSGA supports proposals such as the "Penny for Progress" bill authored by the Ranking Member of the House Transportation and Infrastructure Committee that would gradually raise the fuel tax over the course of several years. Alongside the general construction contractors, the trucking associations, and highway users, NSSGA remains one of the leading advocates for immediate and long-term solutions to fix our nation's infrastructure – including highways, ports, and airports.

The president campaigned on promises of a \$1 Trillion-dollar investment to infrastructure and noted that tax reform and infrastructure investment would be enacted by year's end. While this did not occur and details on the "trillion dollar" plan remain scarce, tax reform lowering the corporate tax rate from approximately 35 to 20 percent is making progress in both the house and the senate.

The Debate on Tax Reform

The White House pushed Congress to produce a tax reform package that seeks to provide relief for the American middle class by reducing individual tax rates and simplifying tax filings for individuals. They also focused on eliminating many of the special tax breaks, deductions and loopholes that impact construction, including home mortgage interest deductions, percentage depletion and private activity bonds.

During the debate, NSSGA emphasized the importance of maintaining percentage depletion for mineral extraction, Like-Kind Exchanges for reducing property transfer costs and the Last-In, First-Out (LIFO) accounting method to push off a tax burden to invest in the business. The association led the opposition to the U.S. House of Representative's repeal of private activity bonds and other bonds that assist state and local governments to fund infrastructure projects. Unfortunately, the administration missed a key opportunity to provide funding for infrastructure by offsetting any fuel tax increases with individual rate cuts.

With the tax debate out of the way, or at least coming to resolution, details of an infrastructure plan are expected in early 2018.

Perhaps the most exciting thing to happen in 2017 was the effort to reform overly-burdensome regulations. NSSGA strongly supports regulatory reform efforts by Congress and the administration. As part of President Trump's efforts to streamline regulations, NSSGA led industry grassroots efforts to influence the Departments of Commerce, Interior, Labor, the Environmental Protection Agency and the Army Corps of Engineers on streamlining air, water and endangered species act permits, the EPA's Waters of the United States Rule, Toxic Substances Control Act reform, MSHA's Workplace Exams rule and other critical issues.

NSSGA in the Courts Fighting for Sound Science and Workable Industry Standards

NSSGA led a coalition of petitioners in litigation at the federal appeals court against MSHA's Workplace Examinations Rule. The association's input led to a 50-percent reduction of the number of hazards found during exams warranting documentation – potentially saving small operators \$12 million in documentation compliance costs. Operators and NSSGA led a coalition of petitioners in litigation at federal appeals court against MSHA's Workplace Examinations Rule.

NSSGA argued for review of the OSHA crystalline silica standard in federal court based on its inadequate risk assessment and technical infeasibility. The association also helped oversee the federal district court litigation against MSHA's Pattern of Violations rule in hopes of securing restoration of due process rights for operators investigated for possible declaration as "pattern" violators.

Legislative & Policy Forum Rocks D.C.

Nearly 300 people from aggregates operations all over the U.S. went to Washington, D.C., for NSSGA's first-ever Legislative & Policy Forum/Fall Board Meeting. The four-day event was full of professional development sessions, committee meetings, networking and a full day of face-to-face meetings with lawmakers on Capitol Hill. Hundreds of engineers, managers, equipment operators and CEOs discussed the need for a serious investment in our nation's transportation infrastructure with their members of Congress. U.S Department of Interior Secretary Ryan Zinke and

Environmental Protection Agency Administrator Scott Pruitt also gave keynote remarks during general sessions.



NSSGA members directly lobby Congress on key issues including tax reform during NSSGA's Legislative and Policy Forum

Major NSSGA Events in 2018-2019

NSSGA Annual Convention

AGG1 Academy and Expo March 4-8, 2018, Houston

NSSGA Leadership and Networking Summit

July 9 – 11, 2018, Ponte Vedra Beach, Fla.

NSSGA Legislative and Policy Forum

Sept. 24-27, 2018, Washington, D.C.

News from Canada - Ontario



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



Rehabilitating Ontario's Former Aggregate Sites into Significant Wetlands

In September of 2017, OSSGA released a study on the creation of wetland features at former aggregate pits and quarries within three provincial land use plans. The study revealed a total of 293 hectares of aquatic habitat features – or the equivalent of 1,849 NHL sized hockey rinks – have been created through the rehabilitation of surrendered aggregate sites.

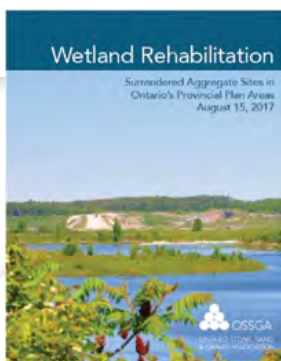
This study is the fourth in a series of studies that was undertaken by OSSGA between 2010 and present to generate baseline data on the status of rehabilitation on surrendered sites in study areas within the province. Previous studies found that aggregate extraction sites are rehabilitated to a final land use condition that supports the Provincial Policy of restoring and improving natural heritage features in the Province of Ontario.

Aggregate rehabilitation in Ontario is mandatory. The Aggregate Resources Act requires that

aggregate licenses undergo progressive and final rehabilitation prior to being surrendered.

This study demonstrated that through the rehabilitation of aggregate extraction sites there is an opportunity to create aquatic features that become points of interest in recreational parks or golf courses, become part of provincially significant wetland complexes or are located adjacent to existing natural heritage features and can contribute to biodiversity and ecological functions on a local and broader landscape level. In Ontario, producers frequently partner with Conservation Authorities or NGOs to create productive wetland projects that support biodiversity, offer flood protection, and mitigate the possible effects of climate change

OSSGA is planning a second phase of this study for the Spring of 2018 to conduct field-based research to assess and determine the ecological and culture characteristics of some of these aquatic features created through aggregate extraction.



News from Canada - Alberta

JOHN ASHTON, Executive Director, Alberta Sand & Gravel Association (ASGA)



New Toolkit Aims to Build a Safer Workplace

Companies constantly strive to make their business more productive and efficient. But developers of a new toolkit for the aggregate industry say that streamlining the worksite means nothing if you don't do something else first: Make it safer.

Following a creative sentence charge against an industry member in 2016, an opportunity arose for the Alberta Sand & Gravel Association (ASGA) Safety Committee to collaborate with that member and Occupational Health & Safety (OH & S). Based on input from aggregate companies, the three parties set out to build a safety toolkit for the benefit of industry workers throughout the province

Ten heads are better than one

"Each committee member took a different safety topic and gathered information on it," said Kent Santo, committee chair. "We looked at everything from regulatory standards for crushers to the finer points of safety procedures that could form a blueprint for safe crusher operations. We wound up with a two-inch binder that had to be transformed into a comprehensive, easy-to-use safety manual."

That was easier said than done, but with help from Occupational Health & Safety, the committee obtained a provincial government grant and hired a technical writer to begin the process. "Once we found a writer, we flew him out to our facility this spring and gave him a crash course on crushing operations," said Wayne Woodhouse, owner of Stony Valley Contracting. While it was a good start, challenges lay ahead.

Reading, writing and retaining

"The main hurdle was terminology," said Santo. "Since our writer wasn't from the industry, we needed to work closely with him to ensure the wording was accurate and clear."

The language used was critical in reaching everyone from frontline workers to managers and helping them absorb a lot of information. In Santo's eyes, the alternative was a final product that "people would just use as a paperweight." That

focus on usability was shared by Woodhouse. "We tried to design something that small or medium-size companies could use as a launch point for starting or expanding their own safety program. For that, we needed material that was familiar and relevant to our industry."

Miles to go before they sleep

Making that happen has involved a lot of late nights for the writer and considerable back and forth with the committee. The next step is an intensive editing session where everyone can offer feedback and make revisions as a group. Once finalized, the toolkit will be placed on the ASGA member website for easy access. The committee is also looking at a fee structure to share the resource with non-members.

It has been a long journey to this point, but with the end in sight, Santo said the final product will be worth the work. "I'm proud of the way industry, government and the ASGA teamed up to promote safety and protect workers. It shows a real commitment to safety and a willingness to educate the membership. I can also see us promoting it to other industries at tradeshow and conferences as a foundation for their own safety initiatives."

Just as knowledge of safe practices continues to evolve, so too will the Aggregate Industry Safety Toolkit. "This is a resource that we can update as needed," said Woodhouse. "It represents a strong foundation for safety that will only get stronger in the years to come."



Exemplary environmental stewardship during operation and restoration

News from Canada – British Columbia



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



Some Reflections on the Challenges of 2017

The BC Stone, Sand & Gravel Association is the voice of the aggregate industry in British Columbia and continues to work very hard to represent its' members' concerns to the Provincial and Municipal Governments.

As 2017 comes to a close, we can say that this year has been a very busy year for both the aggregate producers and their suppliers of goods and services. The industry is strong and looks to remain strong for the balance of

2017 and well into 2018.

We have just elected a new (New Democratic Party) Provincial Government, and they have put the stop (even temporarily) to over 10 billion dollars' worth of projects needed by the constituents of BC. The doubt surrounding the future of these projects has made many of us very nervous about where the Provincial Government is going to go with the completion of these 2 major projects.

We too, at the BC Stone, Sand & Gravel Association, have gone through a transformation of sorts with the recent election of new Directors and a new Executive Committee. This committee is functioning very well and we are making great strides in dealing with the Provincial Government on some major issues affecting the aggregate production industry in BC. We are focusing on Government Relations and trying to be more pro-active in dealing with the challenges that sometimes come up.

British Columbia remains vibrant and strong in maintaining its current infrastructure and building new infrastructure to meet the demands of newcomers to the Province. This trend will continue for the foreseeable future, well into 2018.

The aggregate industry in BC is strong, but we are facing many challenges from Local and Provincial Governments and the public. We have not resolved issues with Government concerning the Water Sustainability Act or costs of permit renewals or applications for new mine sites. The new Health, Safety & Reclamation Code for Mines in BC is complete and was delivered to all aggregate producers in September 2017. We face several challenges from Municipal Governments trying to impose

soil removal and soil deposition fees on to our members but that seems to be an indirect result of the Municipal Governments having limited resources to keep their infrastructures in good condition and they are trying to raise funding through these fees. The dialogue continues and we are hopeful that Government will be there to help the industry and not hinder the industry.

I would like to invite members of the European Aggregate Producers Association to keep us abreast of the challenges taking place in their communities / countries. We are always looking for articles to include in our new electronic newsletter, so please feel free to submit your articles directly to me at gravelbc@telus.net

From all of us in the Aggregate Industry in British Columbia, we wish you Happy Holidays and a safe and Prosperous New Year.



Some very seasonal restoration case studies,
Lafarge Lake and Butchart Gardens

SOUTH AMERICA

News from Colombia



CARLOS FERNANDO FORERO BONELL, CEO of ASOGRAVAS, Colombia



Highly Successful 5th Conference of the Colombian Aggregates Industry

On September 13-15, 2017, nearly 1,000 attendees, 33 regional autonomous corporations, entities that regulate environmental issues in regions of Colombia, 70 suppliers of goods and services, government authorities, associations, universities, consultants and producers of building materials, met in Cartagena de Indias for the Fifth ASOGRAVAS Aggregates Meeting. For the first time it was held in cooperation with the

ASOCARS, the environmental authorities, allowing a unique opportunity for high-level dialogue.



Germán Arce, Minister de Mines & Energy with Carlos Fernando Forero, DG of ASOGRAVAS



Germán Arce, Minister of Mines & Energy, Carlos Fernando Forero, DG, and Mauricio Núñez, President of the Board of ASOGRAVAS

In a keynote speech, the Minister of Mines and Energy, Germán Arce, stressed that building materials, specifically aggregates, are at the heart of the national development of a project for mining and welcomed the initiative for the two associations to establish a transparent dialogue to make mining responsible, legal, and linked with local communities. In addition, he emphasized the importance of the responsibility of the aggregates business, given that the illegality is one of the main enemies of the competitiveness of the industry.

Similarly, the Ministry of Environment and Sustainable Development indicated that the national Government is working on a new development model that will allow alignment of regional development plans with the regulations of the regional environmental designations, so boosting environmental investment and giving a comprehensive approach that incorporates risk management, essential points for a proper operation of the extractive industry.

Optimising Transport Logistics

In another appearance, he talked about alternatives to improve efficiency in the logistics operation of aggregates, one of the main themes of the Congress, which arose directly from Mexican and Argentine "bitrenes" or high performance vehicles, a possible solution to improve the competitiveness of Colombian industry, which currently moves 140 million tons of building materials per year. These vehicles which are "in a tractor and two semi-trailers hooked together, allowing the transport of up

to 80% more payload than the conventional truck, representing 30% less emissions, saving logistic costs and fuel", said Pablo Díaz, representative of the initiative of bitrenes and new logistics technologies of the province of San Luis.

Another important point to highlight this mode of transport is security, "vehicles have cutting-edge technology to operate on the roads safely, thus reducing the accident rate on the roads", explained Juan José Cavazos, Vehicle designs and responsible new technologies of Femsa of Mexico.

In the broader context of logistics, Miguel Lorenzo, Manager of the Engineering Division of the Canal of Panama, presented in detail the construction process, and the role of stone materials in one of the greatest achievements of modern engineering, the construction of the Panama Canal, with its decisive influence on world trade patterns that spurred the economic growth of both developed countries and those developing.

River-Dredged Aggregates and associated Challenges

In Colombia, river-dredged aggregates are very important source of material, and there is ongoing discussion on minimising the environmental impact of that activity. On the other hand, environmental authorities recognise the benefits of such extraction in maintaining river water flow and thereby reducing the risk of flooding. In other countries, such as in the Netherlands in Europe, extraction of areas on river banks is specifically permitted to provide emergency overflow water storage in times of flooding.

All emphasized the need for accurate information, not only of mining titles but also of river basins, to facilitate the proper environmental management of the extraction areas. To address these issues, a forum will be soon be organized on the future of this type of exploitation in Colombia, which will feature the main accompaniment of the Ministry of Mines and Energy, including some GAIN experts.

Platforms for Monitoring in Real Time

The Governor of the Department of Antioquia, Luis Pérez, presented the new system of information mining of Antioquia - SIMA, a technological platform for the monitoring in real time of the mining activity in Antioquia. This system integrates information from the National Agency for Mining, the Ministry of Mines, the regional autonomous corporations, Metropolitan Areas and Municipalities, to strengthen the digital mining control and produces dynamic databases for facilitate decision-making and control of mining in the region, as advocated by the Governor within the framework of the event.

The Corporación Autónoma Regional of the Valle del Cauca – CVC, presented the GeoCVC tool, which integrates fundamental historical environmental data to obtain an environmental license, such as the quality of water, soil, erosion, quality records air, etc and that can be used by individuals to the development of your project or mining exploitation in the region.

Fiscal Inequality, a Major Challenge

A recent ASOGRAVAS investigation found that 50% of the aggregates produced in the country is from an informal or illegal source, that is, today 1 of every 2 tons does not meet all the required standards.

ASOGRAVAS has therefore launched its “Buy Responsible, Construct Legally” campaign which has the support of the Ministry of Mines and Energy, the National Agency for Mining, the Department of Taxation and environmental authorities. They all seek to raise awareness of the importance of the legality of the entire construction and so will meet the highest technical, environmental, mining, labour, occupational health and contribution in taxes and royalties, being fundamental income for the nation. This is backed up by campaigns against overweight vehicles, tax evasion and non-payment of royalties and the production of low-quality building materials.



A “Bitren”, double-articulated vehicle for high-efficiency long-distance transport of aggregates, now used in Mexico and Argentina



Luis Pérez, Governor of Antioquia, Liz Álvarez, Ex-Secretary de Mines of Antioquia and Carlos Fernando Forero, DG of ASOGRAVAS

News from Argentina



HERNÁN SONEYRO,
Director of CEMINCOR,
Córdoba



JOSÉ ALFREDO PIZONE, Vice-President
of Cámara de la Piedra, Province of Buenos
Aires. He is also President of the national
Federación Argentina
de la Piedra



Highly Successful Third Argentine Aggregates Conference

The 3rd Argentine Aggregates Conference was held in Córdoba, Argentina, on November 15-17, 2017. It was attended by 750 people related to the mining and aggregates national and regional sectors, also with the presence of representatives from Chile, Costa Rica, Ireland, Spain, Peru, Paraguay and Uruguay. The event is organized by the business Mining Chamber of Córdoba (CEMINCOR), the Stone Chamber of the Province of Buenos Aires and the Argentina Federation of Stone, and provided a forum for updating and networking aimed at entrepreneurs, professionals, technical specialists and suppliers of this extractive industry.

CEMINCOR, the business chamber of mining for Córdoba, brings together leading companies in the sector with the aim of developing a mining industry recognized for his responsibility, for its contribution to productive and essential to modern life. CEMINCOR is chaired by José Alberto Díaz, with Hernán Soneyro as its Director. It has 41 Member mining companies that produce more than 80% of the total provincial of minerals.

The Business Chamber of Stone Products of the Province of Buenos Aires promotes the development of the extractive industry in the Province of Buenos Aires, guiding its action to higher productivity and welfare and study and propose solutions to all the problems of technical, economic and social order that affect the stone industry. The Chamber is chaired by Gustavo Núñez, with José Alfredo Pizone as Vice-President, and is composed of 21 mining companies. Both associations together constitute the national Argentine Federation of Stone Products, of which José Alfredo Pizone is the President.



Argentina is now in a strong growth phase, hence the importance of this conference. In 2017, US\$100 million has been invested in infrastructure upgrades, equipment and supplies, and 900 new jobs have been generated. These jobs are particularly benefitting rural development in that 87% of the companies are located in the area of influence of towns or cities of less than 20,000 inhabitants and many of them are the only industry giving direct and indirect becoming key socio-economic actors in those regions.

Conference Highlights



The conference keynote speech was delivered by the Federal Minister of Transportation, Guillermo Dietrich, who stated that the nation is now developing the largest and most ambitious infrastructure plan in its history and to achieve this ambitious plan, aggregates are fundamental. He urged mining

entrepreneurs to invest, take on people, innovate and work with Governments, "working together is the key to Argentine Development".

Keynote speeches were also provided by Dr. Aldo Bonalumi, secretary of mining in the regional government of Córdoba and president of the Scientific Committee of the Conference, and Carola Patané, Director of Mining in the province of Buenos Aires.

In closing, José Alberto Díaz, President of the Congress and CEMINCOR, summarised the extraordinarily successful results of the Congress and concluded "only the mining industry can carry forward the challenge to give our society the basis to build a social development plan that is sustainable and long-lasting. Our contribution to the quality of life of the Argentine population manifests itself clearly when there are civil and infrastructure works which would not be possible without our products."



Other Key Events

The annual meeting of the Council Federal miner (COFEMIN) in the presence of Juan Biset, Undersecretary of mining policy of the nation and 21 Secretaries of Mining from the provinces of Argentina. At the same time the quarry equipment Expo comprised more than 45 booths and an impressive display of machinery where the sponsors presented their latest technologies and developments for the sector.

In a wider context the Ibero-American Federation of producers of aggregates (FIPA) met together also encompassing representatives of the Federation of Spain (FdA) aggregates, the National Association of manufacturers entrepreneurs de Áridos (ANEFA) and the European Union of producers of Aggregates (UEPG). FIPA is effectively a subset of GAIN, with a focus on supportive linkages between the aggregates industry of Spain and Portugal with those of the Latin American countries.



Delegates from 6 countries at the FIPA meeting



Map of FIPA region

News from Brazil

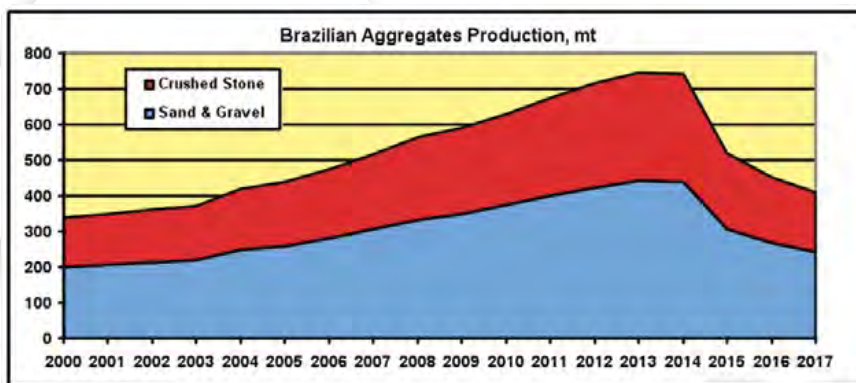
FERNANDO VALVERDE, CEO, ANEPAC, Brazil



Deep Recession in Brazil in the last 3 Years

The year 2017 was very difficult in Brazil, marked by a rather unstable economic situation. The current recession began in the second quarter of 2014 and is the largest and longest of recent decades. Even the crises of 1981/83 and 1989/92 were less extensive and of smaller magnitude and in the financial crisis of 2008 Brazil's GDP contraction lasted only two consecutive quarters.

Trend of Brazilian Aggregates production since the year 2000. Up to 2013, it had increased cumulatively at 6.4% a year, but in the last 3 years declined by about 45%.



The gross domestic product (GDP) fell for the second year in a row in 2016 confirming the extent of the crisis. The fall was of 3.6% from 2015, which had already retreated 3.8% from 2014, only previously recorded in the years 1930 and 1931. Due to these events, the construction aggregates sector is being heavily impacted by the crisis. The domestic demand in 2017 was estimated at 409 million tons of aggregates, consisting in 242 million tons of sand & gravel and 167 million tons of crushed stone. Compared

with 2016, this represented a drop of 9.5% for the 2200 production companies.

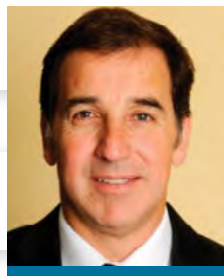
Strong Government Actions are now ending the Recession

The light of these facts, the Government of President Michel Temer initiated a broad and deep political and economic reform in order to reverse this negative framework. Adjustments driven by these economy measures should strongly impact the Brazilian society. The measures involve mainly the Labour Reform that will liberalise labour relations in the country and in the social security system, for both private and public sectors, generating enormous impact in reducing the national fiscal deficit. In addition, several other measures implemented in 2016 and 2017, such as the outsourcing of labour, limiting government spending expansion, refinancing of debt and others are reverberating in favour of contributing to improve the business environment in the country.

As a result we can finally say that at the end of this year the economy out of recession. The GDP must have a positive growth of about 0.5% and the income and employment will recover what was been lost since 2014. Furthermore, the export market was supported by the low interest rates amid the resumption of trade with developed economies.

News from Chile

CLAUDIO HURTADO, Manager of Aggregates, Cementos Bio Bio, Santiago, Chile



An Introduction to the Aggregates Sector in Chile

The aggregates industry is in rapid development in Chile, however up to now, no aggregates association yet exists. Arenex is the main producer, with strategically-located quarries in all parts of the country, situated between the Andes and the Pacific, stretching 4,300km from north to south but only 350km at it widest point.



A flagship quarry at Pedregal, central Chile

Strong commitment to Health and Safety

National production of aggregates is estimated at 31m m³, equivalent to about 45 million tons, almost 3 tons per capita. Besides Arenex, there are about 10 significant players, but otherwise the market is still quite fragmented. It is estimated that 74% of aggregates go into concrete products, both as readymix and precast. Of the remainder 17% goes into road bases, while 9% is used in asphalt paving.

Construction in recent years in Chile has been cyclical, with peaks in 2008, 2012 and 2016, but the outlook is more positive in the years ahead. The main industry challenges are a low demand for aggregates, competition from the informal sector exacerbated by high taxes on the responsible players and excessive bureaucracy surrounding permitting of new reserved around the capital region of Santiago, again favoring illegal activity. The formation of an aggregates association is seen as a strategic goal in campaigning on these industry issues.

AFRICA

News from South Africa



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



2017 – A Year of Progress for ASPASA

ASPASA has had a busy year. Having a full year on not being involved with the Readymix Industry has allowed ASPASA to focus on some important issues.



ASPASA has broadened its membership to allow for all surface mines. This was done as there were many requests for the services ASPASA provides to smaller and medium opencast surface mines in SA. ASPASA has for long been strong on Health & Safety as well as Environmental issues. ASPASA not only appraises the operations (audits) but also does a great deal of training while the day is spent at the operation. In the past we called these days an audit, but the word "audit" has a negative connotation in our industry as the operations get audited by the regulator which seems to be a very negative experience as fault finding is the focus and not much advise or coaching is done by the regulators.

This year the outsourced evaluators (auditors), did a great amount of work in education, coaching and guidance of member operations. It was then decided that the H & S and Environmental focuses have been well established and that the horizons need to be expanded to other issues that the industry needs.

The issue of Technical/Quality was clearly a problem area that needed to be focused on. A very effective and motivated committee has been established and some great work has been achieved. A quality document was developed for the member companies and the process was explained to members and clients. After this workshop a nice set of questions & focus areas were extracted, which will be used to further develop some action plans.

Under the quality focus, it was important to get top management included into the understanding of why quality control was so important in their businesses and that all workers, employees, from blasting to final delivery, was crucial. Workshops and even a quality/technical conference are being planned for 2018.

The fourth leg of the focus after H & S, Environmental, Quality is the Skills Development issue in the surface mining industry in South Africa.

Skills development/training properly done is a crucial issue in the business and has had very little attention on an industry basis. Some selected courses have been presented, but the general coverage has a long way to go. A skills-provider was sourced that needed to work with ASPASA so as to ensure that companies/employers could ensure that workers and employees were properly and sufficiently trained to meet the demands. In SA the mining license of a company is evaluated on various issues and one of them is that of developing people.

Not only for the future of the employees work life, but also for those that leave the employment to ensure a transferable skill is obtained by the employee when they retire, resign or are retrenched.



OCEANIA

News from Australia



KEN SLATTERY, CEO, Cement, Concrete & Aggregates Association, Australia



Environmental Vision for the Australian Extractive Industry

The CCAA Council has agreed on a high level vision for environmental sustainability in the nation's extractive industry and has released a Statement setting out the values and goals for the sector.

The Statement also sets out the industry's approach for working with regulatory bodies and other stakeholders in improving environmental management, and builds upon other industry initiatives in improving environmental management capability, such as the CCAA Innovation Awards and member events.

See below for the fundamental elements of this vision:

The industry's environmental values

CCAA members believe that:

- The industry plays a vital role in supplying critical construction materials for the community and has an obligation to do so in an environmentally responsible and sustainable manner.
- Environmental protection and enhancement is integral to the conduct of the industry's operations.
- The best environmental outcomes are achieved through collaboration, consultation, transparency and partnership - with community, government and other industry partners.
- Whilst the industry has made good progress in its approach to environmental stewardship, there remains opportunity to improve that will benefit both the industry and the broader community.

Environmental goals for the industry

The industry commits to do the following:

- 1.** Minimise the environmental impact of extractive operations, and where possible, achieve a net positive benefit to biodiversity and other environmental values.
- 2.** Work in partnership with government regulators and other stakeholders to achieve agreed environmental outcomes in an open and transparent manner.
- 3.** Share innovations in environmental management practices for the betterment of the community, the industry and the environment in which we operate. Promote and reward excellence, and learn from innovations from both within and outside of the industry.
- 4.** Develop the industry's capability in environmental management, through professional development, stakeholder engagement, technological advances and training.
- 5.** Strive for continuous improvement in the following areas of key relevance to our industry:
 - i. Stormwater management
 - ii. Dust management
 - iii. Noise management
 - iv. Blasting control
 - v. Biodiversity management
 - vi. Community engagement
- 6.** Regularly review environmental performance, including legislative compliance to identify areas of improvement.
- 7.** Improve the community's understanding of the extractive industry.

Annual Quarrying Safety & Health Seminar

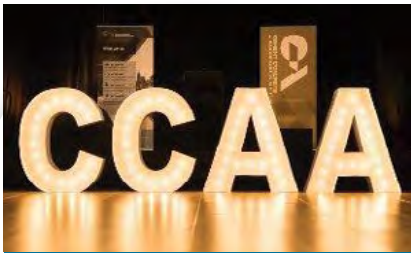
The 15th Annual Queensland Quarrying Safety & Health Seminar was held in June 2017 and was attended by over 250 industry delegates. The seminar, jointly hosted by CCAA, the Institute of Quarrying Australia and the Queensland Mines Inspectorate, addressed important safety and health issues relevant to the industry. Dave Whitefield, Director, People and Risk, provided a presentation on how decisions are made in the face of uncertainty, and Paul Spinks (Paramedic & State Trauma Councillor) gave insights into his life as a Paramedic and how to bring about health and well-being into the workplace.

The informative program also included presentations on dust management, updates from the Mines Inspectorate, Holcim's 'Positive Zero Harm' safety management approach, and a panel discussion on behaviour and safety.

State Innovation Award Winners Named

The 2017 winners of CCAA's state-based Innovation Awards were presented at Construction Materials Industry Dinners held around the country over the month of August. Formerly known as the Environmental Health and Safety Awards, the CCAA Innovation Awards have been expanded this year. In addition to the long-standing environmental and safety innovation categories, all states have now adopted the Community Leadership category. Nearly 150 entries were submitted across all states in this year's round of awards, with 26 in the Community Leadership category.

In the interests of sharing ideas and innovation across industry, CCAA has created an online gallery to showcase all of the entries received. See www.ccaa.com.au to view the innovative ideas coming out of the Australian heavy construction materials industry.



New South Wales Innovation Awards Dinner 2017



Queensland Innovation Award Winners 2017

Concrete Build Without Limits

CCAA has launched a fresh new concrete brand approach to reinforce the unique advantages of concrete with key stakeholders in the building and construction industry.

In an increasingly competitive market, keeping concrete at the front of mind and protecting its market position is vitally important to our members. In response, CCAA has launched a market promotion strategy under a new 'Concrete, Build Without Limits' brand, which focuses on the flexibility, durability and sustainability of concrete. Activities include, the C+A Talk series bringing architects of distinction to Australia, sponsorship of the Australia by Design TV series and the launch of the Australian Concrete Facebook page.



News from New Zealand

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



New Government, new challenges for New Zealand quarries

The quarrying industry in New Zealand is starting to come to grips with a new Government.

In October, a month after elections, the centre-right New Zealand First party which held the balance of power, opted to form a coalition with the Labour Party, led by Jacinda Ardern. This left the three-term right wing National Party in Opposition, even though it won more seats than any other party. As Prime

Minister, Jacinda Ardern also brought the Green Party into the coalition, although not into the Cabinet.

AQA Chair Brian Roche says the Greens are not famous for supporting the extractive sector. "That said, with the new Government's commitment to reduce carbon emission it would be churlish to force aggregate to be trucked long distances, as opposed to continuing, if not improved, access to nearby resources. In Auckland especially, this could come up against the Labour Party's commitment to building 10,000 new homes a year. Some of those homes will inevitably need to push into areas like semi-rural south Auckland, where several quarries are sited. The AQA will look to a measured and common-sense approach to such issues from the new Government."

Best Practice in Mentoring Industry Skills

Keri Harrison of Southern Screenworks (at left) recently started mentoring industry colleagues in Good Practice Guidelines for Quarrying, Health & Safety Management Plans, Risk Assessments and Emergency Management Plans. Lara Murphy of Isaac Construction (at right) was one of her recent successful pupils. MinEx is now extending this mentoring program through the New Zealand industry.

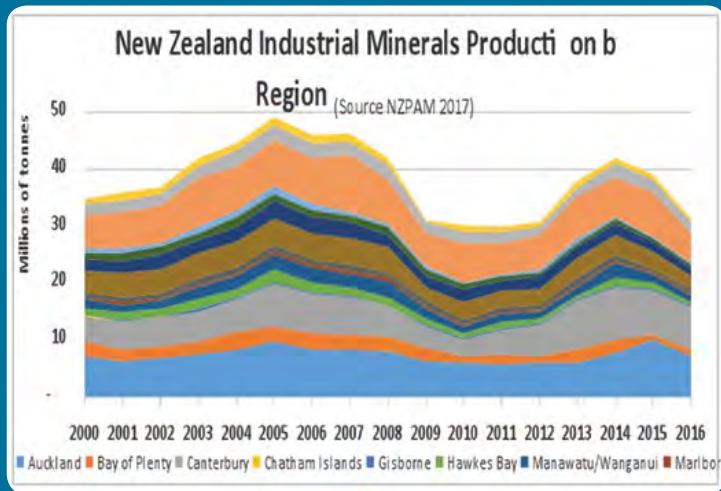


New common Association in New Zealand?

Another issue with politics attached for the AQA is a shaping debate and looming decision as to whether the AQA joins a new extractive sector 'peak' organisation. Currently, the AQA runs separately with three part-time staff and no office but does look to the mining/minerals body Straterra for some support. The national extractive health and safety organisation MinEx is run out of Straterra's Wellington office.

Brian Roche says he personally favours on-going access to someone like Straterra's planning and policy adviser to keep an eye on what's emerging from Government and local Government. However, he says say that it's mining that should join with

the aggregates industry, not the other way around, given the major fall in coal mining production in NZ. He notes that MinEx, run out of Straterra, is going really well and has no issues representing the fuller extractive sector and says if that model could be replicated, quarrying would be in a good place.



Update on NZ Aggregates Production

Meantime, 2016's official production figures show a marked drop in New Zealand's aggregate production. However, fewer than two-thirds of quarries responded to the survey so the numbers look artificially low (31Mt – down 8m tonne on 2015 figures). The AQA is appealing to the industry to give some time to the 2017 survey so the new Government is not making aggregate policies on incorrect data.

The GAIN Map of the World



EUROPE

News from Europe

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



European Union Presidency Conference on Aggregates

Every six months the presidency of the EU Council rotates, and each country in turn chairs the EU Council meetings, hosts keynote conferences and other events. For the first time ever, Estonia selected aggregates as its key theme at a conference in its capital city, Tallinn, held on November 17, 2017. The Conference was an important and strong call to recognise the essential role played by aggregates producers for the wealth of society and for economic growth and to put a strategy ensuring long-term aggregates supply higher on the political agenda.

Kadri Simson, Estonian Minister of Economic Affairs and Communications gave the keynote address to representatives of the EU, the European Aggregates Industry, Geological Surveys, regional and national governments, research institutes and NGOs on ensuring the sustainable supply of aggregates in the EU. She indicated that numerous studies had identified what is needed to avoid a shortage of aggregates supply while minimising transport distances; the actions required would be definitively addressed in the published conference conclusions.



Gwenole Cozigou, Director in DG Growth of the European Commission presented the achievements and the remaining challenges on implementing the EU Raw Materials Strategy's 2nd pillar by addressing land-use planning, permitting procedures and better access to resources within the EU. The European Commission supports an EU-wide raw materials strategy, but recognises that any further legal instruments are delegated to national decision under the subsidiarity principle.



Two Working Groups then provided immediate feedback on restoration of extraction sites and on land-use planning and permitting feeding back into the Conclusions of the EU Presidency Conference which are quoted in full here as they are a very useful template for other GAIN members:

1. Member states should develop regional or national aggregates utilisation plans that would prioritise supply and access to aggregates given demand projections from sites that allow for acceptable environmental impact and not too long transportation routes, adjusted to means of transport. To enable developing aggregates utilisation plans, easily accessible aggregates reserves and resources databases should be developed.
2. A permitting system should allow efficient and timely permits, to ensure the sustainable supply of aggregates, applying a reasonably balanced approach for environment, social aspects and the economy. When granting permits, duration of permits should always be in line with the lifetime of the deposit, as sustainability requires extraction of the total deposit.
3. Construction and demolition waste should be recycled where technically, environmentally and economically feasible. The available amount of recycled aggregates of the appropriate quality, would not allow for the complete substitution of natural aggregates. At the same time, recycling of all construction and demolition waste would potentially cover up to one fifth of the current total demand of aggregates. National studies on potential of recycling of demolition materials and mining waste should be carried out to optimise extraction.
4. Rehabilitation of quarries is the responsibility of the extraction permit owners. Rehabilitation mechanisms of EU Member States should ensure that every aggregates extraction site in Europe is restored. Financial mechanisms should be developed to ensure rehabilitation in case that the extraction permit owner is insolvent. The establishment of the rehabilitation requirements will consider the area and the surrounding landscape as a whole. The development of the rehabilitation requirements will involve local residents and take into account regional development plans, the trends specified in the spatial plans and biodiversity considerations. Rehabilitation should take place during extraction. The best practices for rehabilitation of land impacted by extraction will be identified and promoted.

UEPG President Jesús Ortiz provided an outlook on the future aggregates demand and the need for investment beyond the Juncker Plan. Not only the well-known major projects such as Rail Baltica are triggering that demand, but also the thousands of smaller projects with local specifics need construction raw materials. The question is not whether or not we need to supply, but from where and how in the most sustainable way.



Supporting the key EU Industrial Strategy

By invitation of the Alliance Industry4Europe, in which UEPG is an active partner and Co-Rapporteur, the European Commission published a Communication "Investing in a smart, innovative and sustainable Industry – A renewed EU Industrial Policy Strategy" which has also been mentioned by European Commission President Jean-Claude Juncker during his "State of the Union" speech on 13 September.

UEPG, as Co-Rapporteur of this Joint Reaction Paper, managed to include calls such as "re-establishing the positive link between industry and society" and the demand for a "coherent medium to long-term industrial strategy" which is "vital for ensuring policies on sustainable access to resources and energy at a competitive price". "Specifically, balanced climate, energy and raw materials policies, informed by European industrial needs and objectives, are essential for competitiveness, sustainable growth and employment, supporting innovation and investment by modern and traditional industries". The Joint Reaction Paper acknowledges that "the better regulation agenda to reduce red tape and improve effectiveness has been a step in the right direction. Nevertheless, the implementation of existing legislation for business certainty" should be reinforced.

UEPG President Jesús Ortiz handed over the Joint Reaction Paper of the Industry4Europe Alliance signed by 119 European Associations to the Estonian Minister of Economic Affairs and Communications – currently holding the EU Council Presidency.



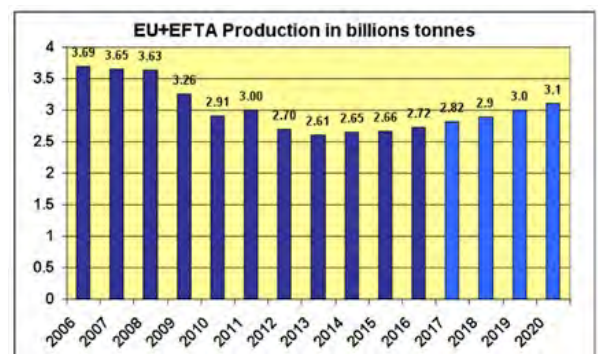
At last, the Limit has been set for Respirable Crystalline Silica

UEPG has welcomed the European Parliament's recent adoption of the revision of the Carcinogens and Mutagens Directive. The Directive introduces in its Annex I "work involving exposure to respirable crystalline silica dust generated by a work process" and sets a Binding Occupational Exposure Limit Value of 0.1 mg/m³ for respirable crystalline silica. The NEPSI Agreement (European Network for Silica) was recognised as a valuable and necessary instrument to support its implementation. Once endorsed by the European Council, the new rules will be published in the EU Official Journal. Member States have two years to transpose the directive in their national laws.



UEPG is now focussing on a stronger legal recognition of NEPSI, supporting UEPG Members in their preparation of the NEPSI 2018 Reporting starting on 15 January till 15 March 2018. UEPG will also assist its Members with a Communications and Public Relation Strategy, guidance and tools, data collection and a simplified Protocol on RCS control on site which is part of the NEPSI 2018-2020 co-founded Road Map.

Finally, good news on Economic Recovery in Europe



The 2016 aggregates production data for the European Union plus EFTA countries shows a welcome 2.6% in increase over 2015 to 2.7 billion tons in 2016. The outlook for 2017 looks even better with a further 3.9% increase to 2.8 billion tons being predicted, possibly reaching 3 billion tons again by 2019/20.



Agenda for 2018 GAIN Meeting, Barcelona

Date/Session	Title	Content
Sunday Evening, May 20	Informal Welcome Dinner, hosted by César Luaces Frades & Jaume Puig i Canal	Introductions and "ice-breaking"
Monday Morning, May 21	Welcome by the hosts, FdA and Gremi d'Àrids	President José Lista and President Alfons Porro
	Opening of Meeting, Roundtable Intros	Jim O'Brien
	Regional Introductory Presentations, covering production trends, regional issues	Heads of each GAIN member association
	Buffet Lunch	
Monday Afternoon, May 21	Key Operational Issues – 1: Access to Resources, Manufactured Sand, River-Dredged Aggregates, Combating Illegal Extraction, etc	Brief keynote presentation by a GAIN expert, followed by roundtable discussion
	Key Operational Issues – 2: RCS Regulation, Eliminating Fatalities, Air Quality, Restoration & Biodiversity, Water Management, etc	
Mon Eve, May 21	Formal GAIN Dinner, local restaurant	
Tuesday Morning, May 22	Trends in Aggregates Markets: Regional Forecasts, 20-30 year Resource Planning, Competing Products, Circular Economy, Taxation, Certification	Brief keynote presentation by a GAIN expert, followed by roundtable discussion
	Trends in Aggregates Production: Equipment Technology, Plant Optimisation, Digitisation to "4.0", Recruitment & People Development	
	Buffet Lunch	
Tuesday Afternoon, May 22	More Effective Associations: Management Best Practice, Adding Value, Partnering with Governments/Authorities	Brief keynote presentation by a GAIN expert, followed by roundtable discussion Open discussion chaired by Jim O'Brien. Wrap-up and Conclusions. Suggestions for 2020 Meeting.
	GAINing more from GAIN: How can GAIN add even more value for the global aggregates industry? Awards. Improving Industry Image & PR	
Tues Eve, May 22	Optional Informal Dinner & Cultural Event	
Wednesday Morning, May 23	Visit to nearby Quarries, Harbour Recycling Centre, meetings with authorities, NGOs & local community	Continuing Informal GAIN and UEPG Discussions and Exchanges of Best Practice!
Wed Eve, May 23	Welcome Dinner for UEPG Meetings	
Thursday, May 24	UEPG/FdA/Gremi d'Àrids Entrepreneurs' Forum Meeting	Optional tours for partners
Friday, May 25	UEPG Delegates Assembly	

All are very welcome at Barcelona in May 2018!

Next May 2018 will take place the Fifth GAIN meeting at Barcelona (nowadays Spain) hosted by the Spanish Aggregates Federation (FdA), with the special collaboration of the Catalonia Aggregates Association (Gremi d'Àrids de Catalunya), under formal invitation letters from Mr. José Lista, president of FdA, Mr. Jesús Ortiz, president of UEPG, and Mr. Jim O'Brien, Convener for the Global Aggregates Information Network – GAIN

Barcelona, the Capital of Catalonia, is the 2nd city of Spain is one of the 17 regions of the country, with 1.6m inhabitants. The city hosts 8.2m tourists each year, and is the most visited city in Spain and the Fourth in Europe. Popularly known as the city of Gaudí architecture, it has a beautiful Gothic historic city centre

The GAIN meeting will start on Monday morning May 21st, with a previous Informal Welcome Dinner on Sunday Evening, May 20th. We will discuss all that first day about the Access to Resources, Manufactured Sand, River-Dredged Aggregates, Combating Illegal Extraction, RCS Regulation, Eliminating Fatalities, Air Quality, Restoration & Biodiversity, and Water Management issues, finishing in the evening with a Formal GAIN Gala Dinner.

On Tuesday Morning May 22th, we will start working with the trends in Aggregates Production: New Equipment Technology, Plant Optimisation, Digitisation to

"4.0", Recruitment & People Development. After that, we will discuss how we can have more effective Associations: Management Best Practice, Adding Value, Partnering with Governments and Authorities in Infrastructural Development. To finish our 2018 meeting, we will talk about How can GAIN add even more value for the global aggregates industry and how to Improve Industry Image & PR.

But not all will be work. GAIN members will visit to nearby Quarries at south Barcelona area, will sail at the Harbour Recycling Centre, will meetings with EU, Spanish and Catalans authorities, NGOs & local community representatives. Also remember that after three days of hard work in worldwide aggregates mutual support, you can optionally attend the UEPG Delegates' Assembly and the Entrepreneurs' Forum Meeting on 24-25th May.



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