

The logo consists of the letters 'S&B' in a bold, white, sans-serif font, centered within a dark green rectangular box with a thin white border. The background of the entire page is a high-speed photograph of a conveyor belt carrying a large volume of light-colored, chunky industrial material, possibly limestone or a similar mineral, which is blurred to convey a sense of motion.

**S&B**

# Building on engagement

2012 Summary Sustainability Report

## Our Purpose

**We provide  
industrial solutions globally,  
by developing and transforming  
natural resources into  
value-creating products**

## Profile

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We are a global diversified minerals and materials group, providing industrial solutions based on natural resources, to serve a wide range of industrial applications in the global markets of metallurgy, construction and foundry and in various specialty niche sectors. Through mining and processing operations, we utilize the multiple properties of industrial minerals to transform our mineral-based product portfolio into industrial customized solutions that enhance the production processes of our customers and increase end-product performance. We have a well-balanced international presence with diverse operations in 21 countries across the geographic regions of North Europe, South Europe, Americas and Asia/Pacific.

Industrial Minerals have always been at the center of our near 80-year history, which has seen S&B grow into an international group of more than 40 companies with sales in more than 80 countries across the globe. Our unique Market-to-Mine model coupled with our professional and responsible conduct towards society and the environment, provide the basis for continued sustainable development.

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*S&B at a glance*

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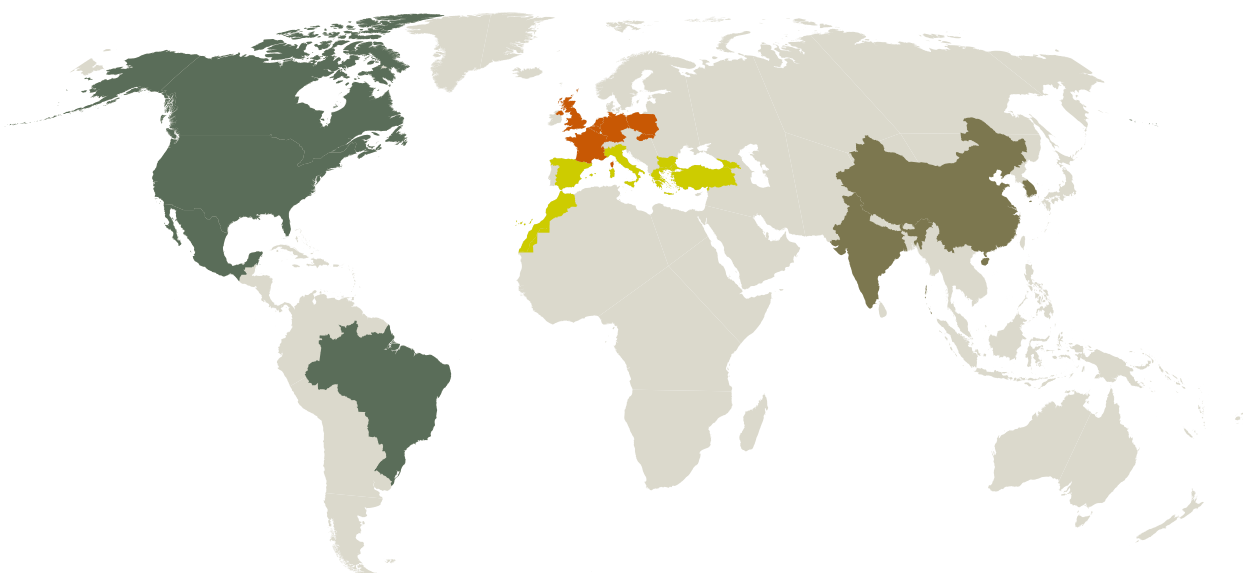
*Goals & Performance*

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# Building on engagement

2012 Summary Sustainability Report

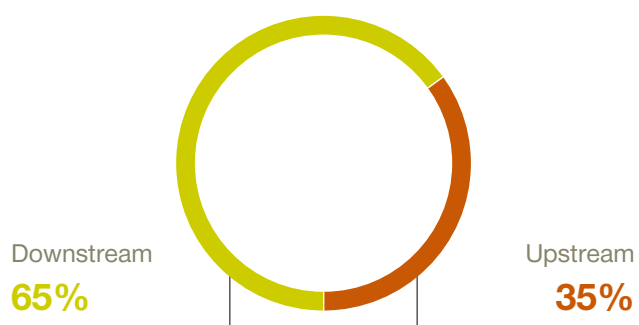
# S&B at a glance



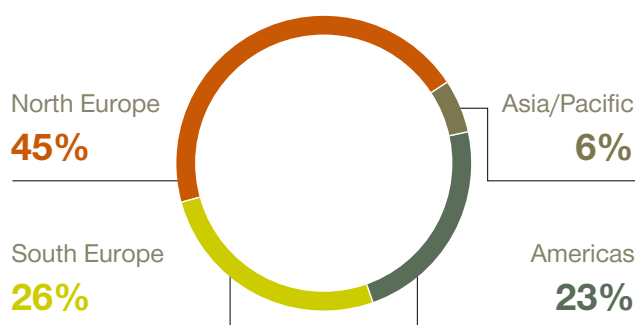
Region	Countries	2012 Sales in € million	Headcount	Number of asset locations		
				Mines	Processing plants	Distribution centers
<b>Americas</b>	Canada, USA, Brazil, Mexico	<b>108</b>	<b>393</b>	<b>6</b>	<b>13</b>	<b>6</b>
<b>North Europe</b>	Belgium, France, Germany, Hungary, Netherlands, Poland, UK	<b>210.5</b>	<b>530</b>	<b>2</b>	<b>13</b>	<b>11</b>
<b>South Europe</b>	Bulgaria, Georgia, Greece, Italy, Morocco, Spain, Turkey	<b>124.4</b>	<b>886</b>	<b>20</b>	<b>16</b>	<b>6</b>
<b>Asia / Pacific</b>	China, India, South Korea	<b>27.3</b>	<b>274</b>	<b>2</b>	<b>7</b>	<b>4</b>

## 2012 Sales

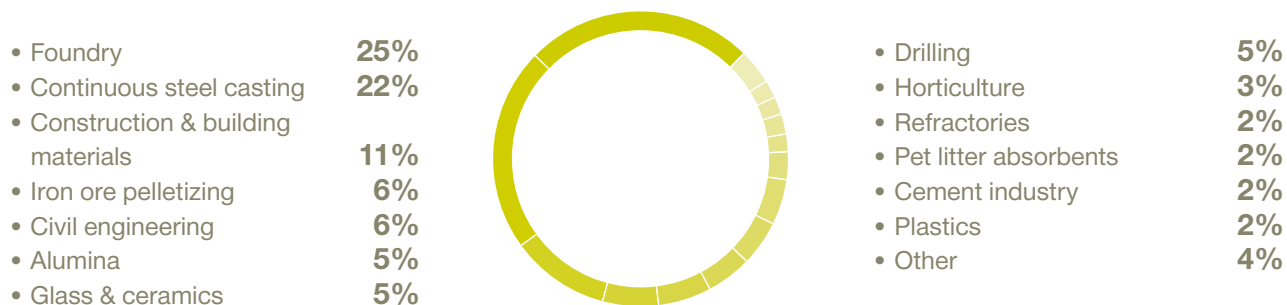
by type of operation



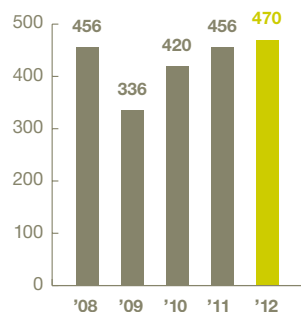
by geographic region  
(3rd party sales)



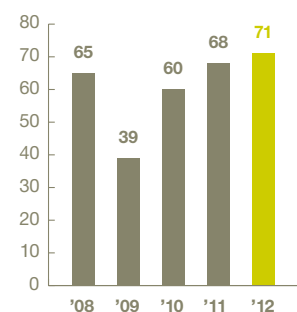
by end-market application



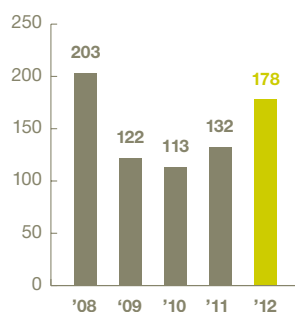
Sales  
in € million



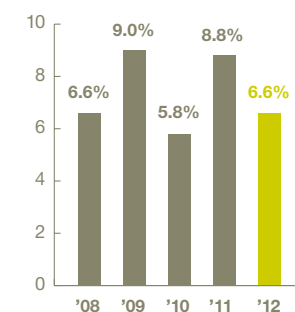
EBITDA  
in € million



Net Debt  
in € million



Net Capex / Sales





S&B Group headquarters

For S&B, 2012 was a year of improved operational and financial performance against a global backdrop of significant social and economic challenges. Compared to 2011, S&B's sales grew by 0.9%, while operating profit increased by 13.4% on a comparable basis. Given the marked slowdown in industrial activity in the second half of the year, as sluggish automotive manufacturing and weakness in European construction impacted demand, the operating profit expansion reflects S&B's institutional resilience and managerial strength.

In addition to boosting sales and profit, we further strengthened the Group's financial position by successfully refinancing our debt obligations in their entirety, despite very tight credit conditions.

2012 also saw the acquisition of NYCO in the United States – a strategic move that further enlarges our Group vision. This endeavor allows S&B to extend its Market-to-Mine philosophy to new locations, new products, and attractive, high-value, end-market applications.

2012 was also a year that saw us roll out and implement our sustainability vision and strategy. Our work focused on three key areas: cascading our sustainability vision and strategy throughout our global organization; focusing on specific targets to manage a number of ongoing issues; and reinforcing our internal sustainability reporting.

# Management Letter

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We are proud of our accomplishments in this area and will redouble our efforts to progress even further.

We were not able to meet our “zero accidents” target in 2012, and have shifted our focus to accident investigation with the communication of corrective actions elevated to the CEO level, since a relatively high percentage of incidents was found to be associated with occupational ergonomics. A Group-wide Ergonomics Initiative will be launched in 2013, combined with reinforcing our management safety visits and safety barometer tools.

The implementation of S&B’s sustainability agenda could not be possible without the involvement and commitment of our people worldwide.

During 2012, S&B conducted its most extensive Employee Survey to date, with the participation of employees from our operations in Brazil, Bulgaria, China, France, Germany, Greece, Italy, India and the USA. According to the survey’s encouraging results, S&B continues to rank in the top third among the global benchmark of companies. The survey reaffirmed a very high level of employee engagement in terms of general satisfaction with their employment, their recommendation of the company to others, their team motivation levels, and their perception of the company’s market strength.

Of all our Social Contribution initiatives in 2012, we are most proud of our “live brighter” Group Volunteerism Annual Initiative, over and above local social contribution actions. Working in 26 different facilities in 9 countries in Europe, the United States and Asia, our volunteers joined forces to address health and poverty issues by organizing local events around blood-drives and in-kind donations.

Our commitment to sustainability is also reflected in our support of global initiatives such as the UN Global Compact and our ongoing work on projects like the European Innovation Partnership on Raw Materials and the Industrial Minerals Roadmap.

During 2012 we reinforced our internal sustainability reporting by establishing a Sustainability Quarterly Report for each facility, consolidated at regional and group level, to monitor performance against established goals and targets.

We are satisfied with the progress made on dust controls since relevant measurements showed that our emissions were significantly lower than the permissible regulatory limits in most jurisdictions.

However, progress on our energy consumption targets was slower than expected, principally due to changes in the prod-

uct mix processed by our North European plants. We intend to proceed with achieving our 2014 energy efficiency targets, and we are encouraged by the growing number of energy efficiency initiatives across the group.

A sample of our initiatives from Germany and Bulgaria, showcased in this report, leaves us confident that our concerted efforts will lead to timely success. This confidence is further reinforced by the 2012 “*IMA – Europe Recognition Award on Resource Efficiency*”, given to S&B in November 2012. This prestigious award recognizes our success in reducing overall energy consumption and CO<sub>2</sub> emissions during the pre-drying process for bentonite on Milos island by exploiting natural climatic conditions.

We are also particularly proud to have surpassed our target for creating additional revenue from exploiting waste streams. Our RIKO patented technology was exclusively licensed and further developed in 2012. With this technology, we transform green sand extraction dust, traditionally sent to landfill, into reusable and value creating products.

For 2013 we aim to further improve the accuracy and relevance of Sustainability data.

Given the present difficulties of the economic environment, we believe that only by facing challenges head-on and conducting a constructive multi-stakeholder dialogue, we can optimize multilateral gains. We meet these challenges with our ongoing pursuit of progress in all our operations, through extensive monitoring and effective auditing practices. We also need more strategic focus on those sustainability issues that have the greatest potential to create value.

This year’s report provides an overview of our sustainability stories, addressing some of the most relevant challenges and commitments assumed by the global S&B community. We are proud to share our stories and hope they will provide inspiration to all our people and stakeholders in pursuing our common goals.

Given the uncertain climate for the global economy, we are cautiously optimistic that our performance, and results, will continue to improve. Our targets are ambitious yet realistic, and our resolve is steadfast.

**Ulysses P. Kyriacopoulos**  
Chairman of the Board

**Kriton Anavlavis**  
Chief Executive Officer



Our NYCO wollastonite for longer-lasting coatings

## Metallurgy

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S&B serves the metallurgy market along the whole metal production chain, from raw materials through to the casting of the final products. S&B products and solutions are used in the production of iron, steel, alumina and other metals.

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Alumina Production



Blast Furnace Additives



Covering Compounds



Iron Ore Pelletizing



Metallurgical Active Slags



Refractory Materials



Steel Casting Fluxes

## Foundry

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Within the foundry market, S&B has a long tradition as a supplier of bentonite and coal-blends and application technology to the green sand-moulding segment. From that base, a range of products and solutions have been developed for core-making and other casting processes.

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Accessories



Core Sand Additives



Inorganic Core Binders



Moulding Sand Binders



# Our Markets

## Construction

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Within the construction market, S&B serves a large number of segments with solutions and products used in large infrastructure projects, in foundations and drilling, as well as in commercial and residential buildings.

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Additives for Cements



Bulk Building Materials



Civil Engineering



Cryogenics



Formed Building Products



Landfill & Sealing Liners



Mineral Wool



Proppants



Super Pozzolans



Well-drilling muds

## Specialties

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Beyond the metallurgy, foundry and construction markets, S&B serves a wide range of specialties market applications, where minerals and mineral-based solutions are used to enhance production processes of its customers and increase end-product performance.

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Animal Feed Additives



Fillers



Filter Aids



Glass and Ceramics



Horticultural Applications



Paper Manufacturing



Pet-litter Absorbents



Phosphate Production Additive



Waste Water Treatment



Milos island flora

**Every employee of S&B will personally contribute every year to our sustainability targets**

At S&B we provide value to our customers and to society through our products and solutions.

Sustainability is an approach on how we conduct our business, which:

- supports the achievement of our business objectives and
- incorporates stakeholders' needs and aspirations.

In all we do, we consider the long-term and short-term impacts of our operations and products on our customers, suppliers, and employees; the local and global environment; and the communities in which we operate. This necessitates that we communicate openly and engage constructively with our stakeholders, and that we prepare our employees for the numerous challenges our business is facing now and may face in the future.

Vision & Governance	Materiality through Engagement	Commitments & Standards	Monitoring & Accountability
<p>We have in place a governance system and framework, aimed at ensuring that Sustainability goals and practices are managed according to the Sustainability vision of the Group, all the way up to top management and Board of Directors level.</p>	<p>We revisited our material issues in early 2012. Our assessment involved identification of issues affecting our business and its stakeholders over the next three years and their prioritization considering internal and external perspectives according to a participatory systematic methodology.</p>	<p>We endorse public commitment and key initiatives, principles, voluntary agreements and codes driving Sustainability best practice today, complemented by the participation of S&amp;B executives in their governance bodies or key working groups.</p>	<p>We monitor our Group sustainability performance on a quarterly basis against goals and targets set. Our public annual report follows global voluntary standards (Global Reporting Initiative) and is available in full on-line.</p>



# Our Approach to Sustainability

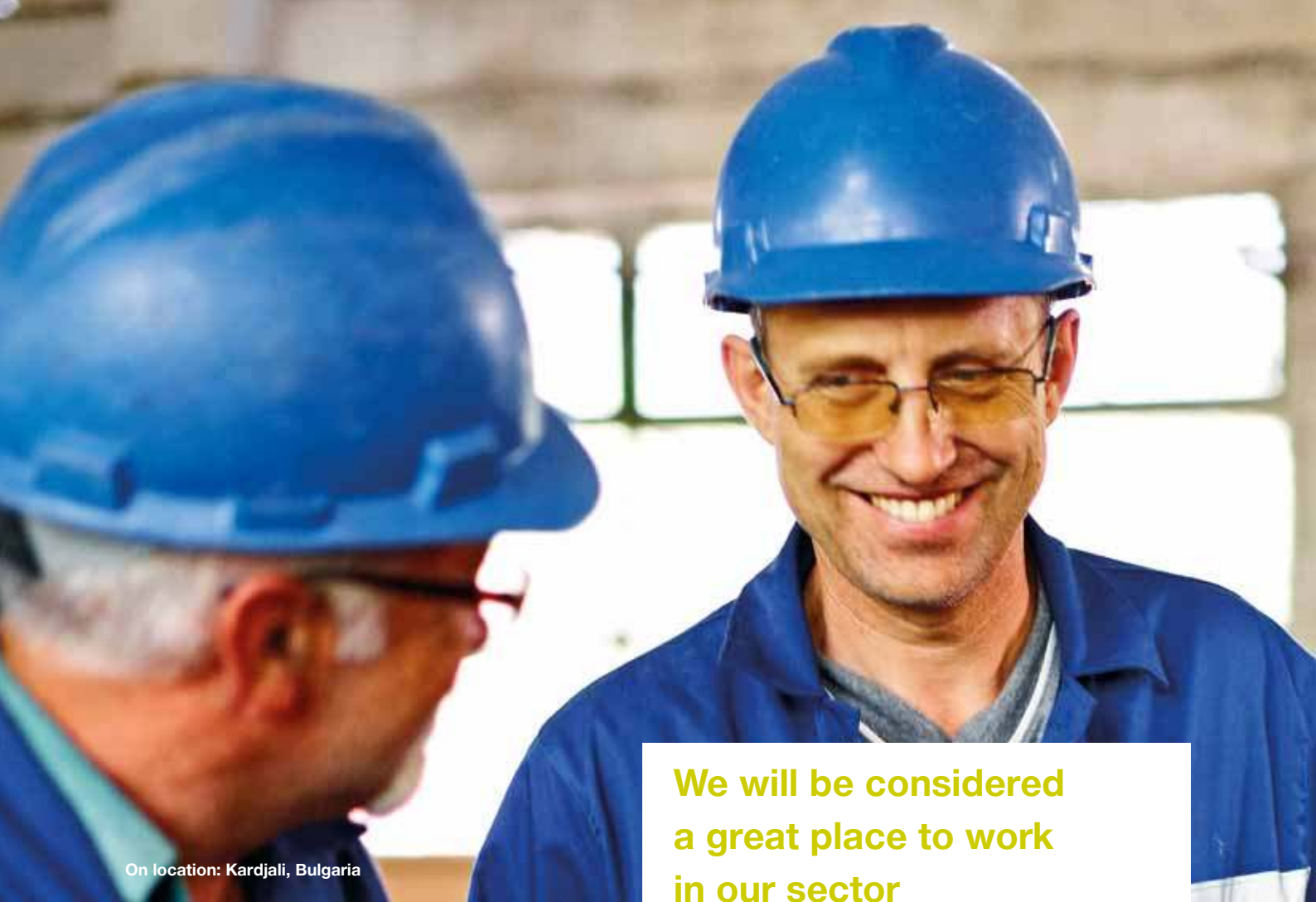
## Rolling out our Sustainability Strategy

In 2012, our Sustainability Vision “Every employee of S&B will personally contribute every year to our sustainability targets” has evolved into a distinct Sustainability strategy, with target-setting and a cascading process throughout our organization and facilities worldwide. Our personal responsibility and commitment towards our Sustainability vision is managed, monitored and ensured in this way.



The outcome of the process is the breakdown of the four strategic sustainability pillars’ (People, Health & Safety, Environment, Social Contribution) strategic intents into 20 time-bound goals and respective targets spanning our social, economic and environmental performance across the Group. This is achieved through the assignment of tasks per department and per individual also included in their performance appraisal evaluation processes.

People	Health & Safety	Environment	Social Contribution
We will be considered a great place to work in our sector	We strive to achieve zero accidents and continuously improve our working environment	We improve ours and our customers’ environmental footprint (waste/energy/land)	We build goodwill capital and relationships in every community based on the social relevance of our operations



On location: Kardjali, Bulgaria

**We will be considered  
a great place to work  
in our sector**

## **Our approach**

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We aspire to be considered a “Great place to work in our sector” and in the areas we operate, providing a fulfilling working environment. Through sustainable human resources practices we aim to develop our people to meet the challenges ahead and attain organizational excellence meeting or even exceeding the expectations of our stakeholders.

Our target is to attract and further develop talented employees who possess the desired competencies and capabilities to successfully pursue our Vision, to instill fresh ideas and different perspectives in the organization and to live our Values fully.

Our comprehensive Human Resources Management systems including Recruitment and On-boarding, Performance and Talent Management, Reward & Benefits Management, form a solid base and a common set of principles which create a sense of community and forge bonds across S&B.

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# People

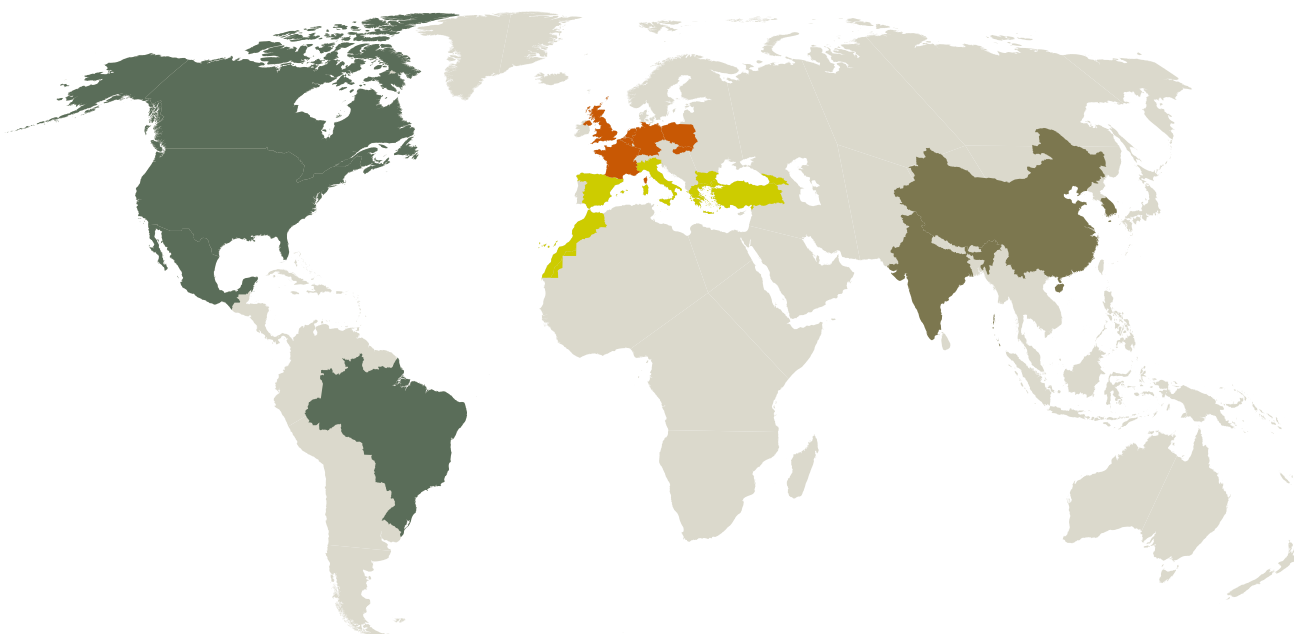
## Operational highlights

### Embedding the New Organizational Shape

In 2012, the primary goal was to assist our people to comprehend their new matrix structure roles, and build necessary skills and competencies. Team working, cross-functional and cross-regional projects and many workshops were organized to share knowledge and insights with colleagues from around

the globe. We focused a lot on taking value from our diversity, developing further our communication, influencing skills and networking capabilities, as well as nurturing a sense of “common ownership” to achieve our goals.

### People in Numbers



Americas (393)	South Europe (886)	North Europe (530)	Asia / Pacific (274)
USA (332), Brazil (61)	Greece (597), Bulgaria (182), Italy (49), Spain (13), Turkey (16), Georgia (24), Morocco (5)	Germany (378), France (38), Hungary (13), Netherlands (101)	China (126), India (68), South Korea (80)

South Korea and the Netherlands activities are not managed by S&B. The S&B Group has a 50% participation in their ownership and participates in their BoD. However, their headcount is included in our total workforce and this number is used in all calculations of labor indices included in this section.

## Global integration

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Another priority in the corporate agenda during 2012 was to enhance our presence and strengthen our organizational structure in specific regions around the world. With this intent we worked towards integrating employees from China, India, Brazil and Italy into the S&B Human Resources systems. This

process will be fully actualized in 2013. In addition, integration of the NYCO acquisition in late 2012 into the Americas Region has already begun, a Region where our presence has grown bigger and stronger.

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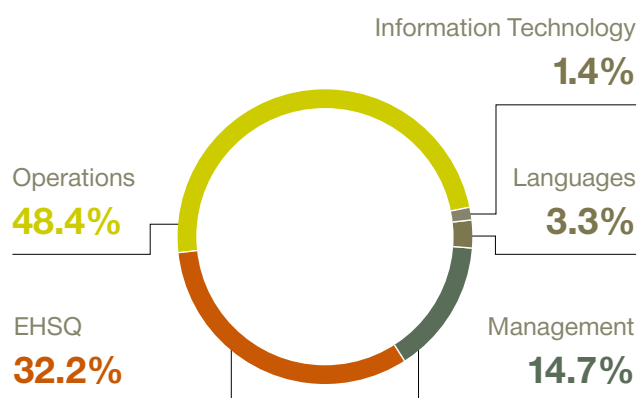
## Training

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Collection of training data from all S&B locations worldwide was uniform in 2012 amounting to about 55,053 hours of training from all Group facilities. This figure corresponds to approximately 31.6 hours of training per trained employee, and to 29.1 hours of training per employee against the total workforce.

### by Category

excluding Georgia, Morocco, Netherlands and Korea



## In the spotlight

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### Review of Performance & Talent Management Systems

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2012 marked the review of S&B's Performance Management System conducted with the involvement of employees from all levels participating through workshops and focused interviews. Highlights of the changes are:

- Higher involvement of the Appraiser through self-assessment and feedback to the Supervisor
- New umbrella of competencies with explanatory behaviors
- Emphasis on Feedback with a mid-year and an annual official feedback process
- More focused Development Plan with consistent Follow-up

Complementary to our Performance Management System, and as our future growth strategy sets an imperative agenda for boosting our talent pipeline, we have reviewed our talent management process. The S&B talent management system aims to identify people's potential, safeguard critical business capabilities by focusing on succession efforts on the most critical business areas and accelerate talent development.

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## Creating a Learning Environment

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During 2012 we reviewed our learning approach placing extra emphasis to on-the-job experience and cross-functional assignments.

Being a global company we provide unique opportunities to our people for international assignments allowing them to enrich their experiences, develop cross-cultural awareness and acquire a global mindset. Several projects run in various parts of our operations with people from different Regions and functions offering them the opportunity to enrich their skills and enhance collaboration and knowledge sharing.

In 2012 about 50 employees with supervisory responsibility went through our S&B-tailored “Managing People” training conducted in Greece, Germany and the US. In light of our reviewed Performance Management System 140 employees with supervisory responsibilities up to senior management attended a series of training and coaching sessions on “How to offer effective Feedback”. Our aim is to promote a feedback culture that builds efficient relations between managers and their teams.

Mentoring is also a key piece of our efforts in building a learning environment. Initiated back in 2007, it has been running



since then every year with Mentors and Mentees from our operations around the world. The program has been recently enriched by the Solution-Focused Mentoring concept, a new cutting-edge development in Mentoring and Coaching that focuses on simplicity and solutions.

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## 2012 Global Employee Engagement Survey

In 2012 the fourth and most international Employee Engagement Survey was conducted within S&B. The survey ran in Brazil, Bulgaria, China, France, Germany, Greece, Italy, India and the USA plus S&B's joint venture employees in Korea and the Netherlands. The participation rate was extremely high as 84% of employees asked responded, which equals to 1,400 S&B colleagues. Overall results have been very positive reaffirming a high level of employee engagement. S&B is once again positioned at the top one third of the worldwide benchmark of companies in the Industry Products & Services Sector.

The main strengths of the organization were expressed in people's feeling of pride for working at S&B, a strong belief and



confidence in S&B's top management and future direction, as well as trust in the company's ability to adapt to change. In addition, the company's commitment in health & safety standards, environmental issues, social engagement and working towards clear goals received very positive evaluations.

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## Employee Engagement in our Regions

Particularly in Germany, the Employee Survey results triggered a participative process which was cascaded top-down to production sites with the aim to identify and address improvement areas. The process was initiated with a Diagnosis session to identify improvement areas followed by an Executive Committee workshop to assign these to specific teams. Each team's work will be followed up on a regular basis. In addition, six Employee Workshops took place at each production site involving employees from all working areas and aiming to elaborate on site-specific topics.

In the US, team building activities at each location were conducted as per the Employee Engagement Survey Action Plan. Team building training sessions took place at 8 US locations with the participation of all employees. In parallel, the survey action plans were reviewed and new items were added as appropriate.



Machinery maintenance

**We strive to achieve zero accidents and continuously improve our working environment**

## **Our approach**

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Our approach to Health & Safety is to encourage safe behavior in all our employees and contractors and minimize or eliminate occupational health hazards. A comprehensive framework of Health & Safety is reflected in our Corporate Policy of Quality, Environment and Health and Safety.

Our ultimate goal is to achieve zero accidents creating an environment of proactive risk management to workers' health and safety. Certification per OHSAS 18001 is in progress at all Facilities. Apart from obtaining certification, the development of certified H&S management systems across all our operations ensures that their principles, standards and systems are implemented by all our employees.

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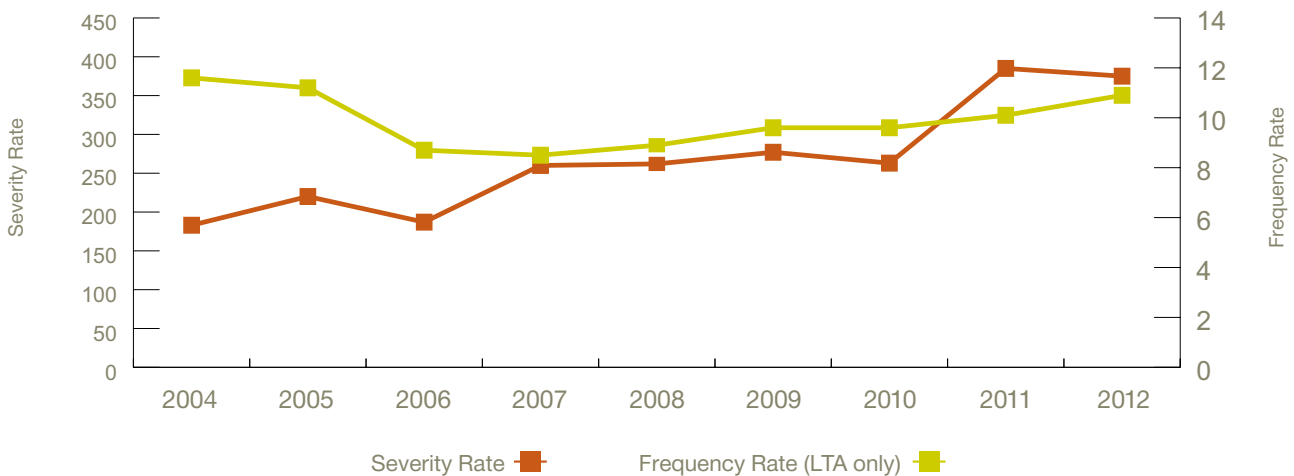
# Health & Safety

## Operational highlights

### Safety Performance

The Group's accident severity rate (SR) was slightly decreased by 2.5%, but no decrease was noted in the frequency rate (FR) during 2012 for reasons that vary across the Group's facilities.

**Lost Time Accidents  
Frequency & Severity Rate**  
Total Group



### Safety Behavior Improvement

Despite expansion of proactive “behavior improvement” safety practices (including on site management safety visits, safety barometers) at all facilities in North and South Europe and partially in the Americas, the implementation quantity and quality wise was below targets set.

A high percentage (almost 50%) of incidents in 2012 was found to be related with occupational ergonomics, following assessment of the causes of all incidents. For that reason an Ergonomics Initiative is launched in 2013 aiming to mapping job activities associated with musculoskeletal risk, training of the employees in risk identification and initiation of improvement actions.

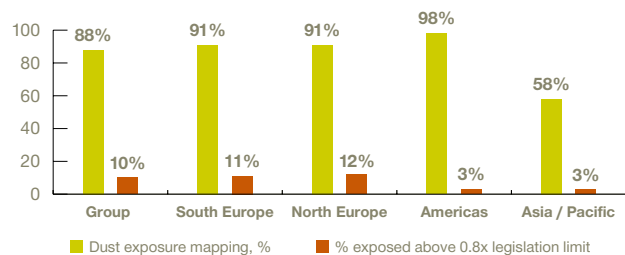
### Near Miss Incident Reporting

Near miss reports increased by 26% in 2012 compared to 2011, although the increase is not uniform across all Regions. Focused “near miss reporting” training for facilities lagging behind shall be carried out in 2013.

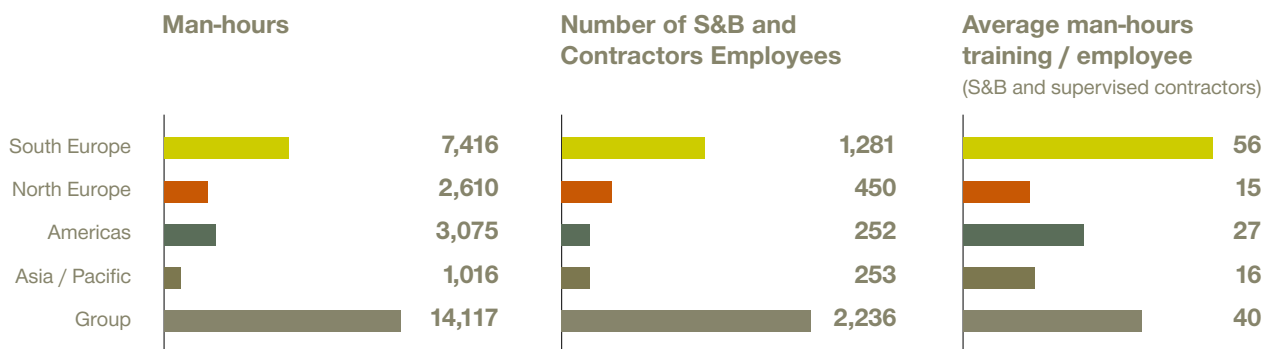
## Dust

Respirable dust exposure mapping covered 88% of all S&B and supervised contractors employees in 2012. Dust generated from mining, processing and handling of S&B's products poses a potential impact to worker's health, especially as pertains to the respirable fraction of dust, so measurements are carried out regularly and good practices are followed according to strict standards. Monitoring showed that 10% of employees exceeded the target set, i.e. 20% below the local legislation limit; it is expected that this target will be achieved as scheduled, that is before end 2014.

**Dust exposure mapping -  
% exposed above 0.8x legislation limit**



## Health & Safety Training



## Product Safety

Safety in the use and disposal of our products is ensured by the strict adherence to guidance and regulations for their proper handling, transport, use, storage and disposal. Every product sold (bentonite, perlite, wollastonite, continuous casting fluxes etc.) is accompanied by a safety data sheet (SDS)

that provides all necessary details for its safe use, handling and disposal. We are in compliance with REACH and CLP regulations for the entire S&B Group products in EU and with relevant legislation in other jurisdictions.

## In the spotlight

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### Health & Safety Campaign in Germany

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One of our Sustainability goals concerns the establishment of an annual Health & Safety week and a Health & Safety campaign at each facility worldwide. Good progress was made in all our German facilities during 2012 enjoying high employee participation.

In Marl Sinsen & Marl Brassert the H&S week was organized first, serving as a pilot for the rest of the German plants, with great success. H&S-related activities adapted to each facility's size and needs, were also deployed in Oberhausen, Essen, Oelsnitz, Mannheim, Landshut and Neuss often combined with a H&S campaign.



### Health & Safety Week in the USA

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S&B North America held its 1st Annual Health and Safety Awareness Week in October 2012. The week included various activities starting off with hands-on Fire Extinguisher Training, followed by ergonomics in the workplace tips and safety suggestion contests. Annual physicals, routine blood work and advice for steps to a healthier life and dental care, complemented by company assistance programs, were offered on the health aspect.



### Thorough Incident Investigation and Communication

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A practice was initiated in 2012 that mandates investigation of all Lost Time Accidents by top management within 5 working days from the incident date, irrespectively of the investigation made at the facility where an incident occurs. Investigation participants include all levels of hierarchy and functions involved, from General Manager to foreman. Discussion is focused on causes and corrective-preventive actions, and conclusions are communicated to the CEO. The practice has proven very useful, demonstrating among others the top management commitment to safety.





S&B's Milos plant nursery: Young Milos Cedar trees

## We improve ours and our customers' environmental footprint

### Our approach

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We work systematically and effectively to protect, preserve and rehabilitate affected areas and to mitigate the potentially adverse impact of our mining operations. Moreover, we are constantly pursuing the mitigation of environmental impacts related to processing activities. We also invest in the development of innovative new products and applications that improve the environmental performance of our activities and those of our customers.

We have formulated our environmental strategy on the fundamental principle of prevention or minimization of environmental impact dictated in our Corporate Policy for Quality, Environment and Health & Safety. Our goal is that all our facilities are certified per the environmental management system standard ISO 14001, by the end of 2014. Currently, facilities where 80% of products are produced are certified per above standard covering 64% of S&B and supervised contractors' employees.

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# Environment

## Operational highlights

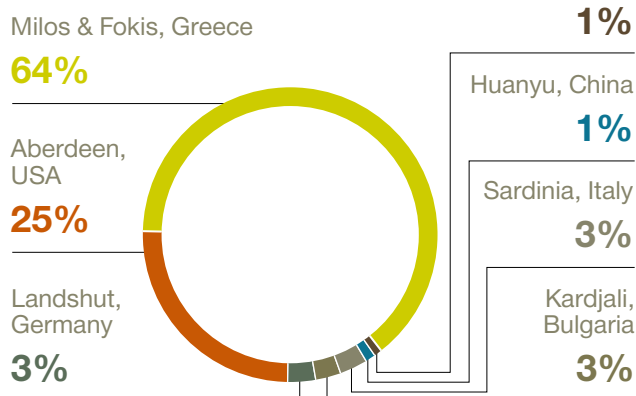
### Land Reclamation

The S&B Group operates mainly open cast mines but also three underground mines in several locations around the world. The major part of S&B's mining activity is located in Greece (Fokis & Milos island). The S&B Group is committed to implement best practices in land reclamation everywhere it operates.

In Greece, where the major part of S&B's mining activity is located:

- Already 51% of the total affected area has been reclaimed
- Of the remaining 49%, 44% is still in use for mining purposes and only 5% is currently available for restoration

**S&B Group, Surface area in use per country (2012)**



**Land Reclamation of affected areas in the S&B Group per Region (2012)**

(in hectares)	South Europe	North Europe	Americas	Asia-Pacific
New areas brought into use in 2012	18	4	0	0
Total area in use end of 2012	514	33	188	6
Reclamation of affected areas in 2012	203	2	137	0
Reclamation of affected areas since the beginning of the activity	350	32	25	0

### Biodiversity Management

S&B is aware of the importance of protection and management of biodiversity, not only in the areas under its management but also of the protection and preservation of the natural environment in general. Substantial know-how has been developed in Fokis and Milos and important investments in human resources (dedicated Land Reclamation departments with experienced foresters) as well as infrastructure work (company-owned plant

nurseries, on-going research & development) have been channeled to reclamation works. As per the target set a few years back, today no foreign plant species are used in our Milos and Fokis reclamation works. This means, however, that we are constantly researching local new plant species not only to improve reclamation end results, but also to ensure that we can produce these plants each year in our nurseries in large scale.

### Dust

A significant environmental as well as H&S related issue for the S&B Group is combating dust emissions generated from raw materials handling and processing. We measure, control and reduce dust emissions to air to improve the occupational environment

and prevent disturbance to neighboring local communities. Dust mapping at our operations during 2012 progressed and covered 97% of the Group's facilities. 93% of dust measurements were found to be within the target set at the beginning of 2012.

## Waste

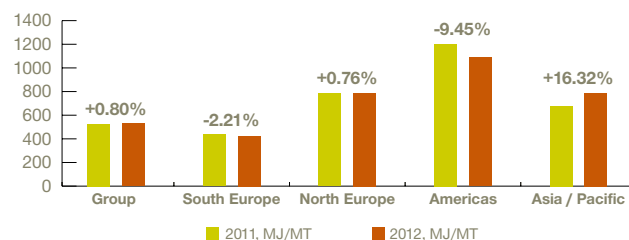
Mineral waste constitutes the greater volume of S&B's waste and is mainly overburden (inert) from extraction activities. During 2012, the total production of mineral waste (overburden and minerals processing waste) amounted to 2,647,664 m<sup>3</sup> from Greece and to 229,618 m<sup>3</sup> from the rest of S&B Group mining and processing activities. 61% of overburden produced in Greek extraction activities (Milos and Fokis) was used to refill old excavations and underground depleted mines in reclamation works.

Of equal importance are the coordinated efforts of recent years to gain value from waste. Many of our facilities in recent years have quantified the saleable mineral waste products and are returning profits from former waste streams. The utilization and exploitation of reusable materials and by-products from other industries for the production of new products is significant in all our Continuous Casting Fluxes (CCF) operations around the world. Approximately 10 out of the 45 ingredients normally used in the product formulation of continuous casting fluxes are based on such materials, which in 2012 represented on average 20% of total input materials used.

## Energy

The S&B Group's activities are not energy intensive. S&B, however, is particularly sensitive to issues regarding energy consumption, as much in response to the problem of climate change, due to greenhouse gases emissions, and because energy cost constitutes a significant portion of total production cost. The Group energy consumption reduction target was not achieved during 2012 and even though the objective aims for 2014, we will intensify our efforts towards achieving it in the interim, as well.

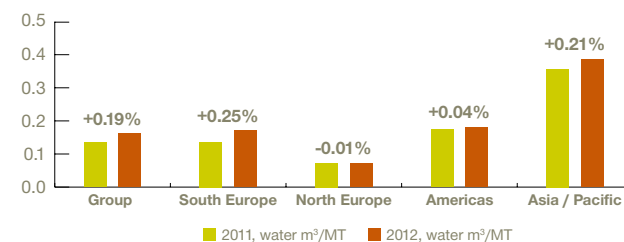
Energy consumption per MT



## Water

Water consumption in the mining operations of S&B pertains to sprinkling the roads used for transportation of the company's raw materials, in order to reduce dust emissions, slurry preparation for certain processes, beneficiation of bauxite and cooling of equipment in certain processing stages. We are committed to the sustainable management of the water resources, its conservation and protection. The target was not achieved mainly because of increased water consumption at Fokis bauxite operations in Greece. 2012 was a year of preparation, as a lot of work on water consumption mapping was carried out to identify areas for improvement in coming years.

Water consumption (m<sup>3</sup>/MT)



## Materials Stewardship

The S&B Group is a supplier of mineral raw materials extracted from its mines and of products tailored to various industrial applications. Responsibility for our products means understanding and efficiently managing the impact that their pro-

duction, use, recycling and final disposal may have to human health and the natural environment, i.e. the total "footprint" throughout their lifecycle. It also means improving our client's sustainability performance, where possible.

## In the spotlight

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### New Plant Species Produced for use in Land Reclamation

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**Milos** - During 2012 the deciduous tree *Pyrus amygdaliformis* growing on Milos and the rest of Greece was successfully produced in large scale in our local plant nursery and used in reclamation works. We have been researching this plant for years in our continuous quest for tree species, which are few on Milos, but much needed for a good reclamation result. Moreover, the plant is resistant to grazing since it grows



thorns, and propagates not only with seeds but also with underground side-ways grafts.

**Fokis** - During 2012, four new plant species were reproduced successfully in our Fokis plant nursery to be used in our reclamation works. These were: Wild rose (*Rosa sp*), *Pyrus amygdaliformis*, *Pistacia terebinthus* and *Fraxinus ornus*.

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### Recognition Award on Resource Efficiency

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S&B received the IMA-Europe 2012 Recognition Award about a practice that illustrates how the company has succeeded in reducing overall energy consumption by exploiting Milos island climate conditions for bentonite pre-drying. In comparison to industrial drying, adoption of sun-drying results in approximately 35% savings, reducing not only fuel consumption, but also CO<sub>2</sub> emissions by 24,000 MT, annually. S&B is proceeding with the transfer of this know-how to other Group production facilities. Read about our Bulgarian facility online.



### Transforming Waste to Product

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In keeping with S&B sustainability goals for product development, RIKO patented technology was exclusively licensed and developed further during 2012. Green sand extraction dust, traditionally sent to landfill, is transformed into reusable and value-creating products. The RIKO process separates the component parts of the dust into bentonite, carbon, silica sand and inert fines (waste). The benefits for the foundries and the industry are multiple, with reduced waste disposal costs to landfill, in an environment where the availability of disposal sites is becoming scarce with ever increasing costs. Savings of dry bond procurement and additions at the foundry are realised with subsequent conservation of valuable mineral resources. Foundry processes are improved with optimized green sand performance and lower casting rejects. During 2012 the RIKO pilot plant was established in Burbank, Ohio. Trials with customers are on-going.





“Full house” for S&B colleagues in Spain participating in Global Volunteerism Initiative 2012

**We build goodwill capital and relationships in every community based on the social relevance of our operations**

## **Our approach**

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The S&B Group directly operates and manages mines, plants, processing units, laboratories and distribution centers in 15 countries worldwide. Our local community relations and contribution is based on a comprehensive understanding of community needs versus our relative size and impact. Our Social Policy, therefore, is based on an evaluation methodology that takes stock of our social relevance at each area where we operate and of our stakeholder needs. During 2012 we re-evaluated our social relevance for all facilities worldwide and ensured that those with high social impact have rigorous Social Contribution Plans in place. This new approach will assist us in effectively engaging with our key local stakeholder groups, shaping further our strategy and truly enhancing our legacy.

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# Social Contribution

## Operational highlights

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### Socio-economic Contribution

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In 2012, S&B's global sales revenues were €470.2 million and its operating profit €38.7 million. Employee payments in compensation and benefits reached €72.4 million, and payments to the State (taxes and duties) & social contribution was €28.6 million. €324.3 million was paid to suppliers of all kinds.

In 2012, S&B businesses developed activities covering a wide range of areas including Community Development, Volunteerism & Donations and People Empowerment. Overall, we spent €1.29 million on social contribution with the majority directed to areas where our activity has a high social impact i.e. Greece.

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### Community Development

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From the creation and operation of infrastructure works that promote the cultural and industrial heritage of the areas in which we are involved, to active educational and cultural programs development and even more sophisticated shared value initiatives such as developing and promoting sustainable tourism, we believe in the power of partnerships and we embark into multi-stakeholder collaborations and initiatives when possible. This way, our projects are the appropriate answer to the concerns, aspirations and needs of the local communities. We focus on:

- Local Infrastructure: technical and financial support
  - Cultural and Industrial heritage
  - Organization of International Days and Events
- 



Milos Conference Center  
George Eliopoulos



MILOS MINING MUSEUM



### Volunteerism & Donations

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Our main goal is to contribute to society needs in the most appropriate manner through a collective and participatory process with multiple positive results. We focus on:

- Local and Global volunteer initiatives
  - Philanthropy and Causes endorsement
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### People Empowerment

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As a Group, we firmly believe in the training and education of our people and in assisting them to fulfill their maximum potential. We apply those principles in the communities we operate, assisting through established scholarship schemes, educational programs targeting the young and participation of our own employees in training others. We focus on:

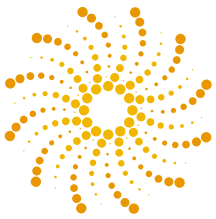
- Educational activities
  - Scholarships and training programs
-

## In the spotlight

### “live brighter” Volunteerism Initiative

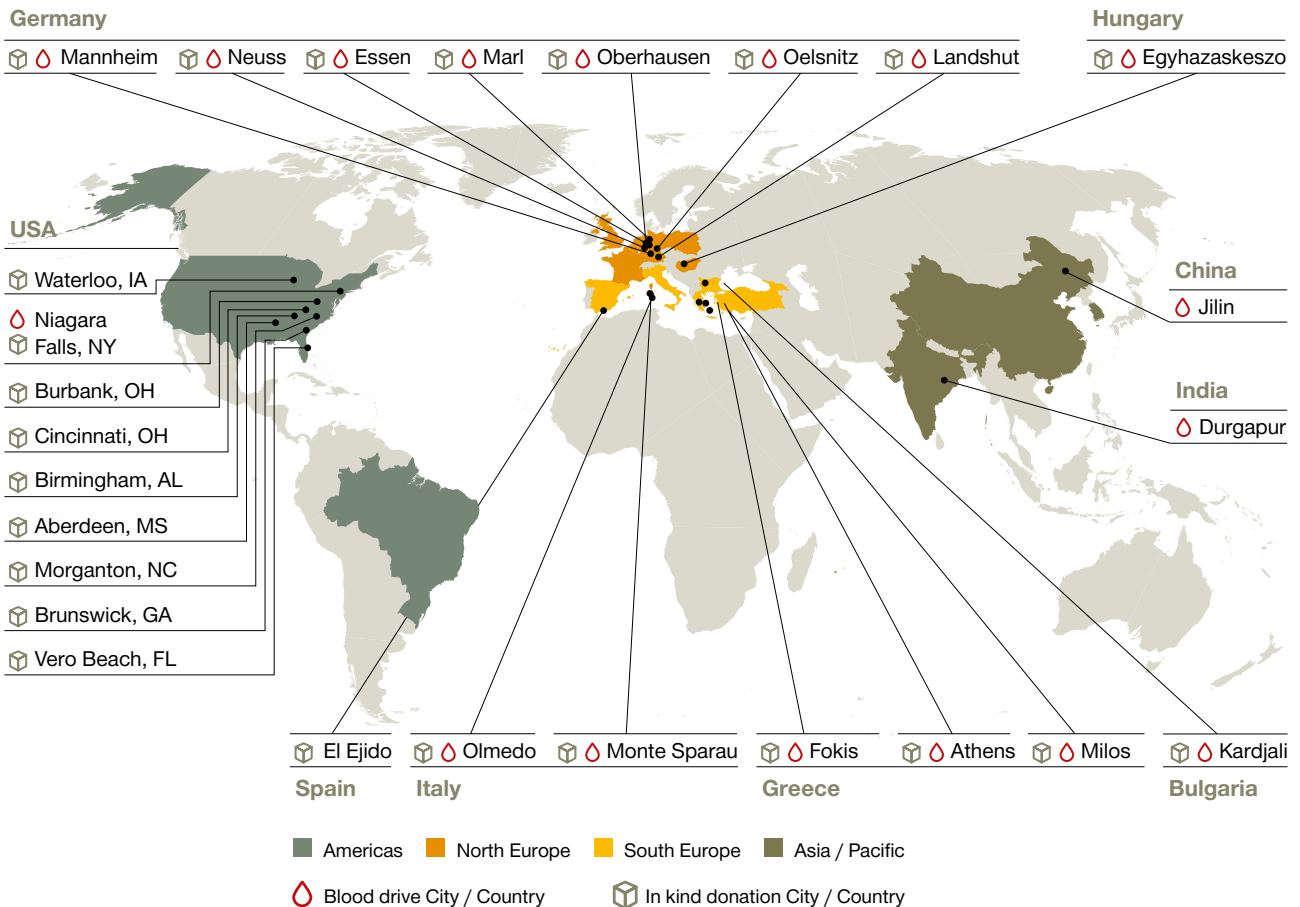
The S&B Group Volunteerism initiative, newly established in 2012, aims at actively involving S&B people in a common cause to help local communities and society across the world regions we operate in. The final objective is to create awareness, mobilize and engage our workforce into community issues but, in such a way as to increase our positive social impact and multiply our social contribution.

The initiative was embraced by colleagues around the globe. 26 different facilities in 9 countries from Europe, USA and Asia joined forces towards a common cause: address health and poverty by organizing local events around blood drives and in-kind donations, like food or clothes, to charitable organizations. With the motto “live brighter”, S&B’s Global Volunteerism had a successful 2012 inauguration.



**S&B Group  
volunteerism  
initiative 2012**

*live brighter*



## Social Contribution in Greece



With the Greek economy still in deep recession and various societal negative consequences, S&B's contribution to the national economy and to the local economies of Milos and Fokis, where our mining and production facilities are located, remains not only significant, but also vital. At the end of 2012 our operations in Greece employed 597 direct and an additional 292 indirect

employees, with total payments in compensation and benefits amounting to €28 million. Payments to suppliers in Greece amounted to €96 million, with almost half directed to Milos and Fokis local communities. Payments to the state for taxes and duties, as well as social contribution totaled €7.3 million.

## Miloterranean Geo Experience

Since the very early years of its activity in Milos (Greece), S&B has engaged in social activity with a large amount of its annual Social Contribution directed to this local community. Mining and tourism are economic activities that can go hand-in-hand for the benefit of Milos' local economy. Milos has been the living example of such a fruitful and sustainable symbiosis for many years now.

In 2012, and within the framework of S&B's Sustainable Development strategy, S&B sponsored the development of MILOTERRANEAN, a project aimed to help the further development of the island's tourism. MILOTERRANEAN Geo Experience ([www.miloterranean.gr](http://www.miloterranean.gr)) caters to the inquisitive traveler's desire to discover the multifaceted beauty of the Greek islands' Milos and Kimolos landscape and volcanic origin. Maps with detailed routes complemented by concise text, guide the visitor's discovery of the island's unique geology, wealth of mining history and present, and its beautiful natural environment; a so-far "secret" Milos is revealed. Geologists, mining engineers, foresters, cartographers and historians combine their expertise and insights to take the visitor on an unprecedented journey to this Cycladic scenery. MILOTERRANEAN aims to attract visitors that seek a unique nature geo-experience beyond a typical Greek-island vacation. MILOTERRANEAN is not a commercial project in itself, but a "product" to be embraced by the local tourism professionals. It aspires to place Milos on the map of unique global destinations promoting all aspects of the island's past and present.



*all the secrets of Milos land*

[www.miloterranean.gr](http://www.miloterranean.gr)





## Our Values

### Integrity

We keep our promises

### Respect for People

We foster the development of our people within a culture of mutual trust and respect

### Safety

We secure safe working conditions and we all behave accordingly

### Customer Intimacy

We strive to understand our customers' needs contributing to their future aspirations

### Social Responsibility

We contribute to economic development while sustaining our natural and social environment

The full 2012 Sustainability Report is available online  
<http://reports.sandb.com/2012/>

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<http://www.linkedin.com/company/s-and-b>

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<http://www.youtube.com/user/SandBlndMin>

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# Goals & Performance

Goals and targets	Performance trends	In 2012
<b>Health &amp; Safety: We strive to achieve zero accidents and continuously improve our working environment</b>		
Ultimate goal to achieve zero accidents	—	Group's Severity Rate was slightly decreased by 2.5%, but no decrease was noted in the Group's Frequency Rate during 2012
Certify all facilities* per OHSAS 18001 Health & Safety management system standard (by end 2014)	▲	1 facility in South Europe Region has passed certification audit awaiting official certification and a second one in Americas Region has passed certification pre-audit per OHSAS 18001. Gap analysis per above standard implemented in South & North Europe Regions.
Expand implementation of proactive safety practices. Implement Management Safety Visits practice (specific methodology) at mines and processing plants (by end 2013)	▲	During 2012 implementation expanded to all facilities in South and North Europe Regions and partially in Americas Region where nevertheless training has been completed.
Improve working environment: Targeting dust dose on each employee 20% below thresholds of local regulations (by end 2014). Targeting 8 hours noise exposure level in working environment at all production/processing facilities below 85dBA (by end 2013).	▲	Exposure dust mapping covered 88% of all S&B and supervised contractors employees, 10% exceeding the target set. Noise mapping covered 87% of employees.
Safety training of all S&B and supervised contractors employees – 4hours/year	▲	Target achieved at all facilities
<b>Environment: We improve ours and our customers' environmental footprint (waste/energy/land)</b>		
Certify all operations* per ISO 14001 environmental management system standard (by end 2014)	▲	One Facility successfully passed the audit in Feb 2012. Gap analysis performed in most Group facilities. Currently facilities where 80% of products are produced are certified.
Reduce net water consumption in all Group facilities by 5%/MT of product in 3 years	▼	Declining trend, mainly because of increased utilization of bauxite beneficiation plant at Itea facility, Greece
Reduce energy consumption in all Group facilities by 5%/MT of product in 3 years	▼	Declining trend attributed to product mix and reduced utilization of Facilities in North Europe Region
Dust emissions to be at least -20% vs permissible limits set by local legislation (by end 2014).	▲	Mapping covered 97% of the Group facilities, 93% of which are within the target set
Group additional (new/new) revenues will be coming from exploiting the value of waste streams (by end 2014)	▲	The target set to achieve by end 2014 10% of Group additional (new/new) revenues from exploiting the value of waste streams was achieved and the new target was raised to 25%

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**Goals and targets****Performance In 2012 trends**

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**People: We will be considered a great place to work in our sector**

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Align HR systems and practices across the Group (by end 2014)	▲	<ul style="list-style-type: none"><li>• Integration of HR systems in China, India, Brazil and Italy</li><li>• New Group HR policies introduced</li></ul>
Enhance collaboration	▲	<ul style="list-style-type: none"><li>• Actions initiated as per Global Employee Engagement Survey</li><li>• Various workshops organized bringing together colleagues from operations around the world</li></ul>
Strengthen training	▲	<ul style="list-style-type: none"><li>• Emphasis on on-the-job projects and cross-functional assignments</li><li>• Effective feedback training with participation of about 140 employees globally</li><li>• Formalization of global Training Data Reporting system</li></ul>

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**Social Contribution: We will build goodwill capital and relationships in every community based on the social relevance of our operations**

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All operations have in place locally appropriate, social action plans (by end 2012)	▲	Rigorous Social Contribution Plans in place for high social impact facilities
Encourage employees to participate in community and/or volunteerism activities (by end 2012)	▲	Establishment of Global Volunteerism Initiative “live brighter” with 27 facilities in 9 countries participating in 2012

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Key: ▲ Improving performance ▼ Declining performance — Static performance

\* facilities where production and/or processing of industrial minerals/ores takes place

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