

# EPC FOCUS

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SPECIAL FEATURE

## INNOVATIONS STRENGTHENING THE LEADING POSITION OF THE EPC GROUPE

### ZOOM IN Explosives

p.4

The range of boosters is growing in number

### FOCUS ON Environment

p.10

Bramble Island is relaunching its campaign for the environment

### PORTRAIT

p.13

Laurent Peyrol, an exceptional member of staff



# EDITORIAL

EPC FOCUS is devoting this fourth magazine to the cutting-edge technologies deployed throughout the Group, enabling it to provide more effective and efficient service. The ability to adapt and a propensity to change are qualities which the Group has always tried to develop.

This new issue covers important topics in which the Group is the leader in its field. The position achieved by our Group is primarily due to the men and women who make up the Group and who demonstrate their commitment and professionalism daily. Following a long illness, Mr Laurent Peyrol passed away last November. We have paid tribute to him by devoting him the portrait section which we hope is fitting for the Man that we knew.

This new issue of EPC FOCUS reflects the values of a Group with international standing, remaining true to its ethics and its strong commitment to human values.

Happy reading  
The Editor



# TABLE OF CONTENTS

## 4-5 ZOOM IN Explosives

- The extraction of marble is still very much on-going
- The range of boosters is growing in number
- New ways of making snow safe

## 6 FOCUS ON Safety

- Safety is an area with no limits

## 7-9 SPECIAL FEATURE

- Innovations strengthening the leading position of the EPC Groupe

## 10-11 FOCUS ON Environment

- Bramble Island is relaunching its campaign for the environment
- From demolition to rehabilitation

## 11 FOCUS ON Demolition

- A highly technical and carefully-planned site for EPC-GABON

## 12 FOCUS ON Development

- Geographic and strategic new directions
- EPC-CÔTE D'IVOIRE, an asset for Ivorian national development

## 13 PORTRAIT

- Laurent Peyrol, an exceptional member of staff

## 13 FOCUS ON Logistics

- GROUPEX, a new concept for Class logistics 1

## 14 FOCUS ON Training

- Assess and optimise skills
- Master the technique: a priority for safety

## 15 NEWS FLASH

- Inauguration of an MCS emulsion plant in Saudi Arabia
- 35 years of AREX: a good age to combine experience and innovation!
- Restructuring in France and the UK



# THE EXTRACTION OF MARBLE IS STILL VERY MUCH ON-GOING

In Spain, in the province of Almeria, the quarries of Macael are the proof of the successful evolution in the natural stone industry.

Operating since the time of the Phoenicians, the Macael marble quarries continue to export all over the world. The stone industry in this region has undergone a major evolution which enables local contractors to be involved in large-scale projects. The depot of SERAFINA-ORTEGA e Hijos SA, a subsidiary of EPC, located a few minutes from the quarries, is playing a part in this success. The company is marketing explosives which meet the requirements of demanding customers.

## A continuously innovative product

The white marble of Macael, found in Roman temples, was used in various emblematic structures like the Court of Lions in Alhambra in Grenada.

In 1836, the country's first stone-cutting factory was established at this site. Since then, the knowledge and know-how has continued to develop making Macael a leading location for stone work. Innovations are still possible as demonstrated by a long-standing customer of SERAFINA-ORTEGA e Hijos SA: Cosentino is the creator of Silestone, a compact quartz product with bacteriostatic protection which is being used in our kitchens and bathrooms.

### THE MACAEL QUARRIES IN FIGURES

- > 120 companies employing 3,250 people
- > €200 M of exports in 2012
- > A zone covering 29 districts

## Very advanced extraction methods

The mining operations in Sierra de Macael are open-cast with a system of descending banks. They are characterised by high working faces, which have to be broken using backfill. The degree of mechanisation is rather high there, producing high quality. Braking down sterile rocks is performed by drilling and explosions in order to then permit the extraction of operating units (using cable or manual drill rigs). In terms of machines, the use of backhoe excavators is widespread. ■

By Maria Del Mar Laborda



Extraction platform

# THE RANGE OF BOOSTERS IS GROWING IN NUMBER

The exclusive creation of the EPC Groupe, the EPC BOOST is available in several versions to win over new enthusiasts.

The extractive mining industry increasingly uses bulk explosives, pumpable emulsion and nitrate/fuel oil. The latter offer improved user safety, but require powerful priming. To meet customer requirements, the EPC Groupe has developed its own range of priming boosters.

## An innovation born in Italy

The previous EPC FOCUS presented the oldest of this range developed by EPC-ITALIA in collaboration with EPC-INNOVATION: the EPC BOOST 410. This benchmark, which has already been produced 1.6 million times, enables Blendex pumpables to be primed in holes full of water. The high quality of the explosive it consists of, coupled with a well thought-out design, contribute to its success.



EPC BOOST

## Different versions for different uses

Drawing from the work carried out on its predecessor, the EPC BOOST A 250 has emerged, specifically designed for priming Nitrate/Fuel Oil on export markets. The detonation speeds recorded on site have once again demonstrated the excellent priming capacity of this booster.

An EPC BOOST A 150 version is currently being tested. This is a booster designed for safety priming at the column head.

For underground applications, EPC offers EPC Cord B, which has proved to be perfectly suitable for bulk emulsion loading operations through MORSE units.

## A success which is spreading

The high presentation quality and the excellent pyrotechnic specifications of EPC BOOST are recognised by all its users in Europe and large mines in West Africa. This range reinforces the EPC Groupe's position at the highest level across all its products and services. ■

By Gilles Jauffret

### REMINDER

For more information on the EPC Groupe's Booster, please refer to FOCUS on Innovation in EPC FOCUS no. 3, page 14!

# NEW WAYS OF MAKING SNOW SAFE

Recognised by mining companies, public works companies, quarries, etc., EPC Groupe's explosives are also being appreciated in ski stations where they are used to trigger avalanches.

As a preventative measure, triggering avalanches prevents dangerous snow melt. The explosion, by creating air pressure, shakes the snow pack and makes it slide at a given moment. To achieve this, the EPC Groupe has developed proven techniques and specific explosions.

## Depending on the slopes

The methods used vary according to the site concerned: 3 of them are best used for built-up areas.

### 1 CATEX method (*Explosive Transporter Cable*)

An explosive cartridge is attached to the end of a cable which passes above avalanche areas. The suspended cartridges are primed by the slow detonating fuse. The primed explosive is positioned close to the targeted area by a drive station which moves the cable.

### 2 GASEX method

The explosion of a gaseous mixture generates a shockwave on the surface of the snow via a barrel.

### 3 The avalanche cannon

An arrow filled with a liquid explosive is launched in the area to be cleared via the cannon. When the arrow pierces the snow, the explosion triggered creates the required shockwave.

Two methods are suitable for non-built-up and difficult to access areas:

### 4 The DAISY BELL method

The shockwave comes from the explosion of a gaseous mixture contained in a system suspended from a helicopter. This costly solution remains relatively unused.

### 5 The Slope Manager/Explosive cartridge method

The slope managers go to the peak above the area to be cleared and prime a cartridge by detonator fuse before throwing it. This method is widely used.

Depending on the case, the products used are dynamites, emulsions, Hydrogen/Oxygen or Propane/Oxygen gas type mixtures or liquid explosives.

For increased safety and efficiency, explosive emulsions are increasingly substituted by dynamites and non-electrical detonators tend to replace slow detonator fuses. New developments are currently underway, particularly to further secure the phases of storage and movement of slope managers when they load their backpacks with explosives.

The EPC Groupe, with the design of new products, is providing new solutions for the safety of operators and skiers. ■

By Laurent Casagrande and Daniel Aubertin



© Photoreo Bednarek - FOTOLIA

Triggering an avalanche voluntarily for safety purposes



# SAFETY IS AN AREA WITH NO LIMITS

Safety is an absolute priority of the EPC Groupe. It is now optimised by the transfer of experience which takes place in complete transparency.

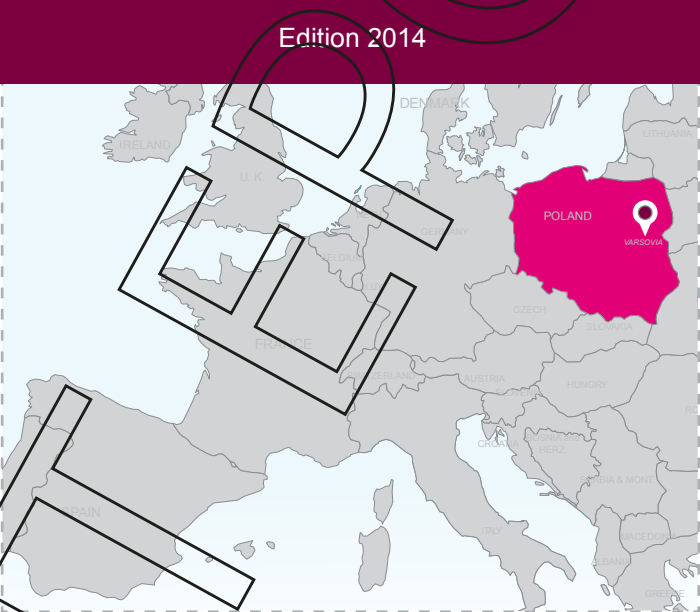
As part of the collaboration that the EPC Groupe has conducted with the company DuPont de Nemours, a widely recognised name in the field of safety, the importance of sharing experience was emphasised. In all cases: risky situations, near misses, no-lost time accident, lost time accident. Flagging-up these cases – instead of hiding them – within the team, the Group or entire company means they can be better analysed in order to better predict and prevent re-occurrence again.

## Sharing within SAFEX

To discuss safety issues outside the EPC Groupe, representatives take part in conferences like SAFEX's. During the 2014 edition which was held in Warsaw, EPC GROUPE was one of the actors of this appointment which different actions were presented to the entire SAFEX community. The scenarios studied were commented upon by experts from various countries: Saudi Arabia, Belgium, France, Italy and the United Kingdom.

### What is SAFEX?

**SAFEX is an international organisation created in 1954 which brings together manufacturers of explosives committed to improving safety. It has 250 members. Its purpose is to warn about the risks and dangers that have been identified, to identify good practice and to promote skills linked to the correct use of explosives.**



### Put its skills on line

On some occasions, the EPC Groupe works with competitors to tackle strictly safety-related themes and pool knowledge on situations experienced in a similar way in different companies. Thus, in 2013, SAFEX notifications warned of similar issues relating to the tightness of detonators various members in England. An on-line conference open to SAFEX Members was then organised on 22 October. The facts, causes of incidents and the actions taken were discussed with the participation of EPC experts in England and Morocco and those of other participants in Argentina, the Czech Republic and the USA. ■

By Thierry Rousse



Typical operation of a quarry

© Leonardo Franko FOTOLIA

# INNOVATIONS STRENGTHENING THE LEADING POSITION OF THE EPC GROUPE

Armed with its experience and know-how, the EPC Groupe demonstrates its expertise, competitiveness and the quality of its blasting by its innovations, whether these are in terms of technologies used or in engineering, tools and explosives. From the blast design up to their monitoring, all stages in the process are constantly improved.



Expertir device

## CUTTING-EDGE TECHNOLOGIES GAINING GROUND

Belgium has used new technologies from the EPC Groupe to perform drilling-mining operations tailored to the customer's requirements.

In a relatively dense territory, Belgian excavation sites find themselves surrounded by areas sensitive to the adverse effects of mine blasting. With this in mind, using new methods with instrumentation that governs the quality of the blasts is essential. This is why the face is positioned and controlled by laser scanner. Deviation is measured by pulsar sensor. The Expertir software is used for specific constant energy theoretical loading plans and monitoring loading in real time. Electronic detonators are preferred for priming. The blasts are recorded by video camera and the vibrational data is measured and analysed. All customers can access the relevant blast reports on line, with photos, vibration read-outs and videos.

## Immediate results

Tools and methodologies help the head miner and the blast designer in the blast stages. These techniques help improve safety, the quality of the blasts and the productivity of the site. Measuring and recording geometric and energy parameters means that the performances required by customers can be understood and optimised.

The production of explosives on-site also has several advantages:

- Limits road transportation of explosives
- Enables flexibility in response to the meteorological and geological hazards
- Optimises the granulometric relationship
- Reduces depot entries/outputs.

## Continuous improvement

Regardless of the performance of new tools and new technologies, experience remains essential in the drilling-mining sector. This observation encourages EPC-BELGIQUE and DGOM3 to promote continuous training and exchange of experience, in accordance with the EPC Groupe's philosophy. In the short term, the projects being

studied relate to future services and optimisation opened up by the new measurement and geolocation tools used on the drill rigs. ■

By Eric Krolop

### Key figures

**75%** of the volume of explosives sold by EPC-BELGIQUE manufactured on site by 3 MEMUS  
**90%** and **95%** respectively of DGOM3 blasts performed using MEMUS and electronic detonators

**98%** of the blasts from DGOM3 positioned and controlled by a laser scanner and a pulsar sensor

## A MORE ERGONOMIC CONTROL PANEL

New functionalities, better use of data: the control panel on EPC-UK's Multilend trucks is leading the way.

According to Mark Roberts, Special Projects Manager at EPC-UK: 'the use of USB to transfer data and the compatibility with our Expertir software make the new control panel very user-friendly.'

The operator selects the drill hole then monitors the design tolerance of the explosion. The truck automatically conforms to the load plan. The operator can override this function if need be. Once the drilling holes are loaded, the information can be saved and then transferred to a computer. On some trucks, it is also possible to use a variable density determined by the blast operative to load the drilling.

For improved performance monitoring, all explosion designs shall be electronically recorded from the end of 2014. ■

By Ben Williams



Control panel mounted on a lorry



# INNOVATIONS STRENGTHENING THE LEADING POSITION OF THE EPC GROUPE



Expertir device

## EVEN MORE RELIABLE REMOTE TRIGGERING

**EPC-UK has developed, in partnership with Technical Concepts Ltd, a remote-controlled explosion system for detonators called ROBIS (Remotely Operated Blast Initiation System).**

The ROBIS system consists of two sections: a receiver to be installed close to the explosion area and an emitter. It is this component which receives the system's remote command; it enables the blast operative to prime and trigger the explosion at a distance of up to 1,000 metres.

The digital radio communication technology designed for remote triggering guarantees full blasting system integrity even in unfavourable conditions. Its reliability was proven during tests in which it was subjected to very high levels of radio interference.

The emitter consists of indicators providing information on the status of the system: is the receiver working, have the emitter and the receiver established two-way communication, is the battery low.

The main advantage of ROBIS, during explosive blasts in quarries and in surface mines, is that the blast operative can now position himself away from the danger zone, without blast shelters, which represents progress in terms of safety. It can maintain a better view of the danger zone and the explosion. ■

By Rob Farnfield

## EXPERTIR, A SOFTWARE TO HELP YOU MAKE THE BEST CHOICES

**For safety and efficiency of open-pit blasts, the EPC Groupe has developed the Expertir software. It means that blasting plans can be adapted to the conditions of the terrain.**

Expertir uses our know-how in terms of explosive blasts to provide essential support for mining operations. In contrast to 'study and simulation' type software, this working tool organises the open-cast mining stages in

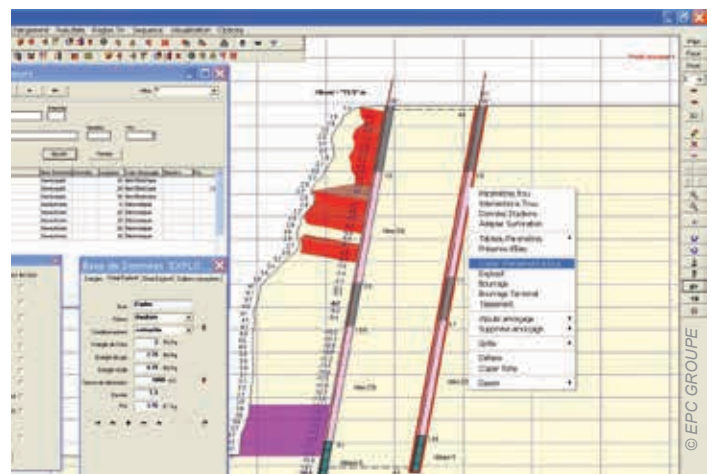
a controlled and optimised way. It manages measurement of the rock mass, the design of the drilling plan, checks its deviations and optimises the load plan and the priming sequence. This is an engineering tool which provides a high level of safety and quality in our operations.

## Ever more useful

The EPC-FRANCE and EPC-BELGIQUE teams have used this software for several years. Recently, EPC-SUEDE, EPC-UK and MCS have used Expertir as a blast design tool in quarries.

The development of Expertir continues in response to changes in practices and technologies. The next stage involves linking with variable density technology provided by EPC-INNOVATION in our fabrication trucks. Another issue for improvement also concerns the type of blasts used in mining. The aim is still to provide our customers with top quality service with results tailor-made to their requirements. ■

By Ricardo Chavez



Screenshot from the Expertir software



# INNOVATIONS STRENGTHENING THE LEADING POSITION OF THE EPC GROUPE

## NEW EXPLOSIVES USING USED OILS

In the manufacture of explosives, the EPC Groupe has newly-developed a particularly energy-efficient procedure which is also kind to the environment!

## Successful valorisation before and after the explosion

Civil explosions are stable mixtures of fuels and oxidisers. The combustible part generally consists of diesel mixed with active surface agents (called surfactants). It is possible to substitute some of the diesel with used oils. By adjusting the quantities of the various products used, the EPC Groupe has fine-tuned dosages with used oils, to be as effective, or even more so, than those solely constituted of pure diesel.

During the explosion, polluting substances, like heavy metals found in oils, are reduced directly to fine residual particles, with a much reduced toxicity and always at negligible contents.

## A quality which is ready to be exported

This valorisation process emerged in the major mining countries during the 1990s. Very large amounts of used oil at mining sites were the reason behind this, accompanied by increasing awareness of the environmental issues.

In West Africa, where mining activity is booming, large quantities of used oils are generated which need to be processed efficiently. The lack of dedicated recycling facilities limits processing options. The EPC Groupe's technology is perfectly suited in this area to solve this situation. The EPC Groupe possesses the technical expertise and an exhaustive knowledge of the international regulations currently governing the revalorisation of used oils in the manufacture of civil explosives. It is therefore in a position to provide mining operators with quality support even in countries where this environmental and economic issue is not yet fully under control. ■

By Olivier Vandenabelle



A solution ready to be exported

© EPC GROUPE



# BRAMBLE ISLAND IS RELAUNCHING ITS CAMPAIGN FOR THE ENVIRONMENT

EPC's Bramble Island site (EBI) in Great Oakley is a paradise for wild flora and fauna. EBI employees have always monitored the conservation of the natural habitat and rare local species.

## An important site for nature

Respectful to the environment and the living world, for many years, EBI has worked with a governmental organisation called Natural England on various conservation projects. The site is of special scientific interest. It was suggested that the company lodge a request for new governmental financing via the HLS programme. The High Level Stewardship is a scheme recently launched by British organisations which grants government funds to selected sites and offers advice designed to conserve the environment.

## Constant vigilance

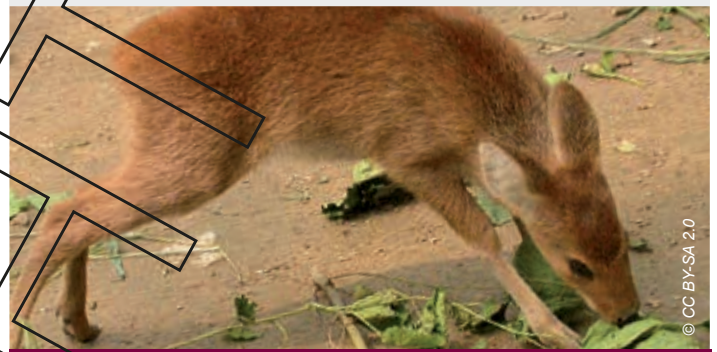
Following initial planning and surveys, the HLS environmental management contract was signed on 1st July 2013. It encompasses all our current environmental management activities, dedicated to the Hog's fennel (plant), to the Fisher's Estuarine Moth (moth), to the Bank vole (small rodent) and to the Barn Owl (nocturnal raptor). This agreement recognises the importance of the Bramble Island site in terms of the environment and the commitment of its employees. ■

By Daniel Howard



### SNAPSHOT

A Chinese Water deer (also called Water Deer is a small Asian deer) was spotted on Bramble Island in December 2013. This species of deer is not native to the United Kingdom and it is very rare to see one. It is likely that this specimen escaped from a park or a zoo.



Chinese water deer spotted on Bramble Island

© CC BY-SA 2.0

# FROM DEMOLITION TO REHABILITATION

Aware of the environmental impact of its activities, the demolition section of the EPC Groupe is now offering a comprehensive package integrating decontamination, with its subsidiary 2B RECYCLING.

2B RECYCLING has always helped companies in the demolition field with issues linked to waste. An additional step was taken in September 2012, with the appointment of a decontamination representative and the official launch of 4th 2B RECYCLING activity: 'rehabilitation of contaminated sites and soils'.

## On-site skills

When a decontamination operation takes place at a site, 2B RECYCLING is the go-to company for companies in the demolition field. 2B RECYCLING uses its site analysis skills and offers tailor-made solutions.

Rehabilitation work at contaminated sites encompasses several activities: excavation, sorting, pre-treatment, transportation to suitable facilities, biological or physical-chemical treatment, installation, storage, thermal desorption, incineration, etc.

## Valorising our results

The comprehensive 'Asbestos removal, demolition and decontamination' package has many advantages. Firstly, customers and contractors like dealing with a single contact. Secondly, the pooling of resources means that costs and execution schedules are optimised. The proximity between the site supervisors facilitates communication. Lastly, the Demolition Section may demonstrate new skills and use their highly technical knowledge.

### 2B RECYCLING IN FIGURES

Turnover: **1,1 M€** (12% of overall turnover 2013)

Number of sites: **12**, including 2 in partnership with OCCAMAT and 10 outside the group



Decontamination site in Trelleborg

© EPC GROUPE



## A made-to-measure package

In addition to providing its skills to the EPC Groupe's Demolition section, 2B RECYCLING provides assistance to industrial companies, tradesmen, design offices, private or public landowners, public works companies, promoters, etc. The service encompasses consultancy and technical assistance, taking samples and laboratory analyses, excavation and sorting of earth and/or materials affected, transportation to appropriate facilities, on-site or off-site treatment. Tailor-made operations to restore the balance of contaminated soils and sites! ■

By Gwenaëlle Croizer



Soil decontamination

© EPC GROUPE

## ZOOM IN Demolition

# A HIGHLY TECHNICAL AND CAREFULLY-PLANNED SITE FOR EPC-GABON

On 15 December 2013, the impressive International Conference Centre building in Libreville disappeared after completion of work with a high degree of precision.



© EPC GROUPE

Building in Libreville before it was demolished



Flash this code to watch the demolition video

<http://youtu.be/mhoSv58nEAQ>

## An iconic project

The International Conference Centre in Libreville, built in 1975, must make way for a new ultra-modern building to take its place. The Agence Nationale des Grands Travaux (ANGT), an organisation centralising the majority of work in GABON, has been designated as the customer for this project. By its side, the Turkish Public Works company ENKA won the architectural international tender to reconstruct the Centre. They chose EPC-GABON to perform the mining works for the historic building.

## The challenges to be met

On 3 levels, the imposing structure of the building rests on nearly 400 reinforced concrete pillars. Target: shear all of the pillars by approximately 2 m. The major preparatory drilling work was carried out by ENKA. 10 people were involved for nearly 20 days, supervised by EPC-GABON.

On 9 December, the EPC-GABON team consisting of Bruno, Noëline, Ali, Cyril, Idriss, Yacoubou, supported by Yannick Bleuzen and Jean François Couvrat started the loading work. This involved loading each 25 x 50 cm pillar in four mines of approximately 45 cm and connecting them by 10 gr cords. The charges consisted of Explus cartridges. The specific charges varied between 1 and 5 kg/m<sup>3</sup>. The strongest charges were concentrated on the central pillars and in the ground floor of the building.

### In figures...

**500 kg** of explosives laid out in the building

**3 days** to perform the loading work

In total, over **400** detonators and **1600** connected mines

## A tailor-made demolition

On the fourth day, the EPC-GABON started to connect the electrical detonators. Adjusted depending on the floor, the principle was to explode the centre pillars towards the exterior, from bottom to top. The entire blasting plan and sequences were also adapted to the products usually used in Gabon.

On Sunday 15 December, at 9.30 exactly, the blasting order was given by David Harwood, manager of EPC-GABON. Under the watchful eye of the contractors and customer, the building collapsed perfectly. The team deservedly received the congratulations of the ANGT and ENKA. There is now space for the construction of the new Conference Centre! ■

By Jean-François Couvrat and his team



# GEOGRAPHIC AND STRATEGIC NEW DIRECTIONS

The EPC Group has sold its central European subsidiaries EPC-CESKA REPUBLICA, EPC-DEUTSCHLAND, EPC-POLSKA and EPC-ROMANIA to re-energise its development and its international position.

## A context requiring change

The current period of crisis in Europe has naturally affected our field of activity. The sectors linked to public works and construction have been affected to a greater extent than the extractive industry which remains positive. Our European markets, mainly made up of public works, aggregate pits and products intended for cement works have been doubly affected. They have suffered, on one hand, from the consequences of a global financial crisis which shook the world economic order and, on the other hand, a EURO crisis which significantly slowed down European investment, particularly that relating to the building and infrastructure sectors.

## Reinforcing our strengths

Faced with this situation, the EPC Groupe has redefined its strategy. It has decided to focus its resources on markets in which it is the leader or the number 2 and to which it provides real added value.

As part of this new strategic direction, the Group has disengaged from the Eastern European region.

## A redeployment strategy

On 31 July 2013, EPC sold all of its activities and companies in Germany, Poland, Romania and the Czech Republic.

The agreed transaction values the companies sold at a level compliant with EPC requirements. It also corresponds with the activities undertaken by the Group both by the management and all of the local personnel to form a coherent and viable entity.

This strategy means that EPC can continue its diversification and development policy on high-growth markets (Africa, the Middle-East and the Americas). ■

By Bertrand Pougny

# EPC-CÔTE D'IVOIRE, AN ASSET FOR IVORIAN NATIONAL DEVELOPMENT

Jean-Jacques Koua is the CEO of EPC-CÔTE D'IVOIRE, a company created in August 2012 to share in the development of the Ivorian mining market.

## Why set up a company in the Ivory Coast?

The Ivory Coast has a diverse and immense mining potential, which still remains under-exploited. The sub-soil contains gold, iron, magnesium, bauxite, etc. Today, the Ivorian state wants to make the extractive industry an essential part in its development. This convergence between the resources and governmental decisions has resulted in the establishment of the EPC Groupe. EPC's development model in the Ivory Coast is based on a partnership between the Group and SODEMI, a state company with which we exchange our knowledge.

## What are the activities of EPC-CÔTE D'IVOIRE?

Our commercial activities began in July 2013 after gaining the necessary authorisations in March 2013. EPC-CÔTE D'IVOIRE markets explosives and blasting accessories. The service activity will start very soon at mines and quarries.

## How are the commercial activities organised?

Our activities first began with the construction of a large depot near Abidjan. We then imported explosive products (explosive cartridges, detonating cords) and detonators from EPC-MAROC. We are currently supplying most of the quarries and certain mines like Mines d'Ity and Newcrest Bonikro.

## What is the role of the manufacturing plant currently being constructed?

It is the first bulk emulsion plant for the mining market in the Ivory Coast. This plant has a capacity of 1,500 t/month which can be increased to 2,000 t/month and is built at Yamoussoukro on a 125 hectare site. Its output will supply the Ivorian mining market and the surrounding countries.

## How is EPC-CÔTE D'IVOIRE involved in local development?

The installation of the plant in the village of OKO created local jobs during the construction phase. We plan to create more during the operational phase.

As a local participant, and in compliance with the recommendations of the

FIES (environmental and social impact study), we are going to organise the village community as a cooperative and support agricultural activities.

## How is EPC-CÔTE D'IVOIRE assisting in the development of the EPC Groupe in Africa and its profile?

The objective is to make EPC-CÔTE D'IVOIRE an inter-regional base and to export our products to bordering countries (Burkina-Faso, Ghana, Liberia and Mali, to name but a few). We are strengthening our services by developing drilling/mining services. As part of this same dynamic, we intend to offer training and consultancy with the provision of the Blasting Engineers Certificate. All these actions make EPC-CÔTE D'IVOIRE a benchmark partner. It should be emphasised that we have good relationships with all players in the Ivorian mining sector. ■



© EPC GROUPE

## 2 sites :

- > An 80-tonne explosives storage depot, 40 km from Abidjan
- > A bulk emulsion manufacturing plant (commissioned in March 2014) in the region of Yamoussoukro.

Jean-Jacques Koua, CEO of EPC-CÔTE D'IVOIRE



LAURENT PEYROL, AN EXCEPTIONAL MEMBER OF STAFF

A passionate and exacting professional, a discrete team-player, Laurent Peyrol made a major contribution to the Group's development. He leaves a lasting impression on our Group, as a geologist and even more so as a man.



22 November 2013 unfortunately marked the passing of Laurent Peyrol. At 42 years old, he was taken by a cancer that he fought against for many months. Laurent joined the Group in 2000. At NITRO-BICKFORD, he successfully commercially developed the earthquake sector as well as the Central African and Asian zones. From 2007 onwards, at EPC, in his capacity as Groupe Marketing Manager and Project Manager within the Development Division, he initiated and successfully completed many strategic projects. In 2011, this great traveller became CEO of EPC-MAROC.

A respected professional

Curious about everything and everyone, Laurent focused on all the areas he was responsible for with the rigour and passion of the geologist that he was. Deeply engaged in his work, he tackled every challenge and every new situation with a desire to learn, the energy of someone who wanted to give their best, and with the upmost skill. Open to others, he put his colleagues first. With a desire to constantly improve himself and widen his experience, he possessed qualities which made him a great professional and, quite simply, an exceptional human being. All those who were lucky enough to work with him or meet him remember an astute, meticulous, reserved, yet extraordinarily positive man. His integrity gave him an unshakeable faith in mankind. Along with this portrait, which is our tribute, our thoughts go to his wife Régine and his children Emma and Rafael. ■

By Bertrand Pouigny

FOCUS ON Logistics

GROUPEX, A NEW CONCEPT FOR CLASS LOGISTICS 1

An explosive groupage service, Groupex, optimises transportation costs within and outside the EPC Groupe.

Historically, the EPC Groupe and other explosive manufacturers carried Class 1 goods as part of «specialist transportation», subject to the strict obligations of road transport (ADR), maritime (IMDG) and air (IATA) regulations. At the same time, intermodal transport requires the use of special containers, which, in the case of small cargoes, means paying the costs of empty spaces.

Containers saving money

In the world of logistics, the aim of groupage is to consolidate small loads in a large container in order to reduce shipping costs. This proven concept of freight has been adopted and formalised by EPC-LOGISTIQUE for Class 1 goods. The new groupage service, Groupex, involves transporting explosive materials in a shared container while combining products in accordance with authorised compatibility groups. The optimised use of containers means significant transportation cost savings. The Groupex solution, specifically designed for Class products 1, is unique.

An additional benefit for logistics

The savings are much greater when Groupex combines regular shipments coordinated by the EPC-LOGISTIQUE teams in France and the United Kingdom. These performances are based on the capacity, within the EPC Groupe sites, to consolidate loads for shipment and on the support provided by experienced and qualified personnel in the fields of road, maritime and air transport. Operational since September 2013, Groupex has proved popular among the companies in the EPC Groupe and third-party customers. ■

By Darrel Howard





# ASSESS AND OPTIMISE SKILLS

EPC-UK has relied on an assessment procedure and training to keep its employees' knowledge up to the highest possible levels. This is essential when skills and safety are very closely connected!

## Benchmarks for increased progress

In 2003, a European initiative was launched, inspired by the loss of skills in the explosives sector as a result of retirements. Significant knowledge and experience were lost with these retirements. The EUExCert project, financed by the Léonard de Vinci programme is tackling this problem: studies have been conducted to understand how skills were assessed in the European explosives sector. In the UK, the work of the University of Cranfield has stood out: this work has resulted in the development of a template and the drafting of standards relating to skills for the Ministry of Defence. This process was identified as being the most advanced in all European countries.

Standards relating to skills with explosives in the United Kingdom were drafted in a format close to those of professional qualifications (NVQ). 284 individual standards cover all aspects of the activities performed.



Training session

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Flash this code to access  
284 individual standards

<http://www.ukstandards.co.uk>

## Training programmes

At the same time, an initiative has been launched by SAFEX, an organisation which the EPC Groupe has belonged to for a long time. Encouraging skills within the context of a reduction in staff, a SAFEX working group wished to make available the knowledge required for supervisors who have just been promoted, new managers in the sector and long time managers (refresher training).

The training, delivered on line, has been developed with the University of Cranfield.

EPC-UK has started the skills study beginning with the upper ranks and expects to complete it in 2014. The first stage relates to explosives manufacture management. ■

By Ashley Haslett

### Eight modules

- 1 Explosive regulations
- 2 Safety basics
- 3 Risk management
- 4 Work permits
- 5 Change management
- 6 Materials management
- 7 Emergency and crisis management
- 8 Incident report and investigation

# MASTER THE TECHNIQUE : A PRIORITY FOR SAFETY

In Africa, as is the case everywhere else in the world, the on-going acquisition of technical knowledge is a gauge of safety in our activity, which is subject to major risks.

Following the path forged by the EPC Groupe in terms of improving quality and safety, the SOCIETE MINE AFRIQUE, a subsidiary of EPC, has established a series of training programmes validated by the Blasting Engineers Certificate (CPT) and mining management. 8 training sessions were therefore organised in the 7 African subsidiaries of the EPC Groupe. They are the fruit of close cooperation between EPC GROUPE, EPC-FRANCE and local subsidiaries. The trainees benefit from the expertise of people in the job whose role is to transmit technical knowledge and to develop the concept of prevention in a potentially high-risk profession.

## Train with experts

Trainers from EPC-FRANCE spend 5 days in groups of 8 to 15 and sometimes more at some sites where training demand is greater. The sessions are divided into 2 parts: a theoretical part in the training room and a practical part at a site. Upon completion of the training, the trainees receive a training certificate. Their skills are also assessed and recognised by a CPT type certificate when their score reaches the level of 60/100. ■

By Dieneba N'Diaye

### In figures

**8 training sessions** in 7 subsidiaries

Duration of each activity : **5 days**

Trainees in each session : **8 to 15**



Training session

© EPC GROUPE





Inauguration of MCS site in Jamoom

## Inauguration of an MCS emulsion plant in Saudi Arabia

MCS celebrated the inauguration of its Jamoom site on 11 December 2013.

MCS' board of directors and management along with the Jamoom employees attended this event, accompanied by the most senior officers of the Ministry of the Interior and representatives from MCS' main customers. After the speech given by Vice-President M. Abdulaziz Al Hamwah, the ribbon was cut by his Royal Highness, Prince Turki Bin Abdulrahman Bin Abdulaziz, President, and M. Olivier Obst, Vice-President of MCS and EPC's CEO. A full visit of the site concluded this meeting. The Jamoom site has an annual capacity of 15,000 metric tonnes of ANFO, 5,000 metric tonnes of emulsion in cartridge form and 10,000 metric tonnes of bulk matrix. ■

By Luis Calvo

## 35 years of AREX: a good age to combine experience and innovation!

A mark of its durability and its effective synergy with the EPC Groupe, AREX celebrated its 35 years in business in November 2013.

Employees and their families took part in the anniversary evening accompanied by EPC's guests of honour: Thierry Rousse, Olivier Vandenberghe and Dave White, who have all contributed to the current success of AREX.

The Arabian Explosives Company was set up in Ras Al Khaimah in the United Arab Emirates in 1978, in the form of a joint venture between the EPC Groupe and two local partners. AREX manufactures ANFO explosives and bulk explosives sold in the United Arab Emirates and exported to Oman, Saudi Arabia, Qatar, the Seychelles and other countries.

### A DYNAMIC PARTNERSHIP

The EPC Groupe provided what was required to meet customer requirements when AREX was established in order to remain a leader in the field of explosives. The plant has undergone improvements over the

last eight years; more sophisticated systems and procedures have been used and implemented at various levels.

AREX now has 34 employees compared to 3 when the company was founded in 1978: E. G. Saseedharen (Works Engineer), D. Babukutty (Foreman), Mathukutty (ANFO supervisor).

AREX first employed 19 employees with an initial sales volume of 50 tonnes a month. The company achieved its sales record in 2008 with 2,850 tonnes a month. ■

By Paul Clark



35 years of AREX

## Restructuring in France and the UK

The activities of the EPC Groupe have been restructured on both sides of the Channel.

In the current European climate and in response to changes to our activities, the EPC Groupe has undergone a restructurisation, which took the form of merging and consolidating activities. The purpose of these changes is to unify the teams and offer our customers optimised tailor-made services to their requirements.

### IN FRANCE

A single entity, EPC-FRANCE, will now combine all the following activities: manufacturing, logistics and distribution in France and Exports, associated services, drilling-mining and special works.

EPC-FRANCE consists of two divisions: the 'EXPLOSIVES' division managed by Laurent Casagrande and the 'SOLUTIONS' division managed by Sébastien Lambert. This new grouping will be managed by Pascal Lacourie who will also manage the Continental Europe zone for the EPC Groupe. Commercial management of these activities will be led by Philippe Cappello. Geographically, France is divided into 4 large

regions, each managed by a Business Centre Manager.

### IN THE UK

Blasting Services Ltd and EDSL Ltd have merged within EPC-UK. The explosives and drilling-mining activities are now managed by a unified team, ready to implement a shared strategy 'One Company, One Mission, One Vision, One Focus'. This reconfiguration was accompanied in 2013 by the launch of other essential projects: the creation of a Sales Hub, a Training Centre and Back Office designed to propel the company forwards. ■

By Pascal Lacourie and Ben Williams





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