

# 2012

CHINA NATIONAL BUILDING MATERIALS GROUP CORPORATION  
**Social Responsibility Report**

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2012 Social Responsibility Report



## China National Building Materials Group Corporation

Address: Room 2216, Building 2, Guohai Plaza, No.17 Fuxing Road,  
Haidian District, Beijing, 100036  
Postal code: 100036  
Contacts: Jin Ling  
Email: [csr@cnbm.com.cn](mailto:csr@cnbm.com.cn)  
Telephone: +86-10-68138138  
Fax: +86-10-68138136  
Website: [www.cnbm.com.cn/EN/](http://www.cnbm.com.cn/EN/)



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## Preparation Notes

**About this report:** This is the fourth social responsibility report released by China National Building Materials Group Corporation ("CNBM"). This Report gives a true picture of CNBM's commitment to sustainable development.

**Period covered by the report:** 1 January to 31 December 2012; given the progressing continuity of certain businesses or projects, some contents relate to the first and second quarters of 2013, the details of which are indicated in the Report.

**Reporting frequency:** Annual report.

**Member companies covered by the report:** All the wholly-owned or controlled (including absolute and relative controlled) members of CNBM. For the purpose of concise description, the terms "CNBM", the "Group" and "We" are used in the Report to refer to China National Building Materials Group Corporation.

**Referential guidelines:** Sustainable Development Report (2006) published by the Global Reporting Initiatives (GRI); Social Responsibility Guide (ISO26000) issued by the International Organisation for Standardisation (ISO); Guide on Performance of Social Responsibilities by Central Government-owned Companies issued by the Stated-owned Assets Supervision and Administration Commission of the State Council; and China CSR Reporting Guidelines (CASS-CSR2.0) issued by the Chinese Academy of Social Sciences.

**Data sources:** All information and data used herein are from the headquarters of CNBM and its member companies. Notes have been indicated in the report for the information from external reference. Unless otherwise stated, all monetary amounts are expressed in RMB.

**Assurances:** The financial data in the Report are derived from the 2012 annual financial statements which have been audited by Baker Tilly China; other key performance data have been verified by Bureau Veritas, an independent third party, who issued an independent verification statement in respect thereof.

**How to get this Report:** Please log onto <http://www.cnbm.com.cn/EN/> to download the electronic version of this Report.

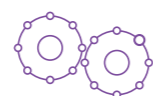






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SONG ZHIPING  
CHAIRMAN OF CNBM

2012 was an extraordinary and rewarding year for CNBM. In a complicated environment with economic slowdown, subdued demand and production overcapacity, we withstood the unprecedented operating pressure under the correct leadership of the State-owned Assets Supervision and Administration Commission of the State Council (the "SASAC") as well as the care and support of all stakeholders, vigorously developed our management enhancement activities and actively implemented the operation model of "Market-oriented Operation of Central State-owned Enterprises". We strengthened our fundamental management, pressed ahead with cost control and endeavoured to improve efficiency, thereby achieved revenue and total profit of RMB217.4 billion and RMB11.2 billion respectively and delivered economic responsibility in a better way.

In recent years, CNBM has pressed ahead with the consolidation and restructuring, structural adjustment, energy saving and emission reduction of the traditional building materials industries such as cement and glass. The Company has dedicated itself to the development of the "Three New" industries of new building materials, homes and energy materials. As a result, it has exerted due influence on the transformation of the building materials industry and injected new momentum to the sustainable development to the industry. In addition, CNBM has actively taken part in and supported the development of a "Graceful China".

Grace of harmony promoted through self-discipline. We always insist the philosophy of "industry benefits overweighs corporate benefits, whilst corporate benefits originates from industry benefits". As the only one of the Global Top 500 enterprises in the industry in China, we, together with the other large enterprises in the industry, exert leading and guiding influence, enhance confidence, demonstrate by ourselves, restrict new capacity, eliminate outdated capacity and dedicate to improving the methodological model of the operation of the industry and enterprises. In addition, we also strive to achieve the transforma-

tion from excessive competition to moderate competition, and from competition to cocompetition, so as to establish a harmonious and healthy market environment.

Grace of wisdom manifested through technological innovation. We have the courage to bear the responsibility of innovation in our industry. We have served the major projects of China and major projects of national defence by our advanced results of scientific research. In 2012, we provided grade G oil well cement for semi-submersible drilling rig. In addition, we had several results applied in the aircraft carrier "Liaoning", remote sensing satellite no. 14 and "Shenzhou 9" spacecraft. In addition to the release of the first international standard in the building materials industry in China, we released the first international standard of clock and formulated several national and industrial standards, including Calculation Method of the Emission of Carbon Dioxide in the Production of Cement, thereby facilitated the development of low-carbon emission in the industry. In 2012, we were approved by the government as a "Demonstrative Base for the Cooperation of Global Technology", organised and established 3 synergistic innovative alliances and innovation centres. We also had 4 academicians stationed in "academician workstation". Xianyang Research & Design Institute of Ceramics became the only "Demonstrative Platform of Public Services for Small and Medium Enterprises of China" in the industry, which became a yardstick for driving the development of small and medium enterprises.

Grace of nature was revealed through energy saving and emission reduction. We take the lead to implement the new national environmental protection policies. We have around 30 companies commenced the establishment of denitration system and it is expected to achieve a denitration rate of 60%. We have basically achieved effective recycling and utilisation of water resources in the manufacturing sector. Our usage of fresh water has always been at a relatively low level for many years. In addition, we have actively advanced the development

## Insistence on Sustainable Development and Building a "Graceful China".

of power generation using the residual heat from cement and glass furnaces. The total capacity of built and being built residual heat power is around 1,400 MW. We comprehensively utilize industrial and urban residual resources to produce low carbon products at a possible lower consumption and emission. The industrial and urban wastes consumed in 2012 reached 97 million tonnes.

Grace of life experienced through returning to the community. We adhere to "People-Oriented" principle, not only respect and understand the staff who contribute their diligence to our corporation, but also fully achieve common growth with the regions where our operation is located and incorporate a sense of inclusiveness into our corporation. We place the safety and health of our staff to the top priority of our production and operation, so as to develop ourselves as a safety-based enterprise. We help the families of our staff who suffer from critical illness by setting up a mutual fund. We help the employees' children in need to finish school and seek jobs with the "Golden-autumn Grant-in-aid" program and "Sunny Employment Project". We insist on hiring local employees, with over 90% of localization ratio. In addition, we concern the development of new villages by supplying them with high price/performance ratio, low-carbon and environment-friendly products. We also encourage our employees to return to the community through charitable activities by encouraging them to participate in volunteer activities, so as to convey a belief of responsibility and foster a responsible culture. In 2012, employees of the Group participated in volunteer activities for more than 40,000 hours.

Corporate social responsibility is an obligation of central state-owned enterprises, it is also a necessary element in delivering the "Chinese Dream". We deeply understand that there is still a lot for us to do, but CNBM will always remember its mission, work together with all stakeholders, strive to develop into a performance innovative, energy-saving, environment-friendly, socially responsible and world-class building materials industrial group.

We will also adhere to the philosophy of sustainable development, work together for a graceful China and contribute ourselves to the "Chinese Dream" of the great renaissance of the Chinese people!

Corporate Profile

China National Building Materials Group Corporation is a central state-owned enterprise under the supervision of the SASAC and a leading enterprise in the building materials industry in China. It is also the largest comprehensive building materials industrial group and has been ranked first among the top 500 enterprises in the building materials industry, 51st among the Top 500 Enterprises in China in 2012 and 365th among the Fortune 500 companies. At the end of 2012, the total assets of the Group amounted to RMB300.62 billion and the total number of employees was 165,652. In 2012, we achieved revenue of RMB217.43 billion with total profit of RMB11.16 billion, whilst the taxes we paid amounted to RMB16.03 billion.

Headquartered in Beijing, CNBM has more than 300 core member companies, dominates 6 holding listed companies, including 2 overseas listed companies. The member companies of CNBM locate in 30 provinces, cities and autonomous regions throughout the country, whose businesses cover over 120 countries and regions in the world.

▶ Ranking the **365<sup>th</sup>** among the Fortune 500 companies

▶ Ranking the **51<sup>st</sup>** among the Top 500 Enterprises in China

▶ Ranking the **1<sup>st</sup>** among the Top 500 Enterprises in the building materials industry in China

With the objectives of maximisation of corporate value and improvement of core competence, CNBM establishes its five major business segments as manufacturing, scientific research, set of equipment, logistics and trading as well as pre-fab house through asset restructuring and business integration based on enterprises with advantages in relevant areas.

- Part of the corporate honours in 2012
- Enterprise of Social Responsibility for 2012
  - Advanced Entity in the Operation Appraisal of Central State-owned Enterprise 2012
  - Entity with Outstanding Organisation in Management Enhancement Activities Among Central State-owned Enterprises 2012
  - Outstanding Member of China Association of Work Safety 2012

▶ Total assets **300.62** billion RMB in 2012

▶ Revenue **217.43** billion RMB in 2012

▶ Total profit **11.16** billion RMB in 2012

▶ Total import and export **7.06** billion USD in 2012

▶ Total number of employees **165,652** in 2012

▶ Tax paid **16.03** billion RMB in 2012

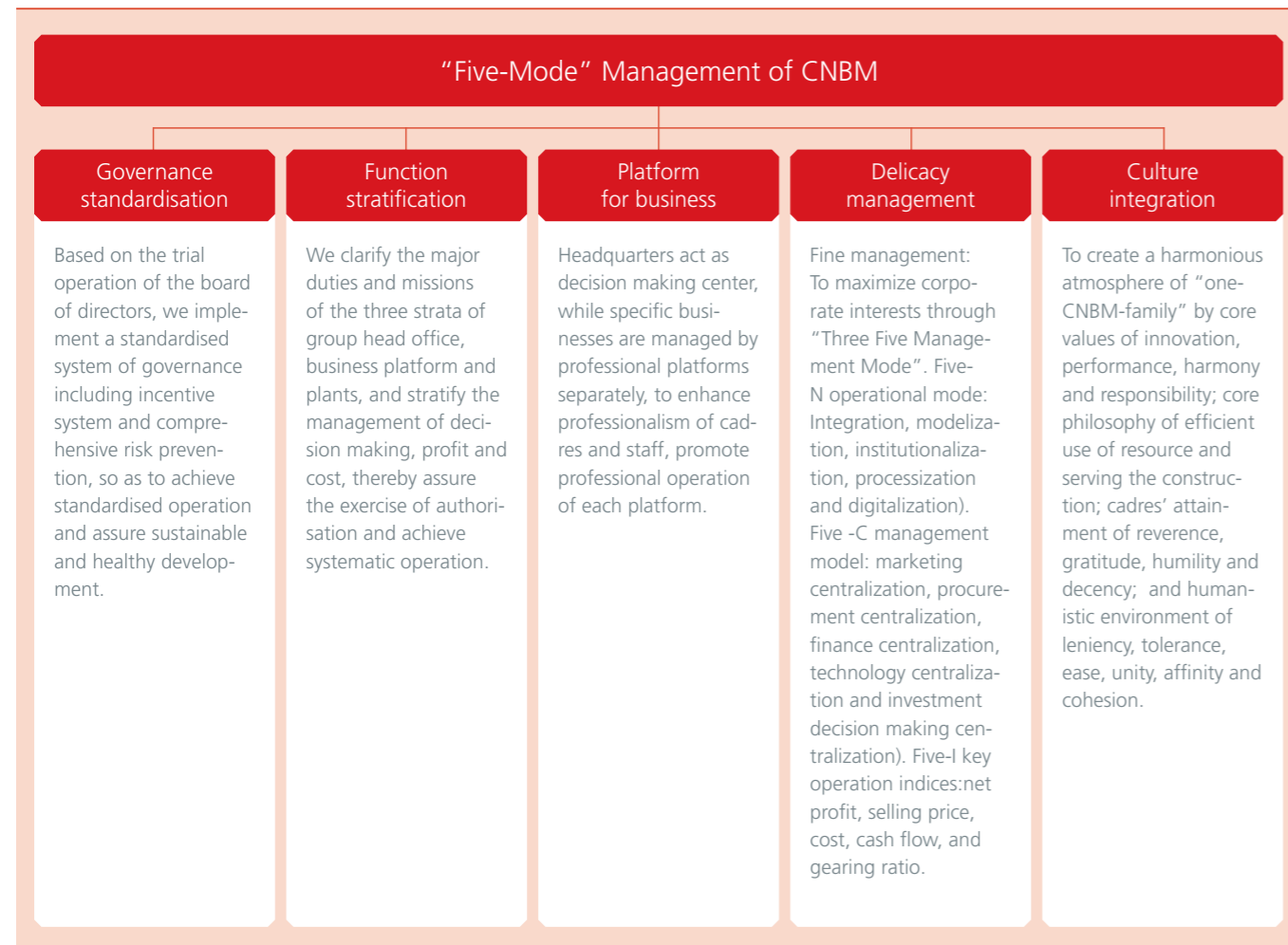


## Strategy, Philosophy and Culture

We are dedicated to becoming a first-class comprehensive building materials industrial group in the world with sustainable innovative capability and global competence.

We take "Efficient use of resource, serving the construction" as our core philosophy, adhere to our core values of "innovation, performance, harmony and responsibility", advocate the attainment of cadres of "reverence, gratitude, humility and decency" and create a humanistic environment of "San Kuan San Li" (leniency, tolerance and ease; and unity, affinity and cohesion) to coexist in harmony with our staff and the society.

We enhance our capital operation as well as consolidation and restructuring, implement the three major strategies of "scientific innovation", "talents-invigorate-enterprise" and "internationalized grand building materials". We also commence the "Five-Mode" management of "governance standardisation", "function stratification", "platform for business", "fine management" and "culture integration" for striving to develop into a "Four-Type" enterprise, that is, being performance innovative, energy-saving, environment-friendly and socially responsible.



## Standardised Governance

Our Board is responsible for corporate strategies, important decisions making, key events and development direction. It determines important issues such as strategic planning, reorganisation, capital operation, performance seeking and sustainable development. Our directors earnestly and diligently perform their duties, guide and motivate the management to maximise our corporate value and lead our Company to achieve sustainable growth.

We establish a management system for standardising the operation between parent and subsidiaries, with the group head office as the strategic, resources and cultural centre to exercise the function and authority as the capital contributor. The subsidiaries (sub-group) serve as business platforms and focus on their expertise and principal businesses to develop profit centres based on their brand awareness and market share. As operating entities, the enterprises at the base levels implement strict cost control while assuring quality.

We set up a governance mechanism of "normative decision-making and reasonable authorisation" to combine internal counterbalance with market efficiency and improve the quality of decision making and the implementation efficiency. We categorise our control in investment management and standardise the system for the Board to exercise its authorisation, thereby establish a sound authorisation mechanism. By determining the strategic planning to subsidiaries, we formulate our basic

management system and exercise control on subsidiaries such as considering and approving their major investment projects. By establishing and implementing a standardised and stratified model of management, we align the pace of different enterprises with orderly management in the course of rapid development.

We regard and maintain a multi-level communication mechanism so as to improve the quality of our decisions. Externally, we timely and actively communicate with the SASAC, fully attend and implement its relevant requests and requirements. We also regularly communicate and interview with our strategic partners for sharing governing experience and collaborative opportunities. Within the Group, efficient mechanisms of communication and exchange are formed between the Board and managers, the Chairman and general managers, among directors as well as external directors and managers.

55%

55% of external directors in the composition of the Board

8

8 board meetings were held in 2012

33

33 resolutions of the Board were made during 2012

### Comments from External Parties: State-owned Assets Supervision and Administration Commission of the State Council:

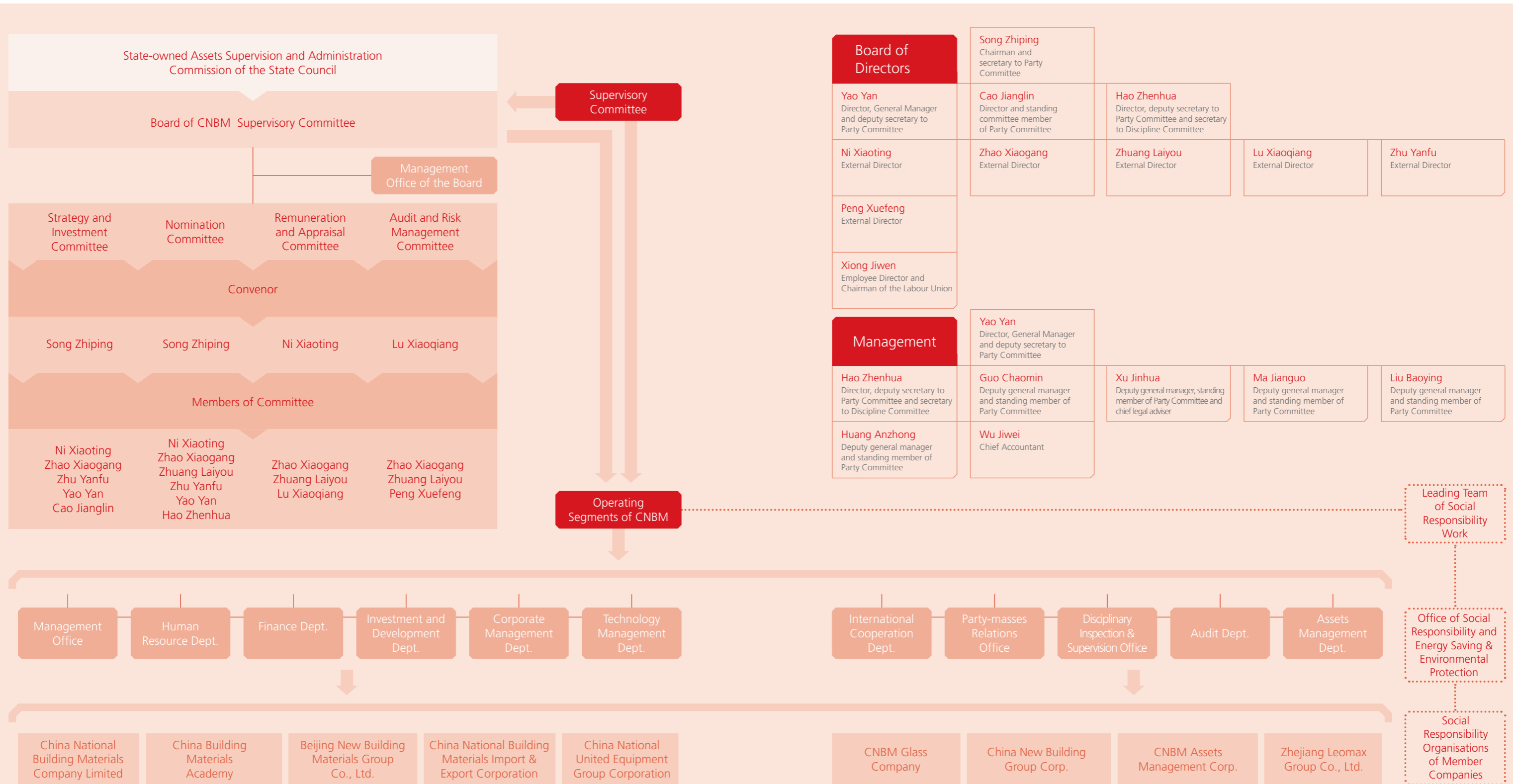
The Board of CNBM conscientiously discharges its duties, prudently regulates its decisions and plays an important role in determining the direction of corporate development. The operation of the Board is satisfactory, it achieves stable re-election with its organisational structure further optimised. The work done by the Board of CNBM in refining the systems, strategic leadership, risk prevention, critical decision and appraisal to managers and remuneration management is highly effective.

### Stable Re-election of the Board

CNBM completed re-election of its Board in 2012. The four new external directors, Ni Xiaoting, Zhao Xiaogang, Zhu Yanfu and Peng Xuefeng have formally assumed office. The proportion of external directors from the society has increased among the members of the new session of the Board, representing 67% and 36% of external directors and members of the Board respectively. External directors from society and the system of SASAC as well as the directors from the Group well complement with each other in terms of advantages and have made the Board of CNBM more open, transparent and independent. Based on the expertise of the six new external directors, the Board has adjusted the four special committees, namely Strategy and Investment Committee, Nomination Committee, Remuneration and Appraisal Committee and Audit and Risk Management Committee. In particular, all members of Remuneration and Appraisal Committee and Audit and Risk Management Committee are external directors.

# Corporate Governance Structure of CNBM

# Management Team





## Overall Risk Management

100%

Revenue of companies which prepare overall risk management report took up 100% of that of the Group in 2012

44

44 member companies compiled an overall risk management report independently in 2012

We are committed to establishing an independent, comprehensive, vertical and professional risk management system. Under the guidance of the Audit and Risk Management Committee of the Board, persons in charge of the departments and offices of our headquarters and our key member companies have constituted a leading team for the overall risk management, with the risk management office responsible for daily affairs. The team guides, facilitates and comments to the implementation of overall risk management tasks of member companies on a regular basis. We have formulated a set of programs for risk information collection, risk identification, risk handling and prevention, risk alert and effect evaluation. Through the preparation of an annual risk management report, we summarised, analysed and deployed tasks for annual risk management and control. The headquarters of the Group checked the implementation and effectiveness of risk management of its member companies on a regular basis. It also provided key departments and companies with guidelines to improve their risk information collection, risk identification and prevention and response mechanism, so as to ensure that measures for risk management and control were implemented.



## Internal Control

971

971 audit projects had been initiated in 2012

We improve operation quality and increase economic benefits through internal control. In 2012, we designated member companies to carry out a systematic improvement of the Group's internal control mechanism. Through self-evaluation of internal control and specification of the focus of internal control management, we formulated schemes for comprehensive internal control and plans for sustainable improvement. Through trainings on featured issues and meetings and facilitation of planning with key departments, we brought about a more comprehensive internal control system within both the headquarters of the Company and member companies systematically. We endeavored to commence a one-to-two-year special improvement program that aims at managing risks and focuses on streamlining the workflow. We started by working on the internal control of the treasury department, with a focus on key control activities to reinforce our base management, thus regulated and standardised the internal control system of the Group. An internal control system and a sustainable improvement mechanism that cater to the corporate operation and development thus took shape, resulting in better corporate operation and management and stronger risk resilience.

We boost operation efficiency through internal audit. In strict adherence to the principle of independence, objectiveness and fairness, the internal audit department fulfills the duty of audit and carries forward audit tasks in all respects, which has continuously enhanced the level and quality of internal audit and helped the enterprise improve its management and operation efficiency. Independent internal auditing organisations and professional auditors have been in place in headquarters as well as important member companies of the Group, which refined the internal audit system and streamlined its underlying management mechanism. We have been carrying forward the construction of the internal audit system with special attention to innovation in audit methods in order to increase the value of audit to cater to the aim of strategic development and management's need of the enterprise. Through a series of audit activities featuring economic responsibility, financial revenues, scientific research projects, internal control and engineering projects, we give full play to internal audit's roles in supervision, rendering of service, audit evidence and consultation. These endeavors safeguard internal control enhancement, fundamental management regulation, operational risk aversion, economic performance improvement and sustainable development.

## Anti-corruption

91

91 projects were initiated for the implementation of performance monitoring in 2012

### Sun Xingmou, Deputy Director of Supervisory Bureau of Disciplinary Committee of the State-owned Assets Supervision and Administration Commission of the State Council

While emphasizing on production and operation, CNBM has attached great importance to the construction of party's conduct as well as the work of anti-corruption and integrity advocacy. It earnestly implemented the accountability system of party's conduct and anti-corruption, further promoted the establishment of a punishment and prevention system, strengthened education, improved the "Three Important and One Crucial" decision-making system, enhanced supervision and inspection as well as performance monitoring, and reinforced the discipline inspection team building. All these measures safeguarded the stability of CNBM's reform and development.

We fully understand that the implementation of anti-corruption measures is just as important as reinforcing market presence and management. Both production and operation performance and measures on party's conduct and corruption are fixed targets that have a bearing on our development. We resolutely place anti-corruption initiatives high on the agenda, and take these initiatives into consideration in our master planning of all tasks, and facilitate such plans as a whole, to bring about a stable corporate reform.

We insist on improving our anti-corruption system and continuously promote standardised and efficient execution of all management activities. In 2012, taking account into the establishment of the internal control system, we formulated, improved and amended 328 items of the system. We further specified the body responsible for the "Three Important and One Crucial" decision-making system, rules of procedures, decision-making scope, accountability and so forth. We refined the supporting systems, streamlined the workflows and enhanced the feasibility of the said systems with more standardised, streamlined and rational decision-making. We improved the joint meeting system relating to the party's conduct as well as the accountability system for introducing party's conduct and an honest and clean administration. Simultaneously, we signed the "Responsibility Letter for Production and Business Targets" and "Re-

sponsibility Letter for Party's Work Style and Upholding Integrity in the Party", gradually divided targets of anti-corruption into sub-targets and achieved these targets across the organisation, vertically and horizontally. All these efforts in regulating the party's conduct and anti-corruption have helped us carry through production and operation tasks. 2,936 copies of Responsibility Letter for Party's Work Style and Upholding Integrity in the Party were signed by all enterprises of the Group throughout the year.

We attach importance to the education of integrity and endeavour to foster a culture of integrity. In 2012, we launched 318 anti-corruption and integrity advocacy education campaigns for 9,561 staff, 169 warning education sessions for 6,075 staff and talks and discussions of integrity for 1,045 person-times. 3,481 leading cadres made integrity commitments, and vocational talks were held with 368 enterprise leaders, so that the conversation mechanism of integrity will be gradually standardised and institutionalised.

We strive to carry out supervision and inspection and make the best of performance monitoring. In 2012, we continued to deepen special governance and rectification work in the field of engineering construction, strengthen campaigns of prohibition of commercial bribery, consolidate results of special governance on "private coffers", and establish a comprehensive and long-standing supervisory mechanism. We carried out performance monitoring on management enhancement activities as well as cost reduction and efficiency improvement. A total of 91 projects were initiated for performance monitoring, which recovered economic losses, saved capital and directly increased the economic benefits of nearly RMB260 million. 79 supervisory proposals were submitted, which ensured the effective implementation of major decisions and smooth development of key tasks.

We strengthen the organisation of discipline inspection and supervision as well as team building. We encourage member companies to establish sound discipline inspection and supervisory institutions, organise and develop vocational trainings on discipline inspection and supervision for cadres, and continuously improve the efficiency and quality of discipline inspection and supervision. In 2012, we organised 72 vocational trainings on discipline inspection and supervision, and trained 945 management personnel of discipline inspection and supervision.

# Responsibility Management



Responsibility Management



Market Performance



Technological Innovation



Energy Saving & Environmental Protection



Employee Care



Corporate Citizen

369 quantitative indicators for social responsibility management

# 369

We pay attention to the demand of investors, the government, employees, customers, partners, related groups, the community and the media, the environment and other stakeholders. We adhere to the core philosophy of "efficient use resources, serving the construction". We blend the concept of social responsibility into our daily management, actively putting the idea into practice in five aspects, namely marketing performance, technological innovation, energy saving, environmental protection, care of employees and corporate citizenship.

Ranked 14th in the CSR Development Index of Top 100 Companies in China (2012)

# 14<sup>th</sup>

Ranked 11th in China's Corporate Social Responsibility Report Evaluation and Ranking in 2012

# 11<sup>th</sup>

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# Responsibility Management

## Responsibility Philosophy, Vision and Values

Since the beginning of 1990s, globalisation has exerted an important and far-reaching impact on the development of international policies and economies, and countries have established stronger ties with each other. In face of various challenges, including environmental deterioration, global climate anomaly, terrorist activities, trade disputes and energy crisis, the concept of sustainable development is accepted by all countries as a basic value. With the deepening of economic globalisation and greater concern over such issues as the global climate, the environment, human rights and poverty, corporate social responsibility has become an important issue of wide-spread concern at home and abroad. More so, it is the key of competitiveness to an enterprise. Stakeholders set increasingly high requirements for the fulfilment of corporate social responsibility, and those requirements have been all the more stringent under the new trend of standardisation and rigid constraint.

The existence and development of an enterprise depend on the environment where it operates, and even more on the harmonious coexistence and mutual progress between the enterprise and its stakeholders. For a truly sustainable development to take place, an enterprise shall maximize its value while satisfying the demands of all its stakeholders, which is the essence of corporate social responsibility. Specifying the management objective of social responsibility, building a standard social responsibility management system and promoting the practice based on key issues of social responsibility will not only meet the requirements for addressing the needs of stakeholders, and improve the core competence and sustainability of an enterprise, but also are the inevitable choices to be taken by an enterprise for sustainable development.

## Responsibility Strategy and Philosophy

We pay attention to the expectations of stakeholders such as investors, government, employees, clients, partners, related groups, communities, media and the environment. We insist on the core philosophy of "efficient use of resources, serving the construction" and regard "innovation, performance, harmony and responsibility" as our core values. We stress both technological innovation and management innovation in our development, and pursue a coordinated and win-win situation with the market, the environment and the

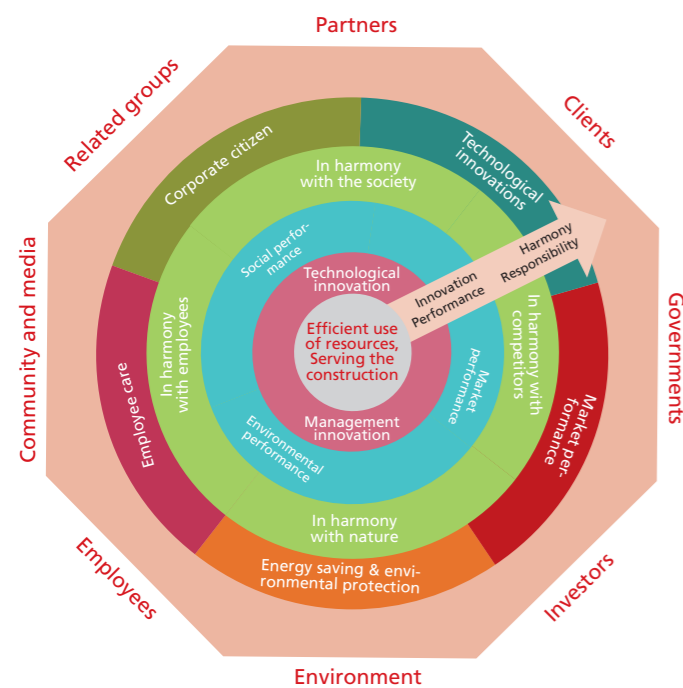
society. We insist on establishing a harmonious relationship with competitors, the nature, employees and the society, and apply the philosophy of social responsibility in five aspects namely market performance, science & tech innovation, energy saving & environmental protection, employee care and corporate citizenship. We are committed to becoming a world-class comprehensive building materials industrial group with sustainable innovation capabilities and strong and outstanding international competitiveness.

## Core Topics

We are fully aware of the impact of our development on the economy, the society and the environment and fully understand the demand of our stakeholders. We have set five core topics,

namely market performance, science & tech innovation, energy saving & environmental protection, employee care and corporate citizenship.

## Responsibility Model



We reward our shareholders and investors with excellent operating results, serve our clients with quality products and services, grow together with our suppliers and industrial partners, and try to become a platform for all the stakeholders to create values. Meanwhile, upholding the philosophy of "industry interest overweighs corporate interest", we are dedicated to promoting industry restructuring, transformation and upgrading and seek to achieve mutual development and create win-win situation with the industry and peers of the same industrial chain.

We take up the task of industrial innovation with our strong scientific prowess, advance industry transformation and upgrading with our forward-looking vision and advanced technology, disseminate and share technical information, devote ourselves to creating greener, more comfortable and intelligent living environment and building a sustainable development in the future.

We make a comprehensive use of industrial and urban wastes, produce low-carbon products with minimised consumption and emission. We are committed to providing the society with reliable and green building materials, and rendering products and service support to the new energy industry. We are pleased to share effective technology in energy efficiency and environmental protection as well as management experience, explore development modes for the harmonious coexistence of industries and the nature, and advocate the sustainable development of the whole industry and the society.

### Market Performance

### Science & Tech Innovation

### Energy Saving & Environmental Protection

### Corporate Citizen

### Employee Care

In the production and operation process, we seek to achieve mutual development and growth with the region where we operate; as we cannot get such results and awards without the support and help of the stakeholders and all walks of life, we reward the society through characteristic public undertakings. Our employees are happy to contribute to the society and actively participate in volunteer activities to practically fulfil the responsibilities of corporate citizens.

We pledge to guarantee the safety and health of our employees, safeguard their rights, respect their differences and make the Company a reliable partner and a happy and comfortable home to our employees. We build a sustainable development and better future together with all our employees and deliver happiness in the society.

## Responsibility Management

245

In 2012, 245 key member companies established social responsibility organisational departments

### Leading Organisation and Organisational System

Since 2009 when CNBM started setting up the social responsibility management system, "CNBM Leading Group for Promoting Social Responsibility" headed by the chairman was first established as the highest leading organisation to promote social responsibility endeavors. The group is in charge of guiding, organising and promoting social responsibility initiatives. Secondary units of the Group also established corresponding leading organisations to supervise subordinate enterprises on the fulfilment of social responsibility. The headquarters of the Group set up the Social Responsibility, Energy Saving and Environment Protection Office, as an administrative department coordinating daily tasks relating to social responsibility of the Group and carrying forward the development of social responsibility management system systematically. Functional departments within the head office of the Group, key member companies and staff as a whole implement plans and requirements of social

responsibility according to their respective scope of business and responsibilities. Member companies have defined functional departments and representatives in charge of social responsibility work, and have formulated a corporate social responsibility management network covering subordinate organisations of different levels and member companies within the Group and in joint effort push forward CSR work of the Group. To give full play to the talent and resources within the Group, CNBM has selected representatives and management experts from member companies as a think tank to offer professional opinions on the improvement of the CSR management system. These opinions were given in terms of the core issues in social responsibility, the development and improvement of CSR management system, focuses when carrying out social responsibility, etc., to help perfecting and advancing the social responsibility management system.

369

369 quantitative indicators of social responsibility management

### Establishment of the Indicator System

Social responsibility management indicators are an important set of standards for social responsibility management, an important tool in defining the scope and content of social responsibility management, as well as an important yardstick for the evaluation of social responsibility management performance. In 2012, we systematically revised the System of Social Responsibility Management Indicators of CNBM with reference to standardisation documents at home and abroad, including Guidelines for Sustainable Development Report (2006) published by the Global Reporting Initiatives, Social Responsibility Guide (ISO26000) issued by the International Organisation for Standardisation; and CSR Reporting Guidelines for Enterprises in China (CASS-CSR2.0) issued by the Chinese Academy of Social Sciences, incorporating features of our industry as well as comprehensive building materials industrial groups.

The System of Social Responsibility Management Indicators of CNBM is related to six parts namely company profile, market performance, technological innovation, energy saving and emission reduction, employee care and corporate citizenship, with a total of 369 specific quantitative indicators, of which approximately 40% of the data for indicators have been extracted from existing data management system of the Group, and the remaining specific indicators of social responsibility have been directly collected from member companies of all levels. In order to improve the traceability and quality of the data, we have developed and applied the Information Technology System for Social Responsibility Management of CNBM to achieve all levels of social responsibility management data reporting, comprehensive coverage of data collection and unified standard on data reporting, thereby significantly improved the efficiency of data collection and the quality of data.

### Five Principles Ensuring Scientism and Advance of Indicator System



The System of Social Responsibility Management Indicators of CNBM has been prepared with adherence to the principles of comprehensiveness, substantiality, comparability, operation feasibility and guidance. Comprehensiveness means the coverage of core indicators system of mainstream standard of social responsibility, for the purpose of a comprehensive reflection of the implementation of the Group's responsibility; substantiality means that selected indicators can sufficiently reflect the performance of responsibility fulfilment of the Group in that area of responsibility; comparability means that indicators can be used for comparison in historical data, industry standard as well as general technical indicators, so that the extent of the Group's responsibility fulfilment in that area can be reflected and evaluated; operation feasibility means that selected indicators can be measured, used to compile statistics, analysed and evaluated and can serve the purposes of management and evaluation; and guidance means that such indicators are above the standards and requirements of responsibility fulfilment in general and are the direction and guidance for the improvement and promotion of the corporate responsibility fulfilment.

### Performance Evaluation System

We have endeavoured to establish an evaluation system of key performance in social responsibility under the guidance of social responsibility concept, so as to systematically evaluate the performance of the corporate responsibility from two aspects of corporate capability in sustainable development and quality of social responsibility management. Through the establishment of quantitative evaluation indicators, we have guided and promoted our member companies to persistently improve and enhance their capability and quality in responsibility fulfilment.

In recent years, we have established an evaluation system for the capability of corporate sustainable development according to the characteristics of the building materials industry based on extensive investigation and survey as well as in-depth study, so as to evaluate the fulfilment of corporate social responsibility. Through evaluation and continual improvement, we have promoted on-going rational allocation of resources among our member companies and have achieved overall planning, long-term

and stable as well as balanced and coordinated development. In 2012, we further expanded the coverage of social responsibility management and launched a pilot project for the evaluation on the performance of social responsibility management. We have established quantitative evaluation indicators and evaluation rules from the aspects of organisational system development, information management standard, stakeholder communication, on-going improvement, external evaluation and results sharing. Through comprehensive evaluation on the development of corporate social responsibility management system, we have analysed the status quo of corporate social responsibility management and formulated improvement program as well as implementation plan for the continual improvement in management standard.

# Responsibility Management

## Responsibility Planning

We have further specified our social responsibility management and have adopted clear objectives. Our plan for the implementation of corporate social

responsibility has been formulated through on-going discussion so that the effectiveness of our social responsibility management improves continuously.

Table of the Implementation of Social Responsibility of CNBM from 2010-2013

Focus	Content of Promotion	2010	2011	2012	2013 (Planned)
Improvements in responsibility management	Reports publication	•Chinese reports	•Chinese reports	•Chinese reports •English reports	•Chinese reports •English reports
	System establishment	•Requirements on organization building	•Requirements on organization building •Information collection requirements	•Guidance on implementing responsibility •Measures for work management •Information collection system	•Guidance on implementing responsibility •Measures for work management •Information collection system •Operational guidelines
	Management approach	•Printed materials	•Printed and electronic files	•Online data reporting	•Managing network information
Advancing the work of our member companies	Forming systems	•Clearly coordinating with work planning organizations and departments	•Departments responsible for social responsibility in second-tier entities clarified	•Key enterprises set up work leading groups to advance social responsibility work •Departments responsible for social responsibility in key enterprises clarified	•Key enterprises set up work leading groups to advance social responsibility work •Departments responsible for social responsibility in enterprises of different levels clarified
	Prepared and published reports		•Trial preparation for listed companies •Issue of member companies encouraged	•Preparation for pilot enterprises •Issue of member companies encouraged	•Issue of member companies encouraged •Improvement in the quality of our reports continued
	Trainings	•Staff responsible for the preparation of reports	•Person-in-charge of key enterprises	•Person-in-charge and staff of key enterprises	•Person-in-charge of key enterprises and staff of enterprises at different levels
	Special campaigns	•Collection of pictures	•Collection of pictures •Collection and selection of cases	•Collection of pictures •Collection and selection of cases	•Collection of pictures •Collection and selection of cases •Selection of demonstration enterprises or programs
Performance evaluation			•Evaluation methods on the capacity of sustainable development prepared	•Trial evaluation on the capacity of sustainable development •Evaluation methods on the performance in social responsibility management prepared	•Evaluation on the capacity of sustainable development •Evaluation on the performance of social responsibility management
	Range of communication	•Internal communication •External communication	•Internal communication •External communication	•Internal communication •External communication	•Internal communication •External communication
Responsibility communications	Way of communication	•Daily communication	•Questionnaires •Daily communication •Columns for social responsibility •Special interviews	•Questionnaires •Daily communication •Columns for social responsibility •Special interviews	•Questionnaires •Daily communication •Columns for social responsibility •Special interviews •Microblog, wechat
	Review	•International review institution	•International review institution	•International review institution	•International review institution
Comments from External Parties	Rating		•Chinese Academy of Social Sciences: 4 stars	•Chinese Academy of Social Sciences: 4.5 stars	•Chinese Academy of Social Sciences: 5 stars

## Promotion of Responsibility

### Member Companies Motivated to Fulfill Social Responsibility

We systematically rationalized our social responsibility management system in 2012. Three social responsibility management systems have been officially launched with an aim to systematically and normatively promote the fulfillment of social responsibility by our member companies so that our social responsibility management system is systematic, institutional, procedural and standardized.

There are three components in the social responsibility management system of the CNBM. The first one is a guiding document for business enterprises to fulfill social responsibility by incorporating the sense of social responsibility into their daily production and operations. The second component is the

code of conduct for business enterprises to establish systems of social responsibility management. The third component is the measures that focus on the basic social responsibility management task of the collection of social responsibility information and provide a clear workflow and specific rules for action.

By constantly improving and enriching their social responsibility management systems, procedural standards and evaluation mechanism, we have encouraged our member companies to actively fulfill their social responsibilities and continuously improve their standard of social responsibility management.

### Responsibility Training and Spread of the Idea

We highly regard the spread of the idea of social responsibility. We have raised the sense and awareness of the people in charge of business enterprises in this issue through integrated meetings and special meetings. We have enhanced the quality, ability and standard of the services of our social responsibility management personnel by organizing special training, encouraging enterprises to carry out independent training and organizing them to participate in professional organizations' social responsibility training.

We promoted the idea and basic knowledge of social responsibility through our corporate website and internal publication so that the sense of responsibility of our Group's employees could be improved and that such corporate culture and atmosphere could be developed.

### Independent Social Responsibility Reports of Member Companies Published

Three member companies of the Group have already issued their independent social responsibility reports. The standards of the preparation of the reports are the Guidelines of the Shenzhen Stock Exchange for the Social Responsibility of Listing Companies, Notice on Properly Handling Annual Reports of Listing Companies of the Shanghai Stock Exchange and Shenzhen Stock Exchange, respectively. There are rooms for improvement in the reports in terms of readability and comprehensiveness. However, the reports are of significant importance for the establishment of an annual reporting system of social responsibility among our member companies. We will continue to improve both the quantity and quality of the annual social responsibility reports of our member companies so that the channels for disclosure of the Group's social responsibility information can be widened. We will also establish a multi-dimensional social responsibility information disclosure system for better response to the demands of stakeholders.

3

Three social responsibility management systems issued in 2012

22,887

About 22,887 employees participated in training related to social responsibility in 2012

3

Three member companies issued independent social responsibility reports

# Responsibility Management

## Responsibility Communications

Communication is the best way to enhance understanding and build trust. Effective communication not only enables stakeholders to know whether enterprises live up to their responsibilities, but also

increases transparency of enterprise operation and allows us to stay updated on the opinions and advice of internal and external stakeholders.

Stakeholders	Way of communication	Focus	Responding measures
Investors	<ul style="list-style-type: none"> <li>Regular reports</li> <li>Corporate reports</li> <li>Marketing activities</li> <li>Shareholder dialogues and feedbacks</li> </ul>	<ul style="list-style-type: none"> <li>Protecting the interests of shareholders and creditors</li> <li>Ensuring truthfulness, accuracy, timeliness and integrity of information disclosure</li> </ul>	<ul style="list-style-type: none"> <li>Improving information disclosure mechanism</li> <li>Enhancing corporate values</li> <li>Regulating corporate governance</li> <li>Improving investor relations</li> </ul>
Government	<ul style="list-style-type: none"> <li>Releasing laws and regulations</li> <li>Feature reports and visits</li> <li>Information submission</li> <li>Evaluation of work targets</li> </ul>	<ul style="list-style-type: none"> <li>Requirements on safety, environment protection and compliance</li> <li>Securing supply</li> <li>Offering employment opportunities</li> <li>Boosting regional economic development</li> </ul>	<ul style="list-style-type: none"> <li>Compliant operation and implementation of national policies</li> <li>On-going quality operation</li> <li>Paying tax</li> <li>Offering employment opportunities</li> </ul>
Clients	<ul style="list-style-type: none"> <li>Meetings and consultation with clients</li> <li>Daily contacts</li> <li>Client feedback mechanism</li> <li>Telephone service</li> </ul>	<ul style="list-style-type: none"> <li>Speed of response</li> <li>Quality of service</li> <li>Special requirements</li> <li>Complaint handling</li> </ul>	<ul style="list-style-type: none"> <li>Offering quality products and services</li> <li>Advocating green consumption</li> <li>Improving quality management</li> <li>Protecting clients' privacy</li> </ul>
Partners	<ul style="list-style-type: none"> <li>Contract negotiation</li> <li>Tender offers</li> <li>Management meetings</li> <li>Correspondence exchanges</li> <li>Daily business communication</li> </ul>	<ul style="list-style-type: none"> <li>Price and timely payment</li> <li>Long-term partnership</li> <li>Profit distribution</li> <li>Sharing of information resources</li> <li>Honesty and mutual benefit</li> <li>Risk reduction</li> </ul>	<ul style="list-style-type: none"> <li>Honest operation</li> <li>Promoting supplier responsibility</li> <li>Building effective partnership</li> <li>Building effective communication mechanism</li> </ul>
Employees	<ul style="list-style-type: none"> <li>Employee representative meeting</li> <li>Publicity of factory activities</li> <li>Employment contracts</li> <li>Rational proposals</li> <li>Regular communication</li> <li>Petition</li> </ul>	<ul style="list-style-type: none"> <li>Employee rights</li> <li>Career path planning</li> <li>Complaint handling</li> <li>Occupational health</li> <li>Democratic management</li> <li>Publicity of factory activities</li> </ul>	<ul style="list-style-type: none"> <li>Protecting employee rights</li> <li>Offering competitive remuneration</li> <li>Improving employee benefits</li> <li>Enhancing employee training</li> <li>Offering safe working environment and health protection</li> <li>Building effective communication mechanism</li> <li>Improving democratic management</li> </ul>
Community and media	<ul style="list-style-type: none"> <li>Signing public welfare agreements</li> <li>Taking part in volunteer activities</li> <li>Daily contacts</li> </ul>	<ul style="list-style-type: none"> <li>Environment protection</li> <li>Jointly building a harmonious community</li> </ul>	<ul style="list-style-type: none"> <li>Timely information disclosure</li> <li>Increasing participation in public welfare</li> <li>Participating in community activities</li> </ul>
Community organisations	<ul style="list-style-type: none"> <li>Taking part in meetings or activities regularly</li> <li>Daily contacts</li> </ul>	<ul style="list-style-type: none"> <li>Environment protection</li> <li>Jointly advocating sustainable development</li> </ul>	<ul style="list-style-type: none"> <li>Playing the role as a member</li> <li>Offering economic and technical support</li> <li>Building cooperative relationship</li> </ul>

Starting from analysing the needs of stakeholders and based on the summary and conclusion of their demands, CNBM has developed its system of social responsibility management with the formulation of a communication mechanism and responding measures. Five social responsibility core issues have been extracted including market performance, technological innovation, energy saving and environment protection, as well as employees caring and corporate citizenship. Surrounding those core issues, we pro-

mote and improve our social responsibility activities.

We continue to issue annual social responsibility reports. We have gone through the social responsibility management system and have summarised the progress of our activities in this respect during our preparation. By publishing the annual reports, we showcase our achievements in social responsibility and response to the demands from stakeholders.

In 2012, we prepared and published the first English social responsibility report of CNBM. Using a more globalised language, we disclosed the progress and performance of the social responsibility activities of our Group to stakeholders of various nationalities and regions and exercise better the role of annual social responsibility report as a platform for communication.

We have established a sustainable communication mechanism with external stakeholders and have been expanding the channels and scope of communication. We value communication and cooperation in our daily operation and have incorporated the ideas and issues of social responsibility into our daily operation and communication; we have inquired opinions and suggestions through questionnaires; we visited some important stakeholders to understand their demand. We have timely published information on responsibility fulfilment in the column of social responsibility on our corporate website to build a convenient and smooth online feedback channel and keep us informed of the suggestions and opinion from stakeholders. Based on their feedback, we have continuously improved our work and have responded in an active manner.

We value the opinion of internal stakeholders. In 2012, we focused on setting up an expert consulting

mechanism within the Group based on daily communication. We have discussed the core issues of social responsibility with internal stakeholders so as to offer advice and proposals to improve the management of corporate social responsibility. According to the suggestions of experts, we have modified the structure of the social responsibility report and have included the improvement of the management system in our work plans.

The management of the Group highly values social responsibility communication. Through the means of forums, management mailbox and meeting of employee representatives, they have actively communicated with internal stakeholders, presented themselves at the communication activities with external stakeholders, and have timely arranged improvements according to key opinion and suggestions; when taking part in external activities, they have been willing to share their experience in fulfilling social responsibility and have played an active role in spreading the idea of social responsibility. The active participation and promotion from management of the Group have significantly enhanced the performance and quality of the Group in fulfilling social responsibility.

# 12,179

In 2012, approximately 12,179 individuals of external stakeholders communicated

# 4,016

In 2012, 4,016 occasions of communication with external stakeholders with the presence of corporate senior management

### Spreading the Idea of Corporate Social Responsibility for the Advancement of Sustainable Development



In 2012, Annual Meeting of China Entrepreneurs and the "Two Rivers Forum" were held in Chongqing, as a representative of central enterprises, Mr. Song Zhiping, chairman of the Group, delivered a speech titled "Active Fulfilment of Entrepreneurs' Responsibility for the Promotion of Sustainable Development of the Industry". In the speech, he advocated to entrepreneurs that "in terms of development philosophy, we should incorporate welfare of mankind, national policies, benefits of the industry into corporate development strategies; in terms of distribution of benefits, we should follow the principle of sharing and mutual benefit; and in terms of management, we should prioritise environment protection, safety and social responsibility over speed, scale and benefit".

## Sharing of Responsibility

### Participation in Social Responsibility Organisation

As a member of the Cement Sustainability Initiative (CSI), we have actively attended the annual CEO meetings, annual forums and other events of CSI in China. In 2012 CSI Forum, our experts held fruitful discussions with representatives in the meeting over the issues of NOX emission and co-processing, safe usage of alternative energy and materials etc. Li Juan, a senior engineer from China Building Materi-

als Academy, a member company of the Group, was appointed as chief liaison officer of CSI China office. 13 experts participated in four CSI working groups including Climate Protection, Raw Materials and Fuel, Health and Safety as well as Mine Rehabilitation and Biodiversity, offering assistance to the satisfactory commencement of the work of CSI in China.

### Social Responsibility Research

We value social responsibility research, and have established an indicator system for the management of social responsibility of the Group based on a thorough research on relevant standards on social responsibility management and sustainable development home and abroad; based on the results from researching and benchmarking on social responsibility management systems of overseas building materials companies and domestic central enterprises and with reference to the features of the Group, we have gradually set up a social responsibility management system for CNBM.

We have actively participated in compilation of social responsibility standards: we have assigned representatives to join the compilation of and amendment to the Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises 3.0, the authoritative standards issued by Chinese

Academy of Social Sciences on preparation of social responsibility reports in China.

In order to share our experiences in fulfilling social responsibilities and establishing social responsibility management system, we have gone through and have systematically summarised the achievements in setting up social responsibility system of the Group and have shared with stakeholders through social responsibility communication conference of central enterprises as well as internal and external media. The results of our work have been acknowledged, and the Establishment of Social Responsibility Management Systems in Large Building Materials Enterprises, the results of the management of the Group was awarded with the second prize of National Innovative Management Achievements and the first prize of Innovative Management Achievements in Building Materials Industry.



### Advocating the Fulfilment of "Responsibility for Low Carbon, Safety and Environment Protection" in Building Materials Enterprises

Building materials industry is a major energy consumer and pollutant emission source, and is also an important industry for comprehensive utilisation of resources and development of cyclical economy. Amid imminent issues such as quality, safety and environment protection in the sector, building materials companies should come together to explore effective solutions. In 2012, China Building Material Test and Certification Group Co., Ltd. (CTC) and China Building Materials Daily jointly organised a press release on "Low Carbon, Safety and Environment Protection Responsibility" Declaration of China Building Materials Industry. It was advocated that building materials enterprises should win the concern and support from the whole society through their own actions and strongly support sustainable development of building materials industry. Over 100 renowned building materials companies across the country jointly released the declaration.

## Responsibility Performance



14<sup>th</sup>

14th in Top 100 Enterprises of Corporate Social Responsibility Development Index of China in 2012

11<sup>th</sup>

11th in the evaluation and ranking of Chinese Corporate Social Responsibility Report in 2012

We have continuously improved our social responsibility management mechanism and have actively advanced implementation of our responsibilities. Our efforts have received encouragement and recognition by stakeholders. CNBM ranked the 14th in the Top 100 Enterprises of Corporate Social Responsibility Development Index of China (2012) issued by the Research Centre for Corporate Social Responsibility of the Department of Economics of the Chinese Academy of Social Sciences in 2012, maintaining the leading status in corporate social responsibility in China. We have established a sound system of social responsibility management indica-

tors, have actively responded to the demands of stakeholders and have improved the quality of our annual social responsibility report on on-going basis. In the White Paper on Chinese Corporate Social Responsibility Report (2012) issued by the Research Centre for Social Responsibility of the Department of Economics of the Chinese Academy of Social Sciences in 2012, the 2011 Social Responsibility Report of China National Building Materials Group Corporation ranked the 11th with 4.5 stars among 885 social responsibility reports evaluated, which is the highest ranking achieved by companies in the building materials industry in China up to now.



### CNBM was awarded with the prize of "Enterprise of the Year 2012 in People's Social Responsibility"

With achievements such as technological innovation, energy saving and emission reduction, consolidation-restructuring and market synergy, leadership in industrial transformation and upgrading, and active implementation of corporate social responsibility, CNBM was awarded with the prize "Enterprise of the Year 2012 in People's Social Responsibility" in the seventh People's Social Responsibility Competition themed "2012 China Positive Energy" organised by People's Daily Online in 2012.

## Market performance



Responsibility Management



Market Performance



Technological Innovation



Energy Saving & Environmental Protection



Employee Care



Corporate Citizen

Sales revenue for 2012: RMB

# 217.43

billion

Total profit for 2012: RMB

# 11.16

billion

Tax paid in 2012: RMB

# 16.03

billion

We reward our shareholders and investors with excellent operating results, serve our clients with quality products and services, grow together with our suppliers and industrial partners, and try to become a platform for all the stakeholders to create values together. Meanwhile, upholding the philosophy of "industry interest overtopping corporate interest", we are dedicated to promoting industry restructuring, transformation and upgrading and seek to achieve mutual development and create win-win situation with the industry and peers of the same industrial chain.

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## Market performance

### Overview of Operating Results

**217.43** billion  
Revenue amounted to RMB217.43 billion in 2012

**11.16** billion  
Total profit amounted to RMB11.16 billion in 2012

**16.03** billion  
Taxes paid amounted to RMB16.03 billion in 2012

**7.06** billion  
The total of import and export amounted to USD7.06 billion in 2012

**118%**  
Rate of preservation and appreciation of state-owned assets recorded at 118% in 2012

**17%**  
Return on net assets recorded at 17% in 2012

It was a difficult year in 2012. Confronting with complicated and severe situation such as slower economic growth, lack of demand, production overcapacity and so forth, we actively strived and managed to achieve a sustained growth in major economic indicators. In 2012, the Group strengthened market synergy in building materials manufacturing sector, deepened the business ideology of "Price-Cost-Profit" and the management of key indicators, held on to reducing costs and raising profits and price stabilisation, thereby achieved growth for both sales volume and revenue. We steadily pursued consolidation and restructuring of cement business, and further strengthened the development of core profit-generating regions. Our annual sales of cement and commodity clinker reached to 220 million tonnes, representing a year-on-year increase of 20%; extension of industrial chain was accelerated with sales volume of ready-mixed concrete reached 30 million standard cubic meters, representing a year-on-year increase of 877%; gypsum board business ranked the first in the world, with sales reaching 1.05 billion square meters, representing a year-on-year increase of 20%; effective measures were taken to deal with the slowdown of development in rotor blade business, and actively explored the global market with sales reached 3,507 blades, representing a year-on-year increase of 42%; headwinds in the turmoil of the global market and trade conflict of glass fiber businesses were overcome and stable growth of sales volume was achieved; growth was steady in

engineering service business with bids continuously won in cement and glass projects with large tonnage, whilst growth in solar photovoltaic engineering business was achieved despite unfavourable trend with contract value amounted to RMB2.8 billion; the ideology of "reshaping business models and reinforcing delicacy management" was adhered in the import and export sector to achieve healthy and stable development, with total import and export increased by 25% year on year. In 2012, total assets of the wholly-owned and holding companies of CNBM amounted to RMB300.62 billion, representing a year-on-year increase of 45%; revenue amounted to RMB217.43 billion, representing a year-on-year increase of 12%; total profit amounted to RMB11.16 billion; taxes paid amounted to RMB16.03 billion; the total of import and export reached US\$7.06 billion; CNBM ranked the 365th in the Fortune Global 500 and became the second largest group in the building materials industry in the world.

We have rewarded our investors with excellent results, our return on net assets was 17% in 2012, have achieved a rate of preservation and appreciation of state-owned assets of 118%. Our ranking of various indicators in the SASAC among central enterprises continually improved and a rating of A was assigned in the evaluation of operating results by the SASAC for five consecutive years.

#### Results of China National Building Materials Company Limited have been Highly Recognised

China National Building Materials Company Limited (hereafter referred to as CNBMCL), a core enterprise of CNBM, has been highly recognised by stakeholders due to its steady operating style, outstanding performance, innovative business culture and competitive position in the industry. In 2012, CNBMCL received two "China Securities Golden Bauhinia Awards" including "The Most Valuable Listed Company" and "The Best Investor-Managed Listed Company" jointly organised by several renowned management and securities institutions in Hong Kong and the mainland; CNBMCL was also awarded "The Most Innovative Company in China 2012" by the Fortune as well as the honours as one of the Hong Kong Securities "Top 100 Companies" and "Top 10 Net Profit Growth". CNBMCL ranked the 628th in the Forbes Global 2000 Listed Companies in 2013. It ranked the first among listed building materials companies in China and the sixth among global listed building materials companies.

### Investor Relations Management

**95**  
95 roadshows of China National Building Material Company Limited were organised in 2012

In offering us material resources and prompting us to optimise management procedures and enhance operational efficiency, investors are one of our most important stakeholders. We have sincerely and genuinely dealt with investors' concerns and have timely disclosed material information. We have also answered queries raised by investors with detailed data. Through ample information dis-

closure and exchange, we reinforced our communication with shareholders, analysts and potential investors, and promoted investors' understanding and acknowledgement of us; by continuously improving corporate governance, we tried our best to protect the legitimate rights and interests of all the investors, including the minority.

#### "Be Responsible to Investors, Transparent to Investors and Boost Investors' Confidence"

In the context of complicated macroeconomic situation, depressed capital markets and a huge loss in investors' confidence, CNBMCL has adhered to the mission of "Be Responsible to Investors, Transparent to Investors and Boost Investors' Confidence" and has disclosed information timely, completely and accurately. In addition, CNBMCL has provided good reception service for investors' daily visit and has actively participated in investors' meetings for making investors fully understand the development trend of the industry and operation of the Company, so as to inspire their confidence; CNBMCL has organised on-site investigation for investors to its front-line plants to show transparency in its operation and management as well as the superior capability in its implementation of strategies, so as to eliminate investors' doubts; CNBMCL has also developed systematic operating plan to handle investors' questions for systematic and complete answering to the queries raised by investors. In 2012, the management of the Company organised roadshows for annual and interim results and held 95 meetings to communicate in depth with fund managers and analysts from nearly 500 investment institutions around the world and nearly 40 media from Hong Kong, thereby has significantly boosted investors' confidence in the future development of the Company.

#### Liu Nanchang, General Director of the Bureau of General Affairs of the Stateowned Assets Supervision and Administration Commission of the State Council

With all the indicators in the first phalanx among the central enterprises in 2012, CNBM has made important contributions for maintaining growth and improving efficiency of the central enterprises and has played a leading role in the sound development of the building materials industry.



## Market performance

### Provision of Quality Products and Services

441

441 key manufacturing enterprises passed the ISO9001 standard system certification in 2012

99.4%

Product quality sampling yield by national quality inspection institutions that was more than 90% accounted for 99.4% batches in 2012

We are committed to providing clients with safe, reliable, energy-saving and environmental friendly building materials and convenient services, key national projects and urban infrastructure with support of materials and technology services, as well as residents with systematic solutions on building materials. Our quality products as well as systematic and professional services have received widespread praises and full recognition. We have transformed business models in depth via constantly strengthening the innovation of our products and services. By proceeding with the establishment

of information technology systems and channels, we have offered convenient services and reliable building materials so as to continuously create value for our clients. We have launched the first domestic sales platform of spot building materials - Okorder ([www.okorder.com](http://www.okorder.com)) to provide clients with "one-stop, whole process, standardised" spot sales services of building materials; we have also developed an online customised system of building materials to provide clients with personalised building materials services through real-time and direct services.

#### Quality Management

Through many years of practice in production, we have formed a sound quality management system and process, and implemented such quality management throughout the whole process from procurement of raw materials to delivery of products. We motivated our member companies to develop the system of quality management standard. In 2012, there were 441 key manufacturing companies passed the ISO9001 standard system certification. We have made an open commitment to continuously improve the quality of our products and quality management, with the objectives to pursue operational excellence, accelerate transformation and upgrading, and enhance corporate competitiveness and consumer confidence in the market.

#### Client Relations Management

We value client relations management and have established a sound service system in pre-sales consultation, sales reception and after-sales services. In addition, we emphasize the protection of clients' privacy with the implementation of strict security system on clients' personal information. We also have rendered immediate response and handling to clients' complaints and queries. We have established a mechanism for daily communication with our clients, allowing them to participate in our product development and service improvement plans, thereby has enhanced the value and quality of our services on an on-going basis.

#### Provision of Oil Well Cement of Class G to Deep-water Drilling Rig HYSY981

In recent years, CNBM has continued to promote the "Four Operation Modes" development of its cement business, namely "high-grade cement orientation, specialised cement orientation, ready-mixed concrete orientation, and cement products orientation" and has been committed to providing high-quality cement products to national key projects and defense projects. In 2012, Southwest Cement Jiahua Group, a member company of the Group, provided oil well cement of Class G to "HYSY981" and favourable feedback on such product was received from the clients.

"HYSY981", the deep-water semi-submersible drilling rig, is the first independently designed and constructed deep-water semi-submersible drilling rig of the sixth generation in China with integration of world-class design concepts and first-class equipment. The rig officially commenced its drilling in South China Sea in May 2012, which marked that China already has independent research and development capability and international competitiveness in the field of marine engineering equipment and the deep-water strategy of the offshore oil industry of China has taken a substantial step.



#### Brand Building

Based on the principle of market orientation, we devoted ourselves to increasing brand influence and consumer awareness through progress in technology and quality control. In 2012, CNBMCL continued the restructuring and building of the brands held by the enterprises on its platforms. In particular, the brand integration of China United and South Cement was successfully completed, while steady progress in the brand building of Southwest Cement and North Cement was made. China Building Materials Test & Certification Group

Co., Ltd. has continued the integration of resources and has reinforced the brand building as well as the national presence of "Tianyu". Hefei Cement Research and Design Institute ("Hefei Institute") has been honoured as the "National Outstanding Enterprise in the Commitments for Quality and Integrity". Beijing New Building Materials Group Company Limited ("BNBM") has built the integrated brand of "Da Mu Ye", which has helped build a sound corporate image.

5

Products of Well-known Brands in China: 5

3

Well-known Trademarks in China: 3

#### "BNBM" Recognised as a Well-known Trademark in China

In 2012, "BNBM" was recognised by SAIC as a Well-known Trademark in China. Together with the two Well-known Trademarks in China, "Longpai" and "Taishan", Beijing New Building Materials Public Limited Company ("BNBM") has become the only enterprise in the new building materials industry which has three Well-known Trademarks in China. In recent years, BNBM has continued to reinforce its brand building and improve the popularity and reputation of its brands. Through effective measures, the value of its brands achieved another record high, and the estimated value of which reached RMB16.89 billion in 2012, ranking the 193rd in the Top 500 Brands in Asia and the 83rd in the Top 500 Most Valuable Brands in China. The company was honoured as the "Top 100 Enterprises in the Chinese Home Industry in 2012" and "The Enterprise with Commitment for the Operation with Integrity in Beijing". It was on the list of the Top 100 Enterprises in the Chinese Home Industry for four consecutive years and became the only enterprise honoured as the "Most Preferred Brand for Projects of Real Estate Listed Companies in China" in the building materials industry.

## Market performance

### Enhancement of Responsibility in Supply Chain

We not only take the procurement and supply chain management as important tasks in the daily operation of the enterprise, but also treat the suppliers as our reliable strategic partners, and

#### Responsibility of and Evaluation to the Supply Chain

Fulfilment of social responsibility is one of our criteria in selecting suppliers. A dynamic evaluation has been conducted on the suppliers from several aspects including compliance with laws and regulations, environmental protection, protection on the rights of employees, and operation with integrity. Commercial bribery in any forms is forbidden. We press the suppliers to improve the quality of their products on on-going basis, supervise and promote the suppliers to care for the physical and mental

#### Responsibility in Procurement

We incorporate the concepts of responsibility and sustainable development into procurement. In purchasing raw materials, the products produced through a low-carbon process and less harmful to the environment are considered with priority. In selecting energy, we strongly promote the use of non-fossil energy such as low grade energy, urban waste and biomass energy. For consumer goods such as the office supplies, we choose those with

our assistance in their sustainable development is regarded as a way to nurture our external strategic resources.

health of their employees. In addition, we evaluate the fulfilment of responsibility in the suppliers' operation from time to time. In the tenders for building of production lines, safety, energy saving and environmental protection would be listed as prerequisites in the request for proposals. During the construction, we are always concerned with the occupational health, safety in production and protection to the basic rights of employees.

the features of simple packing and easy recycling. We insist on open and transparent procurement, aiming to eliminate commercial bribery during procurement through integration of tender in regional procurement, standardisation of tender process, transparency of the tender performance and application of information technology in tender management.

437

437 member companies conducted evaluation and investigation on the fulfillment of responsibilities in supply chain in 2012

12,463

Training covering safety, energy and laws was provided to 12,463 individuals of the employees of the sub-contractors and suppliers in 2012

503

In 2012, 503 out of all the key enterprises adopted responsible procurement in their procurement of raw materials and fuels

#### Transformation of Procurement Management in South Cement Company Limited from Traditional Approach to Application of Information Technology



South Cement Company Limited ("South Cement") is able to centralise the procurement through the ERP information system, which has centralised the bulk procurement authority of products from the different individual enterprises to the regional companies and the head-quarter of the Group at multi-levels. The segments include, among others, the management of demand from production, centralised procurement, inventory, quality, measurement, fixed assets and costs. South Cement, through the use of a financial system incorporating the management and controlling structure of three layers (Group-Region-Factory), has achieved the connection and unification of the management in materials and financial value, the standardised management as well as visible and controllable information of assets. Digital approach and network have been applied in the principal business process and control measures of the centralised procurement, which have enabled the "management to control, the system to save and the incidents to be tracked anytime and anywhere". As a result, purchase costs and risks have been reduced, and centralised as well as open and transparent procurement have been achieved.

### Win-win Situation with Partners through Cooperation

#### Operation with Integrity

Integrity is our basic principle and valuable spiritual treasure. It not only originates from our efforts in nearly 30 years, but also embodies the trust and support from our clients, suppliers and partners. It is the value and code of conduct that we will always adhere to. The member companies of the Group are widely recognised and respected in the

#### Fair Competition

We believe that a sound cooperative relationship built on voluntary and equal basis not only can provide shared competitive advantages for both parties, cater to the demands of strategic joint development from both parties in the long term, but also is of significance to breaking the boundaries of technology, allocating global resources, coping with the environmental challenges and improving capacity in sustainable development. We insist on fair competition and do not infringe the rights of competitors and partners by using unjustified means such

#### Strategic Sharing

We intend to build a long-term strategic cooperation and a mechanism of strategic sharing with our partners. On the platform of the Group's headquarter, we promote the strategic cooperation between our member companies and local governments, central enterprises and other strategic partners. We make the most use of our own resources and enjoy the complementary advantages with our partners. We come together with our partners to create a win-win business relation, optimise our resources as well as the structure of production, and strengthen the sustainable corporate competitiveness. We maintain the communication and cooperation with many provinces and cities. Through the active participation in the marketing events, investment conference and the signing ceremony of strategic cooperation in different areas, we communicate and negotiate with partners on cooperation.

public for their operation with integrity, which also gained recognition of financial and insurance institutions. As a result, many banks have entered into the cooperation agreements with us in which general credit facility were granted. In 2012, we were assigned the highest corporate credit level of AAA by the China Building Materials Federation.

as fraud, bribery and intentional undersell. In the operation environment, the concept of "harmonious relationship with competitors" is implemented. We are always maintaining the harmonious atmosphere and environment for fair competition in the industry. We value the spread and promotion of the concept of fair competition and conscientiously organise the training on operation with integrity and fair competition for the employees. In 2012, 10,757 individual employees of the Group have participated in relevant trainings.

We actively develop strategic cooperation between enterprises and commenced business communication with our strategic partners. In 2012, we commenced business communication with China Shenhua Group, Beijing Sales Branch of China National Petroleum Corporation, China National Arts & Crafts Group, China Communications Construction Group, China Railway Material Group, Guangxi Construction Engineering Group and China Energy Conservation and Environmental Protection Group. We also signed strategic cooperation agreements with Shenhua Group, China Communications Construction Group, Guangxi Construction Engineering Group and Anhui Conch Group. Our cooperation covers a wide range of areas, including the R&D and promotion of alternative energy products, comprehensive utilisation of industrial waste, promotion of energy-saving and environmental protection technologies and products, etc.

99%

In 2012, the normal performance rate of the sales contracts of the manufacturing enterprises was approximately 99%.

10,757

In 2012, 10,757 individual employees participated in trainings on operation with integrity and fair competition.

1,308

In 2012, 1,308 cooperation and exchange activities were organised by member companies of the Group

#### External Commendation: Leslie Koo, chairman of Taiwan Cement Corporation

The development concept of CNBM which advocates market synergy and replacement of the unhealthy competition with the healthy competition has led the cement industry in China onto a right development path, which is highly-recognised in the whole industry. In particular, the industry managed to maintain a sound development amid depressed environment last year. We are honoured to enter into the strategic cooperation agreement with CNBM, and hopefully both sides can contribute our resources and experience, deepen the cooperation and lead the long-term and sound development of the cement industry in China.

## Market performance

### Supporting National Constructions

15,901

15,901 new employees in 2012

16.03

billion  
Paid RMB16.03 billion for taxes in 2012

62,559

About 62,559 employees participated in our legal education activities in 2012

We supply materials to national constructions, such as providing high tech materials and products to key projects and defense programs of the nation.

We pay taxes as required by the law, create jobs, provide welfare and participate in rescue relief to serve and contribute to the society in practice.

### Operating in Compliance with the Law

We operate in accordance with relevant laws and regulations of the country strictly. We adhere to the integration of law popularisation activities and legal affairs management so that they can enhance and promote each other. We promote the idea of

creating value by compliance through launching various legal education programs, such as national legal advocacy day, legal training seminars and legal knowledge contests.



### Implementing National Industrial Policies

**Gao Yunhu, Deputy Director of the Raw Materials Division of the Ministry of Industry and Information Technology**

CNBM has made great contribution to the development of the industry and the promotion of technology enhancement in the industry. CNBM is a role model for the building materials and other industries in terms of practice and experience in consolidation and restructuring, innovation and development model formation and management standardisation.

CNBM implements national industrial policies actively. We also actively promote structural adjustment, consolidation and restructuring, energy saving and emission reduction to the traditional building materials industry. We adhere to guiding the cement industry to the direction of "high-grade cement oriented, ready-mixed concrete oriented, specialised cement oriented and cement products oriented development" and leading the glass industry to energy saving and high-value added directions by being "high-quality oriented, LOW-E oriented, ultra-thin oriented and high performance oriented". We promote technological upgrading,

energy saving and consumption reduction, backward production elimination and clean production in cement, concrete, glass and other traditional building materials and equipment industries. We seize the opportunity of urban developments in our country to further cultivate the "Three New" industries by promoting new energy-efficient homes and supporting the application of new building materials. A number of important technologies or high-end products have been produced. This allows us to lead the building materials industry to develop in a sustainable manner.

### Leading the Industry to Healthy Development

**Lei Qianzhi, Honourary President of China Cement Association**

The cooperation between CNBM and the Conch Group has created the integration of resources among big enterprises in the industry. This is very significant, for it would further promote the restructuring and transformation of the building materials industry.

The building materials industry has flourished over the years. However, there are some big but moderate outstanding issues such as overcapacity notwithstanding the large industrial scale, corporate dispersion, low concentration and keen market competition. We've practically transformed the development model by taking the approach of scale expansion through aggregating existing capacity, technological renovation and upgrade through incremental capacity investment, and profit creation through management consolidation, implemented the industry reinvention strategy, and raised indus-

trial concentration in a bid to build a new industrial ecosystem, optimize resources allocation, and share the value with enterprises inside the industry and on the industrial chain. In 2012, CNBM continued to uphold the vision of "industry benefits outweighs corporate benefits, whilst corporate benefits originates from industry benefits". We create a favourable environment for the sound development of our peers by advocating an inclusive win-win model, actively practicing the philosophy of "PCP", "sales-driven production, the formation of core profit zones, and enhancing self-regulation of the industry.

### Advocating Healthy Development to the Cement Industry

Song Zhiping, Chairman of CNBM, advocated healthy and sustainable development of the cement industry during the International Cement Summit in 2012, "The industry is big but weak, having problems such as overcapacity, low concentration and cut-throat competition. Large enterprises should take the leading role. They should be confident and set up good examples by limiting the excess, eliminating the backward, changing the mindset of the development and the operation of the industry, developing scientifically, accelerating the transformation of economic development, changing from over competition to moderate competition, altering from competition to cooperation, and changing from emphasising the scale to emphasising efficiency so that a harmonious and healthy market will be built and workers will produce and work happily. Cement enterprises should seek innovation when pursuing growth. They should shoulder social responsibilities and further promote long-term and sustainable development of the industry by conserving energy, reducing emission, being green, low-carbon and environmentally friendly. They should also make due contributions to improve technical skills in global cement industry and enhance international competitiveness.

**Cai Hongbin, Dean of Guanghua School of Management, Peking University**

SOE reforms have been the core of the economic reforms of our country. It is also a huge social practice which involves millions of people. The "Market-oriented Operation of Central SOEs" concept, advocated by Song Zhiping, provides us a comprehensive solution. I believe that the key concepts of "Market-oriented Operation of Central SOEs" will be integral to the theoretical construction of SOE reforms.

### Sharing the Management Philosophy of "Market-oriented Operation of Central SOEs"

We creatively put forth and implemented the "market-oriented operation of central SOEs" model, which means while maintaining the nature of a central state-owned enterprise, we establish a management system and operation mechanism adaptive to the market economy, which makes it possible for central SOEs and those of different ownership systems to co-grow. The public ownership nature of central SOEs determines that they are dominated by the state, while "market-oriented operation" determines operational model and methods based on the rules of the market economy. "Market-oriented operation of central SOEs" has five connotations:

diversified equity structure in the shareholding of central SOEs, standardized governance structure, professional manager system, market-oriented internal mechanism and business operation based on market rules. In 2012, we summarised the experience and achievements we gathered in carrying forward "market-oriented operation of central SOEs" in recent years systematically, and published Market-oriented Operation of Central SOEs, sharing our experiences and achievements to the stakeholders. The book has received wide attention.

# Technological Innovation



Responsibility Management



Market Performance



Technological Innovation



Energy Saving & Environmental Protection



Employee Care



Corporate Citizen



RMB4.97 billion was spent in scientific and technological activities in 2012

**4.97**  
billion

RMB24.84 billion was recorded from sales of new products in 2012

**24.84**  
billion

2,549 valid patents were accumulated in the year 2012

**2,549**

We shoulder the responsibility of innovation for the industry by leveraging our strong research capabilities. We also promote transformation and upgrades to the industry with our foresight, vision and advanced technology. We promote and share our technical information. We are committed to creating a more environmental-friendly, comfortable and intelligent living environment in order to build for a sustainable future.

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## Integration of Technological Resources

### Huang Danhua, Vice Chairman of State-owned Assets Supervision and Administration Commission of the State Council

China Building Materials Academy has managed to leverage the key development opportunity and tapped fully into its resources. It has commenced the integration and opening up of technological resources, the establishment of a scientific research innovative system and mechanism, recruitment and nurturing of talents, industrialisation of scientific research achievements, development of inspection and certification, establishment of corporate culture and other aspects, which has proved to be highly effective. It has contributed to the establishment of the national economy, guided the industry transformation and upgrade and provided the advanced technology for CNBM to grow with stronger international influence.

Dedicated to developing an innovation engine in the industry, and by integrating and optimising technological resources under the Group, we have established a science & tech innovation platform and system centered on China Building Materials Academy ("Building Materials Academy") and become a comprehensive scientific research and development organization of the largest scale and

### Innovative National Platform

In 2012, a cluster of innovative national platforms joined the Group consecutively and CNBM's new tech innovation system which is internationally competitive was thus improved. The Group was officially recognised by the Ministry of Industry and Information Technology and the Ministry of Finance as "China's innovation business model enterprise", becoming one of the two central enterprises to win such an accolade, and was entitled to develop projects in respect of state-owned capital, transformation of major scien-

tific and technological achievement and pilot demonstration of clean industrial production. The national key laboratory on green building materials passed inspection and was highly recognised by the head of the Ministry of Science and Technology of the People's Republic of China and the expert panel of inspection. In addition, the national engineering laboratory of pulp and paper passed the inspection of NDRC. The national key laboratory building on new float glass technology

duly commenced operation. The national key laboratory on green building materials passed inspection and was highly recognised by the head of the Ministry of Science and Technology of the People's Republic of China and the expert panel of inspection. In addition, the national engineering laboratory of pulp and paper passed the inspection of NDRC. The national key laboratory building on new float glass technology



### National model enterprises for technical innovation

National model enterprises for technical innovation are enterprises jointly accredited by the Ministry of Industry and Information Technology and the Ministry of Finance. They are supposed to have strong capacity for technical innovation, to have made remarkable achievements in innovation and to play significant demonstrative and guiding roles in key industries. They should have core competitiveness and leading positions, having the capacity for continuous innovation and continuous investment in R & D, having industry-driving and independent brands, strong profitability and high management level, strong capacity for new technology application and have innovative development strategies and innovative cultures.

The branch of the state-accredited enterprise technology centre of Jushi Group has been approved as the national-level technological centre for enterprises (the sixth one in the Group), which has improved the innovative system structure of technological centres for enterprises of the Group. China Building Materials Academy was approved to construct the national "model base for international science and technological cooperation" in the building industry, which has expanded the functions of the Group's base for international science and technological cooperation as a model, and in terms of coverage and influence. Following the commissioning of "academician workstations", four respectable academicians namely Zuo

Tieyong, Tang Mingshu, Gu Zhen'an and Xu Delong were recruited. These workstations have become important science and technological innovation platforms for resolving common, critical and forward-looking technological dilemmas as well as nurturing caliber personnel. Bengbu Design & Research Institute for Glass Industry (hereafter as Bengbu Institute) took the lead to prepare for the incorporation of the pilot aggregating developments of state silicon-based functional materials. The enterprise has thus become the key enterprise engaged in pilot aggregating developments of emerging industries which are of strategic importance to the State.

6  
6 national enterprise technology centers

2  
2 national key laboratories

7  
7 national quality inspection centers

1  
1 academician workstation

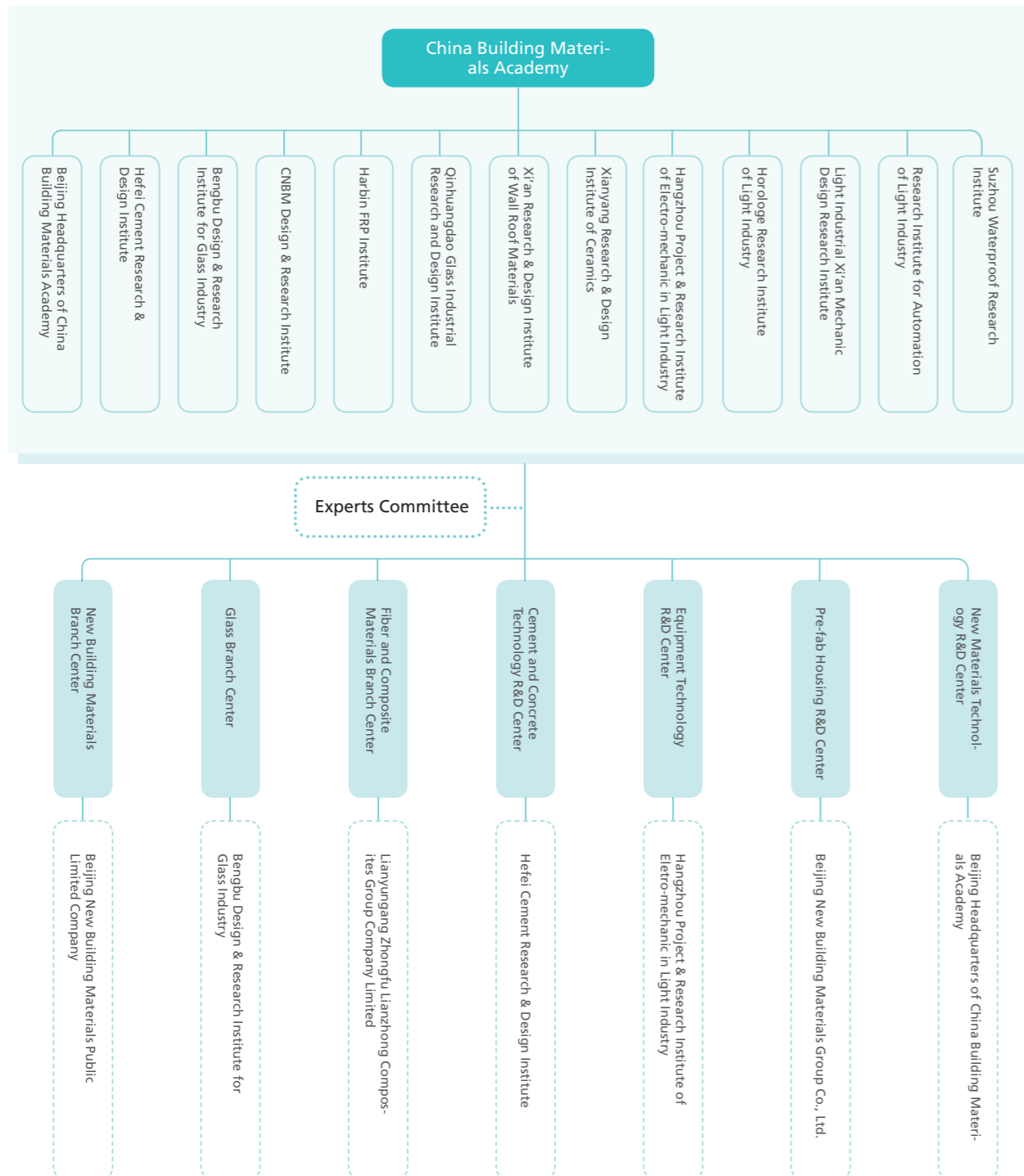
1  
1 center for post-doctoral studies

9  
9 post-doctoral scientific workstations

### National International Science and Technological Cooperation Base

National International Science and Technological Cooperation Base refers to the institutional vehicles which have made significant contribution to the national and international science and technological partnership have as recognized by the Ministry of Science and Technology of the People's Republic of China and its functional institutions. These vehicles include but are not limited to China's science and technological parks, scientific research institutes, colleges and universities, innovative enterprises and science and technological intermediary organizations which serve as role models and exhibit growth potential, ranging from international innovative parks, international joint research centres, international technology transfer centres and role model international science and technological cooperation bases.

## Organizational Chart of CNBM's Scientific Research Platform



## Industrial Service Platform

We actively develop the service platform for building materials, and promote the advancement of the traditional service industry of building materials and cultivation of emerging industries through new technology. We are one of the first batch of enterprises that were approved by the Ministry of Industry and Information Technology to set up quality control and technical assessment laboratories on green building materials, ceramic sanitary wares, and light industry machinery. In 2012, we obtained yet four such laboratories on building

materials for walls, roofs and roads, decoration and renovation materials, glass and watches; Xianyang Research and Design Institute of Ceramics (hereinafter referred to as "Xianyang Institute") was approved as the only "Exemplary Platform for Public Services in National Medium and Small Sized Enterprises" in building materials industry, which facilitates joint development of small- and medium-sized enterprises in the industry.

## Exemplary Platform for Public Services in National Small- and Medium-sized Enterprises

Set up and operated by legal entities, and approved by Ministry of Industry and Information Technology, the exemplary platform for public services in national small- and medium-sized enterprises is an exemplary service platform offering public services in information, technology, starting businesses, training and financing, etc. With outstanding performance, solid credibility and a wide range of services, this platform aims to implement policies and measures of the State Council in advocating the development of small- and medium-sized enterprises, advance the establishment of a public service platform and underpin the sound development of those enterprises.

## Regional Exemplary Platform

Our member enterprises actively build up a regional service platform for technological renovation to contribute to local technological development. Having been recognised as "Key High- and New-Tech Enterprises under National Torch Plan" by the Ministry of Science and Technology, Hefei Institute and CTC have led and set as role models for technological renovation of local enterprises. Four research centres including Anhui Engineering Research Centre for Thin-film Solar Cells, Anhui Engineering Research Centre for New Materials of Glass, Provincial-level Laboratory on New Technology in Float Glass and Technology Transfer Centre (Anhui branch) of China Glass Development Centre of Bengbu Institute have made remarkable progress. These platforms have offered solid technological support for relevant industries such as the local glass industry and PV industry through the establishment of the National Key Laboratory

on New Float Glass Technology and Bengbu Research Institute on Industrial Technology for Silicon Substrate New Materials and the application for the preparation and construction of Guangdong Provincial PV Technology Innovation Platform. Post-doctoral Research Workstation (Provincial-level) of Triumph Heavy Industry Co., Ltd. have been established, offering a local platform and resources for the introduction and cultivation of top talents. "Jushi Research Institute on Glass Fibre of Zhejiang Province" and "Key Laboratory of Glass Fibre of Zhejiang Province" of Jushi Group Co., Ltd. (hereafter referred to as Jushi Group), and "Engineering Research Centre on New-Type Wall and Roof" of Research and Design Institute of Wall Materials of Xi'an (hereafter referred to as Xi'an Wall Materials Institute) passed the inspection successively and will also offer technological services to local materials research.

## Mr. Qiao Longde, President of China Building Materials Federation

Over recent years, taking the initiative to change its way of thinking, China Building Materials Academy has stressed market awareness and played an important role in contributing to the industry as its comprehensive strength was improved through fast and steady development in technological innovation, resource integration and market development. We hope that China Building Materials Academy will continue to contribute to the development of CNBM and technological progress of the building materials industry, and provide a strong underpinning for the joint development of production, learning and research in the building materials industry as well as technological breakthroughs.

## Improvement in Innovation Activities

4.97 billion

The expenditure of scientific and technological activities amounted to RMB4.97 billion in 2012

3.35 billion

The expenditures of research and experimental development amounted to RMB3.35 billion in 2012

13,630

The number of personnel engaged in scientific and technological activities in the Group were nearly 13,630 in 2012

8%

The science and technology personnel of the Group accounted for about 8% of the total number of employees in 2012

### Guarantee of Investment in Scientific Research

Financial support for science and technology is an important guarantee for scientific and technological progress. We attach importance to the investment in science and technology, especially the study of basic theory and cutting-edge technology in materials science. In 2012, the total

expenditure of scientific and technological activities was RMB4.97 billion, representing 5% of product sales revenue, of which the expenditure of corporate research and experimental development was RMB3.35 billion, up 6% over the same period of last year.

### Training Science and Technology Personnel

In 2012, the number of personnel engaged in scientific and technological activities in the Group totaled nearly 13,630, accounting for about 8% of the total number of employees in the Group. As a national innovative and venture base for overseas top talents, we attach great importance to the introduction and selection of senior scientific research talents. As of 2012, we had successfully recruited 39 overseas top talents, three of which were selected in the "Thousand Talents Program".

We continuously deepen talents team building and strengthen the training of young key personnel. In 2012, we established a dynamic database of young key personnel, developed targeted training programs and built a growth platform through the Youth Science Foundation, youth academic speech contests and other methods to create a favourable environment for the rapid growth of young key personnel and to foster a backup team for the "13th Five-Year Plan" and long-term development.



### Improvement in the Innovation Mechanism

We have formulated a number of management systems and methods about scientific and technological achievements, intellectual property, science and technology incentives, technological research projects, science and technology investments and so forth. These efforts have further improved the

technological innovation system and mechanisms of the Group. We have established "Science and Technology Progress Award" and "Technical Innovation Award" within the group and set up a "Technical Center Project of the Group" to give financial support and incentives.

### Establishment of Innovation Alliance

We actively organise and develop exchanges and cooperation with well-known universities and institutes. In 2012, we successively organised and initiated the establishment of three collaborative innovation alliance or innovation centers: initiated the establishment of "Green Transportation Technology Production-study-research Collaborative Innovation Alliance" with Wuhan University of Technology and other famous universities and institutes, initiated the establishment of "China Circular Economic Engineering and Technology Collaborative Innovation Center" together with

Xi'an University of Architecture and Technology, established "Comprehensive Protection for National Critical Projects and Military and Civilian Integration Collaborative Innovation Centers" with PLA University of Science and Technology, developed joint research against common, critical and proactive technological problems which were urgently required to be solved in the development of the building materials industry and provided potent scientific and technological support to the industry and the national science and technology innovation.

### The Industry-University-Institute Collaborative Innovation Union on Green Transportation Technologies



The Industry-University-Institute Collaborative Innovation Union on Green Transportation Technologies was constituted by 21 institutions of higher education, research institutes and industrial enterprises under the guidance of the Ministry of Transport and the Ministry of Education. It meets the need of transformation of the development mode and restructuring of China's transportation industries. It is committed to resolving major basic, perspective and strategic problems in the scientific development of the green transportation system, and focuses on integrated technologies of green shipping on the golden waterway of the Yangtze River, technologies of efficient operation and safety assurance of highway transportation and key technologies of modern intelligence and green shipping. It fully integrates superior resources, employs the mechanism of collaborative innovation, establishes world-class project groups, research teams and national collaborative innovation centers, and aims to achieve major breakthrough in key technical fields.



## Excellent Innovations

55

Committed to 55 national scientific researches in 2012

3

Committed to 3 "863" projects in 2012

2

Committed to 2 "973" projects in 2012

**Niu Yuesheng, Member of the CPPCC National Committee, Member of the Social and Legal Committee, Former Chairman of Supervisory Committee of the Key State-owned Large Enterprise**

CNBM has obtained independent complete intellectual property rights in 10,000 ton clinker production lines. The Group has well mastered the modern production techniques of NSP cement. This is a valuable asset. I hope that CNBM, with the support of national policies, will carry out technical reformation in small-and medium-sized cement companies which consume a large amount of energy and create a great deal of pollution to set an example in technological progress for China's cement industry.

### Scientific Research

We shoulder an important mission for the industry, i.e. research and development of technology. The Group's major projects and technological innovations yielded fruitful results in 2012. Our newly implemented national science and technology projects exceeded 50 items, covering issues such as the national support project under the "Twelfth Five-Year Plan", "973", "863", international science and technology cooperation and military issues. A number of key national projects were also launched, namely major projects about key technological researches and applications of cement and concrete, key technological researches and development of industrial 7MW wind power blades, researches and development of functional building materials for rural areas, and integrated demonstration.

Several breakthroughs were made in a number of key technologies in 2012. Notable achievements were obtained in our applications and transformation of technology. Special cement, new denitrification technology, new concrete processing control, production of energy-saving insulation materials, construction of housing parts have become new points of economic growth.

Phase II of the project of a 10,000 ton production line of Xuzhou China United Cement Co., Ltd. has met its production and quality targets, indicating that the Group has mastered the core technology of NSP cement production lines completely. The

HFCG200 oversized roller press of Hefei Institute has already been installed in cement and mining enterprises. For the first time in domestic cement industry, Hangzhou New Materials Institute has performed desulfurisation and denitrification in flue gas simultaneously.

We have made a breakthrough in a key technology, i.e. offline industrial Low-E glass and constructed the first laboratory to analyse and debug Low-E coated glass. The development of a new anti-dust detection technology for the construction of windows and doors, which our country lacked, has reached an international advanced level.

The large-diameter beryllium reflector with vitrified surface, developed by the China Building Materials Academy, has been successfully used in remote sensing satellite 14. High-power electromagnetic shielding glass and interfering materials have been applied to the "Liaoning" aircraft carrier. Full-size quartz glass samples have reached the optimal level when compared to similar imported glass. A number of technologies developed by the Group have been successfully installed in the "Shenzhou Nine" spacecraft, making outstanding contributions to the defense industry.

Harbin FRP Institute (hereinafter referred to as HFI) has become the first institute which winded pre-formed ceramic fiber nozzle successfully.

152

In 2012, a total of 152 technology awards (provincial level or above) obtained

2,549

As of 2012, a total of 2,549 valid patents accumulated

729

In 2012, 729 patents newly authorised

### Technology Awards

The Group obtained more than 150 scientific and technological awards (provincial level or above) in 2012. The number of declared technological innovations and the number of awards of the

Group has achieved 50% growth for three consecutive years, which significantly motivated the Group's technological innovation activities.

### Patents

The Group's patents increased steadily in 2012. There were 766 new patent applications, 2 international patents and 729 newly authorised patents including 143 patents for invention. A total of 2,549 valid patents were accumulated, including 448 patents for invention. The Group

actively organised and carried out thematic patent analysis for high-performance fibers, cement, ultra-thin glass etc. and completed the Patent Analysis Report for the Carbon Fiber Industry on the national strategic emerging industries, together with the State Intellectual Property Office.

#### Beryllium reflector with vitrified surface



Beryllium reflector with vitrified surface is a lightweight large-diameter mirror with beryllium metal plane and glass surface which is used for the optical system of space remote sensor. The reflector uses beryllium metal for the base, with a glass layer and a coating layer. The beryllium metal base is either structured as plate-like or honeycomb-like. The honeycomb-like base is lighter. This structure makes the mirror strong and rigid, while the weight is reduced. The glass layer is made of special glass which is 0.2-2.5mm thick. Its coefficient of expansion matches with the height of the beryllium metal base. The coating layer is a reflective film with high reflectance coated on the glass layer. The advantages of the reflector are simple structure, light weight, good optical processing performance and stable surface shape, which is suitable for a variety of remote sensing satellite optical system.



### Promoting the Combination of Production and Research

24.84 billion

In 2012, the sales revenue of new products amounted to RMB24.84 billion.

Our positioning of scientific and technological innovation lies in the research of application technology in the field of base materials. We not only emphasise the research and development of critical and prospective technologies with common features of the nation and the industry, but also endeavour to apply and promote the achievements of scientific research and technological development until new products, new technical processes and new materials are developed. We have obtained a number of significant scientific and technological achievements, which have been successfully applied in significant engineering and project construction, e.g. Beijing Olympic Games, World Expo, high-speed rail, the Three Gorges, nuclear power plants, civilian aircraft, national defense, etc., thus making active contributions to structural adjustment and technology upgrading for building materials industry and construction industry and promoting the rapid development of national economy.



**External Commendation: Xu Kuangdi, Vice Chairman of the National Committee of the 10th Chinese People's Political Consultative Conference and Honorary Chairman of the Chinese Academy of Engineering**

High performance fiber, as an important strategic material in the nation, is widely used in the fields of high-end technology and industry. The enterprises must pay attention to the research of high performance carbon fiber, improve the properties as well as the international competitiveness of the products.

### Promoting the Industrialisation of Key Projects

We proactively promote the technology innovation system namely "an enterprise, as the centre and with a market-oriented mind, integrates the production and research and development" and further expedite the transformation of scientific achievements, during which a batch of scientific achievements have been applied in production and achieved remarkable results.

The T700 high-performance carbon fiber produced through dry-jet wet spinning of Zhongfu Shenyong Carbon Fiber Company Limited ("Zhongfu Shenyong") has gone into mass production, and Zhongfu Shenyong has become the sole enterprise in carbon fiber business mastering the SYT45 (equivalent to T700) dry-jet wet spinning with industrial production. The 6000 t/d cement clinker production line of Qingsong in Kezhou, Xinjiang has commenced operation and the open-circuit cement mill for roll squeezer used is developed by Hefei Institute.

The power consumption indicators of the cement mill meet the internationally advanced level, marking the successful application of the cement mill with the largest unit output in the world. Bengbu Institute has constructed the 100-tonnes production line of high strength hollow glass beads, which produced the high performance hollow glass beads successfully. ITO targets have achieved breakthrough, the first batch of products have been tested and used on trial by Wuhu Changxin. With all the data reaching the standards, ITO targets products can replace the imported products and fill in the blanks of high-end field in the nation, triggering the new economic growth point. The Industrialisation Project of Composite Material Featuring Wave Transmission and The Industrialisation Project of EDI Shell of Harbin Glass Institute were listed in the support program for the industrialisation of scientific achievements in Harbin in 2012.

**External commendation: Li Xueyong, Vice Secretary of Jiangsu Provincial Party Committee and the Governor of Jiangsu Province**

The restructuring of CNBM and China Building Materials Academy is a combination of the best resources, which has realised the joint development of research and industry. In addition, the scientific innovation has promoted the transformation and upgrading of enterprises.

### Building the platform for cooperation between the production and research at the Group level



In 2012, we held the meeting on the cooperation between the production and research, during which the institutes and enterprises signed several key production & research cooperation projects and strategic cooperation agreements. The production & research cooperation of the Group is more systematic and comprehensive. Besides sorting out the projects such as special cement including road cement and oil-well cement, concrete admixture, special glass, NOx emissions reduction in cement kiln, development of surrounding fences structure of high-rise commercial housings and the recycling of waste residue, we also obtained approval for a batch of prospective production & research cooperation projects involving the "Three New" industries. The strategic network of the Group covering Northeast, East China, Central China and North China has been shaped. We compile the study materials concerning the production & research cooperation and facilitate the learning and exchange between different business sections. The networking platform of the Group's technology centre not only timely publishes the news of production & research cooperation, the latest scientific achievements and the demand of technology, but also interprets the latest technology policy and development plan of the nation. State Key Laboratory of Green Materials and State Key Laboratory of Float Glass New Technology cooperate on the technology development, achievements transformation and resources sharing in respect of new technology of glass and other fields.

### The Base Construction for "Three New" Industries

We put great efforts in the construction of industrialisation bases and expedite the quick transformation of scientific achievements, so as to promote the development of "Three New" industries of the Group and facilitate the transformation and upgrading of the whole industry.

The construction of production bases and demonstration parks of pre-fab housing make steady progress. Based on the development strategy focusing on integration, bases and parks, we advance the construction projects of production bases and demonstration parks in Beijing, Sichuan, Hainan, Jiangsu and other places, with an aim to cover the regional market and promote the development of green architectures in China. Among which, the plant construction in Qing Bai Jiang Base Phase I has been completed and inspected, and the equipments have started installation and commissioning. The preliminary preparation work for phase I and demonstration parks in Lianyungang and Hainan has been

completed. Mudanjiang Base has entered into the investment agreement with the government and the preparation work for the establishment of company and bidding advances according to procedures.

The national pilot of cluster development for silicon-based function materials industry, led by Bengbu Institute, obtained the approval of National Development and Reform Commission. Bengbu Institute has become the core enterprise in the cluster pilot of strategic new industry. China Glass New Materials Science and Technology Industry Park embodies the success of development of scientific achievements and industry incubation of Bengbu Institute. As the symbolic resources of independent innovation, strong industrial city, development of new industry and business and investment attraction in Bengbu, the park is applying for the national modern industrialised demonstration zone. The constructions including Kaisheng Science Park, Hefei New Energy Base, Sanshui Base and Dalian Base progress steadily.

## Offering Innovative Service

5

In 2012, we presided over and participated in the formulation or amendments of 5 national standards

1

In 2012, we presided over and participated in the formulation or amendments of 1 international standard

### Formulation of Standards

We actively participate in the formulation and amendment of national and industrial standards and contribute to improving the quality and performance of building materials, reducing pollution and safeguarding employees' health. In 2012, we formulated and amended 1 international standard, 5 national standards and 16 industrial standards.

In 2012, ISO13074 Pointer Quartz Clock: Coordinating Size of Movements and Pointers led and drafted by Horological Research Institute of Light

Industry was officially published; three international standards including solar photovoltaic glass inspection and ceramics tubing performance test were established; Xianyang Institute has participated in International Annual Conference on ISO/TC 189 Ceramic Tile, and has been appointed as a member of expert team for drafting Thin Ceramic Tiles and Panels, the international standard, which has significantly heightened our international influence.

### Establishment of Platform for Communication

We attach importance to the communication and exchange of industrial scientific research information and utilise our own influence to regularly organise domestic and international experts to explore the ideas and direction of industrial scientific and technological development, so as to build a platform for enterprises to expand their views and learn and understand international scientific research achievement and to provide help for the sustainable development of building materials industry. We offer assistance to enterprises within the industry through spreading advanced technology developed by ourselves over the industry and providing accurate and effective technological information utilising our rich scientific and research resources for them to seek directions, carry out technological cooperation and sharpen their competitive edge. We fully exercise our advantages in cooperative operation and together with websites and magazines of our industry, facilitate information and technological exchanges through various channels to building material enterprises through establishing databases such as a pool of technological innovative organisations, a database for technological advances and an information enquiry platform.



### Hosting "Production and Application of Special Cement" Training Class, a Research and Educational Project hosted by Ministry of Human Resources and Social Security



In 2012, China Building Materials Academy and Special Cement Branch of China Cement Association co-organised "Production and Application of Special Cement" training class, an advanced research and educational project. Sponsored by Ministry of Human Resources and Social Security and organised by CNBM, the training covers the current situation and trend of special cement development of our country, quality of cement required by high quality concrete, management on the performance of cement using information technology, research and methods on function inspection of special cement as well as the application techniques of special cement including hydraulic engineering cement, road cement, and cement used for nuclear power stations and oil wells, etc. This training has consolidated the professional team in the industry, encouraged technological integration between upstream and downstream in special cement industry, and advanced the development and technological innovation of special cement industry.

### Training for Industrial Technicians

We establish a communication platform and provide the most updated knowledge and skills for technicians in the building materials industry of our country through trainings making use of our scientific and research resources. In 2012, we

have published, prepared and released 8.32 billion words of scientific and technological materials, organised nearly 1,000 classes for technological communication, discussion and training, and trained over 87,170 industrial technicians.

### Offering Inspection and Certification Service

As a support unit for 7 national quality supervision and testing centers, our advanced inspection technology, sound management system and efficient service processes through high quality test and certification services provide quality guarantee for the national key projects, protect the interests of users and consumers and encourage the improvement of product quality and management level of building materials enterprises.

We have established China Building Material Test & Certification Group Co., Ltd. based on nearly three decades of experience in quality inspection and certification and through integration of nearly 20 national and industry level inspection and certification facilities. Adhering to the core concept of "justice based and serve the soci-

ety", we further publicise CTC product certification services covering quality, security, energy-saving, water-saving, environment protection and health, etc. With focus on the field of building materials and construction engineering, we have provided high quality services for major projects, e.g. Beijing-Shanghai high-speed rail, the Three Gorges Project, the Olympic venues, the South-to-North water diversion, etc., and have developed into the largest comprehensive independent third-party test and certification service provider in the field of building materials in China, making contributions to the promotion of quality technological level of building materials and the sound industrial development.

494

494 academic exchange activities were held and organised in 2012

87,170

Industrial technicians taking part in training numbered 87,170 in 2012

## Energy Saving & Environmental Protection



Responsibility Management



Market Performance



Technological Innovation



Energy Saving & Environmental Protection



Employee Care



Corporate Citizen

In 2012, investment in energy saving and environment protection reached: RMB

**1.08**  
billion

In 2012, installed capacity of residual heat power generation was approximately

**1,400**  
MW

In 2012, we treated and reused solid waste of approximately

**97**  
million tonnes

We comprehensively utilise industrial and urban waste resources and manufacture low carbon products with minimal consumption and emissions; we are committed to providing the society with green and environment-friendly building materials with reliable quality and providing product and service support for new energy industry; we are delighted to share effective energy saving technology and management experience, explore the development mode with industry in harmony with nature, and advocate sustainable development of the whole industry and society as a whole.

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## Energy Saving & Environmental Protection Management

### 307

In 2012, 307 of our manufacturing member companies passed the environmental management system certification

### 82

In 2012, 82 of our manufacturing member companies passed the energy management system certification

### 259

In 2012, 259 of our manufacturing member companies carried out clean production audit

### 144

In 2012, 144 of our manufacturing member companies carried out energy audit

### Concepts and Principles

We try to reduce resource and energy consumption in manufacturing process and reduce the emissions of various pollutants to the natural world; continuously expand ways to achieve safe and efficient utilization of industrial waste resources in the building materials industry, and provide service support for efficient and hazard-free disposal of urban wastes; we maintain a clean production environment and protect the ecological environment, to achieve a harmonious coexistence with the nature.

We utilize reliable techniques and production processes to produce and manufacture green and environmental-friendly building materials, promote pre-fab housing system, advocate green consump-

tion of building materials and provide materials to protect energy conservation for buildings; we provide new energy products and services including wind turbine blades and solar PV modules to boost a more extensive and efficient application of clean energy.

We initiatively share low-carbon product manufacturing processes, energy saving technology and management experience, provide detection, diagnosis, and system optimization solutions in respect of energy efficiency and environmental protection, and constantly strive to achieve sustainable development jointly with our industrial partners through our efforts and professional services.

### Management System

We implement category-based management for the Group's member enterprises and have, based on the characteristics of member enterprises, formulated classified objectives and assessment schemes and energy saving and emission reduction strategies, policies, planning and systems. Through the three systems, i.e. measurement and statistics, monitoring and analysis and evaluation and assessment, we promote the continuous improvement of our work.

We strictly implement relevant national laws and regulations and standards, carry out "three simultaneousness" policy for energy saving and environmental protection on fixed assets investment projects and stringently perform environmental impact assessment of new projects, to minimize the impact of our business activities on environment. Through continuous upgrading of production processes and technologies, we are able to ensure that energy consumption and pollutant emission levels meet national standards.

We actively promote standardization management, promote member enterprises to commence the construction of standardization system of environment and energy management and pass relevant certification. We encourage member enterprises to consciously carry out cleaner production audit and energy audit and seek for systematic solutions for technological transformation and management improvement of energy saving and emission reduction.

We support enterprises to use cooperation ways conducive to energy conservation and environmental protection such as energy performance contracting, clean development mechanism, etc., to ensure investment in energy-saving technological transformation. Through the joint efforts of all member enterprises, we achieved the Group's basic objective of creating the resource-saving and environment-friendly enterprises.

### Organization and Team Building

We've set up a leading group responsible for energy saving and emission reduction and established a social responsibility and energy saving and emission reduction office to coordinate, guide, and promote energy saving and emission reduction of our member enterprises. Member enterprises have established energy saving and emission reduction functional organizations of different categories and levels, thus achieving an overall coverage for the Group's energy saving and emission reduction management system.

We attach importance to the construction of energy saving and emission reduction team building.

Our industrial enterprises assigned personnel in charge of energy saving and emission reduction in accordance with relevant national laws and regulations. Management personnel on key positions have obtained professional certificates. We stress on the continuous promotion of the quality of energy saving and emission reduction management personnel and make full use of internal and external educational resources to constantly enrich staff's stock of knowledge on energy saving and emission reduction and improve the management level of energy saving and emission reduction.

### Green Culture

We attach importance to green procurement and prefer low-carbon green products that bring less negative impacts on the environment during the process of production in the procurement process of raw materials. As for selection of energy, we vigorously promote the utilization of low-grade energy, urban waste, biomass energy and other non-fossil energy. As for daily office supplies and other consumables, we choose simply packed and easily recycled products as far as possible.

We advocate green office. All member enterprises have formulated detailed green procurement system of office supplies and specific measures for green office, and included green office performance in their routine monitoring and evaluation system.

We value green innovation, encourage employees to independently carry out technological innovation, organize appraisal and selection of small innovations, renovations, transformations, designs and suggestions on energy saving and environment protection and set up a platform for sharing innovative achievements in respect of energy saving

### 330

In 2012, 330 of our manufacturing member companies set up functional departments for management of energy conservation and emissions reduction

### 1,860

In 2012, our manufacturing member companies had 1,860 administrative staff in charge of energy conservation and emissions reduction work

### 43,381

In 2012, about 43,381 person-times attended training courses on energy saving and emissions reduction

### 3.68 million

In 2012, expenditure on environmental protection commonweal amounted to approximately RMB3.68 million

## Capital Investment and Reduction in Consumption and Emissions

### Emphasis on Investment in Energy Conservation and Environmental Protection

Funding is an important guarantee for the implementation of technological upgrades for energy saving and emissions reduction. We have in recent years strengthened the budget management on investment in energy saving and emissions reduction and incorporated budgeted investment in energy saving and emissions reduction as part of our comprehensive budgeting system. We manages our investment in energy saving and emissions reduction based on categories including expenses for process upgrades, elimination of backward production capacity and technological innovation, operation and maintenance costs of environmental protection facilities, ecological restoration expenditures for natural damage caused by business activities, fees for energy efficiency

**1.08** billion

In 2012, RMB1.08 billion was invested in energy conservation and environmental protection

**30%**

In 2012, more than 30% of the electricity used in production of cement was from cogeneration



testing and energy conservation and emission reduction consulting services, costs for research and development of energy saving equipment and products and technological innovation and management innovation, expenses for staff training and publicity activities, public good spending on energy saving and environmental protection, sewage charges, and litigation damages and fines for environmental pollution or ecological destruction. Our member enterprises set out their own capital use plan for energy saving and emissions reduction and thoroughly implement energy-saving measures and renovation projects according to their annual energy conservation priorities, so as to effectively reduce consumption and emissions.

### Improvement in Energy Efficiency

We strive to improve energy utilization efficiency and level. We actively implement effective technological transformation of energy-saving, with an aim to achieve continuous reduction in consumption and emission levels per unit of products. We eliminate backward production equipment in a timely manner, continuously improve the combustion efficiency through upgrading furnaces and raise power utilization efficiency through promoting energy conservation of motor systems. We strive to reduce use of fossil energy in the production process, and make full use of low-grade energy and renewable energy and achieve comprehensive utilization of coal gangue, sludge, urban wastes and other combustible wastes to replace fossil energy including coal at our production lines.

**100%**

In 2012, our recycling rate of self-produced solid wastes approximated 100%

### Environmental Governance and Emissions Reduction

We attach importance to environmental governance, strictly implement relevant national laws and regulations, policies and standards on environmental protection, and strive to reduce the emissions of wastewater, waste gas and waste residue in the production process. The pollutant monitoring indicators of most member enterprises of the Group are far below national emission limits. We reduce the formation and emissions of pollutants such as SO<sub>2</sub> and NO<sub>x</sub> in waste gas through the procurement of clean energy and increase of oxygen content in combustion systems. The dust in waste gas is effectively reduced through dust removal technologies, e.g. bag type dust removal. We strive to achieve "zero" discharge of wastewater through the construction of sewage treatment and recycling system, with COD and ammonia nitrogen emissions, the national key monitoring indicators, staying at low levels. In 2012, in response to the new environmental standards to be launched by the State, especially more stringent emis-

sion standards for NO<sub>x</sub>, the Group organized its member companies to carry out sewage situation research and, in conjunction with the Group's research platforms and key cement technology institutes, conducted study on approaches, technical roadmap and cost-effectiveness estimates for reducing emissions of NO<sub>x</sub>. In addition, the Group has laid down a program for reducing emissions of NO<sub>x</sub> for the "12th Five-Year Plan" period. As at the end of 2012, about 30 cement clinker manufacturers of the Group commenced the construction of denitration systems, which is expected to achieve denitrification efficiency of 60% upon completion. We attach importance to waste residue management. Through technological innovation and lean management, we are able to reprocess wastes generated in the production process, recovered product packaging and sub-standard products and recycle those reprocessed materials which are tested to be qualified as raw materials, thus basically realizing 100% recycling of self-produced solid wastes.

#### Approaches to reduce NO<sub>x</sub> emissions of cement kilns

Based on the formation mechanism of NO<sub>x</sub> from cement kilns, there are two major technical measures to reduce the NO<sub>x</sub> emissions. One is to control the formation of NO<sub>x</sub> during production process, that is to say to control the formation of NO<sub>x</sub> during calcinations, which could be achieved through (a) use of low-NO<sub>x</sub> burners; (b) staged combustion inside calciners and pipelines, control of combustion temperature; and (c) change of burdening and use of mineralizing agents to reduce clinker burning temperature. The other is to decompose NO<sub>x</sub> formed during production process, that is to say, to control NO<sub>x</sub> content in exhaust gas, which involves (a) staged combustion + selective non-catalytic reduction (SNCR); (b) SNCR; (c) selective catalytic reduction (SCR); (d) SNCR/SCR denitrification technology; (e) biological denitrification technology.

### Noise Control

We pay great attention to noise control and employee protection, monitor and control the impact of production noise on the health of our employees and neighbouring communities in accordance with national noise control standards. We strive to reduce noise hazards through optimizing the

layout of production lines, use of physical isolation, green shielding and occupational protection. Our manufacturing member companies basically achieved a compliance rate of 100% in meeting noise control standards.

**100%**

In 2012, our manufacturing member companies basically achieved a compliance rate of 100% in meeting noise control standards

## Efficient Use of Resources

5.0

In 2012, the fresh water consumption per RMB ten thousand output value was 5.0 tonnes

94.7%

In 2012, the utilization rate of recycled water reached 94.7%

0.33

In 2012, the fresh water consumption per tonne of cement clinker produced was 0.33 tonne

### Cherishing Water Resources

We attach importance to the protection of water resources. The water used in residual heat systems and cooling systems of our manufacturing member companies is recycled. Other water resources for auxiliary processes such as flushing are recycled through the settlement and sewage systems treatment. Over the years, the Group's fresh water usage has been at a low level.

In 2012, the Group's commercial concrete business grew rapidly. According to its production process characteristics, concrete, as a raw

material, will consume some water resources. In response to the new trends of water resources consumption, the Group further improved the statistics of industrial water consumption and took the water consumption per unit of cement products as key monitoring indicators of concrete enterprises in 2012. Enhancing benchmarking with water consumption indicators of advanced enterprises, the Group actively carried out technical exchanges to ensure efficient and rational use of water resources.

#### All-round implementation of water recycling

BNBM promotes the recycling of condensate water and cooling water. Condensate water used for dryers and thermal steam systems, cooling water for hammer crushers, ball mills, Roots blower and other equipment, and replacement water from sodium ion exchangers and other process wastewater are collected through the integrated pipe systems and reused for desulfurization systems and electrostatic precipitators ash discharge systems. Thus, the fresh water consumption of our plants has been effectively reduced and water recycling rate has been improved, thereby reducing wastage of water resources and waste water emissions.



### Reuse of Waste Heat Resources

We actively promote the construction of power generation systems that use waste heat from cement and glass furnaces to generate power. We have constructed cogeneration systems at our qualified cement and glass production lines to recycle and convert the waste heat produced during production into electricity for production use, which reduces the amount of our purchased electricity. Cement manufacturers newly incorporated into our Group have actively carried out technical verifications and developed plans for the construction and coverage of waste-heat systems, constantly improving their scale and capacity of waste heat utilization.

In 2012, in order to further improve the efficiency of the cogeneration systems and the proportion of power generation by using waste heat in the aggregate amount of power consumed in production, we have strengthened our monitoring and assessment of the operation of cogeneration systems. Through the benchmarking management, we have strengthened the management of cogeneration systems so as to maximize the efficiency.

1,400

In 2012, the installed capacity of our waste-heat power generation systems, completed or under construction, amounted to approximately 1,400MW

84%

In 2012, the coverage rate of waste-heat power generation systems of our cement clinker production lines was 84%

97 million

In 2012, the Group consumed approximately 97 million tonnes of industrial by-products and solid wastes

**Mr. Zhang Junjiu, Member of the CPPCC Standing Committee, Deputy Chief of Committee for Social and Legal Affairs of the CPPCC National Committee, and former Vice Chairman, First Secretary of the Secretariat and Party Secretary of All-China Federation of Trade Unions**

"CNBM vigorously promoted the construction of cogeneration systems which have generated more than one third of the electricity it used for production, saving a lot of coal resources and consuming a large volume of coal ash and other industrial wastes in cement production process. CNBM has done an amazing job to contribute to the State's energy saving, emissions reduction and recycling economy."

### Efficient and Harmless Disposal of Municipal and Industrial Wastes

We make full use of our edges over techniques to recycle industrial waste resources. Under the precondition of guaranteeing quality and safety, we continuously increase the proportion of industrial waste resources used as raw materials, enhance the consumption and utilisation of disulphuric gypsum, slag and steel slag, and assist other industries in reducing environmental impacts. In 2012, the Group's cement and light weight board manufacturing sectors consumed approximately 97 million tonnes of industrial by-products and solid wastes such as desulphuric gypsum, slag, steel slag and fly ash.

We adopted the technology of using cement kiln to dispose municipal waste, sludge and contaminated soil. The cement manufacturers within the Group actively participate in resources analysis and technical verification, and explore effective operating mechanism and operational mode by carrying forward pilot projects, contributing to increasing effective disposals of municipal waste and sludge and reducing the land resources waste and environmental pollution.

#### BNBM was honored the "Technology Center for Comprehensive Utilization of Industrial By-product Gypsum as Resources"

BNBM vigorously develops recycling economy, and by using industrial wastes as main raw materials, implementing green practices throughout the whole process from raw materials to production and use. Thanks to its constant efforts in enhancing energy conservation and emissions reduction through technical innovation, BNBM was approved by the National Development and Reform Commission of the PRC as one of the first batch of demonstration enterprises for comprehensive utilization of resources, the only one demonstration enterprise from the building materials industry. China Association of Resources Comprehensive Utilization recognized BNBM's outstanding achievements in comprehensive utilization of industrial by-product gypsum, energy saving and consumption reducing as well as environmental protection, and honoured BNBM as the Technology Center for Comprehensive Utilization of Industrial By-product Gypsum as Resources. In addition, the research project of "technologies for producing plasterboard with fully-desulfurized gypsum and its commercialisation" applied for by BNBM received first prize in the Science and Technology Awards of China Association of Resource Comprehensive Utilization.

## Ecological Protection

6

Six national-level green mines

17%

Average greening rate of our plant areas reached 17% in 2012

We strive to explore an effective mode for the industry to coexist with the nature and the society harmoniously. We conduct strict verification for site selection and layout planning of our plants and protect natural habitats, wet lands, forests, wildlife corridors and agricultural lands during the process of engineering and project construction, aspiring to minimize the adverse impact of our activities on the environment and communities in the surrounding areas. In our course of business, we pay great attention to the greening of plants and neighbouring areas, endeavouring for a natural blend of the industry with its surrounding ecological environment.

We emphasize efforts in creating green mines. In respect of mine production and development, we adopt top-down bench mining approaches combining open-pit mining, road development, lateral stripping and bench mining so as to prevent geological disasters at the mining areas. In respect of production blasting, multi-row hole and millisecond blasting method is adopted to reduce the waste of resources and environmental pollution caused by blasting vibration. In respect of ore crushing and transportation, ores are usually transported by conveyer belts connecting the pits and the plant areas. These conveyer belts are enclosed, thus avoiding fugitive dust caused by vehicles transport and reducing energy consumption as well lessening the impact on the surrounding living environment.



## Coping with Climate Changes

The cement industry is the second largest source of carbon dioxide emission in the PRC. With climate warming and environment worsening, the discharge and emission reduction of greenhouse gases, especially carbon dioxide, has become a persistent public concern. The enhancement of carbon management levels in the cement industry will forcefully drive carbon emission reduction nationwide and even worldwide. CNBM, as the largest building materials conglomerate in China, has actively been promoting energy saving in technology, management and culture all the time and committed itself to cutting carbon dioxide emission and lowering its impact on the environment by way of substitution of raw materials and reduction of energy consumption, thus providing a management support for the accounting and reduction of carbon emission through tamping down its management foundation.

During 2012, we focused on prompting our member companies to strengthen carbon dioxide statistics and monitoring; pushed forward and organized feasibility studies on the scope and items of carbon dioxide

emission accounting; and introduced certification of low-carbon cement products among member companies through pilot programs.

While proactively pressing ahead with carbon emission reduction, we were also devoted to studies of the carbon management system for the cement industry, involving ourselves in the formulation of carbon accounting standards, certification standards for low-carbon cement products, preparation and modification of other carbon management standards documents, and contributing to the improvement of carbon management levels of the whole industry.

The cement companies within the Group actively sought renovation of low-carbon technologies, lowered the costs of technical renovation and obtained capital assistance by way of energy performance contracting, carbon trade and etc. As at the end of 2012, the Group had 25 CDM projects approved, with an annual capacity for carbon dioxide emission reduction of approximately 2,760,000 tonnes.

### Formulating the Methods for Calculating Carbon Dioxide Emissions of Cement Producers



In 2012, China Building Materials Academy formulated through studies the standard on Methods for Calculating Carbon Emissions in Cement Production, thus providing significant basic data and technical support to the preparation of the emission list of greenhouse gases of the cement industry, establishment of the national low carbon certification system, accurate calculation, inspection and emission reduction of carbon dioxide of cement producers. This is of critical importance to the reduction of greenhouse gas emissions during the process of producing, using, packaging, transporting and handling of cement, advancement of the construction of a low-carbon economy, accession to the global carbon trade market, avoidance of technical trade barriers, and the boost of competitive advantages of cement producers in China, and leading the cement industry onto a path for low-carbon, environment-friendly and sustainable growth. It also marked an all-round kickoff of the cement sector's transformation to green development from the original pattern of high energy consumption and high emission. Based on the Methods for Calculating Carbon Dioxide Emissions in Cement Production, China Building Materials Academy and the Environmental Development Center under the Ministry of Environmental Protection jointly formulated the first national standards for low-carbon products -- Technical Requirement for Environmental Labeling Products -- Cement, which came into force on 1 October 2012.

25

25 CDM projects were approved in 2012

2.76 million

The annual capacity for carbon emission reduction of the approved CDM projects in 2012 was approximately 2.76 million tonnes.



## Supplying Green Products

# 64%

The proportion of sales of bulk cement products reached 64% in 2012

### Adhering to Green Manufacturing

We adhere to green manufacturing. We are dedicated to the goal of nil pollution to the environment and no harm towards people's health during the production and use of our products, with energy consumption lower than traditional building materials. In addition, we use raw materials mainly from industrial byproducts and urban waste resources instead of natural materials as long as practicable, and our products are recyclable for further use after life cycles. Most of our manufacturers have passed the quality system certification, and the majority have passed the environment management system certification, which ensures the quality of our products and low-carbon and environmental protection during the production and use processes.

### Promoting Green Packaging

We dedicate ourselves to promoting green packaging for basic building materials in bulk, and insist on promoting bulk packaging for cement products and bare packaging for glass products; we seek to simplify product packaging and use recyclable packing materials, reducing package waste while ensuring the quality of products.

### Advocating Green Consumption

We advocate green consumption, and provide our clients with green building materials products, which has reduced the impact from use of our products on the environment with our efforts. As to basic building materials, we focus on adjustment of the product mix, actively develop the cement industry to produce high-grade, specialized, ready-mixed and commercialized cement, and provide clients with green low-carbon cement products featuring high quality and added value. We lead the glass sector to grow in an energy-saving and high value-added manner to manufacture "high-end, LOW-E, ultra-thin and high-performance" glass,



with a focus on LOW-E glass, in order to enhance the functionality of building glass products and offer support to architectural energy conservation. As to new building materials, We've studied and developed full-life-cycle low-carbon and environment-friendly building materials to set up an intelligent building materials system, including the wall and suspended ceiling system, the architectural energy conservation and environmental protection system, as well as exterior building envelope system. Most of our products have acquired China Environmental Labeling Scheme certification.

Changshan South Cement Company Limited became one of the first demonstration enterprises for certification of low-carbon cement products



In 2012, the government issued and implemented the standard of the Technical Requirement for Environmental Labeling Products – Cement (HJ2519-2012), to conduct certification of environmental labeling low-carbon products in the cement industry, which has effectively steered the domestic cement industry to develop in a low-carbon, low energy consumption, low pollution and sustainable way, and without detriment to human health. Changshan South Cement Company Limited became one of the first 15 demonstration enterprises for certification of low-carbon cement products. The certification of the first batch of cement enterprises played an exemplary role in the sector. Through products certification, consumers can go green shopping conveniently; whereas the choice of consumers and market competition can prompt enterprises to adjust the industrial structure, adopt clean production technologies and manufacture pro-environment low-carbon products.

We actively research and develop and promote pre-fab housing products and aspire to provide the construction industry and residents with systematic construction product solutions and building schemes. Through years of exploration and development, we have gradually established our proprietary intellectual property rights and core competence. Through an industrialized operation mode featuring industrial design, production, and field-assembly, the energy and time consumption during housing construction has been reduced. The building products integrate the environmental protection and energy conservation products in the green construction material

system, which presents no harm to the environment and human body and lowers energy consumption. The design of houses is scientific and reasonable, occupies less land and features higher space utilisation. The houses so constructed are extremely safe and enjoy long service life. Even after the life cycle, about 90% of the materials can be recycled. Combined with the application of solar thermal and photovoltaic, ground source heat pump, rain water collection, eco-roof, automatic sewage purification devices and other new energy and ecological regulating systems, the housing can reach the standard of 90% energy-saving.

### Lightweight combined mobile house



BNBM successfully completed its first lightweight combined mobile house product in its Suzhou base, which is a pre-fab housing product developed on the basis of features of overseas modularized architecture and combining BNBM's advantages in material and technology. With the "2x4" lightweight wood frame system introduced from Canada, it integrates the exterior building envelope system decorated with fiber-cement wall boards, "Dragon"-branded gypsum board interior decorative wall system, "Dragon"-branded rock wool energy-saving insulation system, "Dragon"-branded energy-saving door and window system, and other products of BNBM. This gives combined mobile houses more advantages in terms of thermal insulation, sound insulation, moisture-proof, flame-proof and energy conservation, and is in line with the relevant standards of the Ministry of Housing and Urban-Rural Development on "green building". Such houses bring comfort and pleasure to its inhabitants and boast a useful life of over fifth years. Combined mobile houses, with their brand-new manufacture and design ideas, break away with the construction technology of traditional buildings and provide a new house construction style. With such products conveying a green, healthy and environment-friendly residential philosophy, BNBM has advocated the development of green energy-saving buildings and eco-friendly houses.

### Supporting the Development of the New Energy Industry

Developing clean energy is one of the effective ways to reduce the use of fossil energy and the emission of greenhouse gas. Currently, wind energy and solar energy are the clean energy extensively in use. We research and manufacture new energy materials and energy utilisation technology and product system, in order to provide high quality products and technology support in large scale for the new energy industry development.

We provide high-quality megawatt-class wind turbine blades for the wind power industry. China Composites Group Corporation Limited ("China Composites"), a member enterprise of the Group, and the biggest domestic and the third largest global manufacturer of megawatt-class wind turbine blades, is exclusively engaged in the design, development, production and sales of megawatt-class wind turbine blades. It has the fullest set of megawatt-class blade products in China, including various onshore and offshore blade products, and owns a national blade testing centre and overseas research and development subsidiaries, with powerful strength in terms of research and development, and technology.

We spare no efforts in the thin film solar cell industry chain integrating scientific research and development, equipment manufacturing, product sales and application as a whole. Bengbu Design & Research Institute for Glass Industry (Bengbu Institute), a subsidiary of the Group, dedicates itself to



the research and development and manufacture of thin film solar cell modules. We proactively expand the scope of applications of thin-film solar cells, and provide technical support and product assurance to the solar industry.

#### Li Xueyong, Deputy Secretary of the Provincial Party Committee and Governor of Jiangsu

"Against the odds of all-round challenges in the domestic wind power industry, Zhongfu Lianzhong still managed to realize export of its blades, which fully demonstrated its leading position and strength in the sector. The right thinking on development, rapid growth speed, constantly upgrading product-related technologies and materials, and rising competitiveness all point to the direction of its transformation and upgrade; Zhongfu Lianzhong is expected to achieve more and better performances ahead."



The blade testing center of Lianyungang Zhongfu Lianzhong Composite Material Group Company Limited ("Zhongfu Lianzhong") successfully passed the static loading test on its 62-metre 5-MW blades by Germanischer Lloyd (GL). As a world-renowned classification society, GL is famous worldwide for certification of the quality and safety of wind power generation equipment in the field of wind power generation certification. Its wind power division, GL Wind, is a universally recognized authoritative testing and certification agency. At present, over half of the world's large wind power projects are certified by GL Wind, which has developed and issued the most complete system of certification rules and procedures in the world. According to GL, the blade testing center of Zhongfu Lianzhong is the indoor testing center which tests the most full-size blades with the most stable loading in China.

### Providing Green Services

#### Promoting Energy-saving and Environmental-friendly Technologies and Equipments

We capitalize on the advantages of technology innovation, strictly adhere to the main trend of low-carbon economic development and commit ourselves to independent innovation and serving the community, with a view to enhancing energy efficiency and environmental protection standards of the building materials industry. We actively carry out research and development of energy-saving and environmental-friendly equip-

ments and products, whilst providing production techniques and technologies which are highly effective and environmental-friendly. Those efficient and environmental-friendly technologies, including the residue heat power generation, desulfurisation and denitration, full-oxygen combustion and integrated utilisation technology of solid waste are extensively in use.

#### Providing Energy-saving and Environmental-friendly Testing, Inspection, Certification and Evaluation Services

We set foot in the field of building materials and construction engineering. Leveraging on our testing and certification resources, we prioritize green and low-carbon as well as energy saving and environmental friendly practices when providing professional, large-scale and international services. We provide services including testing and inspection of the energy-saving functions of buildings, and integrated testing and certification of solar architecture, initiate the research of

evaluation system in respect of green building materials, ecological building materials, environment-friendly and healthy building materials and provide testing, inspection and certification services. We guide low-carbon production development of building materials by developing green building materials selection techniques, and engage in ecological city construction by enhancing the monitoring of architectural energy efficiency.



The first domestic glassworks denitration project was accepted through environmental impact assessment and commenced operation

The first domestic glassworks denitration project undertaken by CTIEC Shenzhen Scieno-tech Engineering Company Limited ("Shenzhen Triumph") was accepted through environmental impact assessment and commenced operation. Adopting a variety of new technologies on energy saving and emission reduction, this project broke two domestic records in respect of highest operating temperature (400°C) for high-temperature electric dust collectors and highest operating temperature (400°C) for SCR denitration, which attained the international advanced level of similar projects, and filled in the blank of denitration technology of the Chinese glass industry.

## Employee Care



Responsibility Management



Market Performance



Technological Innovation



Energy Saving & Environmental Protection



Employee Care



Corporate Citizen

Total number of employees at the end of 2012 reached about

165,562

In 2012, we invested in occupational health and safety around RMB

303.24 million

In 2012, our employees attended trainings of approximately

630,277 person-times

We make every effort to safeguard the rights of our employees, respect their differences and make the Company a reliable partner and a happy and comfortable home to them. We try to build a sustainable and better future together with all our employees and deliver happiness in the society.

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## Employee Care

### Protecting Employees' Rights and Interests

165,652

At the end of 2012, the total number of employees reached about 165,652

14%

In 2012, the proportion of female managers was about 14%

1,620

In 2012, the number of disabled employees was 1,620

1.3:1

In 2012, the ratio of salary of male employees to that of female employees was 1.3:1

96%

In 2012, our coverage rate of labor contracts was approximately 96%

92%

In 2012, our social insurance coverage rate was approximately 92%

8.5

In 2012, the number of annual per capita paid vacation was approximately 8.5 days

202.08 million

In 2012, we invested approximately RMB 202.08 million in training

We respect and support the international covenants on human rights and labor standards. We prohibit and reject the use of child labor in any form.

We adhere to equal employment, respect and equally treat employees of different nationalities, ethnics, genders, ages, religions and cultural backgrounds. Employees are recruited and employed in an open, fair and impartial manner. Part-time employees, day laborers, and the workers of our contractors are equally treated, and their legitimate rights and interests are well protected.

Forced labor and discrimination are strictly forbidden. A mechanism for protecting the basic information and personal privacy of employees has been established. Employees are guaranteed with a decent working environment of freedom, fairness safety and dignity.

### Employee Incentives

We have established a scientific evaluation system and formed an incentive mechanism that dynamically integrated with the remuneration system, pegging the employees' personal qualities, work performance, contributions to the company and their development potential directly to remuneration and promotion as well as the enterprise's development, and bonding the employees' development to the enterprise's growth. We set two career paths for employees' promotion, lead-

### Employee Training

We spare no efforts in the construction of learning groups. We aim to build a multi-channel, multi-form, multi-level and differentiated employee cultivating and training platform, having fully taking account of the objectives of promoting employees' occupational abilities and overall qualities as a whole and building salubrious

In strict compliance with the Labor Contract Law and relevant laws and regulations, we sign labor contracts with our employees and standardize the labor contract management. The collective contracts signed with employees through labor unions include terms such as labor employment, labor compensation, working hours, rest and leave, labor safety and health, social insurance and welfare and special protection for female employees.

We pay our employees basic pension insurance, basic medical insurance, unemployment insurance, work injury insurance, maternity insurance and other social insurances in accordance with laws. We encourage our member companies to purchase accident comprehensive insurance and other supplementary insurances for employees in line with their actual conditions.

We insist on equal pay for equal work, adopt a paid leave system and carry forward the corporate pension scheme, in a bid to provide a complete remuneration and welfare security system.

ing to management positions and professional positions respectively, through which we manage to meet the development needs of different kinds of talents. Grounded on the mechanism of intra-group communication and on-position learning for employees, we effectively allocate the human resources within the Group, and provide a broad platform for the employees to develop their careers.

and harmonious corporate culture which values mutual growth with employees. Following the training approach "based on internal training and supplemented by external training", we share the education resources, aspiring to build a comprehensive training system for the Group.

80%

The staff unionisation level was around 80% in 2012

83%

83% of the proposals of the Workers' Congress in 2012 were handled and settled

### Implementing Democratic Management

We keep widening our trade union network in response to the government's calls for establishing trade unions and implementing collective salary negotiation on a larger scale. We have set up and improved the trade union organizations and work organizations at all levels and required that newly established enterprises and the enterprises newly affiliated to the Group should set up and improve trade unions to boost unionisation levels and to make trade unions more inclusive and cohesive.

We implement the Workers' Congress system, through which employees participate in corporate management, express legitimate appeals and defend their own rights and interests. At the member companies of the Group, major decisions and matters concerning the interests of employees shall be deliberated at the Workers' Congress before implementation. The chairman of trade union is involved in the highest-level decision making as worker director. Mainly through the Workers' Congress, the member companies pursue democratic management and push ahead with the establishment of a managerial regime featuring democratic participation, management and supervision.

We consistently promote dialogues and collective bargaining and encourage the employees to deal with the issues of their concern through collective

bargaining, thereby fully protecting their rights and interests.

We have set up channels through which the employees could freely send their suggestions to the senior management. The leadership of trade union visits grass-roots organisations, attends the Workers' Congress and inspects how the democratic management at the trade unions of member companies is implemented and how workers' rights and interests are preserved. Through the trade unions, we collect proposals and reasonable recommendations from the staff, drawing on the talent and wisdom to sustain the growth of enterprises.

Under the State's requirements for the disclosure of corporate affairs, we continuously consolidate, deepen and perfect the disclosure mechanism of corporate affairs and set the hot, tough and key issues of concern to the employees as the priorities in disclosure of corporate affairs, so as to expand their rights to participation, information and supervision. We share the corporate operation information with the employees through channels such as the disclosure board of corporate affairs, employee discussion meetings, manager's mailbox and the Company's website.

### Zhang Xianghong, deputy director of Mass Work Bureau of SASAC

"CNBM has been conducting an "excellence-oriented" campaign and delivered good results in recent years. The democratic management at the trade unions is well implemented and the Working Skills Contests and Technical Innovations by workers fare well. The Group's work on building up spiritual civilisation and corporate culture is fruitful and party-masses work is taking the lead among central SOEs, which has effectively contributed to the reform and development of the enterprise."



## Safety and Occupational Health

0

Fatal accident in 2012 was Zero

2.35‰

In 2012, the recordable injuries incident rate per one thousand people was 2.35‰

### Improving the Management System

We set up the organizations for safe production in the principles of compliance with law, comprehensive coverage and practicality. All key production safety enterprises within the Group employ full-time production safety management personnel. The managers in charge would be the primary persons responsible for safety in the workplace and take charge of safe production matters.

We have formulated and complied with an occupational health and safety management system based on Safe Production Accountability System, which set standards for day-to-day safe production management, including production safety checks, statistics and accident reporting, archive building, safety training, penalty for safety violations. We also have introduced special regulations and work guidelines for managing occupational health, major hazard sources, overseas projects and non-coal mines etc.

We have employed information technology for the purpose of safe production. The safety management information system independently developed by us has been conferred the 1st Prize of Modern and Innovative Management Achievement in the National Building Materials Industry and the 2nd Prize of the National Awards for Innovative and Modern Corporate Management. This system has also been included as one of the "Integration of Informationisation and Industrialisation" key projects by the Ministry of Industry and Information Technology. In 2012, we furthered our efforts to deploy information technology for safe production. In the efforts to standardize safety procedures, we have focused on the integration of information technology and developed an information system for safety standardization assessment for cement plants. The efficiency and level of safety management are enhanced by the use of information technology.

### Ensuring Investment in Safety

We give importance to the financial investment in safety and occupational health in order to improve and maintain the safety equipment and facilities, organize training in safety procedures,

raise safety awareness and foster safety culture. In 2012, the Group spent RMB303.24 million on safety and occupational health.

303.24 million

Around RMB303.24 million was spent on safety and occupational health in 2012



### Giving Importance to Safety Training

We attach great importance to building up a safety management team. We attempt to foster the sense of responsibility and awareness of safety procedures in the workplace. The exceptional expertise and professionalism of whom contribute enormously to the health and safety of the Group's workforce. We have formulated and followed CNBM Safety Training Rules in order to

popularise safety knowledge and enforce safety procedures. Our safety training is wide-ranging, covering orientation, on-the-job and vocational training, in-house and external training, comprehensive and specialty training, theoretical and practical training, training for company staff and suppliers' staff.

#### Building a national-level training base for safety in production in building materials industry



In order to leverage the Group's R&D platform and to provide infrastructure to improve the level of safety training in the building materials industry, the Group pushed ahead with the construction of a national-level building materials industry training base for safety in production in 2012, under the guidance of State Administration of Work Safety. Once completed, the base would provide a safety educational platform for more structured, comprehensive and proper safety training and would substantially raise the level of safety training.

### Promoting Safety Culture

The core of safety culture is the idea of "people first and life foremost". Forging safety culture lies in combining the understanding and respect for life with every corporate activity. Our employees are encouraged to voice any concerns and put forward suggestions to improve safety manage-

ment standards. Safety awareness campaigns like "Safe Production Month" and "Safe Production Year" are effectively organized. These activities, which drew broad employee participation and received positive feedback, have enhanced employees' safety awareness.

#### Safety-themed essay contest and photo contest



In 2012, we launched a "Safe Production Month" campaign in the Group. Safety-themed essay contests and photo contests were organized to showcase the results of safety production and promote safety culture. In this campaign, 142 essays and 151 photos were submitted and 110 works were conferred awards. Mr. Song Zhiping, chairman of the Group, wrote "Safe production is paramount" for the inscription of the compilation of the award-winning works. This campaign has contributed a lot to the safety culture in the Group.

156

156 of our safety management personnel had the qualification of Certified Safety Engineer in 2012

138,888

138,888 person-times of staff training in occupational health and safety in 2012

## Sun Huashan, vice director of State Administration of Work Safety

"As a central SOE and a pioneering enterprise in China's building materials industry, CNBM has set a good example in production safety, as it does an effective job in setting standardized safety procedures and participates in the drafting of safety standards for multiple industries like cement, glass and gypsum boards. It also propels itself to meet relevant standards and has achieved good results. CNBM helps to improve the safety standards in the building materials industry and sets a good example in the safety procedure standardization drive for China's manufacturing and trade enterprises."

## Promoting Safety Management Procedures Standardisation

We have been advocating the implementation of standardized management for production safety. As a state-level pilot enterprise for production safety standardization, we embarked on standardization work across the Group.

We actively undertake the work of preparing safety standards for the building materials industry which are assigned by State Administration of Work Safety. By the end of 2012, the Group has completed 8 AQ projects including Terms of Production Safety in the Building Materials Industry, Safety Procedures for Gypsum Board Manufacturers and Safety Procedures for New Type Dry-Process Cement Manufacturers and has also undertaken the preparation of 4 sets of evaluation standards for standardization including the Evaluation Standards for Standardized Safety

Procedures for Gypsum Boards and the Evaluation Standards for Standardized Safety Procedures for Refractory Materials Producers.

We have been pushing ahead with standardizing the safety procedures for the Group's cement producers by improving the safety management system, beefing up managerial expertise and boosting results. In 2012, 57 cement enterprises within the Group passed Grade-1 on-site review for standardization. Also, the Group's manufacturers of glass, gypsum boards, equipment, refractory materials have also taken the initiative to meet relevant standards, of which, the gypsum boards segment has set the target of reaching Grade-2 standards (highest in the industry) overall and 16 companies have passed on-site inspections.

## Setting Great Store by Occupational Health

We have installed and optimised supporting facilities for dust prevention, gas defense, noise reduction and emergency alerts as well as first-aid equipment in the production place, based on our in-depth study and analysis on the features of building materials production. For the purpose of labour protection, we offer labour protection articles like overalls, helmets, protective footwear, gloves, noise-proof ear covers and anti-dust masks, which are put in place and replaced in a timely manner to ensure their efficacy. It's an established practice to organize employees to take health examinations. Furthermore, we arrange extra health checks for staff in jobs with exposure to dust or radiation. We maintain and keep monitoring the health records for employees. We set up a corporate occupational health manage-

ment system and implement occupational health system certification (OHSAS18000). We also stress the importance of training in occupational health to raise the awareness among the staff of protecting against health hazards and to impart knowledge of protecting against occupational hazards to the staff. Regular training sessions and assessments are carried out. We explore ways to put in place a mental health management system for employees and gradually incorporate mental health into the occupational health management. We encourage the member companies to set up mental health consultancies or to cooperate with mental health institutions to build health record archives and pay attention to the mental health and relevant changes of our employees.



## Management of Hazardous Chemicals

We combine the management of hazardous chemicals with major hazardous installations management and also have set up a system of procedures and evaluation for identifying, recording and managing hazardous chemicals. The management and control of hazardous chemicals is strengthened by our scientific identification standards, systemic eradication of hidden dangers, computerized recording and monitoring and managed emergency response. We endeavour to minimise the damage of hazardous chemicals to employees' occupational health and the environment.

## Improving Emergency Management System

We continue to improve the emergency management system. In the system that covers all layers of the Group, the Group's emergency management team takes the general charge, while the emergency management teams of the member companies would be responsible for specific measures. We have established a comprehensive emergency response plan, supplemented by special emergency response plans and on-site response schemes. We formulated standards for emergency response plans and also assess and

file these plans. We organize member companies to take emergency response drills and check the reserves of supplies for emergency regularly. We also give on-site instruction on emergency response work. We emphasize training in knowledge about emergency response and make it an important part of occupational health training and cover all employees. The ongoing improvement to our emergency response system has laid a solid foundation for the Group's proper handling of emergencies.

0

Accident caused by hazardous chemicals which caused damage to occupational health in 2012 was zero.

### Emergency rescue drills at various levels for multiple scenarios

In 2012, in cooperation with Jiangning district government of Nanjing city, Nanjing China United Cement Co., Ltd held an emergency rescue drill under the scenario of landslides in mines. Zhongfu Shenying Carbon Fiber Co., Ltd had a drill under the scenario of a fire involving acrylonitrile, going through all procedures from accident alarming, on-site rescue command, evacuation and first-aid for the wounded. In cooperation with Fuyang municipal government, Fuyang Shanya South Cement Company Limited successfully had an emergency response drill under the scenario of dust explosion. These drills for various emergency scenarios across the companies with the Group have enabled the Group to gain rich experience and improve emergency rescue capability.

93%

Around 93% of staff had occupational diseases examinations in 2012

3

3 new cases of occupational disease in 2012

186

186 member companies set up mental health management systems for employees in 2012

### Creating Happy Life for Employees

57.87 million

RMB57.87 million was spent to help and reward special group of employees in 2012

6,495

6,495 person-times of special group of employees received help and rewards in 2012

#### Helping Employees in Need

We continuously improve the employee support and relief system, and help employees by various ways to overcome difficulties met in their life. We do practical things, solve tricky problems and do good deeds for employees in difficulty, and make such actions regular, institutionalized and standardized. We create, maintain and improve the records of poorest employees to keep track of the practical situation of poor households and give them timely assistance through many channels and in various forms. We help employees suffering serious and severe illness by setting up a mutual

fund for combating serious illness; we help the employees' children in need to finish school with the "Golden-autumn Grant-in aid" program; we implement the "Sunny Employment Project" and give assistance to the "households with nobody working" to help the employees' children in need to complete education and find jobs and help their laid off family members to find new jobs; we stick to the system of visiting in winter and the two major festivals, groups in need, mainly including childless and widowed elderly people, families of martyrs and poor retired employees.

#### Caring about Special Group of Employees

We care for the health and life of female employees, value their professional growth and treat them equally with male counterparts in salary, management position, professional training and vocational development opportunities. We buy maternity insurance for female employees and implement flextime for female employees in maternity and lactation. Events like "Luncheons for mothers-to-be" are organised to serve as platform for female employees to share ideas.

We are concerned about the work, life and mental needs of young employees. We bring together young people through the communist youth league and provide a platform for them to demonstrate their talent and exchange ideas. We give parties for young

single employees to create opportunity for romance and organise group weddings to send the best wishes from the Group.

We care for the work and life of expatriates, especially those who are permanently stationed abroad or in the communities of minority ethnic groups, offer regular home leave, hold special after-work activities and provide mental health counselling so as to relieve their pressure and add to their happiness.

We also pay close attention to the work environment and life quality of disabled employees and provide them with a convenient work environment and necessary amenities.

#### Enriching the Life of Staff

In an effort to make the Company a reliable partner and a happy and comfortable home of the staff, we establish gymnasiums, recreation rooms, reading rooms and psychological counselling rooms to provide the staff with places for recreation activities; we organize colorful cultural and art activities and sport competitions to offer a broad stage for the staff to show the full extent of their gifts; we arrange

various types of visits and trips and pay attention to the development of the staff's abilities in self-improvement, family care and giving back to society as well as enhancement of such ideas. We assist in the establishment of clubs and associations of photography, cooking and dancing where employees receive professional instruction and mingle with like-minded colleagues.

151,240

151,240 person-times of participation in various cultural and sports events by employees in 2012

### Evaluation of Employee Care Performance

8%

Average staff turnover rate was around 8% in 2012

352

Employee satisfaction surveys were carried out at 352 member companies in 2012

We always adhere to the "people-oriented" management concept, advocate the human environment of "San Kuan San Li" (being lenience, tolerance and ease; and unity, affinity and cohesion), vigorously implement the strategy of "talents-invigorate-enterprise" and strive to create a "one-CNBM family" corporate environment. Our efforts have been recognised by the staff, as indicated by the ever-increasing employee satisfaction level. Our

work has also been recognised by the community. In 2012, a total of 210 awards for employee care and HR management were conferred on the Group and the member companies. Our employees strive to excel in the Group and in their own professions and serve the companies and the community by strenuous efforts that deliver good results. Our employees pursue the meaning of life with passion and love.

#### A commitment for life



In October 2011, a tragedy befell the family of Mr. Rui Zuohua, an employee of Nanjing Triumph International Engineering Company Limited, as a traffic accident happened to his wife. His wife was so seriously injured that her chance of a successful rescue was deemed to be below 10%. Perhaps Rui Zuohua's perseverance had moved Death, and her wife became conscious after 22 days of intensive care. Yet, her intelligence suffered and her ability to swallow and the cardiopulmonary and limb function would take much time to recover. In the year since her wife was hospitalised, Rui Zuohua has tended to her wife lovingly every day, feeding water and food as well as helping with washing, addressing and rehabilitation. His dedication and love is an inspiration to people around him. He remarked: "Responsibility is the essence of marriage. One must fulfill the responsibility towards oneself, others and the community". On the 4th day after her wife was hospitalised, he went back to the company and resumed working as enthusiastically as ever and fulfilled all work targets. His optimism and sense of responsibility inspire all the people around him.



# Corporate Citizen

Responsibility Management

Market Performance

Technological Innovation

Energy Saving & Environmental Protection

Employee Care

Corporate Citizen

Total amount of donation in 2012: RMB

10.15 million

During production and operation, we seek to achieve mutual development and growth with the regions where we operate. As we cannot accomplish such results and honors without the support and help of the stakeholders and people from all walks of life, we reward the society through unique public welfare projects. Our employees are happy to give. They actively participate in volunteer activities and exercise their responsibilities as corporate citizens with their actions.

Number of projects of donation in 2012

255

Hours of volunteer services provided by our employees in 2012 approximately

39,778

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## Mutual Development with the Areas Where We Run Our Business

90%

Over 90% of the employees of our overseas enterprises in 2012 were local people

30

Overseas enterprises covered 30 countries and regions in 2012

108.07 million

Overseas investment in 2012 amounted to US\$108.07 million

### International Activities

In the process of implementation of internationalization strategy, we have been proactively expanding international business, and by business activities in the regions we operate, we have managed to bring prosperity and mutual development to local areas. As of the end of 2012, the Group has 44 companies and offices in 30 countries and regions, and has accumulatively completed overseas investment of US\$108.07 million in manufacturing, engineering services and logistics and trading.

Our overseas companies respect local laws and customs, adhere to lawful and honest operation, and persist in combining our internationalization with local social development, in order to realize a win-win situation with host countries and boost harmonious coexistence with local societies.

We've built cement and glass production lines for developing countries and areas with our advanced technologies, quality services and reasonable prices, to fully support local construction; we've vigorously popularized systematic solutions

of new building materials and pre-fab housing products, advocated green consumption ideas and provided security for energy saving construction products.

We've advocated localized operating management for overseas enterprises, in order to provide employment opportunities to local areas, train local employees and popularize advanced management philosophy, with a view to realize mutual growth and sound development with local societies and environment.

We've been dedicated to public welfare in areas where we operate, to contribute to our fullest extent to local societies.

Our efforts have been fully recognized by local governments and residents, and our member enterprises have won honors from the governments of the countries or regions where they operate for many times.

#### "Zero-Distance" contact with local communities on the Open Day of German SINOI



German SINOI is a wholly owned subsidiary of Zhongfu Lianzhong in Germany, which is open to local public on 1 July every year. On the Open Day, government agencies, industry experts, social media and community members are invited to SINOI's manufacturing workshops and workplace to view the whole work flow of the production of wind turbine blades, and to experience the fruitful results achieved by SINOI in terms of green energy, cleaner production, environmental protection, and social services, etc. The Open Day provides an opportunity for more stakeholders to understand more about SINOI, wind power industry and new energy, which enhanced mutual understanding between us and raised the awareness to the company. More and more talents were also attracted to join SINOI. The Open Day received extensive attention from people from all walks of life. Mr. Klaus Zeh, mayor of Nordhausen, where the company locates, and experts and professors from Institute of Renewable Energy also joined this activity.



### Domestic Activities

By means of localized operation, we've always been devoted to integrating the growth and development of the enterprise with local economic and social construction and prosperity. By creating revenue, driving the development of supply chain and small- and medium-sized enterprises, providing jobs, supporting local infrastructure construction, actively participating in public welfare activities, we have been continuously contributing to the harmonious development of the areas where we are located.

We've positively boosted localization of human resources, through which hiring rate of local employees has reached 96.9% in enterprises producing bulk building materials products (such as cement, glass and gypsum boards) which offers relatively more jobs.

We've put great efforts in popularizing localized procurement strategy, implementation of which has driven the co-growth of supply chain enterprises and fostered a large amount of suppliers

and retailers of good quality. In 2012, 90% of raw and fuel materials of the Group's manufacturing enterprises were procured from local areas.

The taxes we paid and prosperity brought to local economy have won us extensive recognition from local governments and all walks of life, and we have established long-term strategic win-win cooperation mechanism with nearly one hundred local governments. The taxes we paid to local government in 2012 amounted to RMB6.78 billion.

With great concern for regional public welfare, we've innovated the poverty relief and assistance mechanism, and actively implemented technology- and industry-based poverty relief by effectively combining poverty relief to specified assistance recipients with strategic corporate distribution, and combining local resource advantages with corporate premium resources. In 2012, Hefei Cement Research & Design Institute, a member of the Group, was selected as "Central Enterprises Advanced Unit for Poverty Relief and Development".

#### Zhang Dejiang, Vice Premier of the State Council

"The Central Committee of the Communist Party and the State Council put great emphasis on the work of poverty relief and development. CNBM's investment in and cooperation with Shizhu inject new impetus to the local economic development. Unlike poverty relief in the past, CNBM focuses on establishing industries and leaving real benefits through cooperation. CNBM needs to follow the law of market economy in conducting its business, developing industrial and other kinds of enterprises in Shizhu based on the local resources, the development strategy as a central enterprise and its own development strength, which could promote the development of Shizhu and the central enterprise at the same time."

Commitment to Public Welfare

10.15 million

Aggregated donations in 2012 amounted to RMB10.15 million

255

255 donation projects in 2012

Subscribing to the principle of making donations on a voluntary basis, with clearly defined responsibility and subject to our resource capability, we provide support for disaster affected areas, poverty-stricken areas, science, education, culture, and hygiene causes, welfare projects, and environmental protection causes in kind and capital. We put our best efforts in supporting social development by facilitating mutual development in areas where we run our business.

We've established and improved our donation management system and attached great importance to benefits of public welfare and donations. We believe that a comprehensive donation management system is not only beneficial for us to play a better role in national disaster relief, help the distressed, promote social equality and fulfill the social responsibility as a centrally-administrated state-owned enterprise, but also important for safeguarding contributor's interests and national assets. We have formulated measures for donation management

which facilitate unified management of our member companies. The donation outlay has been incorporated into the budget management system to keep donation budget strictly under control. On the other hand, limits and authorities relating to donation expenditure are specified, while a donation approval process has also been established. We carry through the filing system of donation approval and report periodically the project progress, and evaluate effects and conduct return visits when the project ends. We provide statistical analysis of donations made in each quarter, and strengthen internal control to guarantee that donation projects serve public welfare purposes as expected and are effectively implemented.

In 2012, the Group and its member companies carried out 255 donation projects, with an amount of donations up to RMB10.15 million, of which 28% was donated for public welfare relief and public welfare, 22% for construction of public utilities, and 15% for designated poverty alleviation regions.



Dedication to Construction of Villages and Small Towns



In active response to the call of the State for "delivery of building materials to rural areas", we've been dedicated to new rural construction, providing product protection of high cost performance, low-carbon and environmental protection for new rural construction. During the process of research and development of products, we have fully taken into account farmers' actual demands for rural housing construction. We've thoroughly considered local resources superiority in choosing raw materials; energy conservation, heat preservation, sound-proofing and quake-proof have been fully considered in product performance; farmers' habits and customs and special requirements have been full considered in designing practical and functional pre-fab housing; as for product pricing, we've led farmers to consume environmental protection construction products with cost performance and excellent quality and reasonable price; during the process of establishing service system, by giving enough thought to farmers' consumption habits and buying demands, we've been setting unimpeded and convenient service system to meet clients demands for consultation, procurement and maintenance in first time.

Undertaking the project of "Demonstration of research & development and integration of functional building materials for villages and small towns"



In 2012, China Building Materials Academy undertook the project of "Demonstration of research & development and integration of functional building materials for villages and small towns". Aiming at the development status and future development trend of building materials for villages and small towns, in the principle of "satisfying building energy saving and green building" and "securing environmental quality of ecological residence in rural area", the project meets requirements of construction of villages and small towns by fully utilizing rural resources, adjusting measures to local conditions as well as considering practical applicability, economical efficiency, safety and durability. By proceeding applied technology R&D, technology integration and application demonstration of functional building materials for villages and small towns, the project aims to build an industrialization platform for application system and achievement transformation of functional building materials for villages and small towns, integrating development, material selection, detection & certification, construction and demonstration of materials and equipment, in order to comprehensively promote the overall technological level of research and development, industrialization, popularization and application of functional building materials for villages and small towns, lead China's construction of villages and small towns and advance sustainable development of China's building materials industry. After nearly a year's efforts by the project team, the project has seen desirable fruits in respect of overall progress and respective indicators for performance appraisal, such as 30 items of application for patent accumulatively, 7 items of development standards, 43 published dissertations, 39 Ph.D.s and masters fostered, 24 items of new products, materials and processes developed, 2 experiment bases and technological platforms, 1 pilot production line, 1 production line and 2 demonstration projects.

## Incentives to Young Students

20

20 special scholarships set up in 2012

466

466 students were subsidized in 2012

17,815

In 2012, we provided 17,815 person-day internship to school students

We have developed close cooperation with renowned universities and colleges, and consecutively entered into strategic cooperation agreements with Wuhan University of Technology, Tongji University, Nanjing University of Technology, Xi'an University of Architecture and Technology, Anhui Science and Technology University, pursuant to which fellowship and scholarship were founded to help poor students finish their studies and for brilliant students to make their dreams come true.

We take advantage of our best-in-class production, experiment and application platform and provide opportunities for young students to practice or even start their own business by establishing an experimental teaching base for teenage students and an internship base for the employment and business starting for college graduates. Teenage students can therefore get access to combine their knowledge with production and corporate management.

0.91 million

Approximately 0.91 million devoted in volunteer activities in 2012

39,778

In 2012, our employees provided volunteer services for approximately 39,778 hours

## Employees' Volunteer Services

We advocate a harmonious social atmosphere. To this end, we encourage and support our employees to participate in social welfare activities and provide volunteer services. We have established an extensive platform to guarantee and support the launch of volunteer activities in terms of organization, work mechanism, time arrangement, capital support and communications.

In adherence to the principle of serving enterprises, the young and the society, and taking the communist youth league organizations as our core, we proactively commence and advance volunteer services, unite and lead League members to spread

love and care, make enthusiastic dedication, fulfill social responsibilities, put into practice the Group's corporate culture and demonstrate the Group's youth image, in order to make contributions for a more harmonious society, happier people and better environment. Our employees actively responded to and engaged in the volunteer services. Member companies, such as China National Building Materials Import & Export Corporation, Beijing New Building Materials Public Limited Company and, Bengbu Design & Research Institute for Glass Industry have commenced diverse volunteer activities and obtained positive effects.



### "Young CNBM" made "Painted Homes"



"Young CNBM", volunteers of Beijing New Building Materials Public Limited Company worked with "Whitewasher" studio, a studio subordinated to Chinese Redbud Education Fund of Tsinghua University, to commence public benefit activities of space improvement titled "Young CNBM · Painted Homes" in "Sun Village Children Education and Consultation Center" in Shunyi District, Beijing. The activities aim to improve the living qualities of the children in Sun Village and build a healthy and beautiful living environment and support the children in Sun Village to grow healthily. In addition, the activities aim to inform more people about the living actuality of the children in Sun Village, in order to attract more social aid and support.

From the children's perspective: in view of children's physiological characteristics, volunteers have completed the space improvement for "German Mom" Cabin and "Rotary Club" Love Cabin by coloring the decorations of the internal and external walls with abundant colors and vivid cartoon images, so as to practically elevate the children's living qualities in terms of appearance, upholstery, safety, etc.

Unintentionally arranged interaction: We persisted in organizing "Distraction Free" public benefit activities and thus there was no intentionally arranged interaction. The children would join happily with the volunteers in their painting of Transformers and SpongeBob on the walls. Those laughs and entertainment added to the enjoyment of the activities.

Safety and environment protection: For the purpose of activity quality, volunteers of "Young CNBM" worked with the "Whitewasher" studio to carry out a preliminary field research in order to obtain knowledge in relation to the institutional position, operation pattern, current situation of the houses of Sun Village as well as the children's psychology, and proposed a detailed remediation action. "Dragon-branded paints", a paint independently produced by Beijing New Building Materials Public Limited Company was applied to ensure bright and lasting colors as well as to help the children grow healthily by a 100% environmental protection.

Everlasting "Painted" "Youth": "Young CNBM" volunteers will work with "Whitewasher" studio of Tsinghua University to carry out further in-depth research and positively launch more public activities tailored to the children's needs. It not only paints the children's "Painted Homes", but also provides a happy and colorful life with dreams and love.

## Prospect



Looking into 2013, the global economy is experiencing a period of in-depth transformation and adjustment, growth rate of China's economy is slowing down, cost pressure as well as resources and environment constraint continue to increase, while the problems of overall excess capacity, insufficient innovation capacity stand out, contradictions in terms of imbalance, inharmonious and unsustainable remain prominent. As a result, difficulties, risks and opportunities co-exist. We are of the opinion that, forced by reversing mechanism formed in the global financial crisis, new opportunities of enlarging domestic demands, enhancing innovation capabilities, boosting transformation of economic development pattern will emerge in China, and China still remains in a significant promising period of strategic opportunities. As to building materials industry, the key to achieve quality, profitable and sustainable development that observe economic laws lies in the furthering of strategic adjustment to industry structure to solve the over-capacity problem. Following the reinforcement of structural adjustment, transformation and upgrading, the

building materials industry is expected to enter into a new phase featured optimized quality, improved benefits as well as intensive and lean growth.

In 2013, we will continue to speed up transformation and upgrading, optimize development quality, and strive to achieve "meticulous, detailed and practical" management. "Meticulous", namely to continue to carry out management upgrading activities, advance cost-control operation, deliver cost decreasing and benefit increasing, delicately organize technological transformation, strengthen fine management, strictly control costs and improve quality and benefit. "Detailed", namely to analyze the situation in an earnest and detailed way, subdivide targets, specify measures, pay attention to appeals of stakeholders, and carefully handle work, management and process by taking into account our own characteristics. "Practical", namely to do unostentatious hard work, solidify our foundation in order to further consolidate the Group's development foundation.

We fully understand that, currently state-owned enterprises' reform has entered into a crucial and in-depth stage, and remains a long-term and arduous task. CNBM's practice proves up to the hilt that, central enterprises are fully capable of staying active, competitive and influential amid a highly challenging environment by valuing market discipline and constantly deepening reform. Adhering to market-oriented reform, we will further perfect the establishment of internal mechanisms, such as modern corporate governance structure, professional manger system, to conduct exploration that is beneficial to state-owned enterprises' reform.

Chinese new-generation leader team proposes "Chinese Dream" of realizing the nation's great rejuvenation. An enterprise is like a ship while a

dream is like the sails; the core of CNBM's "Chinese Dream" is fulfilling its mission and responsibilities. Our "Chinese Dream" is to deliver steadily increased corporate profit, reasonable recovery of industry value, breakthroughs in significant scientific research projects, prominently enhanced environmental performance, employees' happiness and more harmonious community relations. As a trust-worthy partner, with the spirit of good faith, openness, inclusiveness and aggressiveness, we would like to conduct sincere cooperation with stakeholders by being practical and innovative, to shoulder responsibilities together and obtain a win-win future, so as to contribute to the fulfillment of our common "Chinese Dream"!

Key Performance Index

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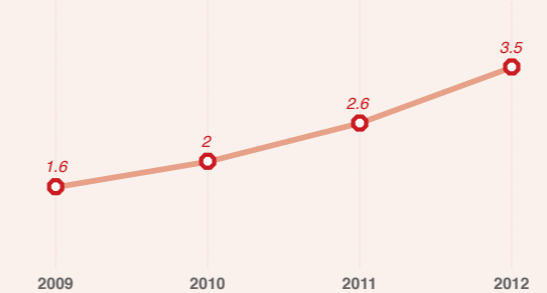
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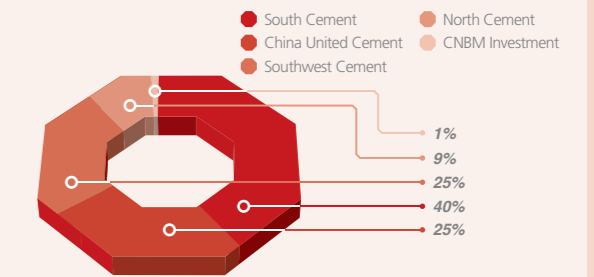
2010-2012 Ranking of Building Materials Enterprises in Fortune Top 500

2012 ranking	2011 ranking	2010 ranking	Company name	Business income (US\$ million)	Profit (US\$ million)	Country
161	155	132	Saint-Gobain	58560	1785	France
365	485	-	CNBM	30022	657	China
435	428	349	CRH	25141	820	Ireland
474	471	446	Holcim	23378	310	Switzerland
480	455	390	Larfarg	22970	825	France

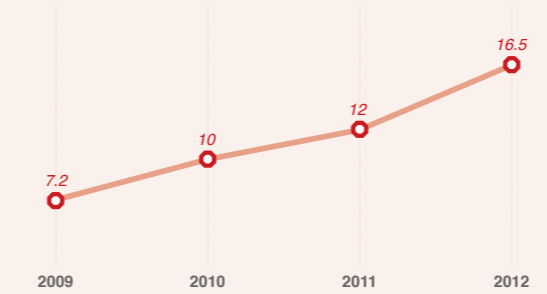
2009-2012 Cement Production Capacity



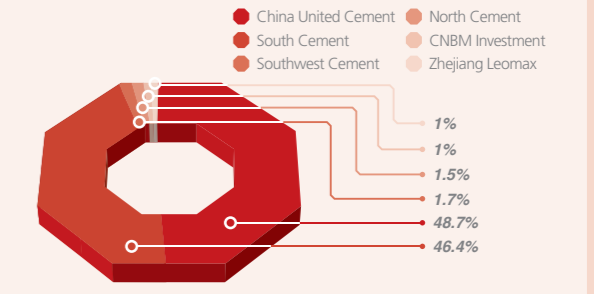
2012 Composition of Cement Production Capacity



2009-2012 Gypsum Board Production Capacity



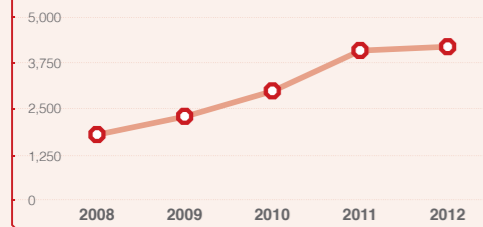
2012 Composition of Ready-mixed Concrete Production Capacity



Note: As at the end of 2012, the Group's Commercial concrete production capacity was approximately 300 million cubic meters.

Market Performance

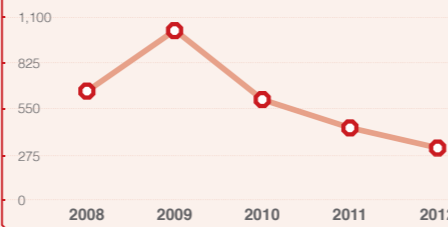
2008-2012 Main Business Revenue of Chinese Cement Industry RMB'00 million



Sources: CEMAC of National Statistic Bureau.

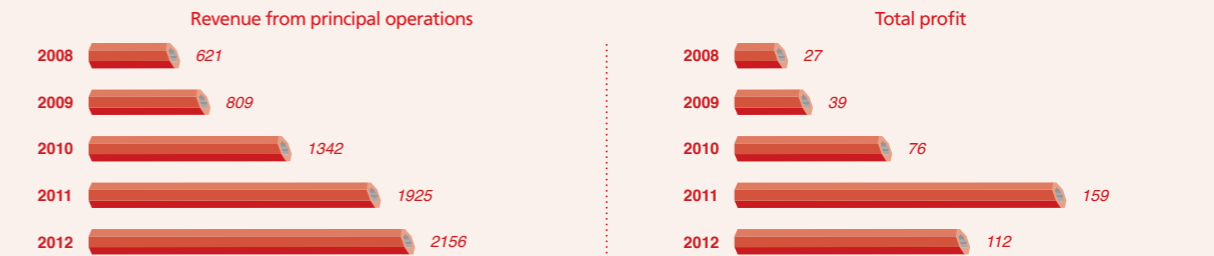
Note: During 2012, in the context of noticeable slowdown in the growth of cement demands due to the slower growth of fixed asset investments and a further intensified overcapacity as a result of the release of additional production capacity within the industry, both the industry profit and price hit the doldrums. Total cement output throughout the country reached 2.21 billion tonnes, representing a year-on-year increase of 5.74%, with sales revenue reaching RMB883.3 billion, representing a year-on-year increase of 0.06%, basically the same as that in the previous year. Revenue growth is obviously slower than output growth. The domestic cement industry recorded total profit of RMB65.7 billion, representing a year-on-year decrease of 32.81%, the second largest decline, only to the year of 2005.

2008-2012 Total Profit of Building Materials Industry RMB'00 million



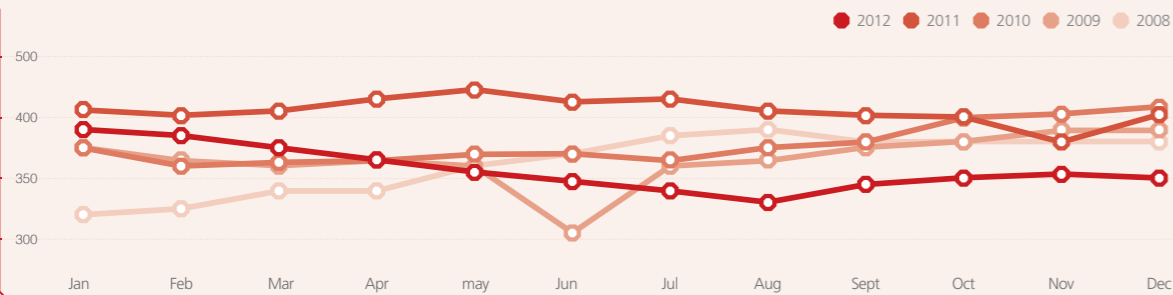
Source: Digital Cement Net

2008-2012 Main Business Revenue and Total Profit RMB'00 million



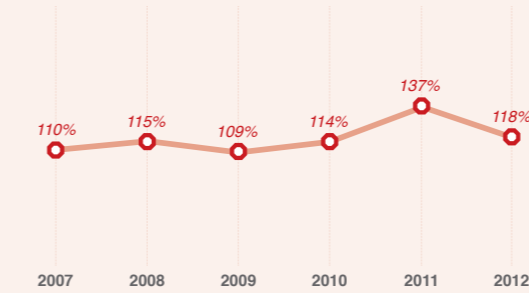
Note: During 2012, the slower growth of GDP and fixed asset investments caused profound impact on the continuous rapid growth of building materials industry, which has been driven by the rapid growth of domestic economy, in particular investments. Growth of both the output and industrial production value of main products in building materials industry, in particular the traditional building materials such as cement and flat glass, began to fall back. The Group's profit recorded a decline as compared to last year, due to the significant decrease in product prices of cement, architectural and technological glass and glassfiber, coupled with a higher comparison base in the corresponding period of 2011.

2008-2012 Price of China P.O42.5 Bulk Cement RMB/ton

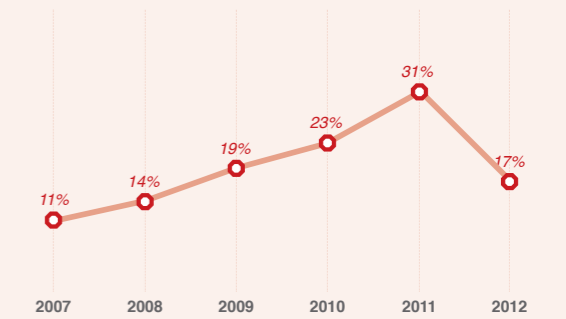


Source: Digital Cement Net.

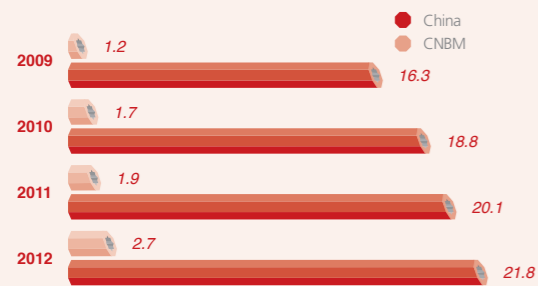
2007-2012 Rate of Preservation and Appreciation of State-owned Assets



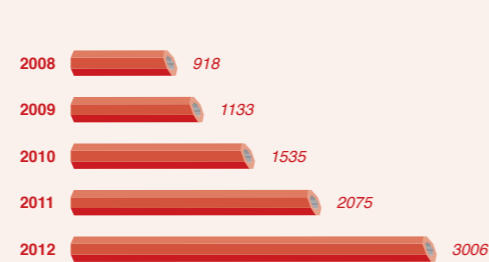
2007-2012 Rate of Return on Net Assets



2009-2012 Cement Output '00 million ton



2008-2012 Total Assets RMB'00 million



2012 Performance of the Controlled Listed Companies

Stock name	Stock exchange	Stock code	Dividends per share (Unit: RMB)	Earnings per share (Unit: RMB)
CNBM	Hong Kong Stock Exchange	3323.HK	0.155	1.0300
BNBM	Shenzhen Stock Exchange	000796.SZ	0.318	1.1770
CFGCL	Shanghai Stock Exchange	600176.SH	0.100	0.3142
Fangxing Technology	Shanghai Stock Exchange	600552.SH	0.100	1.1400
Luoyang Glass Company	Shanghai Stock Exchange	600876.SH	-	0.0102
Luoyang Glass Company	Hong Kong Stock Exchange	1108.HK	-	0.0100
Ruitai Technology	Shenzhen Stock Exchange	002066.SZ	0.050	0.0150

Performance of Technology Innovation

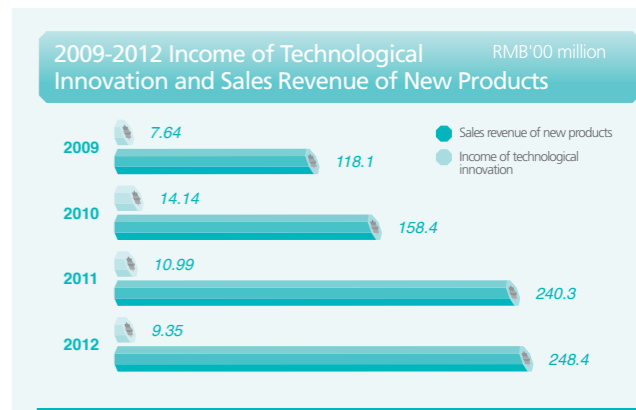
Science and Technology Resources of CNBM	
<b>National-level Research Platforms</b>	<b>National-level research centers</b>
	National Glass Deep Processing Engineering Research Center
	National Resin Matrix Composite Engineering Research Center
	Glass Industry Energy Saving Technology National and Local Jointly-build Engineering Research Center
	<b>National-level laboratories</b>
	State Key Laboratory of Float Glass New Technology
	State Key Laboratory of Green Building Materials
	National Engineering Laboratory of Pulp and Papermaking
	Industry (building materials) Product Quality Control and Technology Assessment (CTC) Laboratory
	Industry (building & sanitary ceramics and bathroom accessories) Product Quality Control and Technology Assessment Laboratory
	Industry (light industrial machinery) Product Quality Control and Technology Assessment Laboratory
	Industry (decoration building materials) Product Quality Control and Technology Assessment Laboratory
	Industry (building materials used for wall, roof and road) Product Quality Control and Technology Assessment Laboratory
	Industry (glass) Product Quality Control and Technology Assessment Laboratory
	Industry (clock and watch) Product Quality Control and Technology Assessment Laboratory
	<b>Post-doctoral research center</b>
	China Building Materials Academy Post-doctoral Research Center
	<b>Academician workstation</b>
	China Building Materials Academy Academician Workstation
	<b>Post-doctoral research workstations</b>
	China Building Materials Academy Post-doctoral Research Workstation
	Jushi Group Post-doctoral Research Workstation
	BNBM Sub-station, Zhongguancun Haidian Science Park Post-doctoral Workstation
	Harbin FRP Institute Post-doctoral Research Workstation
	Zhongfu Lianzhong Composites Group Co., Ltd. Post-doctoral Research Workstation
	Bengbu Design & Research Institute for Glass Industry Post-doctoral Research Workstation
	Zhongfu Shenyang Carbon Fiber Co., Ltd. Post-doctoral Research Workstation
	China Luoyang Float Glass Group Co., Ltd. Post-doctoral Research Workstation
	Zhongfu Shenyang Carbon Fiber Co., Ltd. Post-doctoral Research Workstation
	China Luoyang Float Glass Group Co., Ltd. Post-doctoral Research Workstation
	Triumph Heavy Industry Co., Ltd. Post-doctoral Research Workstation
<b>National-level Centers</b>	<b>National-recognized enterprise technology center</b>
	China National Building Materials Group Corporation Technology Center
	Beijing New Building Materials Group Co., Ltd. Technology Center
	China Luoyang Float Glass Group Co., Ltd. Technology Center
	Lianyungang Zhongfu Lianzhong Composites Group Co., Ltd. Technology Center
	Hefei Smarter Technology Group Corp. Technology Center
	Jushi Group National-recognized enterprise technology center
	<b>The United Nations technology development and promotion centers</b>
	International Materials Technology Promotion Center
	China Glass Development Center
	China Wall and Roof Materials Development Center
	China Building & Sanitary Ceramics Development Center
	China Light Building Materials Research and Development Center
	Information Center of China Horologe Association
<b>Quality Inspection Institutions</b>	<b>National level</b>
	China Building Materials Quality Supervision and Inspection Center
	China Building Materials Test Center
	National Cement Quality Supervision and Inspection Center
	National Safety Glass and Quartz Glass Quality Supervision and Inspection Center
	National Glass Quality Supervision and Inspection Center
	National Building & Sanitary Ceramics Quality Supervision and Inspection Center
	National Clock and Watch Quality Supervision and Inspection Center
<b>Academies and Associations</b>	<b>Academies and Associations affiliated to Group's research institutions</b>
	Building & Sanitary Ceramics Committee, Ceramics Sub-committee, CCS
	Cement sub-committee, CCS
	Glass Sub-committee, CCS
	Concrete and Cement Products Sub-committee, CCS
	Building Materials Sub-committee, CCS
	Testing Technology Sub-committee, CCS
	Beijing Ceramic Society
	Refractory Materials Sub-committee, CCS
	Automation Sub-committee, CCS
	China Association of Decorative Building Materials
	Glassfiber Reinforced Cement Branch, CBM COUNCIL
	Concrete Additives Branch, CBM COUNCIL
	Refractory Materials Branch, CBM COUNCIL
	Aluminum Composites Branch, CBM COUNCIL
	Floor Materials Branch, CBM COUNCIL
	Shower Room Branch, China Building Ceramics & Sanitary Ware Association
	Ecological Building Materials Branch, CBM COUNCIL
	Crystal Glass Branch, CBM COUNCIL
	China Concrete & Cement Products Association
	Safety Glass Committee, CAIGA
	Silicate Materials Committee, CNMIA
<b>Standardization committees</b>	<b>Standardization technical committees affiliated to group's research institutions</b>
	National Wall Roof and Road Building Materials Standardization Technical Committee
	National Light and Decorative Building Materials Standardization Technical Committee
	Safety Glass Sub Technical Committee, National Automobile Standardization Technical Committee
	National Garment Washing Machinery Standardization Technical Committee
	National Cement Standardization Technical Committee
	National Architectural Glass Standardization Technical Committee
	National Technical Committee on Building and Sanitary Ceramics of Standardization Administration
	National Technical Committee on Horology of Standardization Administration of China
	National Technical Committee on Light Industrial Machinery of Standardization Administration of China
	National Technical Committee on Fiber Reinforced Plastic of Standardization Administration of China
	National Technical Committee on Industrial Glass and Special Glass of Standardization Administration of China
	Technical Committee on Environment-Friendly and Healthy Buildings Materials of Standardization Administration of Building Materials Industry
	Technical Committee on Environmental Conditions and Environmental Test for Building Elements and Materials of Standardization Administration of Building Materials Industry
	Professional Working Group on Standard Building Material Samples of National Technical Committee on Standard Sample of Standardization Administration of China
	Working Group on Cement Chemistry Analysis of National Technical Committee on Cements of Standardization Administration of China

Performance of Technology Innovation

2009-2012 Technology Awards at Provincial and Ministerial Levels	Number of awards			
	2009	2010	2011	2012
Provincial and Ministerial or above scientific and technological awards	90	63	132	152
Of which: National level science and technology progress awards	1	0	2	0
of which: Technical innovation awards	21	17	46	89

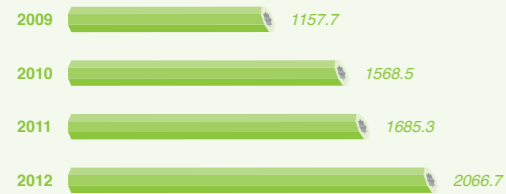
2009-2012 The Standards with our Presiding or Participating in Preparation or Amendment	Number of standards			
	2009	2010	2011	2012
Total number of standards	100	79	28	22
of which: international	0	0	1	1
of which: national	62	30	15	5
of which: industrial	38	49	12	16

2009-2012 Application and Grant of Patents	Number of patents			
	2009	2010	2011	2012
Newly applied patents	430	514	630	766
of which: invention patent	144	173	170	228
Newly granted patents	202	420	487	729
of which: invention patent	34	54	80	143



Energy Saving and Environmental Protection Performance

2009-2012 Energy Consumption 10,000t standard coal

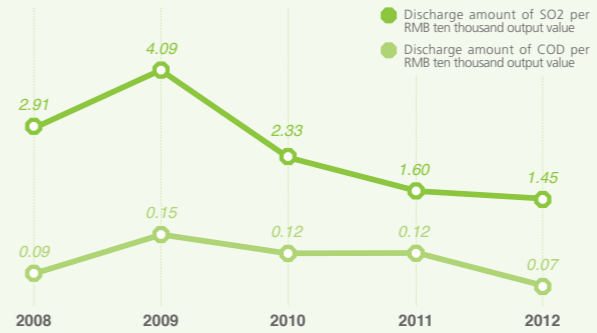


2008-2012 Comprehensive Energy Consumption per RMB10,000 Output Value Ton standard coal/RMB10,000



Note: The Group's 2012 comprehensive energy consumption per RMB10,000 output value increased to certain degree from 2011 as the proportion of energy intensive industry in the Group's industrial structure increased constantly due to further expansion of the Group's cement operations, coupled with the decline in prices of building materials such as cement impacted by the macro economy situation in 2012. We have been striving to reduce energy consumption per unit output value constantly through deeply tapping energy-saving potential by way of proactively promoting energy-saving technological transformation and lean management in energy intensive business segment.

2008-2012 Emission Levels of SO<sub>2</sub> and COD per RMB10,000 Output Value Kg/RMB 10,000



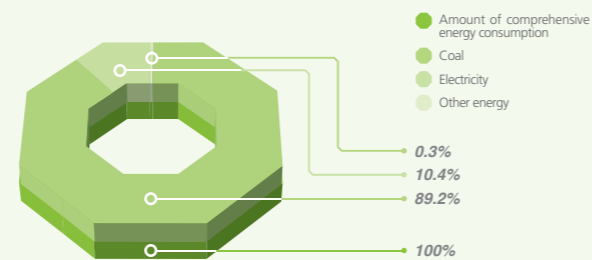
2010-2012 Emission of NO<sub>x</sub> Per Cement Product Unit Kg/ton



2012 Consumption of Major Energies

Indicator	Unit	Amount
Total amount of energy consumption	10,000t standard coal	2066.7
of which: Coal	10,000t standard coal	1781.4
Electricity	10,000 kwh	1695297.2
Natural gas	10,000 standard cubic meters	21686.8
Other energy	10,000t standard coal	49.0

2012 Energy Consumption Structure



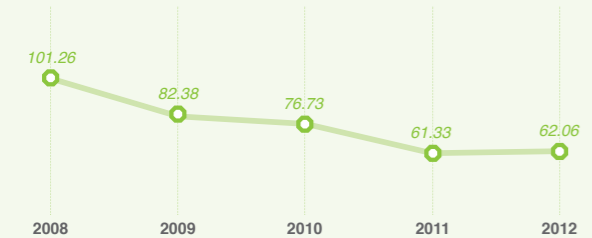
2012 Performance of Solid Waste Disposal and Resources Recycling

Indicator	Unit	Amount
Disposal amount of solid waste	10,000t	9700
of which: Urban wastes	10,000t	3
Sludge	10,000t	37
Harmless disposal amount of hazardous solid wastes	10,000t	12
Disposal rate of self-produced solid waste	%	100

2012 Performance of Water Resource and Residue Heat Utilization

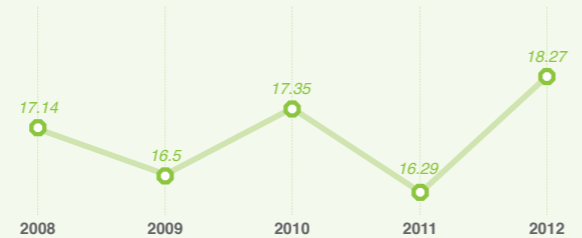
Indicator	Unit	Amount
Fresh water consumption per RMB10,000 output value	ton/RMB 0'000	5.0
Fresh water consumption per ton clinker	ton/per ton clinker	0.33
Utilization rate of recycled water	%	94.7
Installed capacity of residue heat power generation	MW	1399
Actual power production of residue heat power generation	00' million kwh	44

2008-2012 Cement Product Unit Energy Consumption Kg standard coal/Ton



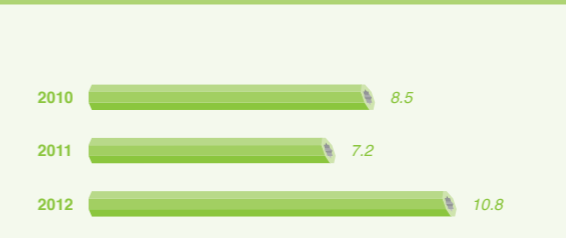
Note: In order to control the overcapacity and minimize wastage of resources, certain product lines have entered into temporary production halts depending on the regional market demands in 2012. As a result, the production continuity and energy consumption control was impacted to some degree, and the product unit energy consumption this year increased slightly. In response, we have been striving to further control product unit energy consumption through deeply tapping potential of energy-saving management by way of scientifically arranging periods for production halts and overhaul.

2008-2012 Glass Product Unit Energy Consumption Kg standard coal/weight case

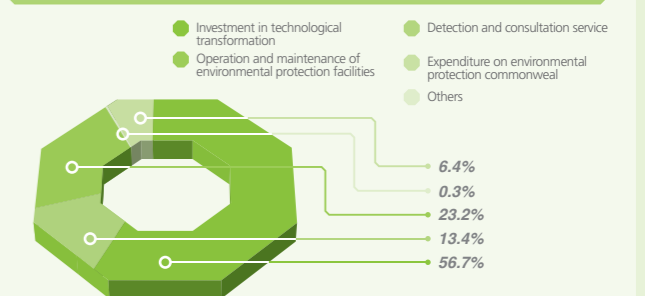


Note: In 2012, the Group voluntarily eliminated obsolete capacity, adjusted product mix and increased output of ultra-thin and ultra clear glass. The average unit energy consumption of the Group's glass products increased to some degree as compared to 2011 as the unit energy consumption of ultra-thin and ultra clear glass is higher than that of the ordinary architectural glass. In following years, we will conduct statistics and monitoring by category on relevant data according to characteristics of products.

2010-2012 Investment in Energy Saving and Environmental Protection RMB '00 million



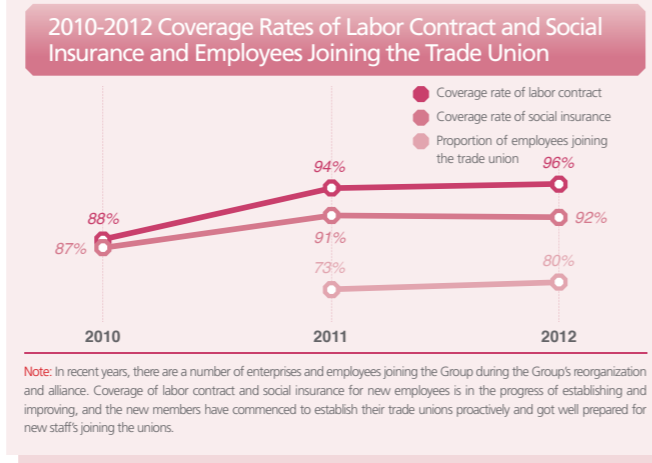
2012 Structure of Investment in Energy Saving and Environmental Protection





Staff Care Performance

2010-2012 Staff Overviews		Person		
Year		2010	2011	2012
Total number of employees		112676	126385	165652
Employees from foreign countries, Hong Kong, Macau and Taiwan		397	594	1190
Employees of ethnic minorities		1566	3516	2706
Employees with disabilities		599	1023	1620
Proportion of female employees in the management		24%	11.6%	13.5%



### 2010-2012 Progress of Enterprise Annuity

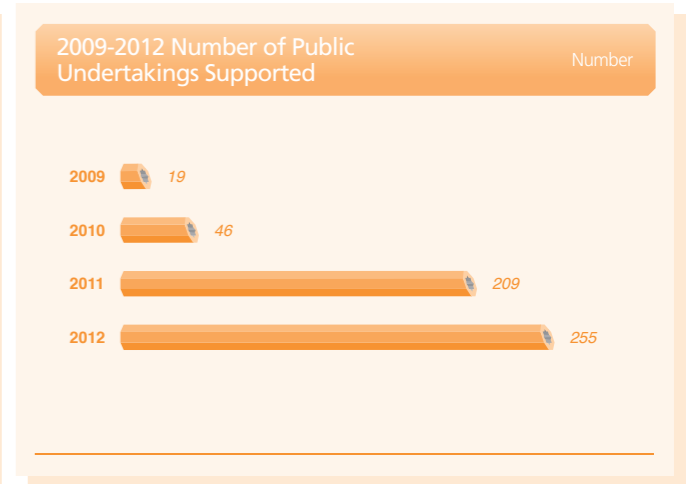
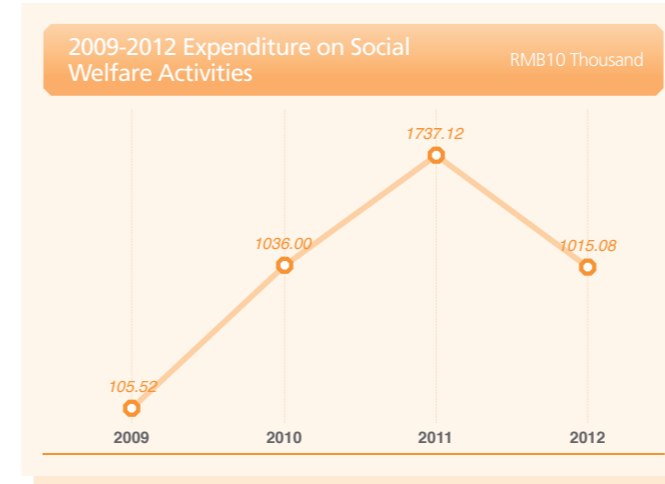
Year	Unit	2010	2011	2012
Number of member enterprises participated in enterprise annuity (Unit: Number)	number	38	53	66
Number of employees participated in enterprise annuity (Unit: Number)	Person	12811	13368	20392

### 2011-2012 Performance of Staff Training

Indicator	Unit	2011	2012
Training programs held for and participated in by employees	number	11975	21028
Training received by employees	—	108 (10,000h)	63 (10,000 employees(times))
Number of diplomas or degrees obtained by in-service employees with our assistance	number	1580	1138



Corporate Citizen Performance



### 2011-2012 Performance of Creating Employment Opportunities

Indicator	2011	2012
New employment	21182	15901
Of which: Recruitment of graduating students	4276	3743
Placement of demobilized soldiers	241	521

### 2012 Student Subsidies

Indicator	Unit	2012
Special scholarships established	Number	20
Total scholarships	RMB Ten thousand	136
Students awarded or subsidized	Number	466
Internship base established	Number	98
Internship positions for students at school	Person-day	17815

### 2012 Volunteer Activities

Indicator	Unit	2012
Volunteer association established	Number	67
Investment in supporting volunteer activities	RMB Ten Thousand	91
Number of employee volunteers	Person	3337
Volunteer activities held	Times	444
Volunteer services provided	Hours	39778



## INDEPENDENT ASSURANCE STATEMENT

### Introduction and objectives of work

BUREAU VERITAS has been engaged by CHINA NATIONAL BUILDING MATERIALS GROUP CORPORATION (hereafter referred to as "CNBM") to conduct an independent assurance to 2012 SOCIAL RESPONSIBILITY REPORT (hereafter referred to as "the Report") of CNBM. It is the fourth time for CNBM to publish CSR report. This information and its presentation in the report are the sole responsibility of the management of CNBM. Bureau Veritas was not involved in the drafting of the Report. Our sole responsibility was to provide independent assurance on its content.



### Scope of work

- Data and information included in the Report for the report period from 2012.1.1 to 2012.12.31;
- The assessment team visited CNBM head-office in Beijing, BV did not visit other site and external stakeholders.
- Appropriateness and robustness of underlying reporting systems and processes, used to collect, analyse and review the information reported.
- Excluded from the scope of our work is any assurance of information relating to:
  - Activities outside the defined assurance period;
  - Positional statements (future intention by the company and statements of future commitment);
  - Much of the operating financial data in this Report is taken from CNBM Annual Reporting and accounts, which is separately audited by an external auditor and therefore excluded from the scope of the Bureau Veritas assurance.

### Methodology

As part of its independent assurance, Bureau Veritas undertook the following activities:

- Interviews with relevant personnel of CNBM;
- Visit site including CNBM head-office in Beijing;
- Review of documentary evidence produced by CNBM;
- Audit of sampled performance data;
- Review of data and information systems for collection, aggregation, analysis and review.

Our work was conducted against Bureau Veritas' standard procedures and guidelines for external Assurance of Sustainability Reports, based on current best practice in independent assurance. For this assignment, we have used the verification rules and instructions ISAE3000, AA1000 and GRI G4. The work was planned and carried out to provide reasonable, rather than absolute assurance and we believe it provides a reasonable basis for our conclusions.

### Our findings

On the basis of our methodology and the activities described above, it is our opinion that: The information included in the report is objective, reliable and free from material mistake or misstatement; During the process of assurance engagement, BV also identified some improvement opportunities to be included in the "Key areas for ongoing development".

#### Objectivity

The information and data presented in the report is objective, reliable and traceable. CNBM has established and implemented CSR indicator management system to collect, analyse, check and compile information in all domains covered by the report.

#### Materiality

CNBM identifies and discloses many core issues of environment, society and economy as per GRI requirements. The report gives prominence to the key issues which stakeholder concerned and shows good materiality.

#### Completeness

The Report describes CNBM social responsibility strategy, underlying management systems, actions and performance in six areas of CSR governance, economic performance, technical innovation, environment protection, employee care and corporate citizenship with a more reasonable framework and more complete content. CNBM disclose many quantized data of CSR key issues covered HQ and all branch companies. So it is easy for stakeholders to compare and evaluate objectively.

#### Responsiveness

By way of stakeholder surveying and communication, CNBM identified its stakeholders and key issues which stakeholders concerned. These key issues were generally disclosed and responded objectively in the report.

#### Clarity

The report disclosed information with concise words and proper typesetting, disclosed many key performance data for 4 years in a row, so it has good clarity, comparability and readability.

### Key areas for ongoing development

Based on the assurance work conducted, the following opportunities for improvement have been identified for CNBM:

- It is better for CNBM to implement CSR gap analysis and to identify CSR improvement opportunities comparing with ISO26000:2010 requirements.
- It is better for CNBM to revise the existing CSR quantitative indicators system according to GRI(G4)requirements to improve CSR report completeness.

### Statement of independence, impartiality and competence

Bureau Veritas is an independent professional services company that specialises in Quality, Health, Safety, Society and Environmental management with almost 180 years history in providing independent assurance services. No member of the assurance team has a business relationship with CNBM. We have conducted this verification independently, and there has been no conflict of interest.

Fabien JOLY DE BRESILLON  
Director for Greater China Region Leader  
Bureau Veritas Certification  
2013-6-19

May Huang  
Assurance Team  
Bureau Veritas  
2013-6-19

## Rating Report



Upon the request of CNBM, the Research Center for Corporate Social Responsibility of Economics Division of Chinese Academy of Social Sciences (hereafter referred to as the "Center") selected experts from Chinese Expert Committee on CSR Report Rating to form CNBM CSR Report 2012 (hereafter referred to as the "Report") Rating Team.

### Basis of rating

Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR 2.0) and Rating Standards of Corporate Social Responsibility Reporting for Chinese Enterprises (2013) published jointly by the Center, the China Enterprise Confederation, the China Petroleum and Chemical Industry Association, the China Light Industry Federation, the Sino-German Corporate Social Responsibility Project, the China WTO Tribune and the China Committee of Corporate Citizenship.

### Conclusions

#### Completeness (★★★★★)

The Report discloses the key indicators of "Responsibility Management", "Market Performance", "Technological Innovation", "Energy Saving and Environmental Protection", "Employee Care" and "Corporate Citizen", covering 96.03% core indicators of non-metallic mineral products industry with outstanding completeness.

#### Materiality (★★★★★)

The Report gives detailed and sufficient disclosures on the substantive issues like "Product Quality Management", "Product Innovation", "Occupational Health Management", "Safety Production", "Research, Development and Application of Environmental Facilities and Technology" and "Reduction of Wastewater, Waste Gases and Residues Discharges", with good materiality.

#### Balance (★★★★★)

The Report discloses negative data and information on "New Cases of Occupational Diseases", "Recordable Casualty Rate per Thousand people", "Fatal Accidents" and "Employee Turnover Rate" with fairly balance.

#### Comparability (★★★★★)

The Report discloses 46 key performance indicators for more than 3 consecutive years, representing very good longitudinal comparability, and gives comparisons with industry peers in terms of cement output from 2009 to 2012, bearing certain horizontal comparability; therefore, it shows excellent comparability on the whole.

#### Readability (★★★★☆)

The Report is well-structured and offers in-depth case elaboration; it contains varied forms of presentation and applies delicate type setting; besides, it also gives explanations to jargons and terms, all making it quite readable.

#### Creativity (★★★★)

The Report highlights key data by way of labeling in every chapter, laying stress on the corporate social responsibility performance, which is conducive to the communication and exchanges of shareholders, representing fine creativity.

#### Overall rating (★★★★★)

Based on its evaluation the rating team considered CNBM CSR Report 2012 an outstanding CSR Report by giving it a five-star rating.

### Recommendations for improvement

Give further disclosure of negative data, information and rectification and prevention measures to improve balance of the Report.

### Rating team

Team leader: Zhong Hongwu, Director of the Research Center for Corporate Social Responsibility of Economics Division of Chinese Academy of Social Sciences

Team members: Yin Gefei, Vice President of China WTO Tribune

Wei Xiuli, Associate Professor at the School of Economics and Management, North China University of Technology

Peng Huagang,

Vice Chairman of Chinese Expert  
Committee on CSR Reporting Rating  
Vice President of Executive Council of the Center

Zhong Hongwu

Head of the rating team  
Director of the Center



## Dear Stakeholders,

Thank you for your constant support and assistance to the growth of CNBM!

The year of 2012 was a tough year, but also a fruitful year. In the face of a complex and rigorous situation of economic slowdown, sluggish demand and overcapacity, and under the support and assistance of you and other stakeholders, CNBM steadily improved and consummated the combination/reorganizing and structural adjustment, actively conducted industry self-regulation and market synergy, and continuously enhanced the industrial value and the performance of the enterprise. On the other hand, we made genuine progress in the "management improvement activities", practicing the mode of "market-oriented operation of central SOEs", strengthening scientific and technological innovation, energy saving and environmental protection, consolidating basic management, curtailing costs and promoting performance, all of which had led to favorable results. In 2012, we achieved revenue of RMB217.4 billion with profit amounting to RMB11.2 billion and taxes paid amounting to RMB16 billion.

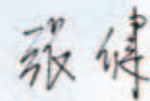
In 2012, we continued to improve the social responsibility management system, making further improvement to the aspects such as strategic concepts, core issues, management model and system, index system and evaluation mechanisms, with the hope to constantly promote the Group's duty-fulfilling capacity and standard in the aspects of market performance, scientific and technological innovation, energy saving and environmental protection, employee care and corporate citizen, through a more standardized social responsibility management system.

The 2012 Social Responsibility Report is the fourth report released by our Group, which stands as a platform for us to give systematic coverage of our annual social responsibility performances and actively respond to demands from stakeholders, which has attracted extensive attention from all stakeholders. In order to better perform our corporate social responsibilities and create more value for stakeholders, we sincerely expect your precious opinions and advice on our social responsibility efforts. Please inform us of your opinions and suggestions on the Report and of what information you wish to get from our CSR reports. We shall keep improving to meet your expectations and give responses to your suggestions in our next CSR report.

We would like to thank you once again for your support and concern to CNBM and we are looking forward to hearing from you.

**Zhang Jian**

Director of the Office of Social  
Responsibility and Energy Saving and  
Environmental Protection  
China National Building Materials Group Corporation



## Feedback Questionnaire

For the purpose of better performing our social responsibilities, we would love to hear your comments and advice and earnestly invite you to put forward your valuable opinions on our work and report. If the blank space is insufficient for your response, please use the opposite side or attach an additional page; if you want to reply by electronic means, please log onto our website at [www.cnbm.com.cn](http://www.cnbm.com.cn), click on "Social Responsibility" and then "Social Responsibility Communications – Feedback" :

1. Your overall evaluation of CNBM CSR Report 2012:

Very good Good Average Poor Very poor

2. Your views on CNBM CSR Report 2012 in the following respects:

Contents: Adequate Fairly adequate Average Inadequate Very inadequate

Number of Pages: Appropriate Fairly appropriate Average Few Very few

Design: Very Good Good Average Poor Very poor

Comprehensibility: Very easy to understand Fairly easy to understand Understandable Hard to understand

Very hard to understand

3. What information would you like to get from CNBM CSR Report 2013?

Corporate profile Responsibility management Market performance Technological innovation

Energy saving & environmental protection Employee care Corporate citizen Others

4. Your opinions and suggestions on our work:

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Please provide your contact information so that we can timely respond to your opinions and suggestions. We will keep your information in confidence.

Name: \_\_\_\_\_

Age: \_\_\_\_\_

Gender: Male Female

Occupation / employer: \_\_\_\_\_

Telephone: \_\_\_\_\_

Department / position: \_\_\_\_\_

Postal code: \_\_\_\_\_

Contact address: \_\_\_\_\_

E-mail: \_\_\_\_\_



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Room 2216, Building 2, Guohai Plaza,  
No. 17 Fuxing Road, Haidian District,  
Beijing

Office of Social Responsibility and Energy Saving and Environmental Protection  
China National Building Materials Group Corporation

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