



CHINA NATIONAL BUILDING MATERIALS GROUP CORPORATION

# Social Responsibility Report



## Preparation Notes

This Report gives a true picture of China National Building Materials Group Corporation's (CNBM) performance of social responsibilities.

### Which report is this one? How to get these reports?

This is the fourth English version of social responsibility report released by CNBM. Please ask for the printed version of each year's Report via the contact information on the cover. You can also scan the two-dimension code below or log onto <http://www.cnbm.com.cn/EN/> to download the electronic versions and get more related information.



### Period Covered by the Report

1 January to 31 December 2014; given the progressing continuity of certain businesses or projects, some contents relate to the first and second quarters of 2015, the details of which are indicated in the Report.

### Reporting Frequency

Annual report.

### Entities Covered by the Report

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

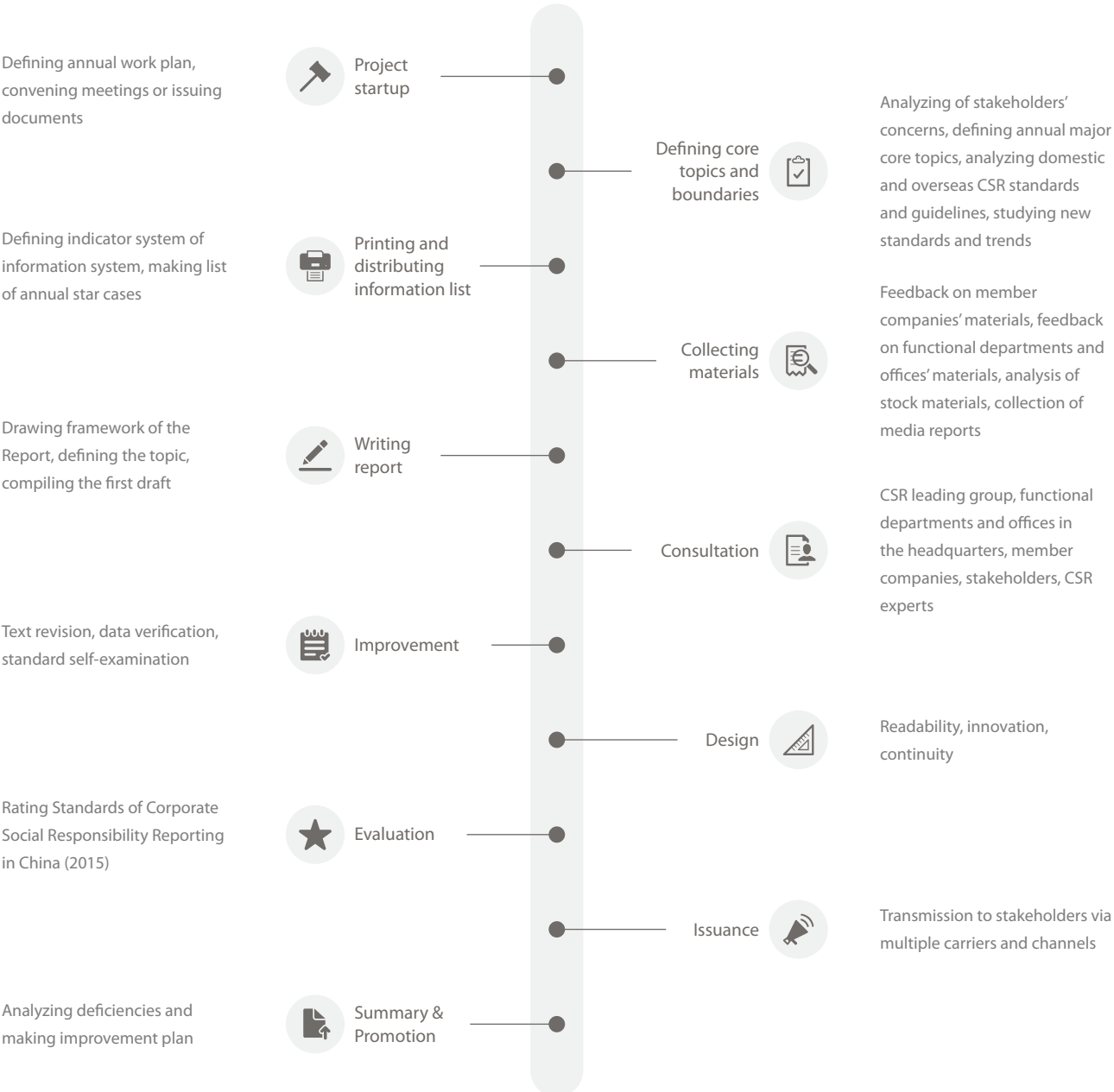
### Data Sources

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



## How is this Report prepared?

This Report is prepared according to China CSR Reporting Guidelines (CASS-CSR3.0) issued by the Chinese Academy of Social Sciences, CNBM Methods of Social Responsibility Management, and CNBM Social Responsibilities Management Information Collection Measures. The detailed preparation process is as follows:







## Energy Saving & Environmental Protection 30

Responsibility Performance Mechanism of Energy Saving & Environmental Protection	32
A Low-carbon and Environment-friendly Travel — Green Manufacturing	34
A Refuse-to-Resource Revolution — Ecological Service	36
A Competition between Building and Energy Consumption — Green Products	38



## Technological Innovation 60

Responsibility Performance Mechanism of Technological Innovation	62
From Professionalism to Sharing — Serve Nationwide Innovation	64
From "Manufacturing" to "Creating" — Furthering the Integration of Production and Research	66
From Innovation to Service — Boosting Green Industry	68

### How to guarantee the data released in the Report?

The financial data in the Report are derived from CNBM 2014 Annual Financial Statement which has been audited by Baker Tilly China.

External data in the Report are derived from those released by third parties through media, sources of which are indicated in the Report.

The non-financial data in the Report are derived from CNBM's statistical data system. Data in the system are faithfully reported by functional departments and offices of CNBM headquarters and its member companies in accordance with CNBM Social Responsibilities Management Information Collection Measures; data of member companies are submitted to the headquarters after approved at all levels; each department or office of the headquarters reviews special data according to its function; to ensure the standardization, reliability and authenticity of the data, the headquarters verify data of member companies through sampling at a proportion of at least 5%.

### On what standards is the Report based? How about the benchmarking and the evaluation?

The Report is prepared in accordance with the Global Reporting Initiative (GRI) G4 Sustainability Reporting Guidelines using the Core option; Social Responsibility Guide (ISO26000) issued by the International Organization for Standardization (ISO); China CSR Reporting Guidelines (CASS-CSR3.0) issued by the Chinese Academy of Social Sciences, etc. Please refer to Page 76-80 of the Report for the benchmarking between the Report and CASS-CSR3.0, and the evaluation result.

### How to feed back opinions and contact us?

You can complete the feedback page in the end of the Report, and send it to us through fax or mail; you can also visit the official website of our company or scan the two-dimension code below, and fill in your opinions on the web page or WeChat; you can also contact us directly through the contact information on the back cover.



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CNBM



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[www.cnbm.com.cn](http://www.cnbm.com.cn)

## Executive's Address

# “Innovation, the way for social responsibility fulfillment under the “new normal”

The China's economy has entered the “new normal”. How to better fulfill social responsibilities thus meet new requirements in the new situation has been a new topic of CNBM. In 2014, stressed by economic downturn, investment slowdown and overcapacity, we implemented the strategy of innovative development. In detail, the issues of vigor and driving force for sustainable development, competitiveness, development scale and benefit and cost were addressed by means of mechanism innovation, technical innovation, business mode innovation and management innovation, respectively, and a way for social responsibility fulfillment under the “new normal” was explored based on practical actions.

**Drive mechanism innovation through reform, motivate the vigor for social responsibility fulfillment:** During merger and restructuring, CNBM, which is engaged in the highly competitive field, proactively practices the mode of “Market-oriented Operation of Central State-owned Enterprises” and takes the new road of market-oriented reform and industrial structure adjustment based on “simultaneous advance of SOE and POE” by adhering to the compound principles of “normative operation, mutual benefit, mutual respect, long-term cooperation” and the formula of “SOE's strength + POE's energy = corporate competitiveness”. This effectively relieves the problems of overcapacity, low concentration ratio and disorder competition in the industry, and drives the concentration ratio of the China's cement industry to rise from 16% of 2008

to 60% at present, with quality and efficiency of development continuously improved. Besides, both the sales revenue and the total profit of CNBM have increased by 100 times over the past ten-odd years. On the basis, CNBM has been quickly promoted from a “grass-roots” central SOE to a member of the Global Top 500, honored as “a good model of quick growth in highly competitive field”.

**Push technical innovation through indigenous innovation and integrated innovation, improve competitiveness for social responsibility fulfillment:** By giving play to technical advantages, we vigorously implement the strategy of indigenous innovation, and have generated a wide range of proprietary intellectual property rights in the fields of building materials, composite material and new energy, which lay foundation for industrial upgrade and strategic transformation of CNBM. By the end of 2014, CNBM has been awarded 4,000+ patents, including 600+ inventive patents. Pushing integrated innovation in line with the concept “integration”, we successfully introduced the advanced technologies of MW-scale wind turbine blade and PV glass by acquiring European enterprises, and introduced the housing technology “energy +” upon cooperation with AGN, to make clear new directions of upgrade and build new economic growth points. Efforts are made to build an open platform for joint innovation in the industry of building materials, and support nationwide innovation in the forms of talent exchange, scientific research alliance and strategic cooperation.





**Guide innovation of business mode through information technology and service-oriented transformation, tap the potential of social responsibility fulfillment:** We proactively explore innovation of business mode with Internet technologies and push service-oriented transformations (housing industrialization, logistics & trade service, testing & certification service, engineering technology service, eco-industry, etc.).The integration of informationization and industrialization is vigorously promoted in the cement segment to practice the new mode of "Internet+ cement manufacturing". The service of cloud computing is applied at [www.okorder.com](http://www.okorder.com) to form the foreign trade mode of "cross-border e-commerce + overseas warehouse", which makes the website the best platform for cross-border spot transaction of building materials in China. In the prefab housing segment, information-based technologies are adopted to offer more than 1,000 personalized house types for customer's selection. In the future, we will spread the concept "green town" all over the world to become the world's largest comprehensive service provider of industrialized prefab housing.

**Innovate management by centering on integration, optimization, transformation and upgrade, improve the strength of social responsibility fulfillment:** Under the macro-environment that the economy enters medium-speed development, CNBM shall undertake the important task of "defend growth". As an enterprise

engaged in the highly competitive field, CNBM proactively creates specific atmospheres favorable to "stable growth" in the overall atmosphere featuring economic downturn. On the basis, the goal of "enterprise with 4 focuses" (focus on innovation-driven development, focus on quality-based benefit, focus on manufacturing service, focus

## Company Profile

As the leader in China's building materials industry, CNBM is the largest comprehensive building materials industry group in China. It has been ranked first among the top 500 enterprises in the building materials industry for many years, 41st among the Top 500 Enterprises in China and 270th among the Fortune Global 500. Up to the end of 2014, the total assets of the Group amounted to RMB 406.9 billion and the total number of employees reached 176,854. In 2014, CNBM achieved revenue of RMB 250.4 billion with total profit of RMB 13.0 billion, whilst taxes paid amounted to RMB 14.6 billion.

With the objective to maximize corporate value and improve core competence, CNBM has developed into a comprehensive building materials industry group with integration of manufacturing, scientific research and development, set of equipment, logistics and trading, through asset restructuring, business integration and management improvement.

Headquartered in Beijing, CNBM has over 1,100 member companies, dominates 6 listed companies, including 2 overseas listed companies. Member companies of CNBM are located in 30 Chinese provinces, municipalities and autonomous regions, whose businesses cover over 120 countries and regions in the world.

Total assets  
RMB

406.9 Billion

Employ

176,854

Revenue  
RMB

250.4 billion

Total profit  
RMB

13.0 billion

Taxes paid  
RMB

14.6 billion

**Largest cement producer**  
in the world

**Largest ready-mixed  
concrete producer**  
in the world

**Largest gypsum board  
producer**  
in the world

**Largest rotor blade  
producer**  
in Asia

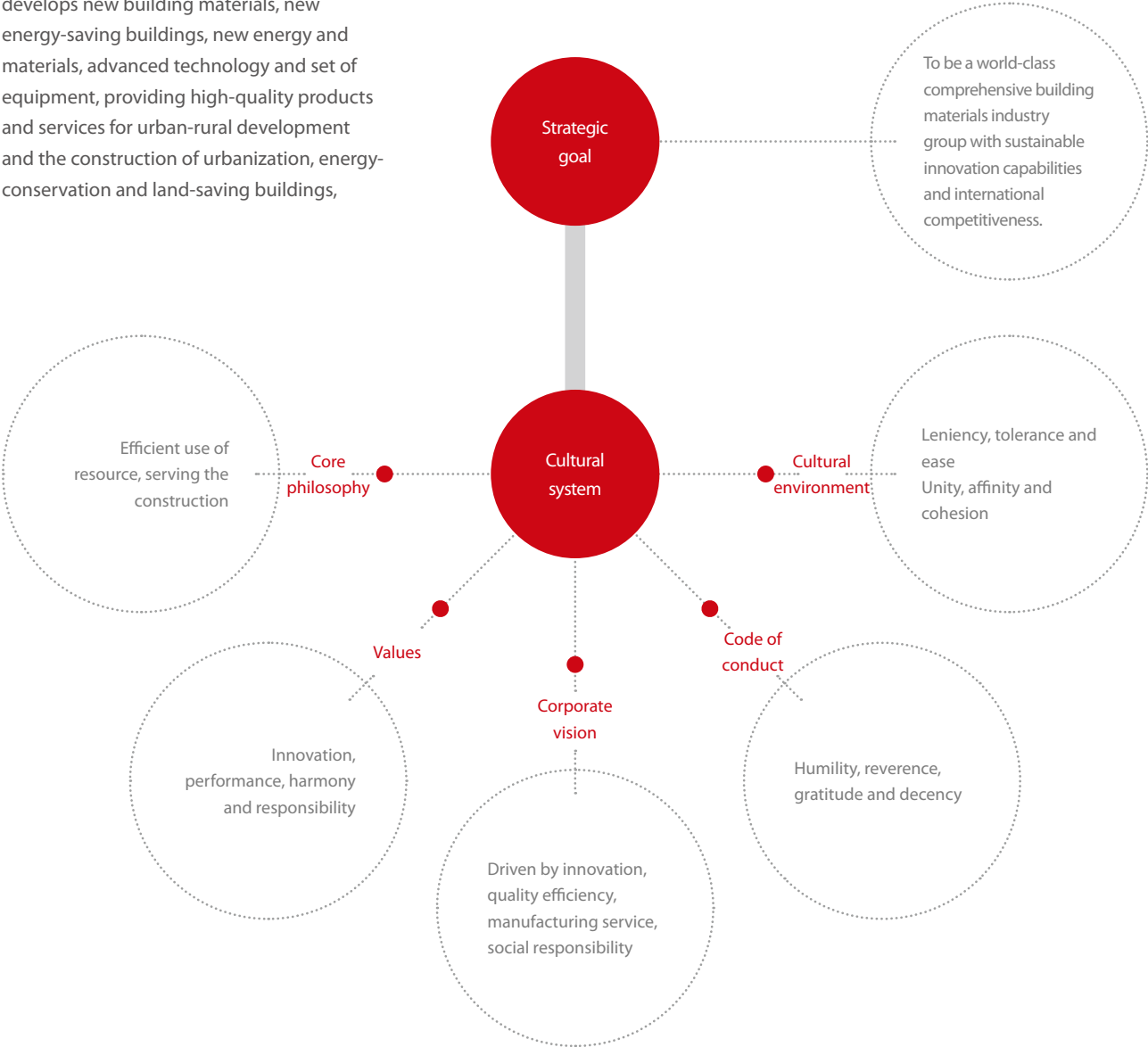
**Leading glass fiber  
producer**  
in the world

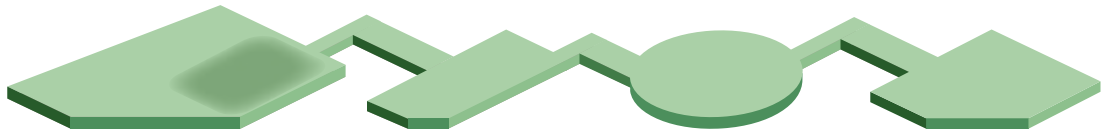
**Leading service supplier  
of glass and cement  
production line design and  
engineering** in the world

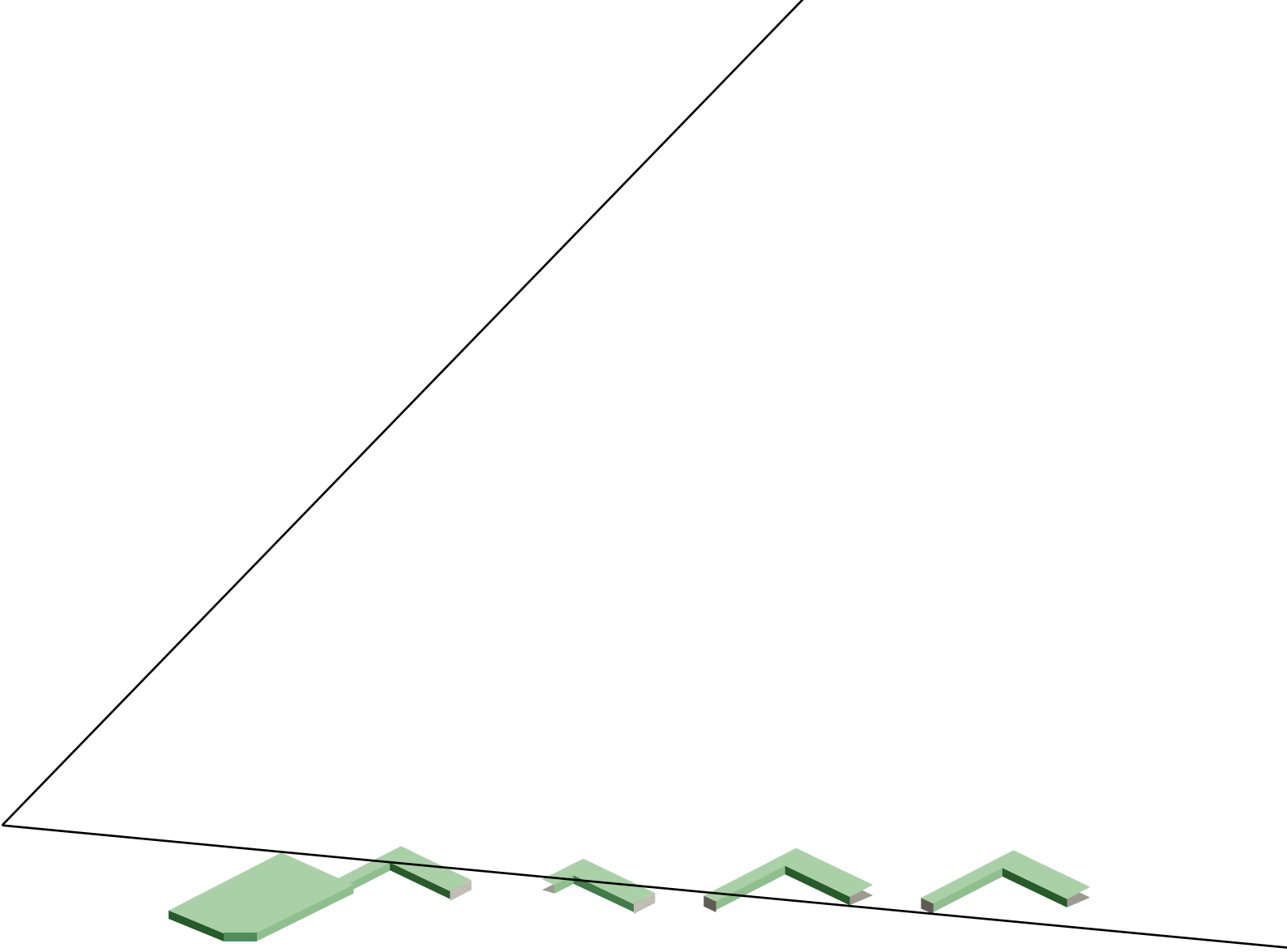


Taking “efficient use of resource, serving the construction” as the core philosophy and technical innovation as the guide, CNBM optimizes and integrates industrial and social resources, adheres to circular economy, promotes combination and restructuring, structural adjustment, and energy conserving and emission reduction of such industries as cement and glass. CNBM vigorously develops new building materials, new energy-saving buildings, new energy and materials, advanced technology and set of equipment, providing high-quality products and services for urban-rural development and the construction of urbanization, energy-conservation and land-saving buildings,

and national key projects. CNBM endeavors to develop enterprises with innovative performances, resource conservation capacity, environment conservation awareness, and social responsibilities, advancing towards the leading position of the industry with international competitiveness, contributing to the sustainable development of the industry and society.




















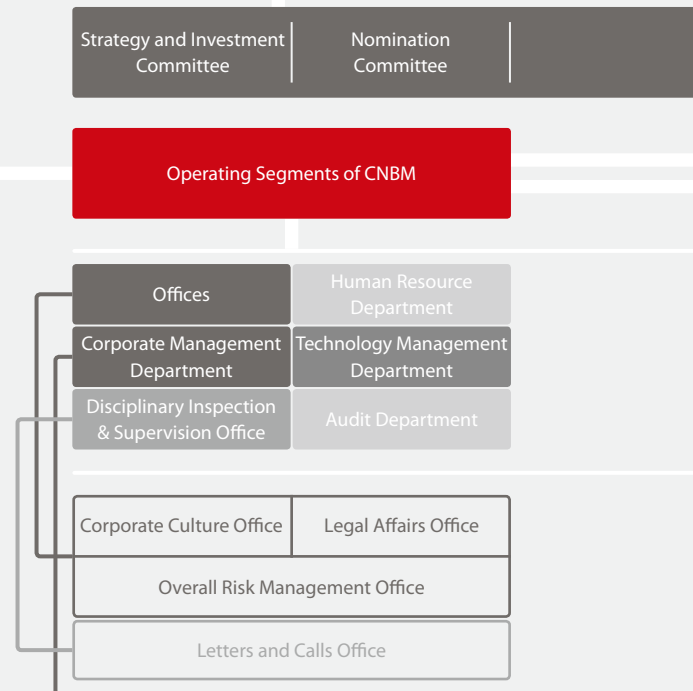
# Governance Structure

The Board of Directors of CNBM has 11 members, 6 of whom are external directors; there are 4 special committees under the Board of Directors, of which the Remuneration and Appraisal Committee and the Audit and Risk Management Committee are charged by external directors. As the strategic, resource and cultural center, the headquarters of the Group exercises the rights and functions of capital contributor.



 <b>Song Zhiping</b> Chairman	 <b>Yao Yan</b> Vice Chairman	 <b>Cao Jianglin</b> Director	 <b>Hao Zhenhua</b> Director	 <b>Zhao Xiaogang</b> External Director	 <b>Chen Jin'en</b> External Director
 <b>Zhu Yanfu</b> External Director	 <b>Peng Xuefeng</b> External Director	 <b>Wang Yumeng</b> Staff Director, Chairman of the Trade Union			

 <b>Cao Jianglin</b> General Manager	 <b>Guo Chaomin</b> Deputy General Manager	 <b>Ma Jianguo</b> Deputy General Manager
 <b>Huang Anzhong</b> Deputy General Manager	 <b>Wu Jiwei</b> Chief Accountant	



**Supervisory Committee**



**Zhao Jibin**  
External Director



**Lu Xiaoqiang**  
External Director

Management Office of the Board

- Remuneration and Appraisal Committee
- Audit and Risk Management Committee



**China National Building Materials Company Limited**

- China United Cement Corporation
- South Cement Company Limited
- North Cement Company Limited
- Southwest Cement Company Limited
- BNBM Public Limited Company
- China Composites Group Co., Ltd.
- Lianyungang Zhongfu Lianzhong Composites Group Co., Ltd.

**China Building Materials Academy**

- China Building Materials Academy (Beijing Headquarters)
- Ruitai Materials Technology Co., Ltd.
- China Building Materials Test & Certification Group Co., Ltd.
- Hefei Cement Research & Design Institute
- Harbin FRP Institute
- CNBM Design & Research Institute
- Qinhuangdao Glass Industry Research and Design Institution
- Xi'an Research & Design Institute of Wall & Roof Materials
- Xianyang Research & Design Institute of Ceramics
- Horological Research Institute of Light Industry

**China National Building Materials & Equipment Import & Export Corporation**

- CNBM International Engineering Co., Ltd.
- CNBM International Corporation
- CNBM Technology Co., Ltd.

**Beijing New Building Materials (Group) Co., Ltd.**

- INTECH Building Co., Ltd.
- BNBM International Woods Co., Ltd.

**China National United Equipment Group Co., Ltd.**

**China New Building Group Corporation**

- China New Building Huagou Residence Industry Co., Ltd.

**China Triumph International Engineering Co., Ltd.**

- China Luoyang Float Glass Group Co., Ltd.
- Henan Zhonglian Glass Co., Ltd.
- Bengbu Design & Research Institute for Glass Industry
- Anhui Huaguang Photoelectricity Materials Technology Group Co., Ltd.

**CNBM United Investment Co., Ltd.**

- Zhongfu Shenying Carbon Fiber Co., Ltd.

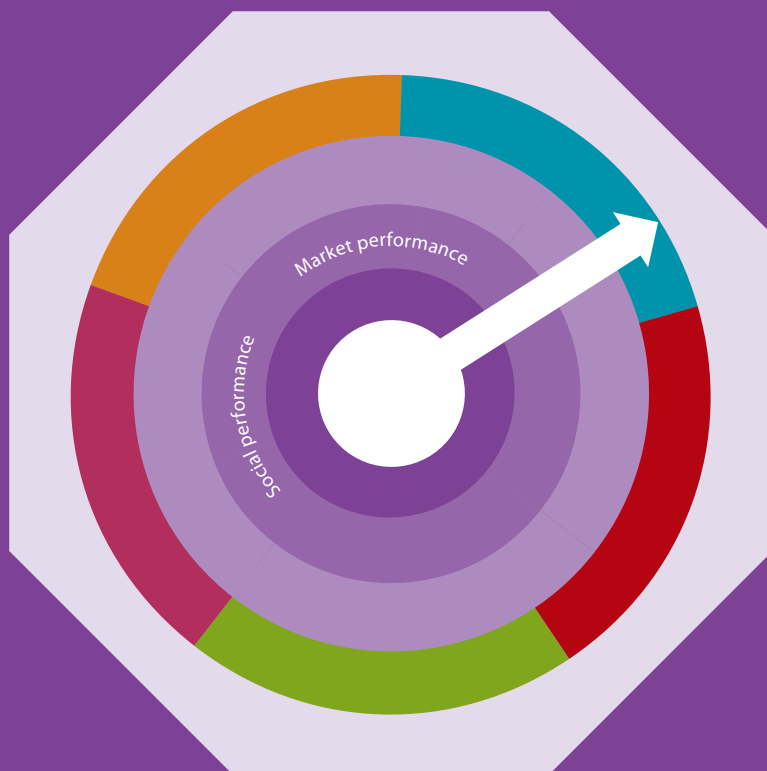
**Zhejiang Leomax Group Co., Ltd.**

**CNBM Assets Management Corp.**



# Responsibility Management

Social responsibility mode





## Responsibility Concepts

We pay close 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 resource, serving the construction” and regard “innovation, performance, harmony and responsibility” as our core values. We stress both technology and management innovation in our development, pursuing 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, performing social responsibility in five aspects namely market performance, energy saving & environmental protection, employee care, corporate citizenship and science & tech innovation. We are committed to becoming a world-class comprehensive building materials industry group with sustainable innovation capabilities and outstanding international competitiveness.

## Core Topics



### Market Performance

We reward our shareholders and investors with excellent operating results, serve our clients with quality products and services, growing together with our suppliers and industrial partners, and providing 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.



### Energy Saving & Environmental Protection

We comprehensively utilize industrial and urban wastes, producing low-carbon products with minimized consumption and emission. We are committed to providing reliable and green building materials, rendering products and service support to the industry of new energy, sharing effective green technology and management experience, exploring development modes for the harmonious coexistence of industries and nature, and advocating sustainable development of industry and society.



### Employee Care

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'll build a sustainable and better future together with all our employees and deliver happiness to the society.



### Corporate Citizen

In the process of production and operation, we pursue mutual development and growth with the region where we operate; our achievement cannot be realized without the support of relevant stakeholders and the society, we reward the society through characteristic public undertakings. Our employees are pleased to contribute to the society and actively participate in voluntary service, practically performing the responsibilities of corporate citizens.



### Science & Tech Innovation

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 a greener, more comfortable and more intelligent living environment, and build a sustainable future.

# Responsibility Management Mechanism

## Organizational System

- We take the leading organization of social responsibility as the core with "CNBM Leading Group for Promoting Social Responsibility" headed by the Chairman. The Leading Group, the highest leading organization to promote social responsibility endeavors, is in charge of guiding and promoting social responsibility initiatives.
- We take the social responsibility management functional organization of the headquarters as the links, direct and advance member companies in strengthening the social responsibility management and actively performing their responsibilities. According to the division of businesses, functional departments in the headquarters work in coordination to advance special tasks.
- With member companies at all levels as nodes, and according to the unified requirement of the headquarters, we define functional departments and assign management personnel to perform social responsibility plan and scheme of the group, satisfy work requirements, and actively perform responsibilities.

# 343

quantitative indicators of social responsibility management.

# 10<sup>th</sup>

in Top 300 Enterprises of CSR Development Index of China in 2014.



## Management methods

- We have included social responsibility management in the strategy and the overall plan of the group with its objective, measures and priority of improvement made clear, to continuously improve its performance and level and bring it to the international advanced level by the end of 2018.
- We have issued and are implementing the Guiding Opinions on Social Responsibility Fulfillment of CNBM, the Administrative Measures for Social Responsibility Fulfillment of CNBM and the Measures for Collecting Information about Social Responsibility Fulfillment of CNBM, to systemize, institutionalize and standardize social responsibility management.
- The “CNBM Social Responsibility Management Information System” is run for online management of information about social responsibility fulfillment and social responsibility administrators. The system covers more than 1,000 member enterprises and 343 indexes of internal management.
- We prepare and issue annual social responsibility reports to continuously improve

the capability of social responsibility fulfillment and improve management through the procedures of preparation, benchmarking and assessment. Reports are regularly published and information about developments of social responsibility fulfillment is irregularly released at the special column of the website to constitute an information disclosure system and establish an effective communication platform.

- Social responsibility teams of member enterprises are

improved in terms of quality and professional proficiency by means of publicity and training. The practice of social responsibility fulfillment is pushed by cultivating and selecting highlighted cases. An assessment mechanism is explored to systemize and normalize social responsibility fulfillment.

About **24,000**

employees participated in training related to social responsibility in 2014.



## Continuous Improvement

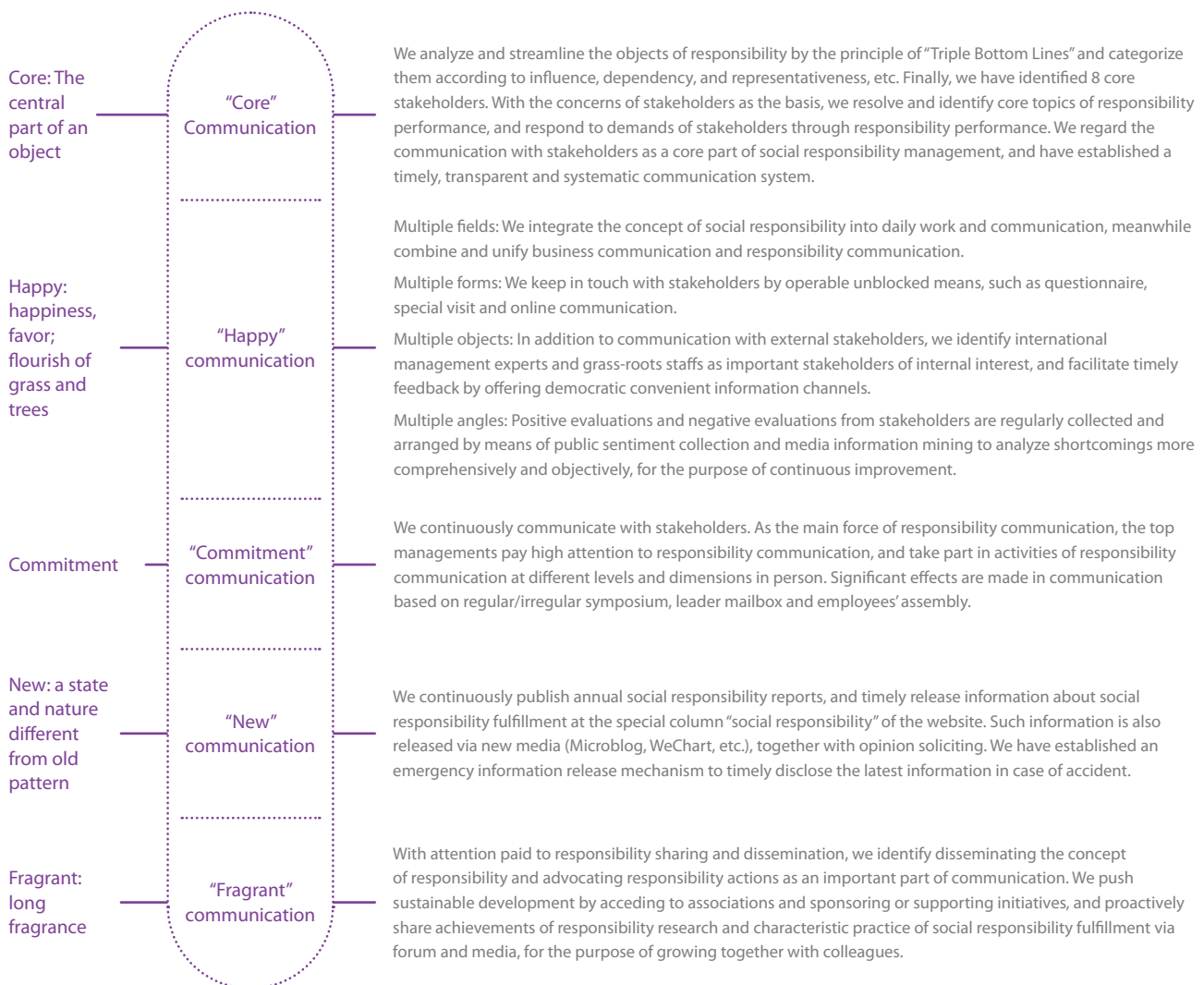
- We give full play to the talent resources of management experts within the Group, and take their suggestions and advice in terms of adjustment of concept and strategy of social responsibility, preparation and revision of management systems, and the establishment and quantification of social responsibility indicator system, ensuring the feasibility and operability of social responsibility management mechanism.
- We strive for social resources, actively seek help from professional consulting agencies, learn new trends of social responsibility theories, grasp latest international development tendency of the social responsibility, further study the new standards and requirements of social responsibility management, and guarantee the professionalism and compliance of the Group's social responsibility management system.
- We selectively take part in external performance evaluations; rely on advanced, applicable, objective and fair evaluation systems and agencies; implement comprehensive evaluation and benchmarking in such special aspects as report quality, responsibility performance, responsibility management, etc.; pay attention to the progress and effect of social responsibilities of international and domestic enterprises, the industries in which we operate, enterprises in the supply chain, and other related enterprises; learn from others' strong points to offset our own weakness and make continuous improvement.
- We actively seek help from professional consulting agencies, learn new trends of social responsibility theories, grasp latest international development tendency of the social

**5**<sup>star</sup>

in the 2014 Evaluation of Corporate Performance of Social Responsibilities in the Industry of China.

## Communicate with "heart"——Responsibility Communication

Communication is the best way to enhance understanding and build mutual trust. Effective communication not only enables stakeholders to be fully aware of whether enterprises live up to their responsibilities in time, but also helps us make continuous improvements according to opinions and advice. From the identification of stakeholders to the design of communication mechanisms, from the identification of communication subjects to the selection of communication approaches, we have established a unique and effective responsibility communication system while combining our routine operation and management processes.





Nearly **23,000** person-times

That's the number of communication with external stakeholders in 2014.

**5,221**

occasions of communication with external stakeholders were presented with corporate senior management in 2014.

Joined **2**

international organizations related to social responsibilities and sustainable development.

Participated in **2**

external social responsibility research projects in 2014.

Stakeholders	Communication Ways	Focus	Responding Measures
<b>Investors</b>	Regular reports Corporate reports Marketing activities Dialogues with and feedbacks from shareholders	Protecting the interests of shareholders and creditors Ensuring truthfulness, accuracy, timeliness and integrity of information disclosure	Improving information disclosure mechanism Enhancing corporate values Regulating corporate governance Improving relations with investors
<b>Government</b>	Releasing laws and regulations Feature reports and visits Information submission Evaluation of work targets	Requirements on safety, environmental protection and compliance Securing supply Offering employment opportunities Boosting regional economic development	Lawful operation and implementation of government policies Sustainable quality operation Paying tax Offering employment opportunities
<b>Clients</b>	Meetings and consultation with clients Daily contacts Client feedback mechanism Telephone service	Speed of response Quality of service Special requirements Complaint handling	Offering quality product and service Advocating green consumption Improving quality management Protecting clients' privacy
<b>Partners</b>	Contract negotiation Bidding sessions Management meetings Correspondence exchanges Daily business communication	Price and timely payment Long-term partnership Profit distribution Information sharing Integrity and mutual benefit Risk reduction	Honest operation Promoting supplier responsibility Building effective partnership Building effective communication mechanism
<b>Employees</b>	Employee representative meeting Publicity of factory affairs Employment contracts Rational proposals Regular communication Petition	Employee rights Career development planning Complaint handling Occupational health Democratic management Publicity of factory affairs	Protecting employee rights Offering competitive remuneration Improving employee benefits Enhancing employee training Offering safe working environment and health protection Building effective communication mechanism Improving democratic management
<b>Communities and media</b>	Signing public welfare agreements Taking part in voluntary service Daily contacts	Environmental protection Jointly building a harmonious community	Timely information disclosure Increasing participation in public welfare Participating in community activities
<b>Social organizations</b>	Taking part in meetings or activities regularly Daily contacts	Environmental protection Jointly advocating sustainable development	Playing the role as a member Offering economic and technical support Building cooperative relationship

## Growth•Sharing•Accountability ——Capacity Building

### Past: growth

In 2010, CNBM published the first annual social responsibility report to explore social responsibility fulfillment in zero-based way. Based on learning, research and counseling by professional institutions, with the help of stakeholders, we gradually establish and perfect social responsibility organization systems, prepare and perfect social responsibility management systems, deepen the

concept of social responsibility, build social responsibility models, carry out stakeholder management, and implement the mechanism of regularly publishing social responsibility reports. Based on benchmarking and assessing the performance of social responsibility fulfillment, we continuously improve the capability and level of social responsibility fulfillment. The concept of social responsibility

penetrates into all aspects of corporate strategy, culture, decision and operation, bit by bit, and guides more than 1,000 member enterprises to proactively practice social responsibility fulfillment. Over the 5 years, CNBM has grown out of nothing to a practitioner of social responsibility fulfillment based on multiple “first” and “supreme” events.

### Present: sharing

In 2014, the 5th year of comprehensively pushing social responsibility management in CNBM, we formed a perfect social responsibility management system, and accumulated unique theories of management and practical experience. Simultaneously with continuous deepening and improvement, we seek a new direction of growth in process of sharing and cooperation. In the year, CNBM formally acceded to the United Nations Global Compact to discuss the best way for improving capability and performance of social responsibility fulfillment with more diversified practitioners of social responsibility fulfillment on the internationalized platform.

As a member of the Cement Sustainability Initiative (CSI), CNBM studies and discusses how to effectively combat climate change and realize sustainable development of the cement industry together with colleagues, and join hands with colleagues for development in the severe environment featuring economic downturn and overcapacity, based on taking the lead to perform self-discipline conventions of the industry. The project of preparing the Guidelines for Preparing Corporate Social Responsibility Report 3.0-Industry of Non-metallic Mineral Products with Chinese Academy of Social Sciences has been launched to contribute resources of management

and practice, and serve study, publishing and promotion of social responsibility standards. We take part in social responsibility sharing and advocacy activities in different fields, and disseminate concepts, share experience and sponsor initiatives through “Golden Bee 2020”, China Federation of Industrial Economics, China Building Material Federation, China Building Materials News, etc. In continuous sharing, study and discussion, we make efforts to be a disseminator and advocator of social responsibility, and seek better ways of sustainable development based on cooperation.

### Future: accountability

The industry of building materials is of importance for security of national economy, development of upstream and downstream industries as well as prosperity of regional economy. In the past, we focused on improving practices in line with treaties, standards and advocacies, and improved our management by soliciting opinions from stakeholders. On the new stage of growth and in the new macro-environment, CNBM is supposed to perform new duties. By integrating the concept of responsibility into supplier evaluation, product design and strategic cooperation in depth,

we guide suppliers, customers and partners to carry out responsibility management against activities on the value chain, and serve as a leader of sustainable development on the value chain. By integrating the concept of responsibility into the process of internationalization in depth, we extend the social responsibility management system to the overseas fields and regions where we invest, operate and offer service. Based on cultural respecting and legal compliance, we disseminate advanced technologies, prosper local economies, establish service areas and build an image of

responsibility to serve as a pioneer of internationalized operation of Chinese enterprise under the strategy “One Belt and One Road”. By integrating the concept of sustainable development into technological innovation, transformation and upgrade in depth, we accelerate study on new technologies, products and types of operation as well as transformation of research achievements, to build a new value chain and new economic growth points and serve as a driver of innovation promotion under the “new normal”.



On January 17, CSR Research Center of Chinese Academy of Social Sciences officially released 2013 White Book of Corporate Social Responsibility in China, in which CNBM 2012 Social Responsibility Report ranked the 2nd among five-star reports.

In February, CNBM joined United Nations Global Compact as the member of presidium of Network China. Chairman Song Zhiping was named as member of the second presidium of Global Compact Network China.

On June 6 "Green Town" Facilitates the Construction of New Urbanization" project of BNBM Public Limited Company was listed as an example case of products and services for sustainable development.

On June 26, Chairman Song Zhiping attended 2014 China Summit on Caring for Climate of UN Global Compact China Network and delivered a keynote speech. CNBM was awarded with the honor of "2014 Pioneer Enterprise of Care for Climate · Ecological Civilization".

On June 30, CNBM released 2013 CNBM Social Responsibility Report, which was rated 5-star by Chinese Academy of Social Sciences according to new preparation and evaluation standards, which was the highest evaluation among CSR reports in the building materials industry of China.

On July 26, CNBM was awarded with the title "2014 Five-star Enterprise in Social Responsibility Performance in the Chinese Industry" by China Federation of Industrial Economics and UNIDO.

On August 15, CNBM was awarded with the title of "First Batch of CSR Practice Base" by Social Responsibility Strategic Research Center for Chinese Building Materials Enterprises.

On November 13, CSR Research Center of Chinese Academy of Social Sciences officially released 2014 Blue Book of Corporate Social Responsibility, in which the social responsibility development index of CNBM was 82.5 marks, ranking the 10th among top 300 enterprises in China. CNBM was rated as a five-star company of CSR development index in China, and managed to maintain its position in the team of "excellence" among Chinese enterprises in terms of corporate social responsibilities.

On December 11, Chairman Song Zhiping was named as "2014 Person of Responsibilities" by China News Service and China Newsweek.

2014

On January 14, CNBM was awarded with the Award of "2012 People's Enterprise of Social Responsibility" in the "Positive Energy · the 7th People's Award of Social Responsibility" hosted by the People's Daily Online.

On February 26, CNBM officially issued three management systems, including CNBM Instructions on Implementation of Social Responsibility.

On June 30, CNBM released 2012 CNBM Social Responsibility Report. The Report was rated 5-star by Chinese Academy of Social Sciences, which was the highest evaluation among CSR reports in the building materials industry of China.

On November 14, CSR Research Center of Chinese Academy of Social Sciences officially released 2013 Blue Book of Corporate Social Responsibility, in which the social responsibility development index of CNBM was 80.5 marks, ranking the 7th among top 100 enterprises in China. CNBM managed to break into the team of "excellence" among Chinese enterprises in terms of corporate social responsibilities.

On December 20, CNBM was awarded with the "2013 Demonstration Enterprise Award of Public Transparency among Top 50 Enterprises in China".

2013

On March 3, CNBM enabled the mechanism of internal expert's advice and feedback for social responsibility.

On April 18, CNBM enabled CNBM Information System of Social Responsibility Management to collect data of social responsibility management.

On June 30, CNBM released 2011 Social Responsibility Report. The Report was rated 4.5-star by Chinese Academy of Social Sciences, which was the highest evaluation among CSR reports in the building materials industry of China.

On July 30, CNBM released the English version of 2011 Social Responsibility Report, which was the first English report in the building materials industry of China.

On December 22, Social Responsibility Management System Construction of Large Building Materials Enterprise with Sustainable Development as the Guide, the social responsibility management practice of the Group, was awarded with the second prize of the 19th National Award for Innovation Achievements in Modernization of Management, and the first prize of Innovation Achievements in Modernization of Management of the Building Materials Industry.

2012

On January 21, CNBM established "Social Responsibility and Energy Saving and Emission Reduction Office".

On April 20, CNBM prepared and applied CNBM Social Responsibilities Management Data Indicator System.

On June 17, CNBM was awarded with the highest honor of "Special Award of Social Responsibility" in 2011 China Corporate Social Responsibility Annual Meeting.

On June 27, CNBM released 2010 Social Responsibility Report of CHINA NATIONAL BUILDING MATERIALS GROUP CORPORATION themed on "Innovation for Sustainable Development in the Future", which was the first themed report in the building materials industry of China. The Report was rated 4-star and excellent by CSR Research Center of Chinese Academy of Social Sciences, which was the highest evaluation among CSR reports in the building materials industry.

On July 28, CNBM formulated annual promotion plan for CSR.

On November 8, in 2011 Research Report on CSR of China released by Chinese Academy of Social Sciences, the "social responsibility development index" of CNBM ranked the 15th, which was among the leading group.

2011

On May 13, CNBM established "CNBM Leading Group to Advance Social Responsibility Work" with Chairman Song Zhiping as the group leader.

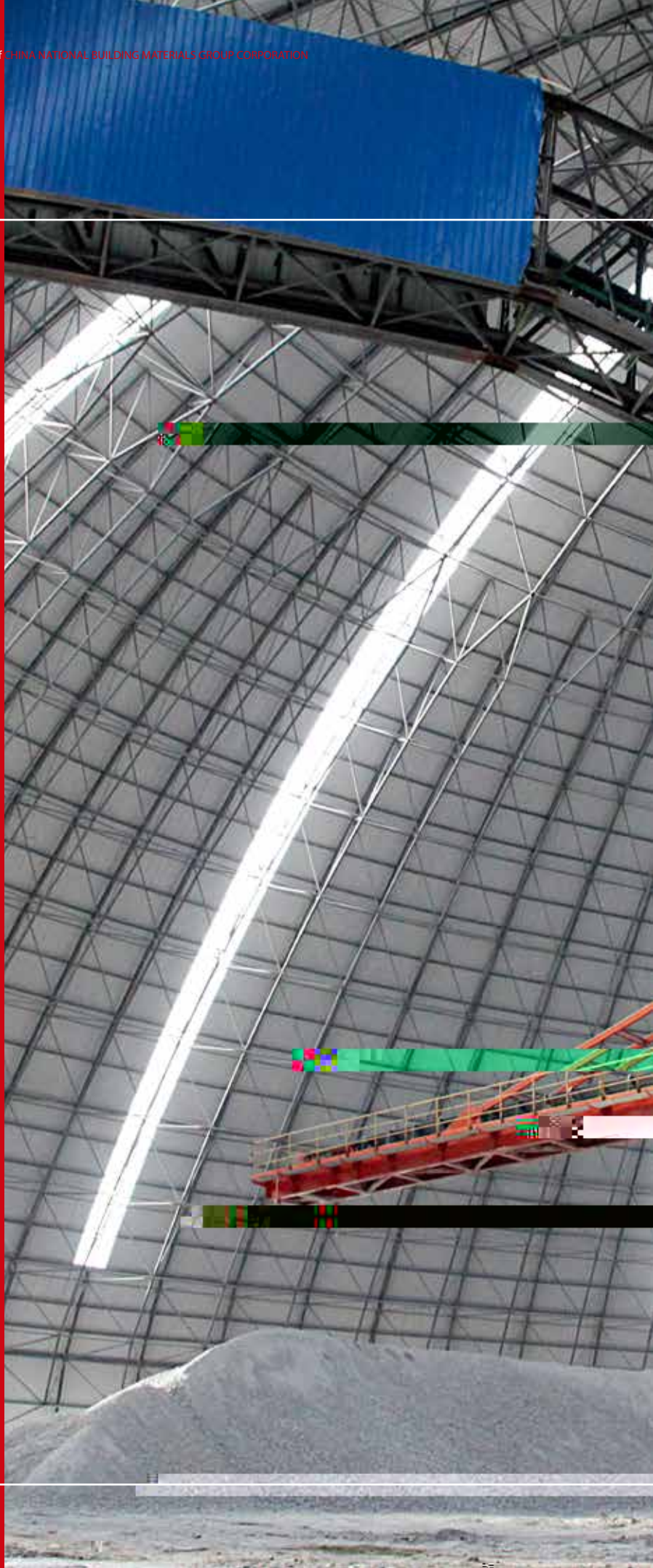
On September 20, as the first enterprise releasing an annual corporate social responsibility report in the building materials industry of China, CNBM released 2009 Social Responsibility Report.

2010

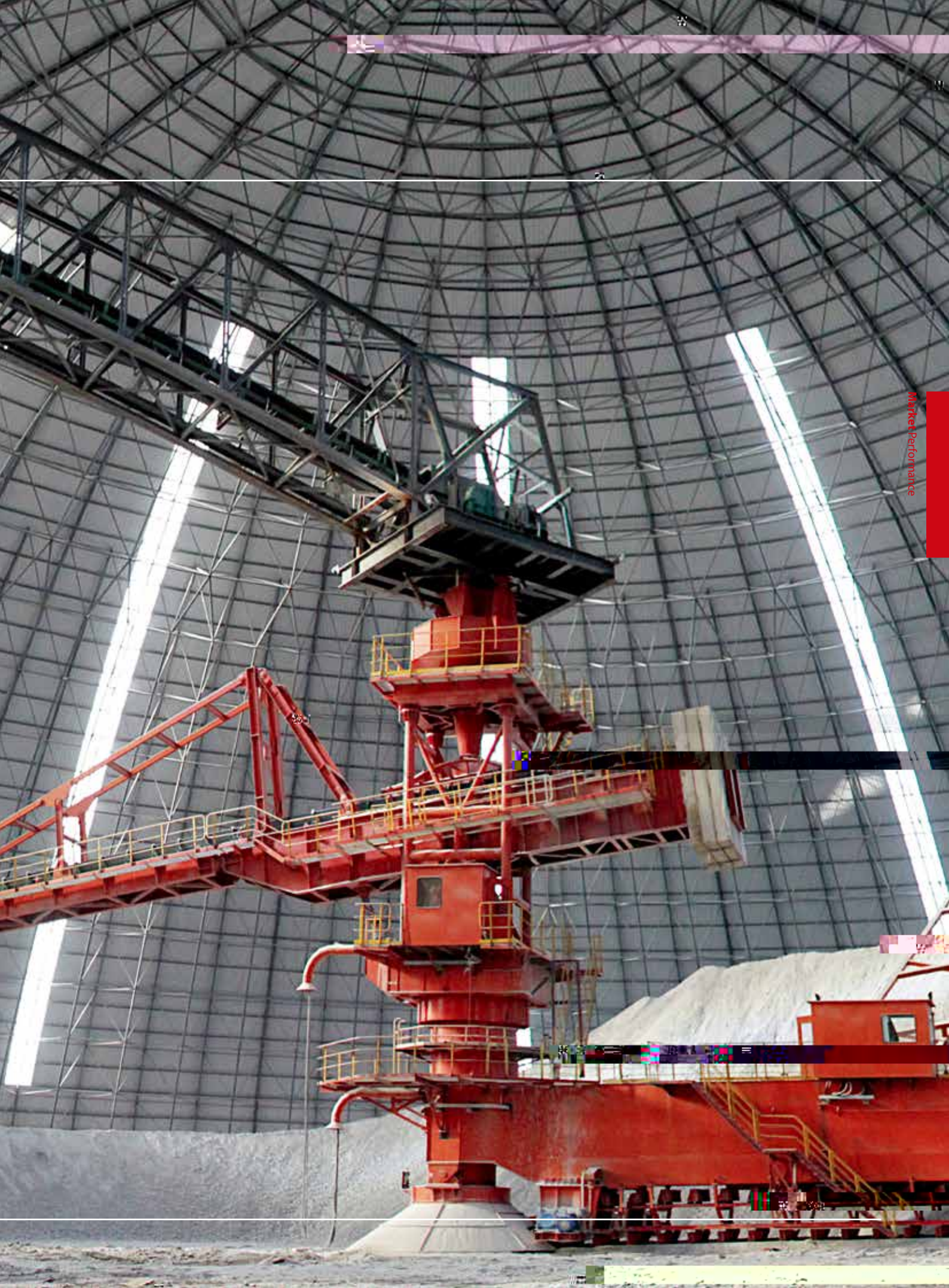


# Market Performance

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 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.







Market Performance



# Responsibility Performance Mechanism of Market Performance

Revenue  
RMB **250.4** billion

Total profit  
RMB **13** billion

Taxes paid  
RMB **14.6** billion

## Lawful Operation

- We insist on the working rule of lawful, compliant and honest operation. The Group has been awarded as AAA in credit rating for many years.
- We insist on fair competition without infringing competitor's or partner's rights by improper means or misconducts (fraud, bribery, malicious price cutting, etc.), and advocate building good partnerships based on free will and equality. In international operations, we firmly maintain national interests and our dignity, and actively respond to malicious anti-dumping events. With great attention paid to promote the concept of fair competition, staffs are organized to participate in fair competition training.
- We continue to improve our legal affairs mechanism. Major decisions and management contracts must be subject to a strict legal review procedure. Rules and regulations can be issued and put into practice only if approved by the legal affairs office; we adhere to the integration of law popularizing activities with legal affair management and by means of law-popularizing activities in different form, we deeply publicize the concept of "legal system" and prevent risks in a systemic way.
- With much attention paid to anti-corruption, we integrate anti-corruption into reform, development and stabilization of the enterprise; we emphasize integrity in work and make efforts to create the culture of integrity; to give full play to its effects, efforts are made in efficiency supervision and inspection; we establish and perfect bodies for discipline inspection and supervision and further develop organizations and teams for discipline inspection and supervision, with work efficiency and quality of the Group continuously improved.

## Win-win Partnership

- Keeping the responsibilities of leading enterprises in mind, we serve economic and social development, pay taxes, offer opportunities of employment, and support programs for public good, making contributions to national economy and harmonious development of the society.
- Under the concept of "industry interest overweighs and breeds corporate interest", we firmly curb illegal and blind capacity expansion, and practice expansion based on stock combination, technological transformation and upgrading based on incremental input, and benefit creation based on management integration; we maintain balance between supply and demand in the market, execute industrial reconstruction, improve concentration ratio of the industry, and endeavor to create a new intra-industry ecosystem.
- Performing social responsibilities is included in supplier evaluation system. Our suppliers are dynamically evaluated in terms of law compliance, environmental protection, protection of laborer's rights and interests; any form of commercial bribe is prohibited. We urge our suppliers to continuously improve product quality, and supervise and push suppliers to pay attention to physical and psychological health of their staffs. In each bidding for production line construction, safety, energy saving and environmental protection are essentially included in bidding document. During construction, we pay sustained attention to occupational health, safe production, and protection of staffs' basic rights.
- The concept of social responsibility has been integrated into procurement management. We stick to "sunshine procurement", and spare no effort to eradicate commercial bribes in procurement by pushing regional procurement-bidding integration, bidding process normalization, bidding performance opening and



# 66,000

66,000 person-times of employees participated in legal publicity and education in 2014.

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# 100%

of our rules, regulations, management decisions and management contracts were legally reviewed.

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# 99.0%

of business contracts were performed in 2014.

## Quality Service

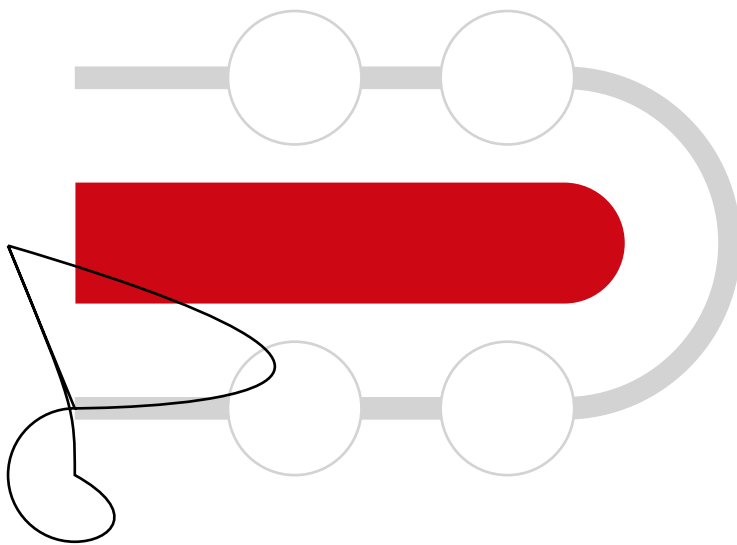
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- We provide material supports and technical services for national key projects and urban infrastructures, and systemic building materials solutions for residents' daily life. Through our various products, sufficient production capacity, reliable quality assurance, globalized marketing system and convenient and friendly service

system, we offer customers ret0 1 Tf m103.4 0(.)UJET36u priur (alu10(es). m103.42.857UJETC  
ssurwing m4.1(t)6(er)-4(s 11(t)6o4(t)UJT\*Vs w)10(er)-y4(t pr)10.1(oduc)-1s b) 35-y4QC g1(t7(l

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Since Chinese economy is facing a critical stage when transformation and upgrading are accelerated to fit in with new normal, in order to further emancipate and develop productive forces and fit in with new normal and new requirements, we pursue vitality and sustainable driving force of growth through mechanism innovation, competitiveness through technological innovation, development scale through new business models, and higher benefits and lower costs through management innovation by continuously speeding up transformation and upgrading and timely adjusting our strategic path.



### Vitalizing the Enterprise Through Mechanism Innovation

As an enterprise in the fields with full competition, overcapacity, low industry concentration, and out-of-order competition, during its merger and reorganization, CNBM develops a new path that features market-oriented reform and industrial restructuring via “simultaneous advance of SOE and POE” by following the model of “market-oriented operation of central SOEs”, the compound principle of “normative operation, mutual benefits and win-win results, mutual respect, and long-term cooperation” and the combination formula of “the strength of central SOEs + the energy of POEs = competitiveness of enterprises”. During the past over ten years, sales revenue and total profit of CNBM respectively grew by 100 times. We have developed from a “grass-roots central enterprise to an enterprise ranking on the list of Fortune Global 500. We maintain the leading role as the world’s second largest building materials enterprise and are honored as “an example of fast-growing enterprises in the fields with full competition”.

### Stronger Competitiveness based on Technological Innovation

We continuously optimize the commodity structure in traditional sectors and extend our industrial chain. In the sector of cement, we pursue the development of high-grade, specialized, ready-mixed, and commercialized cement. We have established four specialized cement bases and national technology centers, with over 20 million tons of specialized cement provided each year. In the sector of glass, we stop manufacturing traditional common and float glass and start to develop “e-glass, photovoltaic glass, intelligent glass, and energy-efficient glass”. The “Three New” strategy of new building materials, new houses, and new energy materials is a new growth engine. We independently develop plasterboard production line with an annual capacity of 50 million m<sup>2</sup>, glass fiber pool kiln wiredrawing production line with an annual capacity of 120,000 tons, T700 carbon fiber production line with an annual capacity of over 1,000 tons, and 6 MW large-scale wind turbine blade production line. All of these can represent top industrial technologies in the world.



KPI



## Expenditure, Consumption and Costs Reduction —— Lower Costs and Higher Efficiency

2014 witnessed many challenges and tests. With Chinese economy entering into new normal, industrial development also reached a plateau. In this year, we strove for strategy-driven growth and acted according to our goals. By firmly adhering to principle of “increasing efficiency and reducing liabilities through integration and optimization” and the six-character guideline of “stabilize prices, reduce costs, make collections”, we fully implemented our costs reduction plan and achieved sharp reduction in raw materials, manufacturing, and management costs through a series of effective measures, including delicacy management, technological innovation, management innovation, etc. The prices of our main products were stable; costs continuously declined; gross profit rate went up; revenue and profit rose steadily.

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### Lower Costs based on All Staff's Innovation

Jushi Group Co., Ltd. advances the implementation of the working method of “increasing income and reducing expenditures and consumption”, which is an innovation model with all staff's participation. In this model, “workers propose their

## Innovation for Cost Control

# 2%

That's the percentage Zhongfu Lianzhong reduced the direct materials cost for blades in the area of blades of 40.3 to 55 meters in 2014.

Lianyungang Zhongfu Lianzhong Composite Material Group Company Limited controls its costs through technological innovation. The company effectively reduces cost of raw materials by accelerating the trial of raw material replacements, operation cost by optimizing technique, waste caused by defective products by improving product quality, and labor and energy cost by process management and control. In the area of blades, the company has reduced adhesive consumption for each blade by 10%- 15% by

bettering technological equipment and process; by strengthening quality management and process control, the company adopts single-layer vacuum bag film to replace double-layer vacuum bag film; through mold improvement, the company improves the positioning accuracy of baffle rings, and the length of reserved part in root segment has been reduced to 30 mm from 80 mm, with less cut waste made. Through the above-mentioned technical improvements, in the area of blades of 40.3 to 55 meters, the direct materials cost

Cost Reduction based on  
Benchmarking

## Smart Services

### – “Internet Plus” Service Platform Throughout the Whole Industrial Chain

By virtue of [www.okorder.com](http://www.okorder.com), [www.dz18.com](http://www.dz18.com), and [www.cnbmtendering.com](http://www.cnbmtendering.com) China National Building Materials & Import & Export Corporation endeavors to establish “Internet plus” service platform throughout the whole industrial chain by combining traditional building materials manufacturing and marketing with new generation of information technologies, such as Internet of things, cloud computing, big data, etc.

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## The Website of [www.dz18.com](http://www.dz18.com)

The website of [www.dz18.com](http://www.dz18.com) is a bulk commodities spot exchange and comprehensive service platform, with a purpose of integrating the whole industrial chain of iron and steel industry. Based on cloud computing, big data, and mobile Internet



## Intelligent Factory

## – Intelligent Production Model of “Cement + Mouse”

China United Cement Taishan Co., Ltd.'s intelligent cement factory with a capacity of 5,000t/d, namely world demonstration production line of low energy consumption, is designed and generally contracted by Nanjing Kisen. Under this project, six-stage cyclone preheater system, two-gear rotary furnace, and fourth generation grate cooler technology with central roll crusher are adopted; intelligent technologies including digitized mining, automatic proportioning, intelligent control of kiln and mill, intelligent routing inspection, etc. are employed to integrate several intelligent sub-systems related mines, raw materials, sintering, grinding, etc. into a short-process, full-automatic, and intelligent cement manufacturing system. Such a breakthrough in cement technical process layout effectively shortens manufacturing process.

The digitized monitoring rate of equipment, instrument, and control equipment in the whole factory hit over 95%. Both-way communication between intelligent equipment and control systems can be achieved. In a control room, the operation states and parameters of them can be monitored online, and measurement, setting, fault analysis, and operation maintenance for them can be conducted.

Mining, critical production process, and security operation and maintenance are controlled in an intelligent way. In terms of mines, by virtue of three-dimensional mine database and based on raw material requirements and testing results from online analyzers, we can achieve homogenized mining by controlling excavation and loading via GPS-based mining trucks and excavator dispatch systems, with pre-blending bed removed and process streamlined.

By virtue of advanced online analysis and testing devices, critical control links related to raw material ratio, quality control, etc. can be monitored online and analyzed in real time, which guarantees the stable composition of raw materials and improve the quality of clinker.

Critical links related sintering, raw materials, cement grinding employ expert intelligent control system, where operation quality can be improved from average operator level to optimal operation model by completing process operation via automatic navigation, thus ensuring that production system can always maintain its optimum state.

A three-dimensional monitoring network is established, with signal covering the whole factory. Through monitoring platform and large screen in central control room, real-time image provided by production monitoring system and production state of the whole scene of the factory can be observed, which makes unmanned cement production site possible.

By virtue of communication modules installed at sites, on-site equipment and the server of long-distance running guarantee center can be connected based on encryption. Through long-distance service platform, operation and maintenance supports for on-site equipment, including online monitoring, long-distance upgrading, fault detection, and fault warning, can be achieved.

Productive process execution management system consists of long-distance production information management system, energy management system, quality management system, equipment management system, logistics management system, intelligent routing inspection system, long-distance equipment maintenance and guarantee system, etc. Logistics, information flow, and capital flow receive dynamic management and bases and suggestions are provided timely for decision-making on management.

Digitized of  
Production  
Equipment

Intelligent  
Process  
Control

Real-time  
Online  
Analysis

Expert  
Control  
System

Unmanned  
On-site  
Monitoring

Long-distance  
Operation and  
Maintenance  
Support

Systematic  
Supporting  
Platform



# Energy Saving & Environmental Protection

We comprehensively utilize industrial and urban waste resource 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 technologies and management experience, explore development mode for the industry and the nature to co-exist in harmony, and advocate sustainable development of the whole industry and society.







# Responsibility Performance Mechanism of Energy Saving & Environmental Protection

RMB **1.8** billion

was invested for energy saving and environmental protection in 2014.

**2,003** MW

That's the installed capacity of cogeneration in 2014.

**100** million tons

of solid waste was treated and reused in 2014.

**151**

That's number of environmental protection organizations CNBM joined in 2014.

## Compliance to Laws and Regulations

- We strictly abide by industrial access system, resolutely close down outdated production facilities, and constantly implement process upgrades.
- We strictly implement the national quota on energy consumption, continuously improve the efficiency of energy utilization, and keep the energy consumption of such main products as cement clinker, glass fiber, gypsum board, etc. at an advanced level.
- We strictly abide by standards on pollutant emission, improve emission reduction and monitoring measures, and ensure clean production and that the emission reaches the standards.
- Mining is carried out according to the Green Mine Convention. We timely carry out ecological restoration during developing limestone mines.
- We respect the Convention on Biological Diversity; carry out strict arguments on the site selections and layouts of factories; protect natural habitats, wetland, forests, corridors for wildlife and agricultural land during the construction of the projects; and reduce the adverse effect on surrounding environment and communities to the minimum.
- We strictly perform the approval procedures of project environmental assessment, implement the "three meanwhile" requirement of energy saving and environmental protection for fixed-asset investment projects, and earnestly organize and carry out the feasibility evaluation and environmental impact evaluation for new reconstruction or expansion projects.
- We establish the environmental risk warning mechanism, prepare contingency plans, and prevent and reduce potential environmental hazards.





## Systematic Management

- We've set up a leading group responsible for energy saving and emission reduction, established a social responsibility and energy saving and emission reduction office at the headquarters of the Group. Member companies have established energy saving and emission reduction functional organizations of different categories and levels, achieving an overall coverage for the Group's energy saving and emission reduction management system.
- We attach great importance to the construction of energy saving and emission reduction team. Our industrial enterprises assign personnel to be 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 make full use of internal and external educational resources to intensify the training provided for management personnel on key positions, enrich employees' knowledge on energy saving and emission reduction, and improve the management competence of employees.
- We make strategies, general policies, plans and systems on energy saving and emission reduction, and improve our work through three systems covering measurement and statistics, monitoring and analysis, evaluation and assessment. We implement category-based management for the Group's member companies and formulate classified objectives and assessment schemes according to the characteristics of member companies.
- We implement standardization management system, and realize energy saving, consumption reduction and clean production through refined management. Manufacturing companies of the Group have established standardization management systems regarding quality, environment, and energy, most of which have been certified.
- We integrate annual fund for energy saving and emission reduction into the overall budget management system, formulate expenditure plan for energy saving and emissions reduction, and guarantee the implementation of technological upgrades and management improvement. In order to ensure investment in energy-saving technological transformation, we support enterprises to use cooperative energy conservation and environmental protection such as energy performance contracting, clean development mechanism, etc.

- Adhering to the concept of green office, we have formulated detailed plans on green office. Performance on green office is included in routine monitoring and evaluation system. We actively promote the construction of video conference system to reduce the number of on-site conferences; we arrange business travel in a scientific way and prefer low-carbon vehicles.

# 42,000

employees of the Group attended training in regard of energy saving and environmental protection in 2014.

# 27

on-site conferences were replaced by video conferences in 2014.

## Green Synergy

- We establish the information open mechanism. We regularly report energy consumption and pollutant emission to stakeholders, disclose annual energy saving and environmental protection performance via annual CSR reports, and accept the supervision of stakeholders. During the feasibility study, construction, reconstruction and acceptance of project, we take advice from residents nearby and stakeholders in the region, and reduce the adverse impact of operation activities of enterprises on the environment and society to the minimum.
- We endeavour to become a practitioner, fugleman, and advocator in coping with climate change. We resolutely close down outdated production facilities, take such measures as stopping production, reducing production and staggered shifts on product to relieve excess production capacity and realize energy saving and emission reduction. We actively undertake national energy saving and emission reduction missions, have initiated and signed conventions and written proposals, and advocate responses to climate change, environmental protection, dust-haze treatment, and low-carbon development.
- We implement green procurement. In the procurement of raw materials, we give priority to products which are low-carbon and environment-friendly in the production and have a lower degree of damage to the environment; when selecting energies, we choose clean energy, and vigorously promote the use of such non-fossil energies as low-grade energy, municipal refuse, biomass energy, etc.; when choosing daily office supplies and other consumer goods, we prefer to choose products with simple packages and convenient for recycling.
- CNBM advocates the policy of simple pack. We insist on promoting bulk packaging for cement products and bare packaging for glass products. We seek to simplify the packaging of products including gypsum board, glass fiber, etc. and maximize the use of recyclable packing materials to reduce packaging waste while ensuring the quality of products and transportation safety.
- We adopt green sale model. We reduce resource occupation and improve marketing efficiency through establishing modern logistic parks and rational plans on supply, marketing and logistics. We provide online transaction service for worldwide building materials products and reduce the carbon released by business travel of clients and sales personnel through establishing online marketing platform.
- We are active in environmental protection welfare and publicity activities, doing our best to promote environmental protection concepts; we donate money and supplies to support the construction of environmental protection facilities. We develop ecological forests with local community entities to jointly cope with climate change; we organize and launch exhibitions and promotion activities for energy saving and environmental protection technologies for green manufacturing and low-carbon development of the industry; we actively promote the knowledge of energy conservation, low-carbon life and green consumption.
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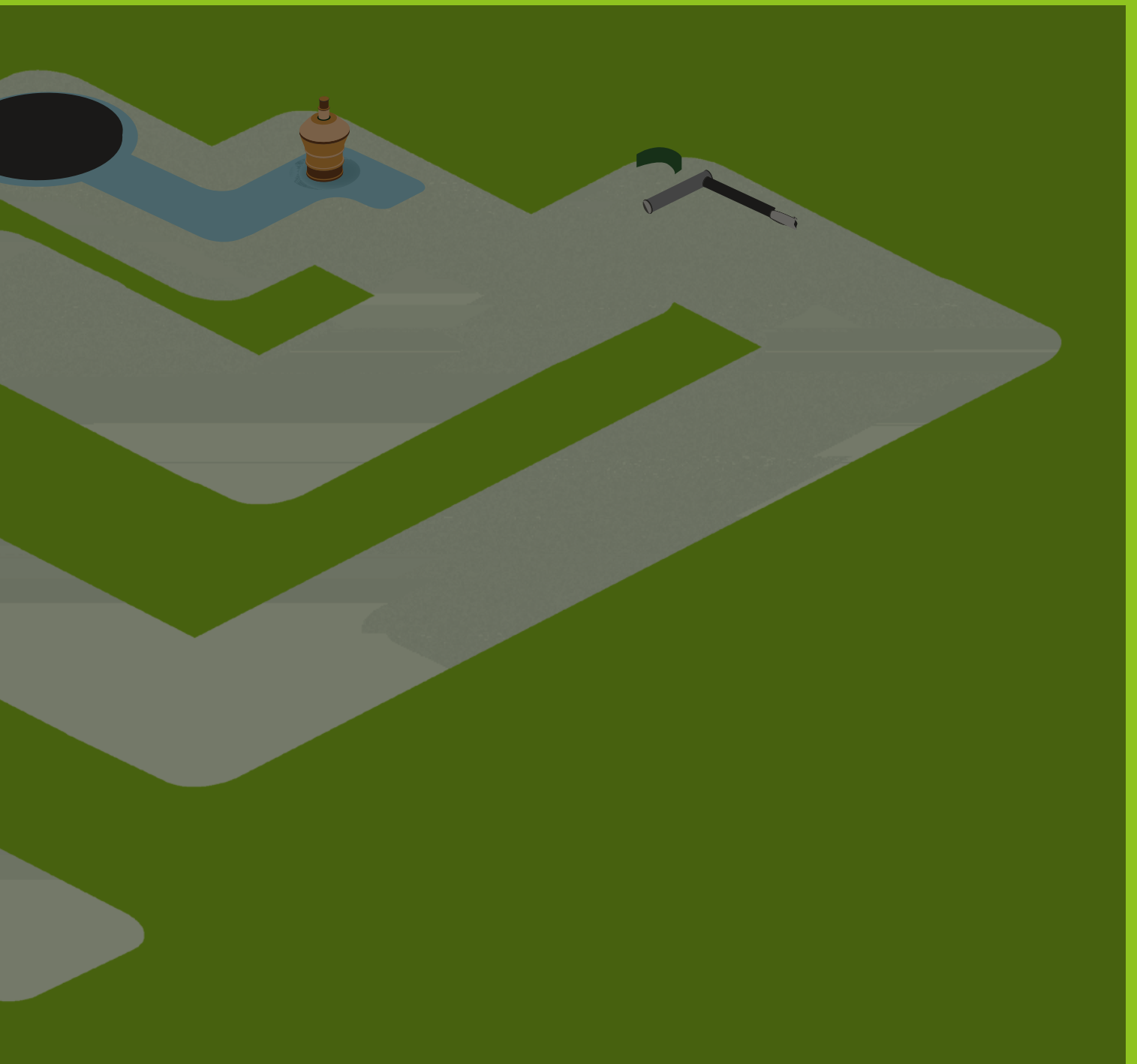
# 693

publicity events on environmental protection were organized or participated in 2014.

# 37.5%

of suppliers established long-term cooperation with member companies of the Group passed the environmental management system certification in 2014.

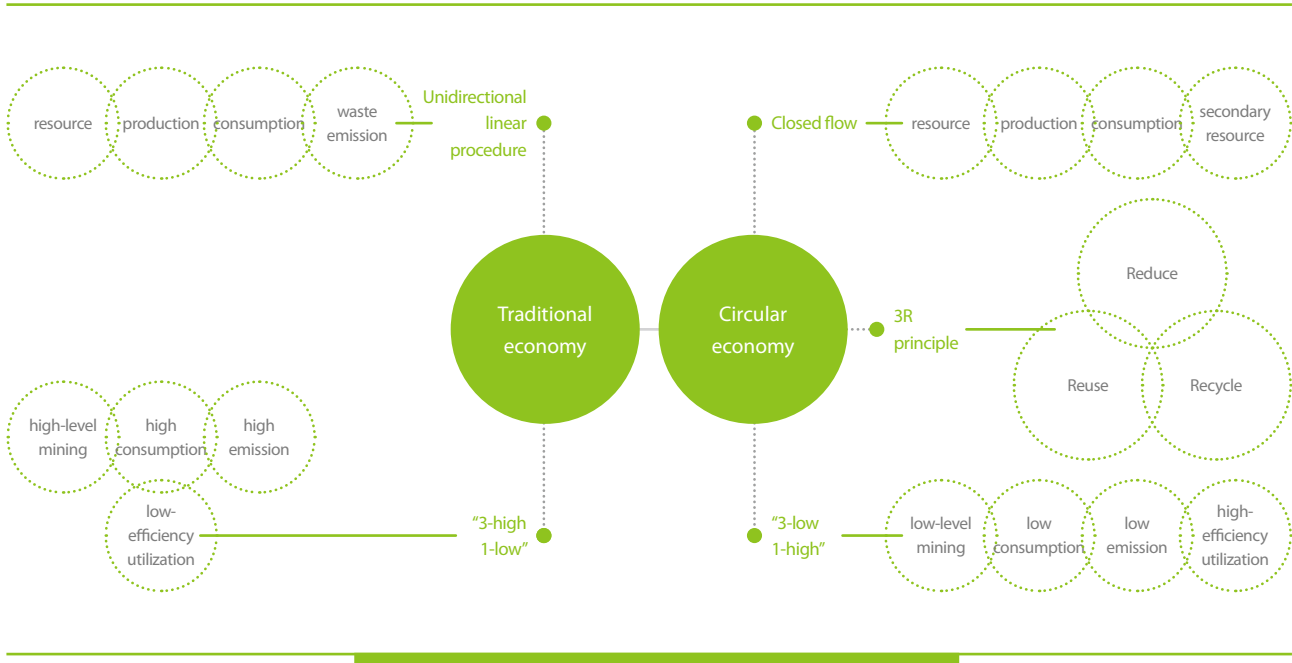






## A Refuse-to-Resource Revolution — Ecological Service

Resource exhaustion, land occupation by refuse and waste and environmental protection are urgent environmental problems at present. The industry of building materials is inherently advantageous in term of developing circular economy, and the transformation from traditional economy to circular economy is an inevitable choice for the industry of building materials. Giving play to the strength of scientific research and the advantage of production capacity, we comprehensively utilize and dispose of industrial refuses, urban refuses and construction wastes by means of technological reconstruction and upgrade, based on assurance of quality, safety and environmental friendliness, and arouse a refuse-to-resource revolution to offer ecological services to environmental protection, resource regeneration and urban construction.



### Reclamation of Industrial Waste

In the cement segment, first, fly ash from power plant, slag from boiler factory, pyrite cinder, carbide slag, non-ferrous smelting slag, red mud, waste foundry sand from casting, waste ore from beneficiation and DICY residue from pharmaceutical factory are used as materials for clinker calcination, to partly replace natural ores (limestone, sand-shale, clay, etc.); second, fly ash, calcination gangue, granulating slag from steelwork, steel slag, desulfurization gypsum, ardealite and fluorgypsum are used as admixture and retarder and mixed into clinker, followed by pulverizing to cement of required

grade; third, effluent, gangue, oil shale and sludge with flammable components are used to partly replace fossil fuels and natural materials.

In the new-type wall material segment, desulfurization gypsum is used in place of natural gypsum in production of high-performance gypsum board.

Besides manufacturers of cement and new-type wall material, non-conformity wastes and materials from manufacturers of glass and glass fiber can also be treated for recycling.

**78.8** million tons  
of solid waste was digested  
in 2014.

**Comparison of Refuse Treatment Index between Waste-to-energy Power Plant and Co-processing in Cement Kiln**



Waste-to-energy power plant (treatment capacity: 1,000t/d)	Index	Cement plant (clinker production capacity: 5,000t/d)
1,000t	Daily treatment capacity	1,000t
RMB 400~600 million	Total investment	RMB 400~500 million*
≤ 70%	Equipment localization rate	≥ 90%
70-80%	Annual operating rate	85-90%
250,000~290,000t	Annual treatment capacity	300,000~330,000t
High requirements for quantity and quality of refuse	Operational stability	Highly adaptable to fluctuation in quantity and quality of refuse
Ash from incineration needing special treatment	Secondary pollution	None

Note: \* If the existing new-type dry-process cement kiln is used, the total investment will be no more than RMB 30 million, as expected.

**Harmless Treatment of Urban Refuse**

There are mainly two ways for treating urban refuses. One is building a waste-to-energy power plant to convert heat from refuse incineration to electricity. The other is landfilling. According to experience of developed countries, treating refuses in cement plant is a more direct approach higher in economic benefit, efficiency and safety. Refuses properly pre-treated are delivered to cement kiln for combustion, and digested when clinkers are normally produced. The heat produced in refuse incineration can be directly

used for clinker calcination, proportionally reducing consumption of or replacing the coal for clinker calcination. The process is called "co-processing in cement kiln". Compared to building a waste-to-energy power plant, the process can bring better economic benefits, environmental benefits and social benefits. Provided with a complete set of technologies for harmless treatment of refuse, we have carried out explorations and practices in quantity in terms of technical equipment, standard & specification, environmental

protection, safety protection, cement/concrete performance and quality, pilot experiment, commercial test, industrial operation control, normal production management and talent training, and proactively made attempts in production bases of CNBM. Based on such sufficient preparation, once proper policies are published, we will be capable of offering urban refuse treatment services with higher safety, reliability, efficiency, environmental friendliness and cost performance.

**Reclamation of Construction Waste**

After sorting, rejection or pulverizing, most of construction wastes can be recycled. Based on R & D and achievement transformation within the frame of the National Key Technology R & D Program, Xi'an Research & Design Institute of Wall & Roof

Materials promotes the project "Construction Waste Reclamation Line". The project can reject pieces of wood, polyphenyl particles, rags and shredded paper among construction wastes by a rate above 95%, and output regenerated aggregates

qualitatively similar to natural aggregate. Such regenerated aggregate can be directly used in recycled concrete, masonry mortar, plastering mortar, etc., and used to produce building materials like paving brick and lattice brick.

## Green Building Materials

We research and develop new building materials, which is carried out in accordance with four core concepts, namely energy saving, safety, comfort, and ecology. We aim to enhance the thermal insulation property of products. For example, by adding phase change gypsum board of mixed phase change microcapsules into wall boards, we can control the indoor temperature in a narrow range of variation, make the living environment more comfortable and reduce the energy consumption of buildings. We choose environment friendly and safe raw materials to ensure

the using and living safety. For example, we have developed and produced formaldehyde-free gypsum board, into which formaldehyde decomposer is added to effectively decompose formaldehyde in the environment, the purification rate of which reaches 93.9%. Therefore, building materials is not the source of formaldehyde any more, but a purifier of formaldehyde. We improve the quality of products, extend the service life of products, and reduce repetitive production. We develop and use industrial waste resources as raw materials to produce building materials to

reduce the consumption of natural mineral resources, and achieve maximized recycle and effective disposal after service life. Currently, the system of new building materials, including gypsum plaster board, GeiL board, GeiL tile, etc. is widely used in architectures at home and abroad, contributing to energy conservation in the building industry.

### Anti-seismic and wind-proof

Massive flexible structure, 30% of the weight of traditional brick-concrete structure, lightly respond to earthquakes, with anti-seismic and fastened joint components; it can meet the requirements for protection against 9.0-magnitude earthquake and 12-class typhoon.

### Fire prevention

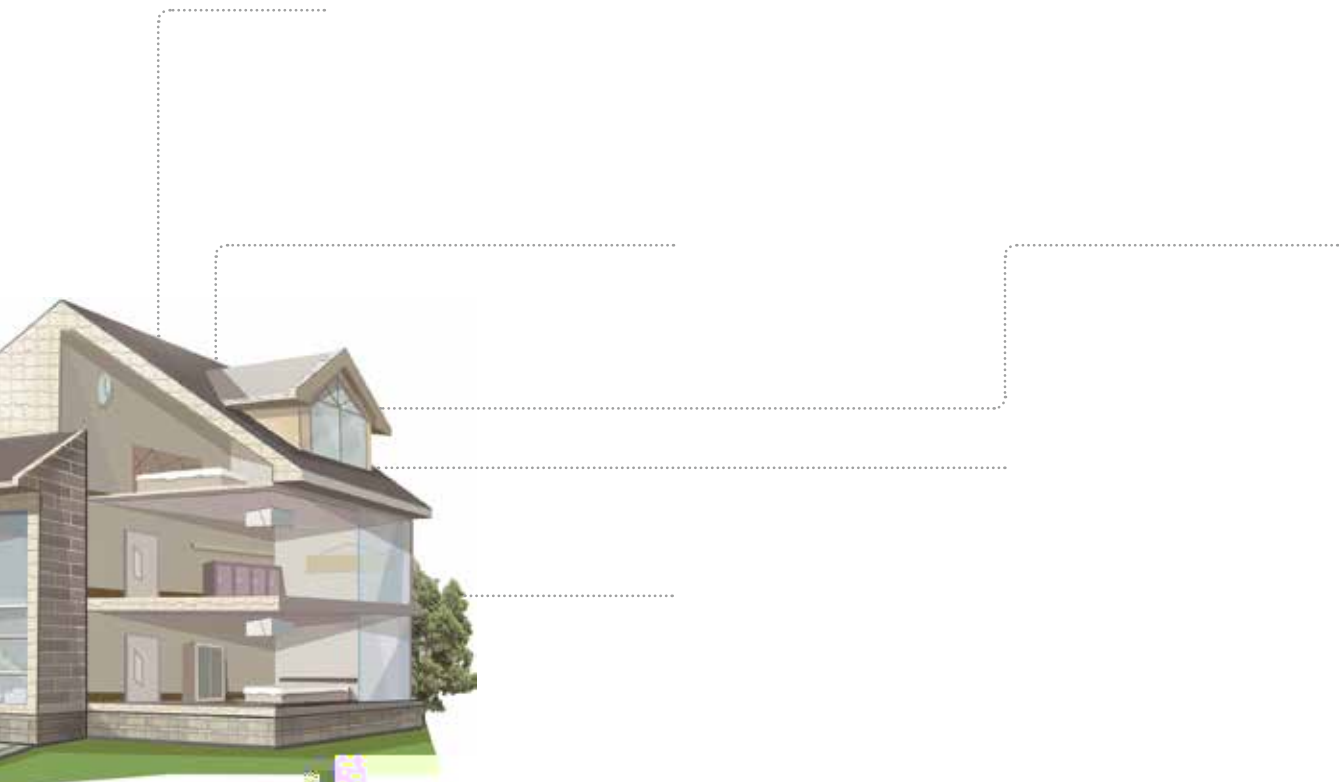
The materials of exterior walls and for heat insulation are level-A nonflammable materials that can fully meet the national requirements for .001 Tc 0-1.385 TD 130vh3(y)U0-medium-sr)10(ec) industr



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## Green Housing System

is not subject to seasonal effects, the construction period is short, and no construction waste and noise is produced. The building construction energy consumption and emissions are therefore sharply reduced. "Decorating houses in the way aircraft interiors are arranged", we integrate decoration, furniture, and green technologies into a





# Employee Care

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 for the employees. We try to build a sustainable and better future together with all our employees and deliver our happiness to the society.











## Democracy and Open

- We keep widening our trade union network, set up and improve the trade union organizations and work organizations at all levels; develop members of these organizations, and make trade unions more attractive and cohesive.
  - We support employees to express their rational appeals and safeguard their own rights in such aspects
- as laboring, labor remuneration, work time, rest and vacation, work safety and health, social insurance and welfare, special protection for female employees, etc. through collective bargaining, signing collective contracts and other forms.
- We implement the Workers' Congress system, implement regulations on disclosure of factory affairs, and ensure employees' rights regarding participation, information and supervision. We share the corporate operation information with the employees through channels such as the disclosure board of factory affairs, employees discussion meetings, manager's mailbox and the company's website.

**27.3**%

That's our coverage rate of collective bargaining and contracts in 2014.

**92.3**%

of the proposals of the Workers' Congress were handled and settled in 2014.

## Cultivation and Development

- We establish a scientific remuneration system and incentive mechanism; set two career paths for employees' promotion, leading to management positions and professional positions respectively, through which we manage to meet the development needs of different kinds of talents.
- 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. Following the training approach of "based on internal training and supplemented by external training", we share the education resources to build a comprehensive training system for the Group.
- We implement the mechanism of intra-group communication and on-position learning for employees, thus effectively allocating the human resources within the Group and providing a broad platform for the employees to develop their careers.
- We encourage enterprises to carry out corporate pension plans according to the actual situation, provide work meals, sports venues, mental health counseling for employees, and provide transportation and housing subsidies for specific employees. We have continued to improve the payment and welfare guarantee system.

**56.2**%

of our member companies with an average salary higher than that of the local level in 2014.

**906,000** hours

That's the number of hours our employees attended training for in 2014.

**3,520** employees

That's the number of employees we supported to gain in-service degrees in 2014.



## Safety for All

We have established a domestically top-ranking management system for safe production with safe production accountability system as the core, the standardization of safe production and the post safety technical regulations as the emphases, troubleshooting and treatment of accident potentials as the methods, the informatization of safety management as the tool, and the development of safety culture as the guarantee, to ensure the safe production and occupational health of staffs.

### Tamp the Management Foundation

**149,000** person-times  
of employees received training in occupational health and safety in 2014.

**RMB 0.4** billion  
was invested in occupational health and safety in 2014.

We set up the organizational system for safe production with the principles of comprehensive coverage and practicality. The managers in charge would be the primary persons responsible for safety in the workplace and take charge of safe production matters. All key production safety enterprises within the Group employ full-time production safety management personnel. We establish smooth channels for feedback, and encourage all staffs to participate in safety management.

We attach great importance to building up a safety management team. We have continuously fostered the sense of responsibility and awareness of safety procedures in the workplace and improved the professional quality of safety management personnel. We strictly follow CNBM Safety Training Rules, ensuring the popularization of safety knowledge, the execution of safety procedures, the implementation of contingency plans, the knowledge of occupational hazards, and the self-protection abilities through training and assessment.

We give importance to investment in safety in order to provide financial support for improving and maintaining the safety equipment and facilities, implementing technical innovations for the purpose of essential safety, organizing training in safety procedures, spreading safety culture, etc.

### Improve the Management Mechanism

**0**  
fatal accident in 2014.

**64,000** person-times  
of employees participated in emergency response drills in 2014.

We have established safety production management system covering penalty for safety violations, etc. We have also introduced special regulations and work guidelines for managing occupational health, major hazard sources, overseas projects and non-coal mines, etc.

We implement the standard safety management, and actively push member companies to implement occupational health system certification. As a national pilot enterprise in standard safe production, we actively promote the work of reaching standards of standard safety of cement enterprises, improve the safety management system, increase the safety management level, and boost the safety management performance.

Informatization technology is applied for the purpose of safe production management. The safety management information system independently developed by CNBM has also been included as one of the "Integration of Informationization and Industrialization" key projects by the Ministry of Industry and Information Technology. Online management has covered all key procedures and links of safe production management, including qualification management for safe production, basic files of safe production, eradication of hidden dangers, danger source management, safety checks, and safety training.

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. A comprehensive emergency response plan is established, supplemented by special emergency response plans and on-site response schemes. We organize member companies to check the reserves of emergency supplies regularly, take emergency response drills, and give on-site instruction on emergency response work.



### Value Occupational Health

We have installed and optimized 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 labor protection, we offer labor 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, arrange extra health checks for staffs in jobs with exposure to dust or radiation, establish Personal Health Record and keep reexamination.

**18.8** %

That's how much the recordable injury rate per 1,000 employees decreased in 2014.

**95.0** %

That's the completion rate of physical examination of employees in 2014.

We gradually incorporate mental health into the occupational health management. We encourage member companies to set up mental health consultancies or cooperate with mental health institutions to build health record archives and pay attention to the mental health of our employees.

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## Care for You and Her

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. In order to safeguard female employees' legal and special interests, we buy maternity insurance for them and implement flextime for those in maternity and lactation. We also provide antenatal examination, maternity leave, breastfeeding leave, and birth allowance for female employees.

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

hold parties for young single employees to create opportunity for romance and organize group weddings to send the best wishes



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## A Healthy and Happy CNBM Family

We encourage member companies to strengthen the construction of gymnasiums, recreation rooms, reading rooms and psychological counseling rooms, providing staffs with places for recreation activities; organize colorful cultural and art activities and sport competitions to offer a broad stage for the staffs to show their gifts; arrange various visits and trips, and pay close attention to the development of the staffs' abilities and awareness of self-improvement, family care

and giving back to society. We assist in the establishment of clubs and associations of photography, cooking and dancing where employees receive professional instruction and communicate with likeminded colleagues. Through continuously improve employees' physical qualities, cultural literacy and life qualities, we strive to make the company a reliable partner and a happy and comfortable home for staffs.



## Exemplary CNBMers

CNBM's happy corporate culture and harmonious working atmosphere help construct a stage for employees to serve the enterprise, serve the society and achieve personal values. Our employees have become, in their respective professional fields, a pioneer in research, a moral model and an exemplar of integrity, and rewarded the society and inspired others through their words and deeds.

### A happy Life in Pursuit of Scientific Research

Bao Yiwang, currently doctoral supervisor at the China Building Materials Academy (CBMA), deputy chief engineer and chief scientist at the China Building Materials Certification & Inspection Group Co., Ltd., and a professor, stayed at the CBMA and engaged in the scientific research work on the performance evaluation of inorganic non-metallic materials after gaining his doctoral degree in 1990. He studied successively with the older-generation famous dynamicist Prof. Wang Longfu, Prof. Jin Zongzhe and Academician Wu Zhongwei. After finishing his post-doctoral research at the Germany's Alexander Von Humboldt Foundation in 1997, he gave up the opportunity to work in America recommended by his supervisor, and determinedly returned to CBMA. He has ever since worked diligently in the field of China's building materials industry. In his work, Mr. Bao created new methods and technologies to promote the development of the discipline of brittle material mechanics; led the development of some international standards, propelling China's independent intellectual property rights and technologies onto world stage; defied hardships and dangers to overcome the

problems in evaluating material performance in extreme and ultra-high temperatures; produced innovative outcomes that have advanced industrial progress and society's development; independently researched and developed special instruments to boost research innovation and industrial development; gave sustaining and equal attention research and education, and has trained research personnel for the country.

Prof. Bao inherits from the older-generation scientists the fine traditions of assiduous studying and devotion to science, and constantly explores and makes innovations, illustrated by his exceptional achievements in the testing and evaluation of mechanical properties of brittle materials. He has successively completed over 20 national and provincial-level scientific research projects, including projects under the "973" program, the "863" program, the National Science Fund for Distinguished Young Scholars, the Special Program on National Major Scientific Instrument Development, the Chinese Academy of Sciences' "Hundred Talents" program, and the Beijing Municipality Major

Science and Technology Plan. Prof. Bao has published more than 200 papers on academic journals at home and abroad, of which 113 are included by SCI, over 160 are included by EI; obtained more than 40 national patents, published two monographs; played a leading role in formulating six international standards and 17 national and industry standards; won two awards of the National State Science and Technology Progress Second Prize, three awards of the provincial-level science and technology progress first prize and six awards of the second prize at this level, and won the title of "National Model Worker" in 2015.

Prof. Bao believes that the happiest person in the world is he who dedicates himself to the cause he loves with his own work and, hence, serves more people. And he wants to be exactly that person.

**Stand fast till the last minute of withdrawal**

In March 2015, the situation in Yemen deteriorated, threatening the life safety of CNBM International Engineering Co., Ltd. employees stationed in Yemen. CNBM immediately launched an emergency plan, set up an emergency working group to track developments in real-time, and arranged for emergency deployment. The employees in Yemen were divided into seven action groups with designated leaders and interpreters, so that they could evacuate in a safe, orderly and efficient manner. Under the government's leadership, with

the help of Chinese Embassy in Yemen and Chinese Embassy in Aden, Yemen UCC cement plant workers boarded the ships of the Chinese naval escort fleet on March 29, were successfully transferred from the Yemeni port of Aden to Djibouti, and then with the help of Chinese embassy in Djibouti, went by air to Addis Ababa. On March 31, all evacuated staff finally took the flight from Addis Ababa bound for China, and returned safely to the motherland.

The production management team of the Yemen UCC Cement Plant

built cement factories for Yemen and provided operation services. For a long time, the team overcame various difficulties, contributed wholeheartedly, and strove ceaselessly. After the fighting broke out, the workers stuck to original production plan while preparing for evacuation, and shut down the production until the last minute before withdrawal. Local proprietors were deeply moved by the integrity and professionalism of Chinese enterprises, and expressed the hope to cooperate with CNBM and more Chinese teams and strive for better outcomes.



**Prof. Bao believes that the happiest person in the world is he who dedicates himself to the cause he loves with his own work and, hence, serves more people. And he wants to be exactly that person.**





# Corporate Citizen

During production and operation, we seek to achieve mutual development with the region where we operate. Our accomplishment cannot be achieved without the support of the stakeholders and people from all walks of life; we reward the society through unique social welfare projects. Our employees are delighted to make contributions and dedicated to volunteer activities, exercising their responsibilities as corporate citizens with their actions.







JUSHI

巨石埃及公司  
环红海徒步比赛

JUSHI

巨石埃及公司  
2014 环红海徒步比赛

مسافة شركة جوش مصر للمشى  
بحر الأحمر لعام 2014



# Responsibility Performance Mechanism of Corporate Citizen

24,000

That's the number of new employees in 2014.

10.0<sup>billion</sup>

That's the amount of taxes paid to local governments in 2014.

51

That's the number of organizations, e.g. associations etc. the headquarters of the Group took posts in 2014.

20.8<sup>million</sup>

That's the amount of donation in 2014.

## Stick to All-win Situation among Regions

- Being honest and law-abiding. We strictly comply with international conventions and local laws and regulations, pay due taxes, and protect environment; we respect local religious beliefs and customs.
- Serving the construction. We build for developing countries and areas advanced cement and glass production lines to meet local construction needs; we popularize systematic solutions of new building materials and pre-fab housing products, advocate green consumption ideas and provide support for energy saving construction products; we construct large logistics parks and selling networks, providing systematic trading service to promote optimum distribution of regional resources.
- Efficient use of resources. We make good use of local superior resources, combine them with enterprise technologies and management advantages to create a value chain with a competitive edge, provide value-added space for the raw material suppliers and product vendors in the local economy, and create tax revenue.
- Risk management and control. We strengthen the management of overseas enterprises and projects, All-round risk management system covering risk factors faced by the overseas companies is established, including political risk, country risk, financial risk, legal risk, risk concerned with bidding, tax risk, labor service risk, and industrial risk, as well as an early warning system with risk analysis and emergency mechanism to guarantee safety of staff and assets.
- Employment guarantee. We advocate localized operating management for overseas enterprises, providing employment opportunities to local areas, training local employees and popularizing advanced management philosophy, with a view to improve the quality of local talent.
- Responsibility spread. We insist on public bidding and lawful procurement; we evaluate the business capacity, credit status, and management of our sub-contractors and cooperate with subcontractors that have good performance in social responsibilities. In the contracts, we explicitly stipulate the protection of lawful rights and interests, occupational safety and health of employees of sub-contractors, and during the protection, the management regulations on sub-contractors shall be strictly executed.
- Building harmonious community. We strictly carry out the impact assessment of new projects, reconstruction ones and expansion ones, fully solicit the views of interested parties on the economic and environmental benefits, and minimize the negative impact of business operations on the environment and society; we actively participate in local public welfare and community activities to create a favorable image.

57.4<sup>%</sup>

That's the hiring rate of local senior management in 2014.

96.1<sup>%</sup>

That's the rate of responsibility-based procurement in 2014.

67.7<sup>%</sup>

That's the hiring rate of local employees in 2014.



## “One Belt and One Road” and Promising Outlook —— Regional Common Growth

88.6%

That's the local employment rate of overseas companies in 2014.

The “One Belt and One Road” strategy is a brand new probe into new models for global international cooperation and global governance. That China's economic development drives the common development of countries along the belt and the road is the best interpretation of win-win cooperation, which is also of epoch-making significance. After years of development, relying on the strength of science and technology and complete equipment, CNBM has established a world-class cluster of complete equipment and packaged technologies. We have not only accumulated a certain amount of strength, but also achieved some results. The responsible and sustainable business philosophy makes us highly recognized and fully accredited in local areas as we engage in “going out”. We will strengthen cooperation in the future, combine with financial leasing and other financial instruments, make use of the Internet, informatization, intelligentization and other technologies, and integrate investment, management follow-up service into our whole industry chain, with the aim of harvesting more fruits along the “Belt” and the “Road”.

### Overseas Operation

Up to the end of 2014, the total overseas investment reached about USD 349.3 million



Up to the end of 2014, we have 67 overseas companies/agencies



In 2014, the total volume of imports reached USD 5.0 billion



In 2014, the total volume of exports reached USD 1.9 billion





## Innovations in Poverty Alleviation Mechanisms

We always focus on poverty reduction to fulfill our social responsibilities. Since 2002, CNBM has established site-specific poverty-reduction relationships with Shitai County of Anhui Province, Jingyuan County of Ningxia and Zhaoyang District of Zhaotong City, Yunnan Province. By donating poverty alleviation funds, we help local areas to withstand natural disasters,

improve educational environment, solve housing difficulties, repair roads and build electricity and water conservancy facilities. Meanwhile, in order to help poor areas to rid themselves of poverty completely, the Group actively transforms poverty reduction thinking and creates new modes to reduce poverty. Focusing on alleviating poverty through improving education, developing industries, introducing talents, protecting ecology and developing integrated projects, we invest in

That... 201... ons  
 ... number of fo...  
 ...jects for 2014.

120,000 (2013 data)  
 1,403 km<sup>2</sup>  
 The County has mountainous area account for 88% of its total area, and is a typical alpine region "with 90% being mountainous, 5% being covered with water and 5% being arable land". It is also quite unique as it combines the features of being amidst high mountains



Shitai County of Anhui Province

... elevation... the County is a typical loess hilly-gully region. Its fragile ecological environment is prone to natural disasters, drought in particular. There is even the saying that "Of ten years, nine will see the onslaught of drought". The region cannot independently feed its own people. Per capita water resources quantity is 14.8% of the



850,000 (2012 data)  
 2,167 km<sup>2</sup>  
 Located in the low-latitude, high-altitude region and having complex climate conditions, the District experiences an average economic loss of about 146 million yuan caused by natural disasters every year; with its population density high, reclamation index high, land barren, and soil in serious erosion, the

Jingyuan County of Ningxia



**Building Beautiful Homes**

Due to the lack of diversity of income sources, people at Songjiashan Natural Village of Huluping Village Committee, Shouwang Township, Zhaoyang District, in Zhaotong City, Yunnan have insufficient production and living conditions, great traveling difficulties, and houses that are mostly rammed earth construction with

poor seismic resistance. To improve their production and living conditions and build a beautiful village with well-rounded functions, a beautiful environment and a civilized and harmonious atmosphere, the Group donated 3.5 million yuan of relief fund in 2014 to help ease housing problems of over 300 households

and potable-water shortage for more than 60,000 people. After the planning and wide publicizing by the village functionaries, the first-phase construction project of Songjiashan Beautiful Village was launched, with the aim of completing the building of 103 houses.







### Care and Attention

Since getting attached to the Sun Village, things, ranging from the special purchases for the Spring Festival, Children's Day stationery, thermal underwear wore in winter, green beans and mosquito coils in summer, have become a concern for the volunteers from the CNBM Info. In order to cultivate the children's love for life, self-reliance, and hard-working characters as well as popularize agricultural knowledge, the Sun Village built a welfare farm. Learning that the farm's greenhouse construction ran into difficulties, volunteers at the CNBM Info purchased cement and other basic materials immediately and had them sent to the Sun Village, to ensure the

construction and operation of the welfare farm. Currently the farm has become a platform for children and kind visitors to share the fruits of labor as well as kindness and warmth. The charity tree adopting, charity family mini-farm and

other activities also lead the kids living in cities to learn more about agriculture and environmental knowledge, and to grow together.

**9,418** hours  
of volunteer services were provided by our employees in 2014.



### Keeping Company of Kids and their Growth

With their parents absent, kids at the Sun Village crave even more for love and care while they grow. In addition to donations, volunteers at the CNBM Info usually visit the

kids there. Together, they sow seeds, weed, write characters, paint, put on performance, and cook food. The volunteers give kids solid arms and warm embraces,

creating an environment overflowing with happiness for their growth.







# Technological Innovation

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









# Responsibility Performance Mechanism of Technological Innovation

RMB **5.8** billion

was spent in scientific and technological activities in 2014.

RMB **29.0** billion

was recorded from sales of new products in 2014.

**13,000**

That's the number of personnel engaged in scientific and technological activities in the Group in 2014.

**7.3**%

That's the percentage that the science and technology personnel of the Group accounted for the total number of employees.

## Integrating Innovation Resources

- We establish an integrated scientific research innovation center that comprises national research and design institutes, state's and industry's key laboratories, national research centers, technology development and promotion centers, scientific and technological cooperation demonstration bases, and public service demonstration platforms. We intend to build China's largest integrated scientific research platform with the greatest strength in the field of building materials and inorganic nonmetal materials.
- We build a strong contingent of scientific researchers by attracting and cultivating scientists and engineers. We set up the academician workstation, post-doctoral research stations and workstations, and implement the "Thousand-talent Program" in order to keep smooth the channels for introducing and exchanging high-caliber talents from overseas and domestic universities and institutes. We make innovations in incentive mechanisms and improve property protection to retain talents, as well as emphasize the inheriting of scientific research and personnel training by fostering key innovation talents among young employees.
- We lay emphasis on science and technology investment. We increase financial support for hardware construction and scientific research rewards, etc., and boost, in particular, our investment in the R&D of low-carbon environmental protection technologies and products.

## Improve the Innovation Mechanism

- Focusing on such aspects as the protection of intellectual property, and the management of scientific research funds, we have combined the development of internal control system with the requirement of risk management, and formed a scientific research management system which conforms to national requirements of scientific research management and has the feature of building materials industry, providing the efficient progress of scientific researches with mechanism guarantee.
- We have gradually established the talent development mechanism to promote the development of talents, and the assessment and reward mechanism according to their performance and contribution. Inside the Group, we provide "Scientific and Technological Progress Award", "Technical Improvement Award" and "Group Technical Center Project" to boost researchers' enthusiasm for innovation.
- We have established the Youth Science Foundation, and organize youth scientific research competitions to inject vigor into the scientific research teams of the Group.
- We prompt the close combination of production, learning and research and the commercialization of research findings, establish a new production-study-research relationship on the basis of mutual benefits and cooperation, and build up a technical innovation cooperation system outside of the Group.
- We attach great importance to cooperation with famous universities and professional institutions in jointly tackling key problems, technical cooperation, academic exchanges, talent cultivation, incubation and transformation of achievements, etc., establishing an innovation alliance with various levels.
- We explore the establishment of an open scientific research system, set up research hotspots and challenges which attract attentions from the country and the industry, and mobilize social technological resources to tackle difficult problems through such ways as collaborative innovation, joint innovation, and competing innovation, etc.

## Prosperous Innovation Culture

- We undertake secretariat work of standardization organizations, industrial organizations, professional societies and scientific agencies, and serve the industry extensively.
- Industry websites and professional publications are run to timely publish frontier information and share technological results and commercial messages. By building resource repositories (technical innovation institutional repository, technological result database, etc.) and information inquiry platforms, we offer multiple channels of information exchange and technical communication to building materials enterprises.
- To give a play to our role as a demonstrating base for international scientific and technical cooperation, we hold overseas and domestic academic meetings, run forums, develop activities of exchange and visits to offer platforms of communication and promotion to specialists and scholars, serve innovation and common progress, accelerate technological upgrading and reform in the industry and related fields, and motivate technological innovations to faster and more effectively serve sustainable development of the society.
- Professional exhibitions are undertaken to collectively exhibit and recommend new technologies and products, offering platforms and services to technological result industrialization, thus pushing technological progress and result sharing in the industry.

# 503

academic exchange activities were held and organized in 2014.

# 131,000

person-times

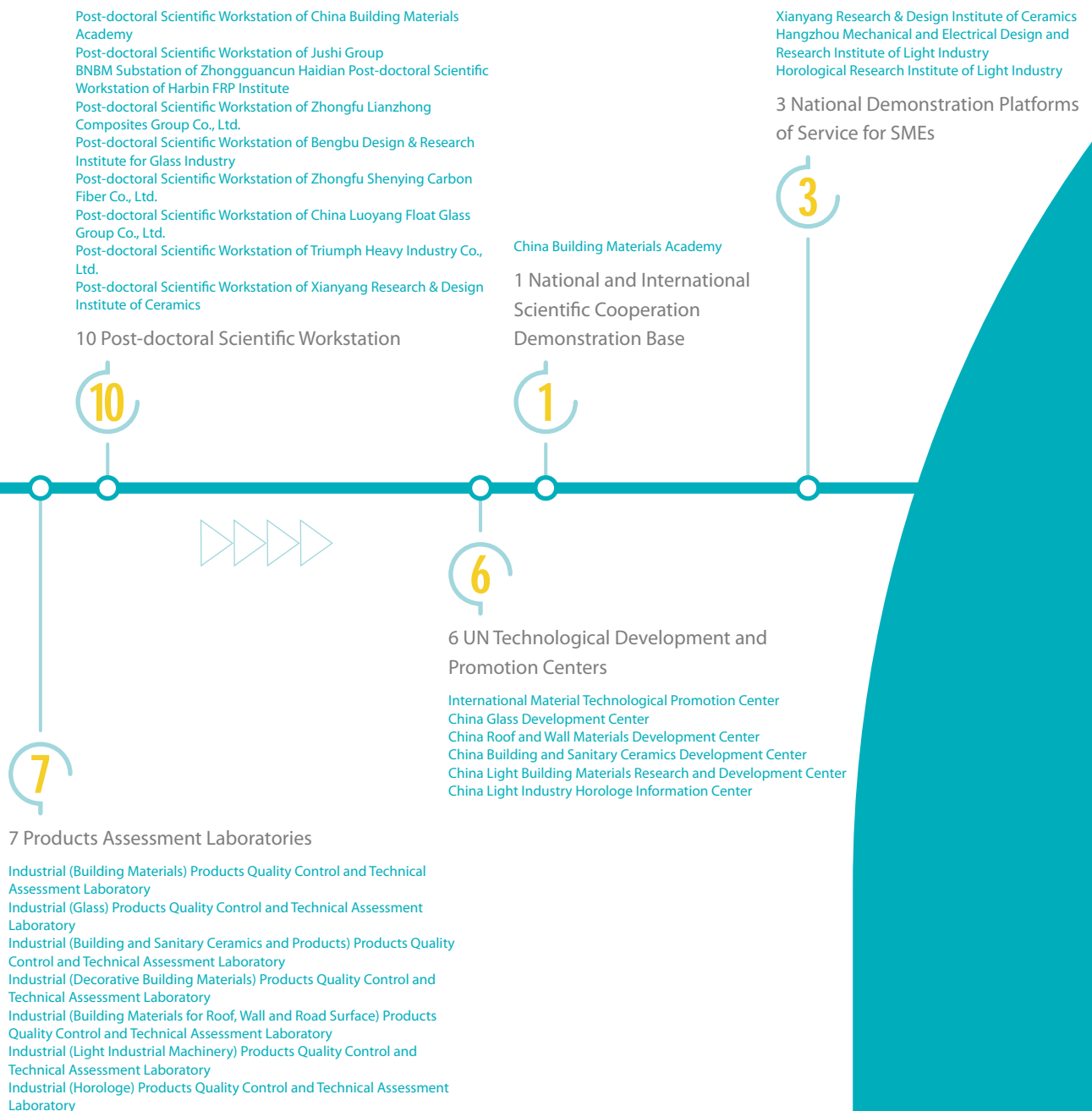
of industrial technology and knowledge training were held and organized in 2014.





# From Professionalism to Sharing —— Serve Nationwide Innovation

We integrate scientific research resources, gather scientific research talents, guarantee input in scientific researches, and build a leading company of scientific researches in the industry. We implement the innovation mode which combines independent innovation, joint innovation and integrated innovation; promote technological breakthroughs, the transformation of achievements, and information sharing; strive to build the largest comprehensive scientific research platform with the strongest power in the building materials and inorganic nonmetallic materials fields of China, and provide service and guarantee for the nationwide innovation.



## From "Manufacturing" to "Creating" —— Furthering the Integration of Production and Research

CNBM continues to promote a production-research technology innovation system with national enterprise technology centers at the core. An innovation system integrating research, development and production has taken shape. At present, the Group has eight state-level enterprise technology (sub) centers in five fields, namely, composite materials, equipment manufacturing, fiberglass, cement equipment, and special cement. A number of major production-research results have emerged during the Group's transformation from "being a manufacturer" to "being a creator". In 2014, China United Cement Corporation was awarded the "Innovation Prize in Industry-University-Research Cooperation of China for 2014"; two achievements that won the "Innovation Achievement Prize in Industry-University-Research Cooperation of China for 2014" were respectively the "R&D and Industrialization of Key Technologies in High-performance Alkali-free Glass Fiber" from Jushi Group Co., Ltd., and the "R&D and Large-scale Industrial Application of Carbon Fiber Composite-core Wire Technology" from the Zhongfu Carbon Fiber Core Cable Technology Co., Ltd.

### Shattering International Barriers through Independent Innovation

RMB **6.2** billion  
That's the revenues of Jushi Group in 2014.

RMB **760** billion  
That's the total profit of Jushi Group in 2014.

As the world's largest glass fiber manufacturer, Jushi Group Co., Ltd. constantly intensifies the industry-university-research cooperation and collaborative innovation, especially the cooperation with world-class innovation teams. Its E6 high-performance alkali-free fiberglass formula became China's first fiberglass patented formula to gain an international patent license, breaking the monopoly of international fiberglass giants in fiberglass patented formula. Its large-scale fiberglass tank furnace oxy-fuel firing technology has reduced fuel consumption and emissions respectively by 50% and 80% as well as cut NOx production from the source, sending it to the

international advanced level. The group has now completed its four production bases respectively in Tongxiang, Jiujiang, Chengdu, and Egypt and promotes the technology comprehensively. Jushi Group Co., Ltd has successively won the "China Industry-University-Research Cooperative Innovation Award", which was awarded for the first time, won the title of Zhejiang Province Industry-University-Research Cooperation Model Enterprise, and been ranked among the first batch of International Scientific and Technological Cooperation Bases in Zhejiang. It has yielded significant economic and social benefits.

### Innovation in Industrial Chain Serving Smart Grids

The Zhongfu Carbon Fiber Core Cable Technology Co., Ltd. is a high-tech enterprise incubated from the patented technology of carbon fiber composite core and wire technology held by Harbin FRP Institute through industry-university-research cooperation. It has completed CNBM's industrial chain from carbon fiber precursor, carbon fiber composite mandrel, to carbon fiber composite core

wire. The company's products were successfully combined to the grid in the 220-kilovolt Swallow Rock Long-span Reconstruction Project of Nanjing Yangtze River Bridge's Rexiao Line. This project is the world's first long-span (maximum span of 1,107 meters) project using carbon fiber composite core wire.

**2,300** km  
That's the total length of such wire Zhongfu has sold by the end of 2014.





## Product4.1sig c

China United Cement Corporation has always attached great importance to the combination of industry, university and research. It continuously strengthens cooperation with CNBM's internal resources as well as universities and research institutes, such as China Building Materials Academy, Hefei Cement Research & Design Institute, Nanjing Kisen International Engineering Co., Ltd. Besides, it has built up an industry-university-research cooperation atmosphere and innovation system of "comparing, learning, catching up, helping and surpassing". Therefore, its technological innovation and economic efficiency have improved significantly. It has independently designed and built an internationally advanced ten-thousand-ton cement production line. It has developed a number of new products, including nuclear power plant cement, road cement, oil well cement and reference

## Special Cement Serving National Construction

As one of CNBM's important special cement R&D and production bases, Sichuan Jiahua Enterprise (Group) Co., Ltd. has become a cement manufacturer with the largest variety of special cement, its leading products covering three series---oil well cementing materials, hydropower, nuclear power and other special engineering materials, and roofing materials. It has an annual production capacity of 6 million tons of special cement. In recent years, continuous

technological innovation and product development have significantly enhanced its market competitiveness. As its hydraulic engineering cement has been sold to large enterprises and groups, it is the only cement enterprise in the southwest of China that sells products across valleys of seven rivers, Jinsha River, Dadu River, Minjiang River, Jialing River, Ya-lung River, Lancang River and Yarlung Zangbo River. The self-developed oil well cement is widely used in China's major oil fields. Jiahua

Group was awarded the "Prize for Outstanding Contribution to China's Special Cement over Six Decades" by the China Cement Association's special cement branch, its several achievements gained national and provincial scientific and technological achievement awards, and the high belite cement developed by it in collaboration with China Building Materials Academy won the Second Prize of National Technology Invention for 2006.



○ CNBM's Enterprise Technology Center

### State-level enterprise technology centers

### State-level enterprise technology subcenters

- 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 Co., Ltd. Technology Center
- Jushi Group Co., Ltd. Technology Center
- Hefei Cement Research and Design Institute Technology Center
- Sichuan Jiahua Enterprise (Group) Co., Ltd. Technology Center



## Contents of Low-carbon Service

### Test and Diagnosis

We provide assessment service on energy and environmental protection performance, identifying problems for enterprises in the building materials and related industries, providing energy efficiency diagnosis and environmental

assessment covering the whole production circle, from procurement of raw materials to delivery of products, serving technological transformation and refined management as the basis of data analysis and guarantee of benchmarking improvement.

### Transformation and Upgrade

We are committed to providing the industry with efficient and environment-friendly manufacturing process and technology; our independently developed technologies related to cogeneration, desulfurization and denitrification, full-oxygen combustion and integrated

utilization technology of solid waste are extensively applied; several technologies have been included into the national list of promoted technologies and equipment for saving energy and water, environmental protection, and recycling of resources.

### Smart control system

We integrate smart control technology into the manufacturing of outfit, and provide large and intelligent outfits for our clients; according to the demands for intelligent manufacturing in the field of building materials manufacturing, we provide production and operation control systems, including energy efficiency control system,

environmental protection system, expert control system, online simulation system, safe operation system, etc., and transformation into intelligent factories with functions of procurement, production, sale and current management and into digitalized workshops based on remote control technology.

# 1

assigned operation utility of CDM.

### Experts Consultation

We employ experts in technology, energy efficiency, environmental protection, and management in the industry to provide enterprises with standard implementation and certification concerned with standardization management systems on energy, environment. We provide services related to

management and consultation, including energy audit, clean production verification, and carbon check, to help companies determine improvement path, working goals, and gradually advance energy saving and emission reduction according to the plan.

### Financing Management

We provide financing services to those enterprises with financial difficulties in technological transformation of process and informationized energy saving through energy management contracting, and operation, maintain services for energy saving system, and share financial risk and energy-saving benefits with the enterprises.

# 12

technical service agencies of energy-saving and environmental protection.

# Responsibility Performance

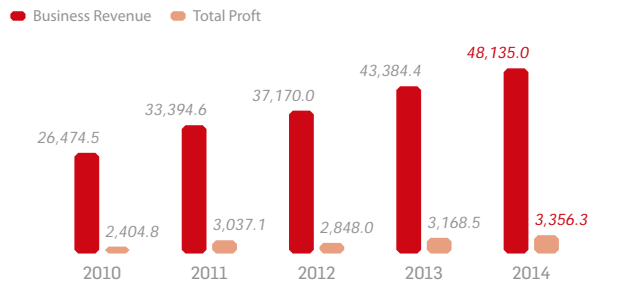
## Market Performance

### 2015 Fortune Global Top 500 Building Materials Enterprises

2015 Ranking	Company	Operating revenue in 2014 (US\$ million)	Profit in 2014 (US\$ million)	Country
192	Saint-Gobain	54459.4	1264.2	France
270	CNBM	40644.4	477.8	China
475	CRH	25087.3	772	Ireland

Source: Fortunechina.com

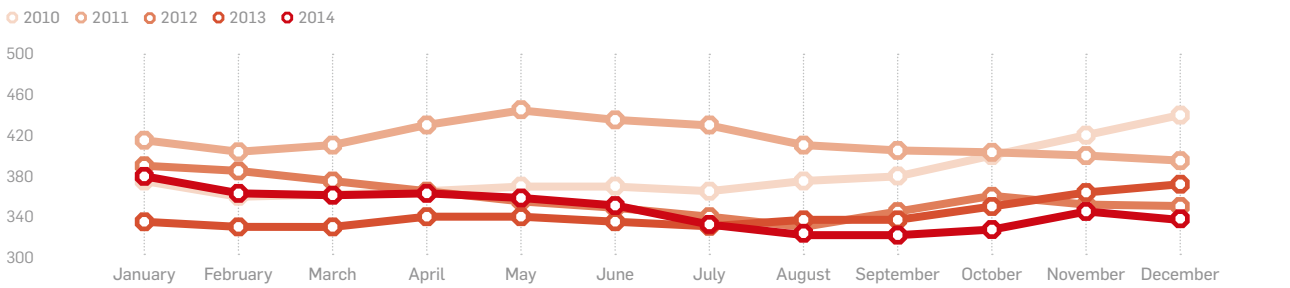
### 2010-2014 Main Business Revenue and Total Profit of Scale Companies in the Chinese Building Materials Industry



Source: China Building Materials Quantitative Economics Supervision Society

### 2010-2014 P.O.42.5 Price of Bulk Cement in China

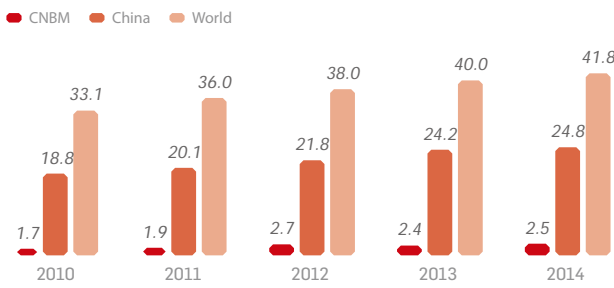
Unit: RMB / ton



Source: Digital Cement

### 2010-2014 Cement Yield

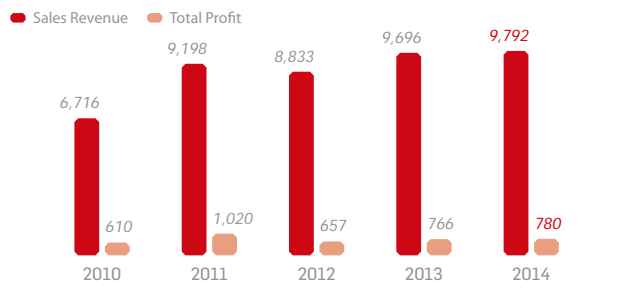
Unit: 00' million tons



Source: United States Geological Survey

### 2010-2014 Sales Revenue and Total Profit of the Chinese Cement Industry

Unit: RMB 00' million

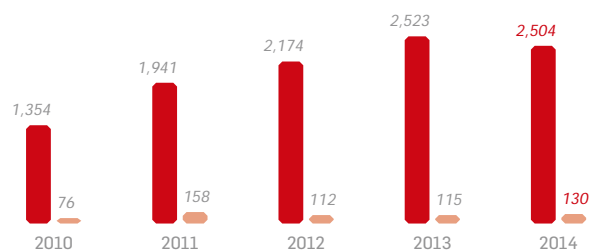


Source: Digital Cement

## 2010-2014 Business Revenue and Total Profit

Unit: RMB 00' million

■ Business Revenue ■ Total Profit



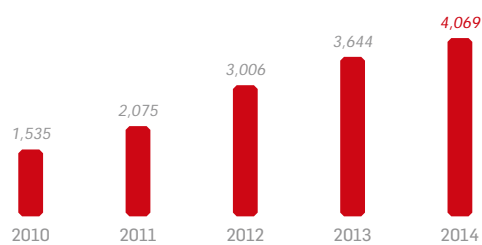
## 2014 Performance of Holding Listed Companies

Stock Name	Stock Exchanges	Stock Code	Dividend per Share (RMB)	Earnings per Share (RMB)
CNBM	Hong Kong Exchanges and Clearing	3323.HK	0.1650	1.1000
BNBM	Shenzhen Stock Exchange	000786.SZ	4.2500	1.8200
China Jushi Co Ltd	Shanghai Stock Exchange	600176.SH	0.1650	0.5438
Anhui Fangxing Science & Technology	Shanghai Stock Exchange	600552.SH	---	0.3053
Luoyang Glass Company Limited	Hong Kong Exchanges and Clearing	1108.HK	---	0.0320
Luoyang Glass	Shanghai Stock Exchange	600876.SH	---	0.0320
Ruitai Technology	Shenzhen Stock Exchange	002066.SZ	---	0.0290

Note: In March, 2015, "China Fiberglass" was renamed as "Jushi Group", while its stock code stayed the same.

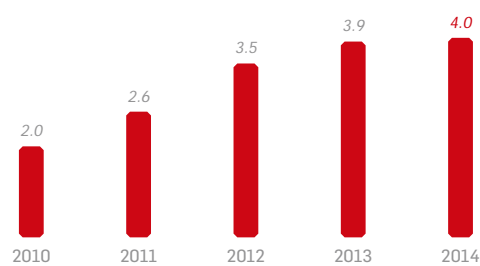
## 2010-2014 Total Assets

Unit: RMB 00' million



## 2010-2014 Cement Production Capacity

Unit: 00' million tons

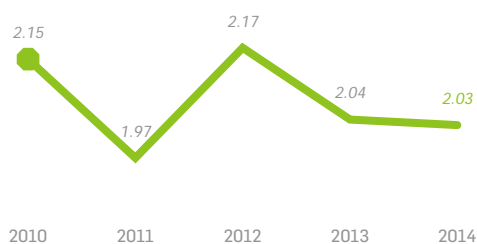




## Energy Saving & Environmental Protection

### 2010-2014 Comprehensive Energy Consumption per RMB 10,000 Output Value

Unit:  
tons of standard coal  
per RMB 10,000  
output value



### 2014 Treatment and Cyclic Utilization of Solid Waste

	Unit	Value
Volume of Treated Solid Waste	Thousand Tons	78817
Of which: Sludge	Thousand Tons	1370
Volume of Hazard-free Treated Hazardous Solid Waste	Thousand Tons	423
Treatment Rate of Self-produced Solid Waste	%	98.0

### 2014 Performance of Water and Residual Heat Resources Utilization

	Unit	Value
Consumption of fresh water per RMB 10,000 of output value	Ton/ RMB 10,000	6.2
Consumption of fresh water per ton of cement clinker	Ton/ton cement clinker	0.4
Utilization rate of circulating water	%	90.3
Installed capacity of cogeneration	Megawatt	2003.0
Actual generating capacity of cogeneration	Billion KWh	7.2

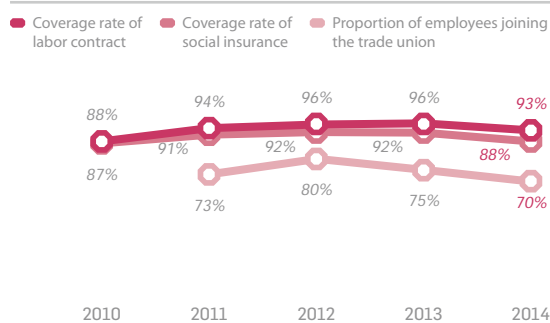
## Employee Care

### 2010-2014 Employee Profile

Unit: Person

	2010	2011	2012	2013	2014
Total number of employees	112,676	126,385	165,652	179,421	176,854
Employees from foreign countries, Hong Kong, Macau and Taiwan	397	594	1,190	1,234	892
Employees of ethnic minorities	1,566	3,516	2,706	3,031	3,120
Employees with disabilities	599	1,023	1,620	1,685	2,263
Proportion of female employees in management	24.0%	11.6%	13.5%	18.1%	18.4%

### 2010-2014 Coverage Rates of Labor Contract, Social Insurance and Employees Joining Trade Union



### 2010-2014 Progress of Enterprise Annuity

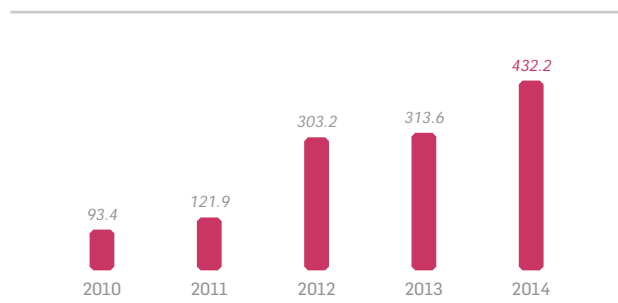
	2010	2011	2012	2013	2014
Number of member enterprises participated in enterprise annuity	38	53	66	67	67
Number of employees participated in enterprise annuity	12,811	13,368	20,392	21,131	21,750

### 2011-2014 Performance of Staff Training

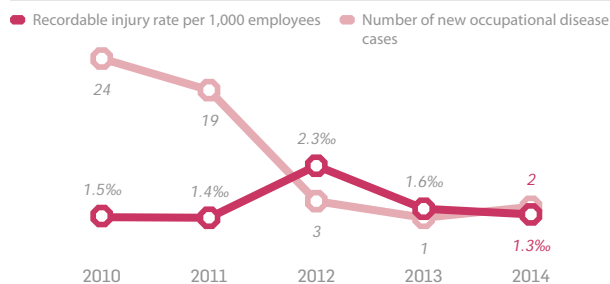
	2011	2012	2013	2014
Number of employee training programs	11,975	21,028	37,491	43,352
Training time (Unit: million hours)	1.1	1.3	1.6	0.9
Number of diplomas or degrees obtained by in-service employees with our assistance	1,580	1,138	2,387	3,520

### 2010-2014 Investment In Occupational Health and Safety

Unit: RMB million

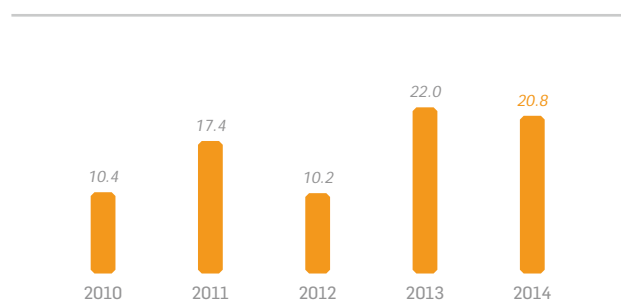


### 2010-2014 Performance of Production Safety

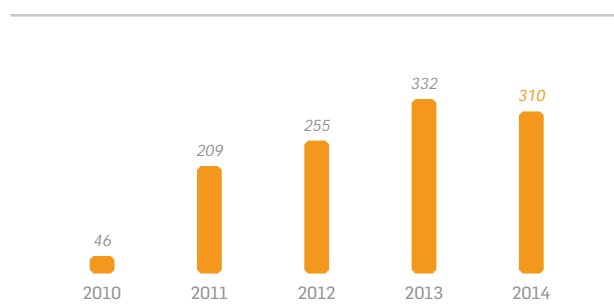


## Corporate Citizen

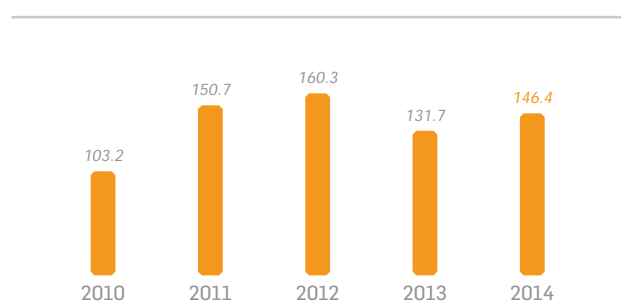
2010-2014 Expenditure on Social Welfare Activities Unit: RMB Million



2010-2014 Number of Supported Social Welfare Projects Unit: Number



2010-2014 Tax Paid Unit: RMB 00' million



2011-2014 Performance of Creating Employment Opportunities Unit: person

	2011	2012	2013	2014
New jobs created	21,182	15,901	16,081	23,617
Of which: Graduating students recruited	4,276	3,743	4,383	3,848
Demobilized soldiers recruited	241	521	158	46

## 2014 Incentives for Students

	Unit	2014
Special scholarship	Number	31
Total scholarship	RMB million	0.5
Students awarded or subsidized	Person	227
Probation bases established	Number	97
Intern posts provided to students at school	Person / day	28,619

## 2014 Volunteer Activities

	Unit	2014
Volunteer teams	Team	65
Investment in supporting volunteer activities	RMB million	1.5
Number of employee volunteers	Person	3,400
Voluntary service time	Hour	9,418

## Technological Innovation

### 2010-2014 Technology Awards at Provincial and Ministerial Levels

Unit: Number of Awards

	2010	2011	2012	2013	2014
Scientific and technological awards at Provincial and Ministerial level or above	63	132	152	145	117
Of which: National level scientific and technological awards	0	2	0	1	1
Technical innovation awards	17	46	89	54	48

### 2010-2014 The Standards of Presiding or Participating in Preparation or Amendment

Unit: Number of Standards

	2010	2011	2012	2013	2014
Number of Standards	79	28	22	59	118
Of which: International	0	1	1	1	17
National	30	15	5	8	35
Industrial	49	12	16	50	66

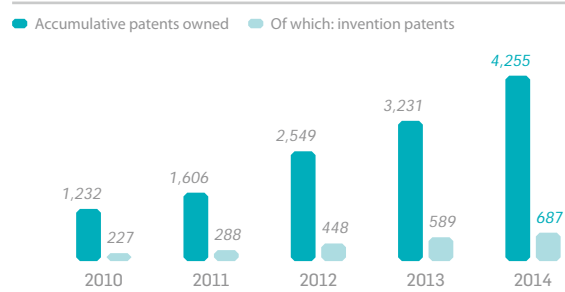
### 2010-2014 Application and Grant of Patents

Unit: Number of applications and patents

	2010	2011	2012	2013	2014
New applied patent	514	630	766	1,262	1,571
Of which: invention patents	173	170	228	373	531
Newly granted patents	420	487	729	848	1,381
Of which: granted invention patents	54	80	143	128	106

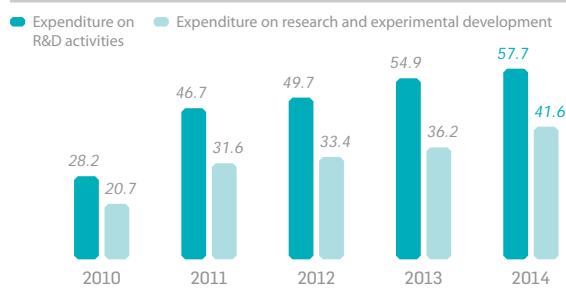
### 2010-2014 Accumulative Patents Owned

Unit: Number of Patents



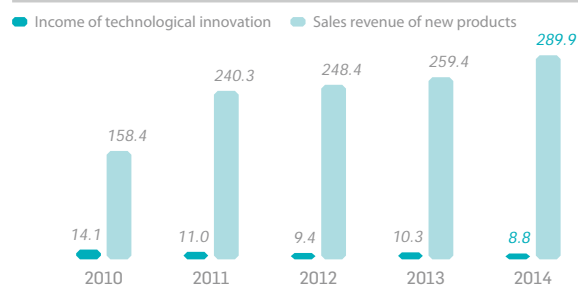
### 2010-2014 Expenditure on R&D Activities

Unit: RMB 00' million



### 2010-2014 Income of Technological Innovation

Unit: RMB 00' million



## Indicator Index (CASS-CSR3.0)

No.	Content of Indicator	Page	Nature of Indicator
<b>Part 1 Preface of Report (P series)</b>			
<b>P1</b>	<b>Scope of report</b>		
P1.1	Process of report quality assurance	P3	Extended
P1.2	Interpretation of data in report	Cover 2	Core
P1.3	Boundaries of report	Cover 2	Core
P1.4	Report system	Cover 2	Core
P1.5	Contact Information	Cover	Core
<b>P2</b>	<b>Report process</b>		
P2.1	Preparation process of the report	P1	Extended
P2.2	Selection process of essential topics in the report	P1	Core
P2.3	Process and means of stakeholders participating in the preparation of the report	P16-17	Extended
<b>P3</b>	<b>Executives' Address</b>		
P3.1	Opportunities and challenges of enterprises in performing social responsibilities	P4-5	Core
P3.2	Summary of achievements and deficiencies of annual corporate social responsibility	P4-5	Core
<b>P4</b>	<b>Corporate profile</b>		
P4.1	Company name, nature of ownership, and location of headquarters	P6-7	Core
P4.2	Major brands, products and services of enterprise	P8-9	Core
P4.3	Region of enterprise's operation, including operational enterprises, subsidiaries, jointly-owned organizations	P6-7	Core
P4.4	Service markets divided by industries, customer types and regions	P8-9	Core
P4.5	Number of employees reported according to contracts (formal and informal employees) and genders	P74	Core
P4.6	List of memberships or other qualifications in associations, national organizations and international organizations	P18/52	Extended
P4.7	Major changes in organizational scale, structure, ownership or supply chains in the term of report	N/A	Extended
<b>P5</b>	<b>Annual progress</b>		
P5.1	Annual major work of social responsibility	P19	Core
P5.2	Annual responsibility performance	P70-75	Core
P5.3	Annual responsibility honors	P19	Core
<b>Part 2 Responsibility Management (G Series)</b>			
<b>G1</b>	<b>Responsibility strategy</b>		
G1.1	Philosophy, vision and values of social responsibility	P12-13	Core
G1.2	External social responsibility proposals signed by the enterprise	P18-19	Extended
G1.3	Identifying core social responsibility topics of the enterprise	P16	Core
G1.4	CSR planning	P18	Extended
<b>G2</b>	<b>Responsibility governance</b>		
G2.1	Leadership organization of social responsibility	P14	Extended
G2.2	Channel and process of communication between stakeholders and the highest governance organization of the enterprise	P16-17	Extended
G2.3	Organizational system of social responsibility	P14	Core
G2.4	Internal responsibilities and division of work of social responsibilities of the enterprise	P14	Core
G2.5	Management system of social responsibility	P15	Extended
<b>G3</b>	<b>Responsibility fusion</b>		
G3.1	Promoting social responsibility work of subsidiaries	P15	Extended
G3.2	Promoting the performance of social responsibility by partners of supply chain	P22	Extended
<b>G4</b>	<b>Responsibility performance</b>		
G4.1	Constructing indicator system of CSR	P15	Extended
G4.2	Conducting performance assessment based on the indicators of CSR	P15	Extended
G4.3	Excellence selection of CSR	P15	Extended
G4.4	Major accidents of the enterprise in economy, society and environment, impact and punishment incurred, and corresponding countermeasures of the enterprise	P16	Core
<b>G5</b>	<b>Responsibility communication</b>		
G5.1	List of stakeholders of the enterprise	P17	Core
G5.2	Process of identifying and choosing stakeholders	P16	Extended
G5.3	Concerns of stakeholders and response measures of enterprise	P17	Core
G5.4	Communication mechanism of corporate internal social responsibility	P16	Core
G5.5	Communication mechanism of corporate external social responsibility	P16	Core
G5.6	Participation of corporate senior management in communication and exchange of social responsibility	P16	Core
<b>G6</b>	<b>Responsibility capabilities</b>		



No.	Content of Indicator	Page	Nature of Indicator
G6.1	Conducting CSR subject research	P18	Extended
G6.2	Participation in study on and exchanges of social responsibility	P18	Extended
G6.3	Participating in the formulation of domestic and foreign social responsibility standards	P19	Extended
G6.4	Cultivating corporate culture of responsibility through training and other measures	P15	Core
<b>Part 3 Market Performance (M Series)</b>			
<b>M1</b>	<b>Responsibilities in respect of shareholders</b>		
M1.1	Policy and mechanism of shareholders' participation in the management of enterprise	P23	Core
M1.2	Protecting interests of mid and small investors	P23	Core
M1.3	Normalize disclosure of information	P23	Core
M1.4	Growth	P70-71	Core
M1.5	Profitability	P70-71	Core
M1.6	Safety	P22-23	Core
<b>M2</b>	<b>Responsibilities of customers</b>		
M2.1	Customer relations management system	P23	Core
M2.2	Popularization of product knowledge and customer training	P23	Core
M2.3	Protection of customers' information	P23	Core
M2.4	Stop loss and compensation	P23	Core
M2.5	Product quality management system	P23	Core
M2.6	Product pass rate	N/A	Core
M2.7	System of supporting product and service innovation	P24-25	Core
M2.8	Investment in technology or R&D	P32	Extended
M2.9	Number and proportion of technical personnel	P32	Extended
M2.10	Number of new patents	P75	Extended
M2.11	Sales revenue of new products	P32	Extended
M2.12	Significant innovation awards	P75	Extended
M2.13	Survey on satisfaction of customers and satisfaction of customers	N/A	Core
M2.14	Actively deal with complaints from customers and resolution rate of complaints from customers	P23	Core
<b>M3</b>	<b>Responsibilities in respect of Partners</b>		
M3.1	Strategic sharing mechanism and platform	P23	Core
M3.2	Philosophy of and system guarantee for honest operation	P22	Core
M3.3	Philosophy of and system guarantee for fair competition	P22	Core
M3.4	Economic contract performance rate	P22	Core
M3.5	Identifying and describing the value chain and responsibility influence of the enterprise	P22-23	Extended
M3.6	Initiative and policies of the enterprise in promoting the social responsibility performance of the value chain	P22-23	Extended
M3.7	Social responsibility education and training received by members of the value chain from the enterprise	P22-23	Extended
M3.8	System and (or) policy of responsible procurement of the company	P23	Extended
M3.9	Process and frequency of assessment and survey on social responsibilities of suppliers	P22-23	Extended
M3.10	Ratio of suppliers passing quality, environment, and occupational health and safety management system certifications	P23	Core
M3.11	Number of punishment in such aspects as economy, society and environment against suppliers	Not included in the statistics system	

No.	Content of Indicator	Page	Nature of Indicator
S2.4	Proportion of employees joining the trade union	P73	Extended
S2.5	Number of applied, treated and solved appeals of employees through the appeal mechanism	P43	Extended
S2.6	Management of employees' privacy	P42	Extended
S2.7	Rights and interests protection for part-timers, temporary workers and employees of subcontractor	P42	Extended
S2.8	The minimum wage of employees according to the operation region and the minimum wage in the region	P43	Core
S2.9	Coverage rate of social insurance	P73	Core
S2.10	Salary for overtime work	P42	Extended
S2.11	Number of annual per capita paid vacation	P42	Extended
S2.12	Welfare systems according to nature of employment (official, unofficial)	P42	Core
S2.13	Proportion of female managers	P73	Core
S2.14	Proportion of employees of minorities and other races	P73	Extended
S2.15	Ratio or number of disabled employees	P73	Extended
S2.16	Proportion of employees in the occupational health and safety committee	N/A	Extended
S2.17	Occupational disease prevention and treatment system	P45	Core
S2.18	Training of occupational safety and health	P45	Core
S2.19	New occupational diseases of the year	P73	Core
S2.20	System and measures of prevention against occupational injuries	P44-45	Extended
S2.21	Mental health system/measures for employees	P45	Extended
S2.22	Coverage rate of physical examination and health records	P45	Core
S2.23	Providing equal health and safety protection to part-timers, temporary workers and employees of subcontractor	P45	Extended
S2.24	Career development channel for employees	P43	Core
S2.25	Employee training system	P43	Core
S2.26	Employee training performance	P73	Core
S2.27	Investment in aiding and supporting employees in difficulties	P46	Core
S2.28	Providing special protection for special populations (pregnant woman, nursing woman, etc.)	P46	Extended
S2.29	Respect for employees' family responsibilities and life in spare time, and keeping balance between work and life	P47	Extended
S2.30	Employee satisfaction	P42	Extended
S2.31	Employee turnover rate	P42	Extended
<b>S3</b>	<b>Safety production</b>		
S3.1	Safety production management system	P44	Core
S3.2	Safety emergency management mechanism	P44	Core
S3.3	Safety education and training	P45	Core
S3.4	Safety training performance	P44	Core
S3.5	Investment in safety production	P45	Core
S3.6	Number of accidents in production	P44	Core
S3.7	Number of employee casualties	P45	Core
<b>S4</b>	<b>Responsibilities in respect of community</b>		
S4.1	Assessment of impact of enterprise entering or exiting the community on the environment and society of communities	P52	Extended
S4.2	Rate of assessment on implementation environment and social influence of new projects	Not included in the statistics system	Extended
S4.3	Participation of community representatives in project construction or development	P52	Extended
S4.4	Enterprise developed or supported project with social benefits in the community of its operation	P53	Extended
S4.5	Employee localization policy	P52	Core
S4.6	Proportion of local employment	P52	Extended
S4.7	Proportion of local employees in senior executives according to main operation regions	P52	Extended
S4.8	Local procurement policy	P52	Extended
S4.9	Corporate public welfare policy or main public welfare fields	P53	Core
S4.10	Corporate public welfare fund/foundation	N/A	Extended
S4.11	Overseas public welfare	P54	Extended
S4.12	Total amount of donation	P56	Core
S4.13	Policy and measures supporting voluntary service	P53	Core
S4.14	Performance of voluntary service of employees	P74	Core
<b>Part 5 Environmental Performance (E Series)</b>			
<b>E1</b>	<b>Green operation</b>		

No.	Content of Indicator	Page	Nature of Indicator
E1.1	Establishing organizational system and mechanism system of environment management	P33	Core
E1.2	Environment warning and response system	P32	Extended
E1.3	Participation in environmental organizations and proposals	P32	Extended
E1.4	Assessment on impact of enterprise on environment	P32	Core
E1.5	Total investment in environmental protection	P32	Core
E1.6	Training and publicity of environmental protection	P33	Core
E1.7	Environmental protection training performance	P33	Core
E1.8	Disclosure of environment information	P33	Extended
E1.9	Process and frequency of communication with communities on environment	P32	Extended
E1.10	Measures for green office	P33	Core
E1.11	Green office performance	P33	Extended
E1.12	Saving energy by reducing business trips	P33	Extended
E1.13	Green buildings and sales network	N/A	Extended
<b>E2</b>	<b>Green factory</b>		
E2.1	Establishing energy management system	P33	Extended
E2.2	Energy conservation policy and measures	P32-33	Core
E2.3	Total annual energy consumption	P34	Core
E2.4	Comprehensive energy consumption per unit output value of the enterprise	P72	Core
E2.5	Policy and measures for utilization of new, renewable or clean energy	P34-35	Extended
E2.6	Utilization amount of new, renewable and clean energy	P72	Extended
E2.7	Policy, measures or technologies for reducing waste gas emission	P34-35	Core
E2.8	Emission and emission reduction of waste gas	P72	Core
E2.9	System, measures or technologies for reducing waste water discharge	P34-35	Core
E2.10	Emission and emission reduction of waste water	P72	Core
E2.11	System, measures or technologies for reducing waste emission	P34-35	Core
E2.12	Emission and emission reduction of waste water	P72	Core
E2.13	Policies and measures for the development of circular economy	P34-35	Core
E2.14	Cyclic utilization rate of renewable resources	P72	Core
E2.15	Building a water-saving enterprise	P34-35	Core
E2.16	Annual consumption of fresh water/ fresh water consumption of unit industrial added value	P72	Core
E2.17	Volume of neutral water reuse	P72	Core
E2.18	Plan and action for the reduction of greenhouse gas emission	P30-39	Core
E2.19	Emission and emission reduction of greenhouse gases	Not included in the statistics system	Extended
<b>E3</b>	<b>Green products</b>		
E3.1	Proportion of suppliers passing ISO Environment Management System Certification	P23	Core
E3.2	Measures to improve suppliers' awareness and capabilities of environmental protection	P22	Extended
E3.3	Number of suppliers receiving punishments in respect of environmental protection, and number of punishments	Not included in the statistics system	Extended
E3.4	Support for R&D and sales of green low-carbon products	P38-39	Extended
E3.5	Measures and performances of waste products recycle	P34-35	Core
E3.6	Policies and performances of package minimization and recycle	P34-35	Core
<b>E4</b>	<b>Green ecology</b>		
E4.1	Protection of biological diversity	P32	Core
E4.2	Protection of natural habitats, wet land, forests, wildlife corridor, and farm land in constructions	P32	Extended
E4.3	Ecological restoration and governance	P32	Extended
E4.4	Rate of ecological restoration and governance	Not included in the statistics system	Extended
E4.5	Public welfare activities for environmental protection	P53	Core
<b>Part 6 Report Postscript (A Series)</b>			
A1	Future plan: Corporate planning on social responsibility work	P5 18	Core
A2	Report Evaluation: Evaluation of experts in social responsibility or industry experts, relevant interested parties or professional organizations on the report	80	Core
A3	Reference Index: Application of indicators as required to be disclosed by the guide	76	Extended
A4	Feedback: questionnaire of readers' opinions and feedback channel for readers' opinions	81	Core

# Rating Report

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Upon the request of CNBM, the Research Center for Corporate Social Responsibility of Economics Division of Chinese Academy of Social Sciences (hereinafter referred to as CSR Center) selected experts from Chinese Expert Committee on CSR Report Rating to form CNBM CSR Report 2014 (hereinafter referred to as the Report) Rating Team.

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## I. Basis of rating

Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR 3.0) and Rating Standards of Corporate Social Responsibility Reporting for Chinese Enterprises (2014).

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# Feedback



Thank you very much for caring and supporting the social responsibility work of CNBM. Please fill in the questionnaire below, and send it back to us through fax or mail. If the blank space is insufficient for your response, please 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 click on "Social Responsibility Communications - Feedback". You can also scan the two-dimension code on the left to fill in your feedback via mobile terminal. We will make continuous improvements in our work in the future according to your suggestions and advice.

## Your overall evaluation of CNBM CSR Report 2014:

Overall evaluation	Very good	Good	Ordinary	Not good	Very poor
Contents	Very good	Good	Ordinary	Not good	Very poor
Suitability of page numbers	Very good	Good	Ordinary	Not good	Very poor
Design	Very good	Good	Ordinary	Not good	Very poor
Language	Very good	Good	Ordinary	Not good	Very poor

## According to your opinion, what's the core of responsibility performance of CNBM?

Responsibility Governance    Operation Performance    Technological Innovation    Energy Saving & Environmental Protection    Employee Care    Corporate Citizen

## Which aspect do you think we need to strengthen our effort in?

Information collection    Development of organizational structure    Talent development    Performance evaluation  
External publicity    Management of stakeholders    Public welfare planning    Preparation of annual report  
Study on social responsibilities    Others \_\_\_\_\_

## Which means do you want to learn information about our responsibility performance through?

Printed report    "Social responsibility" special column on the official website    Public WeChat account  
Professional media of social responsibility    Others \_\_\_\_\_

## What do you expect to see in the annual CSR Report of CNBM?

\_\_\_\_\_

## Which aspect of CNBM's performance do you pay more attention to?

\_\_\_\_\_

## Other suggestions and advice?

\_\_\_\_\_

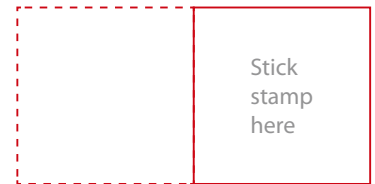
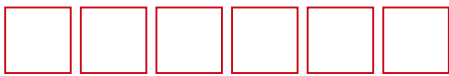
## What's your standpoint when participating in our collection of suggestions?

Governments    Institutional investors    Middle or small shareholder    Financing institutions    Industrial associations  
Supplier    Client    Enterprise in the same industry    Partner    Professional CSR institution  
Public welfare organization    Media    Senior executive of the Group  
Employee of the Group    Others \_\_\_\_\_

## In order to keep in touch, reply to your suggestions and advice in time, please provide your contact information. We will keep your information in confidence

Name \_\_\_\_\_ Age \_\_\_\_\_ Occupation / employer \_\_\_\_\_  
Gender    Male    Female    Department / position \_\_\_\_\_ Address \_\_\_\_\_  
Telephone \_\_\_\_\_ Postal Code \_\_\_\_\_ E-mail \_\_\_\_\_





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