



UEPG Sustainable Development Awards 2005

Promoting good practice

Going beyond what is expected

Providing examples others can follow



The European Aggregates Industry supports the principles of Sustainable Development. It is committed to operate with care and concern for the environment, for its neighbours, for its employees and for society as a whole. The UEPG Sustainable Development Awards illustrate this commitment by promoting the spread of best practice and encouraging projects which go beyond what is required by planners or regulators. In this way, it is intended that the Awards will provide examples which others can follow.



Aggregates in Europe

What are Aggregates?

Aggregates are a granular material used in construction. The most common natural aggregates of mineral origin are sand, gravel and crushed rock. An end-product in themselves such as railway ballast or armourstones, aggregates are also a raw material used in the manufacture of other vital construction products such as ready-mixed concrete (made of 80% aggregates), pre-cast products, asphalt (made of 95% aggregates), lime and cement.

Aggregates can be produced from natural sources extracted from quarries and gravel pits and in some countries from sea dredged materials (marine aggregates). Secondary aggregates are usually by-products from other industrial processes, like blast or electric furnace slags or china clay residues. Recycled aggregates derive from reprocessing materials previously used in construction, including construction and demolition residues and railway ballast.

Aggregates can only be extracted where nature has placed them. Careful planning is therefore needed in order to ensure that a proper balance is struck between society's need for raw materials and the necessity to protect all that is best about our environment. Due to the pressures from land-planning on reserves and stricter environmental regulations, aggregates have become more than ever a strategic raw material.

What are Aggregates used for?

The main end-uses of aggregates are:

Homes

The construction of a typical new home uses up to 100 tonnes of aggregates from the foundations through to the roof tiles.

Hospitals, schools and flood protection

From local hospitals and schools to bridges and flood protection- all are made possible by aggregates. In many cases they provide not just strength but, through special finishes, architectural beauty. The construction of a school requires 3000 tonnes of aggregates. For a sports stadium, up to 300,000 tonnes are needed.

Transportation network

Aggregates feature at all levels of construction of the European transportation network up to the road surface which includes aggregates resistant to polishing, ensuring skid-resistance and safer travel for drivers. The construction of 1 km of motorway requires 30,000 tonnes of aggregates.

Rail services

Aggregates are an essential foundation for Europe's expanding high speed and regional rail network.

What does the European Aggregates Industry represent?

The European Aggregates Industry is the largest non-energy extractive sector in the EU with 2,800 million tons produced every

year. It consists of more than 27,000 extraction sites across Europe and a majority of operators in the sector are small and medium sized enterprises. The average annual aggregates production represents 7 tons per EU citizen per year. The European Aggregates Industry plays a key role by providing essential materials for the European construction sector. Take away aggregates and our built environment would literally fall apart.

What is UEPG?

UEPG stands for Union Européenne des Producteurs de Granulats (European Aggregates Association). Since 1987, UEPG has represented the interests of the European Aggregates Industry by representing its National Member Associations on economic, technical, environmental and health & safety policy.

UEPG pro-actively identifies EU initiatives and policies that are likely to impact on European aggregates producers. It provides Members with brief and concise information through regular publications and ad-hoc updates, and ensures UEPG positions are considered by EU decision-makers. UEPG positively promotes the profile of the European Aggregates Industry.

UEPG in brief:

- 19 European countries
- 2,800 Mt of aggregates per year
- 27,000 sites
- 250,000 employees

UEPG Sustainable Development Awards

What are the UEPG Sustainable Development Awards?

The European Aggregates Industry is committed to operate with care and concern for the environment, for its neighbours, for its employees and for society as a whole. The UEPG Sustainable Development Awards illustrate this commitment by promoting the spread of best practice and encouraging projects which go beyond what is required by planners or regulators. In this way, it is intended that the Awards will provide examples which others can follow. In 2005, 21 entries from 10 countries have been received.

Is it the first time that UEPG has launched an Award scheme?

No. UEPG launched its first European Restoration Award scheme in 1997, which was followed by a second scheme in 1999 and a third in 2001. On all three occasions, Member companies from 8 nations received awards. The first and second official presentation ceremonies, with participation of Members of the European Parliament, were held in Strasbourg, and the third took place in Brussels and was hosted by Françoise Grossetête, Member of the Parliamentary Environment Committee. Building on the success of this programme, it was decided to enlarge the scope to all aspects of sustainable development.

What does UEPG intend to achieve through this programme?

The first objective is to reward aggregates companies that have successfully integrated the social, economic and/or environmental dimensions of sustainable development into their operations by concrete achievements beyond what is expected, and to encourage the whole industry to reinforce its commitment to sustainable development. The second objective is to create a more positive understanding and appreciation of the key role played by the European Aggregates Industry, in order to ensure sustainable access to resources.

Under what conditions can a company compete for an Award?

1. Entry was open to companies which were members of National Associations, which are Members of UEPG
2. Entries were limited to three per National Association: one for each Sustainable Development pillar (Environment, Social and Economic)
3. Companies were limited to one entry per country
4. The entry had to be supported by a certificate signed by the President of the sponsoring National Association and by a 'certificate of commitment' signed by the Chief Executive of the company

concerned giving assurance that the submitted project would be maintained to at least the same standard as that existing at the date of entry, during the time that responsibility for it remained with the company.

How were national entries selected?

Selection of Applicants was made in accordance with the following principles:

1. Selection of applications at national level was made by each UEPG Member Association.
2. Each UEPG Member Association used its own assessment criteria that it considered appropriate. However, the project needed to be recognised nationally as a good example of sustainable development achievement and be worthy of an European award.

The Independent Jury



1. Barrie Hedges Director, Daybreak Communications, United Kingdom (President of the Jury)
2. Dr. Gerald Dick Director Conservation, WWF Austria
3. Professor Tom Myran, University of Science and Technology, Norway
4. Dominique Bidou, Sustainable Development, National Public Works Council, France

Barrie Hedges (President of the Jury)

Barrie Hedges is Director of Daybreak Communications in the United Kingdom.

He is a communication specialist with more than 25 years experience in working with minerals and other industrial sectors in the UK. Barrie Hedges' work with the aggregates industry began as PR manager with a major cement manufacturer before making the switch to consultancy. Since 1987 he has been consultant to the Quarry Products Association and to its predecessor, the Sand and Gravel Association. The fields in which he has particular experience include aggregates, cement, waste and recycling, as well as energy and salt. As an experienced journalist, he is also fascinated by the challenges of good community relations.

Dr. Gerald Dick

Dr. Gerald Dick graduated in Zoology and Botany from University of Vienna and is Master of Advanced Studies in Environment Management (University of Krems).

His professional activity began at the Institute for Applied Behavioral Ecology in Rosenberg as Researcher for Applied Conservation. After 1992 Dr. Dick was responsible for international conservation with the Austrian Environment Ministry. In 1994 he led environmental projects in Nicaragua and Thailand for the Austrian Development Cooperation. Since 1995 Dr. Dick has been Conservation Director at WWF Austria. His personal focus is on species conservation and projects in Eastern Europe and Mongolia.

Professor Tom Myran

Tom Myran is Professor of Health, Safety and Environment at the Institute of Geology and Mineral Resources Engineering at the Norwegian University of Science and Technology in Trondheim and Scientific Adviser at the Foundation for Scientific and Industrial Research at the Norwegian Institute of Technology.

Professor Myran graduated in Mining Engineering and earned a PhD in 1974. During his professional career he has focused on Health, Safety and the Environment in the mining, mineral industry and tunneling. He has now more than 30 years of experience in this field.

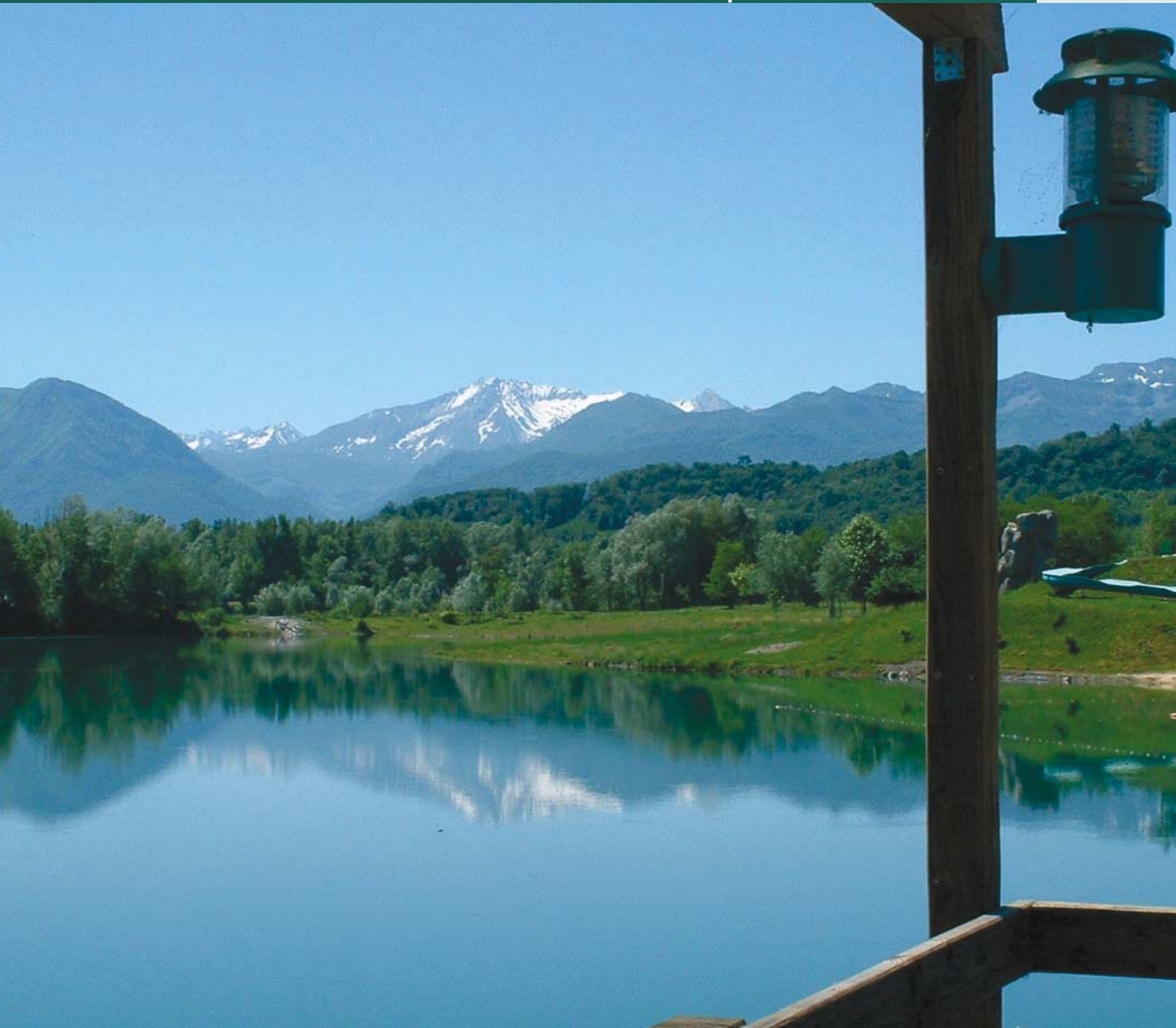
Professor Myran has published around 50 papers including three books and was engaged in several major projects.

Dominique Bidou

Dominique Bidou is in charge of all sustainable development aspects at the National Public Works Council (Conseil Général des Ponts et Chaussées) in France. He is also Chairman of the Association for Environmental High Quality (HQE). Before joining the National Public Works Council, he launched the Agency for Environment and New Energy in the Paris region.

From 1989 to 1992, he was Director at the French Ministry for Environment where he successfully carried out an environmental audit of the National Construction and Homes Regulation. A civil and mining engineer by background, Dominique Bidou is an expert in demographic issues.

UEPG 2005 Sustainable Development Awards



UEPG Sustainable
Development Awards

Environment

Environment Award of Excellence & Award for Site Restoration:Holcim Áridos, S.L. (Spain)

Award for Environmental Best Practice:Franzefoss Pukk AS (Norway)

Special Award for "Outstanding Team Dedication":Kilsaran Concrete Products Ltd (Ireland)

Social

Social Award of Excellence & Award for Local Community Partnership:Tarmac (United Kingdom)

Award for Health & Safety Best Practice

Special Award for "Worker participation":Compañía General de Canteras, S.A. (Spain)

Economic

Special Award for "Economic Contribution to Sustaining a Rural Economy":Emipesa (Spain)

Special Merit for "Innovation":Hülskens (Germany)

Commendation Recognizing Future Potential:Calcestruzzi spa - Italcementi Group (Italy)

Award for Economic Contribution & Added Value to Society:Lafarge Granulats (France)

Economic Award of Excellence & Award for Operational Best Practice:Bernegger Bau GmbH (Germany)

Holcim Áridos, S.L.



The Isabel Concession Project

Environment Award of Excellence & Award for Site Restoration

Holcim's aim is to fully rehabilitate the areas affected by his process. One of our quarries in Andalusia is the Isabel Concession, close to the village of Monda, 15 km. from Marbella in the province of Málaga. Since 1992, we have been carrying out a programme of restoration in harmony with the local environment.

The main difficulty encountered has been the tremendous height of an old quarry face, between 60m and 100m. To reduce this and create terraces, it has been necessary to remove large amounts of rock through blasting, keeping part of this material where it fell to form the base, the rest of the blasted material has been used in building two barriers, one visual and the other for safety reasons. The newly created terraces are then covered with 50 cm. of topsoil ready for reforestation and the installation of an irrigation system.

The restoration was carried out in four main stages:

- In the first phase we chose the highest part of the abandoned quarry face to reforest approximately 12.000m² with very young pine trees.
- In the second phase, after preparing an area of 10.000m² we planted more mature trees of up to 2.5m high.
- In the third phase we restored 30.000m².
- With the restoration of the last 17.000m² we have completed the total restoration of the quarry face.

We have also been keen on improving the general atmosphere through:

- The creation of gardens around all the quarry buildings.
- The sitting of a visual barrier at the top

of the quarry.

- The siting of another visual barrier to hide the processing plant.
- The asphaltting of all internal and external access roads
- The installation of a water spray system to control the dust.
- The seeding of the steep slopes with local flora to try and stabilize the soil erosion and increase biodiversity.

To restore such a degraded and unstable landscape has meant moving 300.000 tons of dolomite, 30.000 tons of topsoil and planting 5.700 pine trees and other local flora.

This work strengthens the environmental commitment with the natural and social surrounding that Holcim Áridos has assumed since the beginning of its activities.

En Holcim nos planteamos la recuperación de las zonas afectadas como un reto necesario.

Una de nuestras explotaciones en Andalucía es la "Concesión Minera Isabel", ubicada en el término municipal de Monda, a 15 km. de Marbella. Desde 1992 se está llevando a cabo una restauración progresiva de las zonas afectadas por la explotación, en consonancia con el entorno natural.

La principal dificultad en la restauración ha sido la excesiva altura del frente de Cantera de 60 -100 m. Parte del material procedente del arranque, se utiliza como relleno para disminuir la pendiente del banco, sirviendo de base para la aportación de aproximadamente 50 cm. de espesor de tierra vegetal para proceder a la plantación de pinos, así como la instalación del sistema de riego por goteo.

El resto del material arrancado se ha usado para construir dos pantallas, una destinada a reducir el impacto visual de la planta y otra como medida de seguridad para evitar la caída de material.

- En una Primera Fase se seleccionó la parte más alta para proceder a la restauración de 12.000m² con árboles de poca altura.
- En la Segunda Fase, sobre una superficie de 10.000m² previamente acondicionados, se procedió a la plantación de árboles de mayor tamaño (hasta 2,5m)
- La Tercera Fase, con una superficie restaurada de 30.000m², se llevó a cabo con el mismo método utilizado en la Segunda Fase.
- Con la restauración de la Cuarta Fase en aproximadamente 17.000m², se ha completado la superficie total prevista para la restauración del frente abandonado.

Otras actuaciones realizadas han sido:

- Ajardinamiento y acondicionamiento de varias zonas de la cantera.
- La creación de una pantalla visual en la parte alta de la cantera
- Asfaltado de carretera de acceso y de viales interiores de la cantera.
- Instalación de un sistema de riego por aspersión para evitar el polvo.
- Trabajos de hidrosiembra con flora autóctona con el fin de acelerar la restauración.

Para llegar a esta situación final, la restauración se ha llevado a cabo con un movimiento total de 300.000 toneladas, con un aporte de tierra vegetal de 30.000 toneladas y una plantación de 5.700 pinos.

Este trabajo refuerza el compromiso medioambiental con el entorno natural y social que Holcim Áridos ha asumido desde el inicio de sus actividades.

Franzefoss Pukk AS



The Lierskogen Plant Project

Award for Environmental Best Practice

Franzefoss Pukk AS is a company in the Franzefoss Bruk AS Group and was founded in 1919.

Franzefoss is one of the largest producers of crushed stone in Norway. Franzefoss Pukk AS operates 14 plants, has more than 100 employees and produces about 3 million tonnes of aggregates per year. The head office is located in Bærum near Oslo. Franzefoss aims to contribute to sustainable development.

Since 2001 Franzefoss operates a plant at Lierskogen. The plant is situated near a densely populated area. In the past former operators had to face complaints of neighbours about dust and noise. As a consequence in 1998 the Governor of Buskerud directed that the aggregates plant should be relocated.

When Franzefoss took over the plant they decided to build a totally new, modern and environmentally friendly plant in order to reduce the emissions instead of solely moving the old plant.

The new plant is located deep down surrounded by 40 meter high walls. Asphalt- and concrete plants in front of the aggregate plant provide a shield and machines which are build-in additionally and contribute to the reduction of dust and noise emissions. Measurements from emissions of the old plant and new plant demonstrate the reduction of emissions achieved (see table).

Since the new and modern aggregate plant opened in June 2004 there have not been any complaints from the neighbours.

	Old Plant (measured 2002)	New Plant (measured 2004)
Location 1 ¹	50 dba	42 dba
Location 2 ²	43 dba	34 dba
Location 3 ³	46 dba	39 dba
Location 4 ⁴	44 dba	42 dba

¹ 200m from the old plant and 300m from the new plant

² 1000m from the old plant and 800m from the new plant

³ 350m from the old plant and 400m from the new plant

⁴ 500m from the old plant and 350m from the new plant

Franzefoss Pukk AS er et datterselskap av Franzefoss Bruk

AS og ble grunnlagt i 1919. Franzefoss er en av de største produsentene av pukk og grus i Norge. Franzefoss Pukk AS driver 14 pukkverk/grustak, har mer enn 100 ansatte og produserer rundt 3 millioner tonn byggeråstoffer årlig. Hovedkontoret ligger i Bærum, nabokommunen til Oslo. Franzefoss bestreber seg på å bidra til en bærekraftig utvikling.

I 2001 tok Franzefoss over Lierskogen pukkverk (i Buskerud fylke). Pukkverket ligger nær tettbebyggelse. Tidligere drivere har måttet forholde seg til klager fra naboene om støv og støy. Som resultat stilte Fylkesmannen i Buskerud i 1998 krav om flytting av knuseverket.

Da Franzefoss overtok pukkverket ble det besluttet å bygge et helt nytt, moderne og miljøvennlig knuseverk heller enn bare å flytte det eksisterende knuseverket.

Det nye knuseverket ligger nå dypt inne i pukkverket omgitt av 40 meter høye vegger. Asphalt- og betongverkene som ligger foran pukkverket er med på å dempe støy og støv og innebygde maskiner bidrar ytterligere til å redusere utslipp. Støymålinger fra det gamle og det nye pukkverket (fra ulike lokaliteter) dokumenterer oppnådd støyreduksjon (se tabellen).

	Gammelt pukkverk (målt 2002)	Nytt pukkverk (målt 2004)
Målepunkt 1 ¹	50 dba	42 dba
Målepunkt 2 ²	43 dba	34 dba
Målepunkt 3 ³	46 dba	39 dba
Målepunkt 4 ⁴	44 dba	42 dba

¹ 200m fra det gamle knuseverket og 300 m fra det nye

² 1000m fra det gamle knuseverket og 800 m fra det nye

³ 350m fra det gamle knuseverket og 400 m fra det nye

⁴ 500m fra det gamle knuseverket og 350 m fra det nye

Kilsaran Concrete Products Ltd.



The Gallstown Quarry Project

Special Award for "Outstanding Team Dedication"

Kilsaran Concrete Limited is a long established Irish owned company with about 250 employees. Kilsaran primarily produces materials for the construction industries and is Ireland's leading independent producer of concrete products.

Kilsaran's objective is to reduce the environmental impacts which arise through each activity. In order to achieve this objective Kilsaran has established an Environmental Management System.

Kilsaran operates the Gallstown site which is located 6 miles north of Drogheda and 5 miles south east of Dunleer, in the County Louth in the North-East of Ireland.

Kilsaran started development works in 1993 and with commercial rock extraction in 1995. The Gallstown Site produces between 650.000 and 750.000 tonnes of

stone per year. Around 65 people are directly employed. The Gallstown site is operated to the very highest environmental standard.

Kilsaran applies comprehensive measures in order to monitor and reduce noise, blast and dust emissions. Exemplary actions are taken in terms of Waste and Water Management.

Recycling measures and a pioneering approach to production help to maximize the potential of the natural resource which has a positive impact on the environment by reducing waste and reducing the need to fall back on additional reserves. The water resource at Gallstown Quarry is carefully managed as the bedrock is an aquaclude, in that it does not hold or transmit groundwater readily.

All available on-site water is accounted for and utilized in dust suppression and in the various manufacturing processes. Water is recycled and re-used utilizing specialist plant and any controlled discharge from the site is treated to comply with a discharge license.

High standards in other fields like of Public Safety, Visual Impacts and Community Relations, complete the environmental measures.

Tarmac



The Berwick Woods Project

Social Award of Excellence & Award for Local Community Partnership

The Tarmac Group is the market leader in aggregates, mortar, concrete block and asphalt and number two in ready-mixed concrete in the United Kingdom.

More than 10,000 people are employed with Tarmac. In 2003 Tarmac celebrated its 100th birthday.

Berwick Woods is located 2.5 km to the north east of Rainham in the London Borough of Havering.

It has played a significant role in the extraction of sand and gravel from the mid 1950s. The Berwick Woods Project was set up in 1995 as a pioneering initiative by Tarmac in partnership with Thames Chase which transformed the derelict sand and gravel site into an attractive area of nature. The restoration has enhanced the attractions and accessibility of the site.

From the beginning Tarmac and Thames Chase pursued the objective to involve and engage the local community in the whole restoration process.

The Berwick Woods Project's emphasis on the arts led to the engagement of artists of national reputation. Artist Steven Follen designed the unique 'gabion' seats which reflect the industrial history of the site.

Local children worked together with the artists to achieve the integration of art into the process of environmental improvement.

A main theme of the restoration project was to facilitate public access. The installation of footpaths, foot bridges, signage, new entrances and car parking facilities.

Educational visits to the site, community tree planting days and events and projects that have been organized over the year are some examples of successful involvement and engagement and have led to a special relationship of local people to the site.

Compañía General de Canteras, S.A.



The Taralpe Quarry Project

Award for Health & Safety Best Practice
Special Award for "Worker Participation"



Compañía General de Canteras
Halcemont Group

In Compañía General de Canteras production, safety, quality and environment have always been a main concern. The idea of putting together these two main pillars 100 to the development in 2000 of the Prevention department, which aims for a different strategy in all the business levels, a new concept, a "safe and productive culture", which unifies the ideas of maximum production with minimum risk.

Implication. We are looking for the implication of the maximum number of employers, giving their voice for their years of experience. Carrying out the safety and health legislation, we have workers' representatives in each of the quarries who are taking care of the right fulfilment of the law. The workers have the following implication tools: suggestions desk, implication in the selection process

of the Personal Protection Equipments PPE's, safety meetings and committees.

Training. For CGC, training begins with a total respect for the workers' years of experience. The training orientated talks are developed in the quarry so that there is not a waste of time in travel for the workers and making possible the maximum attendance. The training instructor is an expert in the matters to discuss and they use a clear language, favouring the implication of the workers. At the end of the talks the training instructor gives the workers an attendance list besides an anonymous evaluation sheet to help us know our employers' ideas. In this training we find: Electrical works, Defensive driving, Height works, Safety in mobile machinery operation, annual controlled fire simulation, resuscitation techniques and injured

workers transfer and training days called "Living safety" Information. The worker has free access to H&S information through different stands: a poster signed by the president of Italcementi Group concerning the safety policies, a poster with the number of working days without accidents, safety related magazines, handbooks and publications, a safety board with main safety information, etc.

The "safety and production culture" enforcement has led CGC to an overwhelming decrease in the number of accidents throughout the last few years.

CGC makes all these efforts possible by a continuous technological renovation and by adapting its installations to the legal standards.

Para Compañía General de Canteras la producción, la seguridad, el medio ambiente y la calidad han sido siempre sus máximas preocupaciones. La idea de aunar estos pilares básicos hace que en 2001 surja el Servicio de Prevención propio mancomunado que ha conseguido un cambio de pensamiento a todos los niveles empresariales, centrado en un novedoso concepto: "la cultura productiva con seguridad", que unifica la idea de la máxima producción con el mínimo riesgo.

Participación. Se persigue la participación del máximo número de trabajadores, dando voz a sus años de experiencia. Cumpliendo la LPRL contamos con 3 Delegados de Prevención y un Delegado Minero de Seguridad en cada una de las 7 explotaciones que velan en todo momento por el estricto cumplimiento de dicha ley. Los trabajadores cuentan numerosas herramientas de participación como son

buzón de sugerencias de seguridad, la selección de EPI's donde el trabajador participa activamente, las reuniones de seguridad, etc.

Formación. En C.G.C. la formación parte del respeto que merecen los años de experiencia de los trabajadores. Los cursos orientados a la formación, se realizan en la propia cantera a fin de evitar pérdidas de tiempo en desplazamientos y posibilitando la máxima participación. El responsable de la formación es un experto en la materia a tratar, y en su exposición utiliza un lenguaje sencillo y cercano al trabajador. A la finalización de los cursos se distribuye un listado de asistencia y una hoja de evaluación anónima, que nos ayuda a conocer las opiniones de los trabajadores. Esta formación incluye trabajos eléctricos, conducción defensiva, trabajo en altura, seguridad en el manejo de maquinaria móvil, simulacros de extinción de incen-

dios, reanimación pulmonar y evacuación de heridos y Jornadas "Vivir la seguridad" Información. El trabajador tiene libre acceso a la información que se materializa a través de diversos soportes: cartel firmado por el presidente del grupo Italcementi con la política de seguridad, cartel con el número de días transcurridos sin accidentes, expositores con revistas, manuales y publicaciones, tablón de informaciones de seguridad, etc.

La puesta en práctica de la "cultura de la producción con seguridad" ha conducido a C.G.C. a la disminución drástica del n° de accidentes en los últimos años.

C.G.C hace posible todos estos esfuerzos gracias a la continua renovación tecnológica y adaptación de la maquinaria a la legislación en materia de seguridad.

Emipesa



The Mora de Rubielos Project

Special Award for "Economic Contribution to Sustaining a Rural Economy"



Since the beast of burden service for farming in 1960, the foundation of a dynamic and solidly made business sector, currently called EMIPESA, was being formed in Teruel.

The EMIPESA enterprise is an alive example of work and compromise, in order to gain the future in a rural area and in a province like Teruel one, where we run into a set of well known problems, like depopulation, financial unbalance in relation to bordering provinces, lack of infrastructures, least main services and endemic deficiency. Teruel, with 0,36 %, which are supposed to give lightweight to Spanish gross added value, is the fourth Province among the rest of them in Spain.

EMIPESA, with headquarters in Mora de Rubielos and La Puebla de Valverde, has three quarries called: El Ventorrillo, Mas de Salto and Sandra. Limestone is extracted in two of them mentioned at the first place

and the altered diabase nature stone comes from the third one.

The enterprise consists of 90 people staff with 125 mobile units and 14 permanent installations for gravel aggregate and mortar mixture production; besides there is its own laboratory where the quality of all the manufactured products is verified. It relies on the collaboration with peripheral enterprises made up of EMIPESA's independent workers.

Thanks to constant investment in the improvement of production processes and services, we became worthy of CE MARKET of all our aggregate products, and we managed to get involved in the important compromises like aggregate supplies for stretches of the Main Road or ballast production for High-speed Train line authorized by Railway State Enterprise (RENFE).

From the beginning this enterprise works with the main aims of Quality works, Nature, Environment, workers' Safety and Health. Its management is based on the Efficiency of all of the processes: Certificated in accordance with UNE-EN-ISO 9001-2000 Standard.

The business trajectory let EMIPESA get the VENDOR 2004 award for Initiative and Business development and gain National Award for Sustainable Development from National Association of Aggregate Manufacture Businessmen, the reward conceded because of the contribution to the Economy and added value to the society. The prizes which honoured us and made us carry on the fight to overcome barriers, in order to achieve more honourable future with the full women and handicapped integration in all the working life sectors, being aware of the great compromise and responsibility towards our District.

Desde el servicio de caballerías para labranza en el año 60 se fue poniendo los cimientos de la empresa dinámica y sólida del tejido empresarial de Teruel que es ahora EMIPESA.

La empresa EMIPESA es un ejemplo vivo de trabajo y compromiso para ganar el futuro en una zona rural y en una provincia como la de Teruel, de la que todos conocemos su problemática como es la despoblación, desequilibrio económico respecto a provincias limítrofes, ausencia de infraestructuras, servicios mínimos y carencias endémicas. Teruel con el 0,36 % es la 4ª Provincia que menor peso supone dentro del valor añadido bruto en España.

EMIPESA con base en Mora de Rubielos y La Puebla de Valverde, tiene tres canteras: El Ventorrillo, Mas de Salto y Sandra. De donde se extrae roca caliza en las dos primeras, mientras que la tercera se trata de roca de naturaleza ofítica.

Empresa formada por una plantilla de 90 personas, con 125 unidades móviles y 14 instalaciones fijas para la fabricación de áridos y mezclas, además de un laboratorio propio donde se verifica la calidad de todos los productos fabricados. Cuenta con la colaboración de empresas periféricas formadas por trabajadores que se independizaron de EMIPESA S.A.

La constante inversión en mejora de los procesos productivos y de servicios nos han hecho acreedores del MARCADO CE de todos nuestro áridos, y alcanzar una capacidad productiva nos ha permitido adquirir importantes compromisos, como suministro de áridos para tramos de la Autovía, o la homologación de RENFE para la fabricación de balasto para líneas de Alta Velocidad.

Desde su creación se ha comprometido con la Calidad de los trabajos, la Naturaleza, Medioambiente y la Seguridad y Salud de los trabajadores. Su gestión se basa en la

Eficacia en todos sus procesos: Certificada según la norma UNE-EN-ISO 9001-2000.

La trayectoria empresarial de EMIPESA le ha llevado a la obtención del premio VENDOR 2004 a la Iniciativa y Desarrollo Empresarial y Premio Nacional de Desarrollo Sostenible por la Asociación Nacional de Empresarios Fabricantes de Aridos, galardón concedido por la contribución a la economía y valor añadido a la sociedad. Premios que nos honran y nos hacen seguir luchando superando barreras por un futuro más digno, con una integración plena de las mujeres y de los discapacitados en todos los sectores de la vida laboral y siendo conscientes de nuestro compromiso y responsabilidad con la Comarca.

Hülskens GmbH & Co. KG



The Büderich-Ginderich Project

Special Merit for "Innovation"

Hülskens was founded at the end of the 19th century by Gerhard Hülskens together with Conrad Krieger and Dr. Dietrich Kuckelmann and has its principal office in Wesel.

At the beginning, hydraulic engineering was the focus of the company. The invention of ferroconcrete in the 1920's formed the basis for a new branch of the business: extraction of gravel and sand. Nowadays Hülskens is successfully operating with ready-mixed concrete.

The Büberich-Ginderich site has provided essential materials for the Niederrhein region, Münsterland, Ruhr Basin and the Netherlands since 1987.

In 2000 the company decided to illuminate the site. The objective behind that idea was to put the aggregates industry in a more favourable light.

It was intended that the illumination should stress the different features and functions of the object.

The elongated transport devices and the tiny steel construction parts have been accentuated by disguised light stripes and the dumps and silos highlighted with light rays of various intensity.

Changing colours emphasize the various parts of the plant. The steel construction of the facility together with its zinc coated surfaces are submerged in green and blue light. The heaps of sand and gravel gleam in golden yellow. White shining band-lines form linking elements.

The transformation of the site to a work of art by night has found great favour with the community and indeed has become a local tourist attraction.

Der Grundstein des heutigen Unternehmens wurde gegen Ende des 19. Jahrhunderts von Gerhard Hülskens zusammen mit Conrad Krieger und Dr. Dietrich Kuckelmann gelegt.

Zu Beginn stand der Wasserbau im Mittelpunkt. Mit der Erfindung des Stahlbetons in den 20er Jahren entstand ein neuer Geschäftszweig: Kies- und Sandgewinnung. Heutzutage ist das Unternehmen erfolgreich im Sektor Transportbeton tätig.

Das Kieswerk Büberich-Ginderich versorgt seit 1987 Abnehmer am Niederrhein, im Ruhrgebiet, im Münsterland und in den Niederlanden mit den Rohstoffen Kies und Sand.

Im Jahre 2000 fasste man den Entschluss das Kieswerk zu beleuchten. Die Idee

hinter diesem Projekt war, die Kies- und Sandindustrie in ein positiveres Licht zu rücken. Von zahlreichen Varianten wurde schließlich jene gewählt, die sich an den Eigenschaften und Funktionen der beleuchteten Elemente orientiert.

Langgestreckte Transporteinrichtungen und ihre filigranen Stahlkonstruktionen werden durch verdeckt installierte Lichtbänder hervorgehoben, die flächenhaften Silos und Halden mit starken Strahlern unterschiedlicher Intensität beleuchtet.

Wechselnde Farben heben die verschiedenen Elemente der Anlage hervor. Die Stahlkonstruktion der Aufbereitung und die verzinkten Flächen der Silos werden in grünes und blaues Licht getaucht. Kies- und Sandhalden erstrahlen in einem gelb-

goldenen Glanz. Weiß illuminierte Bandanalgen bilden verbindende Elemente.

Die Lichtinszenierung fand großen Anklang in der Bevölkerung und wurde zu einer Touristenattraktion.

Calcestruzzi spa – Italcementi Group



The Monviso Project

Commendation Recognizing Future Potential

The two quarry sites of Monviso S.p.A. are integral part, from organizational point of view, of the Zone Piedmont of Calcestruzzi S.p.A. – Italcementi Group; they work since halves the years '60.

Quarries are located in the banks of the river Po in the communes of Casalgrasso (Cn) and Carmagnola (To). Beginning from the end of the years '90, the Region Piedmont has authorized two exploitation plans for 20 years lasting divided in 5 years lotteries; the "regional system of the protected areas of the river band of the Po" has been founded for safeguarding an unique environment, signed by several decades of "wild" exploitation activity.

Calcestruzzi stipulated a convention with the "Corporate body" involved for the definitive transfer of main part of the areas, previous environmental recovery, at the end of the activities.

The "executive project" in his complex involves the most varied competences (territorial planning, urbanism, geology, mining engineering, hydraulic, environmental sciences, ecology, etc.).

The principal address, that directs the whole project, is based on the available and potential naturalistic resources; quarrying interventions will not alter the possibility to realize the project of naturalistic evaluation, but contrarily they will make it compatible with other uses (fishing, recreational activity and loisirs for the local inhabitants).

Part of the river bands is today interested by the quarries service areas (workmanships, stores, overburden stocks, squares of manoeuvre, offices...); such areas, recovered, will enrich the qualification of the river bands and will give continuity to the naturalistic itineraries along the banks.

From the point of view of the territorial situation, the whole zone is geologically and historically tied up to the river; the Po with his mobility has heavily conditioned the uses and the infrastructures. Quarry basins assume the consolidated role of destinations for the leisure time of the numerous local fishermen. The zone is therefore absolutely different from the rest of the river bands in terms of antropic presence: sign of the river, even though corrected by the man in the '800, produces a general sense of more natural landscape than the surrounding (antropized both in the rural part and in the built one).

Monviso project foresees the rinaturalization of the banks of the Po and the areas to the surrounding, with formation of riparian wood, cycle-pedestrian runs, landings for small tourist boats and areas for standstill, games, camping and pic-nic.

I due siti di cava Monviso S.p.A. sono parte integrante, dal punto di vista organizzativo, della Zona Piemonte di Calcestruzzi S.p.A. – Italcementi Group. L'escavazione è iniziata a metà degli anni '60.

Le cave sono ubicate sulle rive del Fiume Po nei comuni di Casalgrasso (Cn) e Carmagnola (To). A partire dalla fine degli anni '90, la Regione Piemonte ha concesso due autorizzazioni di durata ventennale per lotti quinquennali; il "Sistema regionale delle aree protette della fascia fluviale del Po" è stato istituito ai fini di salvaguardare un ambiente unico, segnato da decenni di attività estrattive non regolamentate e quindi "selvagge".

Calcestruzzi S.p.A. ha stipulato, con gli Enti coinvolti, una convenzione che comporta il trasferimento definitivo, a questi ultimi, della proprietà della maggior parte delle aree, previo ripristino ambientale, alla fine delle attività estrattive.

Il "progetto esecutivo" nel suo complesso coinvolge le più svariate competenze (pianificazione territoriale, urbanistica, geologia, ingegneria mineraria, idraulica, scienze ambientali, ecologia, etc.).

Il principale indirizzo, che orienta tutto il piano, è basato sulle risorse naturalistiche disponibili e potenziali; gli interventi estrattivi non altereranno la possibilità di realizzare il progetto di ripristino ambientale, ma al contrario lo renderanno compatibile con altri usi (pesca, attività ricreative e loisirs per gli abitanti locali).

Parte delle superfici di sponda fluviale sono oggi interessate dalle aree di servizio della cava (lavorazioni, magazzini, deposito di terreno di scopertura, piazzali di manovra, uffici...); tali aree, recuperate, arricchiranno la qualificazione ambientale delle fasce fluviali e daranno continuità agli itinerari naturalistici spondali.

Dal punto di vista della situazione territoriale, l'intera zona è geologicamente e storicamente legata al fiume; il Po con la sua mobilità ha condizionato pesantemente gli utilizzi e le infrastrutture. I bacini di cava assumono il ruolo ormai consolidato di meta per il tempo libero dei numerosi pescatori locali.

La zona è quindi assolutamente differente dal resto delle fasce fluviali in tema di presenze antropiche: il segno del fiume, seppure rettificato dall'uomo nell'800, genera un senso complessivo di paesaggio più naturale di quello circostante (antropizzato sia nella parte rurale che in quella edificata).

Il progetto Monviso prevede la rinaturalizzazione delle sponde del Po e delle aree circostanti, con la formazione di boschi ripari e golenali, percorsi ciclo-pedonali, approdi per piccole imbarcazioni turistiche, aree di sosta, giochi e pic-nic.

Lafarge Granulats



The Chevrières-Longueil Sainte Marie Project

Award for Economic Contribution and Added Value to Society

Lafarge was founded in 1833 and is the world's leading producer in building materials. It has more than 77.000 employees in 75 countries.

The Chevières-Longueil Sainte Marie sites, which consist of a processing plant, multimodal transport hub and an alluvial quarry, are located in a flood plain in a rural area on the outskirts of Greater Paris (Ile-de-France) that is currently becoming urbanized. Alluvial materials from the quarry, as well as crushed rock aggregates transported by rail from Northern France, are sold locally and throughout the Ile-de-France region. This double role places it at the heart of local stakeholders that go far beyond the scope of the quarrying activity.

In this context, only exemplary conduct could facilitate the continuation of industrial activities by obtaining new extraction

authorizations. The extinction of quarrying activities in the Oise could have had disastrous economic consequences since urbanization entailed increasing needs for crushed rock.

When Granulats de Picardie arrived in the area in 1997-98, quarrymen were not seen in a positive light because former quarries had been abandoned, creating hazardous areas for illegal dumping.

After assessing the situation, Granulats de Picardie was structured and teams in charge of rehabilitating the abandoned zones were formed, in collaboration with all local stakeholders. Since 1999, 376 hectares were rehabilitated with:

- Supply of materials to a region characterised by high demand, taking into consideration the substitution between rock and alluvial aggregates.

- Contribution to the development of multimodal logistics in preparation for a forthcoming shortage of materials in the Ile-de-France region. A junction hub between water and railways avoids road traffic.

- Creation of flood control basins in former quarries, spares local communities from the consequences of potential flooding at a low cost.

- Development of economic activities on the restored sites that are a source of employment for the area.

The Chevières-Longueil Sainte Marie sites in this ways gave birth to pioneering initiatives that contribute to the concept of innovative country planning and regional development.

Fondé en 1833, Lafarge est le leader mondial des matériaux de construction. Le groupe est présent dans 75 pays et compte 77000 collaborateurs.

Le dispositif de Chevières – Longueil Sainte Marie – Rivecourt, qui réunit une installation de traitement, une plateforme logistique multimodale et un site d'extraction alluvionnaire, s'inscrit dans un territoire rural marqué par les crues et qui, situé aux confins de l'Ile-de-France, s'urbanise. Les matériaux extraits (600 000 tonnes/an) et les granulats de roches massives acheminés du Nord par voie ferrée, sont commercialisés sur place et vers l'Ile-de-France. Cette double vocation place le dispositif au cœur d'enjeux locaux qui dépassent largement le cadre de l'activité d'extraction.

A l'arrivée de Granulats de Picardie dans le boucle de Chevières en 1997-98, les carrières avaient mauvaise presse : des anciens sites d'extraction laissés à l'abandon dénaturaient le paysage. Poursuivre des activités industrielles par l'obtention de nouvelles autorisa-

tions d'extraction dans un tel contexte supposait de se montrer « exemplaire ». Pourtant, l'extinction des activités d'extraction dans l'Oise aurait eu des conséquences économiques désastreuses au vu des besoins en granulats induits par l'urbanisation.

Après avoir dressé un bilan de la situation, Lafarge Granulats s'est structuré et a mis en place une équipe chargée d'aménager les sites non remis en état en concertation avec l'ensemble des parties prenantes locales. 376 hectares ont ainsi été réaménagés depuis 1999, sur un rayon de 25 km autour de Chevières.

Ce travail de concertation a donné lieu à la conception d'aménagements innovants qui font aujourd'hui référence dans les réflexions sur la vocation future des sites d'extraction. Aujourd'hui grâce à ce travail et à la reprise des activités d'extraction, les sites de Chevières sont à même de répondre à différents besoins locaux, à savoir :

- Fourniture de matériaux dans une région à forte demande en prenant en compte la substitution roche massive / roche alluvionnaire
- Contribution au développement d'une logistique multimodale dans un contexte de prochaine pénurie de matériaux en Ile de France. Un embranchement fer -eau qui permet de limiter le trafic routier
- Réalisation d'un bassin d'écroulement sur le site « Le Barrage » qui permet aux communes voisines d'être protégées des inondations à moindre coût
- Développement d'activités économiques créatrices d'emplois sur les sites aménagés par Lafarge Granulats

Grâce aux relations de confiance et aux partenariats de long terme que Granulats de Picardie a su nouer, les sites de Chevière ont donné naissance à certaines initiatives pionnières qui apportent leur pierre à la conception d'aménagement innovants.



The Pfaffenboden Project

Economic Award of Excellence & Award for Operational Best Practice

The headquarters of the Bernegger Bau GmbH is located near Molln in Upper Austria in the region of a National Park. It was founded by Barbara and Karl Bernegger in the year 1947 and developed into one of the major employers in the region.

Currently more than 420 persons are employed in the areas of quarrying and processing of minerals, in building construction, civil engineering and industrial construction as well as in the production of high quality building materials for the construction sector.

Around 400.000 tonnes of limestone are annually converted in Molln into high quality products from grinding mills and machines which are used by the technical and chemical industry as well as by the

fertiliser and animal feed producers and for the technical environment equipment.

Facing the end of extraction at the Gaisberg site in a few years time, the company realized its vision for ensuring a sustainable supply of raw materials for its processing facilities and for retaining the Molln location.

It constructed a 3,5 km and 15% gradient tunnel in order to develop a new site, shaped as a 16,4 ha wide funnel. The extraction area enables the reduction of environmental impact and is only visible from a few external points.

To reduce further environmental effects, the pre-crushed limestone is transported by a conveyer belt system instead of by truck.

This innovative project secured the supply of resources, employment opportunities for the next three generations and the recultivation of the Gaisberg site.

The 'Pfaffenboden' extraction area successfully brought together economic, social and environmental interests.

Die Firma Bernegger Bau GmbH hat ihren Stammsitz in der Nationalparkregion in Molln in Oberösterreich. Das Unternehmen wurde im Jahr 1949 von Barbara und Karl Bernegger gegründet und zählt heute zu den größten Arbeitgebern in der Region.

Die 420 Mitarbeiter sind in den Bereichen Rohstoffgewinnung und Rohstoffveredelung, im Hoch-, Tief- und Industriebau und in der Erzeugung von hochwertigen Bauprodukten für die Bauwirtschaft tätig. Etwa 400.000 Tonnen Kalkstein werden jährlich in der Mahlanlage Molln zu hochfeinen Mahlprodukten für die technisch-chemische Industrie, für die Dünge- und Futtermittelindustrie sowie für umwelttechnische Anlagen hergestellt.

Zur zukünftigen Absicherung der Rohstoffversorgung für den Standort Molln realisierte die Firma Bernegger ihre Vision.

Es wurde ein 3,5 km langer und 15% geneigter Förderstollen gebaut um ein als Trichterabbau ausgeformten ca. 16,4 ha großen Tagebau für hochreinen Kalkstein zu erschließen. Trotz seiner Größe ist der Trichterabbau nur von wenigen exponierten Stellen einsehbar. Durch den Trichterabbau Pfaffenboden konnte die Umweltbelastung wesentlich reduziert werden.

Um eine weitere Maßnahmen hinsichtlich Umweltschutz zu setzen, wurde anstelle einer LKW-Förderung ein innovatives Fördersystem verwirklicht.

Durch dieses Projekt wurde die Rohstoffversorgung und dadurch die Arbeitsplätze in der Region für die nächsten drei Generationen gesichert sowie die Rekultivierung des bestehenden Steinbruchs Gaisberg ermöglicht.

Der Trichterabbau Pfaffenboden ist ein erfolgreiches Beispiel für die Vereinbarkeit von ökonomischen, sozialen und umweltbezogenen Interessen.

Projects Recognized Nationally as Good Examples of Sustainable Development



UEPG Sustainable
Development Awards

Projects Recognized Nationally as Good Examples of Sustainable Development

Wietersdorfer & Peggauer Zementwerke GmbH - Austria

Hasenöhrl GmbH - Austria

Gralex - Belgium

Kámen a Písek spol. s r.o. - Czech Republic

Faber Straßen-und Tiefbau GmbH - Germany

Roadstone Provinces Ltd. - Ireland

Consorzio Comense Inerti spa - Italy

Brett Aggregates - United Kingdom

Ernst Schlegel GmbH & Co. KG - Germany

Morillon Corvol - France

GSM Italcementi Group - France

The Peggau Project

Wietersdorfer & Peggauer Zementwerke GmbH has its headquarter in Klagenfurt and employs currently 420 persons. The company has locations in Wietersdorf, Peggau and Leoben.

The limes quarries of Peggau are located in landscape conservation and water catchment areas in the south-east of Austria. The main tourist attraction in Peggau is the 'Lur' cavern which is the biggest stalactite cavern in Austria.

The cavern divides the extraction site and must not be damaged by the extraction activities. Therefore the extraction process and techniques have been adapted.

Measures like the conversion from face quarrying to combined face quarrying, benching with reduced bench heights, vertical hauling shafts and numerous

technological blasting measures have been implemented. Conversion measures have also been applied to the Wietersdorf quarry.

As a result of the reduction of emissions to the environment, the nature and the cavern in Peggau has been conserved. In addition since the changes of 2001 there have been no complaints from the local community.

Im Unternehmen mit Sitz in Klagenfurt sind derzeit 420 Mitarbeiter beschäftigt. Das Unternehmen hat Werkstandorte in Wietersdorf, Peggau und Leoben.

Die Kalksteinbrüche des Werkes Peggau befinden sich im Landschafts- und Wasserschongebiet im Südosten Österreichs. Die Hauptattraktion des Ortes Peggau ist die Lurhöhle, Österreichs größte Tropfsteinhöhle.

Die Höhle trennt mit ihren Sicherheitszonen die Abbaue und darf durch die Gewinnungstätigkeit nicht beeinträchtigt werden. Das Abbauverfahren wurde daher entsprechend angepasst.

Die Maßnahmen umfassten, die Umstellung des Abbauverfahrens von einem Wandabbau zu einem kombinierten

Wand- und Etagenabbau, die Reduktion der Etagenhöhe, die Inbetriebnahme einer Sturzschaft- und Stollenförderanlage ins Werk, zahlreiche sprengtechnische Maßnahmen sowie insbesondere die Einführung von elektronischen Zündern, die neue Möglichkeiten hinsichtlich der Gestaltung der Verzögerungsintervalle sowie Optimierung der Sprengarbeit eröffneten. Umstellungsmaßnahmen wurden auch im Werkstandort Wietersdorf durchgeführt.

Die Rohstoffgewinnung kann daher unter größtmöglichem Natur- und Umweltschutz durchgeführt werden.



The River Enns Project

Hasenöhl GmbH is a family firm operating in the aggregates sector and employs 250 persons.

The company Hasenöhl deals not only with extraction but also with processing of mineral resources. Not only high quality ready-mix concrete is produced from gravel but also nearly 100% of the demolition waste is recycled. In this way a materials flow chain arises that protects the gravel resources to the best possible extent.

In 2001/2002 the project 'Extension of the Revitalised Abandoned Meander of the River Enns' was launched by the Enns Fishery Association. In order to finance the project, purchasers were found for the gravel available in the framework of the project.

The Hasenöhl company was selected to carry out the excavations.

The opportunity to develop a project not only for the economic reasons but also for the value of its harmony with nature was appreciated by all involved. The company has already carried out several similar projects, but it was the first time that the company had availed itself of scientific expertise while realizing a project.

The company committed itself to proceed with the excavations according to environmental standards and under the guidance of environmental site inspection.

The project has successfully achieved its objective to establish spawning grounds and habitats for a range of wildlife.

Die Firma Hasenöhl ist ein Familienbetrieb mit etwa 250 Beschäftigten.

Die Firma beschäftigt sich nicht nur mit der Gewinnung der Rohstoffe, sondern auch mit deren Veredelung. Aus Kies wird nicht nur hochwertiger Transportbeton erzeugt sondern aus Abbrüchen werden fast 100% Recyclingprodukte rückgewonnen. So entsteht ein Stoffkreislauf zur größtmöglichen Schonung der natürlichen Kiesressourcen.

Im Jahr 2001/2002 startete der Fischereiverein Enns das Projekt, Erweiterung des Revitalisierten Altarmes der Enns'. Um die Finanzierung des Projektes zu gewährleisten wurden Abnehmer für die im Projektbereich vorhandenen Schottervorkommen gesucht.

Die Firma Hasenöhl wurde vom Fischereiverein Enns mit den Baggerarbeiten am Projekt beauf-

tragt. Gleichzeitig verpflichtete sich die Firma Hasenöhl die Baggerungen nach ökologischen Gesichtspunkten unter Anleitung einer ökologischen Bauaufsicht durchzuführen.

Es wurden schon mehrere Projekte dieser Art durchgeführt. Die Besonderheit dieses Projektes war jedoch die umfassende wissenschaftliche Begleitung. Ein Projekt nicht nur aus wirtschaftlichen Gründen sondern auch im Einklang mit der Natur entstehen zu lassen wurde von allen Beteiligten geschätzt.

Schon kurz nach der Öffnung des geschaffenen Altarmes konnten zahlreiche Fische in den Gewässern beobachtet werden. Der Donaufisch und der Eisvogel nahmen den revitalisierten Altarm binnen kürzester Zeit als Laich- bzw. Brutstätte an. Das Projekt hat, durch die Errichtung von entsprechenden Lebensräumen, eine große Artenvielfalt ermöglicht.



The Accident Prevention Project



The Gralex Group is one of the most important producer of aggregates in Belgium. It operates 21 sites in Belgium and produces about 10 million tonnes of aggregates per year. Currently Gralex employs around 300 people.

The priority objective of Gralex is accident prevention. To achieve this objective measures are put into place to enable improvements in this field.

The safety organization within the Group Gralex is based on the principle of one safety manager with the highest level of training and responsibilities of organization, coordination, training and presence in the field when needed, and one safety manager with level 2 training in every production unit and 100% presence in the field.

Gralex analyzed and evaluated all accidents in their company. As a consequence several kind of training for its employees and prevention measure were implemented.

One of these measures was the publication of a safety brochure. The concept was to communicate through cartoons in order to draw attention to safety.

Through all these measures a reduction was achieved in terms of frequency and severity of accidents.



L'organisation de la prévention dans le groupe Gralex est basée sur les principes suivants :

- un conseiller en prévention de niveau 1 ayant la responsabilité de l'organisation, de la coordination, de la formation et présent sur le terrain quand cela s'avère nécessaire;
- un conseiller en prévention de niveau 2 dans chaque centre de production et présent sur le terrain à temps plein.

La première étape d'une bonne prévention a été l'analyse de tous les accidents et de leur évolution dans le temps.

Cette analyse nous a amené à organiser une série de formations adaptées pour tout le personnel.

A cause de l'évolution dans le temps du type d'accidents, nous avons dû réagir et

prendre d'autres mesures de prévention: une de ces mesures a été l'édition d'une brochure de sécurité dont l'objectif est de donner à tout le personnel du groupe un maximum d'informations concernant la prévention dans notre métier.

Cette brochure a été conçue sous forme d'une sorte de bande dessinée pour attirer l'attention sur l'objectif sécurité.

L'évolution des indicateurs de sécurité montre les progrès réalisés dans le groupe:

- taux de fréquence de 124 à 32;
- taux de gravité de 2,6 à 0.7;

Ces chiffres sont la traduction d'une bonne analyse des besoins en sécurité et de l'effet occasionné par la brochure devant donner le réflexe sécurité à tout le personnel.

La sécurité sera toujours la première priorité du groupe Gralex.

The Plešovice Project

Kámen a Písek spol. s r. o. is a company that operates in the aggregates sector and is one of the biggest in this sector in the Czech Republic. Kámen a písek s.r.o. is a subsidiary company of the Kirchdorfer Industries GmbH and produces around 1.5 millions tonnes per year.

Plešovice site is one of the biggest aggregate deposits in South Bohemia and provides reserves for 165 years. The aggregate is mainly used for the production of aggregates for rail and road, aggregates for concrete and coating mixture production.

In 1992 the Kámen a Písek, spol s r. o. initiated a gradual upgrade of the site. In 2003 the company started to solve the issue concerning the final products sorting line, material sorting quality, noise levels of the old sorting machines, the sorting line dust nuisance and final sorting of

elements smaller than 0,063mm from 0-4 mm fractions for coating plants.

The reconstruction was carried out in two stages. The first stage of reconstruction consisted of installation of new bearing structure with sorting machines, casing, exhaust, belt transporter and new sheathing. The second stage included the installation of a new cascade air separator intended for removal of elements smaller than 0,063 mm from 0-4 mm fractions.

As a result the production quality now meets the European standard as well as the requirements for lower operating costs and quality products, lower noise levels, dust nuisance and emissions, better utilization of the raw material from the deposit and reduced secondary dust nuisance. In addition it will result in smaller mining areas in the future.

Kámen a písek spol. s r.o. je jednou z největších společností v oboru kamenoprůmyslu v české republice. Patří do skupiny Kirchdorfer Industries GmbH a vyrábí přibližně 1,5 milionu tun ročně.

Kamenolom Plešovice je na jednom z největších ložisek kamene v jižních čechách s vypočtenými zásobami na 165 let. Těžný granulit se převážně používá pro výrobu kameniva pro stavbu železnic a vozovek, pro výrobu betonu a obalovaných směsí.

V roce 1992 Kámen a písek spol. s r.o. začal s postupnou modernizací kamenolomu. V roce 2003 společnost začala s řešením třídírny hotových výrobků, a to kvality třídění, hlučnosti starých třídičů, prašnosti třídírny a konečného oddělování částic menších než 0,063 mm z frakcí 0-4 mm pro obalovny.

Rekonstrukce proběhla ve dvou fázích. První fáze sestávala z instalace nové nosné kons-

trukce s třídiči, zakrytáním, odsáváním, pásovým dopravníkem a opláštěním. Druhá fáze zahrnovala instalaci kaskádového větrného třídiče pro odstranění částic menších než 0,063 mm z frakce 0-4 mm.

Výsledkem je, že kvalita výroby vyhovuje jak evropským standardům tak požadavkům na nižší výrobní náklady a kvalitní výrobky, snížení hlučnosti, prašnosti, emisí, lepší využití suroviny z ložiska a snížení druhotné prašnosti. To povede v budoucnu ke snížení záborů půdy pro těžbu.



Geo-Tourism project

Faber Straßen-und Tiefbau GmbH, Schlierschied is a subsidiary of the Faber Group, Alzey.

The Faber Group has several quarries and gravel-sites in Saxony and Hungary. 115 workers are employed at the Schlierschied location and 350 at the location in Alzey.

Faber Straßen-und Tiefbau GmbH is planning to develop a new quarry called 'Tagebau Marta'. The quarry is located in the province Rheinland-Pfalz. It is situated in the area of the Hunsrück Mountains, within the nature conservation area of Soonwald near to the Nahe river valley.

It is planned to extract materials for construction. Potential unfavourable effects concerning the local recreation and tourism in the region were considered during the application process. In order to

compensate for the negative impacts during production, the company proposed to use the geo-touristic potential of the site for regional tourism, recreation activities and education.

The company will offer plant tours and erect an observation platform. A local geological trail will connect the site with other geological outcrops in the close vicinity. Additionally other outcrops in the vicinity were registered in order to assist the local community with the development of the regional geo-tourism.

By developing the geo-tourism potential it will contribute to the sustainable and prospective promotion of the tourism sector.

Faber Straßen- und Tiefbau GmbH, Schlierschied, ist eine Niederlassung der Faber Gruppe, Alzey. Die Faber-Gruppe betreibt mehrere Steinbrüche und Kiesgruben in Sachsen und Ungarn. Am Standort Schlierschied sind 115 und am Standort Alzey 350 Mitarbeiter beschäftigt.

Die Firma beabsichtigt den Steinbruch 'Tagebau Marta' zu erschließen. Der geplante Tagebau Marta befindet sich im Bundesland Rheinland-Pfalz im Süden des Mittelgebirges Hunsrück, innerhalb des Naturparks Soonwald.

Im Steinbruch soll Latitandesit abgebaut werden und zu Zuschlägen für die Bauindustrie aufbereitet werden. Mögliche negative Auswirkungen auf den Tourismus in der Region wurden im Antragsverfahren berücksichtigt. Zur Kompensation wurde seitens des Betreibers vorgeschlagen, das

geotouristische Erlebnispotenzial des Steinbruchs für den regionalen Tourismus, das Freizeitwesen und für pädagogische Zwecke zu nutzen.

Das Unternehmen wird Betriebsbesichtigungen anbieten und eine Beobachtungsplattform errichten. Ein lokaler geologischer Lehrpfad wird den Steinbruch mit nahe gelegenen Aufschlüssen verknüpfen. Zusätzlich wurden weitere Aufschlüsse in der engeren und weiteren Umgebung erfasst, um die Entwicklung des regionalen Geotourismus zu fördern.

Die Firma Faber Straßen- und Tiefbau GmbH trägt durch die Aktivierung der geotouristischen Potenziale zu einer nachhaltigen, zukunftsfähigen Sicherung des Tourismussektors bei.



The Castlebar Quarry Project

Roadstone is a subsidiary of CRH the international building materials group. Roadstone has more than 50 locations and employs over 1500 people. It is the leading manufacturer and supplier of building materials in Ireland.

Roadstone owns the Castlebar quarry which is located within the Castlebar urban boundary in the West of Ireland. It is a limestone site involved in the production of limestone aggregates, agricultural limestone, bituminous road products, ready mix concrete and concrete blocks for house and industrial construction.

Health and safety has a major role for the company. The Castlebar quarry is operated to the very highest standards of safety and health.

Visitors and workers alike are introduced to the safety culture.

Several signs at the site permanently remind visitors and staff to be aware of safety precautions.

Employees are introduced from the beginning to safety. All contractors are obliged to participate in a two day safety programme. Safety audits and an established safety committee complete the safety activities.

Castlebar furthermore designed a transport system in order to minimize the need for external traffic to access the working areas. A Health and Safety Specification is prepared for each item of plant in order to ensure in advance the purchase of equipment that meets safety standard instead of adjusting it at a later date.



The Acropolis Golf Project



The site is located in Luisago-Villa Guardia in the suburbs of Como and was used as a quarry of sand and gravel. It later became an illegal tip for dangerous industrial waste.

The area covers an area of 33.000 square metres and is next to the Ex Polo Estrattivo, an old quarry of 380.000 squares metres that had extraction by Consorzio Comense Inerti spa for 14 years.

In 1987 the company bought the area and reclaimed the site in collaboration with the Local Health Service and became the promoter of the environmental restoration project by means of land filling with construction and demolition waste.

The restoration process started in 1990 and lasted 3 years. In 1997 the inauguration ceremony of the reconstructed hill

took place in presence of the Local Authorities.

After a few years Consorzio Comense Inerti took the decision to transform the area into a golf course. In 2003 the golf course was inaugurated.

Currently the company is working on the enlargement of the project.

The transformation of the former derelict area into an attractive sports area demonstrates what can be achieved through successful cooperation between a public- private partnership.

L'area - circa 33.000 metri quadrati - collocata in Comune di Luisago - Villa Guardia (CO), negli anni '70 è stata oggetto di sfruttamento come cava di prestito per l'allargamento dell'Autostrada A9 e successivamente trasformata in discarica abusiva di rifiuti industriali.

Nel 1987 il Consorzio Comense Inerti in collaborazione con l'Unità Sanitaria Locale ha provveduto a bonificare l'area e si è fatto promotore di un intervento di ripristino morfologico ambientale.

L'attività, iniziata nel mese di gennaio del 1990, si è conclusa a metà del 1993.

Una volta ricostruiti i profili originari del terreno, sono state intraprese le operazioni di riqualificazione ambientale finale dell'area (stesura del terreno coltivato superficiale, creazione di un tappeto erboso e piantumazione dell'area).

Restituita all'area la dignità ambientale originaria, nella primavera del 1997 è stata inaugurata la "Collina ricostruita" alla presenza delle principali Autorità locali.

Dopo qualche anno di "riposo", si è ritenuto fosse giunto il momento di attribuire all'area una funzione che la rendesse fruibile al pubblico: è stata scelta la pratica sportiva del golf in quanto ritenuta la più sostenibile dal punto di vista ambientale.

Oggi, l'idea è quella di ampliare il campo pratica esistente con la realizzazione di un golf course di 3 buche e una nuova struttura in accordo con i canoni della bioarchitettura da utilizzare non solo come club house ma anche come Centro di documentazione permanente sull'attività estrattiva e sul recupero ambientale.

The Lydd Ranges Project

Brett is an established construction and building materials group and one of the largest independents in the UK. In the last few years Brett expanded rapidly and employs now around 1000 people in the UK and USA.

Brett owns a quarry in Lydd, near Dungeness in Kent which is situated adjacent to Ministry of Defence (MOD) land. Brett has built up a relationship with them which led to the company becoming aware of the plans to create a Watermanship Lake on the Lydd MOD land.

The lake was required primarily for army training purposes but would also be available to local community groups, such as cadets and scouts.

The restoration process was carried out in three phases. The first phase was completed with the formation of the lake. In the second phase the lake area was enlarged and the restoration process was improved through the relocation of trees, shrubs and reeds. In the third phase the Watermanship Lake was made deeper at the request of the MOD.

The created facilities have been used, by more than 14,000 cadets and numerous other organizations including scouts.



The Waddenhauser Lake Project



The site is located in Werreue in the north west of the city of Lage in Lippe, in the administrative district of Detmold.

The excavation of sand and gravel took place over a period of 22 years (1968-1990). The excavation area had a size of about 16 hectares.

The recultivation was carried out simultaneously with the excavation and was accomplished between 1990-1992. The transport connection of the site was carried out from north via the Heerstrasse and through a road constructed for that purpose.

The specific characteristic of the Waddenhauser Lake is the variety of facilities and structures of biotopes that developed after the rebuilding. The development of the biotopes and the

banks are particularly impressive.

A bike and foot path around the site facilitates recreation and the experience of the natural diversity.

The path is connected to a regional road network that connects the localities in the North with the city centre of Lage in the South.

The Waddenhauser Lake provides further potential for development regarding the protection of species and biotopes and has an important role for local recreation.

Der Waddenhauser See ist eine ehemalige Sand- und Kiesabgrabung und befindet sich in der Werreue am Nordwestrand der Stadt Lage im Kreis Lippe.

Die Sand- und Kiesabgrabung wurde in einem Zeitraum von etwa 22 Jahren durchgeführt (1968-1990). Das Abbaufeld umfasste eine Größe von ca. 16 ha. Die Rekultivierung wurde zeitgleich zum Abbaugeschehen durchgeführt und in den Jahren 1990-1992 abgeschlossen. Die Verkehrsanbindung des Betriebsgeländes erfolgte von Norden über die Heerstraße sowie über eine für diesen Zweck angelegte Baustraße.

Die Besonderheiten des Waddenhauser Sees sind die durch die Errichtung entstandenen Biotopstrukturen sowie die Nutzungsvielfalt. Bei der Biotopentwicklung

sind vorallem das ehemalige Betriebsgelände sowie die angrenzende Uferrandzone hervorzuheben.

Die Erlebbarkeit der natürlichen Vielfalt wird durch einen rund um das Abbaugewässer führenden Fuß- und Radweg ermöglicht. Der Weg ist an ein überörtliches Wegenetz angebunden, dass die im Norden gelegenen Ortschaften und Siedlungen mit dem Stadtzentrum von Lage im Süden verbindet.

Der Waddenhauser See bietet weiteres Entwicklungspotenzial hinsichtlich Arten- und Biotopschutz und hat eine wesentliche Funktion für die Naherholung.

The Sorèze Project

Morillon Corvol is part of the Cemex group, a leading global producer of cement and ready-mix concrete products.

The quarry of Sorèze is situated near Toulouse in the south of Tarn department in a sensitive and complex environment near a Natura 2000 site.

Facing important ecological challenges, the company implemented a dialogue with all the stakeholders and took advice from specialists.

Morillon Corvol worked closely with Birdlife who carried out the site monitoring and proposed appropriate restoration.

The karstic network combined with the deposit is monitored by a speleologist and some adjustments are carried out following his advice.

Near to the quarry the Orival stream is located. Therefore the company has made every effort to manage the treatment of water flow. The stream quality is monitored by the Superior Fishing Counsel.

Morillon Corvol has in this way decreased its environmental impacts and prevented pollution. A regular dialogue with Community Committee allows the company to consider the future of this quarry on a long term basis.

Respecting a balance between environment, society and economy, the Sorèze quarry is contributing towards sustainable development.

Morillon Corvol fait partie du groupe Cemex, un des leaders mondiaux du ciment et des bétons prêt à l'emploi. La carrière de Sorèze (Tarn) se situe dans un environnement sensible et complexe en bordure d'un site Natura 2000. Pour répondre à ces enjeux environnementaux, l'entreprise s'est entourée de spécialistes et a mis en place une concertation réunissant l'ensemble des parties prenantes.

Morillon Corvol travaille avec le Ligue pour les Protection des Oiseaux qui réalise le suivi du site et propose des réaménagements adaptés.

Le réseau karstique associé au gisement est suivi par des spéléologues et des aménagements sont réalisés en cohérence avec leurs recommandations. Vu la proximité d'un ruisseau classé en première catégorie,

Morillon Corvol s'applique à gérer parfaitement le traitement des eaux de ruissellement. La qualité du ruisseau est suivie par le Conseil Supérieur de la Pêche.

Morillon Corvol diminue ses impacts et prévient les pollutions de façon formalisée grâce à ISO 14001. La concertation au travers des Commissions Locales de Concertation et de Suivi permet d'envisager durablement l'avenir de la carrière de Sorèze. C'est au travers d'un équilibre entre l'environnement, la société et l'économie que la carrière de Sorèze contribue au développement durable.



The Hourdel Project

In 1995, GSM signed an agreement of cooperation with the SMACOPI (association of regional authorities dealing with the development of the coast of Picardy) in order to fit the shingle pit of Cayeux in its surrounding environment. Indeed, that shingle pit is situated in the middle of the Baie de Somme, thus offering a real opportunity of development with natural dimensions.

On October 21st 2004, after ten years of active consultations to reconcile the economic necessity of quarrying with conservation, the High Commission of Conservation Areas finally granted permission to perpetuate the quarrying activity in the conservation area of the "Pointe du Hourdel" and of "Cap Hornu" for another 30 years.



En 1995, GSM signe une convention de coopération avec le Syndicat Mixte d'Aménagement de la Côte Picarde (SMACOPI) dans le but d'intégrer la carrière de Cayeux sur Mer dans son environnement. Cette carrière est en effet située au cœur de la Baie de Somme et offre à ce titre une véritable opportunité d'aménagement à vocation naturelle.

Après 10 ans de concertation active pour concilier la nécessité économique représentée par l'extraction en carrière et la sauvegarde de l'environnement, ce partenariat a permis d'aboutir à la validation par la Commission Supérieure des Sites le 21 octobre 2004 de la pérennisation de l'activité de carrière située dans le périmètre de Classement au Titre des Sites de la Pointe du Hourdel et du Cap Hornu pour encore trente ans.



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