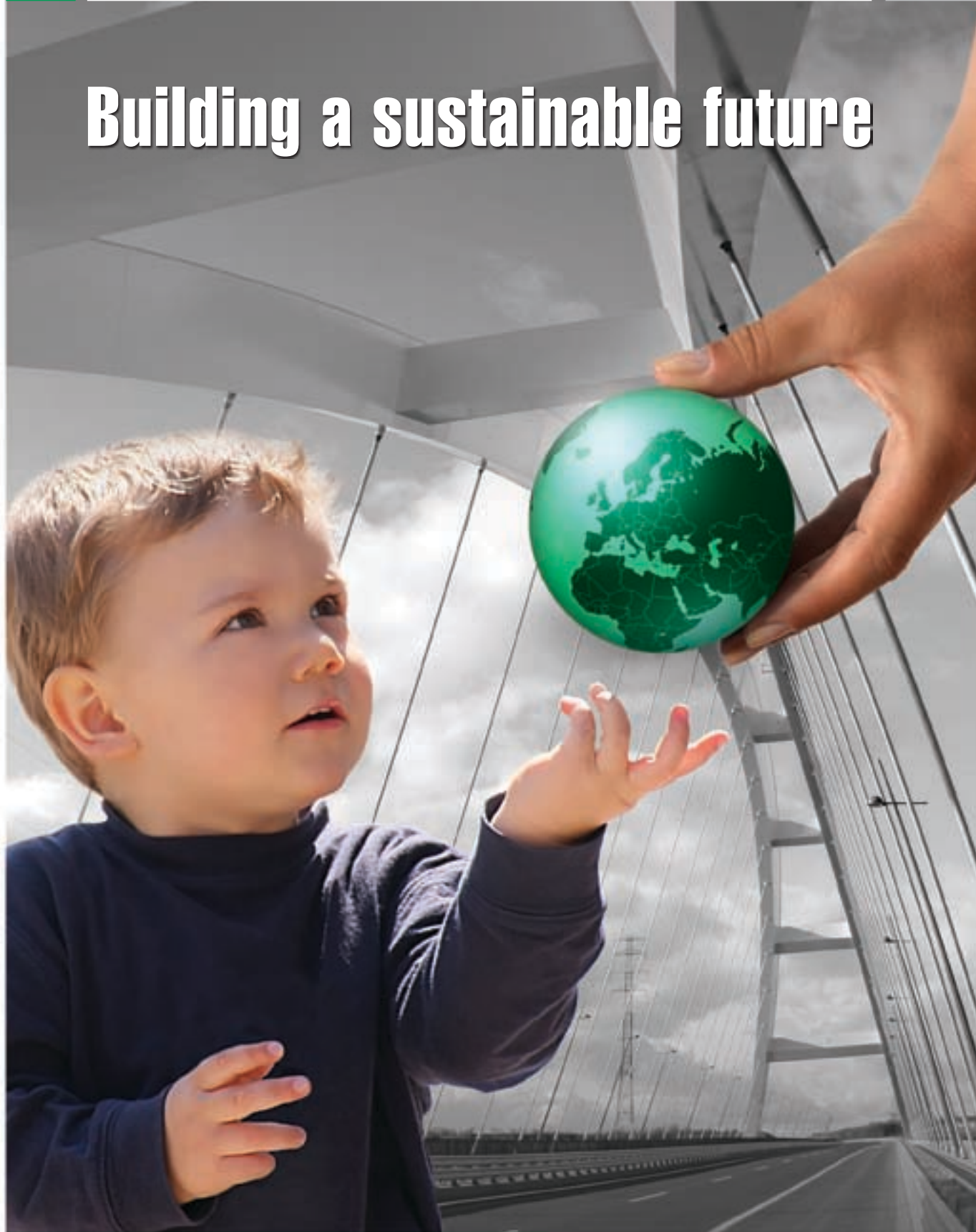


www.duna-drava.hu

Building a sustainable future



Sustainability report

DUNA-DRÁVA CEMENT
HEIDELBERGCEMENT Group

Dear Reader,



Duna-Dráva Cement Kft. and its subsidiaries are applying modern technologies in the production of fundamental basic materials, cement and concrete for the construction of buildings, roads or bridges. Our plants operate in accordance with the principles of sustainable development, strengthened by a century of tradition in cement production, and the international background of the company. Sustainability as a company philosophy appears in all of our operations: we apply modern, environmentally conscious methodologies, we deal with natural resources as “good farmers”, and we constantly develop our production technologies.

We also contribute to the improvement of our built environment through our sponsoring programs: our company supports the installation of playgrounds, sports fields, the renovation of community buildings, and the infrastructural development of schools.

Our report aspires to introduce our measures we are taking in these fields. We explain, how the harmony is created between the operation of the Group and its environment, how we take care in all fields of our works, including issues such as human resources, technology, organization or education.

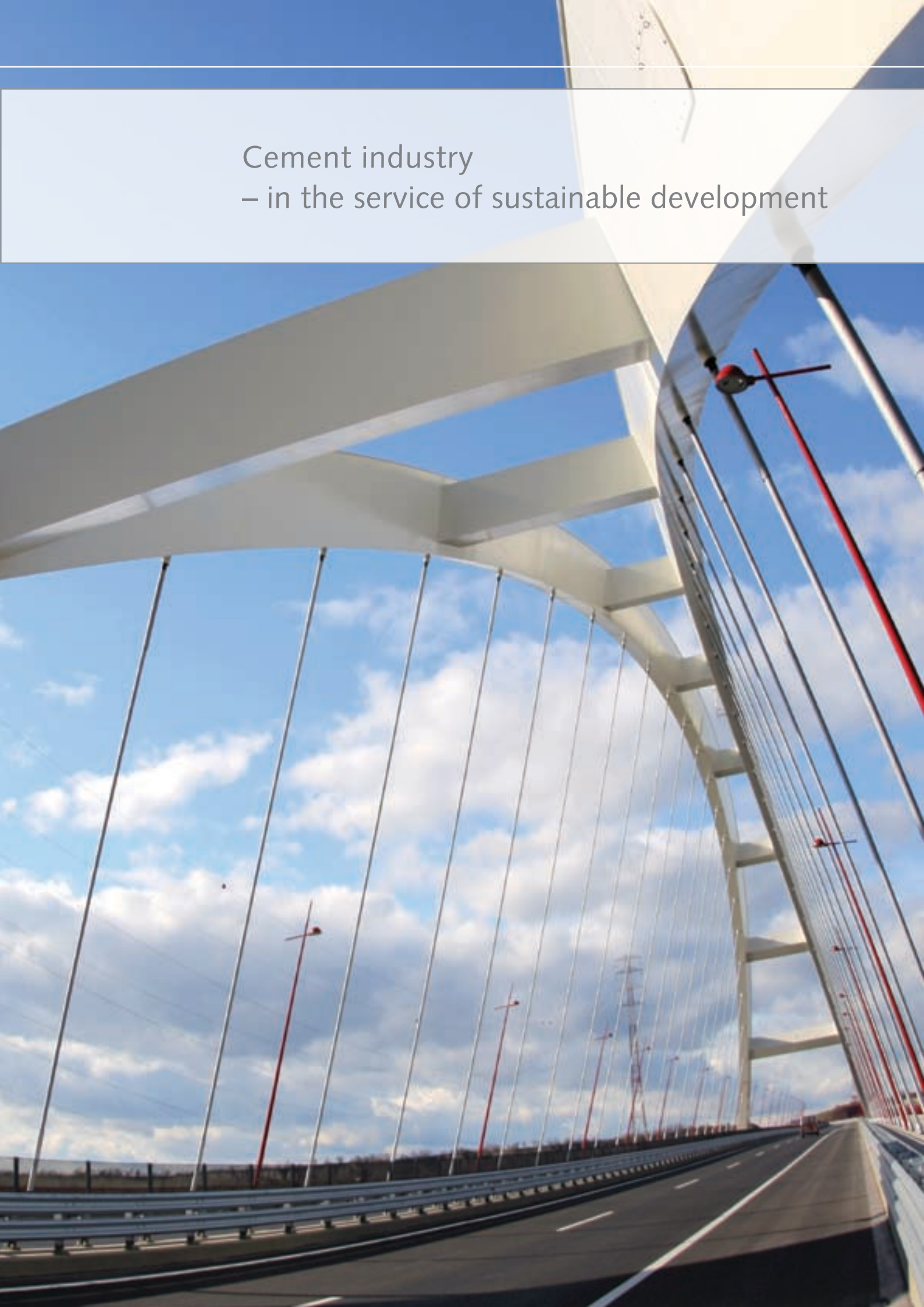
A handwritten signature in black ink, appearing to read 'János Szarkándi'.

János Szarkándi
Chairman - General Manager

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Cement industry
– in the service of sustainable development



Past and present of the cement industry



Ancient aqueducts

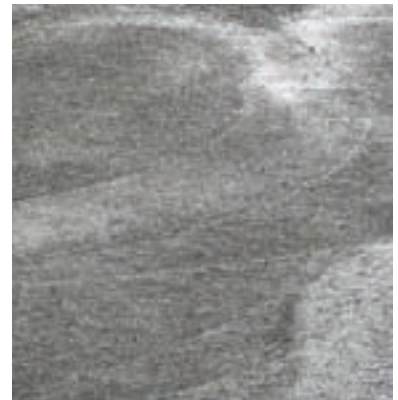
A building material similar to nowadays' cement products had already been known to the Romans. Technology has improved significantly throughout the past centuries, which is well demonstrated by modern concrete buildings. The principle of sustainable development is of key importance for our cement industry, and is realized through five major dimensions within the operation of Duna-Dráva Cement Kft.

Historical building material

Cement was used even by the early Romans, however technology has changed a lot since the construction of the Colosseum in Rome, or antique aqueducts. Cement is a basic building material, which is manufactured by burning limestone, clay and other additional materials into clinker, which is then ground. Cement mixed with gravel, sand and water behaves as a binder, this is how concrete is made.

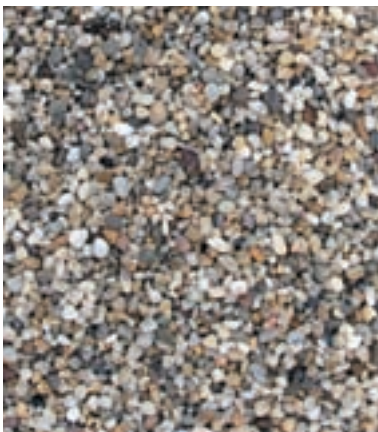


Rome – Colosseum

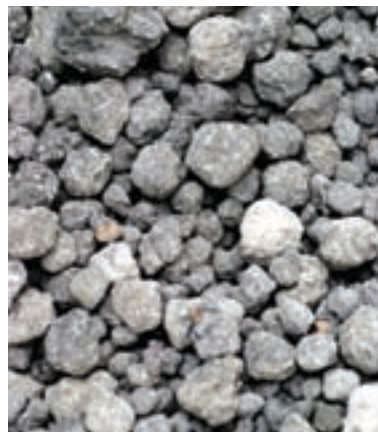


Concrete

Gravel



Clinker



Cement





The Megyer bridge at night in lights

Modern concrete technology

The existence of skyscrapers, reservoirs, other spectacular constructions and durable roads or energy-saving passive houses proves that the development of concrete technology in the 20th century created various technical solutions. Inventive architecture aspires to create harmony of functionality and aesthetics, and blends into buildings erected decades or centuries ago with unique solutions. Duna-Dráva Cement Kft. and its subsidiaries have provided building material for several prominent national investments in recent years.



Pentele bridge
16 000 tons of cement
44 000 m³ of concrete



Kőröshegy viaduct and related section of M7 highway
68 400 tons of cement
180 000 m³ of concrete



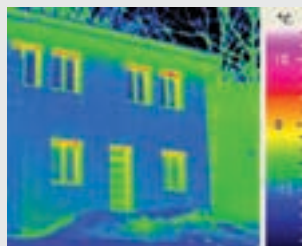
M0 highway
142 500 tons of cement
375 500 m³ of concrete



Megyer bridge
45 600 tons of cement
120 000 m³ of concrete

Energy-saving house

The heat photo demonstrates, that in spite of the internal temperature of +25 °C, the wall structure is only of -10-15 °C, therefore the combination of concrete and 30 cm of polystyrene provides a perfectly homogen thermal insulation.



Passive house is a type of building, where the ensurance of convenient temperature can be carried out only by the post-heating or post-cooling of air necessary for refreshing, without recycling any further air. On account of their excellent thermal insulation, passive houses do not require traditional heating systems. In order to reach the required temperature, the relatively small amount of air needed for this is primarily generated from solar energy and heat emitted by persons and equipment located within the building. Some passive houses are made by concrete technology (foundation, walls and slab).

Walls are usually layered, with insulation layers on both sides, and reinforced concrete or brick on the inside. The thickness of the external thermal insulation layers of walls is evenly matched, therefore no thermal-bridges are developed on the building.

Sustainable development



Pentele bridge

Key dimensions of the sustainable operation of Duna-Dráva Cement Kft.

Duna-Dráva Cement Kft. considers the principle of sustainable development on a strategic level, applying environmentally sound technologies, operating integrated company and quality management systems, and actively undertaking social responsibilities. Besides, the company also aspires to decrease the raw material and energy consumption of cement production to the lowest possible levels, by exploring new opportunities to replace natural resources, to have the least possible impact on the environment.

- The weight of the company in the national economy is illustrated well by the fact that it accounts for half of national cement production.
- The company performs a customer-focused sales operation, offering consulting services to assist its partners in the utilization of the company products.
- By utilizing alternative energy resources, the company aims to conduct accountable management with electricity and thermal energy, in which the utilization of alternative raw materials and fuels also play a significant role.
- A key focus is placed on the decrease of carbon-dioxide emission of this innovative production, by using alternative fuels for clinker production. The clinker-proportion of the cement is reduced by using additives, resulting in cements with special features.
- By conducting activities of social responsibility, the company aims to provide attractive and secure working conditions for its employees, and to sponsor social initiations and developments.

Balaton – with the Kőröshegy viaduct in the background



I. The company



“The principal of sustainability appears in all operations of Duna-Dráva Cement Kft., on account of a century of tradition in cement production, and the international background of the company.”

János Szarkándi, Chairman - General Manager

A leading international and national group



Control panel at the Vác plant

Duna-Dráva Cement Kft. is the leading cement producing company in Hungary. With an annual cement producing capacity of 2.5 million tons, its revenues reached 45 billion forint in 2008, with more than 400 employees. On account of the high quality of its products and advising services, its modern, environmentally conscious and innovative production technology, the company represents the forefront of European cement production in the Hungarian markets.

Currently the company manufactures cement in its two plants, in Beremend in the Southern-Transdanubian region, and in Vác in Northern Pest county. Its subsidiaries are TBG Hungária-Beton Kft., Dunai Kavicsüzemek Kft., and Beton Technológiai Centrum Kft.

Ownership structure

Duna-Dráva Cement Kft. is one of the world's largest building material manufacturing group, the HeidelbergCement Group. The predecessor of HeidelbergCement, the Heidelberg cement factory was founded 135 years ago. Today, the company is present in almost fifty countries worldwide, employing 65 thousand people, and is the global market leader in the manufacturing of aggregates and gravel. The Group owns the second place in producing ready-mixed concrete, and the third place in producing cement. In 2008, it produced 89 million tons of cement, and attained a turnover of 14 billion euros.

Besides the HeidelbergCement Group, another significant enterprise in the German building material industry, Schwenk Zement KG also has an ownership of fifty percent in the company. Schwenk Zement KG, a family-owned company founded in 1847 offers services and performs activities covering several branches of the industry: as the leading manufacturer of thermal insulation materials in Germany, it also has a dry mortar and transport concrete business line.

The Karlstadt plant of SCHWENK Zement KG



HeidelbergCement Group headquarters





Mixing bed at the Vác plant





Subsidiaries and plants

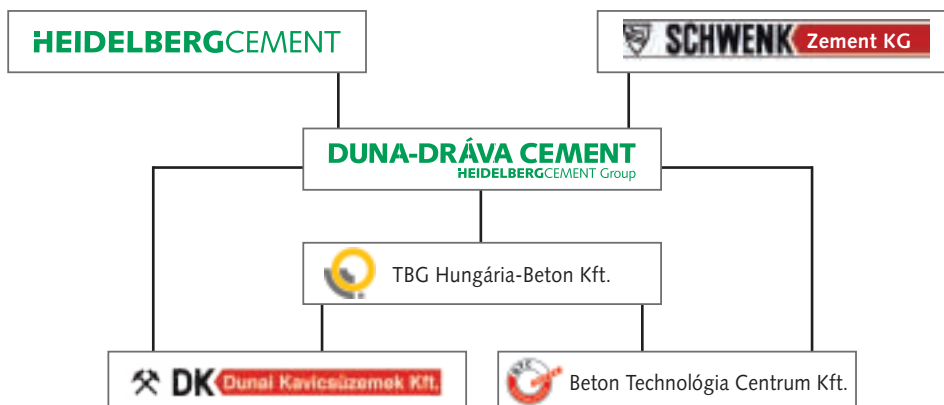
The DDC Group consisting of Duna-Dráva Cement Kft. and its subsidiaries operates in fields such as transport concrete or gravel manufacturing, and also heavy focus is placed on reliable concrete technology background.

TBG Hungária-Beton Kft. has around forty concrete plants and one company dealing with concrete pumps. On account of its annual capacity of one million cubic meters of concrete, the group was able to get involved in special projects related to the development of transportation infrastructure, such as the construction of the M7 motorway, the bridge at Kőröshegy, the Pentele bridge at Dunaújváros or the M35 motorway recently.

The group incorporates Dunai Kavicsüzemek Kft., a company operating seven quarries in the northern and middle regions of Hungary, being responsible for the exploitation, processing and domestic and foreign sales of gravel.

Beton Technológiai Centrum Kft. is also a member of the group, carrying out analyses on aggregates and concrete in accredited laboratories for its clients. Beton Technológiai Centrum Kft. also provides the laboratorial and technological background for the development of company products and quality assurance.

-  Duna-Dráva Cement Kft.
-  Dunai Kavicsüzemek Kft.
-  Beton Technológiai Centrum Kft.
-  TBG Hungária-Beton Kft.





Postcard from Beremend, from 1899



The Beremend plant today

A century of tradition

The domain of around fifty thousand acres, to which Beremend once belonged, was in the property of Prince Georg of Schaumburg-Lippe in 1909. The quarry of the county had been under cultivation for a long time then, the extracted limestone was burnt for the most part. Since the limestone necessary for cement production was available in the suitable quality and amount, and the construction of the Drava Valley Local railways Co. accounted for the essential infrastructural development, the establishment of the limeplant and later the cement factory started in 1909, close to the limestone quarry of the county. In the autumn of 1910, production commenced, with the first carriage of Portland cement ready from the factory in 27th November 1910. The present factory of the company at Beremend stands a few kilometers away, between Beremend and Nagyharsány, and started its operation in 1972.



Advertisement of the Beremend cement plant from the early twentieth century

DDC's "Environmental Savings Award", 2006



Recognitions

The Beremend plant won the "Industry for the environment!" award in 1995 for its environmentally conscious production operations. The fact, that energy recovery of used tires in such a large quantity was first realized there in the country also contributed to the success.

Duna-Dráva Cement Kft. also won the "Environmental Savings Award" of the Association of Environmentally Aware Management (KÖVET) in 2006 in the category of investments returning over three years, on account of its endeavors towards environmentally sound cement production. This award was founded by KÖVET in 2003 with the objective to promote and recognize ambitions of companies reducing the load on environment and implying financial savings at the same time. The company earned the award with its developments undertaken for the sake of the environment in the past years.

II. Economic environment – products and markets



“Sustainability is also about numbers... In the long run we aspire to success in productive operations, therefore with our responsible management we have to consider the interests of the future as well, and this is just the approach that could assist us in achieving our goals.”

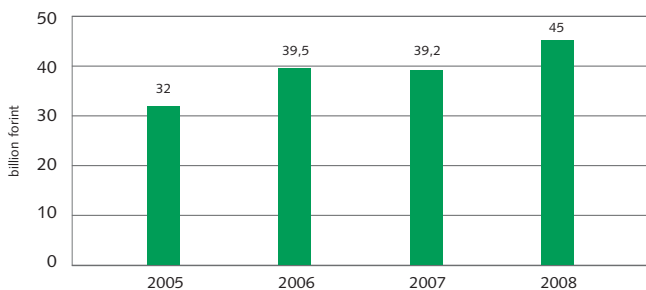
Ferenc Sövény, CFO



Economic environment

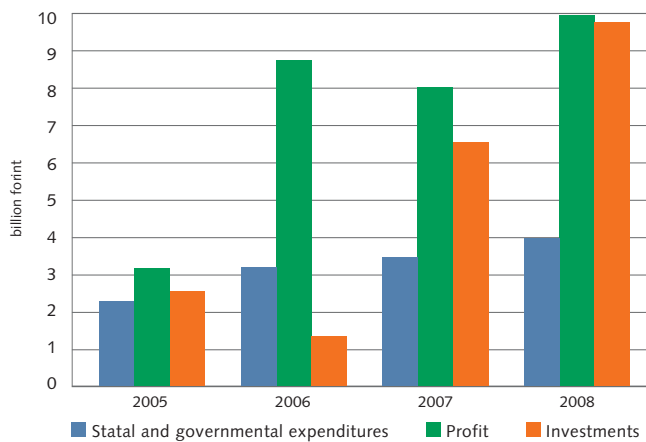


Duna-Dráva Cement Kft. has been market leader on the Hungarian cement market since the foundation of the company. Major part of the 2.1 million tons of cement traded in 2008 has been sold to domestic clients. Revenues and profits of the company showed a gradual increase in the past four years.



The company contributes to state revenues and to the economic development of its environment with around 4 billion forint a year, by paying taxes and contributions, and through investments and suppliers.

Revenues of Duna-Dráva Cement Kft.



DDC's statal and governmental expenditures (corporate tax, personal income tax, other local taxes and payments), profit, and expenditures on investments

Az 500 legnagyobb árbevételű hazai cég / HVG, 2007.

Helyezés		Cég	Ágazat	Árbevétel		Export 2007 (millió Ft)
2007	2006			2007 (millió Ft)	változás 2007/2006 (%)	
1.	1.	Mol Magyar Olaj- és Gázipari Nyrt.**	energiaipar	2 593 951	- 10	1 529 435
2.	2.	Audi Hungaria Motor Kft.	autógyártás	1 484 811	17	1 480 747
3.	3.	Nokia Komárom Kft.	elektronikai ipar	1 261 013	15	1 233 262
4.	4.	E.On Földgáz Trade Zrt.	energia-nagyker.	784 012	-5	9 218
5.	7.	Philips Industries Magyarország Kft.*	elektronikai ipar	727 357	17	724 029
6.	5.	Magyar Telekom Távközlési Nyrt.**	távközlés	676 661	1	114 385
...						
106.	103.	Budapesti Közlekedési Zrt.	fuvarozás	66 812	5	0
107.	39.	Állami Autópálya Kezelő Zrt.	közútkezelés	66 180	- 66	0
108.	93.	E.On Energiakereskedő Kft.	energiaszolg.	65 302	- 13	12 630
109.	108.	Duna-Dráva Cement Kft.*	építőanyag-ipar	64 032	3	1 413
110.	116.	Sony Hungaria Kft.	elektronikai ipar	63 927	13	52 118
111.	117.	Donau Brennstoffkontor Kft.	energiaipar	63 589	13	12 631
112.	150.	Coloplast Hungary Kft.	gumi- és műanyag	63 116	42	63 116
...						

DDC in the top 500 list of turnover of Hungarian companies

(Source: HVG, January 2009)



Specialities of the industry

Limestone and clay quarries providing for the appropriate production capacity are prerequisites of cement production. The mineral-content of mined materials determines significantly the efficiency of plants and the quality of products. Duna-Dráva Cement Kft. owns quarries at Sejce, Gombás and Keszeg near the Vác plant, and at Nagyharsány and Beremend for the plant in Beremend.

With the procession of raw materials arriving form these quarries, cement is produced under strictly controlled and constantly supervised process conditions.

Due to the highly automated technology, there is a need for only a low number of employees, however, it is important for employees to be well prepared, skilled and multi talented.

Domestic cement demand of recent years

	2005	2006	2007	2008
Domestic utilization (thousand tons)	3 936	4 278	3 987	4 050

Isolate mining areas provide home for rare plant and animal species. For example, a specially protected flower, the colchicum hungaricum can be found in the recultivated areas of the quarry at Nagyharsány on the Szársomlyó hill.



Technology and production



Rail transportation

How is cement manufactured from limestone?

Limestone and clay transported to plants are mixed and homogenized on a mixing bed in a hall suitable for storing large quantities of raw material. The content of the mixing bed is transported to the raw mill, where raw meal is ground from the pre-homogenized raw material. The raw meal pre-heated and dried in the heat exchanger tower is then burned into clinker on at least 1450 °C in the

kiln. Reaching this high temperature requires a high amount of energy, however, modern solutions provide for high thermal efficiency achievable at drying or pre-heating procedures when grinding raw material. This high temperature burning also makes sure the energetic utilization of alternative fuels (such as used tires, plastic light fractions, biomass).



Limestone quarry



Mixing bed



Raw mill



Kiln



Mixing bed at the Beremend plant





Control panel at the Vác plant



Ball mill

Fabric filters and electrostatic precipitators placed on all point sources are part of the environmentally sound technology, and serve for filtering dust from gases exiting from the kiln and the mill. Clinker arriving from the kiln is cooled down, and finely ground with steel balls in the cement mill. Additives are also mixed in here: gypsum

for setting regulation, or hydraulic additives, such as pulverized fly ash or blast furnace slag. These materials function as substitutes for clinker, and they require less usage of raw material, fuel and electricity. Produced cement is filled in bags or trucks for transportation.



Clinker silo



Cement grinding



Cement silos



Transportation

Packaging and grinding plant at the Vác plant



Products and markets



Árkád Shopping Center, Pécs

When providing application technical advising related to manufacturing and products, sales, Duna-Dráva Cement Kft. offers its clients modern building materials and solutions suiting their building requirements.

Special solutions – for different needs

Different cement types containing additives of fly ash, slag or limestone powder are able to fulfill the requirements of the most special constructions. This is how cements with low heat generation are produced, ideal for constructions in the summer, or sulfate resistant cements which could be used efficiently at sewerage works.

Spectacular buildings can be erected with modern cements. Products of Duna-Dráva Cement Kft. have been used in the construction of the Palace of Arts or the National Theatre.

The ever widening range of cement types creates new opportunities for the concrete industry. TBG Hungária-Beton Kft., a subsidiary of Duna-Dráva Cement Kft. has great expertise in the production and utilization of self-compacting concretes.

By using materials that are easy to build in, the quantity of material used for building can be reduced, and thus their costs as well. For special surfaces, the so called “exposed”-concrete is ideal, this modern technology allows for concrete surfaces to be visually appealing without cladding and painting. Such technology has been used at the construction of underground stations for the underground line 4 in Budapest. A popular type of cement, the self-compacting concrete was used at the reconstruction of the Hajós Alfréd National Sport Swimmingpool, speeding up the works. Concrete types traded by TBG Hungária-Beton Kft. include a so-called fiber strengthened concrete forced by plastic and steel fibres, which functions perfectly as foundation concrete on account of its strength.

Illustrations show buildings and monuments that have been built from cement made at the Vác and Beremend plants.

Köröshegy viaduct



Apartments at Budapest





National Theatre



Palace of Arts



National Theatre and Palace of Arts

Advantages of concrete in road construction

In case of roads with higher traffic, concrete is more resistant than asphalt, since it does not rut. Although initial investment costs are slightly higher, the maintenance of concrete roads costs less than asphalt roads in the long run. Appropriately built concrete roads are able to serve traffic for at least 40-50 years. Another benefit is that part of used concrete can be recycled again as basic material. For example, cracked concrete can be built into new road surfaces. Enhanced application of modern technologies also contributes to the goal to use less raw materials at constructions.

Tailor made additional services

Besides well-skilled representatives, application technology advisors also assist partners of the company to be able to select and use to most appropriate materials and methods suiting their objectives and potential.

The M0 motorway





New DDC bags



Pentele bridge



DDC in 2008: Poster of the renaissance campaign

New image

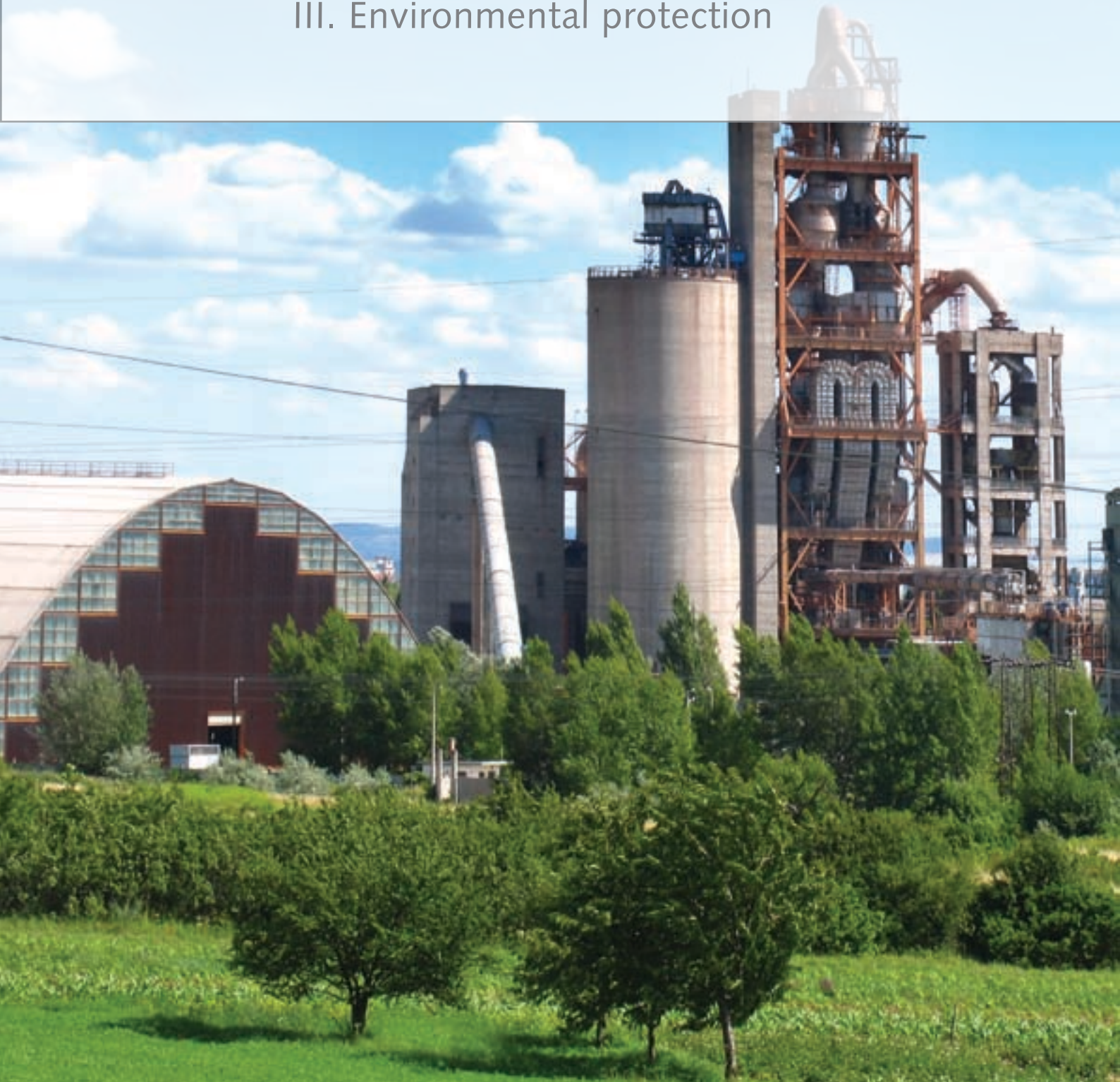
In harmony with the international image of the HeidelbergCement Group, the logo of the company was renewed in January 2008, and the brand name DDC was born in May, an easier name unifying the company. Besides the significant tradition of the two plants of Duna-Dráva Cement Kft., it is also important for the market and the public to identify the company as one group and one brand.

From May 2008, Duna-Dráva Cement Kft. trades its bagged products in a new packing of 25 kgs only, in line with the new brand image. The high quality graphics, the clear labeling and the choice of colors make it easier to distinguish various types. Taking into consideration the viewpoint of customers, the information on the bags has also been extended.

Cement bags were redesigned in 2008



III. Environmental protection



“Important feature of accountable environmental activities is that they preserve the opportunity for development for future generations even considering aspects of economic efficiency.”

László Zvekanovics, Head of Environment

Principals on environmental protection



The Beremend plant

Cement production, similarly to other heavy industry operations, is in significant interaction with its surrounding environment, therefore preserving the treasures of nature and the belief of sustainable development are considered within the operation of the company.

Duna-Dráva Cement Kft. aimed to decrease significantly the environmental footprint, and to focus on prevention, in line with the international strategy on environment of the Heidelberg-Cement Group. DDC, while operating, also assists its employees with trainings to help them adapt and apply environmental approaches. This professional expertise and the application of the best available technology (BAT-BREF) ensure that plants of the group are operating in conformity with regulations and standards, while also keeping threshold limits.

When developing manufacturing processes, considering the environment we increasingly prefer and pay attention to energy saving, to decrease the utilization of fossile fuels, to utilize

secondary basic materials and fuels extracted from waste, thus securing the preservance of natural environment.

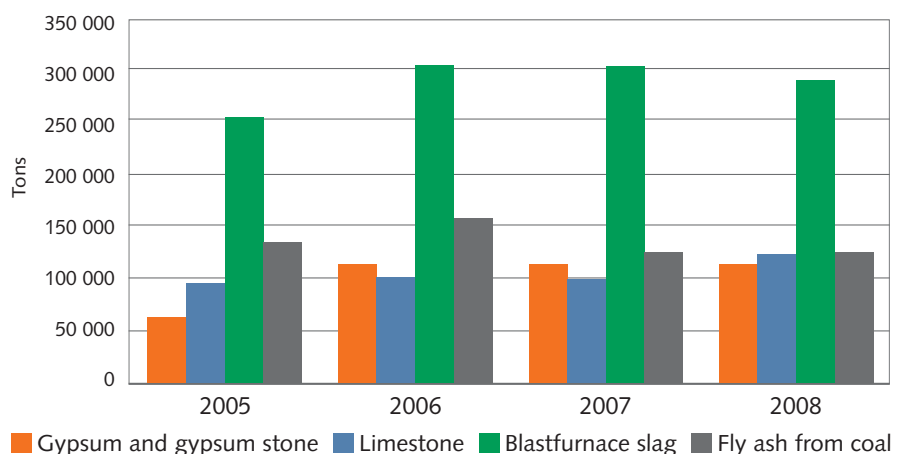
The so-called integrated management system including quality and environmental management and occupational health systems allows for the high quality realization of all these tasks.

Duna-Dráva Cement Kft. expects from its partners, suppliers and subcontractors to also consider the protection of environment and the preservance of natural surroundings.

Duna-Dráva Cement Kft. nurtures good relations with authorities, local communities, providing constant information on results and expected improvements relevant to environmental protection.

The utilization of alternative raw materials and fuels occurs within a secure and controllable system, followed up by measurements at the cement plants of Duna-Dráva Cement Kft.

Materials used for decreasing clinker proportion /Vác and Beremend plant/



Waste management



Materials prepared for utilization within the cement plant

Cement production is practically a waste-free technology, with a very low amount of waste resulting from servicing and supplementary activities. Cement plants within their waste management chiefly process the delivered materials as secondary (or alternative, supplementary) fuels.

Alternative raw material and fuel management

Major motivations for improvements in the past ten years within the cement industry included environmental protection and cost effectiveness. These two notions have become one and unseparable since the growing importance of the carbon-dioxid reduction system and the application of alternative fuels. By inserting alternative raw materials and fuels into the production system, the pace of exploiting natural resources can be reduced, furthermore, this technology is able to provide a solution for waste management problems of industrial plants. This is called a “win-win” way out in environmental protection, since both parties as well as the environment benefit from the cooperation.

Alternative raw materials

Besides clinker, cement might also contain so-called hydraulic additives and limestone in various proportions. With the increase of the ratio of such additives, the clinker content of the cement is reduced, and thus the quantity of emitted carbon-dioxid, during the production.

Alternative raw materials functioning as hydraulic additives are typically industrial by-products, such as granulated blastfurnace slag, pulverized fly ash, or puccolans of natural origin.



Materials used for decreasing clinker proportion, average data from the period of 2005–2008 /Vác and Beremend plant/

16%	Gypsum and gypsum stone
16%	Limestone
46%	Blastfurnace slag
22%	Fly ash from coal

Basic materials for cement production are chemical compounds that are found in the earth crust in large quantities, and are used in almost all industries for manufacturing various products. For good quality cement, the chemical composition is important instead of the origin of basic materials, therefore it is possible in the manufacturing procedure to substitute natural raw materials and fuels with by-products and appropriately prepared waste products of other industries, nevertheless still resulting in the same quality product. These are referred to as alternative or secondary basic materials and fuels.

Viewpoint of environmental experts:

“Co-incineration in the domestic cement industry has to be preferred, which means the utilization of waste as raw material or additive as well as its energy recovery.”

(National Waste Management Plan, 2002. 3.2.2., e1.)



Control panel at the Vác plant

Major alternative raw materials used in large proportion

REA-gypsum

The so-called REA-gypsum is a by-product exiting from flue-gas cleaning equipment of thermal power stations. The cement industry uses this artificial gypsum instead of natural gypsum as an additive. This helps to avoid the exploitation on necessary gypsum, and also, the by-product of thermal power plants is utilized as well.

Blastfurnace slag

It is developed in the blast-furnace of steel and iron furnaces: it is composed from the deterioration of refuse ore (non reduced oxids), coke ash and masonry. Due to its hidden hydraulic characteristics, it is a perfect additive for cement production in granulated form.

When burning clinker, steel slag, a by-product of steel manufacturing, is also utilized as additive, substituting necessary iron additives.

In Hungary, 100 percent of blastfurnace slag produced during the manufacturing of crude iron is utilized by the cement industry.

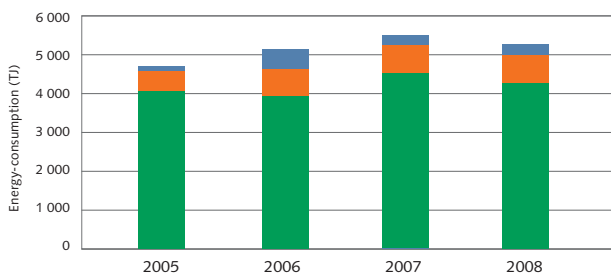
Fly ash

It is a fine powder filtered in thermal power stations during the burning of coal dust, containing flammable residiums in small proportions. Due to its hidden hydraulic characteristics, it can be used as additive in cement production.

Alternative fuels

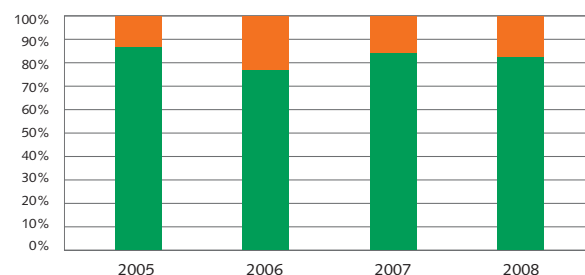
Besides fossil fuels, pretreated alternative fuels are also used in the plants in Vác and Beremend of DDC. These materials join the technology in the appropriate form, ready to be used. With their utilization, energy can be extracted from materials which are otherwise considered as waste in other industries, and also significant quantity of fossil fuels can be substituted with these materials. Technologies within the cement industry are perfect for the utilization of high energy waste as fuel, since the temperature and the time duration necessary for perfect burning are provided, and also the residual ash of substitute fuels integrate in the clinker, therefore it does not have to be recovered separately.

Distribution of energy-consumption /Vác and Beremend plant/



- Primary (fossil) fuels
- Secondary fuels
- Biomass fuels

Distribution of fuels in percentages /Vác and Beremend plant/



- Primary (fossil) fuels
- Secondary fuels



Vác plant of Duna-Dráva Cement Kft.

In order to protect the environment, high-value equipment and the smoothness of production, substitute materials are analyzed in laboratories before their utilization at the plants, therefore only pre-treated, secure materials of appropriate composition are utilized.

On account of the integrated exhaust gas-cleaning system, the emission value of pollutants is below threshold limits.

High standard technological solutions make sure that the quality of cement, and concrete made out of cement is consistent, and its environmental performance increases, since with the utilization of alternative fuels, cement manufacturers undertake the compliance to stricter emission limits compared to traditional fuels.

Major alternative fuels used in large proportion

Light fraction

Paper, wood, biomass, mixture of selected and compressed textile to produce homogeneous fuel.

Plastic waste

Mixture of prepared, sliced chlorine-free plastics waste.

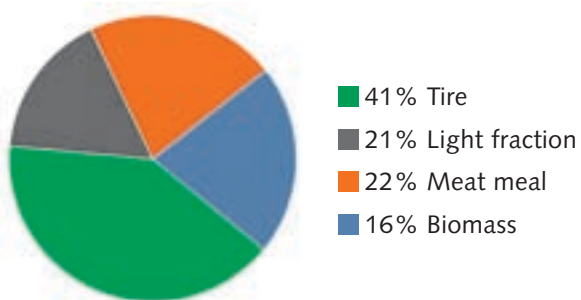
Used tires

Secondary fuel made from chipped, mixed rubber tires, which are non-reusable and not suitable for other utilization.

Biomass

Energy grass, straw, wood waste, dehydrated sludge from sewage treatment, agricultural seed residue. Another benefit of the energy recovery of these materials is that the amount of carbon dioxide they emit during their utilization only amounts to the quantity they consume during their growth and lifetime. Therefore, due to this closed ecological circle, they do not increase the load of the atmosphere.

Distribution of secondary fuels in percentages, average data between 2005–2008 /Vác and Beremend plant/



The industrial utilization of alternative fuels and raw materials is in such great accordance with EU standards, that many European countries base their waste utilization of their cement industries. Cement plants in Switzerland and France use alternative fuels in as much as 70–80%.

Emissions



Vác plant from a bird's-eye view

For the measurement of emissions, the company has established a modern background. Values of emission can be followed continuously in the two plants, therefore experts can interfere immediately in case values rise. With the help of an imission-monitoring system, the quantity of emitted materials around the plants can be viewed in details, related to different times and places, illustrated on a map.

Emission: It means the discharging of materials – usually pollutants – into the environment.

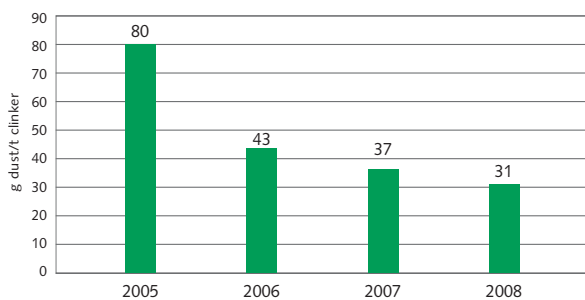
Imission: The concentration of gases and aerosol particles emitted into the atmosphere, the degree of air pollution.

Dust: the most common by-product of cement production. In order to reduce it, high performance dust-filters are placed at potential points of emission.

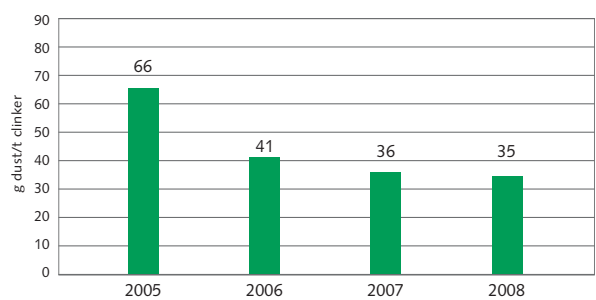
NO_x: Relevant polluting materials of high temperature burning. It includes NO, NO₂ (and N₂O) compounds. Its quantity is usually independent from the type of fuel used, and it is generally reduced with water solution of ammonia.

CO₂: In 2003 the European Union accepted the 2003/87/EC directive on the trading of carbon dioxide, aspiring to enhance the struggle against climate change, and to reach the objectives of the Kyoto Protocol related to the reduction of emissions, signed by all EU member states.

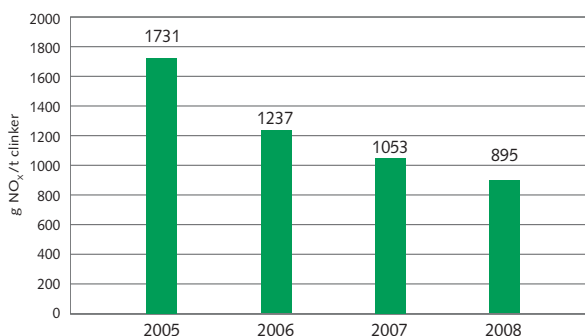
Alteration of specific dust emission – Vác



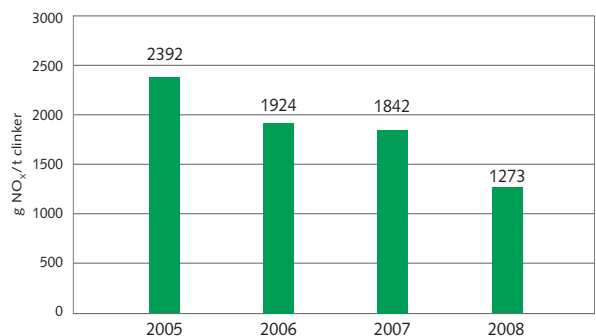
Alteration of specific dust emission – Beremend



Alteration of specific NO_x emission – Vác



Alteration of specific NO_x emission – Beremend





Storage of tires at the Beremend plant

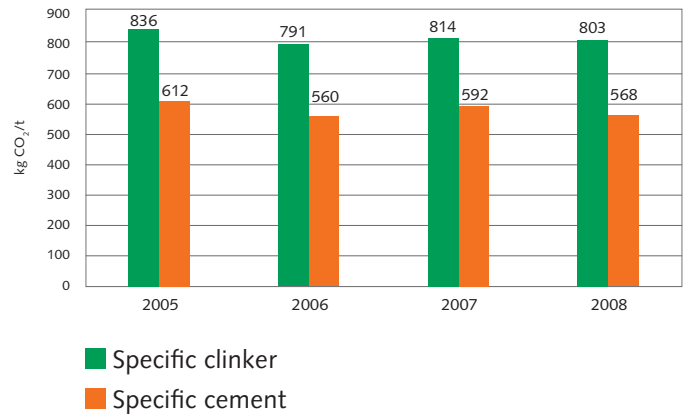
Cement plants around the globe contribute to the world emission of carbon dioxide with 3-4%. However, around 60 percent of the emission within the cement industry results from the decomposition of limestone. In Hungary, cement plants account only for 2,7 million tons of carbon dioxide emission out of the amount estimated up to 80 million tons a year. As a comparison: 25 percent of the total carbon dioxide emission comes from transportation, and road transportation is the highest polluter with 70 percent.

In terms of the accepted EU directive, from 2005, certain industries (major greenhouse-gas emitters, including the energy sector, iron and steel sector, the construction, glass and paper industry) are only allowed to emit carbon dioxide with a special permit within the whole Europe, therefore in Hungary as well. Actual emissions of establishments have to be covered by allowances. These special credits origin from the state, and are freely tradable in order to cover emissions.

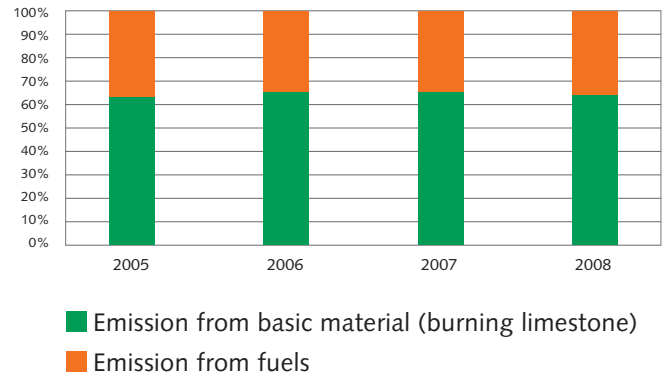
The cement industry, therefore Duna-Dráva Cement Kft. is also a part of the Emission Trading Scheme of the European Union. During the first trading period from 2005 till 2007, there were sufficient amount of allowances for the industry including DDC. However, in the second period, in order to adjust to the requirements of the EU, the amount of available credits has decreased significantly, with noticeable impacts on the Hungarian cement industry and DDC. Since the technology represents the best available technology today, it is hardly possible to reduce emissions even more.

Around two-third of the total emission within the cement industry is a technological emission from the decarbonization process (calcination), the reduction of which is limited, since carbon dioxide is a natural outcome of the burning of raw material (limestone). Nevertheless, Duna-Dráva Cement Kft. aims to seek innovative technologies in order to achieve objectives of the EU: carbon dioxide emission can be reduced with the increase of the proportion of biomass fuels and with the decrease of clinker content of cements.

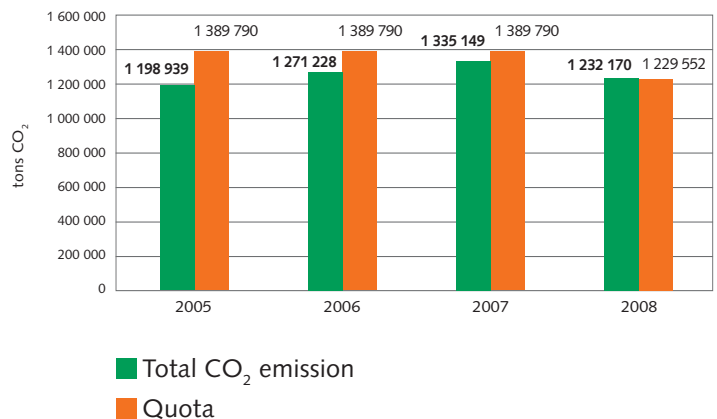
Specific CO₂ emission per clinker and cement /Vác and Beremend plant/



Distribution of CO₂ emission /Vác and Beremend plant/



Total CO₂ emission /Vác and Beremend plant/



Protection of soil, water and noise control



Visit of the Hungarian president in the recultivated areas of the Nagyharsány quarry (On the picture from left to right: János Szarkándi Chairman - General Manager, László Sólyom president of Hungary, Lajos Katona plant director)

Soil protection

Though the technology within the production of cement does not affect the soil and groundwaters, the group owns wells for monitoring purposes, in order to uphold constant qualities with occasional controls, due to the responsibility of the company towards sustainable development.

Water protection

The water demand of technical equipment of Duna-Dráva Cement Kft. chiefly derives from the necessity to cool down these pieces of equipment. Due to the low quantity and temperature of the emitted cooling water, there is no thermal load on the environment, and also the ecologic balance is preserved. Exiting water arrives in the receiving water basin through filtering and settling equipment.

Noise control

In the past years, there has been great attention paid towards the reduction of noise pollution near the plants in Vác and Beremend: on account of its modern investments, the company has been able to significantly reduce noise pollution. With a silencer operating on the principle of half-wave length noise cancellation, the noise emitted by the kiln stack, and also shielding walls and coatings ensure the protection against noise at appropriate places.

Biodiversity, mine recultivation

The company spends some ten millions of forints every year on the recultivation of areas set aside from mining. In doing so, these areas are replanted with their original, natural flora, also considering the conservation of biological diversity in the surroundings of quarries. From the budget separated for recultivation, the nurturing of the ten thousands of saplings planted every year and their environment is also financed by the company. Strengthened saplings are taken over by experts of the National Forest Management, who declare these areas forested areas. Recultivation is carried out by an ecological recultivation plan, which considers long-term aspects of plants when planting them. Also the type of plants is determined by what is natural on that particular area, preferring types which contribute to the necessary rehabilitation of the soil.



9th Convention of Biological Diversity Treaty

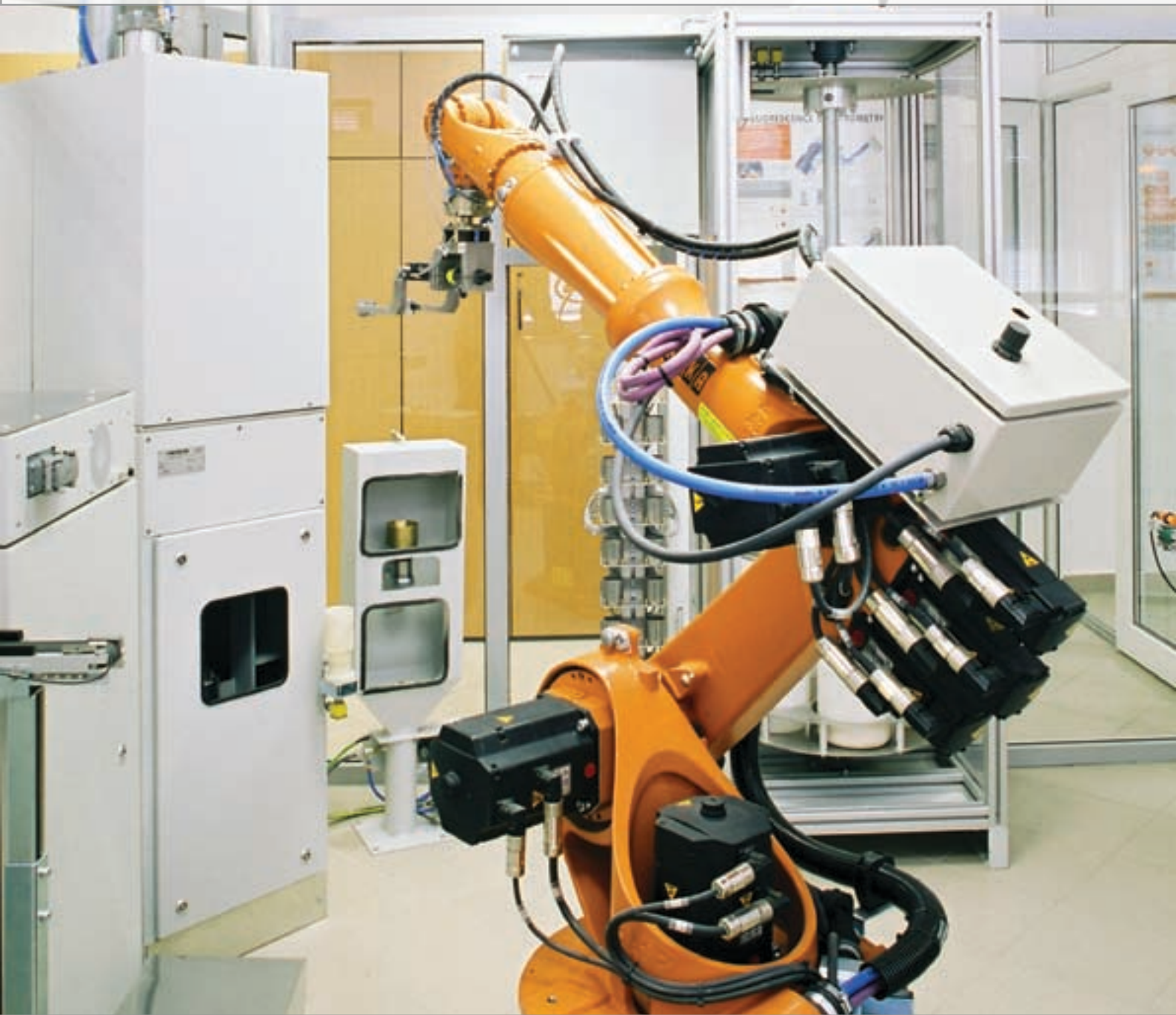


Dr. Bernd Scheifele

HeidelbergCement Group and sustainable development

“Recultivated limestone and gravel quarries offer shelter for endangered animal and plant species. The preservation of nature’s diversity plays an important role within our environmental management system” – said Dr. Bernd Scheifele, chairman of the managing board of HeidelbergCement Group at the event aimed to introduce the new initiative of the European Union called “Business and Biological Diversity” hosted by Sigmar Gabriel, the minister for the environment of the Federal Republic of Germany. HeidelbergCement signed the declaration preceding the ninth Convention on Biological Diversity in May 2008, demonstrating their responsibility towards the preservice of nature’s diversity.

IV. With developments for sustainability



“DDC, acting with to the increased demands of its costumers in clientale and the challenges of the energy market and of environmental protection, aspires to maintain competitiveness by applying innovate technologies”

Dr. László Szabó, Technical Director

Research and development



Constant innovation is vital for maintaining competitiveness. The HeidelbergCement Technology Center, the professional laboratory of SCHWENK Zement KG, as well as international research institutions and Hungarian universities provide the necessary research background for the company.

Research and product development activities

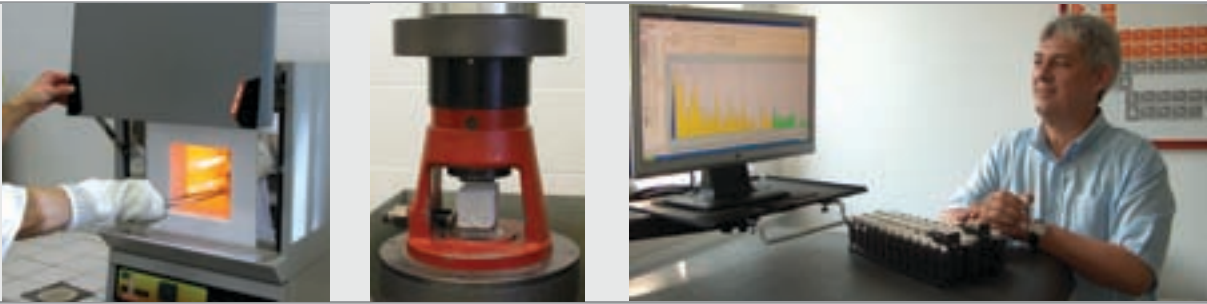
Duna-Dráva Cement Kft. carries out its own developments as well, with the help of the modern process, central and environment analytics laboratories, and the accredited laboratory of Beton Technológia Centrum Kft. Besides, the company also cooperates with leading national scientific institutions and universities. On account of the job done by skilled experts, innovative ideas and international experience of the group, the company is at the forefront in the nation related to research and development in the cement industry. Its activities of product development contribute to the development of customized solutions for various customer needs.

The objective of developments is to create cement types and concrete compositions, that increase the strength and durability of concrete by designing solutions that provide benefits both for production and utilization, and also lowering the impact on the environment.

A modern, automated process laboratory operates in the plants in Vác and Beremend, with constantly operating automated sampling units, transportation carried out by tube post. Laboratory samplings and measurements follow through the complete production process, from the arriving of limestone to the packaging of cement. This way it is guaranteed that DDC cements, and the concrete made out of it bear

Central laboratory at the Vác plant





Central laboratory at the Vác plant

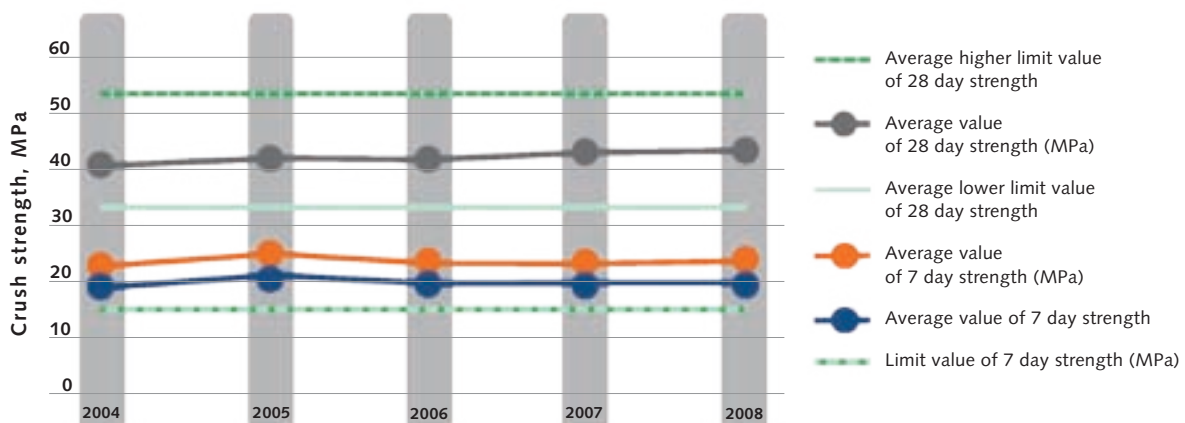
constant homogeneous characteristics. Specimen are made out of samples taken during production by the central laboratory in Vác, and physical-mechanical and chemical analysis are performed on these: flexural and compressive strength, setting time and volume stability is inspected. Strength of cement throughout years is tested on samples stored in water. These analyses and the conformity of the manufacturing process are inspected by two independent institutions appointed by the relevant body of the European Union. There is one analyzing and inspecting laboratory which randomly takes samples six times a year from each manufactured type of cement, and there is a certifying body that checks the complete process of production, and also statistically

evaluates the results of the company's own and external laboratories, based on related harmonized regulations.

In the laboratory, competent experts measure the calorific value and the composition of fossil and alternative fuels, and the carbon dioxide content of mineral raw materials, with modern equipments and methods, under the supervision of authorities.

Latest developments enabled the measurement of the biomass-proportion of alternative fuels. Cooperating with the accredited concrete-laboratory of Beton Technológia Centrum Kft., the features of cement are analyzed directly in the concrete, and optimal formulas are developed specially for various fields of utilization.

Average strength after seven and twenty-eight days and limit values of strength of the most sold cement type of the Vác plant (moderately sulfate resistant CEM III/A 32,5 N-MS).





The photos were taken at the Beremend plant between 2007 and 2009

Technological developments

The modernization at Beremend

The plant located between Beremend and Nagyharsány started its operation in 1972, and uses the cleanest limestone in Hungary for manufacturing. Its clinker plant was built with a technology considered to be cutting-edge in the beginning of the 1970s, based on dry process, with two parallel production lines. In the autumn of 2006, the owners decided to invest in the modernization of the manufacturing process by completely exchanging the kiln-line: the heat-exchange tower (preheater), the rotary kiln, the clinker cooler and dust filters. One of the two clinker-kilns was shut down in the autumn of 2008, and the new one operates with a greater efficiency from the spring of 2009. The electricity and heat consumption of the new kiln are both lower than of the older one's.

The new kiln-line with higher efficiency applies automated process control and unique engineering

solutions also considering local specialities. The plant in Beremend utilizes alternative fuels as well, therefore the manufacturing process conforms to high environmental standards. The servicing of customers was uninterrupted even during the reconstruction: since the switch to one-line manufacturing took place during the usual winter repair period, from storages the company was able to supply market demands entirely.

Due to the investment worth more than fifteen billion forint, the energy efficiency of the plant increases; and also with the better utilization of biomass type materials, the specific carbon dioxide emission decreased.

Furthermore, the operation and maintenance of the kiln have become more cost-efficient.

The photos were taken at the Beremend plant between 2007 and 2009



V. Society



“Achieving company objectives can only be carried out by active participation of colleagues, therefore sustainability within the DDC group represents expertise, openness towards the outside world, and responsibility for company values.”

Mária Bászler, HR Director

Responsibility towards associates



"Duna-Dráva Day" – open day at the Vác plant

Cement plants of Duna-Dráva Cement Kft. traditionally actively participate in the social life of the areas of Vác and Beremend. Many associates live in nearby settlements. The company provides high quality technology and safe working conditions and also continuous opportunities for development and training for its employees.



two sons, Tamás and Balázs (in the photo with István Lenhardt) work as an operator and an electrician in the Beremend plant of Duna-Dráva Cement Kft. This is not a unique example, many other families have similar prides in both Vác and Beremend. The majority of experts spending decades as employees of the company take part in many processes of manufacturing and company management, and in many cases the company supports trainings that are necessary to fulfill certain positions.

István Lenhardt, human resource management coordinator has been working for the cement factory since 1977. His family has been working here for four generations. His father on his father's side, snr. István Lenhardt was a locksmith in the plant between 1924 and 1954. His father, György Lenhardt retired as a labor referent in 1984, after working 39 years for the company. And now his

Number of employees of Duna-Dráva Cement Kft.: **450 persons**





Visit of college and university students



Job fair

Attractive and safe workplace

Everyday security

On account of the modern technology, major part of the manufacturing procedure is automated, which is one important condition of secure working and quality assurance. It is an important aspiration to eliminate all sources of danger, and to develop working conditions in a way that no accident or damage could occur. The highly skilled human labor source primarily takes part in maintenance, technological designing, developments, and services that are vital for the operation of the plant.

In the field of work safety, Health and Safety principles of the HeidelbergCement Group and authority standards are normative. Employees participate in health screenings every year. For promoting health conscious approaches, health care trainings and blood donations are organized. A great focus is placed on the prevention of occupational accidents when designing working conditions and internal work safety regulations, and also during trainings. Related case studies, basic principles on work safety as well as health care and training materials can all be found on the intranet. Leading colleagues frequently participate in courses, conferences, and constantly discuss

with experts at other companies within the group, therefore they have the opportunity to exchange experiences in the field of work safety.

Involving young experts

The company often exhibits at major university job fairs. International trainee programs are offered by the company for well skilled, multilingual young experts.

The objective of the management reinforcement program developed by the HeidelbergCement Group is to train new experts for cement plants operating in Europe. Successful applicants will be able to work later in the fields on engineering, sales or finance. During the one year of the trainee program, new colleagues have to become familiar with the technology and process of cement production, and also have to understand the basic principles of the company group in order to be able to make use of their knowledge gained during the program later in the plants of the HeidelbergCement Group as well. Throughout this period, the company offers trainings related to project management, communication, and there is also a special program introducing the corporate culture to new colleagues.

Number of accidents:	2006 – 4	2007 – 2	2008 – 0
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TANÚSÍTVÁNY



TANÚSÍTVÁNY



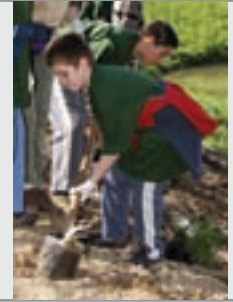
The company applies an integrated company management system, which conforms to high national and international standards.



"Duna-Dráva for Talent" scholarship ceremony



DDC Tree planting at Vác



Ethic corporate culture

HeidelbergCement Group being a multicultural corporation, aspires to unify the value system of its member companies in fifty countries and four continents. This is comprised by the Compliance Program, with responsibility, high quality operation and loyalty towards the corporation community in its focus.

Related to this, in the past years Duna-Dráva Cement Kft. has started in many stages to define for its employees the most important values represented by corporate culture. The first step was to publish the Corporate Mission, and later the Executive Directives summarizing the most important aspects related to the cooperation between responsible leaders and employees. Subsequently, essential guidelines determined by legislation and good morals have been incorporated in the Corporate Code of Conduct of the Duna-Dráva Group.

The meaning of compliance: conformity of operation to standards, and also the following of legislation and moral principles.

Constant internal communication

The management of the company informs employees about latest developments, events, and goals of the international group through their regularly published internal issues, DDC News and DDC Newsletter. Communication and information exchange between colleagues are also supported by the intranet network and regular management forums.



The cover of the Compliance brochure, introducing "Cement Elek"

Environmental protection organizations visiting the quarry at Beremend in the spring of 2008



The "Reconciliation" chapel at Beremend built with the support of DDC



Social responsibility



DDC Sport Gala

Protection of the environment, health care, supporting community sports and local initiations are all in the focus of DDC's activities of social responsibility. It is vital for the operation of plants to establish continuous dialogues with local governments and various civil organizations.

Protection of the environment, development and healthy lifestyle in focus

Related to its activity of building-material production, the company supports the development of communal places, buildings and infrastructures every year.

Besides, in the social responsibility program of Duna-Dráva Cement Kft., there is also great emphasis on ambitions related to environmental education, health care, cultures and arts, and also sport activities of the young generation.

These activities of social responsibility can be divided into categories such as events and other initiations done in cooperation with civil organizations, or the sponsorship of civil organizations and institutions operating in the surroundings of the plants.

In 2008, sponsorations of the company included the renovation of the playground at the Hajdú Imre building estate in Siklós, the construction of the sports field of the Madách Imre High School in Vác, or the renovation of the sports hall of the Petőfi Sándor Elementary School in Vác.

Continuous communication with regional civil organizations and governments

Duna-Dráva Cement Kft. together with the Foundation for Health Youngsters organized the Duna-Dráva tree plantation and the DDC Sports Gala in 2007 and 2008.

The DDC Sports Gala is a very popular event amongst students at Siklós and Vác. This initiation was organized by the company first in 2003 in Vác and later in 2007 at Beremend, with the participation of elementary and high school students of the regions, and with opportunities to win sponsorship for their schools to purchase sports equipment.

The company, through its Duna-Dráva Youth and Innovation Foundation, also operates a scholarship program called "Duna-Dráva for Talent", providing support for gifted students of elementary, music and high schools in the region of Vác every year.

Duna-Dráva Cement Kft. sponsored the renovation of a playground at Siklós

Lajos Katona, plant director of the Beremend plant, and dr. János Marenics, mayor of Siklós at the ceremony of the playground renovation





"Duna-Dráva Day" – open day at the Vác plant

Openness towards community

The company frequently holds open days in its plants, in the frame of organized tours for visitors.

Consequently, Duna-Dráva Cement Kft. also joined the initiation of CEMBUREAU – the European association of companies operating in the cement industry –, which involved the opening of the gates to provide insight of the operation of cement plants, between 10th-18th May 2008. As part of the event, environment experts, representatives of the local government, and leaders of educational institutions took part on the Duna-Dráva Day organized in Vác on 13th May 2008.

Dr. János Bóth, mayor of Vác and Mihály Hayer, mayor of Szendehely at the bridge ceremony



The Gyada Educational Path finished in 2004 presents the living resources of the Naszály-hill and the Gyada-meadow for its visitors. Duna-Dráva Cement Kft.'s quarry at Sejce is located on the Naszály-hill, therefore the company considers the development and nurturing of the hill's and the meadow's environment important. In 2007, DDC organized a tree planting act for students of Vác on the path leading to the Gyada Educational Path, and the company also sponsored the publishing of the Tourist Map of the Naszály-hill. On the 15th November 2008, a pedestrian suspension bridge was inaugurated on the Naszály-hill, with Duna-Dráva Cement Kft. as chief sponsor of the realization. The results of this cooperation between the company, the city and civil organizations were appreciated internationally as well, the Council of Europe honored the Gyada Educational Path with its Landscape-Award in February 2009.

In harmony with the environment



The future



Megyer bridge

DDC aspires to continue the supply of product demands in a sustainable way by using innovative operations, technological developments, enhancement of energy efficiency, the application of alternative energy sources and raw materials, and the reduction of clinker proportion (together with carbon dioxide emission) in cement.

The company has long-term objectives, since sustainability and harmonious relations with its environment are conditions of its existence. In terms of this, the company aims to further enhance existing cooperation with employees and communities in the neighborhood of its plants, and also to improve its products and environmentally sound production technology. In order to remain competitive, it is essential for the company to have

employees who are committed to the objectives of the company. Therefore it is important that associates are able to apply versatilely their special knowledges in various situations. With its activities of social responsibility, the company aims to continue the sponsorship of developments in the neighborhood, communal cultural institutions and local initiations promoting environmental protection and healthy lifestyle, in the future as well.

**Responsibility
for employees and
for the community**

**Responsibility
for the decrease of greenhouse
gas emission**

**Responsibility for energy
efficiency and the utilization
of alternative energy
sources**

**Responsibility for supplying
the market with high quality
and reliable products
and services**

**Responsibility for fulfilling
special customer needs
by providing expert counselling
and special products**

DDC In harmony with the environment



Product of the future

HeidelbergCement Group aspires to incorporate the principle of sustainable development in both the manufacturing of its products, and within the functioning of these products. This is well demonstrated by their latest, prospective development, a new cement type called TioCem. Claddings made out of TioCem react with solar radiation, and the nitrogen-oxid content of the air is decomposed. Since the special additive does not alter the characteristics of the cement or the concrete, it implies a new and reliable solution for the paving of places with high pollution and traffic.

The new kiln at Beremend, built in the frame of sustainable management



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DDC In harmony with the environment

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