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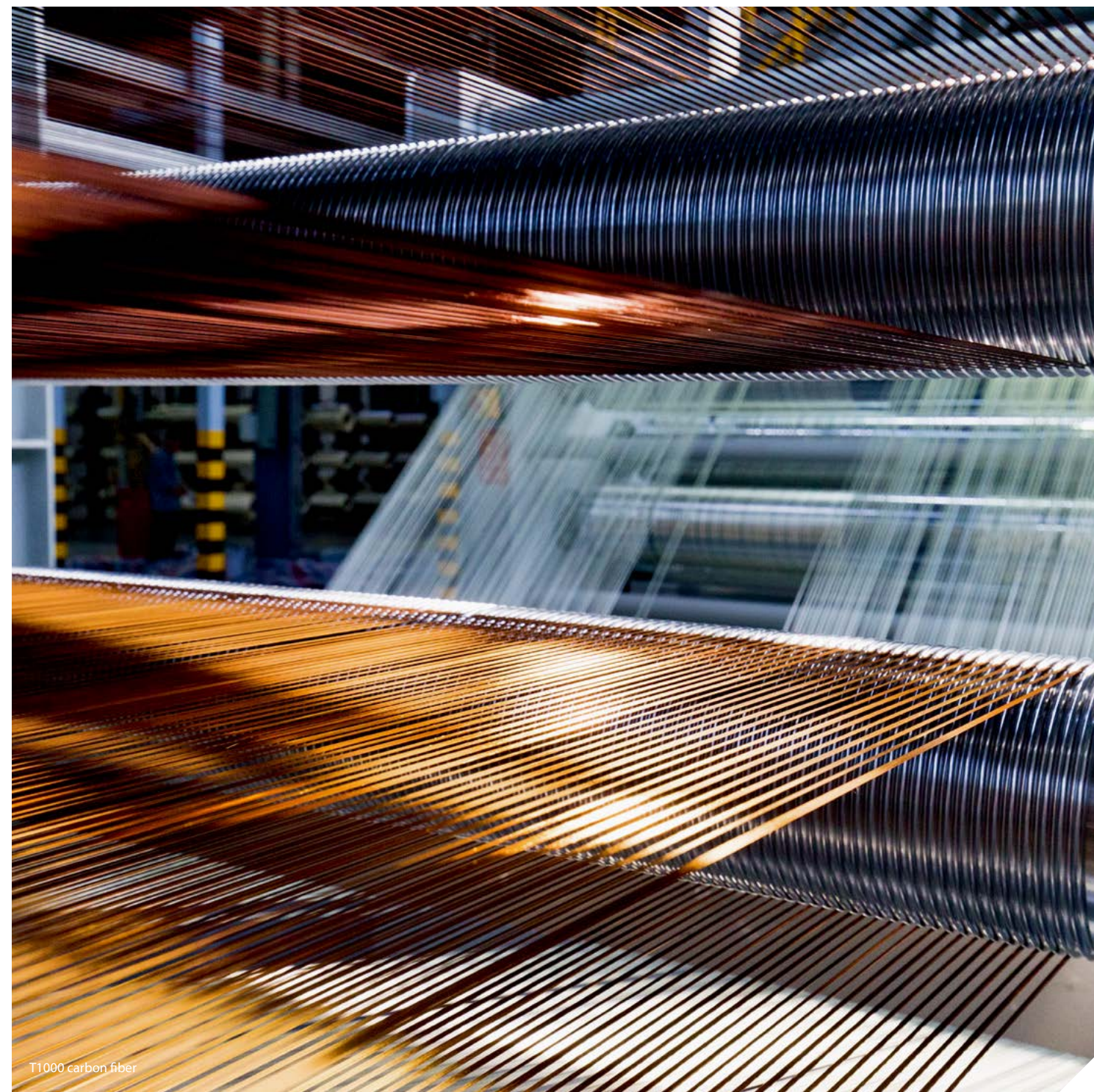
CNBM

2017 Sustainability Report

CHINA NATIONAL BUILDING MATERIAL GROUP CO., LTD

CHINA NATIONAL BUILDING MATERIAL GROUP CO., LTD

Sustainability Report 2017



T1000 carbon fiber



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大良造



Notes

This Report truly reflects China National Building Material Group Co., Ltd.'s (CNBM) sustainability and social responsibility performance.

Period Covered by the Report

January 1st to December 31st, 2017; given the ongoing continuity of certain businesses and projects, some contents involve the first and second quarters of 2018, the details of which are indicated in the Report.

Reporting Cycle

Annual report.

Entities Covered by the Report

All wholly-owned or controlled (including absolutely and relatively controlled) members of CNBM. For brevity, the terms 'CNBM', the 'Group' and 'we' are used in the Report to refer to China National Building Material Group Co., Ltd.

Data Sources

All the information and data used herein comes from the Headquarters and member companies of CNBM. Notes have been made in the Report to indicate information from external references. Unless otherwise stated, all monetary amounts are expressed in RMB.

Which report is this? How can I obtain these reports?

This is the seventh social responsibility report/sustainability report released by CNBM. You can request the print version of each year's report via the contact information on the cover. You can also scan the QR code below or log onto <http://www.cnbm.com.cn/EN/> to download the electronic version and receive further related information in the 'Social Responsibility' column.



How can the data released in the Report be guaranteed?

The financial data in the Report is derived from the CNBM 2017 Annual Financial Statement which has been audited by Baker Tilly China.

The external data in the Report is derived from data released by third parties through the media, the sources of which are indicated in the Report.

The non-financial data in the Report is derived from CNBM's comprehensive data management system. The data in the system was faithfully reported by the functional departments and offices of the CNBM Headquarters and its member companies in accordance with the CNBM Social Responsibility Management Information Collection Measures. The data of member companies was submitted to the Headquarters after being approved at all levels; each department or office of the Headquarters reviewed the data from member companies and then verified the data through sampling at a proportion of at least 5% in order to ensure its standardization, reliability and authenticity.

How was this report prepared?

This report was prepared according to the Guidelines for the Preparation of Corporate Social Responsibility Reports in China (CASS-CSR 4.0) issued by the Chinese Academy of Social Sciences, CNBM Administrative Social Responsibility Fulfillment Measures and CNBM Social Responsibility Management Information Collection Measures. The detailed preparation process is as follows:

Preparation Process of CNBM Annual Sustainability Report

1. Project startup Defining the annual work plan, convening meetings and issuing documents.	2. Identifying core topics and boundaries Analyzing stakeholders' concerns, identifying annual major topics and studying CSR standards and guidelines, and new trends.	3. Printing and distribution of information list Defining the indicators for the information system and making a list of example cases in the year.
4. Collecting materials Collecting and analyzing materials from member companies, functional departments and offices, and media reports.	5. Writing report Drawing up the report framework, defining topics and compiling the first draft.	6. Consultation Consulting the CSR leading group, functional departments and offices of the Headquarters, member companies, stakeholders and CSR experts.
7. Improvement Revising the text, verifying the data and self-checking the standards.	8. Design Ensuring readability, innovation and consistency.	9. Evaluation The Rating Standards of Corporate Social Responsibility Reporting in China (2018).
10. Issuance Delivery to stakeholders via multiple carriers and channels.	11. Summary and promotion Analyzing deficiencies and making improvement plans.	

Standards, benchmarking and evaluation of the Report

The preparation of the Report is based on the Sustainable Development Report (G4) published by the Global Reporting Initiatives (GRI), Social Responsibility Guide (ISO26000) issued by the International Organization for Standardization (ISO), Guidelines for the Preparation of Corporate Social Responsibility Reports GB/T36001-2015 and Guidelines for the Preparation of Corporate Social Responsibility Reports in China (CASS-CSR 4.0) issued by the Chinese Academy of Social Sciences, etc. Please refer to pages 84-87 of the Report for benchmarking between the Report and CASS-CSR 4.0, and evaluation results.

How can I contact you to give feedback?

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



Scan the QR code and send your feedback through the website



Scan the QR code and send your feedback through WeChat

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Chairman's Address



**Entering a New
Era of High-quality
Development**

40 years after the implementation of the reform and opening up policy, socialism with Chinese characteristics has entered a new era, as has China's economic development. It was stated in the report given at the 19th CPC National Congress that China's economy has been transitioning from a phase of rapid growth to a stage of high-quality development. The development of China National Building Material Group Co., Ltd. (CNBM) is closely linked to the development pulse of the People's Republic of China. In this stage of China's rapid economic growth, we have taken the development path of joint restructuring, capital operation, management integration and integrated innovation, by virtue of which our enterprise has grown rapidly and currently keeps pace with the rapid growth of the national economy.

In 2017, CNBM made a beautiful debut after the merger of the China National Building Materials Group Corporation and China National Materials Group Corporation. This was the year in which we delivered a perfect answer sheet to all of society. All our cadres and staff think with one mind and work with one heart, devoting themselves to the tasks of reorganization, integration and reform, and truly creating outstanding achievements in '1+1>2'. The annual operating income in 2017 reached RMB 302.1 billion with total social contributions exceeding RMB 73 billion, creating the best performance in recent years.

The two corporations have reorganized seamlessly and integrated deeply. At the group level, the four major optimizations of strategic planning, Headquarters organization, secondary platforms and institutional system have been completed, and the six major integrations of brand culture, institutional framework, cement business, international engineering, industry and finance, and production and research have been implemented. The share-swap and merger between the two Hong Kong-listed enterprises was approved by a 99.9% vote at the shareholders' meeting. This unprecedented approval rate made it a classic case in the international capital market.

We actively promote the supply-side structural reform of the building materials industry. In light of the current situation of serious overcapacity in the cement industry, we insist on staggering peak production, restrict new capacity, eliminate backwards production capacity and adhere to market self-discipline so as to realize profits for the enterprises, tax for the government,

income for the employees and environmental improvement. Under the guidance of such leading groups as CNBM, the total output of the national cement industry in 2017 reached 2.32 billion tons, representing a slight decline, although the cement price rebounded in a good way and industry revenue increased by 18% year-on-year, with profit increasing by 94% year-on-year, second only to the historically high records set in 2011. Practice and achievements prove that in the case of serious overcapacity, supply-side structural reform will promote the healthy development of enterprises and enable the industry to achieve considerable economic benefits.

We also have unique approaches to innovative transformation. Through implementing the intensive promotion of basic building materials, vigorous development of new materials and active cultivation of such new formats as R&D and technical services, we promote high-end, intelligent, green and internationalized transformation. The Group has accumulated 10,000 effective patents, added 92 new international patents and published 4 international standards. Its high-performance carbon fiber R&D and industrialization achievements won the First Prize in the National Science and Technology Progress Awards. The Group's new materials business has sprung up and a number of new materials including high-grade carbon fiber, ultra-thin electronic glass, copper indium gallium selenide (CIGS) and cadmium telluride thin film solar cells, lithium battery diaphragms and high-precision industrial ceramics have been successfully mass-produced.

We support the construction of the 'Belt and Road' Initiative with advanced technology, superior production capacity and high-quality building materials, becoming a new national business card for the 'Going Out' policy. The international market share of our cement engineering has reached 65%, ranking first in the world for 10 consecutive years. The 6 cement production lines with a daily production capacity of 6,000 tons built by Chengdu Design & Research Institute of Building Materials Industry Co., Ltd. in Egypt are lined up and have all been successfully ignited, becoming an unprecedentedly grand project in the industry. The China-Kazakhstan, China-Ethiopia and China-Zambia laboratories have all been established, as well as testing and certification centers in Africa, Australia, Southeast Asia, etc.; we are also exploring the 'smart industry' model

and managing the operation of 57 production lines along the 'Belt and Road' route in such areas and countries as the Middle East, Africa and Russia.

We deeply understand that a successful company should fulfill its economic, social, political and national responsibilities. We adhere to the goal of being a dignified enterprise and forming the four characteristics of environmental protection, enthusiasm for public welfare, employee development and world citizenship. The Kasen Junheng Pharmaceutical Glass Project, which was built in impoverished Weixian County of Hebei Province, was ignited in June 2017, successfully filling the gap in China's high-end pharmaceutical glass field. Through this high-tech industrial project, we have not only realized precise poverty alleviation in the industry but also facilitated the Group in achieving structural adjustment, transformation and upgrading.

Through the implementation of new development concepts, CNBM has accelerated its structural adjustment and transformation and upgrading, transforming into a comprehensive building material and new material industry investment group based on the three pillars of cement, new materials and engineering technology services. On the one hand, it has always insisted on promoting supply-side structural reform in the traditional business field; on the other, it has cultivated a number of products and businesses with huge development potential. At present, CNBM is not only the world's largest building material manufacturer and building material integrated service provider, but also a leading new material developer in the world. With its industrial scale, innovative ability and core competitiveness, it is entering a new phase of world-class high-quality development.

In this high-quality development stage, the challenges we face include overcapacity, technological revolution and environmental protection. On the basis of the current situation, we have identified five measures for high-quality development. The first is to strengthen the main business. We should keep a foothold in the main business, lay a solid foundation and promote 'refocusing'. The second is to lose weight and build up. We should continue to adjust and optimize the business structure, organizational structure and personnel structure so as to ensure that the enterprise improves in its quality and efficiency. The third is to reinforce management.

We should promote efficiency and reduce costs through management. The fourth is innovation and transformation. We should achieve high-end, intelligent, green and international change. The fifth is the mechanism revolution. We should fully mobilize the enthusiasm of the employees, enhance the centripetal force and cohesiveness of the Group, make the Group into a platform of benefit sharing for society, shareholders and employees, and establish a positive correlation between the interests of employees and the benefits of the Group, thereby enabling CNBM to revitalize.

High quality development is the main line of work in our future plans. We are no longer pursuing scale but putting superior technical competitiveness and the superior performance of our business in a more prominent position, aiming to become a first-class enterprise with first-class technology, first-class efficiency, first-class management and first-class competitiveness, and ensuring the realization of our near-term and medium-term development. Our goal is to achieve a leap from big to great, and from good to excellent.

By 2020, we will realize operating income of RMB 350 billion and total profits of RMB 20 billion, basically becoming a world-class enterprise with global competitiveness;

By 2035, our operating income will double, our total profits will reach about RMB 50 billion, our innovation ability, profitability, management & control ability, and market competitiveness will reach the world-class level, and a world-class enterprise with global competitiveness will be formed.

By 2050, our operating income will exceed 1 trillion, our total profit will break into hundreds of billions and CNBM will be a great and universally respected world-class enterprise.

Chairman Song Zhiping



Company Profile

China National Building Material Group Co., Ltd. (CNBM) was founded through the merger of the China National Building Materials Group Corporation and China National Materials Group Corporation. Having integrated its scientific research, manufacturing and logistics, CNBM is not only the largest comprehensive building materials and new materials industrial investment group in China, but also a leading group in such fields worldwide. It has been listed in the Fortune Global 500 seven consecutive years. As at the end of 2017, the total assets of the Group amounted to RMB 591.59 billion and its total number of employees reached 221,000. In 2017, CNBM achieved revenue of RMB 302.12 billion and total profits of RMB 15.11 billion, while its paid taxes amounted to RMB 19.68 billion.

Headquartered in Beijing, CNBM controls 15 listed companies including 2 overseas listed companies. The Group can produce 530 million tons of cement clinker, 460 million m³ of ready-mix concrete, 2.2 billion m² of plasterboard, 2.2 million tons of fiberglass and a 16 GW capacity of wind turbine blades per year, all of which rank first in the world. It is also the No. 1 player in the international cement engineering market and international cogeneration market. It has 26 national scientific research and design institutes, 38,000 scientific R&D and technical engineering employees, 55 national industrial quality inspection centers, 10,024 patents, 3 national key laboratories, 8 national engineering (technology) research centers and 18 national standardization technical committees.

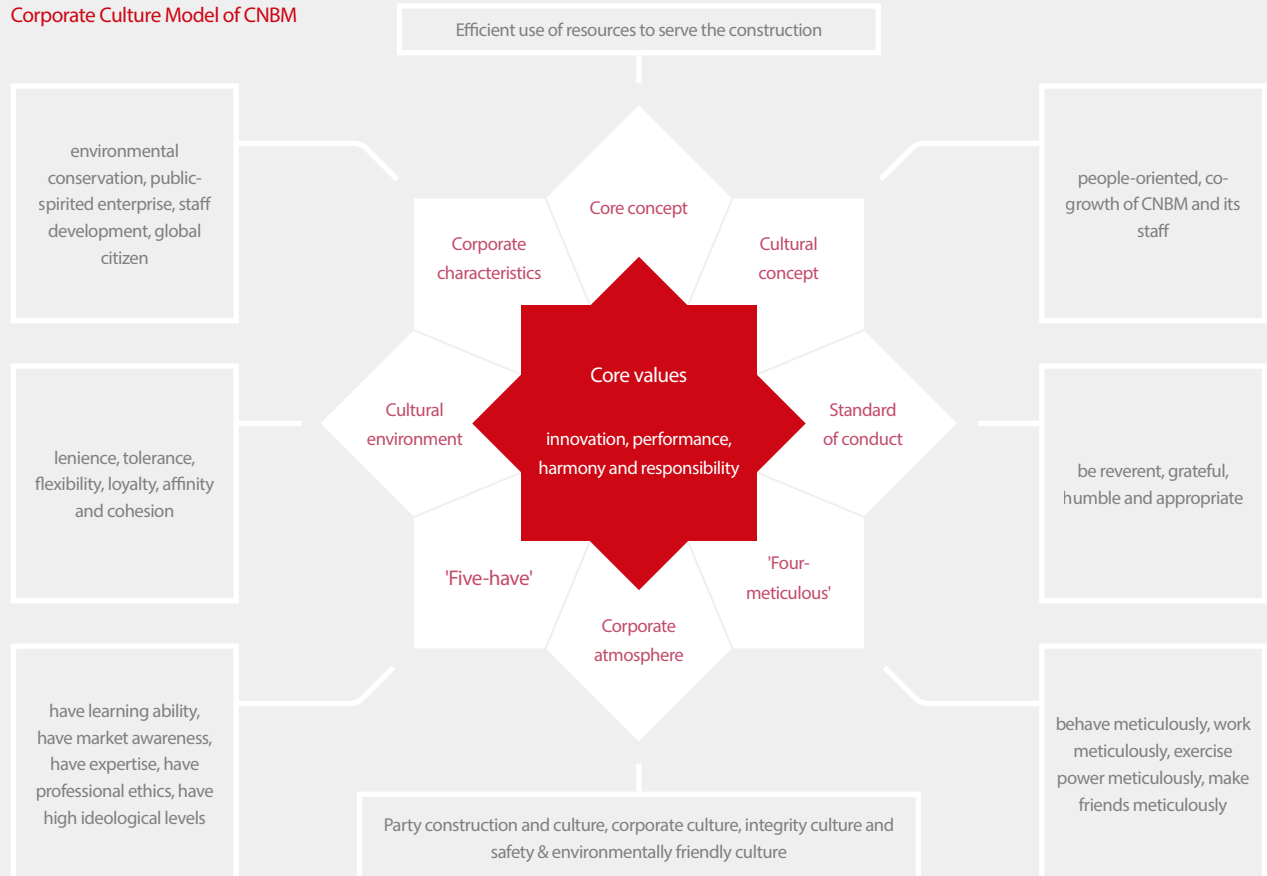


Corporate Culture

In order to fulfill its social and economic responsibilities satisfactorily, CNBM adheres to the core concept of 'Efficient use of resources to serve the construction', the core values of 'Innovation, Performance, Harmony and Responsibility', and the standard of conduct: 'Be reverent, grateful, humble and appropriate'. At CNBM, under the people-oriented principle, we actively build a cultural environment with lenience, tolerance,

flexibility, loyalty, affinity and cohesion, and create an atmosphere that integrates Party culture, corporate culture, integrity culture and safety & environmentally friendly culture. In addition, as 'realizing the happiness and value of the staff' is taken as a major ultimate goal, we make great efforts to cultivate 'four-meticulous' and 'five-have' cadres, and strive to bring about 'enterprise-staff co-growth'.

Corporate Culture Model of CNBM



Strategy of CNBM

Adhering to the five development concepts of 'innovative, coordinative, green, open and shared', CNBM vigorously implements the three strategies of innovation, green development and international cooperation in line with its strategic positioning of being the 'leader of industrial integration, innovator of industrial upgrading and pioneer of international capacity cooperation', and builds six business platforms (basic building materials, international capacity cooperation, three-new industries, national material research, national mine resources and financial investment and

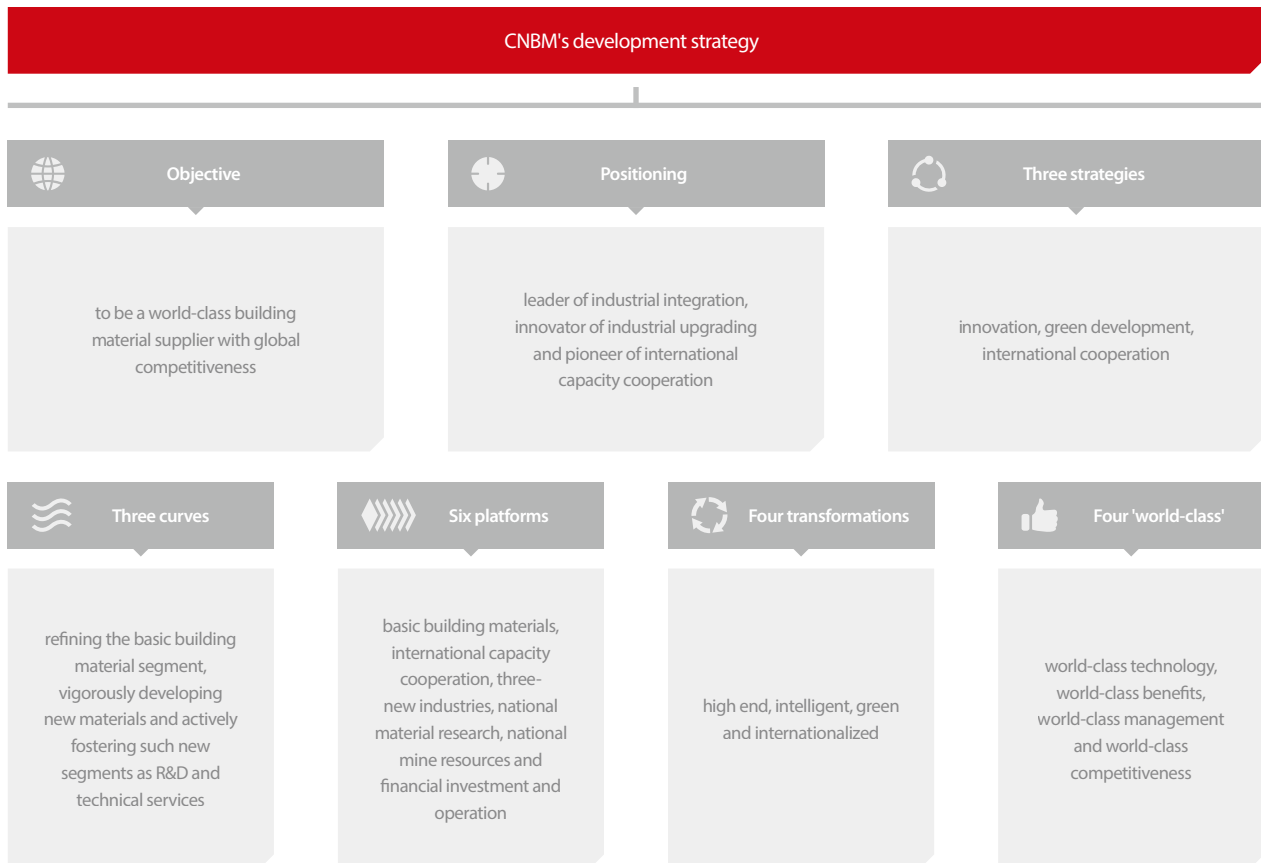
operation) along 'three curves' of refining the basic building material segment, vigorously developing new materials and actively fostering such new segments as R&D and technical services. On this basis, we are transforming towards 'high end, intelligent, green and internationalized', forming a business pattern in which the cement, new material and engineering technical service segments constitute a tripod, and striving to be a world-class building material supplier with global competitiveness.

We keep the following missions in mind:

1. take on heavy responsibilities and guarantee both quality and quantity in supplying major projects and the undertakings of new-type urbanization and a new socialist countryside with products and services;
2. actively guide resource integration and structural

adjustment in the building material industry, advocate market co-competition, increase the value of the building material industry and establish win-win partnerships with other practitioners so as to enable the healthy development of the building material industry;

3. make great efforts to technically average up the building material industry and increase its innovation capability, boost the transformation and upgrading of the building material industry, and lead the building material industry to become resource-conservative and environmentally friendly;
4. continuously and steadily promote the reform of CNBM in accordance with the market laws, release systems and mechanisms that meet the requirements of the market economy, and contribute passion and full efforts to the great rejuvenation of China.



High-quality Development

As a new era has come in China, CNBM is moving from high-speed growth to high-quality development. In the high-quality development stage, we will achieve our strategic objective and vision of being world-class in three steps:

By 2020, with operating income of RMB 350 billion and total profit of RMB 20 billion, a world-class building material supplier with global competitiveness will take shape.

By 2035, with operating income doubled from the current level and total profit of about RMB 50 billion, CNBM will be world-class in terms of its innovation capability, profitability, governance and control capability, and market competitiveness, becoming a world-class building material supplier with global competitiveness in all aspects.

By 2050, with operating income of over RMB 1 trillion and total profit of over RMB 100 billion, CNBM will become a universally-recognized great enterprise.

In order to achieve our near-term, mid-term and long-term development goals, and leapfrog from largeness to greatness and excellence, we take the road of high-quality development and focus on the following six measures:

Strengthening of main segments: We focus on, strengthen and upgrade the main segments. Under the principle of refocusing, we enhance the development of profit platforms and improve core competitiveness and profitability by gradually cutting out non-core and marginal segments.

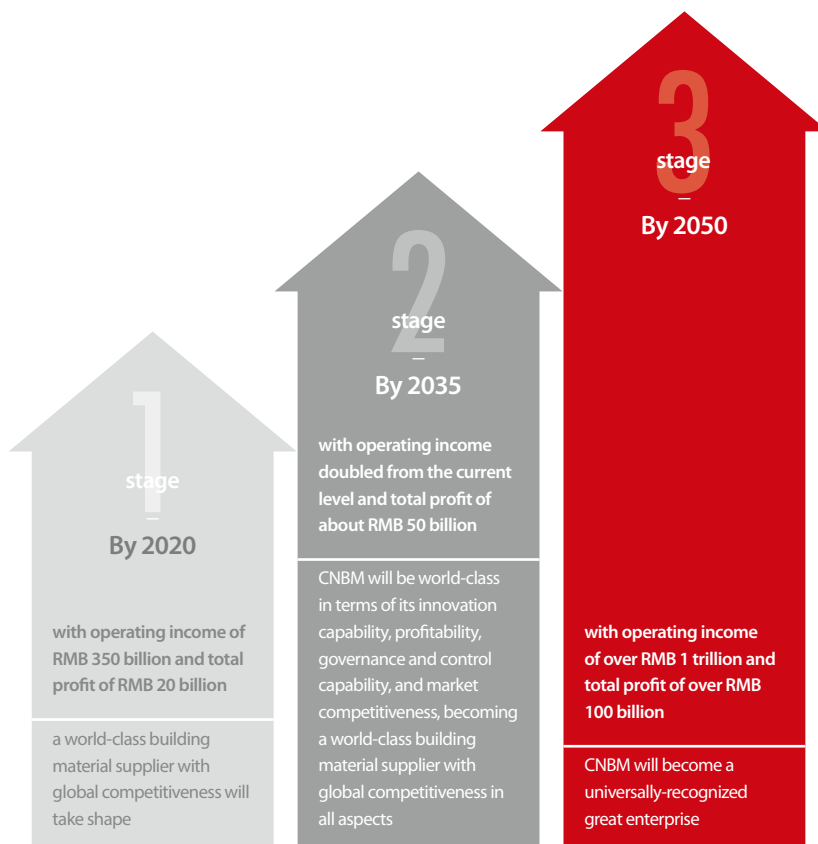
Streamlining: For the purpose of higher quality and efficiency, we adjust and optimize the business, organization and manpower structures.

Deleverage: For the purpose of deleverage, we conduct financing in capital markets and make use of debt-to-equity swaps in a market-oriented and legalized way in addition to the accumulation of profit and the reduction of receivables and funds for inventory.

Silo breaking: Strategically aware of the objectiveness and harmfulness of the silo effect, we strengthen integration and optimization, enhance the synergistic effect based meticulous system design and deepen teamwork by building a strong cooperative culture.

Innovation and transformation: We continue to increase our efforts in innovation and unremittingly improve our competitiveness through dependence on technology and innovation so as to truly transform CNBM into a high-end, intelligent, green and internationalized enterprise.

Mechanism revolution: Through the mechanism revolution, effective mechanisms are established to enable more cadres and workers to share bonuses from the development of CNBM, increase cohesion and activate the group.



Management Team

The Board of Directors of CNBM has 13 members, 7 of whom are external directors; there are 4 special committees under the Board of Directors, of which the Remuneration and Appraisal Committee and Audit and Risk Management

Committee consist solely of external directors. As the strategic, resource and cultural center, the CNBM Headquarters exercises the rights and performs the duties of the capital contributors.

Management Team of CNBM¹

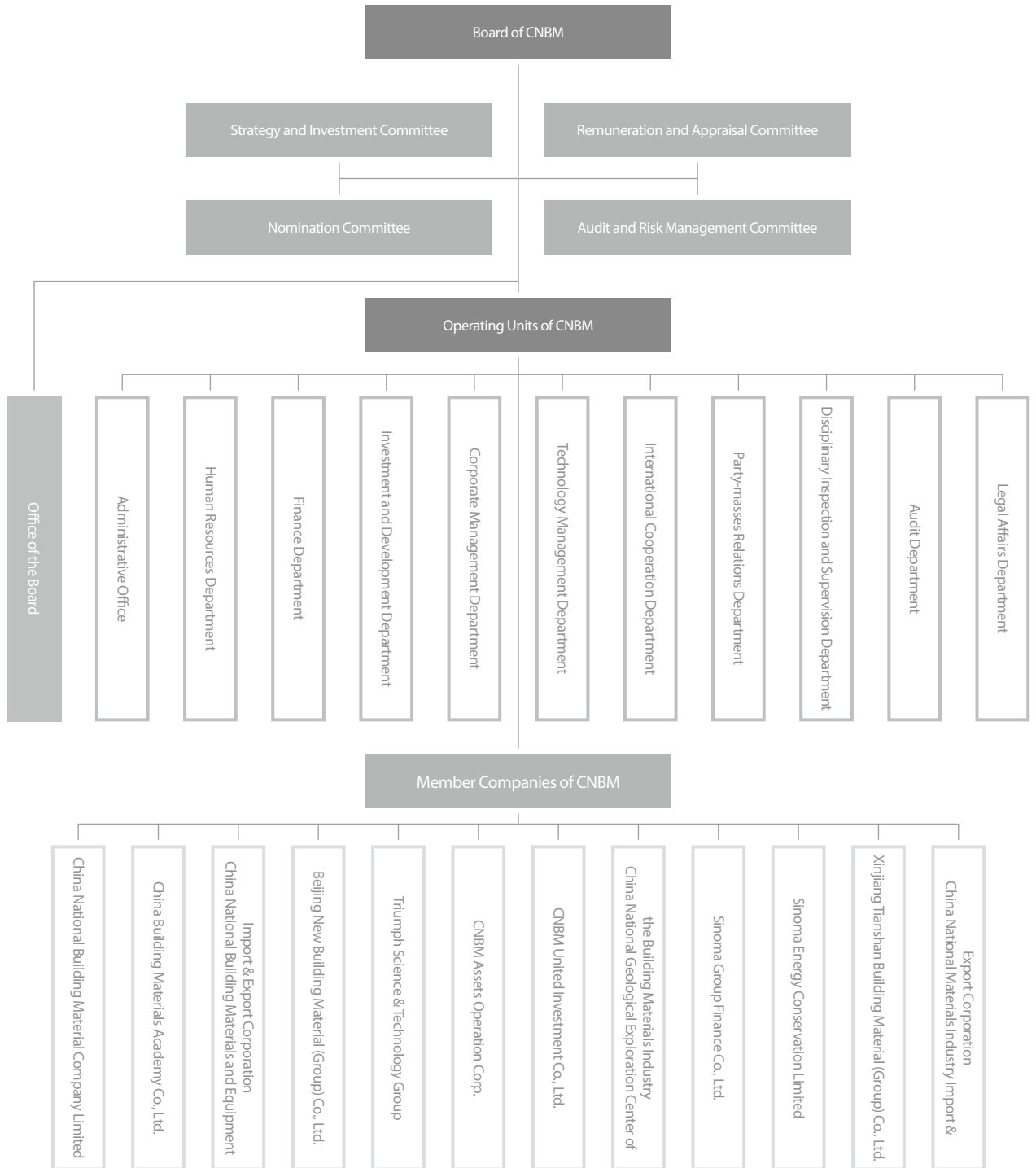
Song Zhiping Chairman and Party Committee Secretary	Liu Zhijiang Vice-Chairman and Deputy Party Committee Secretary	Yao Yan Vice-Chairman and Party Standing Committee Member	Cao Jianglin Director, President and Party Standing Committee Member	Li Xinhua Vice-Chairman and Party Standing Committee Member
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Zhao Xiaogang External Director	Chen Jinen External Director	Zhao Jibin External Director	Sha Ming External Director	Xu Lipeng External Director	Zhang Yanling External Director
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Liu Xinquan External Director	Wang Yumeng Staff Director and Trade Union Chairman
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Zhang Hai Vice-President and Party Standing Committee Member	Xu Weibing Chief Accountant and Party Standing Committee Member	Sun Lishi Deputy Party Committee Secretary	Huang Anzhong Vice-President and Party Standing Committee Member	Yang Jie Discipline Inspection Commission Secretary and Party Standing Committee Member
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¹: As of June 23rd, 2017, Song Zhiping serves as the Party Committee Secretary of the Group and Liu Zhijiang serves as the Deputy Party Committee Secretary of the Group; as of March 9th, 2018, Yao Yan no longer serve as the Vice-Chairman and Party Standing Committee Member of the Group; as of March 17th, 2017, Wu Jiwei no longer serves as the Chief Accountant and Party Standing Committee Member of the Group.



Note: On May 2nd, 2018, a split-off was completed between China National Building Materials Co., Ltd. and China National Materials Co., Ltd., and the new group (H-share) officially went public at the Hong Kong Stock Exchange on May 3rd, 2018.

Main Businesses

Basic Building Materials Platform



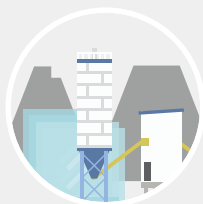
Cement

CNBM has an annual production capacity of 530 million tons of cement and 460 million m³ of ready-mix concrete, both of which rank first in the world.

Leading Companies

China United Cement Corporation, South Cement Company Limited, North Cement Company Limited, Southwest Cement Company Limited, CNBM Investment Company Limited, Xinjiang Tianshan Cement Joint-Stock Cement Co., Ltd., Ningxia Building Materials Group Co., Ltd., Gansu Qilianshan Cement Group Co., Ltd.

International Capacity Cooperation Platform



Engineering and Production Services

We continuously maintain a leading position in the markets of cement and glass engineering, mine engineering, cogeneration engineering, energy conservation and environmental protection, etc.; we are expanding our market shares in such fields as new glass, new energy, new materials, new buildings and so on.

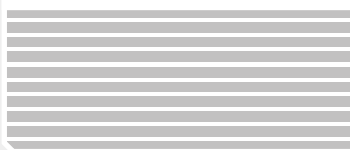
Leading Enterprises

Sinoma International Engineering Co., Ltd., China Triumph International Engineering Co., Ltd., Sinoma Energy Conservation Limited, CNBM Design & Research Institute Co., Ltd., Hefei Cement Research & Design Institute Co., Ltd., Qinhuangdao Glass Industry Research & Design Institute Company Limited

Three-new Industries Platform

New Materials

Lightweight Building Materials

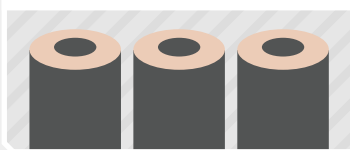


CNBM's annual production capacity of plasterboard is about 2.2 billion m², ranking first in the world. We have high-end brands in the international market and proprietary intellectual property rights, as well as 54 major industrial bases. We possess three business sectors: wall and suspended ceiling systems, housing parts and architectural energy conservation systems, and exterior building envelope systems. We provide an application solutions package for public buildings and family housing with our complete product system.

Leading Enterprises

Beijing New Building Material Public Limited Company, Taishan Gypsum Co., Ltd.

Carbon Fiber



We have a 1,000-ton carbon fiber production line which features the largest scale and most advanced technology in China. We have reached an annual production capacity of 10,000 tons of PAN silk and 4,000 tons of carbon fiber. We developed the first production line in China to produce high-quality dry-jet wet spinning T700 PAN silk & carbon fiber and T800S carbon fiber, with good performance (we have systematically mastered the technologies for producing 100-ton level T1000, M30 and M35 carbon fiber).

Leading Enterprises

Zhongfu Shenyang Carbon Fiber Co., Ltd., Zhongfu Carbon Fiber Core Cable Technology Co., Ltd.

Fiberglass

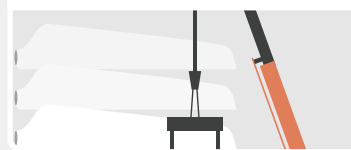


CNBM's annual production capacity of fiberglass is 2.2 million tons, ranking first in the world. We have the world's largest alkali-free tank furnace production line with an annual capacity of 120,000 tons, and a national enterprise technology center. We possess the proprietary intellectual property rights of such packaged technologies as alkali-free tank furnaces, medium alkali tank furnaces and the fiberglass waste silk recycling process. We also have several production bases in Tongxiang of Zhejiang, Jiujiang of Jiangxi, Chengdu of Sichuan, Tai'an and Zoucheng of Shandong, and Egypt.

Leading Enterprises

China Jushi Co., Ltd., Taishan Fiberglass Inc., Sinoma Jinjing Fiberglass Co., Ltd.

Wind Turbine Blades



CNBM's annual production capacity of wind turbine blades reaches 16 GW, ranking first in the world. We have 10 series and over 60 types of products with categories ranging from 1.25 MW to 6.7 MW, and blade length varying from 31 m to 80 m. We possess blade production bases in Yanqing of Beijing, Funing, Pingxiang, Handan, Xilinhot, Baicheng, Lianyungang, Shenyang, Jiuquan, Baotou, Hami and Guizhou, an R&D center in Germany and a national blade testing center.

Leading Enterprises

Sinoma Wind Power Blade Co., Ltd. and Zhongfu Lianzhong Composites Group Co., Ltd.

3

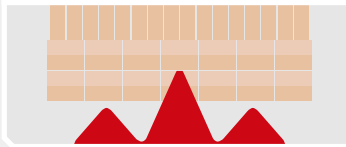
New Glass Materials



CNBM's annual production capacity of ultra-thin electronic float glass reaches 240,000 tons, ranking first in China. We develop such electronic glass as TFTLCD glass, ITO conducting film glass and touchscreen glass, as well as PV glass and energy-saving and safety glass including Low-E glass and smart light control glass.

Leading Enterprises
Triumph Science & Technology Group

Refractories



We have world's largest professional fusion-cast refractory production base with an annual production capacity of nearly 40,000 tons, and an automatic unshaped refractory production line with an annual production capacity of 100,000 tons. Our products include refractories in the fusion-cast zirconia alumina and fusion-cast aluminum oxide series, as well as unshaped, basic, alumina-silica and silica refractories.

Leading Enterprise
Ruitai Materials Technology Co., Ltd.

New Energy

PV



We have established a whole industrial chain of BIPV (Building Integrated PV) with a focus on thin-film solar products and technologies. We are committed to the integrated application of new energy materials and distributed energy, as well as carrying out the R&D and promotion of new-energy housing. We have a 100 MW CIGS thin-film solar cell production base in Germany and a 100 MW CdTe thin-film solar cell production base in Chengdu. We have also developed several PV power stations in China and other countries and regions.

Leading Enterprises
Triumph Science & Technology Group, China Triumph International Engineering Co., Ltd.

New Housing

New Housing

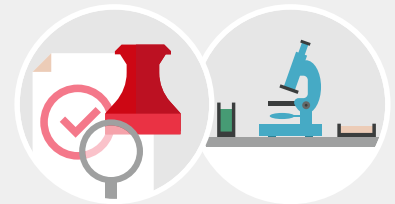


We have several product systems including steel, PC, etc. As one of the first national demonstration bases of housing industrialization and one of the first assembled building industrial bases, we have many demonstration bases of new housing production in Beijing, Sichuan, Jiangsu, Hainan, Heilongjiang, etc. We are an advocate and promoter of the new environmentally friendly and energy-conservation housing industry of China.

Leading Enterprises
Beijing New Building Material (Group) Co., Ltd. and China New Building Group Corporation

National Material Scientific Research Platform

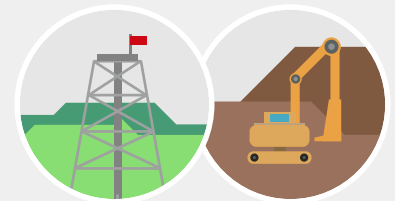
4



Leading Enterprises
26 national scientific research and design institutes including China Building Materials Academy Co., Ltd., Tianjin Cement Industry Design & Research Institute Co., Ltd., etc.

National Mining Resources Platform

5



Leading Enterprises
China National Geological Exploration Center of the Building Materials Industry, China Non-metallic Minerals Industry Co., Ltd., South Graphite Co., Ltd.

Financial Investment and Operation Platform

6



Leading Enterprises
Sinoma Group Finance Co., Ltd., CNBM United Investment Co., Ltd.

01 Market Performance



Report Delivered at the 19th NCPCC

China's economy has been transitioning from a phase of rapid growth to a stage of high-quality development. This is a pivotal stage for transforming our growth model, improving our economic structure and fostering new drivers of growth. It is imperative that we develop a modernized economy. This is both an urgent requirement for getting us smoothly through this critical transition and a strategic goal for China's development.

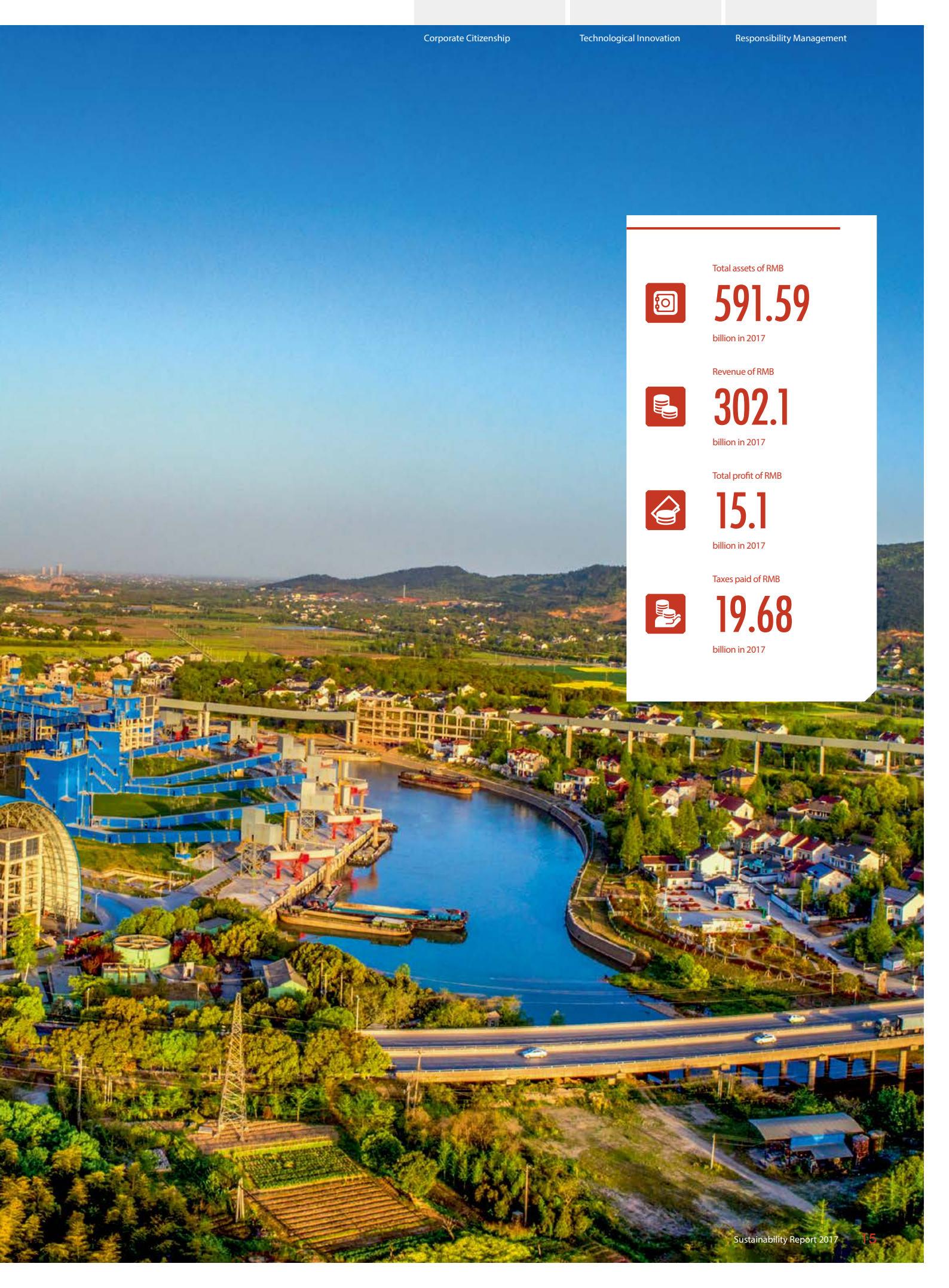
Key Points of Responsibility Fulfilment

We actively promote high-quality development, reward our shareholders and investors with excellent performance, serve our clients with quality products and services, grow together with our suppliers and industrial partners, and provide a value creation platform for all our stakeholders. Meanwhile, upholding the philosophy of 'industrial interest outweighs corporate interest', we are dedicated to deepening supply-side structural reform, accelerating the structural transformation and upgrading of the industry, and achieving mutual development and win-win results with the industry and our peers in the same industrial chain.

Response to SDGs



📍 Dock panorama of Huzhou South Logistics Co., Ltd.



Total assets of RMB

591.59

billion in 2017



Revenue of RMB

302.1

billion in 2017



Total profit of RMB

15.1

billion in 2017



Taxes paid of RMB

19.68

billion in 2017

'1+1>2'

In August 2016, the China National Building Materials Group Corporation and China National Materials Group Corporation were merged into China National Building Material Group Co., Ltd. In the time since, especially in 2017, centered on supply-side structural reform, CNBM has made efforts to promote high-quality development. Specifically, we have made great efforts in integration and optimization, accelerated innovation and transformation, and spared no effort to achieve steady growth. This has resulted in a significant increase in our scale, strength and economic benefits, creating a '1+1>2' effect. CNBM ended 2017 with total profit of RMB 15.1 billion and operating income of RMB 302.1 billion, up by 99.3% and 15.6% respectively over the previous year, in addition to tax payment of RMB 19.7 billion.

Stabilized Growth



Normative governance

Insisting on the working rule of lawful, compliant and honest operation, we have established a standard corporate governance system. As the strategic, resource and cultural center, the CNBM Headquarters exercises the rights and performs the duties of the capital contributors. Its business platforms focus on their core expertise and main businesses to build up profit centers. As operating entities, the enterprises at the primary level implement strict cost control while assuring quality.



Streamlining

We continuously improve our operation and carry out 'slimming' by continuing to streamline the organization and refine the manpower.



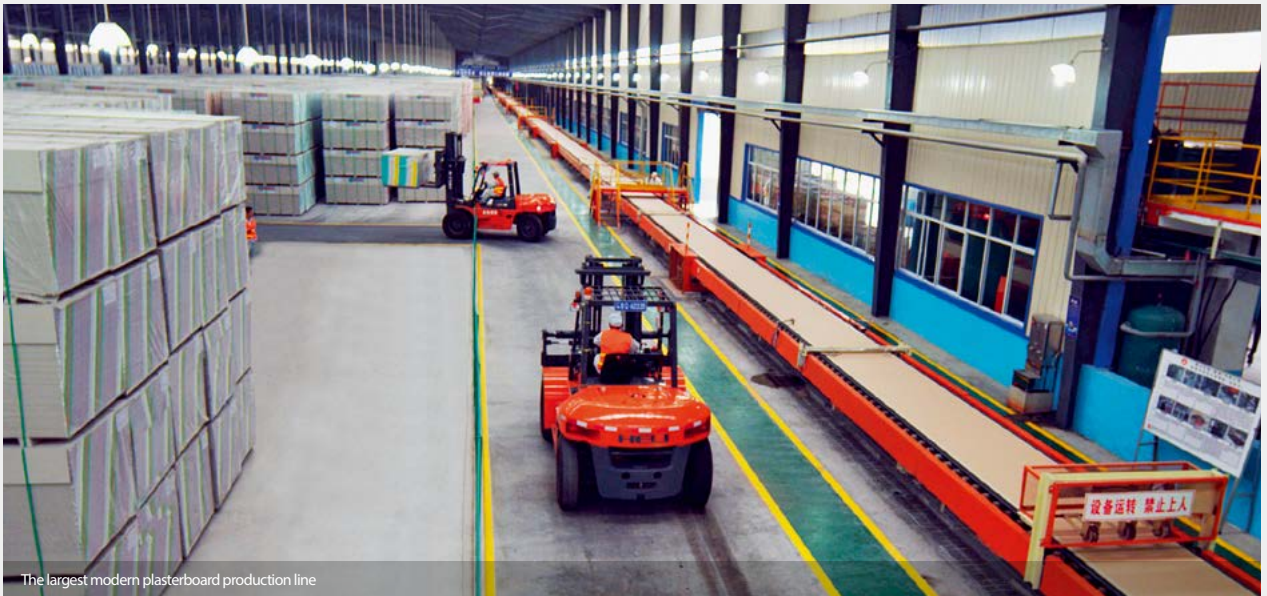
Deleverage

The asset-liability ratio of CNBM in 2017 was 73.56%, down by 1.16% over 2016. In the same year, we signed new strategic cooperation agreements amounting to RMB 80 billion, of which strategic cooperation agreements between CNBM and banks accounted for RMB 345 billion. Furthermore, we signed market-oriented debt-to-equity swap agreements amounting to RMB 40 billion, thereby maintaining the HQ's of AAA credit rating.



Risk control

We continue to improve our legal affairs mechanism. Major decisions and operation 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 Department; we adhere to the integration of law popularization and legal affairs management through such means as organizing law popularization activities in different forms, and we publicize the concept of 'legal systems' and control risks in a systematic way.



The largest modern plasterboard production line



Strong management

Our management methods ensure high-quality development. We adhere to the 'grid management and control' model, 'six-star enterprise' rules, 'eight management measures' and 'increasing efficiency and reducing expenditure and consumption working method'. In the 'grid management and control' model, we fix the function division, operation mode and development orientation of the enterprises in a specific grid, thereby avoiding 'rights exercise and investment chaos'. The 'six-star enterprise' rules are six standards that we set for a good enterprise; the 'eight management measures' represent a body of effective experience obtained during reorganization and integration, which combines marketing with cost control. The 'increasing efficiency and reducing expenditure and consumption working method' requires us to promote activities that can help us to increase revenue, economize and reduce consumption by virtue of project management, wherein all the staff participate in continuously encouraging the enterprises to improve their operation quality through fundamental innovation and management optimization.

In 2017

174,000

person-times of employees participated in legal publicity and education activities.

In 2017, the rate of the legal review of rules, regulations, management decisions and management contracts hit

100

%

In 2016, the performance rate of business contracts reached

96.3

%

'Grid management and control' model

- regular governance
- functional hierarchy
- professionalized platform
- refined management
- cultural integration

Eight management measures

- five centralizations
- KPI
- zero inventory
- tutorship
- benchmarking
- profit-making through price rationalization and cost reduction
- core profit zone
- co-competition

Six-star enterprise

- strong performance
- refined management
- highly-effective environmental protection
- safety & stability
- well-known brand
- fruitful Party building

Structural Adjustment

...

In the wake of the coming of a new era in China, after the reshuffle, CNBM defined its strategic vision for being a world-class building material supplier as 'from largeness to greatness'. Along the 'three curves' of refining the basic building material segment, vigorously developing new materials and actively fostering such new segments as R&D and technical services, we focus on the building of six business platforms (basic building materials, international capacity cooperation, three-new industries, national material research, national mine resources and financial investment and operation) and strive to promote the transformation of CNBM towards 'high end, intelligent, green and internationalized', thereby moving from high-speed growth to high-quality development. The year of 2017 witnessed the completion

of four optimizations (optimize strategic thinking, optimize HQ organization, optimize secondary platforms and optimize systems) and six integrations (integrate brand cultures, integrate the organizational structure, integrate the cement segment, integrate the international engineering segment, integrate business and finance, and integrate the business and research institutes) at CNBM. In the same year, the HQ was streamlined from more than 30 departments to 12, the number of subsidiaries was reduced from more than 30 to 13, and rules and regulations were developed in the four aspects of corporate governance, work safety, Party building and the staff manual. Such integrations and optimizations have significantly improved the synergistic effect.

Launch of the 'Rejuvenation' Reshuffle



When the new Group emerged in August 2016, a perfect, seamless integration was realized between the China National Building Materials Group Corporation and China National Materials Group Corporation in a short time, bringing about the largest group with the most assets and largest talent pool in China's building material industry. This marked a new stage of supply-side structural reform throughout the building material industry. In 2017, based on the completion of the integration between the HQ and secondary platforms, the Group officially launched the integration and reshuffle of China National Building Material Co., Ltd. and China National Materials Co., Ltd., two H-share companies listed in Hong Kong, so as to further improve operating quality, release the synergistic effect and realize the combination and complementation of the advantages of these two giants in industrial layout, business scale, marketing, management and technological innovation. This action was favorable by virtue of involving CNBM deeply in the healthy restructuring of the building material industry and revolutionizing supply-demand relations throughout the industry, as well as stabilizing prices and improving profitability.

As representatives of the 15 listed companies under the Group, China National Building Material Co., Ltd. ('CNBM Co., Ltd.', stock code: HK3323) and China National Materials Co., Ltd. ('Sinoma', stock code: HK1893) boast a standardized 'three boards plus one level' (board of shareholders, board of directors, board of supervisors, management level) governance structure, and

efficient and flexible governance mechanisms for incentives, supervision and counterbalance. In both companies, the shareholders exercise their rights through the board of shareholders, which is the supreme authority, and run, supervise and manage the company through the board of directors and board of supervisors; as the operating decisions of major shareholders and control over the board of directors and board of supervisors are regulated, the role of independent directors in protecting minority shareholders' rights and interests comes into play, and a flexible exit mechanism for minority shareholders is applied to practically protect shareholders' rights and interests. For the purpose of compliance in terms of information disclosure, such information as financial data and important

matters is disclosed on a faithful, accurate and timely basis in strict accordance with the Information Disclosure System. On September 8th, 2017, CNBM Co., Ltd. and Sinoma published the merger announcement; and on September 11th, 2017, the two companies respectively held a shareholders' meeting and jointly announced the merger, which was adopted with an absolute majority (at both companies, more than 99% of the shareholders agreed to the merger). Subsequently, a split-off was completed between the two companies on May 2nd, 2018 and the new group (H-share) officially went public at the Hong Kong Stock Exchange on May 3rd, 2018, marking that a brand-new aircraft carrier had set sail in the global building material industry.



Joint conference of China National Building Materials Co., Ltd. and China National Materials Co., Ltd.

Enhanced Reform



We formulated a pilot employee stock ownership plan and accelerated its implementation, completed an interim summary of the mixed ownership experiment and steadily promoted the pilot realization of the board of directors' functions and powers. The deepening of internal mechanism reform is exemplified by fruitful projects, including the pilot stock option incentive at Sinoma International Engineering Co., Ltd., pilot dividend incentive (unlisted scientific and technological enterprise) at CNBM Quzhou Kingglass Quartz Co., Ltd., stock option incentive at CNBM (Hefei) Powder Technology Equipment Co., Ltd., employee stock ownership at Beixin International Wood Industry Co., Ltd. and surplus profit distribution at Guizhou Southwest Cement Co., Ltd.

CNBM will continue to deepen the pilot work and actively explore group-level mixed

ownership reform under the concept of the three principles of mixed ownership (adequate, normative and effective), as well as enhancing ownership diversification reform. While such bottom lines as 'relative holding', 'first majority shareholder' and '1/3 or higher' will be maintained, we will introduce activist shareholders, standardize governance through ownership diversification, actively explore internal mechanism reform and create a mode in which the coordination of interest is realized among CNBM and its management level and staff. In this way, we can contribute valuable experience and successful solutions to the field of enterprise reform.

Party Building



We take the Chinese-style socialism theory put forward by Xi Jinping for the new era and the spirit of the 19th National Congress of the CPC as our ideological weapons and practice guides. To give full play to the fortress-like role of grass-roots Party branches and the pioneering role of Party members, more efforts are made in the building of grass-roots Party organizations, Party building is supervised on the basis of a responsibility system, and a Party building KPI has been invented for the leaders; and to create a strong Party building atmosphere, such activities as 'Party Building Branding', 'Five-Good' Party Branch' and 'Party Member Pioneer' are conducted throughout the Group.

By combining Party building with management, governance, cultural development and integrity, we conduct integrity improvement and anti-

corruption work in depth, and clarify the responsibilities regarding Party management and governance. On this basis, we uphold the 'three stricts and three honests', and constantly endeavor to establish 'intimate and clear' working relationships so as to create and solidify a corporate environment of integrity; through the establishment and improvement of discipline inspection and supervision departments, we enhance the building of discipline inspection and supervision organizations/teams, and conduct inspection tours and rectification in depth for the purpose of the continued improvement of the efficiency and quality of discipline inspection and supervision; the Party building of CNBM has seen significant and substantial progress, and stepped into a new phase.

'Five-Good' Party Branch'

should achieve good performance in education, organizational building, activities, working style and role fulfillment.

A 'Party Member Pioneer'

should strive to be pioneering in his/her study, work, service, compliance and promotion of proper behavior.

Tripod

Building materials represent an important basic material industry and pillar industry of China. As China's largest integrated building material group, CNBM is committed to supplying high-quality and high-level products and services for major projects and urban infrastructure construction, and supplying systematic building material solutions for the people's livelihood. In summary, we offer customers value-added returns by virtue of our high product diversity, large production capacity, reliable quality assurance, globalized marketing system and convenient customer-friendly service system.

By implementing the 'CNBM'-focused multi-brand strategy, we have launched a range of knock-out products on the market. Of them, 'CUCC' and 'South' are representatives of high-quality cement brands; green gypsum board brands 'Dragon' and 'Taishan' serve many landmark buildings; and 'JUSHI' has the highest market share in the global glass fiber market, as does 'SINOMA' in the international large turnkey project market. In the COE brand communication ranking (2017) exclusively published by the Gsdata Index, CNBM is ranked 16th. Other COEs ranking in the top 20 include CRRC, China Mobile, etc.



Gsdata Index

As an authoritative big data platform operating in the form of new media, the Gsdata Index studies and analyzes data from worldwide social media, and assesses relationship and value indexes based on major media platforms. The 'brand communication index' aims to be a stimulator and supporter for branding and brand communication by COEs, help COEs improve their brands and cultural influence, provide reference data and measures for more effectively impelling COEs to enhance their quality management, and boost supply-side structural reform.

A brand cannot be outstanding without high quality. We encourage the members of CNBM to become fully involved in the building and certification of the quality management standard system, launch QC group activities and introduce quality management throughout the whole process from the acquisition of raw materials to product delivery. Based on the disclosure of quality commitments and the customer evaluation and feedback mechanism, we invite customers to play a part in our product quality control and compensate for losses determined to have been caused by inferior product quality. Backed by the pre-sales consultation, reception and after-sales service systems, we respond to and handle complaints and inquiries from customers without any delay; our professional customer service teams regularly conduct technical training for dealers; we impart the basics of green building materials, notes for the selection and use of building

materials, and knowledge concerning the identification of fake materials to our customers through customer training sessions and product presentations; with attention paid to customer privacy, we execute a strict confidentiality system for our customers' personal data.

In light of the goal put forward at the 19th National Congress of the CPC to cultivate world-class building material suppliers with global competitiveness, CNBM is transforming its development mode from extensive growth to endogenous organic growth; that is, scale is no longer the foremost goal and higher priority is given to technological competitiveness and business performance. To bring about higher core competitiveness, strengthen the main segment and realize refocusing, we are forming a business pattern in which the cement, new material and engineering technical service segments constitute a tripod.

A Side of CNBM You Haven' t Seen



Upon its debut, Amazing China aroused a strong response. This documentary shows the many amazing miracles China has achieved in recent years, and depicts the pillars and mega projects of the great power that amaze every viewer and fill us with pride. These elements collectively reflect the comprehensive national strength of China, and represent the wisdom and perspiration of all CNBM people.

According to incomplete statistics, CNBM appears in many parts of this documentary, such as 'Chinese Bridges', 'Chinese Roads', 'Chinese Vehicles' and 'Chinese Ports'. The special cements for hydropower stations all come from CNBM. The Group's subsidiary CTC has participated in the construction of multiple hydropower station projects including the Three Gorges Dam, Xiluodu Hydropower Station, Xiangjiaba Hydropower Station and Houziyan Hydropower Station; CTC is also engaged in evaluating the reliability of high-speed railway components.



T1000 carbon fiber

High-quality Development of the Cement Segment

...

The acceptance rate of major products in national sampling inspections reached

100

% in 2017.

The resolution rate of customer complaints reached

99.7

% in 2017.

As cement is a basic material which makes significant contributions to the national economy, we advocate supplying high-end cement. Every year, China consumes about 2.4 billion tons of cement, accounting for a 60% share of total global consumption. With a cement product capacity in excess of 500 million tons, CNBM is the world's largest cement producer and has always committed itself to the healthy and sustainable development of the cement industry. By giving top priority to structural adjustment, energy conservation and emission reduction, we are developing our cement segment towards 'high grade, specialization, commercial concrete and productization', and have successfully developed high-tech cements usable for dams, nuclear power stations and high-speed railways. Furthermore, we are determined to close down outdated production facilities. For example, in the rapid growth stage, we eliminated such outdated processes as small shaft kilns and wet-process kilns, and built many new-type dry-process cement lines; when the new-type dry process became mature, we offered to stop producing 32.5 low-grade general cement and voluntarily closed down many small kilns of less than 2,500 t/d capacity which did not suit our intensive development, thereby alleviating the problem of overcapacity.

We firmly advance supply-side structural reform in the building material industry. Like other basic material industries, the building material industry faces multiple major challenges including capacity governance, power conversion, green transformation and quality improvement. As a leader of the

building material industry, CNBM makes constant efforts in slashing overcapacity, de-stocking, deleverage, lowering costs and improving weak links, and takes a firm stand in limiting new capacities, closing down outdated production facilities, scheduling off-peak production, advancing co-competition, mergers and reshuffles, and becoming involved in international capacity cooperation. On this basis, we optimize the allocation of resource stock, upscale the incremental supply of quality products and solidify our advantages in high and medium-end markets so as to shift the building material industry back on the track of steady development following its rollercoaster progress in the 'new normal' context. In 2017, CNBM's cement segment made a profit of nearly RMB 90 billion, marking a healthy and reasonable rebound.

We advocate self-discipline in the building material industry. This industry is fiercely competitive. Oversupply, especially serious cement oversupply, previously aroused disorder and blind price competition, causing astonishing social problems such as resource waste and environmental pollution. Based on abiding by the national laws and regulations, we took the lead in all-round co-competition featuring rational development, orderly competition, production-sales balance and healthy markets, and led the building material industry to a vigorous and favorable path of orderly competition, steady prices and healthy operation, creating a blue ocean pattern in which Chinese cement enterprises can develop in a harmonious and win-win environment.

Firmly limit new capacities

Firmly close down outdated production facilities

Firmly schedule off-peak production

'Six Firmly' in Supply-Side Reform

Firmly advance co-competition

Firmly advance mergers and reshuffles

Firmly become involved in international capacity cooperation

Rise of New Materials

...



Ma Kai and other leaders visit the CNBM booth at the COE Exhibition

Along the 'three curves' of refining the basic building material segment, vigorously developing new materials and actively fostering such new segments as R&D and technical services, we strive to promote the transformation of CNBM towards being 'high end, intelligent, green and internationalized' through enhanced technological innovation. As a result, CNBM's new material segment saw rapid growth in 2017, achieving total profits of nearly RMB 7 billion. In particular, we have developed ten types of new high-tech materials: new-type building material, high-performance fiber, refractory material, photoelectric glass, special functional glass, advanced composite material, polymeric film

material, carbon-based graphite material, artificial crystal and high-end industrial ceramics. Among them, the T800 carbon fiber, lithium battery ionic diaphragm, high-performance silicon nitride ceramics, CIGS PV module, CdTe thin-film power-generating glass and EHV mixed electric porcelain insulator have entered the stage of mass production, and won high praise from Vice-Premier Ma Kai and State Councilor Wang Yong at the COE Innovative Achievement Exhibition. In addition, CNBM has launched a range of high-end product projects (including glass fiber, wind turbine blades, PV glass, electronic glass, etc.).

A 'Like' for CNBM



On the afternoon of November 3rd, 2017, Vice-Premier Ma Kai, head of the National New Material Development Leading Group, visited the CNBM booth at the 'COE Exhibition: Achievements in Practicing New Development Concepts, Implementing the Innovation-driven Development Strategy and Promoting Mass Entrepreneurship and Innovation' in the company of SASAC Party Committee Secretary Hao Peng and Chairman Xiao Yaqing.

When Song Zhiping introduced the CIGS thin-film solar cell, CdTe thin-film solar cell, T800 carbon fiber, lithium battery ionic diaphragm, silicon nitride ceramic ball/bearing, electronic thin display glass, quartz glass, high-tension porcelain insulator, glass fiber, paper-faced gypsum board and +energy house with great familiarity, Ma Kai nodded again and again. He inquired enthusiastically about the yield, cost and price of the T800 carbon fiber in detail. Upon learning

that this product is superior in performance indexes among its international peers, Ma praised it highly. He also asked how the new material segment progressed during the transformation of CNBM. Inspired by the fact that the new material segment currently accounts for 1/3 of CNBM's operating income and makes an annual profit of RMB 10 billion, Ma gladly said, 'CNBM can be renamed "China Materials"!'.

New Progress in Engineering Services



The total profit made by the engineering service segment saw a significant increase in 2017, reaching RMB 2.4 billion. In the same year, CNBM made outstanding achievements in international capacity cooperation: witnessed by CPC General Secretary Xi Jinping and the President of France, CNBM joined the Sino-French Entrepreneur Committee (CCCME) as one of 15 representative Chinese enterprises; innovative achievements made by CNBM in the Lancang-Mekong Cooperation (LMC) were spoken of highly by Premier Li Keqiang and the leaders of other countries involved in the LMC; the construction of the Zambian Industrial Park by CNBM won high praise from councilor Wang Yong; the overseas project signing ceremony in Macao was witnessed by SASAC Party Committee Secretary Hao Peng and that in Belarus was witnessed by SASAC Chairman Xiao Yaqing. Overseas investment was fruitful: factories built by the Group in Egypt and Mongolia are producing increasing benefits; the construction of the Zambian Industrial Park is 86% complete; the Egypt-based Glass Fiber Project (Phase III) has gone into operation and the India-based project is proceeding steadily; 63 new engineering service contracts have been signed, including more than 20 projects based on internal synergy; more than 200 overseas cement projects are in the stages of construction, installation or design; and CNBM holds its leading position in the global cement and glass project market (all six 6,000 t/d clinker cement projects contracted by Sinoma International Engineering Co., Ltd. have gone into operation, and the Bulgarian Cement Project won the 'Luban Prize for Construction Projects'). New energy projects play an increasingly large role in the engineering service segment: by undertaking PV power station projects in Europe and Myanmar, CNBM has become the largest Chinese general contractor of PV projects operating in Europe. In addition, significant achievements have been made in branching out into energy conservation and environmental protection projects in the fields of biomass treatment, chemical engineering and metallurgy.

Following the principles of 'uniform business philosophy, uniform co-competition, uniform benchmarking system and uniform coordination mechanism', we are actively promoting the in-depth integration of engineering service sectors in accordance with the requirement to ensure 'careful marketing, precise services, optimized technology and refined management'. By giving full play to the synergistic effect in the international engineering field, strengthening equipment manufacturing, creating new business modes and extending industry chains, CNBM has achieved new incremental advancements in management and investment, and is striving to grow from the world's largest building material manufacturer and a mere general contractor of cement and glass projects into a world-class integrated building material service provider.

At CNBM, the concept of 'industrial benefits outweigh the benefits of CNBM, and the benefits

of CNBM are born out of industrial benefits' has always been pursued in both the formulation of development strategies and specific operations. With openness and inclusiveness, we give higher priority to the benefits of the building material industry and grow along with our peers, partners and other stakeholders. Multi-level platforms and flexible, effective mechanisms for strategic sharing underlie our long-term cooperation with our partners; the exchange and sharing of technologies and experience, as well as joint planning for the future, are realized in high profile visits, regular contact and daily communication in the form of strategic agreements and research alliances. In 2017, President Song Zhiping became the founding chairman of the World Cement Association, in which he discusses the sustainable development of the cement industry with worldwide peers as a representative of Chinese cement enterprises.

Song Zhiping Becomes Founding Chairman of World Cement Association



On December 11th – 12th, 2017, the founding assembly of the World Cement Association ('WCA') was grandly held in London to resounding success. A total of 59 founding cement enterprises from 33 countries were present, and the execution committee, directors and chairman of the WCA were elected. CNBM Chairman Song Zhiping was elected as the founding chairman by a unanimous vote, making him the first entrepreneur from China's large basic industries to chair a world-class industry association.

The WCA is an independent non-profit organization incorporated in the UK under UK law. Co-founded by 59 members from 33 countries, the WCA is subject to laws of the UK and its articles of association and code of conduct. As the world's only industry association representing the cement industry and other stakeholders, the WCA aims to make the cement industry a contributor to global growth and social wellbeing, popularize concrete as a sustainable building material, combat climate change and improve the worldwide image of the cement industry, thereby creating an international platform for technical cooperation, business cooperation and production cooperation. Chairman Song Zhiping said, CNBM is willing to join hands with the other members of the WCA to strive to secure support from various sectors including governments and NGOs, protect the interests of the cement industry, fulfill its social responsibilities and put the cement industry on the track of sustainable development.



Inaugural Meeting of the World Cement Association

02 Energy Conservation and Environmental Protection



Report Delivered at the 19th NCPCC

Building an ecological civilization is vital for sustaining the development of the Chinese nation. We must realize that lucid waters and lush mountains are invaluable assets, and act on this understanding, implement our fundamental national policy of conserving resources and protecting the environment, and cherish the environment as we cherish our own lives. We will adopt a holistic approach to conserving our mountains, rivers, forests, farmland, lakes and grassland, implement the strictest possible systems for environmental protection and develop eco-friendly growth models and ways of life. We must pursue a model of sustainable development featuring increased production, higher living standards and healthy ecosystems. We must continue the Beautiful China initiative to create good working and living environments for our people, and play our part in ensuring global ecological security.

Key Points of Responsibility Fulfilment

We adhere to the philosophy of green development, comprehensively utilize industrial and urban waste resources, and manufacture low carbon products with minimal consumption and emissions; we are committed to providing society with green and environmentally friendly building materials with reliable quality, and providing product and service support for the new energy industry; we are delighted to share effective energy conservation technologies and management experience, explore development modes for the industry and ecological environment to co-exist in harmony, and advocate the sustainable development of all industries and society.

Response to SDGs





In 2017, CNBM's investment in energy conservation and environmental protection reached RMB



5.03

billion

In 2017, its installed cogeneration capacity reached about



2,444.9

MW

In 2017, its treatment and reuse amount of solid waste reached about



160

million tons

Green Development

As one of the three development strategies of CNBM, green development highly relies on resources and energy. The Group strictly executes national systems and standards for industry access, limits energy consumption and pollutant discharge, takes a firm stand in closing down outdated production facilities and actively conducts clean production. We sequence our management elements

as follows: 'environment, safety, quality, technology, cost'. That is, we give top priority to the environment and refuse to make profits at its cost. In particular, with attention paid to the management and guidance of energy conservation and environmental protection, we have designed a green, low-carbon development mode by building and improving green management systems.

We have established an emissions reduction leading group and a social responsibility, energy conservation and emissions reduction office at the CNBM Headquarters. Member companies have established related functional organizations of different categories and levels, achieving the overall coverage of the Group's management system.

We have printed and issued five management systems including CNBM Energy Conservation and Emission Reduction Supervision and Management Methods. We manage our member companies based on their categories; formulate strategies, general policies, plans and systems for energy conservation and emissions reduction; and improve our work through the three systems of measurement and statistics, monitoring and analysis, and evaluation and assessment.

We integrate funds for energy conservation and emissions reduction into the overall budget management system, and formulate a related expenditure plan to guarantee the implementation of technological upgrading and management improvement.

We promote the thorough integration of industrialization and informatization, encourage the development of the energy management system, automated control system and intelligent factory construction in phases, and achieve unmanned, intelligent and remote production control, and energy-saving and efficient operation.

We have established an information disclosure mechanism in which we disclose our annual energy conservation and environmental protection performance via annual reports, and accept the supervision of stakeholders. We strictly implement the 'three simultaneous' principle of environmental protection. During the feasibility study, construction, reconstruction and acceptance of a project, we take advice from nearby residents and stakeholders in the region, and reduce to a minimum the adverse impact of the operation activities of our enterprises on the environment and society.



By optimizing the environmental warning and emergency response mechanisms, enhancing environmental emergency response management and standardizing environmental accident reporting, we keep improving environmental risk prevention and control so as to prevent and reduce potential environmental hazards.

Backed by key state laboratories that study green building materials and new float glass technologies, we build high-end platforms to tackle common major technological problems arising in the green development of the building material industry in line with such national strategies as the 'Blue Sky Project' and 'Green Building'. On this basis, we promote the application, transformation and popularization of green technologies by using the Group's advantages in engaging with research institutes.

A complete statistical management system covering energy consumption, pollutant discharge, energy efficiency of products, circular economy and water resource utilization has taken shape on the basis of improved measurement & testing and statistics & monitoring systems for energy conservation and environmental protection at all levels.

We implement a standardization management system, encourage manufacturers to participate in the development and accreditation of quality, environment and energy management standardization systems, promote the verification of clean production and realize energy conservation and consumption reduction through refined management.

We have creatively put forward and practiced the concept of 'operate on the moral high ground'. This requires an enterprise to be people-oriented, focus on the overall interests of the industry, give priority to human wellbeing, put the common development of all of society in first place, and respect the logic of green and sustainable development. To this end, we join hands with our staff, customers, partners and other stakeholders to focus on climatic and eco-environmental issues, and actively combat climate change. For example, the enterprise practice 'Developing Three-new Industries to Combat Climate Change' implemented



by BNB, BNB House and the Triumph Group was rated as an excellent case in the Report on Chinese Enterprises' Indigenous Contributions to Combating Climate Change.

We not only promote green production and manufacturing but also advocate green offices, having formulated detailed green office plans covering such aspects as power conservation, water conservation, reduction of office consumables and so on. Our green office performance is included in our routine monitoring and evaluation system. We actively promote the development of a video conference system and arrange business travel in a scientific way by favoring low-carbon vehicles.

We drive and influence stakeholders with real actions, and do our best to promote environmental protection concepts. We jointly develop ecological forests with local community entities to increase carbon sinks; we organize and hold exhibitions and promotional events of energy conservation and environmental protection technologies so as to promote green manufacturing and low-carbon development in the industry; and we disseminate knowledge on environmental protection and low-carbon living, and guide the public to pay attention to environmental protection and practice a green consumption and low-carbon life. CNBM's member enterprise Taishan Gypsum Co., Ltd., an environmental education base in Shandong, actively opens its facilities for the environmentally friendly treatment and recycling of water, gas and solid waste to primary and middle school students as a way of promoting knowledge about energy conservation and emissions reduction.

Desert Greening Volunteers



From June 23rd to 25th, 2017, a CNBM team made up of 37 greening volunteers, part of the Loftiness Advance Team, organized a tree planting activity at Hunshandake Sand Land of Gacha, Kuisuhe, Baoshadaisumu, Plain Blue Banner, Xilingol League, Inner Mongolia. Despite being exhausted after the long journey, the volunteers put on their gear immediately upon arriving at the destination, planted 300 trees within a limited time and won praise for both the quality and speed of their work. More than just a means of landscaping, afforestation can prevent water and soil erosion, protect farmland, reduce haze and regulate the climate. Planting a tree means seeding a hope. Every 1 m³ of trees absorbs 1.83 tons of carbon dioxide and releases 1.62 tons of oxygen. As the saying goes, 'many drops of water make an ocean', and 220,000 CNBM people are endeavoring to practice the concept of environmental protection through numerous similar volunteer activities in their daily lives, such as driving less and using less paper and water.

In 2017, we organized or participated in

3,219

environmental protection publicity events

In 2017

13,6000

person-times of CNBM employees attended training in energy conservation and environmental protection

In 2017

77

on-site conferences were replaced by video conferences

In 2017, carbon dioxide emissions per unit of output was decreased by

18.3

% over 2016

In 2017, total expenditure on environmental protection and public benefit reached RMB

95.29

million



Volunteer Activity

We encourage our staff to actively take part in public benefit activities and provide volunteer services. For this reason, we guarantee and support volunteer activities in such aspects as organization, work mechanism, schedule, funding and communication. Under the volunteer service system led by the Communist Youth League, our member enterprises have established multiple voluntary activity organizations and organized varied volunteering activities with themes of caring and happiness. In 2017, our staff provided up to 25,000 hours of voluntary services, and CNBM spent about RMB 3.6 million in this regard.

Green Manufacturing

We always follow three principles for our green manufacturing: advocate recycling in material selection and use industrial waste and urban construction waste whenever possible; minimize emissions during production, pursue the zero release of the three types of waste and improve recycling capability; and emphasize energy conservation, environmental protection, comfort and health during product application, and supply reliable and environmentally friendly building material products.

In 2017, CNBM's total energy consumption reached

37.6

million tons of standard coal equivalent

In 2017, the total power generated from the waste heat of cement production reached

9.66

billion kWh

In 2017, the power generated from the waste heat of cement production accounted for

29.3

% of the total amount of power used by the Group

In 2017, the recycling rate of water hit

96.2

%

Tremendous Changes in a Cement Plant



Backed by technological innovations and the concepts of energy conservation, safety, low carbon and ecological protection, we have broken through the barrier of the traditional building material industry relying heavily on resources by making unremitting efforts in technological breakthroughs. Based on quality assurance, we use industrial by-products whenever possible and endeavor to reduce the consumption of natural mineral resources. In material selection for cement production, we have substituted more industrial residue (e.g. mineral waste residue, slag and coal ash) for natural mineral resources. In addition, through

ingenious innovation, we have mastered a complete set of technologies for producing new-type gypsum boards for walling by entirely replacing natural ore with FGD gypsum from coal-fired power plants.

In terms of energy selection, we upgrade our production processes, explore the use of such non-fossil energies as solar and biomass, and increase our procurement and use of clean energy. Eligible production lines are equipped with waste heat generation units to convert waste heat into electricity, which is then returned to the production lines and consumed, thereby reducing electricity consumption. We increase our energy efficiency by reconstructing and upgrading our kilns and furnaces to improve combustion efficiency. We increase our electricity efficiency and reduce the energy consumption per unit of our products through carrying out the energy efficiency increase of motor systems, energy conservation transformation of rotors, variable frequency transformation, energy conservation transformation of grinding systems, etc.

Powerful Cooperation between Cement Production and PV in Linyi



Sheets of PV panels in the sunshine draw the attention of every first-time visitor to China United Cement Linyi Co., Ltd. (CUCC Linyi). This enterprise takes an unusual approach to exploring green transformation and upgrading. In cooperation with Jietion Solar, it has built a 6.5 MWp distributed grid-connected PV power station on the spare land of its plant and living quarters. After completing the installation and commissioning, these sheets of blue PV panels have made CUCC Linyi 'full of power'.

As a highlight among the towering vertical mills and thick rotary kilns of the cement plant, this PV power station represents the first cooperation between cement production and PV in China. Since it was put into operation in March 2017, the PV power station has generated 4.67 GWh of electricity, equivalent to saving 574 tons of standard coal and reducing carbon dioxide emissions by 2,849 tons.

Resulting from CNBM's efforts and explorations in resource optimization, the 'cement + PV' mode provides the cement industry with a new feasible means of optimization and upgrading. Following the success of the PV power station at CUCC Linyi, CNBM has taken the lead to promote this mode within the group. For example, a 35 MW PV power station project is underway at CUCC Tengzhou, and a 3 MW PV power station is under construction at CUCC Taian.

In 2017, CNBM's fresh water consumption per unit of incremental output reached

22.7

tons/RMB 10,000

In 2017, the average greening rate of our plants hit

15.9

%

In 2017, we possessed

9

state-level green mines



Panorama of China United Cement Linyi Co., Ltd.

In the production process, we reduce the omission and discharge of waste to the minimum. In mining, our mines are blasted by means of multi-row core short delay blasting so as to reduce shock and resource waste; we establish reasonable proportions of components, effectively use low-grade ore, improve homogenization and give full play to the value of mineral resources; and in terms of transportation in our factories, we use closed belt corridors and watering carts to avoid dust raised by automobile transportation. We control and treat the emission and discharge of pollutants, and build desulfuration and denitration systems to greatly reduce the emission of SO₂ and NO_x. We adopt bag-type dust collection technology to bring the emissions of industrial dust and smoke in waste gas up to the standards. With

attention paid to water resource protection, water recycling is realized in both our waste gas systems and cooling systems. Auxiliary process water (washing water, etc.) is also effectively recycled through the sedimentation and sewage treatment system, and industrial wastewater is drained according to the standards. Waste residue from production, reclaimed packing materials and nonconforming products are re-treated and recycled as raw material after passing inspection, thereby achieving the recycling of self-produced solid waste.

We reduce damage to the natural environment. We pay attention to mine reclamation and landscape greening so as to build state-level green mines and garden-type eco-factories. We observe the Green Mine Convention and restore

the ecological environment of our mines during the mining process. We respect the Biological Diversity Convention and protect natural habitats, wetland, forests, wildlife corridors and agricultural land during the construction of our projects, thus reducing adverse effects on the surrounding environment and communities to the minimum.

We not only reduce emissions and discharge to the minimum in production, but also give full play to our technological advantages so as to realize harmless co-processing in cement kilns. We carry out the co-processing of urban garbage, hazardous solid waste and sludge in order to boost the eco-development of cities.

Sinoma Cement Anhui Contributes to Landscaping in the Lake Chao Area



On one side of the glass, you can enjoy a coffee in an atmosphere suffused with an exquisite fragrance; on the other, a domestic refuse co-processing line is running in a cement kiln. Such a sharp contrast is unbelievable unless you see with your own eyes.

Compared with traditional domestic refuse disposal methods, Sinoma Cement Anhui's waste co-processing line features thorough processing, zero release and zero secondary pollution. In particular, attributed to the temperature above

1,400 °C in the cement kiln, the line performs excellently in removing dioxins under the 'reducing, harmless, recycling' principle. In the pre-treatment process on the line, after domestic refuse is first sorted into flammables, nonflammables and leachates, flammables and nonflammables enter the cement line to serve as alternative fuels and alternative materials respectively, while collected leachates are treated in the leachate treatment system and enter the circulating cooling water system for reuse. In this way, the line achieves outstanding effects in

energy conservation and emissions reduction. Every year, it reduces coal consumption, material consumption and carbon dioxide emissions by 20,000-30,000 tons, 12,000 tons and 70,000 tons respectively.

By clearing local refuse on the day it is produced, this line boosts ecological progress in the Lake Chao Scenic Area and exemplifies how an enterprise can develop in harmony with environmental protection.

New Materials, New Landscapes



Regarding product application, in order to supply systematic low-carbon environmentally-friendly products, we have integrated the concepts of low carbon and environmental friendliness into the whole process of our R&D, design, production, packaging, sales and recycling. We remain rooted in the traditional building materials sector and actively encourage the cement industry to develop in the direction of 'high-performance, specialized, ready-mixed and commercialized' so as to supply our customers with high-quality, green and low carbon cement products. We guide the glass industry to transform and upgrade in the direction of 'electronics, PV, intelligence and energy conservation' so as to improve the added value of our products. We also support the development of new materials and products through technological innovation, thereby continuously improving development quality.



0.12 mm ultra-thin electronic touchscreen glass

green enclosing materials for buildings, e.g. green gypsum boards, energy-efficient glass

E7 high-performance glass fiber, E8 high-performance glass fiber, HS6 high-strength special glass fiber, T700/800 high-performance carbon fiber, M30 high-performance IM carbon fiber

low thermal-conductivity composite mullite bricks, pleonaste bricks, AZS bricks, magnesium-zirconium bricks, heat-insulating refractory materials

ultra-thin electronic glass, TFT-LCD glass substrate, PV glass, CIGS thin-film solar cells, CdTe thin-film solar cells

quartz glass, glass for aircraft, infrared glass, fireproof glass, optic fiber panels

New-type building materials

High-performance fiber

Refractory materials

Photoelectric glass

Special functional glass

Ten Types of New Materials

Advanced composite materials

Polymeric film materials

Carbon-based graphite materials

Artificial crystals

High-end industrial ceramics

wind turbine blades, carbon-core cables, structural members made of advanced composite materials

lithium battery diaphragms, functional organic film materials, environmentally friendly filtering materials

high-purity graphite and graphene

non-linear optic crystals, infrared optical materials, scintillation crystals

silicon carbide ceramics, silicon nitride ceramics, high-tension porcelain insulators, aluminum oxide ceramics



Ultra-thin Glass – As Thin As A4 Paper



We see glass everywhere in daily life. However, have you ever seen glass which is 0.12 mm thick? What is such glass like? A piece of A4 paper is 0.095 mm; that is, this glass is only a little thicker than A4 paper. More amazingly, it is very strong – even a 55 g steel ball dropped from a height of 1 m cannot break it.

This technology comes from CNBM's member enterprise Bengbu CNBM Information Display Materials Co., Ltd. Through innovation, the company has accelerated its breakthroughs in the core technologies of electronic information displays and successfully invented 0.2 mm, 0.15 mm and 0.12 mm ultra-thin electronic touchscreen glass by using a complete set of advanced technologies and equipment with proprietary intellectual property rights. Representing the great leap from 'ultra-thin' to 'extremely thin', this invention sets a new record in the glass industry. At present, the first batch of 0.12 mm ultra-thin electronic touchscreen glass has been released from the production line.

The successful invention of 0.12 mm ultra-thin electronic touchscreen glass has made the company the only Chinese enterprise capable of producing the full range of 0.12-1.1 mm ultra-thin electronic touchscreen glass. This world-leading technology is of high significance for improving the international competitiveness of CNBM's glass segment.

The ten types of new materials have been incubated as series of green and low-carbon products. For example, the formaldehyde-clearing gypsum board, a green gypsum board that releases no harmful substances and can absorb formaldehyde, was used by state guest houses to create zero-formaldehyde spaces for the leaders of different countries during the G20 summit; with a phase-change temperature of 25 °C, 'Dragon Brand' energy-storing gypsum board, a phase-change gypsum board that saves energy in buildings and improves indoor thermal comfort, can lower the indoor maximum temperature by 3-4 °C in summer without air conditioning, thus reducing the annual energy consumption of central heating by 30%.

We provide high-end serialized rotor blades and thin-film solar cell packs, guaranteeing the sound development of such new energy industries as wind power, solar power and hydropower. In 2017, the LZ68-4.0 offshore wind

turbine blade independently developed by CNBM was released from the production line in Lianyungang; the successful release of China's first CIGS thin-film efficient solar module in Anhui's Bengbu marked an important step for CNBM in becoming a leader of the international new energy industry, and laid a firm foundation for linking up the complete solar PV industry chain; and the successful release of the world's first piece of large-sized CdTe thin-film low-light power-generating glass in Sichuan's Chengdu marked the official launch of China's first world-leading CdTe thin-film low-light power-generating glass line (100 MW/a), which is a demonstrator of the 'Industry 4.0' initiative. Furthermore, the same year witnessed the launch of the first lithium battery diaphragm line (240 million m²/a) and the commencement of the construction of the 100 t/a high-performance silicon nitride ceramics line based in Zibo of Shandong. The products of these two lines are promising in such fields as high-end equipment, electric vehicles and aerospace.

On this basis, our new housing products not only integrate high-performance green building materials but also merge seamlessly with new energy technologies and intelligent control technologies, creating 'zero emission', 'energy plus' and 'future core' dream homes. Containing no energy-intensive material, the '+energy' 5.0 house is built entirely with new-type green and recyclable materials. The organic mix of effective energy utilization and intelligence pursues a high-end resident-friendly design. By effectively integrating such clean energy as 1.0 geothermal energy, 2.0 optical energy, 3.0 photoelectric energy, 4.0 home-use wind energy and 5.0 marsh gas, it can output energy on the basis of energy self-sufficiency.

Enhanced Synergy in Engineering Services



Along the 'three curves', based on refining the building material segment and vigorously developing new materials, we actively foster such new segments as R&D and technical services with the aim of shaping new growth poles. Backed by enormous industrial advantages and technological strength, we have successfully extended our business from the production of building materials to other building material fields, including engineering technical services, testing & certification services and logistics & trading services. Furthermore, depending on the Group's engineering service advantages, we have successfully put our building material products into use in agriculture and the new energy industry, thereby promoting coordinated and sustainable development among multiple industries.

1

assigned operation utility of CDM

12

technical service agencies of energy conservation and environmental protection

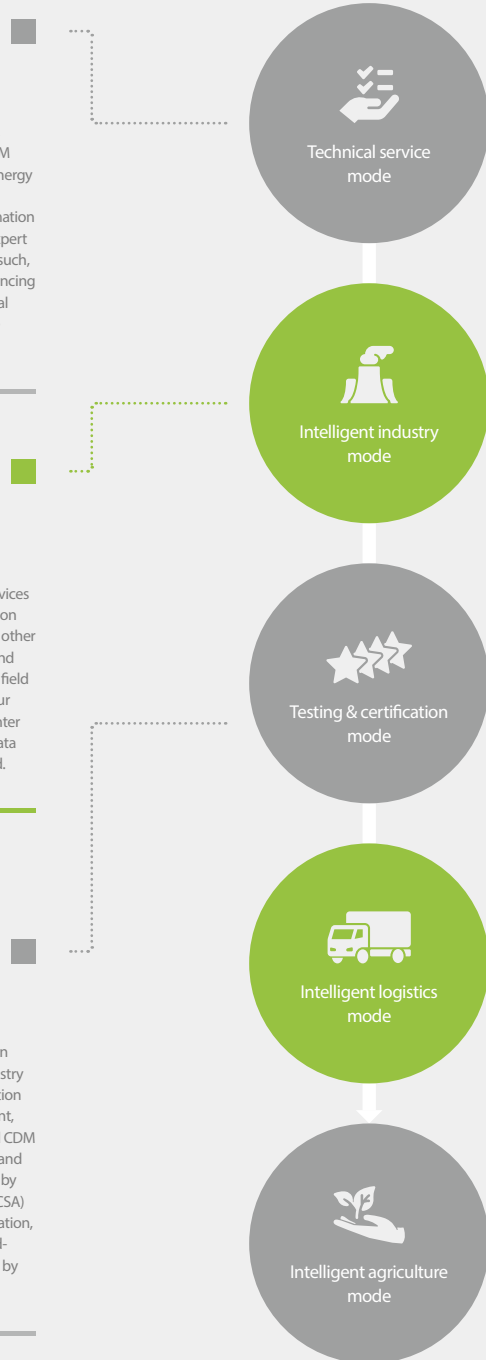
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building materials industry training base of national carbon market competency construction

In the three fields of technical transformation, smart control and refined management, CNBM provides industrial enterprises with the five energy conservation and environmental protection services of detection and diagnosis, transformation and upgrading, intelligent control systems, expert consultation and financing management. As such, we contribute our share to continuously enhancing industrial energy efficiency and environmental performance, as well as achieving sustainable development.

We provide operation management, expert diagnosis and production line debugging services for 57 production lines. Our scope of production services has expanded from cement plants to other categories of entities (such as mixing plants and sugar refineries). Our service mode combines field services with remote centralized diagnosis. Our industrial operation data expert diagnosis center in Beijing can provide expert diagnosis and data services for production lines all over the world.

As the largest third-party testing & certification service body in China's building material industry and a national SME public service demonstration platform, CTC is engaged in energy assessment, energy management system certification and CDM project and low-carbon product certification and carbon audit. In April 2017, CTC was qualified by the Verified Carbon Standards Association (VCSA) for verified carbon standard validation/verification, and thus formally became China's fourth third-party validation/verification body designated by VCSA.





Triumph Haofeng Intelligent Agriculture Park

We optimize our service modes on the basis of 'Internet+' and make great efforts to promote new foreign trade modes (e.g. 'cross-border e-commerce + overseas location', BNBM HOME) so as to build a world-leading integrated service system. For example, as the building material and home furnishing supermarket chain mode has successfully settled in Africa, two new building material and home furnishing supermarkets have opened in Tanzania; and 46 enterprises have settled in the Dubai-based logistics park, which operates under the 'cross-border e-commerce + overseas location' mode.

Based on the Group's industrial advantages, talent advantages and expertise in the field of high-transmittance ultra-clear glass, we are dedicated to creating a new agricultural domain and propelling China's agriculture to develop in the direction of high end and intelligence. An intelligent agriculture base has been built with the ultra-clear rolled glass produced by CNBM. This highly-transmissible product was awarded the National Second Prize for Technological Progress. In addition, a Venlo ganged glass structure has been introduced to the intelligent agriculture base from Holland. With the functions of high-level scattering and reduced reflection, these elements maximize the transmissivity, light utilization efficiency and overall heat-insulating effects of greenhouses, and minimize the area of skeleton shade.

Fruitful Intelligent Agriculture



On December 29th, 2017, the Triumph Haofeng Intelligent Agriculture Park officially opened in Dezhou of Shandong. Built by CNBM as the general contractor, this park covers an area of 1,154 mu and boasts eight 7-hectare world-leading multi-span glass greenhouses. These greenhouses are backed by IOT technology, modern cultivation and management technologies, and environmentally friendly production processes, thereby revolutionizing cultivation modes. Compared with traditional greenhouses, they actually form a refined agricultural factory in which water, fertilizers, sunshine and temperature are controlled in an integrated and efficient manner. This system can reduce water consumption, carbon dioxide emission and energy utilization by 80%, 40% and 25% respectively. Furthermore, all the software and hardware has been designed in consideration of the specific demands for tomato growth, resulting in a tomato output of 75 kg per m², 3-5 times higher than that of a traditional greenhouse.

As CNBM's first product for the public, tomatoes from the park are currently selling well in Beijing, Tianjin and Hebei. Upholding the concept 'green from the seed to the dining table' and the values of 'standardizing agriculture, eradicating food pollution, professionalizing brands and creating a sharing business', the park is committed to assuring the customers of agricultural products and addressing the Three Rural Issues through technologies and innovations.



introduces the sweet and sour index, and recommends dishes through product packaging

03

Employee
CareReport Delivered at the 19th NCPCC

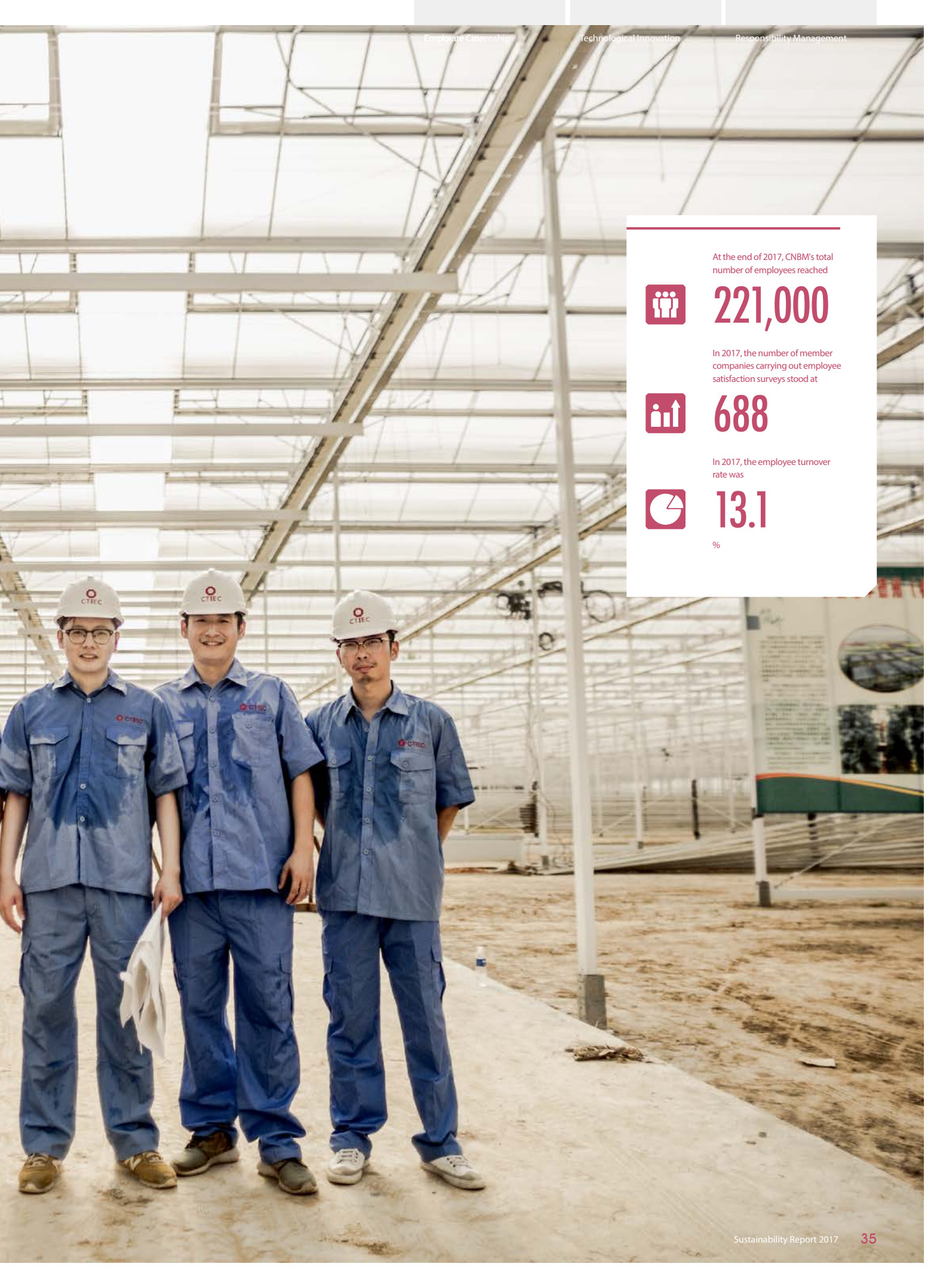
We promote safe development and raise public awareness that life matters most and safety comes first; we improve the public safety system and responsibility system for workplace safety; we take resolute measures to prevent serious and major accidents, and build up our capacity for disaster prevention, mitigation and relief.

Key Points of Responsibility Fulfilment

We adhere to the idea of 'people first' and build a company with safety at its core. We make every effort to safeguard the rights of our employees, respect their differences and make the company a reliable partner and happy and comfortable home for our employees. We try to jointly build a brighter and more sustainable future with all our employees, and deliver happiness to society.

Response to
SDGs

Engineers of CNBM's Triumph Haofeng Intelligent Agriculture Park



At the end of 2017, CNBM's total number of employees reached



221,000

In 2017, the number of member companies carrying out employee satisfaction surveys stood at



688

In 2017, the employee turnover rate was



13.1

%

Safety is a Culture

Safe Production

"I am a CNBM citizen, I value safety in work" — this is a line from a song which is well-known among CNBM's cement enterprises. Created by a technical expert from a CNBM member enterprise, the song is made up of 31 sentences and summarizes the safety risks and job specifications of the cement plants. As cement represents a core business

segment of CNBM, its hundreds of cement lines all over the country are the priority among priorities in work safety management and the epitome of the Group's work safety management system. The creation and popularization of this song demonstrates how 'safety' has been deeply rooted among the staff and become a culture of the Group.

A Work Safety Song for Cement Plants

I am a CNBM citizen, I value safety in work
 I give top priority to work safety and always keep it in mind
 My post is a battlefield, my responsibility is of great importance
 Labor protection equipment is a treasure, it is essential for my safety
 No playing at work, no irregular operation allowed
 Be serious in equipment patrol and inspection, be careful in operations
 Conduct a check after each trip, no switching-on before finding out the cause
 Often clear sundries beside equipment, no blocking of access
 Provide complete protective devices, protect equipment against accidental power failures
 Equipment servicing is important, safety measures are essential
 Remember to fill in lists, put up signs and disconnect power supplies
 Verify the disconnection of the power supply before servicing, ensure the safe connection of ground wires
 Clean the site after servicing, clear away the warning signs before production recovery
 In such hot work as welding and cutting, prevent fire disasters and explosions
 In work at heights, fasten safety ropes
 When passing on parts, use ropes instead of throwing
 No standing below crane arms, look out for falling objects

For work in confined spaces, the special watch is a cardinal task
 Be cautious of ash spray when stoking a kiln tail, obey procedures to prevent scalding
 Never stand downwind when stoking, wear protective clothes and remember the path
 Do not get close to hot kiln doors, be cautious of positive-pressure firing
 Be cautious of clinker pits, collapses at the kiln tail are injurious
 No smoking in the oil station or power house, fire protection is important
 Avoid high temperatures in coal powder preparation, report potential risks without delay
 Clear deposits in storage, prevent all collapse risks
 Provide clear signs on sites, alert everyone at all times
 For the safety of all, ensure 'four-do-not-injure'
 To avoid injury, do not indulge in irregular operations
 Often inspect potential risks and nip them in the bud
 Safety discipline is iron, execute it to the letter
 Safety breeds happiness, the company and I are of the same mind

Su Dongyi
 Former Minister of Production Technology at
 CNBM Investment Shaoguan Cement Co., Ltd.

In 2017

157,000

person-times of CNBM employees participated in emergency response drills

In 2017

0

zero production safety accidents occurred



We have established a domestically top-ranking management system for safe production with the safe production accountability system as the core, standardization of safe production and workplace safety technical regulations as the emphases, troubleshooting and treatment of potential accidents as the methods, informatization of safety management as the tool and development of safety culture as the guarantee, thereby ensuring safe production and the occupational health of the staff.

We have established an organizational system for safe production. The Party and administration heads of the enterprises are the primary persons responsible for safety in the workplace. All key enterprises within the Group employ full-time production safety management personnel. We establish smooth channels for feedback and encourage all staff to participate in safety management.

We have established a safety production management system and issued the CNBM Safe Production Manual.

We attach great importance to building up our safety management team. We have continuously fostered a sense of responsibility and awareness of safety procedures in the workplace, and improved the professional quality of safety management personnel through training and assessment. The role of the Group's Safety Training Center has stood out and the continuing education of certified safety engineers is underway in an orderly manner.

Informatization technology is applied for the purpose of daily safe production management. A safety production prediction and alert system independently developed by CNBM is also utilized. We generate monthly warning information according to the data on the reporting and rectification of hidden dangers, and promptly publish work safety warning information to remind enterprise leaders and all staff to take targeted precautions for the purpose of identifying, handling and removing hidden dangers as soon as possible, thereby minimizing the probability of accidents and their consequences.



We guarantee input in safety and provide a fund guarantee for the continuous improvement and maintenance of our safety and protection equipment and facilities, as well as implementing technical innovations for the purpose of essential safety.

We continue to improve our emergency management system. In this system which covers all levels of CNBM, the Group's emergency management team takes general charge while the emergency management teams of member companies are responsible for specific measures. A comprehensive emergency response plan is established and supplemented by special emergency response plans and on-site response schemes. The model plan we have made for emergency response to safety accidents in the building material industry has set an example in the optimization and quality improvement of emergency response plans in China's building material industry.

We take the development of the 'capacity to identify and prevent hidden hazards' as an important part of our efforts to improve the basic management level of enterprise safety. We have explored how to build a double prevention system for level-to-level risk prevention and control, as well as the identification and rectification of potential risks. In particular, Sichuan Golden Cement Co., Ltd. has been designated as a pilot unit for executing the double prevention system in national non-coal mines.

We regard standard safe production as the key to improving and testing our safe production management. As a national pilot enterprise of standard safe production, we actively promote the work of meeting the safety standards of cement enterprises, improving the safety management system, increasing the safety management level and boosting safety management performance.

Total Involvement in 'Potential Risk Snapshot'



The 'potential risk snapshot' system is an innovative item provided by Gansu Qilianshan Cement Group Co., Ltd. ('Qilianshan') in its WeChat account. This system consists of the four sub-items of potential risk reporting, unrectified potential risks, rectified potential risks and potential risk statistics. It enables an employee to photograph and upload a potential risk immediately when it is found, and transfer such details as the type, description and location of the potential risk, responsible department and time limit. When a hidden risk is uploaded, the system will push a potential risk notice to the responsible department or team/group. Subsequently, the responsible department or team/group should rectify the hidden risk within the required time limit, then upload a picture of the rectification results. These links constitute closed-loop management. Types of time limits include 'immediately', 'within four days' and 'deferred'. In general, if a hidden risk is not rectified within the required time limit, the system will send an alarm regarding the exceeding of the time limit, and the safety administration will punish the responsible department or team/group in accordance with the administrative measures for potential risk identification.

'Potential risk snapshot' realizes total involvement in potential risk identification and enables uploaded hidden risks to be monitored comprehensively at all times. In addition, targeting the hidden risk rectification of each department, this system provides such functions as monthly statistics, retrieval & printing, sample reservation and archiving. Every month, Qilianshan rewards employees who perform excellently in identifying potential risks. Such action further motivates the enthusiasm of front line workers for identifying potential risks that may threaten the environment or safety, and realizes closed-loop management from

identification to completion of rectification, thereby effectively improving safety management.

In 2017, with the help of 'potential risk snapshot', Qilianshan identified 1,167 hidden risks and rectified 1,152 of them (rectification rate: 98.7%). Such performance has played a key role in the stable and efficient running of equipment and effective handling of various forms of leaks, laying a foundation for setting records in various indexes by the company in 2017. On this basis, the company was successfully rated as a Class I cement enterprise in terms of work safety standardization.



Unity of Efforts to Resist a Typhoon



On July 17th, 2017, Force 10 typhoon 'Talas' attacked the grinding station of Sinoma (Suzhou) Construction Co., Ltd. based in Song Lam of Vietnam. When the Project Department learned of the imminent extreme weather, fewer than 18 hours remained for making preparations. Despite this, the Project Department remained calm in the hour of peril and minimized losses through an intense but orderly emergency response.

When it received the message on the morning of July 16th, the Project Department immediately called a meeting involving all the subcontractors at which they calculated the force and path of the typhoon while specially assigning persons to

verify and purchase such relief supplies as woven bags, shovels and raincoats. When the rain became heavier and heavier at noon, the Project Department promptly decided to forego the noon break and set up a temporary emergency response leading group to arrange specific measures for resisting the typhoon: the Electrical Department inspected the tower cranes on sites to verify whether they could rotate freely; the Machinery Fitting Department fixed travelling cranes on the yard for making non-standard parts; the Safety & Environment Department collected objects at risk of falling from a height; the electromechanical construction team moved materials and equipment piled near the sea; and

the civil construction team solidified the roofs of the living quarters using sand bags. In addition, in the office, all the files were locked up in cabinets and the power supply was disconnected; all the flashlights and cell phones were charged to the full to maintain unblocked communication; and valuables in the dormitories were packed, enabling the employees could leave anytime.

All the preparation tasks were fulfilled by 6:00 PM and the enterprise eventually made it through the extreme weather.

Occupational Health

With the deepening of work safety management and leveling off of the production situation, we have gradually transformed a management that aimed to prevent accidents into a management system that promotes the integration of work safety and occupational health. In particular, we identify caring for and protecting the occupational health of laborers as an important measure for fixing the underlying problems of work safety.

In 2017

358,000

person-times of CNBM employees received training in occupational health and safety

In 2017, RMB

870

million was invested in occupational health and safety

In 2017, the physical examination completion rate of employees reached

97.3

%

Our Occupational Health Management Methods

- We have developed the Administrative Measures for Occupational Health Supervision in the Workplace so as to improve occupational health protection and management, and effectively prevent, control and eliminate occupational hazards.
- We have enhanced the management of occupational health in construction projects for the purpose of source control.
- It is our established practice to organize employees to undergo health examinations, arrange extra health checks for staff in jobs with exposure to dust or radiation, establish Personal Health Records and conduct regular reexaminations.
- We regularly detect and evaluate occupational hazard factors in the workplace, put up visible notice boards at detection points and widely publicize the detection and evaluation results to all staff.
- We have installed and optimized supporting facilities for dust prevention, gas defense, noise reduction and emergency alerts, as well as first-aid equipment in production environments, on the basis of our in-depth study and analysis of the features of building material production. For the purpose of labor protection, we offer reliable labor protection articles including work suits, helmets, safety shoes, gloves, noise-canceling earmuffs and dust masks, which are put in place and replaced in a timely manner to ensure their efficacy.
- We are gradually incorporating mental health into our occupational health management. We encourage member companies to establish mental health consultancy or cooperate with mental health institutions to build health record archives and pay attention to the mental health of our employees.
- In order to popularize occupational health knowledge, we conduct occupational health induction training and regularly conduct occupational health in-service training.
- We attach great importance to the safety and occupational health management of our suppliers and subcontractors, include terms on safety and occupational health in service contracts, and cooperate with enterprises on carrying out routine safety checks, training, emergency response drills and culture transmission.
- We actively promote our member companies to implement occupational health system certification and establish scientific and systematic management systems.

Saying Goodbye to 'Dirty Faces'



When speaking of the environment, the first thing that comes to mind must be your living environment. In the wake of social development, increasing attention being paid by environmental authorities and the improvement of people's environmental consciousness, our living environment has experienced radical changes represented by beautiful mountains and clear waters. In the meantime, a radical change has also occurred in our working environment. For example, at the branches of Ningxia Qingtongxia Cement Co., Ltd., cadres and workers say goodbye to 'dirty faces' by collectively getting involved in improving the working environment.

Regarding the special action of rectifying various forms of leaks in the plant, Purchase Department employee Yang Yueyuan wrote, 'Now every worker hopes to contribute to creating a garden-like working environment. The handling of leaks sometimes involves overtime, but the workers don't complain because they know that the company will be bright and clean as long as everyone does their part. If everyone cleans, inspects or adjusts the affected areas when they find a leak, our working environment will be greatly improved.'

Improving the working environment is like treating a disease. If not treated, a minor illness may gradually develop into a major one. At Ningxia Qingtongxia Cement Co., Ltd., cadres and workers take environmental improvement as a routine activity and pursue nipping problems in the bud so as to create a garden-type plant and working environment for themselves.

Happy 'Little Material'

'Every day, we anticipate a happy meeting here... We are the all-round Little Material, contributing good materials to the beautiful world. We are the happy Little Material, adding materials to the happy life... 'This is our official WeChat account's theme song Little Material Song, also named We Are the Happy Little Material. Little Material is the spokesman of CNBM's staff on the WeChat account. Written and composed by CNBM staff, the song expresses the aspirations of all 220,000 CNBM people. In the Group, they work happily.



Foreign staff at CNBM Investment Vanuatu Co., Ltd.

Equality & Democracy

We adhere to equal employment and treat employees of different nationalities, ethnicities, genders, ages, religions and cultural backgrounds with respect and equality. Employees are recruited and employed in an open, fair and impartial manner. We respect and support the international covenants on human rights and labor standards, strictly forbid forced labor or discrimination, guarantee a decent working environment for our employees and strictly prohibit and reject employing child laborers in any form.

Hiring rate of local employees in 2017

62.4

%

Hiring rate of local senior management in 2017

56.6

%

In line with the principle of equal pay for equal work, we treat our part-time employees, temporary staff and workers of our subcontractors with equality. Their legitimate rights and interests are well protected. We respect the privacy of our employees and have established a privacy management system covering such management links as recruitment, assessment and health records.

We standardize our human resources management and sign labor contracts with our employees. We pay our employees basic pension insurance, basic medical insurance, unemployment insurance, work injury insurance, maternity insurance and other forms of social insurance in accordance with the law, and establish supplementary medical insurance and corporate pension schemes, as well as a periodic physical examination system. We also encourage our member companies to purchase comprehensive accident insurance

and other supplementary insurance for their employees in line with their actual conditions. We adopt a paid leave system according to such related regulations as Regulations on Paid Leave of Employees, and pay remuneration for overtime work.

We have established a complete trade union network and continually improve our trade union organizations and work organizations at all levels; we develop the members of these organizations and make the trade unions more attractive and cohesive. We implement the Workers' Congress system, implement regulations on the disclosure of factory affairs and ensure employees' rights regarding participation, information and supervision. We share corporate operation information with our employees through such channels as the disclosure board of factory affairs, employee discussion meetings, managers' mailboxes and company websites.



In 2017, the number of female employees reached

47,000

In 2017, the ratio of the average salary of male employees to that of female employees was

2.9:1

In 2017, the total amount of remuneration for overtime work was about RMB

380

million

In 2017, the number of disabled employees was

1,732

In 2017, our coverage rate of collective bargaining and contracts was approximately

33.8

%

In 2017

88.6

% of the proposals of the Workers' Congress were handled and settled

Employment of Disabled People



Baixian South Cement Co., Ltd. ('Baixian') is a member of the South Cement Company Limited, a key cement enterprise under CNBM. Its predecessor Meishan Zhongsheng, as a private joint-equity welfare enterprise designated as a 'unit for the centralized employment of disabled people', made significant contributions to the local employment of disabled people. In 2005, the number of disabled people in the company reached 105, accounting for 40% of its total employment. Since its accession to CNBM, Baixian has continued its support for the centralized employment of disabled people. In 2017, its actual employment number was 200, including more than 60 disabled employees. Accounting for 30% of total employment, these disabled employees served at 14 posts.

In order to protect disabled employees' rights to employment and promote the local protection of disabled people, Baixian helps disabled employees to build their confidence and improve their skills and professional abilities. Since 2007, the company has never dismissed any disabled employee, and no disabled employee there has ever been badly injured in an accident. More amazingly, the past eight years have seen multiple excellent and skilled mechatronic employees standing out from among the disabled employees, and some of them have been promoted to team/group heads, managers or middle-level cadres. This fact has enormously motivated disabled employees' enthusiasm for work.



We are the happy Little Material
Scan the QR code to follow

Respect and Self-actualization

In pursuit of a culture of ambition, we advocate 'spending time in study, concentrating our thoughts on work', and encourage the staff to be wholehearted in at their posts. Accordingly, we have proposed the concepts of 'four-meticulous' and 'five-have' for cadres. In more detail, we require leading cadres to be 'responsible, cultivated and refined', middle-level cadres to be 'devoted, professional and excellent', and the staff to be 'conscientious and meticulous'. We also pursue 'enterprise-staff co-growth' and make every endeavor to create good environments and opportunities for employee growth. In addition, we have established a fault-tolerant mechanism to encourage the staff to be bold in assuming responsibilities. Inspired by such a culture, many workaholics who are earnest and skillful with inflexible will have stood out from the Group.

We organize learning groups for the goal of building a multichannel, multi-form, multi-level and differentiated employee cultivation and training platform. Following the training approach of 'based on internal training and supplemented by external training', we share education resources so as to build a comprehensive training system for the Group. We support the autonomous training of employees

Workaholics



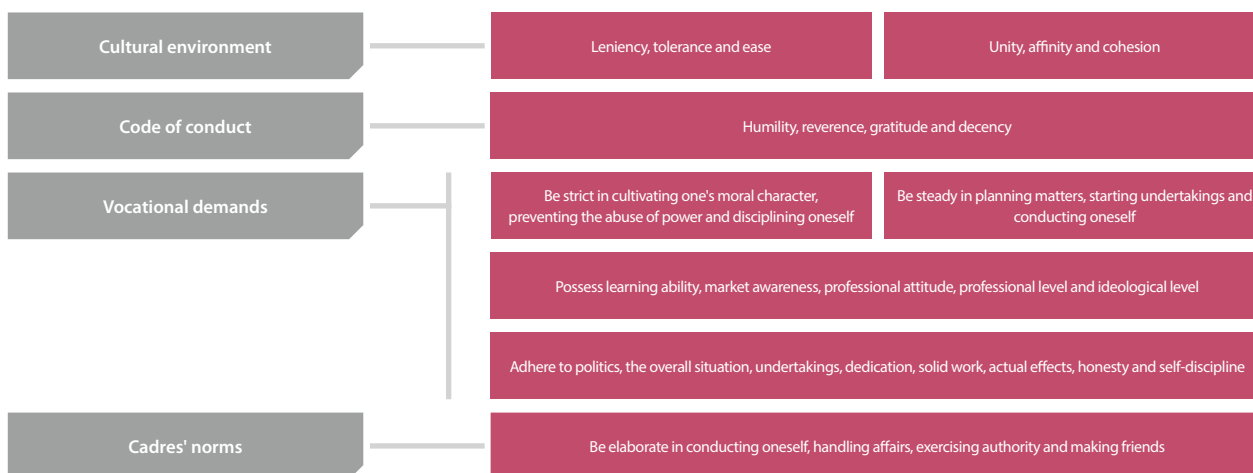
Under the leadership of President Zhang Yuqiang, CNBM member enterprise the Jushi Group has grown from a little-known local enterprise into the world's largest listed glass fiber company, and built a factory in the US. Over several decades, Zhang has arrived at the company at 6:00 AM every day and remained working until midnight. Taishan Gypsum Co., Ltd. President Jia Tongchun is another example. By immersing himself in his work all day long, Jia tackled key technological problems for many gypsum board production processes. Thanks to his efforts, the company has launched low-cost high-quality products, and built a Chinese-style line with the largest scale in the world. It is the tenacity and enthusiasm of such workaholics that helps us to successively weather the storm, break through technological barriers set up by Western countries and keep moving on the road of 'Created in China'.

and encourage them in active learning. We also support and guarantee the re-education, re-training and re-learning of employees. Both our HQ and member enterprises have a reading corner or reading room that provides a free borrowing service, and they encourage their staff to read more good books. In addition, reading parties for experience sharing are organized so as to set off a reading wave throughout the Group. We attach great importance to the quality training of our employees, create a unique model for the quality promotion of enterprise talents and improve the executive ability, professional quality and cultural identity of our employees.

We establish a scientific remuneration system and incentive mechanism, and set a competitive salary standard. We also maintain two career paths for the

promotion of employees, leading to management positions and technical positions respectively, through which we try to meet the development needs of different kinds of talents by allowing talents from different fields and with different specialties to give full play to their respective expertise. We implement the mechanism of intragroup communication and in-position learning for employees, thereby effectively allocating the human resources within the Group and providing a broad platform for our employees to develop their careers. We encourage enterprises to carry out corporate pension plans and equity diversity according to their actual situations. We spare no efforts to motivate employees and retain talents while improving their sense of achievement by allowing them to feel the development and growth of our enterprise.

Employee Quality Model of CNBM





Dance performance of 'Sing A Song For the Chinese Communist Party' by Gansu Qilianshan Cement Group Co., Ltd.

Love & Belonging

We care for the health and lives of our female employees, and treat them equally with their male counterparts in salary, management positions, professional training and vocational development opportunities. We purchase maternity insurance for them and provide antenatal examination leave, maternity leave, breastfeeding leave and birth allowance. We are concerned about the lives and mental needs of our young employees. We bring young people together through the Communist Youth League, providing them with a platform on which to demonstrate their talents and exchange ideas. We care for the work and lives of expatriates, especially those who are stationed abroad in the long term or in communities of minority ethnic groups, hold special afterwork activities and provide mental health counseling to relieve their pressure. We also improve the home leave system to remove their worries and promote their happiness. We respect disabled employees and provide them with a convenient working environment and the necessary amenities.

We improve the system of employee support and relief, and help employees to overcome their difficulties through

the 'Mutual Fund for Combating Serious Illness', 'Golden Autumn Grant-in Aid', 'Sunshine Employment Program' and so on. We carry out practical measures, solve difficult problems and do good deeds for employees in difficulty, and we make such actions regular, institutionalized and standardized. We stick to the custom of visiting needy groups in winter and during the two major festivals, mainly including childless and widowed elderly people, families of martyrs and poor retired employees.

We encourage our member companies to strengthen the construction of gymnasiums, recreation rooms, libraries and psychological counseling rooms. We also organize colorful cultural and art activities, sports competitions, visits and educational tours, and special educational activities, offering a broad stage for our staff to show their gifts and improve their capability to improve themselves, care for their families and benefit society. Through continuously improving the physical qualities, cultural literacy and life qualities of our employees, we strive to make the company their happy and comfortable home.

In 2017, the proportion of member companies with an average salary higher than that of the local level was

59.5

%

In 2017, our employees attended training for

1.12

million hours

In 2017, RMB

27.26

million was spent to help and reward special groups of employees

In 2017

11,528

person-times of special groups of employees received help and rewards

In 2017, we organized

264,000

person-times of employees to participate in various cultural and sports events

04

Corporate
CitizenshipReport Delivered at the 19th NCPCC

We should pursue the Belt and Road Initiative as a priority, place equal emphasis on 'bringing in' and 'going global,' follow the principle of achieving shared growth through discussion and collaboration, and increase openness and cooperation in building our innovation capacity. With these efforts, we hope to break new ground in opening China further through links running eastward and westward, across land and over the sea. We will expand foreign trade, develop new models and new forms of trade, and turn China into a trader of high quality.

We should continue to implement targeted poverty alleviation and alleviation measures. We will continue to advance poverty alleviation by drawing on the joint efforts of the government, society and markets. We will pay particular attention to helping people increase their confidence in their own ability to lift themselves out of poverty and ensure that they have access to the education they require in order to do so. We will strengthen collaboration on poverty alleviation between the eastern and western regions; and we will provide focused assistance to areas of extreme poverty. We must ensure that by the year 2020, all rural residents living below the current poverty line have been lifted out of poverty, and that poverty is eliminated in all impoverished counties and regions. Poverty alleviation should reach those who truly need it and deliver genuine outcomes.

Key Points of Responsibility Fulfilment

We attach great importance to fulfilling our community responsibilities, adhere to localized operations and deepen the 'Belt and Road' Initiative so as to pursue the common development and growth of enterprises and regions. We give back to society through our unique social welfare projects. We also exercise our corporate citizen responsibilities with our actions in voluntary activities. We try to promote poverty alleviation by working in pairs to help people increase their confidence in their own ability to lift themselves out of poverty, improving education to help people access the training they need and developing industries to reduce poverty.

Response to
SDGs

The Malaysia HUME Project undertaken by Tianjin Cement Industry Design & Research Institute Co., Ltd.

In 2017, CNBM's number of new employees hit



30,000

In 2017, the amount of taxes paid to local governments reached RMB



11.1

billion

In 2017, the donation amount reached RMB



23.35

million

In 2017



1,002

people realized targeted poverty alleviation

The 'Belt and Road' Initiative

According to the report delivered at the 19th NCPCC, as China is moving closer to the center stage of the world, it should adhere to the fundamental national policy of opening up and pursue the 'Belt and Road' Initiative as a priority so as to break new ground in pursuing opening up on all fronts. As one of the enterprises listed in the Fortune Global 500, China National Building Material Group Co., Ltd. (CNBM) closely follows the national strategies of 'Belt and Road' development and international capacity cooperation, fully utilizes its advantages in technology, capital and talents, steadily conducts overseas investment in accordance with the principle of marketization, actively expands its overseas engineering contracting business, makes innovations to its international trade model, accelerates the pace of 'Going Out' for building materials and equipment, and makes substantial progress, becoming a new business card in the national 'Going Global' policy of China's building materials industry.

We rely on our scale and comprehensive advantages, vigorously develop the large markets of 'Belt and Road' countries, actively carry out overseas investment

and explore the 'EPC + investment + management + services' mode for 'Going Global'. We have founded overseas business enterprises and agencies in 58 countries and regions, and expanded our business to over 160 countries and regions in the world, playing a leading role in the 'Belt & Road' Initiative. As the world's largest building material manufacturer, we fully utilize our own technology and equipment advantages. Our cement engineering market share stands at 65%. We have ranked first in the world for many years. We operate 14 overseas building material chain supermarkets and outsource and manage more than 30 factories around the world, firmly establishing a good corporate image and reputation. On this basis, we have also locked up the seven key regions of East and South Africa, the Middle East, Central and East Asia, South Asia, Central and Eastern Europe, ASEAN and South America, and proposed achieving the 'Six' development goals by 2020; that is, 10 mini industrial parks, 10 overseas warehouses, 10 international inspection centers and laboratories, 100 building material chain distribution centers, 100 managed smart factories and 100 EPC projects.



Deepening the 'Belt and Road' Initiative through Combined Efforts

The first move

Supporting the construction of the 'Belt and Road' with advanced technology and advantageous production capacity. The goal of the 'Belt and Road' is to build a community of interests, community of responsibility and community of destiny. In the process of participating in 'Belt and Road' construction, we have always insisted on highlighting Chinese brands and technology, emphasizing our first-class quality and reputation, and insisting on exporting our advanced technologies and advantageous production capacity. With independent intellectual property rights in cement and glass engineering design and technical equipment capabilities, we have promoted Chinese manufacturing and standards in the cement and glass industries on a global scale, opening up a 'China Building Materials Channel'. Regarding cement, CNBM has undertaken 336 large-scale cement production lines in 75 countries, accounting for 65% of new cement production lines worldwide, and has been ranked 1st in terms of global market share for 9 consecutive years. Regarding glass, we have generally contracted or designed nearly 60 production lines in countries along the 'Belt and Road' route. In addition, we actively cooperate with such multinational companies as Schneider Electric SA and the Mitsubishi Group in the fields of cement, glass and photovoltaics, and combine the high-end equipment of CNBM with the high-end technology of developed countries so as to jointly develop third-party markets.

A Shining Pearl on the 'Belt and Road'



Egypt's GOE Beni Suef 6 × 6,000 TPD Project is the largest cement production line in the global cement industry which has been synchronously constructed in the same place and the same period. It is also the shortest project among CNBM's overseas EPC projects and a milestone of the 'Belt and Road'. With a daily output of 6,000 tons, these 6 cement production lines are implemented by Chengdu Design & Research Institute of Building Materials Industry Co., Ltd. (hereinafter referred to as 'Chengdu Building Materials Institute'). During the implementation of the project, Chengdu Building Materials Institute focused on cooperation with local enterprises and made efforts to localize employment. We subcontracted civil works to several local companies, and our number of local employees reached 8,000 among tens of thousands of employees. The Beni Suef Project closely follows the national development strategy of the 'Belt and Road', establishing a glorious example of 'China Technology, China Manufacturing, China Standards, China Speed' on the route and becoming known as the 'pyramid' of the world's 'Cement Kingdom'. This project plays an important role in the Group's 'Six' strategic objectives by greatly enhancing the brand image, popularity and influence of Chinese enterprises in the world cement industry.

In the hinterland of the Sahara Desert in Algeria stands a cement plant built and operated by Beijing Triumph Building Materials Engineering Co., Ltd. of CNBM. At present, the plant produces 4,200 tons of cement clinker each day. It is estimated that the annual production of various types of cement can reach more than 1.5 million tons, which not only greatly fills the gap in the building materials market in Algeria, but also radiates through the cement markets in such neighboring countries as Mali and Niger.

1 The 6 large cement production lines at the Egypt

2 Adrar Cement Plant



2

The second move

Promoting infrastructure in 'Belt and Road' countries with high-quality building materials. As an army marches on its stomach, so infrastructure marches on its building materials. Chinese building material enterprises should be the vanguards of 'Belt and Road' construction. On the basis of past EPC projects, CNBM explores various methods including direct investment and park construction so as to continuously improve the quality, efficiency and scale of its overseas investment. To date, CNBM's total overseas investment has reached nearly RMB 20 billion. It invested in the construction of a cement production line in Mongolia with an annual output of 1 million tons, meeting 40% of the local cement market demand. It invested in the construction of the Zambia Building Material Industry Park in Zambia and the Republic of the Congo, bringing advanced building material manufacturing technology and equipment to Africa; it invested in glass fiber production lines in South Africa and Egypt, with products radiating through the markets of the EU, Middle East and all of Africa, reaching 100% inventory in the current period; it directly invested in several small, fast and flexible projects such as steel structure, color plates, lime and fiber cement boards in Africa, the Middle East and other regions; and it invested in photovoltaic power plants and module production lines in such countries as Ukraine and Thailand. Many investment projects provide high-quality building materials for infrastructure construction along the 'Belt and Road' route.

In 2017, the proportion of raw materials purchased in local areas reached

25.7

%



Panorama of China United Cement Wulanchabu Co., Ltd.

CNBM Grows With Local Communities Overseas



Do you remember the cement plant on the cover of CNBM's 2015 Social Responsibility Report, the one surrounded by boundless prairie? That is the cement production base invested in by the China United Cement Corporation in Mongolia, the annual production capacity of which reaches 1 million tons. The project was put into operation in 2016 with an annual output of 780,000 tons of clinker and 1 million tons of cement, meeting 40% of the local cement market demand; implementing a localized procurement policy, it consumes 150,000 tons of fly ash per year; it has taken advantage of railways to transport about 1.3 million tons of limestone, coal and other raw materials, and about 1 million tons of cement; it has provided Mongolian society with more than 280 jobs; and it has paid tax of USD 5 million to the Mongolian government each year, promoting Mongolia's economic growth and the development and upgrading of its related industries. In June 2017, the Munkhiin Cement Plant won the 'Best Enterprise Award' in a safety evaluation activity organized by the Ministry of Labor and Social Security of Mongolia. It is the only foreign company among the five award-winning enterprises.

Jushi Egypt Fiberglass Co., Ltd. (hereinafter referred to as 'Jushi Egypt') has invested USD 580 million in three steps to build a world-class large-scale fiberglass production base in Africa with an annual production capacity of 200,000 tons, the only base of such scale in Africa, and meet the growing and diversified demands for fiberglass products in surrounding areas. The products are mainly supplied to the domestic markets of Europe, Turkey, the Middle East, North Africa and Egypt. At present, three large-scale kiln glass fiber production lines have been established with a total production capacity of more than 200,000 tons. After the completion of the Jushi Egypt Project, the products are in short supply and more than 90% have been exported. The foreign exchange earned by the local government exceeds USD 200 million per year, and the tax payment exceeds USD 20 million. At the same time, Jushi Egypt actively advocates the management concept of the joint development of employees and the corporation, vigorously promotes the localization of management posts and has directly created about 2,000 jobs. The localization rate of middle management posts has exceeded 66% and the localization rate of first-line posts has reached 99%.

3

The third move

Making innovations to the 'Going Out' mode to help 'Belt and Road' trade inter-flow. We have successfully built the 'Online Silk Road' for the building materials industry and continue to increase the increments and profits of overseas trade. We created the 'Internet trading platform + overseas warehouse' model, giving full play to the advantages of the first spot trading electronic platform of China's building materials industry, namely okorder.com, by combining domestic building materials with overseas warehouses through the Internet.

Furthermore, overseas warehouses are connected with suppliers of home furnishing materials along the 'Belt and Road' route. We took the initiative to build 24 'overseas warehouses' on the 'Belt and Road' to provide an 'Online Silk Road' of global marketing for domestic and foreign manufacturers; we have launched the 'Internet + Global Operations Management' model, using CNBM Smart Industry to provide outsourcing management services for about 50 cement plants in the Middle East, Central Asia and Africa. In addition, CNBM actively promotes

the 'Building Materials + Home' chain supermarket model and expands the African market on the basis of being the largest integrated service provider of building materials in the South Pacific region, offering building and home services to African countries. With the 'green town' model, we promote 'Energy Plus 5.0' new houses across the whole world. At present, CNBM's green houses cover 39 countries in five continents, creating good economic and social benefits, and have won the high praise and affirmation of local governments.

4

The fourth move

Standing at the cutting edge of industrial development and building an international innovation, research and development platform. CNBM has 26 state-level research institutes and 38,000 scientific and technological workers. It also has more than 10,000 effective patents, including more than 2,400 invention patents, and 14 international standards, constituting a world-class driving force for innovation. CNBM not only pays attention to its own innovation-driven development but also attaches great importance to international scientific research cooperation and exchange. On the one hand, it acquired the equity of overseas technology companies and strengthened integrated innovation; for example, it rapidly mastered the core technology of CIGS thin-film solar cells through the acquisition of AVANCIS of Germany and became the first MW-class wind turbine blade producer in China through the acquisition of NOI of Germany. It also further enhanced its competitiveness in building materials and equipment in the international market through the acquisition of 68% equity in the Indian company LNVT and 59.09% equity in the German company HAZEMAG Group. On the other hand, it actively participates in international exchanges, regularly communicates with building materials companies listed in

the Fortune 500, successfully held the International Congress on the Chemistry of Cement (ICCC), established the Asia Cement and Concrete Research Academy (ACCRA), and insists on organizing and participating in

various international summits in such fields as cement, glass, ceramics and glass fiber. Our discourse power in the global building materials sector has steadily increased.

'Detection Station' on the 'Belt and Road'



China Building Material Test & Certification Group Co., Ltd. (CTC) under CNBM is the largest and most influential institution in the field of building materials and construction engineering in China. It is the first listed company to be inspected and certified by the Shanghai Stock Exchange. In 2017, CTC undertook laboratory construction projects in such countries as Ethiopia and Kazakhstan, and cooperated with the China Airport Construction Group Corporation on undertaking the engineering quality inspection of Zambia Airport. The construction and stable operation of the Sino-Egyptian Building Materials Science Laboratory play an important role in improving the quality of Ethiopian construction projects, training technicians and improving the scientific research of engineering disciplines. The future development strategy of CTC is to become a world-class comprehensive inspection and certification organization. To date, CTC has provided more than 300 overseas companies with certification services. The focus is on construction projects along the 'Belt and Road' route. Several testing and certification centers have been established in Africa, Oceania, Southeast Asia and elsewhere. At the same time, it seeks cooperation with international professional inspection and certification institutions in capital and business through market-based means, and gradually expands its business from the building materials and construction industries to the fields of consumer goods, environment and energy.

Three Principles Help Cultural Integration



As General Secretary Xi Jinping pointed out, "The 'Belt and Road' Initiative adheres to the principle of wide consultation, joint contribution and shared benefits. It is not closed but open and inclusive; it is not a solo song of China but a chorus of countries along the 'Belt and Road'." In the process of 'Going Out', we adhere to the three principles of 'cooperation and win-win results': the first is to contribute to local development; the second is to cooperate with local enterprises and cultivate the concept of sharing interests; and the third is to get along with local residents and be enthusiastic about public welfare.

We have established an overseas operation system with the characteristics of the building material industry, insist on friendly and neighborly relations and mutual aid, and actively take part in local public benefit programs and community activities. We treat cooperative countries sincerely, strictly observe international conventions as well as local laws and regulations, pay taxes in accordance with the law, pay attention to environmental protection and respect local religious beliefs, customs and traditions. We cooperate according to the principles of reciprocity and mutual benefits; we strive to build competitive advantages by using local superior resources in combination with the Group's advantages in

technology and management. We advocate the concept of inclusiveness-based cooperation; we execute a staff localization policy and provide local communities with jobs and training opportunities. We will continue to promote regional cooperation with broader minds and higher enthusiasm so as to share opportunities and enjoy mutual prosperity.

CNBM always adheres to the uniform welfare guidelines both at home and abroad. We establish emergency response mechanisms to provide rapid disaster relief, civil defense and other public safety services. We provide support for disaster-affected areas, poverty-stricken areas, science, education, culture and hygiene causes, welfare projects and environmental protection causes in kind and capital, thereby supporting the development of society. To date, we have conducted a number of distinctive public welfare projects including the 'Youth BNBM - Colorize Our Homeland with Paint' volunteer service activities of Beijing New Building Material Co., Ltd. (BNBM), and 'Gsanghua' Education Promotion Project of the Anhui Branch of the China National Geological Exploration Center of the Building Materials Industry. In 2018, in cooperation with the China Volunteer Service Foundation, our 'Good Construction Public Welfare' fund was officially established.

In 2017, the number of donation projects reached

419

In 2017, total donations reached RMB

23.35

million

Friendship along the 'Belt and Road'



The CNBM – Zambia Building Material Industry Park is a good example of fulfilling overseas public welfare. The Project Department has drilled 100 wells to solve the problem of drinking water for local residents. It also donated USD 1.5 million to build schools and hospitals, bringing vitality to the development of the surrounding communities. On June 6th, 2017, Chairman Song Zhiping visited Nachtete Elementary School and greeted the teachers and children in the classes. Principal Eliana Tembo said with emotion that the schools and hospitals built by Sinoma Mpande have been eagerly desired by the surrounding areas for many years. The local people are deeply grateful.

On November 29th, 2017, in order to commemorate the 30th 'World AIDS Day', the CNBM – Zambia Building Material Industry Park held a charity donation activity themed 'Anti-HIV Right to Health' in Lusaka, the capital of Zambia. During the activity, the industry park was commissioned by CNBM and Sinoma Cement to donate 500,000 kwacha to the Kolelawaka Foundation and basic AIDS prevention organization in Zambia. This sum of money will be used as a special fund to support the Zambian Government in carrying out AIDS prevention and treatment. Special Representative Ms. Bernadette Dika, delivered a speech on behalf of Mrs. Ester

Lungu, first lady of Zambia, in which she said that the CNBM - Zambia Building Material Industry Park actively fulfils its global civic responsibility. The aid funds donated to AIDS organizations will greatly promote the development of anti-Aids work in Zambia.

- 1 CNBM's Zambia Industrial Park donates 500,000 kwacha to local anti-Aids organization
- 2 Chairman Song Zhiping visits Nachtete Elementary School



Targeted Poverty Alleviation

We constantly focus on poverty alleviation in order to fulfill our social responsibility. Since 2002, CNBM has established site-specific poverty alleviation relationships with Shitai County of Anhui Province, Zhaoyang District, Suijiang County and Yongshan County of Yunnan, and Jingyuan County of Ningxia. By donating poverty alleviation funds, we help local areas to withstand natural disasters, improve the educational environment, solve housing difficulties, repair roads and build electricity and water conservancy facilities.

Meanwhile, in order to help impoverished areas to completely escape poverty, the

Group actively transforms its poverty alleviation concepts and creates new modes to reduce poverty. Focusing on alleviating poverty through improving education, developing industries, introducing talents, protecting the ecology and developing integrated resources, we have introduced the new mode of 'Internet + Poverty Alleviation' in which we dispatch talents, identify the objects of poverty alleviation and arrange products and use funds in a targeted way. We also conduct multi-dimensional poverty alleviation work and earnestly solve the basic needs of impoverished people, enabling the fruits of poverty alleviation to improve people's living standards.

Winning the Battle against Poverty with Specific Policies



Jingyuan County in Guyuan of Ningxia Hui Autonomous Region is a site-specific poverty alleviation area of CNBM. In order to promote the poverty alleviation work, the leading cadres of CNBM met with the leaders of the autonomous region several times to discuss the hard work of poverty alleviation. In combination with the local characteristics of Jingyuan County and the industrial advantages of CNBM, five guidelines for poverty alleviation were established. The first is to support the work of poverty alleviation in Jingyuan County. We will work together to build Yang Ling Village into a demonstration site for the site-specific poverty alleviation work of CNBM, aiming to promote the living environment and ecological environment construction,

green industry development and happy living environment as a whole. The second is to carry forward the strategy of the rural revitalization of Jingyuan County. On the basis of local resource endowment, we will give full play to the industrial advantages of CNBM and jointly build a green and beautiful countryside in Jingyuan. The third is to support the development of the people's livelihood. We will continue to support Jingyuan County in vigorously developing education and health services, and offering funds for improving teaching conditions and professional training. The fourth is to give full play to the resources and influence of CNBM. We will help Jingyuan County to build a city brand and improve its popularity and reputation so as to promote the development

of its tourism industry. And the fifth is to support the construction of aggregate plants in Jingyuan County. We aim to use industrial income to help registered impoverished households escape from poverty and become moderately prosperous.

From December 18th to 19th, 2017, CNBM Party Secretary and Chairman Song Zhiping visited Jingyuan County to teach the spirit of the 19th CPC National Congress to the cadres at both the township and village level, as well as the villagers of Yang Ling Village. He also inaugurated the Yang Ling Village Historical Museum and CNBM Hope Primary School, and visited impoverished households and pupils.



Chairman Song Zhiping visits Hope Primary School in Jingyuan County

Good Poverty Alleviation Assistant 'He Bao Dan'



If given a chance to realize one's dream, ordinary people may dream of their family being healthy and safe; farmers in impoverished areas may dream of earning more money, escaping poverty and having a better life; while 'He Bao Dan' dreams of bringing the people green and natural food ingredients, and helping more and more impoverished farmers to increase their income, escape poverty and live a moderately prosperous life. The 'He Bao Dan' e-commerce platform has 220,000 CNBM's employees, millions of dependents and the public as its target customers. The main products include high-quality ecological natural food ingredients from site-specific poverty alleviation areas, including local special agricultural products from Shitai County of Anhui Province, Zhaoyang District, Yongshan County and Suijiang County of Zhaotong, Yunnan Province, and Jingyuan County of the Ningxia Hui Autonomous Region. CNBM conducts site-specific poverty alleviation in the these areas, helping to promote the sales of local agricultural products, build brands and spread the products across the whole country, as well as meeting the pursuit of a healthy diet for people from all walks of life.

As of December 31st, 2017, more than 12,000 households in 208 counties and cities across 29 provinces in China had tasted high-quality agricultural products from site-specific poverty alleviation areas, leading to an increase in the income of 1,042 households. The 'He Bao Dan' platform has promoted the sales volume of local agricultural products while cultivating the modern market awareness of local farmers, helping them to adapt to the current 'Internet + agriculture' situation, creating a good demonstration effect for the development of local rural e-commerce and providing new ideas for exploring sustainable poverty alleviation models through industrial development; at the same time, it has promoted the characteristics of local agricultural products as natural, ecological, healthy, safe and environmentally-friendly, and publicized local agricultural production, people's lives, natural scenery and local customs and practices. Special agricultural products form the link, shortening the distance between people with caring hearts and those living under the poverty line, arousing the employees' sense of poverty alleviation and helping them to learn more about the poverty alleviation work of the state and organizations.

The 'He Bao Dan' platform carries out the important instructions concerning 'targeted poverty alleviation' put forward by the Central Committee of the Communist Party of China, and opens up a new model of poverty alleviation through technology and innovation, which has injected new vitality into the 'hematopoiesis' of the Group's targeted poverty alleviation work. Since its launch more than a year ago, 'He Bao Dan' has worked with farmers, sharing happiness and worries. The platform has won the support of local farmers and also gained attention from all walks of life. Such media groups as the Economic Daily, China Building Materials Daily, China Economic Net, Central Enterprise E-commerce Alliance Journal, local television stations and local official public accounts have repeatedly reported on the 'He Bao Dan' model. On February 6th, 2018, the 'He Bao Dan' platform won the 'China Time' Poverty Alleviation Contribution Award in the large-scale selection activity held by China Economic Net.



Scan the QR code to support poverty alleviation

In 2017, special funds for poverty alleviation reached RMB

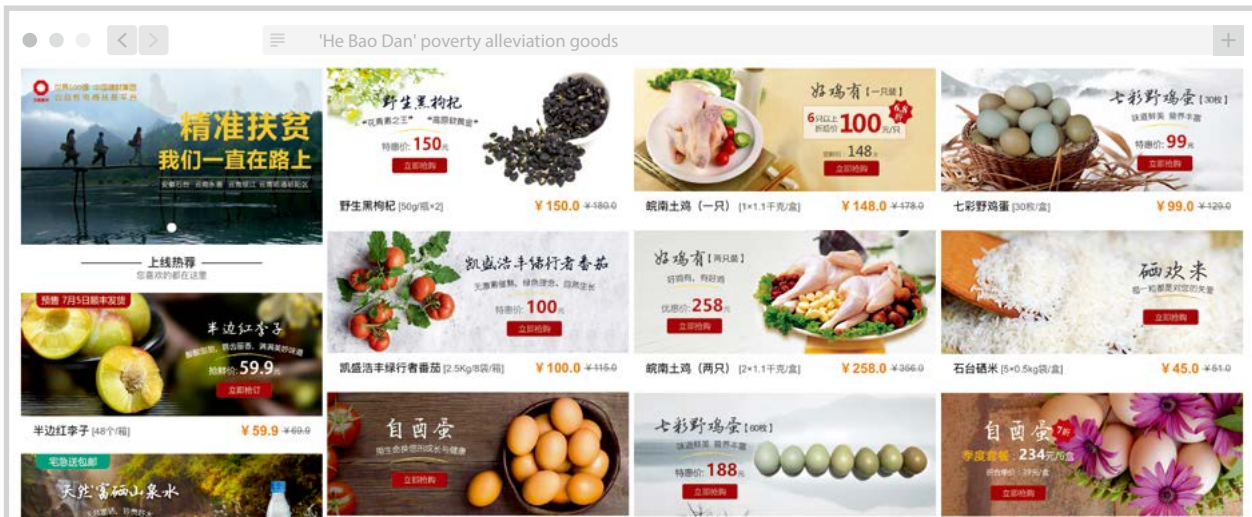
13

million

In 2017

1,002

people realized targeted poverty alleviation



In order to support the development of underdeveloped western areas facing special difficulties, we invest in and found enterprises in Xinjiang, Qinghai and the Tibetan regions of Sichuan and Gansu, actively develop the cement, cogeneration, PV and new energy industries, vigorously support local infrastructure construction and sustainable development, and create many job opportunities for minorities and local graduates. In addition, we have assigned multiple Xinjiang-aiding and Tibet-aiding cadres to deliver advanced technologies and management experience with the aim of facilitating local industrial development.



Youth volunteers of Gansu Qilianshan Cement Group Co., Ltd. care for the children of migrant workers

'Gsanghua' on the Plateau



On July 28th, 2017, the Party Committee of the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) held a working conference of the Communist Youth League of Central Enterprises. At the conference, 10 'Young Pioneers of Central Enterprises' selected by the SASAC Party Committee were specially awarded. Ma Guangchao of Taishan Gypsum Co., Ltd. was awarded the honorary title of 'Young Pioneer of Central Enterprises'.

Ma Guangchao is currently Deputy Director of the office of Tai Shan Gypsum Co., Ltd. (hereinafter referred to as 'Tai Shan Gypsum'). At the age of 23, he gave up work envied by many of his peers and resolutely went to teach in 8 remote mountainous schools under the jurisdiction of the Yushu Tibetan Autonomous Prefecture in Qinghai Province at his own expense. He stayed in Yushu for 6 years. During these years, he taught Tibetan children how to wash their faces and brush their teeth, how to read and write, and how to sing the national anthem and raise the national flag. He experienced painful altitude sickness, disease and car accidents, and narrowly escaped death several times. Luckily, he survived by virtue of his tenacity; he did a lot of meaningful things for the Tibetan herdsmen, serving as a doctor, repairing electrical appliances, building pools and repairing bathhouses. He used to be poor but insisted on being a volunteer teacher without taking any money. He sprinkled his true love over the snowy plateau and grew from an enthusiastic youth to a mature Tibetan-aiding volunteer.

In the past six years, Ma Guangchao has overcome many unimaginable difficulties, including the massive 7.1-magnitude earthquake that struck Yushu of Qinghai in 2010. When the earthquake struck, Ma Guangchao did not run out of the classroom until he had confirmed that each child was safe. After the children were transferred quickly and safely, he immediately joined the local villagers in disaster relief work. He wrote two letters in case he were to die. In one letter, he wrote: 'If God gives me another life, I will again choose to devote myself to voluntary education on the plateau.'

After learning the story of Ma Guangchao, Tai Shan Gypsum, a member of CNBM, invited him to join the company. On December 6th,

2014, Ma Guangchao was appointed Captain of the Tai Shan Gypsum Volunteer Service Team. On March 15th, 2015, he was appointed Secretary-General of the Tai Shan Gypsum Love Association. Based on the principle of 'poverty alleviation', the association gives full play to its loving and helping role. While assisting needy employees, the association strives to make public welfare activities the welfare of all employees. As Ma Guangchao said, "One person's love is still a small love after all. But when we have a lot of small loves, we can create a big love! Although I've already ended my voluntary teaching career, with the support of Tai Shan Plaster, I'm not only experienced in business but also capable of helping more people in distress. I think this is the greatest value of my life!"



Ma Guangchao and his students

05 Technological Innovation



Report Delivered at the 19th NCPCC

Innovation is the primary driving force behind development and the strategic foundation for building a modernized economy. We should aim for the frontiers of science and technology, strengthen basic research and make major breakthroughs in pioneering basic research and groundbreaking and original innovations. We will further reform the science and technology management system, and develop a market-oriented system for technological innovation in which enterprises are the main players and synergy is created through the joint efforts of enterprises, universities and research institutes. We will support innovation by small and medium-sized enterprises, and encourage the application of advances in science and technology. We will foster a culture of innovation and strengthen the creation, protection and application of intellectual property. We will cultivate a large number of world-class scientists and technicians in strategically important fields, scientific and technological leaders, and young scientists and engineers, as well as high-performing innovation teams.

Key Points of Responsibility Fulfilment

We shoulder the responsibility to make innovations in the industry by leveraging our strong research capability. We also promote the transformation and upgrading of the industry with our foresight, vision and advanced technology. We promote and share our technical information, and we are committed to building more environmentally friendly, comfortable and intelligent living environments, and creating a sustainable future.

Response to SDGs



📍 Zhongfu Shenyang T1000 carbon fiber production line



In 2017, expenditure on R&D activities amounted to about RMB

7.73

billion



In 2017, RMB

46.85

billion was recorded from the sales of new products



In 2017, the number of personnel engaged in scientific and technological activities was

38,000



In 2017, we held a total of

10,024

patents

Guarantee of Strength

R&D investment in 2017 hit RMB

5.9

billion

In 2017, the number of personnel engaged in scientific and technological activities in the Group was

38,000

In 2017, the percentage of science and technology personnel of the Group accounted for

16.8

of the total number of employees

We put innovation in first place among our three strategies and core values. For this, we create innovative cultures, enhance the building of innovative talent teams and concentrate our efforts on addressing common key technologies and frontier technologies in the building material industry so as to provide strong support for making China a technological power and building an intelligent society. We have established an integrated scientific research innovation system that comprises national research and design institutes, state and industrial key laboratories, national accredited enterprise technology 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 non-metallic materials.

We have 26 National Scientific Research and Design Institutes, 3 National Key Laboratories, 1 National Engineering Laboratory, 16 National Accredited Enterprise Technology Centers, 8 National Engineering (Technology) Research Centers, 10 Industrial Product Quality Control & Technical Assessment Laboratories, 3 National SME Service Demonstration Platforms, 6 State and Provincial-Ministerial International Scientific Cooperation Demonstration Bases, and 55 State Industrial Quality Testing Organizations, all of which serve the building material industry of China and even the whole world, and have developed almost all key technologies in the building material industry of China. At present, CNBM has already become China's largest scientific and technological R&D center with the greatest strength in the field of building materials and inorganic non-metallic materials. Research conducted by CNBM's sub-centers covers all related professions, including cement, glass, fiber & composite materials, new-type building materials, equipment manufacturing and energy conservation & environmental protection. Their businesses run through all the related links, including basic theoretical research, technical R&D and services, standard development, testing and certification, experimental apparatus and production

equipment manufacturing, engineering design and general contracting. In 2017, with a score of 91.2, CNBM's Technical Center was ranked 35th in the assessment results of 1,345 national corporate technical centers (2017-2018) officially published by the NDRC, and rated as an 'Excellent Corporate Technical Center'.

We have deployed 38,000 personnel in scientific and technological activities, established an academician workstation and post-doctoral research stations and workstations, and implemented the 'Thousand Talents Program' to maintain smooth channels for the introduction and exchange of high-caliber talents from overseas and domestic universities and institutes. We also provide a mechanism guarantee for the scientific research of the Group. Focusing on such aspects as the protection of intellectual property, management of scientific research funds and information confidentiality, we have combined the development of internal control systems with risk management requirements to form a scientific research management system which conforms to national scientific research management requirements and has the features of the building materials industry.



Chinese and German engineers conduct research and discussion on a project at Chengdu Design & Research Institute of Building Materials Industry Co., Ltd.

Scientific Research and Service Platforms of CNBM

26 National Scientific Research and Design Institutes	China Building Materials Academy Co., Ltd.	Tianjin Cement Industry Design & Research Institute Co., Ltd.	
	Hefei Cement Research & Design Institute Co., Ltd.	Sinoma International (Nanjing) Engineering Co., Ltd. (Nanjing Cement Institute)	
	Bengbu Design & Research Institute for Glass Industry Co., Ltd.	Chengdu Design & Research Institute of Building Materials Industry Co., Ltd.	
	China New Building Materials Design & Research Institute Co., Ltd.	Nanjing Fiberglass Research & Design Institute Co., Ltd.	
	Harbin FRP Institute Co., Ltd.	Beijing Composite Materials Co., Ltd.	
	Qinhuangdao Glass Industry Research and Design Institution Co., Ltd.	Suzhou Sinoma Design and Research Institute of Non-metallic Minerals Industry Co., Ltd.	
	Xi'an Research & Design Institute of Wall & Roof Materials Co., Ltd.	Shandong Industrial Ceramics Research & Design Institute Co., Ltd.	
	Xianyang Research & Design Institute of Ceramics Co., Ltd.	Beijing Sinoma Synthetic Crystals Co., Ltd.	
	Hangzhou Mechanical and Electrical Design and Research Institute of Light Industry Co., Ltd.	Suzhou Concrete & Cement Products Institute Co., Ltd.	
	Horological Research Institute of Light Industry Co., Ltd.	Xianyang Non-metallic Minerals Research & Design Institute Co., Ltd.	
	Light Industrial Xi'an Mechanic Design and Research Institute Co., Ltd.	Wuhan Building Material Industry Design & Research Institute Co., Ltd.	
	Research Institute for Automation of Light Industry Co., Ltd.	Sinoma Science & Technology Development Center Co., Ltd.	
	Suzhou Waterproof Research Institute of China Building Materials Academy	Sinoma Geological Engineering Exploration Academy Limited	
	3 National Key Laboratories	State Key Laboratory of Green Building Materials	National Key Laboratory of Special Fiber Composites
National Key Laboratory of New Float Glass Technologies			
1 National Engineering Laboratory	State Key Laboratory of Pulp and Paper Engineering		
16 National Accredited Enterprise Technology Centers	Technology Center of China National Building Materials Group Co., Ltd.	Technology Center of Beijing New Building Material (Group) Co., Ltd. (Sub-center)	
	Technology Center of Sinoma Technology & Equipment Group Co., Ltd.	Technology Center of China Luoyang Float Glass Group Co., Ltd. (Sub-center)	
	Technology Center of Taishan Glass Fiber Co., Ltd.	Technology Center of Lianyungang Zhongfu Lianzhong Composites Group Co., Ltd. (Sub-center)	
	Technology Center of Xinjiang Guotong Pipeline Co., Ltd.	Technology Center of Hefei Smarter Technology Group Corporation (Sub-center)	
	Technology Center of Sinoma Science & Technology Co., Ltd.	Technology Center of Jushi Group Co., Ltd. (Sub-center)	
	Technology Center of Sinoma Energy Conservation Limited	Technology Center of Hefei Cement Research & Design Institute (Sub-center)	
	Technology Center of Xinjiang Tianshan Cement Joint-Stock Cement Co., Ltd.	Technology Center of Hefei Zhongchen Light Industrial Machinery Co., Ltd. (Sub-center)	
	Technology Center of Sichuan Jiahua Enterprise (Group) Co., Ltd.	Technology Center of Taishan Glass Fiber Zoucheng Co., Ltd. (Sub-center)	
	8 National Engineering (Technology) Research Centers	National Glass Deep Processing Engineering Technology Research Center	National Non-metallic Minerals Deep Processing Engineering Technology Research Center
		National Resin Matrix Composites Engineering Technology Research Center	National Industrial Ceramics Engineering Technology Research Center
National and Local United Engineering Research Center for Glass Industry Energy-saving Technology		National Fiber Reinforced Moulding Compound Engineering Technology Research Center	
National Fiberglass and Products Engineering Research Center		National Research Center of Cement Energy Conservation & Environmental Protection Engineering	
10 Industrial Product Quality Control and Technical Assessment Laboratories	Industrial (Building Materials) Product Quality Control and Technical Assessment CTC Laboratory	Industrial (Building Materials for Roofs, Walls and Road Surfaces) Product Quality Control and Technical Assessment Laboratory	
	Industrial (Building and Sanitary Ceramics and Products) Product Quality Control and Technical Assessment Laboratory	Industrial (Non-metallic Mineral Products) Product Quality Control and Technical Assessment Laboratory	
	Industrial (Light Industrial Machinery) Product Quality Control and Technical Assessment Laboratory	Industrial (Glass) Product Quality Control and Technical Assessment Laboratory	
	Industrial (Fiberglass & Thermal Insulation Material) Product Quality Control and Technical Assessment Laboratory	Industrial (Horology) Product Quality Control and Technical Assessment Laboratory	
	Industrial (Decorative Building Materials) Product Quality Control and Technical Assessment Laboratory	Industrial (Composites) Product Quality Control and Technical Assessment Laboratory	
3 National SME Public Service Demonstration Platforms	Hangzhou Mechanical and Electrical Design and Research Institute of Light Industry Co., Ltd.	Xianyang Non-metallic Mineral Design Institute Co., Ltd.	
	Horological Research Institute of Light Industry Co., Ltd.		
5 Academician Workstations	Academician Workstation of China Building Materials Academy	Academician Workstation of Enterprises in Jiangsu Province	
	Academician Workstation of Bengbu Design & Research Institute for Glass Industry	Academician Workstation of Beixin Building Material	
	Academician Workstation of Zhengzhou Cement Industry Functional Refractory Material		
3 State International Scientific Cooperation Demonstration Bases	International Scientific Cooperation Base of Green Building Materials	State International Scientific Cooperation Base of HV Insulating Materials Research & Development	
	State International Scientific Cooperation Base of Glass Industry Design & Research of Bengbu		

Guiding and Surpassing

As a basic material, cement has revolutionized human environments. In just under 130 years since the introduction of cement to China, our country's cement industry has experienced rapid development and witnessed the birth of a cement giant strong in developing complete sets of ultra-large equipment and cement production technologies. The history of China's cement industry can be summarized as 'from catching up to guiding'. When it comes to CNBM's cement segment, we boast world-class cement production equipment and technologies, and have developed multiple technologies included in the

NDRC's directory of energy-saving low-carbon technologies for priority in promotion.

In addition, our cement segment includes a range of high-quality technological innovation resources. For example, we have developed core technologies and equipment for the co-processing of hazardous waste, civil sludge, domestic refuse and contaminated soil, made multiple world-leading technical achievements and formed a complete industry chain that spans R&D, industrial testing, design & construction, management and testing & inspection.

Pillars of a Great Power



Pillars of a Great Power, a documentary produced by CCTV, tells the legend of China becoming powerful by engaging in industry. It shows 'Made in China' super-scale factories, super-scale equipment, super-advanced technologies and key breakthroughs, and depicts China's advantages in manpower, talents and systems. In 2017, the camera crew visited CNBM's member enterprises CNBM (Hefei) Powder Technology Equipment Co., Ltd. ('Hefei Powder') and China United Cement Xuzhou Co., Ltd. ('CUCC Xuzhou') to film complete sets of ultra-large equipment and technologies for cement production.

As the production process has evolved from the wet-process vertical kiln to the current new-type dry-process rotary kiln, China's cement industry has experienced a course of 'introduction → chasing → catching up → guiding' with a yield growing from less than 1,000 t/d, to 2,000 t/d, 5,000 t/d and currently 10,000 t/d. Located beside a 10,000-ton cement line introduced from abroad, the Xuzhou-based 10,000-ton cement line which was developed, designed and installed independently by CNBM boasts excellent environmental protection facilities, a very low level of dust emissions and world-leading technical indexes. This 10,000 t/d new-type dry-process cement line represents the peak of the global cement industry. At present, there are 31 ultra-large fully-equipped 10,000 t/d cement lines in the world, 20 of which were manufactured by CNBM.

The roll squeezer plays a core role in cement production equipment. The raw material grinding and cement grinding links which account for 65-70% of the total electricity consumption of cement production are the keys to energy conservation, emission reduction, yield increase and efficiency improvement. Hefei Powder's roll squeezer (diameter: 2 m; overall weight: 438 tons) with proprietary intellectual property rights boasts world-leading technical and economic indexes. In particular, its tooth-like small columnar blades can easily break any rock. Their deeply-staggered arrangement, independently designed by CNBM's engineers, prolongs the service life of the roll's surface tenfold. Such an ultra-large roll squeezer answers the question of how to realize efficient grinding on a large-

size cement line, and features a high grinding efficiency, large capacity, simple process system and low maintenance, winning it universal recognition as the roll squeezer with the highest grinding efficiency. Roll squeezers are used widely in cement production as well as metallurgy, mines, non-ferrous metal ore beneficiation and the deep processing of slag. Depending on its high reliability, low operating costs, high operability and high maintainability, and represented by the energy-efficient grinding unit of the roll squeezer, CNBM's range of technical equipment has been exported to more than 20 countries and regions including the EU, and has captured a market share of 70%. In January 2017, Hefei Powder was included in the first batch of manufacturing sector demonstration champions published by MIIT.



The two 10,000-ton cement production lines of China United Cement Xuzhou Co., Ltd.



Along the 'three curves', we give priority to accelerating the development of the new material segment, and have made breakthroughs in this regard. For example, we have clustered complete sets of world-class technologies and equipment for producing special cement, high-performance concrete, new silicon-based materials, gypsum boards, high-performance glass fiber, high-performance carbon fiber, MW-level wind turbine blades and thin-film solar cells; our T800 high-strength carbon fiber (1,000 tons), E8 high-modulus glass fiber (10,000 tons), lithium battery diaphragms (240 million m²), 100-ton high-performance silicon nitride ceramics, 1.5 mm ultra-thin PV glass, 0.15 mm ultra-thin electronic glass, 0.1 mm TFT-LCD glass substrate, 300 MW CIGS PV module and 80 MW CdTe PV module have entered the stage of mass production; key technologies developed by CNBM in relation to high-performance fiber, lithium battery diaphragms, functional ceramics, new energy material, high-performance structural material, non-metal ore and solid waste have been included in key R&D programs in the national '13th Five-year Plan', and rank among the first batch of special projects and new materials for intelligent manufacturing, green manufacturing and improving the core competitiveness of manufacturing and technological transformation.

A New Material Technology Awarded the National First Prize for Technological Progress



Recently, the project 'Application of Key Technologies for Industrialization of Dry-jet Wet Spinning of High-Strength Carbon Fiber (1,000 t/a) and IM Carbon Fiber (100 t/a)' was awarded the National First Prize for Technological Progress, marking the second time that CNBM has won this prize. The first win occurred 12 years ago.

This project aims to tackle the core technical problems in the dry-jet wet spinning of carbon fiber one by one, and build China's first line with proprietary intellectual property rights for producing carbon fiber strands (5,000 t/a) and high-strength T700 carbon fiber (1,000 t/a)/IM T800 carbon fiber (100 t/a) through dry-jet wet spinning. It has made a range of major technological achievements: creatively developing technologies for preparing a large volume of polymer dope and homogenizing dope; addressing key technologies for the dry-jet wet spinning of high-strength/IM carbon fiber strands; ingeniously developing pre-oxidation, carbonization and integration technologies for the rapid homogenizing of PAN fiber; and creating an industrialized high-strength T700 carbon fiber (1,000 t/a)/IM T800 carbon fiber (100 t/a) production system (dry-jet wet spinning) for the first time. This project has filled in the technical blank for the dry-jet wet spinning of carbon fiber in China, enabled CNBM to independently manufacture carbon fiber production equipment and improved the technical profile and industrialization of China's carbon fiber industry, thereby successfully allowing CNBM to march into the medium and high-end echelons of the global carbon fiber industry.

Nobel Prize in Physics Laureate Sheldon Glashow's Workstation Settles at CNBM (Chengdu)



If you have ever followed the TV show The Big Bang Theory, you must know the leading character well, gifted physicist Sheldon Cooper, who was modelled after famous theoretical physicist Sheldon Glashow (AAS fellow). Lately, Glashow and his team, settled his workstation at CNBM (Chengdu) Optoelectronic Materials Co., Ltd. ('CNBM (Chengdu)'). As an innovation platform for CNBM's transformation and upgrading, CNBM (Chengdu) is dedicated to the development and industrialization of CdTe low-light power-generating glass, and has formed a business pattern in which the CdTe low-light power-generating glass segment plays a core role with the support of the dissipated metal and graphene segments. As a Harvard doctorate holder and winner of the J. Robert Oppenheimer Distinguished Fellowship and Nobel Prize in Physics, Glashow is engaged in studying fundamental particle and quantized field theories. His research findings are widely used in such projects as the Super Proton Synchrotron and Spacelab, and such fields as superconducting electromagnetics, Te-based photoelectric materials and new-type magnetic materials. The settling of his workstation at CNBM will advance the development of new energy at the Triumph Group and give further play to CNBM (Chengdu)'s advantages in new-generation thin-film solar power-generating glass. In the next step, a range of innovation teams will be formed to make high-end achievements and promote emerging fields.



Collaborative Innovation

In 2017, we held a total of

10,024

patents

In 2017, we gained

197

scientific and technological awards at provincial or ministerial level or above

CNBM strives to be a leader of material technology through enhanced technological innovation and in-depth cooperation with research institutes; we produce valuable patents, accelerate the transformation of technological achievements into technical standards, and promote transformation and upgrading by making more efforts in the management, application and transformation of intellectual property; we keep improving our innovation incentive mechanisms, tap the innovation potential of technological talents by holding partnership meetings with research institutes in the cement and commercial concrete segments, enhance innovation examinations, carry forward the spirits of entrepreneurship and craftsmanship, and pay attention to fostering the innovation, engagement and patriotism spirits of excellent strategic scientists and innovation-oriented entrepreneurs in improving the quality of technological achievements, making more contributions to innovation and increasing innovation efficiency.

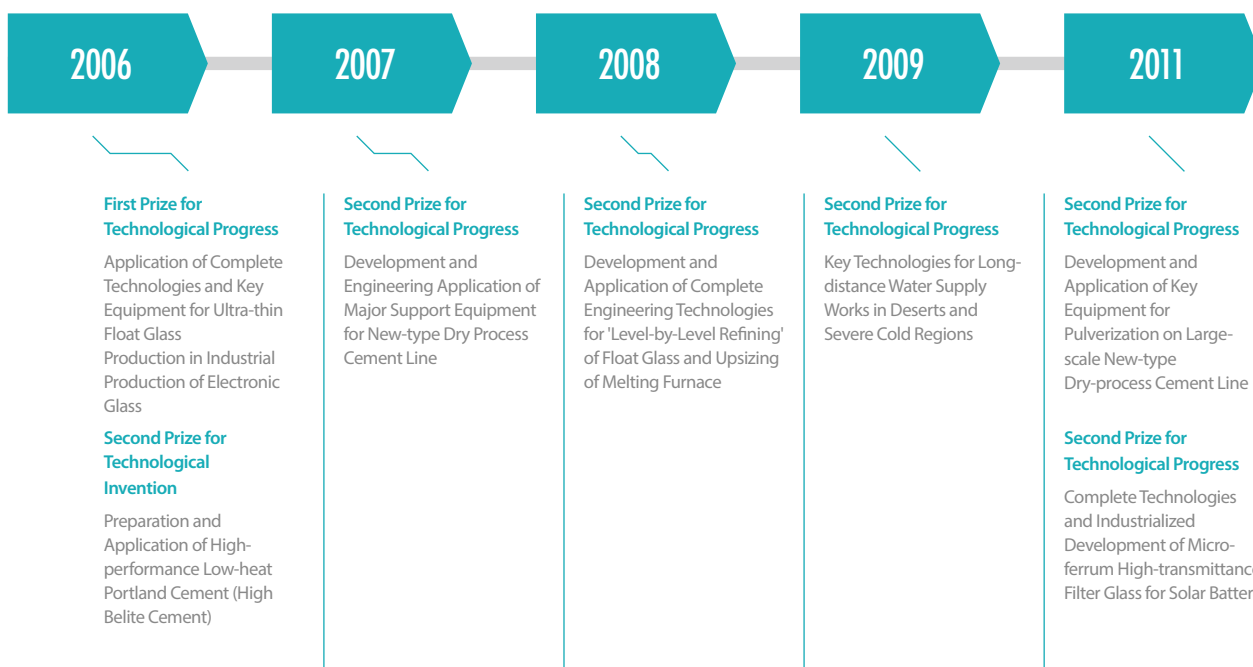
We make great efforts to promote enterprise-led technological innovation and integration. For example, the China



Winding production line of Jushi Group's Third Branch

Building Materials Academy (CBMA) has joined hands with such competitive enterprises as the Triumph Group, China Non-metallic Minerals Industry Co., Ltd., BNBK, Sinoma Science & Technology Co., Ltd., Sinoma Advanced Materials Co., Ltd., Jushi Group, Tianjin Cement Industry Design & Research Institute Co., Ltd. and Zhongfu Shenying Carbon Fiber Co., Ltd. to enhance collaborative reporting on national technological projects. Among approved projects reported under the leadership of CBMA, 14 are included in national key R&D programs and 6 are intelligent manufacturing and green manufacturing projects, covering the five sectors of important basic materials, air pollution abatement, green building materials, intelligent manufacturing and green manufacturing. In addition, 6

National Science & Technology Awards Won by CNBM since the '11th Five-year Plan'



international cooperation projects under the B&R Initiative will be reported on. In the meantime, we actively implement the Group's strategy for the integration of CNBM and research institutes. By holding the Technological Working Conference (2017), Enterprise-Research Institute Partnership Meeting (Cement and Commercial Concrete Segments) and Communication Meeting on Enterprise-Research Institute Partnership for Waste Co-processing of Cement Kilns, we address the current demands in the cement, solid waste co-processing and commercial concrete segments with technological achievements from research institutes, thereby boosting the in-depth integration, quality improvement and efficiency enhancement of the Group's business.

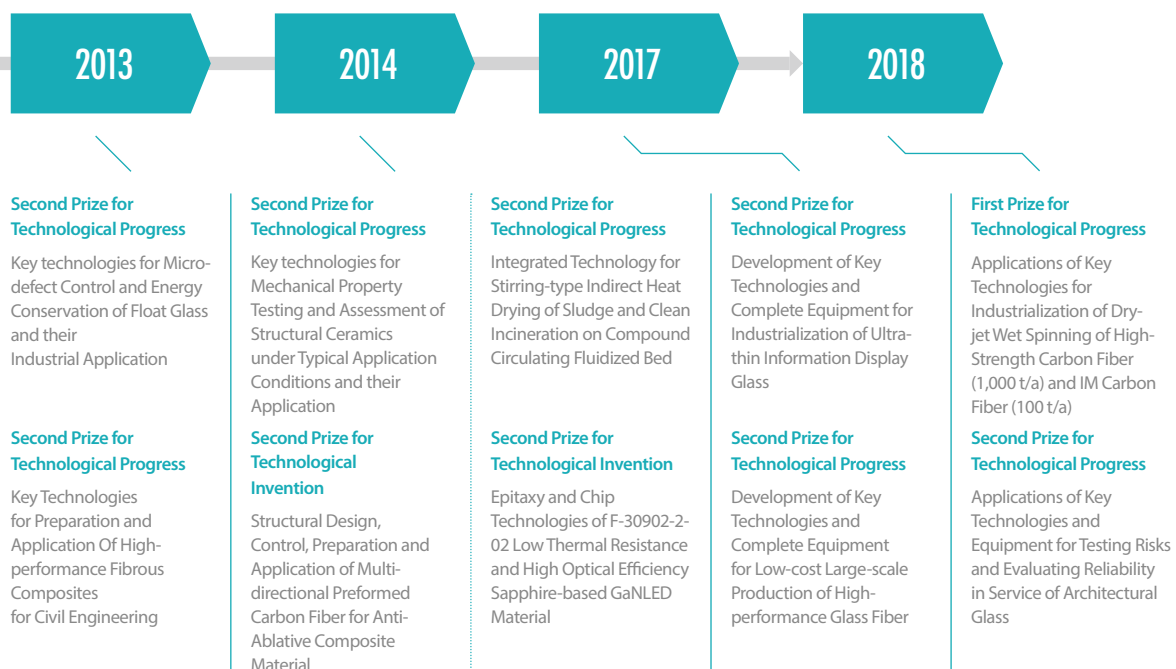
Being market-oriented, we have scientifically set our research direction on the basis of the principles of technology productization, product marketization and market efficiency. We give full play to the advantages of an integrated production-study-research platform, closely link the industry and market so as to respond to market demands without any delay, and scientifically plan our R&D direction and technical research focuses.

Our R&D achievements have solved technical problems in the production process and met the higher standards of market demands. Based on our successful engagement with the Commercial Aircraft Corporation of China Ltd., we actively promote the application of home-made carbon fiber in the field of civil aviation. As a result, a significant breakthrough has been made in applying carbon fiber to large-scale MW-level wind turbine blades, and a staged achievement has been made in applying carbon fiber to vehicle weight reduction.

Enterprise-college-research institute cooperation: Backed by 16 national accredited corporate technical centers (e.g. special cement, equipment manufacturing, glass fiber, composite materials, new-type building materials, etc.), we have further integrated the Group's technical centers and established a professional R&D department. By strengthening the leading role of the core segments and enhancing innovation in cooperation with research institutes and the transformation of technological achievements across all segments, we have built a cluster of advanced production technologies, core technical equipment and testing & certification services. With

attention paid to extensive partnerships with well-known colleges and research institutes in tackling key problems, technical cooperation, academic exchange, personnel training and achievement incubation and transformation, we have established a multi-level innovation alliance. Furthermore, we are exploring an open research system that enables public technological resources to be mobilized to tackle key difficulties of concern to the country and building material industry.

By the end of 2017, the Group had been awarded more than 10,000 valid patents, including 2,300 inventive patents, 92 new international patents and 430 innovation patents produced by front line technical workers; CBMA had also published four international standards and a range of valuable patents (e.g. high-performance carbon fiber, E-series glass fiber, lithium battery diaphragm, etc.) had been produced. In addition, to promote the sharing of technological innovation achievements throughout the Group, we organize a prize-giving technological innovation challenge in five divisions.



Sharing and Communication

We have 18 national standardization technology committees, and took the lead in establishing 4 industrial alliances. We undertake the secretariat work of standardization organizations, industrial organizations, professional societies and scientific agencies, and lead the technology innovation and industry revolution of the professional sector. We develop extensive science services. We run industrial websites and professional publications to promptly publish the latest information and share technological results and commercial messages. By building resource repositories (technical innovation institutional repository, technological results database, etc.) and information inquiry platforms, we offer multiple channels of information exchange and technical communication for building material enterprises.

We have actively built a service platform system in the open industry style, a comprehensive technical service platform system for the building material industry integrating industry-wide inspection and certification resources, industrial product quality control and technical evaluation laboratories, and a national public service

demonstration platform for enterprises. These systems provide enterprises with such services as inspection and detection, management system certification, standardization, technical product development, intellectual property and brand building, promote advanced practical technologies and provide entrepreneur services. In 2017, CNBM was awarded the 'Green Building Material Evaluation Mark' and national three-star assessment body qualification. The same year also saw the establishment of the International Technological Cooperation Platform for R&D of High-tension Insulating Material, as well as such international R&D platforms as the China-Ethiopia Material Science Laboratory and Technological Transfer & Incubation Center, and the UK-China Joint Laboratory of Advanced Building Materials. The construction of the 'overseas industry + technology + service' innovation ecosphere saw steady progress in 2017; for example, the China-Ethiopia Joint Laboratory of Building Materials and CNBM Africa Applied Technology Center were inaugurated; the construction of the China-Ethiopia Joint Laboratory of Glass Fiber was accelerated; CTC led the implementation of the national key project

In 2017

686

academic exchange activities were organized and held

In 2017

22,000

person-times of industrial technology and knowledge training were organized and held



Jinping-Southern Jiangsu ± 800 kV UHV DC Transmission Project of Sinoma Electroceramics Co., Ltd.

'Study on the Applicability of Key Building Material Standards under the Going Out Initiative'; and the extension from multilateral recognition and technological cooperation in international accreditation to quality services for overseas projects saw substantial progress.

To give full play to our role as a demonstration base of international scientific and technical cooperation, we hold domestic and overseas academic meetings, run forums, develop exchange and visit activities to provide specialists and scholars with communication and promotion platforms, serve innovation and common progress, accelerate technological upgrading and reform in the industry and related fields, and motivate technological innovations to more rapidly and effectively serve the sustainable development of society. We also undertake professional exhibitions in order to collectively exhibit and recommend new technologies and products, offering platforms and services for the industrialization of technological results, and thereby promoting technological progress and result-sharing in the industry.



Establishment of CNBM Standardization Committee



Centered on 'a country strong in quality' and standardization strategies, CNBM actively organized the establishment of a standardization committee and carefully arranged and scheduled tasks for CNBM's standard branding, corporate standard leadership and services for the innovative development of the building material industry. The first CNBM Standardization Committee consists of 45 members, with its secretariat located at the CNBM Standardization Office. By preparing a range of innovative and guiding standards, the committee will build a CNBM standard brand, boost the innovative transformation and structural adjustment of the Group, and lead business quality and efficiency improvement. Through enhanced management, it will also improve the standard management system, give full play to standardization experts and release a range of high-quality technical standards that suit the development of the Group.

Standardization has been a new engine for CNBM in growing into a world-class building material supplier with global competitiveness. Suiting the Group's development strategies, the establishment of this committee marks a new stage of standardization, a step towards systematic, normative, professional and international standardization, and a new milestone in establishing a complete standardization management mechanism matched with new standard systems.

CBMA Helps to 'Make Our Skies Blue Again'



Implemented under the leadership of CBMA, the 'Air Pollution Abatement in the Building Material Industry and Related Regulatory Policies' project is subordinate to the Ministry of Ecology and Environment's 'Brainstorm: Causes and Abatement of Heavy Air Pollution' project. As the Government's work report for 2017 states, 'make our skies blue again'. In response, CNBM concentrated its research force on the 'Brainstorm: Causes and Abatement of Heavy Air Pollution' project by putting together a team of multiple academicians and more than 1,500 researchers.

'Air Pollution Abatement in the Building Material Industry and Related Regulatory Policies' is another national project undertaken by CBMA, China's largest integrated research institute and technological R&D center engaged in studying building materials and inorganic non-metal materials, in active response to national policies. Overcoming such difficulties as limited time and heavy workload, CBMA has succeeded in preliminary demonstration and project establishment, prepared three research reports (Technologies for Air Pollution Prevention and Control in the Building Material Industry in Beijing, Tianjin, Hebei and '2+26' Cities, General Estimate Report – Pollutant Discharge in the Cement Industry, and Assessment and Analysis Report on Nodes and Abatement of Air Pollutant Production and Discharge in the Coating Industry) and five modification lists, proposed one policy suggestion and completed a few standards and codes (e.g. De-capacity Action Plan of the Cement Industry (2017-2020)).

06

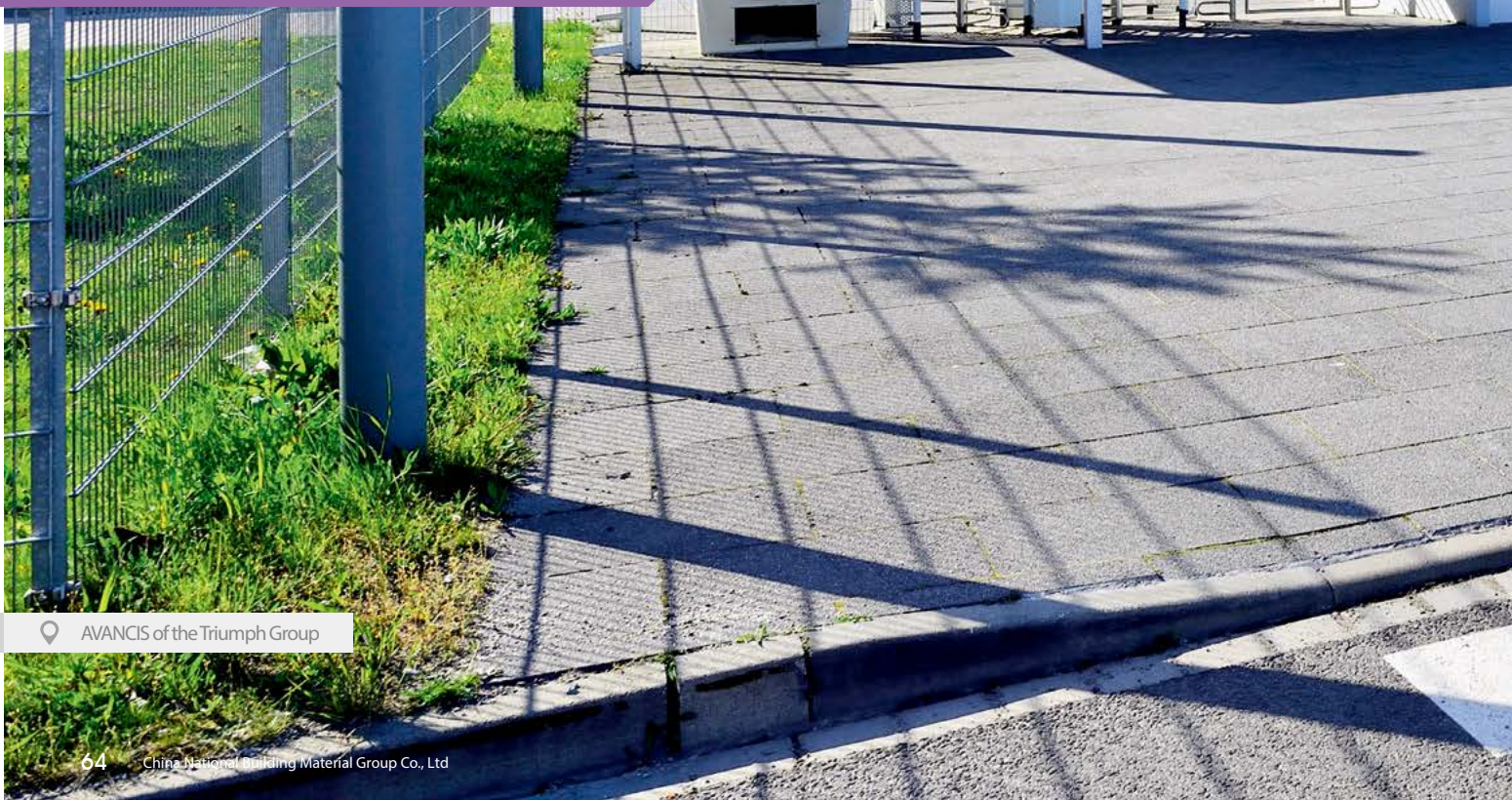
Responsibility Management



Key Points of Responsibility Fulfillment

We pay close attention to the expectations of such CNBM stakeholders as investors, government, employees, clients, partners, related groups, communities, the media and the environment. We insist on the core philosophy of 'efficient use of resources to serve the construction' and regard 'innovation, performance, harmony and responsibility' as our core values. We insist on establishing a harmonious relationship with our competitors, the ecology, our employees and society. We stress both technology and management innovation in our development, pursuing a coordinated and win-win situation with the market, environment and society, and constantly improving our capacity for fulfilling responsibilities.

Response to SDGs



AVANCIS of the Triumph Group



367

quantitative indicators of social responsibility management



6th

CNBM ranked the

among the Top 300 Enterprises in the 2017 CSR Development Index of China



55,000

person-times of exchanges with external stakeholders in 2017

Responsibility Value

Responsibility Concepts

We pay close attention to the expectations of such CNBM stakeholders, as investors, government, employees, clients, partners, related groups, communities, the media and the environment. We insist on the core philosophy of 'efficient use of resources to serve the construction' and regard 'innovation, performance, harmony and responsibility' as our core values. We insist on establishing a harmonious relationship with our competitors, the ecology, our employees and society. We stress both technology and management

innovation in our development, pursuing a coordinated and win-win situation with the market, environment and society, and constantly improving our capacity for fulfilling responsibilities. We perform our social responsibility in the five aspects of Market Performance, Technological Innovation, Energy Conservation and Environmental Protection, Employee Care and Corporate Citizenship. We are committed to becoming a world-class building materials industry group with outstanding global competitiveness.

Responsibility Topics

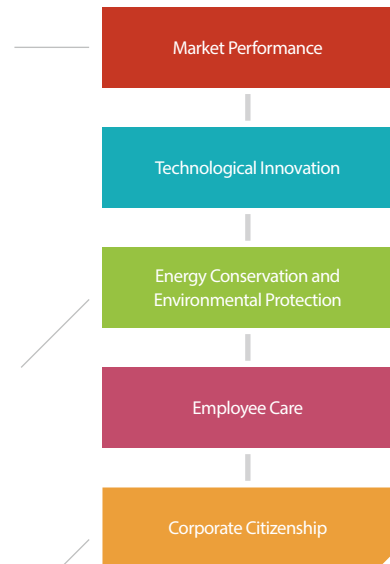
With reference to the 'Triple Bottom Line' principle, we decompose and summarize the interests of our various stakeholders, and combine the characteristics of the Group's operations with those of the daily management system in order to define the five frameworks of responsibility: Market Performance, Technological Innovation, Energy Conservation and Environmental Protection, Employee Care and Corporate Citizenship.

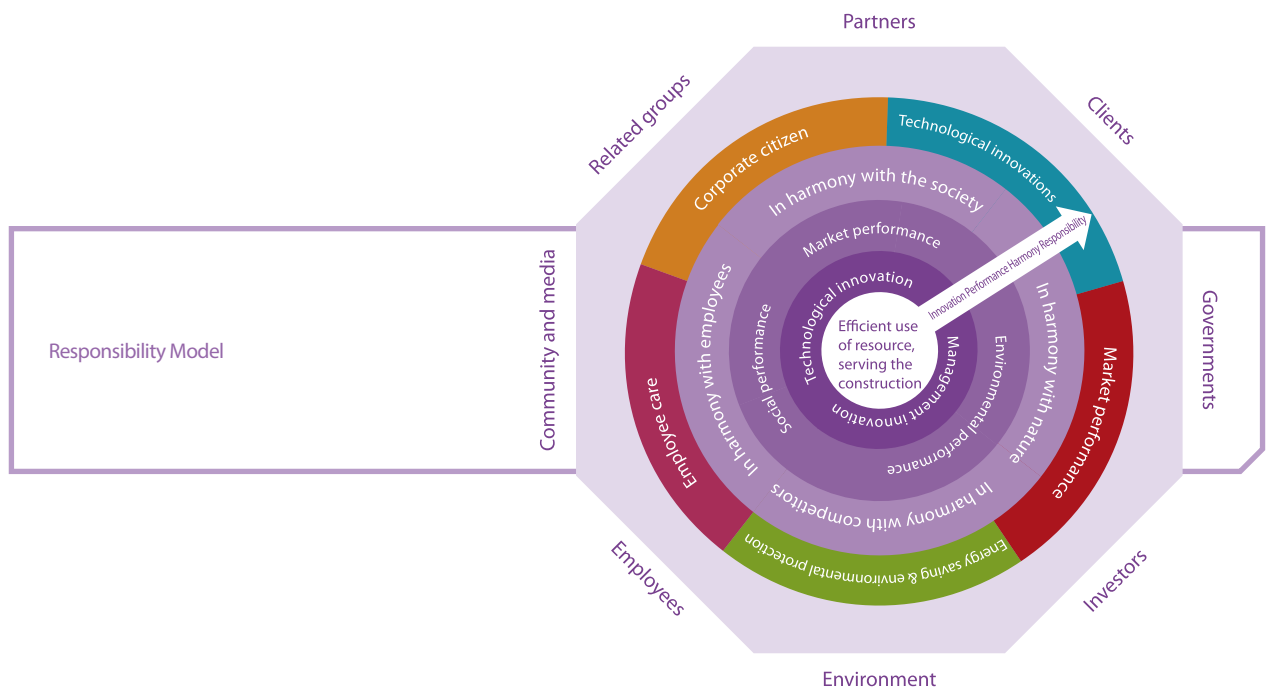
Social Responsibility Topics of CNBM

We proactively advance high-quality development, reward our shareholders and investors with excellent operating results, serve our clients with quality products and services, pursue mutual growth with our suppliers and industrial partners, and provide a platform for all our stakeholders to create value. Meanwhile, upholding the philosophy of 'industrial interests outweigh corporate interests', and deepening supply-side structural reform, we endeavor to accelerate the structural transformation and upgrading of the industry, and seek to achieve mutual development and win-win results with the industry and our peers in the same industrial chain.

By upholding the philosophy of green development, we comprehensively utilize industrial and urban waste, producing low-carbon products with minimized consumption and emissions. We are committed to providing reliable and green building materials, sharing effective green technology and management experience, exploring development modes for the harmonious coexistence of industries and nature, and advocating the sustainable development of industries and society.

We pay attention to fulfilling community responsibility, emphasize local operation, further the development of the 'Belt and Road' Initiative, and pursue mutual development and growth with the regions in which we operate; we reward society through characteristic public welfare undertakings; by participating in voluntary services, we practically perform the social responsibility of a corporate citizen; and in order to help intensify poverty alleviation, we help people increase their confidence in their own ability to lift themselves out of poverty through working in pairs, ensure that they can access the education they require to do so and reduce poverty through industrial development.





Responsibility Focus

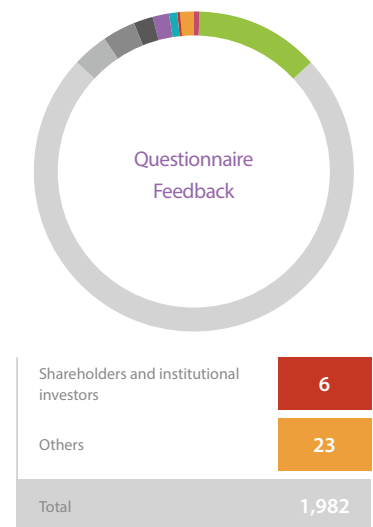
We take up the task of industrial innovation with our strong scientific prowess, advance industrial transformation and upgrading with our forward-looking vision and advanced technology, disseminate and share technical information, devote ourselves to creating a greener, more comfortable and more intelligent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

We adhere to the people-oriented principle, strive for an intrinsically safe company, pledge to safeguard the rights of our employees, respect their differences and make the Company a reliable partner and a happy and comfortable home for our employees. We will build a brighter and more sustainable future with all our employees and deliver happiness to society.

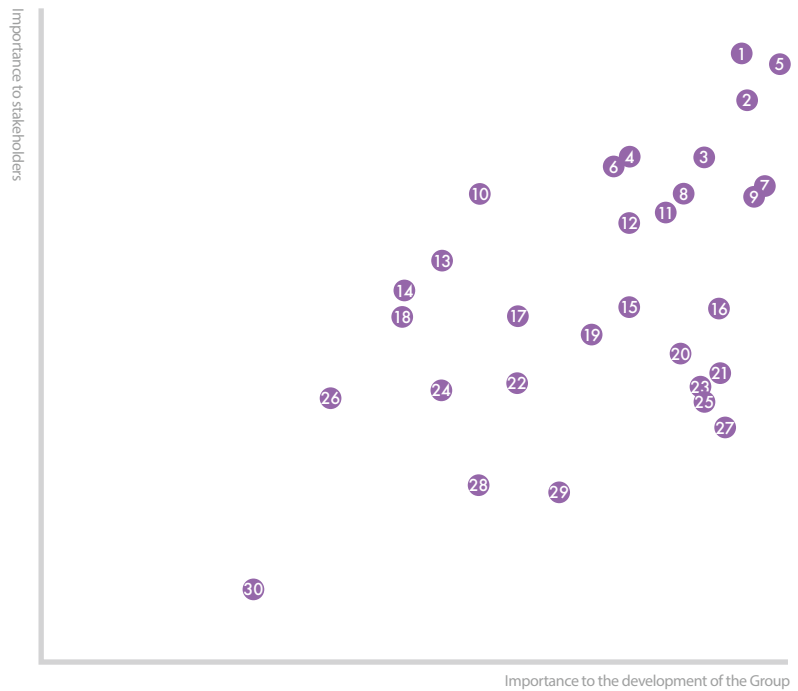
Focusing on the five core issues, we have further clarified 30 secondary core issues by analyzing the latest national macro policy guidance, latest domestic and international indicator systems, and current status of industry and Group development. In order to better understand the opinions of our stakeholders, we have specially designed questionnaires and pushed them through

the Group's official micro-blog platform. We have received a total of 1,982 valid questionnaires and sorted the topics according to the results. By analyzing the two-dimensional matrix of 'importance to stakeholders' and 'importance to the development of the Group', we have identified the substantive issues in the Group's social responsibility.

Senior managers from Group Headquarters	12
Senior managers from member enterprises	251
Employees	1,464
Suppliers	69
Customers	68
Partners and peers	37
Government departments and industry associations	34
Financial institutions, non-governmental organizations, news media, etc.	18



Survey Results of the Core Issues in CNBM's Social Responsibility



- 1 Credit management
- 2 Quality control
- 3 Market performance
- 4 Brand building
- 5 Occupational safety
- 6 Anti-corruption
- 7 Energy conservation
- 8 Risk prevention and control
- 9 Technological innovation
- 10 Comprehensive utilization of resources
- 11 Staff development
- 12 Normative governance
- 13 Responsibility management
- 14 Equal employment
- 15 Party building activities
- 16 Industrial development driving force
- 17 Green services
- 18 Democratic management
- 19 Co-processing capacity
- 20 State-owned enterprise reform
- 21 Supply-side structural reform
- 22 Intelligent manufacturing
- 23 New material industry development
- 24 Supply chain management
- 25 Global cooperation
- 26 Social welfare
- 27 Addressing climate change
- 28 Targeted poverty alleviation
- 29 Community integration
- 30 Voluntary activities

Social Responsibility Planning (2018-2020)

Responsibility values

- Deepen the concept of responsibility
- Deepen the integration of responsibility and business operations
- Deepen the overall accountability mechanism

Responsibility management

- Strengthen the top-level design of social responsibility
- Improve the social responsibility management organizational system
- Strengthen social responsibility talent training
- Improve social responsibility performance evaluation

Responsible communication

- Strengthen communication with stakeholders
- Create an influential and sustainable brand of responsibility
- Conduct rich activities relevant to responsibility
- Create a normalized responsibility communication platform with related parties

Responsibility sharing

- Enrich the social responsibility management platform
- Conduct social responsibility benchmarking
- Reinforce responsibility research
- Strengthen external promotion
- Promote the preparation of member companies' social responsibility reports

Responsibility System

We include social responsibility management in the strategy, overall plan and day-to-day operations of the Group, and identify organizations, objectives, measures and priorities for improvement so as to continuously improve our performance level.

P

Organizations

We take the leading organization of social responsibility as the core of the 'CNBM Leading Group for Promoting Social Responsibility' headed by the Chairman. The highest leading organization for promoting CNBM's social responsibility endeavors, the Leading Group is in charge of guiding and promoting social responsibility initiatives.

We take the functional social responsibility management organization of the Headquarters as the connection through which to direct and advance member companies in strengthening their social responsibility management and actively performing their responsibilities. According to the division of businesses, the functional departments of the Headquarters work in coordination to advance special tasks.

With the member companies at all levels as the nodes, and according to the unified requirements of the Headquarters, we define the functional departments and assign management personnel to formulate the social responsibility plans and schemes of the Group, satisfy work requirements and actively perform responsibilities.

D

Competency Improvement

We have issued and are implementing the CNBM Guiding Opinions on Social Responsibility Fulfillment, CNBM Administrative Social Responsibility Fulfillment Measures and CNBM Social Responsibility Management Information Collection Measures so as to systemize, institutionalize and standardize our social responsibility management.

The 'CNBM Social Responsibility Management Information System' is maintained for the online management of information concerning social responsibility fulfillment and social responsibility administrators. The system covers more than 1,000 member enterprises.

We have established a CNBM-style social responsibility indicator system which is divided into 4 classes and consists of 367 indicators. This system contains the core indicators of non-metal mineral products, thereby assuring the completeness of our social responsibility report.

The social responsibility teams of our member enterprises are improved in terms of quality and professional proficiency by means of publicity and training. The practice of social responsibility fulfillment is promoted by cultivating and selecting highlighted cases. On March 15th, 2017, we invited experts from the Economics Department of the Chinese Academy of Social Sciences (CASS) to conduct social responsibility training for member enterprises. The training covered the introduction of corporate social responsibility and preparation of the social responsibility report, and helped to promote the responsibility and professionalism of the social responsibility management personnel.

C

Performance Evaluation

We prepare and issue an annual social responsibility report in order to continuously improve our social responsibility fulfillment capability and improve our management through the procedures of preparation, benchmarking and assessment. The report is published regularly and information concerning our social responsibility fulfillment development released irregularly in a special column on our website, constituting an information disclosure system and establishing an effective communication platform.

We selectively take part in external performance evaluations; implement comprehensive evaluation and benchmarking in such special aspects as report quality, responsibility performance, responsibility management, etc.; pay attention to the social responsibility progress and effects of international and domestic enterprises, industries in which we operate, enterprises in the supply chain and other related enterprises; learn from the strong points of others in order to offset our own weaknesses; and carry out continuous improvement.

In the process of promoting the integration of social responsibility and group management, a 'six-star enterprise' evaluation system for social responsibility assessment and evaluation has been formed, including good performance, refined management, first-class environmental protection, well-known brand, excellent Party building, security and stability. Member enterprises continue to improve their social responsibility implementation level by striving to become six-star enterprises. In 2017, 18 member enterprises were evaluated as 'six-star enterprises', thus becoming exemplary enterprises of the Group.

A

Continuous Improvement

We give full play to the talent resources of the management experts within the Group and take their suggestions and advice in terms of adjustments to our social responsibility concepts and strategies, preparation and revision of management systems, and establishment and quantification of the social responsibility indicator system, thereby ensuring the feasibility and operability of our social responsibility management mechanism.

We establish cooperation with professional institutes, grasp the latest development tendencies of social responsibility at home and abroad, deeply 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 are gradually extending from endogenous responsibility management to outward-facing responsibility management (e.g. responsibility-themed branding activities, responsibility-themed in-depth communication and responsibility-themed publicity) so as to enable the responsibility system to generate inside-out effects and drive more interested parties to fulfill their social responsibility.

By exploring evaluation mechanisms, we continuously improve the frequency and quality of our member enterprises' annual social responsibility reports in order to make the fulfillment of social responsibility a systemic and regular activity in the Group.

Responsibility Communication

Communication is the best way to enhance mutual understanding and trust. Open to supervision, we acquaint our stakeholders with how social responsibility is fulfilled at CNBM through active and effective communication, thereby improving our operational transparency. We also continuously improve our social responsibility management by promptly engaging with opinions and suggestions from internal and external interested parties.



Chinese and foreign employees hold discussions

Nearly

55,000

person-times of CNBM employees participated in communication with external stakeholders in 2017

7,569

person-times of corporate senior management participated in communication with external stakeholders in 2017

78,000

person-times of employees participated in training related to social responsibility in 2017

Communication with Stakeholders

Communication with Stakeholders

Multi-dimensional communication system

Continuous participation of senior management

We take the demands of our stakeholders as the core focus. We analyze and streamline our objects of responsibility according to the principle of the 'Triple Bottom Line', and categorize them according to influence, dependency, representativeness and so on. Through this process, we have finally identified our eight core stakeholders. Based on the concerns of the stakeholders, we

resolve and identify the core topics of responsibility performance, and respond to the demands of our stakeholders through responsibility performance. We regard communication with stakeholders as a core part of social responsibility management, and have established a timely, transparent and systematic communication system.

Multiple fields: We integrate the concept of social responsibility into our daily work and communication while combining and unifying our business communication and responsibility communication.

and grass-roots staff as important stakeholders of internal interest, and facilitate timely feedback by offering convenient and democratic information channels.

Multiple forms: We keep in touch with stakeholders through such operable and unblocked means as questionnaires, special visits and online communication.

Multiple angles: The positive and negative evaluations of the stakeholders are regularly collected and arranged by means of public opinion collection and media information mining so as to analyze our shortcomings more comprehensively and objectively for the purpose of continuous improvement.

Multiple objects: In addition to communication with external stakeholders, we identify international management experts

The senior management of CNBM continuously participates and constantly communicates with our stakeholders. As the main force of responsibility communication, the top management personnel pay close attention to responsibility communication

and personally take part in responsibility communication activities at different levels and in various dimensions. Significant communication results are achieved through regular/irregular symposia, the leaders' mailbox and employee assemblies.

Responsibility Communication System of CNBM

Stakeholders	Communication Modes	Focuses	Response Measures
Investors	Regular reports Corporate reports Marketing activities Dialogue with and feedback from shareholders Interaction on new media and Internet platforms	Enterprise performance Interests of shareholders and creditors Ensuring the truthfulness, accuracy, timeliness and integrity of information disclosure Sustainability of development	Continuous quality operation Improving the information disclosure mechanism Increasing corporate value Regulating corporate governance Improving relations with investors
Government	Releasing laws and regulations Special reports and visits Information submission Evaluation of work targets Industry association	Corporate governance Requirements for safety, environmental protection and compliance Supply security Offering employment opportunities Boosting regional economic development Combating climate change	Lawful operation and implementation of national policies Sustainable quality operation Paying taxes Offering employment opportunities Adhering to green manufacturing
Clients	Meetings and consultation with clients Market surveys Daily contact Client feedback mechanism Telephone service Interaction on new media and Internet platforms Product packaging information	Corporate integrity Client relations Product and service quality Product innovation Health and safety	Offering high-quality products and services Advocating green consumption Improving quality management Protecting clients' privacy Implementing scientific and technological innovations Advocating sustainable consumption Standard safety and environmental protection management
Partners	Contract negotiation Bidding sessions Management meetings Correspondence exchange Daily business communication Interaction on new media and Internet platforms	Price and timely payment Long-term partnerships Profit distribution Information and resource sharing Integrity and mutual benefits Risk prevention	Honest operation Promoting suppliers' responsibility fulfillment Building effective partnerships Building an effective communication mechanism
Employees	Staff representatives' congress Factory affairs publicity Employment contracts Rationalization proposals Normal communication Petitions Interaction on new media and Internet platforms	Enterprise performance Corporate governance Employees' rights and interests Career development planning Complaint handling Occupational health Democratic management Factory affairs publicity	Excellent operation Protecting employees' rights and interests Offering competitive remuneration Improving employees' benefits Intensifying employee training Offering a safe working environment and health security Establishing effective communication Improving democratic management
Communities and media	Signing public welfare agreements Taking part in voluntary services Daily contact Open days Media interviews Interaction on new media and Internet platforms	Planning Environmental protection and combating climate change Jointly building a harmonious community Occupational health and safety	Establishing and improving the safety and occupational health management system Increasing input Timely information disclosure Increasing participation in public welfare Participating in community activities Promoting green production and protecting the ecological environment
Social organizations	Taking part in regular meetings and activities Daily contact Interaction on new media and Internet platforms	Environmental protection Jointly advocating sustainable development	Playing the role of a member Offering economic and technical support Building cooperation relationships

Responsibility Sharing

Responsibility Leadership

CNBM promotes the popularization and implementation of global responsibility concepts through a range of increasingly diversified and international platforms. In 2017, Chairman Song Zhiping was elected as the founding chairman of the World Cement Association, representing Chinese cement companies and their global peers in discussing the sustainable development of the industry.

We recognize and abide by the ten principles of the Global Compact, and strive to contribute to the achievement of the UN Sustainable Development Goals; we actively take part in social responsibility sharing and advocacy activities in different fields, participate in the initiation of the 'China Social Responsibilities 100-person Forum' and disseminate concepts, share experience and sponsor initiatives through 'Golden Bee', the China Federation of Industrial Economics, China Building Materials Federation, China Building Materials News, etc. Through continuous sharing, study and discussion, we make efforts to be a disseminator and advocator of social responsibility, and seek better ways of pursuing sustainable development on the basis of cooperation.

We attach importance to responsibility research. We have jointly formulated the Guidelines for the Preparation of Corporate Social Responsibility Reports in China 4.0 – Nonmetallic Mineral Products Industry with the CSR Research Center of the Chinese Academy of Social Sciences, offering management and practice resources, and serving the study, publication and promotion of social responsibility standards. To actively meet the government's requirements for combating climate change, we participate in research into Chinese enterprises' determined contributions to combating climate change, share low-carbon development practices and guide the building material industry to create a new green development outlook.

Supply Chain Promotion

We promulgated and implemented the 'Supplies Procurement Management Approach of CNBM', implemented the access system for supplier management, set up the threshold for entry and conducted supplier evaluation under the same conditions so as to fully protect the equal rights of small and medium-sized suppliers. Fulfilling social responsibility is included in our supplier evaluation system. Our suppliers are dynamically evaluated in terms of legal compliance, environmental protection and the protection of the rights and interests of laborers. We urge our suppliers to continuously improve their product quality and supervise and encourage them to pay attention to the physical and psychological health of their staff. In each bidding for production line construction, such issues as safety, energy conservation and environmental protection are essentially included in the bidding documents. During construction, we pay constant attention to occupational health, safe production and the protection of the basic rights of the staff. By deeply integrating the concept of responsibility into supplier evaluation, product design and strategic cooperation, we guide our suppliers, customers and partners to carry out responsibility management

concerning value chain activities, and serve as a leader of sustainable development on the value chain. We have integrated the concept of social responsibility into our procurement management. We adhere to 'sunshine procurement' and spare no efforts to eradicate commercial bribes in procurement by promoting regional procurement bidding integration, bidding process normalization, bidding performance transparency and information-based bidding management. We implement the local purchasing of bulk raw materials and fuel in order to reduce transportation costs. We implement green procurement: in our procurement of raw materials, we give priority to products that are produced in low carbon and environmentally friendly ways, and cause a lower degree of damage to the environment; when selecting energy, we choose clean energy and vigorously promote the use of such non-fossil energies as low-grade energy, municipal refuse, biomass energy, etc.; and when choosing daily office supplies and other consumer goods, we prefer products that have simple packaging and are convenient for recycling.

In 2017, CNBM reviewed

21,000

suppliers

34.7

%

of suppliers engaged in long-term cooperation with member companies of the Group passed environmental management system certification in 2017

In 2017, cooperation with

43

suppliers was terminated due to their non-compliance with social responsibility

In 2017

61

potential suppliers were rejected due to their non-compliance with social responsibility

Responsibility Supply

In 2017, the bulk sales ratio of cement was

61.1

%

In 2017, our suppliers carried out

13,8000

person-times of training in such aspects as safety, energy and law

In 2017, the rate of responsibility-based procurement reached

95.2

%

We also optimize the supply of the industrial chain. We continuously advocate the policy of simple packaging. We insist on promoting bulk packaging for cement products and bare packaging for glass products. We seek to maximize the use of recyclable packing materials so as to reduce waste while ensuring the quality and transportation safety of the products.

We adopt a green sales model. We reduce resource occupation and improve marketing efficiency through establishing modern logistic parks and rational plans for supply, marketing and logistics. Several member enterprises of Hunan South Cement Company Ltd. use their regional advantages to integrate port shoreline resources and build docks, transit storage and transportation projects to ease transportation pressure and

improve the development environment in the surrounding areas. We provide online transaction services for worldwide building material products and reduce the carbon released by the business travel of clients and sales personnel through establishing an online marketing platform.

By deeply integrating the concept of responsibility into our regionalized operation and course of internationalization, we extend the social responsibility management system to the overseas fields and regions in which we invest, operate and offer services. Based on cultural respect and legal compliance, we disseminate advanced technologies, help local economies to prosper, establish service areas, cultivate a responsible image and play a leading role in the development of responsibility culture.

Milestones of Sustainable Development in 2017

The China Building Materials Group Corporation 2016 Sustainability Report was released. The Research Center for Corporate Social Responsibility of the Chinese Academy of Social Sciences awarded it with another consecutive 5-star rating, the highest rating for domestic social responsibility reports.

The Research Center for Corporate Social Responsibility of the Chinese Academy of Social Sciences released the Research Report on Corporate Social Responsibility of China (2017). CNBM ranked 6th in the list of the Top 300 Chinese enterprises with a high score of 91.8 and was named a 'Five-Star Enterprise' in terms of the corporate social responsibility development index, maintaining its position among the 'Excellent Enterprises'.

The Research Report on the Corporate Social Responsibility of Central Enterprises was released, and the case of CNBM's 'From Big to Great' was selected for inclusion in the chapter on developing excellent main businesses.

The sustainable development results of the Triumph Group, a member enterprise of CNBM, was recognized in the 'Chinese Business Best Practices for Achieving UN Sustainable Development Goals in 2017'.

In January 2017

CNBM was named a 'Five-star Social Responsibility Fulfiller of China's Industries (2017)' by the China Federation of Industrial Economics, and awarded the 'Corporate Social Responsibility Reports - Best Report Manager' prize by the Chinese Academy of Social Sciences.

On June 13th

On June 16th

The Report on the Independent Contribution of Chinese Enterprises to Addressing Climate Change (2017) was officially released in Beijing. Two excellent cases of CNBM were selected for the research report: the 'Responsibility for Blue Sky' Action Program of CNBM and 'Responding to Climate Change and Developing the Three-new Industries' of Beijing New Building Material (Group) Co., Ltd. (BNBM Group), Beijing New Housing (Group) Co., Ltd. and the Triumph Group.

In November

On November 8th

The China Social Responsibility 100 Forum released the Research Report on Poverty Alleviation of Chinese Enterprise (2017), and the 'He Bao Dan E-commerce Targeted Poverty Alleviation Project' of the CNBM Import and Export Corporation was named an 'Excellent Case of Enterprise Poverty Alleviation'.

In December

From December 11th to 12th

CNBM Chairman Song Zhiping attended the first meeting of the World Cement Association and was elected as its founding chairman. He thus became the first Chinese entrepreneur to be elected as the chairman of a world-class industry association among China's large-scale basic industries.

On December 19th

The Road to Reform

The year of 2018 marks the 40th anniversary of the launch of the reform and opening policy up in China. As CPC General Secretary Xi Jinping pointed out at the opening ceremony of the 2018 Boao Forum for Asia, in 1978, on the initiative of Mr. Deng Xiaoping, China embarked on reform and opening up in the wake of the 3rd Plenary Session of the 11th Central Committee of the CPC. This campaign has developed from the countryside to cities, from experiment to promotion, and from economic system reform to in-depth comprehensive reform, witnessing 40 years of unity, struggle and radical change. Chinese people have written a beautiful chapter of national development with their own hard work.

A drop of water can reflect the glory of the sun. As a spoo drift of the reform wave, CNBM was born from Deng's care. By seizing the historical opportunities arising from reform and opening up, the Group has blazed its own trail of reform and growth.

Birth
BNBM

1979

Deng's Care

BNBM's predecessor the Beijing New Building Materials Testing Factory ranked among the first batch of projects to be introduced after the launch of reform and opening up, and was founded under Deng's care. In August 1979, while inspecting a model house built with new-type building materials in Zizhuyuan, Deng required the construction of a factory for the mass production of new-type building materials as soon as possible. To meet this requirement, the Beijing New Building Materials Testing Factory was subsequently founded. According to the plans, covering an area of 1 km², the factory would be an integrated enterprise engaging in the manufacture of prefabricated parts, gypsum boards, rock wool, asbestos facade panels and plastic floor panels, serving the construction of 600,000 m² of buildings every year in the industrialization mode.



Listing
BNBM

1994

Involvement in the 'Experiments in 100 SOEs'



In 1993, a critical year for the bailing out of enterprises in which BNBM suffered badly, Song Zhiping stepped in as Factory Manager. Initially contributing RMB 10,000, he organized a fundraising activity and called on all the staff to take part. Eventually, RMB 4 million was collected to support the continued running of the factory. In November 1994, the State Council launched a project named 'Experiments in 100 SOEs' which involved conducting experiments in the modern corporate systems of 100 selected SOEs, one of which was BNBM, so as to build a modern corporate system featuring clearly-established ownership, clearly-defined rights and responsibilities, separation of administrative functions

from enterprises and scientific management. On June 6th, 1997, BNBM went public. Following this listing, BNBM made it through the growing pains of SOE reform by building a modern corporate system and introducing 5S and TQC.

Breakout
BNBM

1984

Gypsum Board Sales

Around this time, BNBM introduced production lines and technologies from Europe. A promotion department was also established to promote technologies among design institutes all over the country. Designed by Americans, the Great Wall Hotel is Beijing's first building to use many gypsum boards. After inspecting the production line, the American designer who visited BNBM said with a sigh that the existence of such a good factory in China was beyond his expectations. Among the ten or so cities that first opened on the coast of China, Shenzhen, Guangzhou and Xiamen were the first major gypsum board consumers. In light of this, BNBM exploited markets from south to north. With the increasing opening up of such markets, BNBM performed better and better in acclimatization.



Orientation
CNBM

2003

Renaming



In 2002, Song Zhiping took up the post of General Manager of the China New Building Materials (Group) Company. At a strategic seminar, the attending experts agreed that in order to become stronger, the company must engage in the cement segment, which at that time accounted for 70% of the GDP of the building material industry. In the same year, the company was renamed 'China National Building Materials Group Corporation'.

Set sail
CNBM

2006

Listing in Hong Kong

The year of 2004 witnessed CNBM shift onto the right track through debt restructuring and strategic transformation. In March 2005, CNBM merged two A-share member enterprises (BNBM and China Fiberglass) and several profitable enterprises into China National Building Material Co., Ltd., which was listed on the Hong Kong Stock Exchange in March 2006. During roadshows, our promoted new-type building materials and other products failed to catch the attention of investors, who were mainly focused on the cement segment. This defined the direction of the subsequent large-scale merger. Through the IPO and three new issues, a total of HKD 11 billion was collected from society. This limited amount funded the large-scale merger.



Merger
CNBM

2007-2011

Large-scale Integration of the Cement Segment

Around 2007, almost all the cement enterprises in Zhejiang were making losses because the market was rudderless with vicious competition. As such, in the same year, Song Zhiping invited the presidents of four cement enterprises, which constituted half of Zhejiang's cement market, to drink tea at Wangzhuang by West Lake. During the meeting, Song explained CNBM's concepts and proposed that the health of the market could be restored only if the cement enterprises in the province united under the leadership of CNBM. Giving adequate consideration to private enterprises' mood and interest, CNBM served 'three dishes of beef' under the 'win-win cooperation' concept: fixing prices in a fair and reasonable way, reserving shares for private entrepreneurs and providing entrepreneurs with opportunities to become professional managers. The meeting is renowned in the cement industry as the 'Wangzhuang Talks'. Subsequently, South Cement Company Limited was founded on September 26th, 2007. In just three years since then, the company merged nearly 150 enterprises and formed a cement capacity in excess of 100 million tons from scratch. After learning about this achievement, then Shanghai Municipal CPC Committee Secretary Xi Jinping wrote a personal letter of congratulations, which mentioned such keywords as 'strategic integration', 'regional cooperation' and 'joint development'. The following years saw how CNBM conducted the merger in accordance with these keywords. As a result, North Cement Company Limited and Southwest Cement Company Limited were founded in 2009 and 2011 respectively. Attributed to the wind-like action of merging nearly 1,000 enterprises in just a few years, CNBM became the world's largest cement supplier in one leap, earning the name 'Cement King' in the media and creating a miracle in global cement history. In particular, this large-scale merger pool was included in the case pool of Harvard Business School. As CNBM took the lead in the merger, the capacity concentration rate of the cement industry rose from 12% (2006) to about 63%, and a healthy industrial pattern featuring orderly competition was restored; for example, the cement industry made a profit of nearly RMB 90 billion in 2017. Parallel with the merger, CNBM took the initiative to close down outdated and excess production facilities, promoted the slimming of cement production, passionately advocated co-competition, promoted voluntary production limiting and off-peak production, and restored reasonable product prices. These actions constituted an effective booster for the healthy and stable development of the cement industry.

Mixing
CNBM

2008-2017

Development of Mixed Ownership

During the merger, CNBM blazed a trail of developing the mixed ownership economy and pursuing mutual growth with private enterprises. Under the principles of 'normative operation, mutual benefits, mutual respect and longstanding cooperation', we developed a growth pattern featuring capital operation, mergers, management integration and integrated innovation, thereby answering the question of where to obtain funds, resources, scale effect and technologies. In addition, we fostered a mechanism advantage through the 'market-oriented operation of COE', attracted private enterprises with the 'three dishes of beef', deepened ownership reform at the back of the 'three levels of mixes', and designed the shareholding structure under the '3/7 rule'. In the meantime, we improved corporate governance by introducing activist shareholders, promoted harmonious development by creating an 'inclusive culture', and guaranteed the effect of reform through 'management improvement'. Attributed to this in-depth market-oriented reform, industrial structure adjustment and successful engagement with thousands of private enterprises, this 'grass-roots COE', which once suffered terribly, managed to leap into the Fortune Top 500.



2016

Merger of CNBM and Sinoma

On August 26th, 2016, the original CNBM and Sinoma were merged into the new CNBM. For the merger, we made a 'three-step' general plan. These three steps, which were independent of but overlapped with each other, satisfactorily fixed such problems as the highly difficult integration of listed companies and horizontal competition in segments in a level-by-level, link-to-link way.

The first step

The first step was the strategic positioning at the levels of the Group and secondary segments. The new Group defined the strategic vision of being 'a world-class building material supplier with global competitiveness' and the strategic positioning of being 'a leader of industrial integration, innovator of industrial upgrading and pioneer of international capacity cooperation'. On this basis, we completed the 'four optimizations' (Group strategy, HQ organization, secondary platforms and institutional system) in accordance with the concepts of business integration, streamlining, asset optimization and refocusing, and conducted the 'six integrations' (integration of brand cultures, integration of listed companies, integration of the cement segment, integration of international projects, integration of business and finance, and integration of business and research institutes).

The second step

The second step was the merger of two H-share companies listed in Hong Kong (known as the 'sub-merger of CNBM and Sinoma' in the capital market). When it was launched in July 2017, a merger scheme using a split-off ratio of 1:0.85 was defined. At either of the shareholders' meetings held by the two companies on December 6th, 2017, while the majority shareholders were absent from voting in line with the challenge system, more than 99% of the minority shareholders agreed to the merger, setting a new record among recent mergers completed in capital markets. So far, the merger has achieved great success; the new Group (H-share) has officially gone public at the Hong Kong Stock Exchange, and the first board meeting was held on May 3rd, 2018. To perform its duties to the stakeholders, the new Group assigned directors and supervisors to China National Building Material Co. Ltd. while recommending independent directors and supervisors, and proposed a candidate to serve as president. The company is currently adjusting the assignment of its middle-level cadres and employees under the principle 'job grades maintained, compensation maintained'.

The third step

The third step is the optimization and merger of segments with horizontal competition. Under the refocusing principle, by developing a large industrial structure around the core segments, each of our subsidiaries strives to be a professional medium or large-scale listed company ranking in the Top 3 worldwide. In the meantime, adhering to the logic and rules of the capital market, we are integrating homogeneous segments in different ways and forming a pattern in our listed H-share companies in which the cement, new material and engineering service segments constitute a tripod, thereby improving our capabilities in capital operation, mergers and integration. As a result, the value of the listed companies has been maximized.

The seamless merger of CNBM and Sinoma has had a significant synergistic effect and met the expectations for '1+1>2'. For these reasons, we have become much stronger and achieved outstanding performance in scale, technological R&D, reform deepening and internationalization.

The 'three curves' in our new industrial layout (first curve: structural adjustment and technological progress in the basic building material segment; second curve: development of the new material segment; third curve: service-oriented transformation of the manufacturing) were deduced from British management expert Charles Handy's 'Second Curve' theory. Along the 'three curves', CNBM takes the road of enterprise-research institute cooperation, and pursues high end, integration, accelerated industrialization and relevance in technological innovation. The sudden rise of the new material segment has been a strong booster for the innovative development of the Group. In 2017, as the new material segment made a total profit of nearly RMB 7 billion, such new materials as T1000 carbon fiber, lithium battery diaphragms, high-performance silicon nitride ceramics, CIGS thin-film solar modules, CdTe thin-film solar modules, EHV mixed electric porcelain insulators and ultra-thin electronic conduction display glass have entered the stage of mass production, and the High-performance Carbon Fiber Industrialization Project (1,000 t/a) undertaken by Zhongfu Shenyang Carbon Fiber Co., Ltd. was awarded the National First Prize for Technological Progress.

In 2017, the new material business realized total profit of nearly

7

billion RMB



CNBM Overseas Warehouses in Dubai

2017

Sudden Rise of the New Material Segment



The first large-area cadmium telluride film weak power glass rolls off the assembly line

Fruitful Internationalization

In process of accelerating internationalization and deeply exploiting large markets under the 'Belt and Road' Initiative, CNBM has founded enterprises and organizations abroad, extended its business to more than 160 countries and regions in six continents, and captured a market share of 65% in the cement and glass production equipment market. We are active in conducting innovation under the 'Belt and Road' Initiative. First, we develop strategies suiting local conditions by selecting different business portfolios to meet demands of different countries. Second, we establish bases by deeply exploiting regional markets, highlighting core segments and expertise, and adequately conducting business diversification in line with the requirements for meticulous market development, precise services, optimized technologies and refined management. Third, we develop overall strategies and investment systems, represented by the '6 × 1' plan: By 2020, we will have built 10 mini industrial parks, 10 overseas locations, 10 overseas testing & certification centers, 100 building material chain distribution centers, 100 smart factories and 100 EPC projects.

In 2020, we will have

10 mini industrial parks

10 overseas warehouses

10 overseas testing & certification centers

100 building material chain distribution centers

100 smart factories

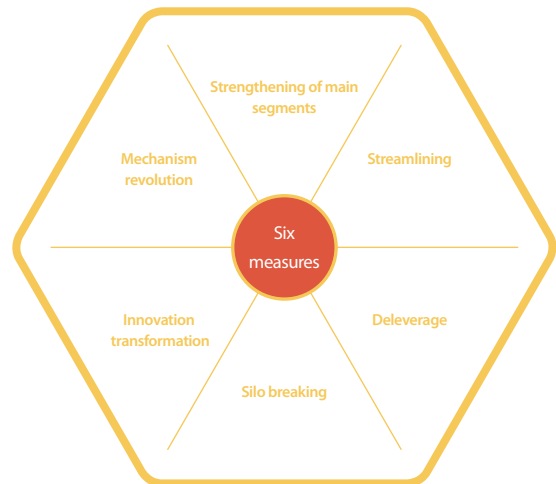
100 EPC projects

Prospects New CNBM

2018

Marching into High-Quality Development

In this current stage of high-quality development, CNBM aims to be a world-class enterprise with global competitiveness; namely, top-ranking in technology, innovation capability, management, benefits and competitiveness. Besides CNBM, there are many potential 'champions' developing in China. With extremely high performance in their segments, they rank among the Top 3 in China or even the world. They are also examples of high-quality development. In light of the object of cultivating world-class enterprises with global competitiveness which was set forth in the report given at the 19th National Congress of the CPC, we have reconsidered and replanned our development strategies, and are taking the following six practical measures: strengthening the main segments, streamlining, deleverage, silo breaking, innovation & transformation and mechanism revolution. From now on, centered on high-quality development, we will repay such stakeholders as government, shareholders, customers, staff and communities with higher value, develop in harmony with the economy, society and environment, and join hands with our stakeholders to create a sustainable future.



In the future, CNBM will focus on high-quality development and create more valuable feedback for the government, shareholders, customers, employees, communities and other stakeholders, thereby achieving a win-win situation with the economy, society and environment. We will work together with all interested parties to secure a sustainable future.



Office building of the Group

Responsibility Performance

Market Performance

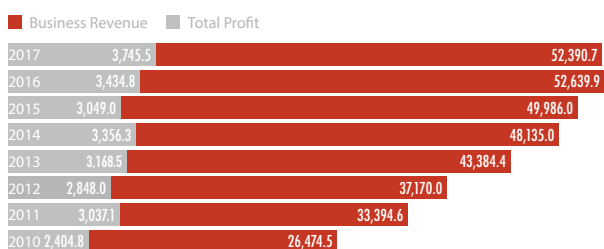
2017 Fortune Global Top 500 Building Materials Enterprises

2017 Ranking	Company	Operating Revenue in 2016 (US\$ million)	Country
225	Saint-Gobain	43,230.8	France
259	CNBM	39,322.6	China
363	CRH	29,972.8	Ireland
398	Lafargeholcim	27,308.4	Switzerland

Source: Fortunechina.com

2010-2017 Business Revenue and Total Profit of Scale Companies in the Chinese Building Material Industry

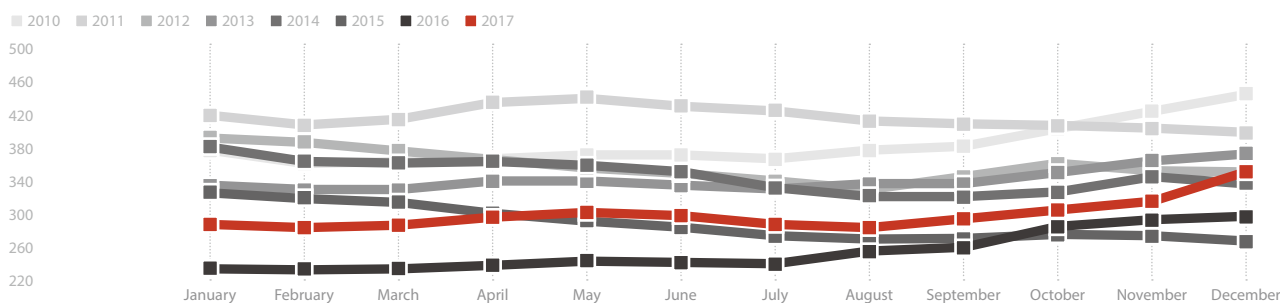
Unit: RMB 00' million



Source: China Building Materials Quantitative Economics Supervision Society

2010-2017 P.O.42.5 Price of Bulk Cement in China

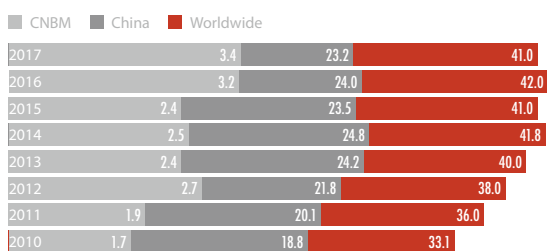
Unit: RMB/ton



Source: Digital Cement

2010-2017 Cement Yield

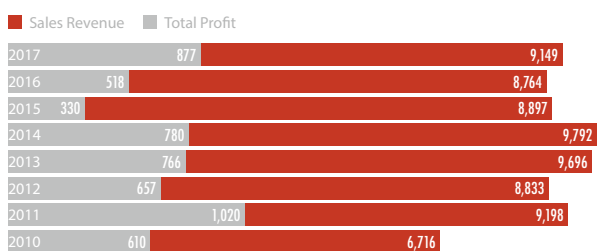
Unit: 00' million tons



Source: National Bureau of Statistics, United States Geological Survey

2010-2017 Sales Revenue and Total Profit of the Chinese Cement Industry

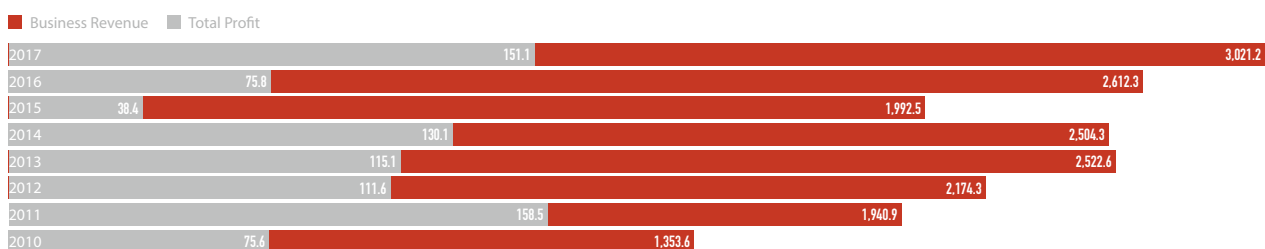
Unit: RMB 00' million



Source: Digital Cement

2010-2017 Business Revenue and Total Profit

Unit: RMB 00' million

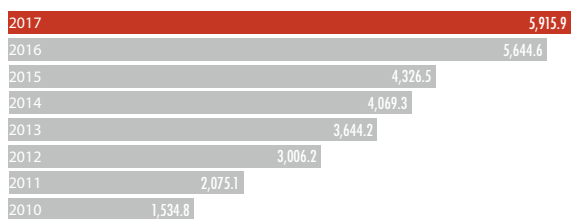


2017 Performance of Listed Holding Companies

Stock Name	Stock Exchange	Stock Code	Dividend per Share (RMB)	Earnings per Share (RMB)
CNBM	Hong Kong Exchanges and Clearing	3323.HK	0.1000	0.5970
BNBM	Shenzhen Stock Exchange	000786.SZ	0.3550	1.3110
Jushi Group	Shanghai Stock Exchange	600176.SH	0.2500	0.7366
Sinoma	Hong Kong Exchanges and Clearing	01893.HK	-	0.4900
Sinoma International	Shanghai Stock Exchange	600970.SH	0.1680	0.5600
Tianshan Joint-stock	Shenzhen Stock Exchange	000877.SZ	0.0800	0.3010
Ningxia Building Materials	Shanghai Stock Exchange	600449.SH	0.2200	0.7100
Qilianshan	Shanghai Stock Exchange	600720.SH	0.2300	0.7403
Sinoma Science & Technology	Shenzhen Stock Exchange	002080.SZ	0.3000	0.9510
Triumph Science & Technology	Shanghai Stock Exchange	600552.SH	-	0.1009
Sinoma Energy Saving	Shanghai Stock Exchange	603126.SH	0.0700	0.2180
Luoyang Glass	Shanghai Stock Exchange	600876.SH	-	0.0390
Luoyang Glass Company Limited	Hong Kong Exchanges and Clearing	1108.HK	-	0.0390
Ruitai Technology	Shenzhen Stock Exchange	002066.SZ	-	0.0626
CTC	Shanghai Stock Exchange	603060.SH	0.2000	0.6556
Xinjiang Guotong	Shenzhen Stock Exchange	002205.SZ	-	0.1369

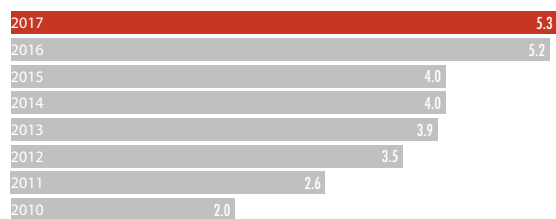
2010-2017 Total Assets

Unit: RMB 00' million



2010-2017 Cement Production Capacity

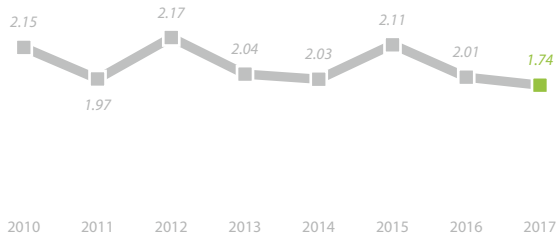
Unit: 00' million tons



Energy Conservation and Environmental Protection

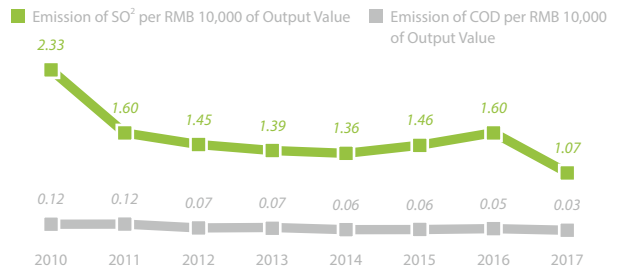
2010-2017 Comprehensive Energy Consumption per RMB 10,000 of Output Value

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



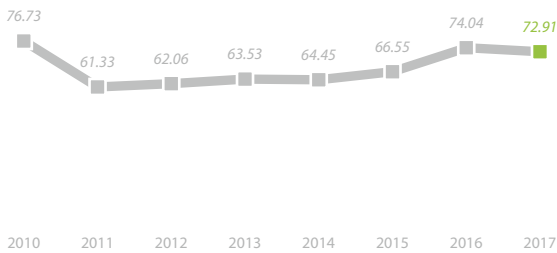
2010-2017 Emission of SO₂ and COD per RMB 10,000 of Output Value

Unit: kg/RMB 10,000



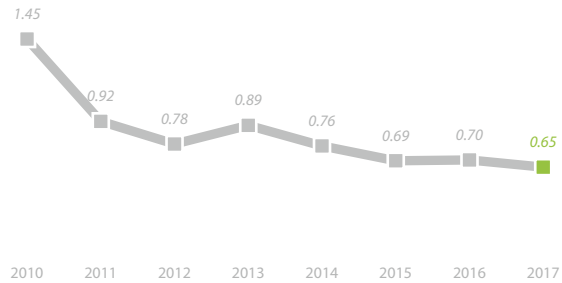
2010-2017 Comprehensive Energy Consumption of Cement

Unit: kg of standard coal equivalent/ton



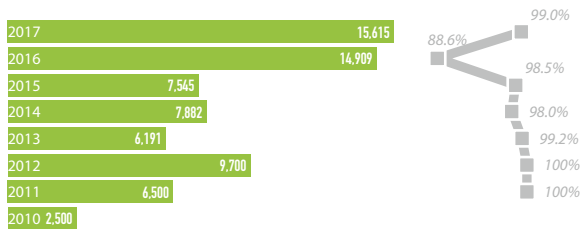
2010-2017 Emission of NO_x per Cement Clinker Unit

Unit: kg/ton



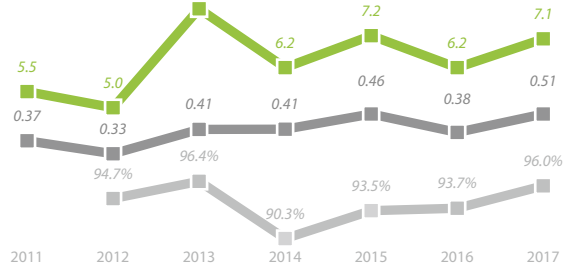
2010-2017 Treatment and Cyclic Utilization of Solid Waste

■ Volume of Treated Solid Waste (10,000 Tons)
■ Treatment Rate of Self-produced Solid Waste (%)



2011-2017 Performance of Water and Residual Heat Resource Utilization

■ Consumption of Fresh Water per RMB 10,000 of Output Value (Ton/RMB 10,000)
■ Consumption of Fresh Water per Ton of Cement Clinker (Ton/Ton Cement Clinker)
■ Utilization Rate of Circulating Water (%)



Employee Care

2010-2017 Employee Profile

Unit: Person

	2010	2011	2012	2013	2014	2015	2016	2017
Total Number of Employees	112,676	126,385	165,652	179,421	176,854	176,610	234,511	221,421
Employees from Foreign Countries, Hong Kong, Macau and Taiwan	397	594	1,190	1,234	892	841	1,126	750
Employees of Ethnic Minorities	1,566	3,516	2,706	3,031	3,120	3,521	5,964	5,985
Employees with Disabilities	599	1,023	1,620	1,685	2,263	1,449	1,875	1,732
Proportion of Female Employees in Management	24.0%	11.6%	13.5%	18.1%	18.4%	17.2%	18.3%	18.4%

2010-2017 Progress of Enterprise Annuity

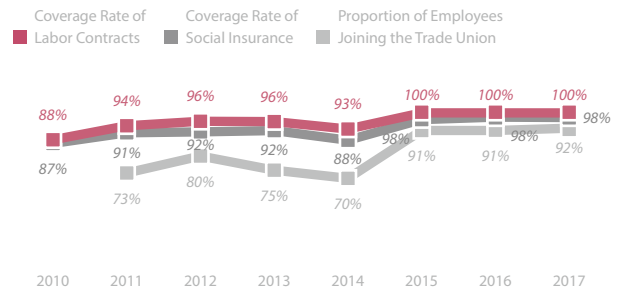
	2010	2011	2012	2013	2014	2015	2016	2017
Number of Member Enterprises Participating in Enterprise Annuity	38	53	66	67	67	68	71	74
Number of Employees Participating in Enterprise Annuity	12,811	13,368	20,392	21,131	21,750	22,165	22,871	24,093

2010-2017 Investment in Occupational Health and Safety

Unit: RMB 0' thousand

2017	87,032
2016	79,527
2015	57,249
2014	43,221
2013	31,363
2012	30,324
2011	12,191
2010	9,339

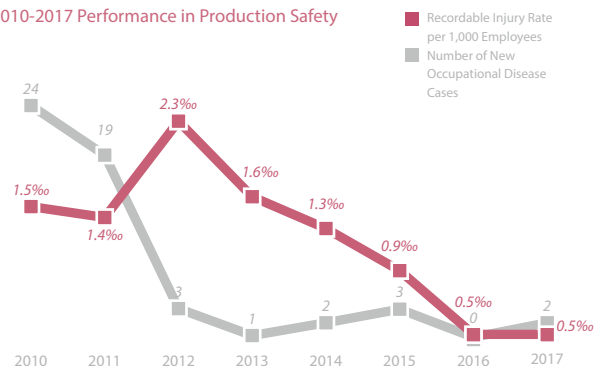
2010-2017 Coverage Rates of Labor Contracts, Social Insurance and Employees Joining Trade Union



2011-2017 Performance in Staff Training

	2011	2012	2013	2014	2015	2016	2017
Number of Employee Training Programs	11,975	21,028	37,491	43,352	32,672	47,554	52,676
Training time (Unit: 0' Thousand Hours)	108	126	164	91	133	331	112
Number of Diplomas or Degrees Obtained by In-service Employees with Our Assistance	1,580	1,138	2,387	3,520	2,882	3,028	2,251

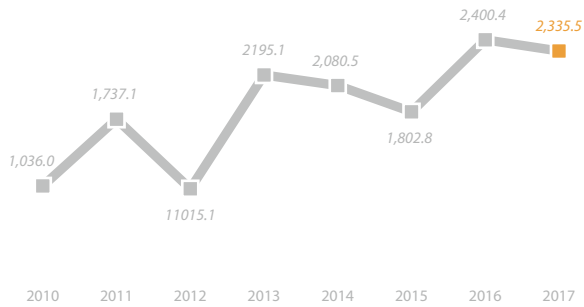
2010-2017 Performance in Production Safety



Corporate Citizenship

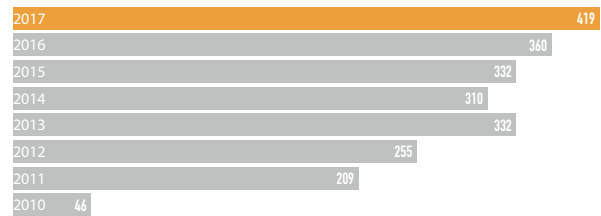
2010-2017 Expenditure on Social Welfare Activities

Unit: RMB 0' thousand



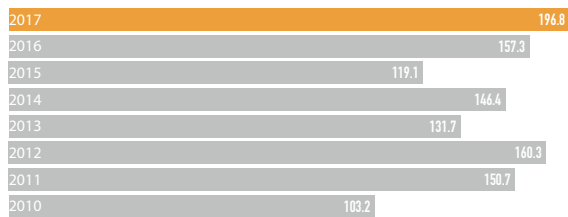
2010-2017 Number of Supported Social Welfare Projects

Unit: number of projects



2010-2017 Tax Paid

Unit: RMB 00' million



2011-2017 Performance in Creating Employment Opportunities

Unit: Person

	2011	2012	2013	2014	2015	2016	2017
New Jobs Created	21,182	15,901	16,081	23,617	16,929	22,342	29,612
Of which: Graduating Students Recruited	4,276	3,743	4,383	3,848	2,473	3,129	4,727
Of which: Demobilized Soldiers Recruited	241	521	158	46	10	23	139

2011-2017 Incentives for Students

	2011	2012	2013	2014	2015	2016	2017
Special Scholarships (Number)	27	20	18	31	8	8	14
Total Scholarships (RMB 0' Thousand)	-	136	112	53	36	37	72
Students Awarded or Subsidized (Number)	727	466	506	227	159	266	155
Probation Bases Established (Number)	-	98	119	97	47	134	163
Intern Posts Provided to School Students (Number)	-	17,815	36,530	28,619	26,586	34,030	31,519

2011-2017 Volunteering Activities

	2011	2012	2013	2014	2015	2016	2017
Volunteer Teams (Number)	-	67	109	65	56	112	335
Investment in Supporting Volunteering Activities (RMB 0' Thousand)	-	91	145	145	191	344	363
Number of Employee Volunteers	-	3,337	4,864	3,400	2,187	5,646	5,334
Voluntary Service Time (Hours)	10,618	39,778	10,681	9,418	14,840	28,157	25,164

Technological Innovation

2010-2017 Technology Awards at Provincial and Ministerial Levels

Unit: Number of Awards

	2010	2011	2012	2013	2014	2015	2016	2017
Scientific and Technological Awards at Provincial or Ministerial Level or Above	63	132	152	145	117	123	173	197
Of which: National-level Scientific and Technological Awards	0	2	0	1	1	0	2	2
Of which: Technical Innovation Awards	17	46	89	54	48	48	82	66

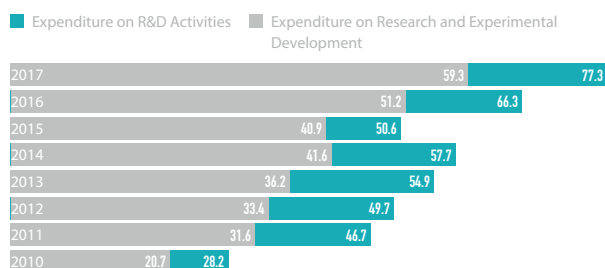
2010-2017 Application and Granting of Patents

Unit: Number of applications and patents

	2010	2011	2012	2013	2014	2015	2016	2017
New Patent Applications	514	630	766	1,262	1,571	1,568	2,156	2,144
Of which: Invention Patents	173	170	228	373	531	566	880	1,039
Newly Granted Patents	420	487	729	848	1,318	1,492	1,793	1,524
Of which: Granted Invention Patents	54	80	143	128	106	193	455	428

2010-2017 Expenditure on R&D Activities

Unit: RMB 00' million



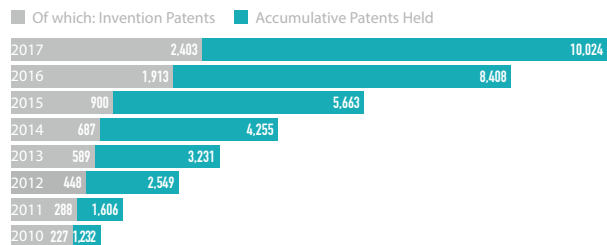
2010-2017 Standards Prepared or Revised with the Leadership of CNBM

Unit: Number of Standards

	2010	2011	2012	2013	2014	2015	2016	2017
Total Number of Standards	79	28	22	59	104	62	91	122
Of which: International Standards	0	1	1	1	3	2	2	4
Of which: National Standards	30	15	5	8	35	36	57	90
Of which: Industrial Standards	49	12	16	50	66	24	32	28

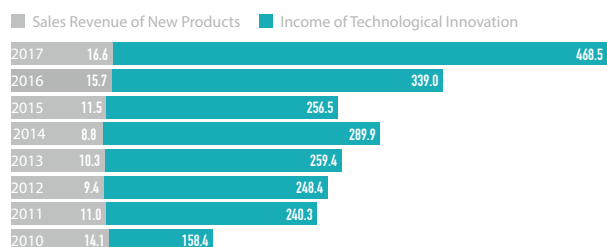
2010-2017 Accumulative Patents Held

Unit: Number of patents



2010-2017 Income of Technological Innovation

Unit: RMB 00' million



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	P1.2	Interpretation of data	Cover 2
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	P2.2	Progress of annual social responsibility work	P4-5
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	P3.2	Progress and results of key social responsibility topics	P73-77
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	P4.2	Organizational structure and operating regions	P6, 12-13
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Rating Report

Rating Report of CNBM Corporate Social Responsibility Report 2017

Upon the request of CNBM, the Chinese Expert Committee on CSR Report Rating selected experts to form the CNBM CSR Report 2017 (hereinafter referred to as the 'Report') Rating Team.



I. Rating basis

Guidelines for the Preparation of Corporate Social Responsibility Reports in China (CASS-CSR 4.0) and Rating Standards of Corporate Social Responsibility Reporting in China (2018).

II. Rating process

1. The Process Assessment Team interviews the main members of the Report Preparation Group and reviews materials related to the preparation process;
2. The Rating Team evaluates the preparation process and disclosure of the Report, and draws up the Rating Report;
3. The Rating Report is submitted to the Vice-Chairman of the Chinese Expert Committee on CSR Report Rating and head of the Rating Team for their signatures.

III. Conclusions

Process (★★★★★)

The Enterprise Management Department and Energy Saving and Emission Reduction Office of the Group takes the lead in establishing the Report Preparation Group. The chairman of the Group is responsible for the final review of the report and the deputy general manager is responsible for overall control.

The enterprise positions the function of the report as a tool for promoting corporate responsibility management and responding to the information needs of stakeholders, and promotes the standardization and institutionalized management of corporate social responsibility work by formulating the Management Measures for the Social Responsibility Work of CNBM; builds a reporting system which includes full-page reports and English-language reports; and defines substantial topics according to national macroeconomic policy, domestic and foreign indicator systems, industry bench-marking analyses, major development of the Group and so on. The report is planned to be published on the official website and embedded at industry conference events for secondary release. It is then presented in a print edition, electronic edition, English version and H5, reflecting a leading process.

Substance (★★★★★)

The Report provides detailed and sufficient disclosure on the substantive issues of related industries, including 'Product Quality Management', 'Technological Innovation', 'Occupational Health Management', 'Ensuring Production Safety', 'R&D and Application of Environmentally Friendly Technologies and Equipment', 'Conservation of Energy and Resources', 'Reduction of Waste Emissions' and 'Governance of the Environment around Factories'.

Completeness (★★★★★)

The Report discloses the key indicators of 'Responsibility Management', 'Market Performance', 'Technological Innovation', 'Energy Conservation and Environmental Protection', 'Employee Care' and 'Corporate Citizenship', covering 95.2% of the core indicators of related industries, which can be regarded as fairly complete.

Balance (★★★★☆)

The Report discloses negative data and information on the 'employee turnover rate', 'recordable injury rate per 1,000 employees', 'new cases of occupational diseases', 'number of major accidents in production in 2017', etc., which shows good balance.

Comparability (★★★★★)

The Report discloses 62 key performance indicators including 'Total taxes paid', 'Expenditure on R&D activities', 'Cumulative number of patents held', 'Investment in energy conservation and environmental protection', 'installed co-generation capacity in 2017', 'Total number of employees' and 'Number of people escaping poverty' for at least 3 consecutive years, and compares such indicators as 'COE brand communication ranking', 'China Enterprise Development Index (2017)' and 'Building Materials Company Ranking in the Fortune 500', showing excellent comparability.

Readability (★★★★★)

The design of the cover and first page of each chapter integrates elements of the main businesses of the Group, adding to the identity of the Report. The main content takes the 'Responsibility Concept Model of CNBM' as the main line. The framework structure system is precise and the key issues are prominent, highlighting the leadership and undertaking of the company's corporate responsibility measures. It adds the 'Milestones of Sustainable Development in 2017' section while also presenting the achievements of the company's national science and technology awards since the 'Eleventh Five-Year Plan', highlighting its outstanding achievements in social responsibility and improving the readability of the Report to an excellent level.

Creativity (★★★★★)

Each chapter of the Report responds positively to the UN Sustainable Development Goals in the form of a 'SDGS Response'. It focuses on responding with the practices and effectiveness of the company on key issues, and highlighting the global vision and responsibility of the company; each chapter includes 'Report Delivered at the 19th NCPCC' and 'Key Points of Responsibility Fulfillment' sections which actively respond to the national policies, focus on the key points of corporate social responsibility and demonstrate the responsibility of central enterprises; the theme of 'The Road to Reform' closely adheres to the hot policy issues of the 40th anniversary of reform and opening up, focusing on the responsibility history of the Group and exploring the enterprise's development history. All of these contents show excellent creativity.

Overall rating (★★★★★)

Based on its evaluation, the Rating Team considers the CNBM CSR Report 2017 an outstanding CSR report and gives it a five-star rating.

IV. Recommendations for improvement

Provide further disclosure of negative events so as to further improve the balance of the Report.

Rating Team

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

Members: Wang Dayang, Director of the Social Mobilization Group of the Social Poverty Alleviation Department of the State Council Leading Group Office of Poverty Alleviation and Development

Process Evaluators Yang Jing and Yuan Yuying

Vice-Chairman of the Expert Rating Committee

Team Leader of the Rating Team

Feedback

Thank you very much for caring about and supporting the social responsibility work of CNBM. Please fill in the questionnaire below and send it back to us via fax or mail. If the blank space is insufficient for your response, please attach an additional page; if you wish to reply via electronic means, please log onto our website at www.cnbm.com.cn, click on 'Social Responsibility' and then click on 'Social Responsibility Communications - Feedback'. You can also scan the QR code on the left to fill in your feedback via a mobile terminal. According to your suggestions and advice, we will make continuous improvements in our work in the future.



Your overall evaluation of the CNBM Sustainability Report:

Overall evaluation	<input type="checkbox"/> Very good	<input type="checkbox"/> Good	<input type="checkbox"/> Ordinary	<input type="checkbox"/> Not good	<input type="checkbox"/> Very poor
Contents	<input type="checkbox"/> Very good	<input type="checkbox"/> Good	<input type="checkbox"/> Ordinary	<input type="checkbox"/> Not good	<input type="checkbox"/> Very poor
Number of pages	<input type="checkbox"/> Very good	<input type="checkbox"/> Good	<input type="checkbox"/> Ordinary	<input type="checkbox"/> Not good	<input type="checkbox"/> Very poor
Design	<input type="checkbox"/> Very good	<input type="checkbox"/> Good	<input type="checkbox"/> Ordinary	<input type="checkbox"/> Not good	<input type="checkbox"/> Very poor
Language	<input type="checkbox"/> Very good	<input type="checkbox"/> Good	<input type="checkbox"/> Ordinary	<input type="checkbox"/> Not good	<input type="checkbox"/> Very poor

In your opinion, what's the core of responsibility performance of CNBM?

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

Which aspect do you think we need to improve?

Information collection Development of organizational structure Talent development Performance evaluation External publicity Management of stakeholders
 Public welfare planning Preparation of annual report Studies on social responsibility Other _____

Through which means would you like to learn about our responsibility performance?

Printed report Special 'Social Responsibility' column on the official website Official WeChat account Professional social responsibility media Other _____

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

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

Do you have any other suggestions or advice?

What is your standpoint when participating in our collection of suggestions?

Government Institutional investor Middle or small shareholder Financing institution Industrial association Supplier Client
 Enterprise in the same industry Partner Professional CSR institution Public welfare organization Media Senior executive of the Group
 Employee of the Group Other _____

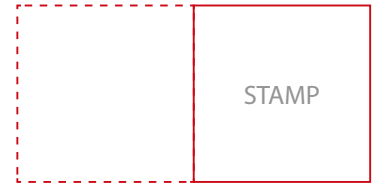
In order to reply to your suggestions and advice in time, please provide your contact information. We will keep your personal information confidential.

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



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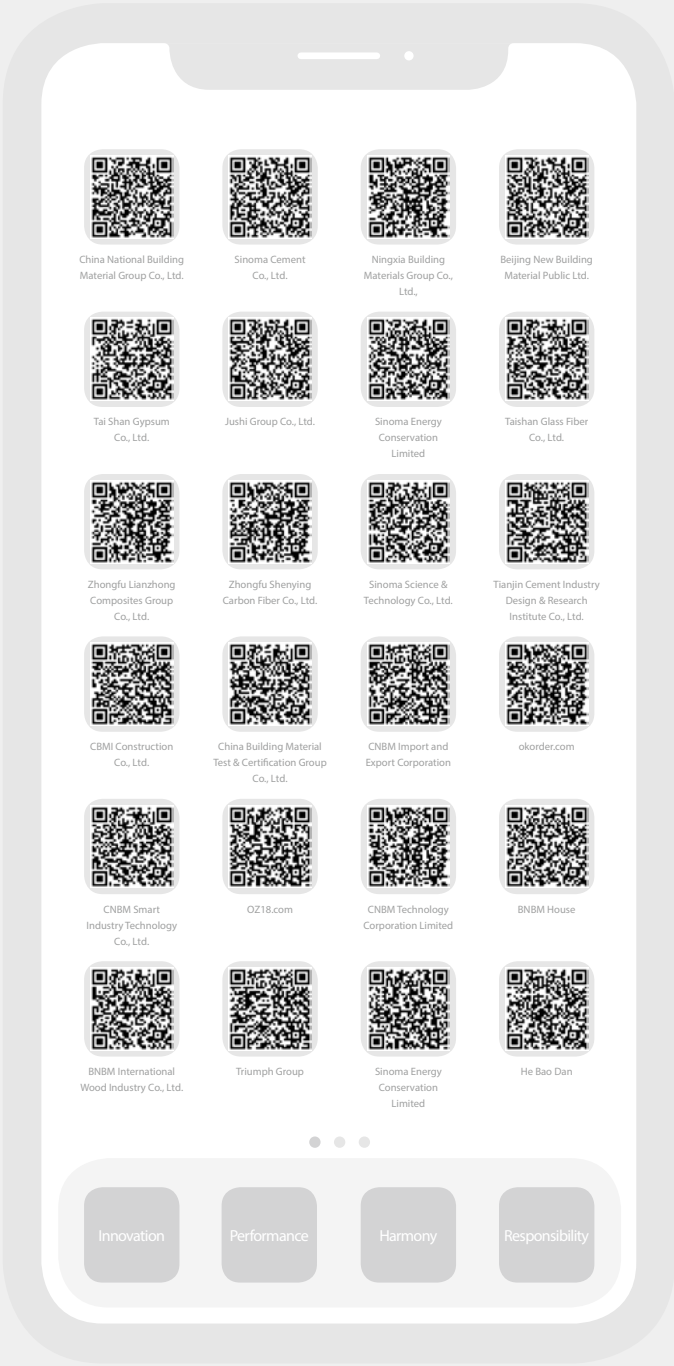
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Performance

Harmony

Responsibility



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