2013 SUSTAINABILITY REPORT
ABOUT THIS REPORT

This is the fourth sustainability report published by China National Chemical Corporation ("ChemChina"). The report discloses information about the social responsibility commitments, practices and performance in 2012 of ChemChina on topics such as the business management, technical innovation, occupational safety, environmental performance, employee care and social harmony.

Normative References

The report is based on the Guideline on CSR Fulfilment by Central Enterprises issued by the State-owned Assets Supervision and Administration Commission of the State Council (SASAC), the Ten Principles of the United Nations Global Compact, the Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI G3.1), the ISO 26000: Guidance on Social Responsibility (2010) issued by the International Organization for Standardization, and the CSR Reporting Guidelines for Chinese Companies (CASS-CSR 2.0) issued by the Chinese Academy of Social Sciences (CASS-CSR2.0).

Scope of Report

The report covers ChemChina’s activities from 1 January to 31 December 2012. In some instances content and information from outside the stated period may be included. The report covers ChemChina headquarters and its subordinate units.

Data Sources

All data used in this report comes from official documents and statistical reports of ChemChina.

References to ChemChina

Unless otherwise stated, all references to “ChemChina”, “Group”, “Company” or “We” refer to China National Chemical Corporation.

Report Improvements

Integrate the CSR management principle in the Report and disclose communication channel and response methods of stakeholders;

Establish the responsibility matrix of ChemChina’s CSR practice and list the major contents of ChemChina’s CSR practice in its 6 business units;

More topics are disclosed including the hot issues such as aerospace industry in China, thus enhancing the reporting materiality.

Report Language

The report is published in both Chinese and English. If any inconsistency or discrepancy exists between the two versions the Chinese version shall prevail.

Obtain the Report

To view or download the report, please visit the official website of ChemChina at www.chemchina.com.

The report is printed on recycled paper.
CONTENTS

MESSAGE FROM OUR CEO / 02
CHEMICALS CREATE A BETTER LIFE / 04
ABOUT US / 07
STRATEGY AND GOVERNANCE / 10
SOCIAL RESPONSIBILITY MANAGEMENT / 12
FOCUS / 16
DEVELOP NEW CHEMICAL MATERIALS TO HELP REALIZE CHINA’S SPACE DREAM

GOOD BUSINESS PERFORMANCE FOR THE CREATION OF NEW VALUE / 20
DRIVING NEW GROWTH THROUGH TECHNICAL INNOVATION / 26
SETTING A NEW BENCHMARK FOR PRODUCTION SAFETY / 32
GREEN AND ENVIRONMENTAL, EXPANDING THE NEW SPACE / 38
EMPLOYEE GROWTH, CREATING NEW BUSINESS OPPORTUNITIES / 42
SHARING NEW RESULTS IN A HARMONIOUS SOCIETY / 48

EXPERT COMMENTS / 56
GRI INDEX / 57
FEEDBACK FORM / 62
At present, the corporate social responsibility has become the common knowledge in the corporate management sector, and has increasingly demonstrated the trend of globalization, becoming an important trend in our times and an effective way for enterprises to raise competitiveness. Responsibly carrying out social responsibilities is not only a proper and righteous way for enterprises to develop up to the high level, but also an inevitable requirement for the comprehensive, harmonious and sustainable development of the enterprise itself. ChemChina adheres to the concept of “To increase value for shareholders, to create job opportunities for the society”. While it realizes the development aims of the enterprise, it pays a high level of attention to positively carrying out social responsibility, integrating responsible care into its own development targets and guidelines for management, and also carrying out and implementing this in daily production and management, gathering positive energy, and together pushing forward the sustainable development of the chemical industry.

In 2013, the chemical industry suffered from both shrinking demand and excessive production capacity, one interacting with the other, while the situation remained unchanged that rising rigid costs coexisted with product homogenization. Moreover, the traditional chemical industry also faced the challenges of new business patterns and new business models. Under such adverse circumstances, we still managed to maintain the overall stable running of production and operation throughout the year by sticking to the main theme of “improving development quality and efficiency” according to the overall idea of promoting transformation and upgrade and lifting the innovation-driven level.

Promoting industrial restructuring

We continued to promote a “3+1” business portfolio that centers on material, life and environmental sciences for its future business success but is strategically supported by basic chemicals; accelerated reform and recombination, getting rid of outdated production facilities, upgrading towards high-technology content and high-value-added products, transforming towards “manufacturing and services”, with service ability becoming stronger; strengthened the marketing system structure and production management schedule, putting overseas enterprise advantages to use, promoting coordination inside and outside, implementing the “going out” strategy, and internationalizing operations to obtain outstanding results.
Deepening the promotion of improving management performance

We combined the management of shortcomings and bottlenecks, took continuous professional development and subdivided it into the six main categories as six sigma management, lean management, equipment management, supply-chain management, innovation management and “debottlenecking” management, with world class manufacturing and sustainable improvement as breakthrough points, transformed management concepts towards the pursuance of efficiency and benefit, transformed management towards specialization, platformization, and marketization, transformed management methods towards intensification and refinement, transformed management methods towards systemization and informatization, effectively stimulating the rise of management levels of all types in the company.

Promoting the system of scientific and technological innovation

We strengthened motivation for innovation, built a platform for creativity, accelerated key technology and the development of universal technology, promoted the industrialization of science and technology achievements, pushed “overseas talent and entrepreneurship base” program, developed 793 technology development projects of various types, of which 95 are key national science and technology programs. 719 patents have been applied for system-wide, including 385 new invention patents. There are 605 authorization patents, of which 250 are new invention patents, having been listed in the top five central enterprise invention patents for three successive years.

Promoting the construction of a safe and healthy environmentally friendly system for energy conservation and emission reduction

We improved the SHE system, accelerated promotion of overall SHE system construction, promote the “five steps to safety” and staff safety supervision, strengthened construction of enterprise safety culture with household safety culture construction as a guide, strengthened the education of safety culture, with RMB 537 million invested in the whole system safety production, completed rectification and reform of 6,877 items. There were no relatively large production safety incidents. We continued to push “zero emissions” management, put the green, low-carbon, recyclable production concept into practice; with innovative technology, strengthened management, and “debottlenecking”, we transformed methods for energy conservation and emission reduction. System-wide RMB 10,000 production value general energy consumption dropped by 17.6%, outperforming its assessment target by 8.7%, obtaining the “energy conservation and emission reduction excellence award” from the State-owned Assets Supervision and Administration Commission of the State Council (SASAC).

Positively undertaking corporate citizenship responsibility

We set up long-term, stable cooperative partnerships with the government, educational institutions, banks, etc. to expand strategic cooperation. We positively undertook the adoption of recently graduated students and various policy-type job placement tasks, and expanded technical training for various positions, improved the supplier management system, strengthened supplier assessment, established mechanisms for entry and exit, raised fairness and transparency of supplier management, promoted the participation and implementation of suppliers in social responsibility. We positively spread knowledge of chemistry with BlueStar Summer Camp and Chemical Industry Museum of China as carriers, promoted communication and collaboration between China and foreign countries, and promoted the company’s internationalization process, systemized the promotion of charitable donations and volunteer events, raised the transparency of public welfare establishments.

2014 is an important year for the comprehensive implementation of the 18th National Congress of the Communist Party of China and the Third Plenary Session of the 18th CPC Central Committee. We shall persist in seeking progress in stability, transform methods of development, promote structural adjustment, expand marketing reform, implement motivation for innovation, deepen management improvement, and explore breakthroughs for reform. Form a mechanism for experience sharing and information exchange operated by the SHE system, strengthen examinations for energy conservation and low-carbon operations, and accomplish information publication. Accelerate the setting up of talent management systems, continuously improve team quality through establishment of teams, systems and culture. Push forward strategic cooperation, promote community construction, encourage volunteering activities, encourage the development of charitable donations and volunteer events, raised the transparency of public welfare establishments.

For the support and assistance that all sectors of society have given us, we are deeply grateful! We have confidence that under the support and encouragement of everyone, we can better fulfill our social responsibilities!

General Manager:
CHEMICALS CREATE A BETTER LIFE

Human beings cannot be without clothing, food, shelter and travel, and these things cannot be without materials. Of these materials, some exist in nature, while even more are artificially synthesized with chemical processes, e.g., fertilizers, pesticides, plastics, synthetic rubbers, synthetic fibres, etc. They are of all shapes and colors and are ubiquitous. They have transformed the original form of production technology and transportation and improved people’s living conditions, and made our material lives even more rich and colorful. Chemical products have not only provided convenience to people’s lives, even more, they have promoted the development of the national defense industry and related industries, as well as science and technology, and have greatly raised national economic benefit and regional economic benefit.

NATIONAL DEFENSE

- Various basic and high-performance chemical materials including temperature and pressure-resistant as well as cryogenically processed new materials are used by the national defense industry.
- Auxiliary products are provided to the Shenzhou series of airships, the Tiangong Program, Chang’e lunar exploration satellites and large-type passenger planes, etc.

CLOTHING

- Chemicals are used as raw materials in the production of cotton fiber, artificial fiber and synthetic fiber and in various dyestuffs and printing and dyeing auxiliaries in the textile industry.
- Tanning agents, leather fatliquoring agents, dyestuffs, coating agents and other auxiliaries are used in the tanner industry to shorten the leather production cycle, simplify the process, and reduce costs.

PRODUCTION

- Chemical materials such as plastics and special-purpose chemicals are used in the manufacturing of many components in the machinery industry.
- Equipment, materials, specialty chemicals and assaying and testing technologies are used in modern biotechnology.
- New materials, technology and equipment support the environmental industry.
- High technology and new materials enable the development of new sources of energy such as solar energy, biomass, maritime energy, geothermal energy and wind power.
- Supply chemical additives, mining explosives and other necessary chemical products for the coal industry and the mining industry.
- Provide antioxidant, anti-corrosive additives and other chemical catalysts for the catalytic refinement of crude oil.
Food

- Chemicals are used in the production of chemical fertilizers and pesticides to increase both crop output and farmer’s income, as well as help ensure food security.
- Food additives and chemicals for food storage and packaging purposes are provided to broaden food choices.
- “Malan noodles” provides the common people with a nutritious, uniquely tasting, convenient and fast chain of fast-food restaurants.

Housing

- Plastics, coatings, sealing agents, adhesives, waterproof materials, concrete additives and other new building materials are used to improve housing conditions.

Transportation

- Provide chemical materials for the production of automobiles, ships and airplanes. Four kinds of high-molecule materials are used in the auto industry, i.e., plastics, rubber, adhesive, and coating to reduce the weight of vehicles and increase both speed and reduce fuel consumption.
- Provide asphalt additives, concrete admixtures and other chemicals for the transportation construction.
- China Auto Care provides convenient and efficient services of vehicle maintenance and repair, and automotive components manufacturing.

Basic Necessities of Life

- Raw materials such as plastics, rubber and coatings are used in the manufacturing of household appliances.
- Chemicals such as caustic soda and chlorine gas are used in papermaking industry.
- A total of 16,250 kinds of electronic chemicals covering 18 categories are used in the electronics industry. These include base materials, photoresist, cleaning agents and solvents, ultra-clean high-purity agents, ultra-clean high-purity gas and metal organic compounds and encapsulating materials.
- Materials and processing technologies are used in hardware that enables data acquisition, transmission, storage, processing and displays in the IT industry.
- Provide the telecommunications industry with chemicals from communication cables and optical cables to telephones and mobile phone casing.

It is only with understanding of the chemical industry and true recognition of chemicals that one can truly comprehend that chemical engineering and chemicals are no source of pollution, but that they are the technology source for curing pollution and an effective means for resource conservation. They are also an important safeguard for building ecological civilization and a beautiful China.
Company Profile

Headquartered in Beijing, ChemChina is a large-sized state-owned enterprise formed out of enterprises affiliated to the former Ministry of Chemical Industry with approval from the State Council in May 2004, operating under the direction of the State-owned Assets Supervision and Administration Commission of the State Council (SASAC). ChemChina is China’s largest chemical company and operates six business units covering advanced chemical materials and special chemicals, basic chemicals, Oil processing and refinery products, agrochemicals, rubber products and chemical equipment.

We have production and R&D facilities in 140 countries and a comprehensive marketing network system. We control 9 A-share listed companies, 106 subsidiaries, 3 directly affiliated companies, 6 overseas enterprises and 24 scientific research and design institutes, and have a comprehensive chemical business portfolio that covers R&D, engineering design, production operations and internal and external trade. In 2013, we ranked the 355th on the global top 500, up from 402nd in 2012. Our business income was RMB 244 billion with RMB 293.6 billion in total assets.

We uphold our commitments to creating a better life through the use of chemicals. We act responsibly, advocate responsible care, and serve people’s material interests through our chemical products, and lead the industry in the adoption of high technology.
<table>
<thead>
<tr>
<th>Business unit</th>
<th>Business overview</th>
<th>Position in the industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>New chemical materials and specialty chemicals</td>
<td>• Own production and development facilities for dozens of high-tech and high-value-added products such as silicone, fluororubber, methionine, metallurgical-process solar-grade polysilicon</td>
<td>• World’s second largest methionine producer</td>
</tr>
<tr>
<td></td>
<td>• Own production and development facilities for dozens of high-tech and high-value-added products such as silicone, fluororubber, methionine, metallurgical-process solar-grade polysilicon</td>
<td>• The world’s third largest silicone producer</td>
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<td></td>
<td></td>
<td>• Asia’s largest PBT resin producer</td>
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<tr>
<td></td>
<td></td>
<td>• China’s largest producer of fluororubber, neoprene and epoxy resin</td>
</tr>
<tr>
<td>Basic chemicals</td>
<td>• Low-cost, recycling and clean production of chlorine and alkali plants</td>
<td>• The largest producer of caustic soda and PVC in China</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The world’s third largest and Asia’s largest PVC paste resin manufacturer</td>
</tr>
<tr>
<td>Petrochemical and refinery products</td>
<td>• Combined annual crude oil processing capacity of 25 million tons, and use an oil-to-chemical technological line</td>
<td>• Own the first 500,000 tons per year DCC plant and the first 500,000 tons per year CPP plant in China</td>
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<td></td>
<td></td>
<td>• The world’s largest non-patented agrochemical manufacturer</td>
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<td></td>
<td>• Including herbicides, pesticides, bactericides and plant growth regulators, capable of producing more than 120 varieties of original medicine and more than 800 preparations—with nearly 5,000 registered products and more than 6,000 trademarks in 120 countries worldwide</td>
<td>• Ranks first in China in terms of market share of products such as dichlorvos, dipterex, pymetrozine, ethephon, uprofezin, endosulfan emulsion, dimethyl tetrachloro sodium, 1-Nitrotoluene and toluidines</td>
</tr>
<tr>
<td>Agrochemicals</td>
<td>• Control and operate tyre, rubber products and latex products manufacturers that produce a variety of high-tech and high-value-added products such as tyres, polysulfide rubber, specialty rubber products and new-process charcoal black</td>
<td>• The combined production capacity of all-steel radial tyre, semi-steel radial tyre, aviation tyre and giant engineering tyre ranks in the top three in the Chinese tyre industry</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Rank second in China in terms of belt and tubing products such as high-strength conveying belt and braking tube</td>
</tr>
<tr>
<td>Rubber products</td>
<td>• ChemChina enjoys technical superiority in the chemical machinery manufacturing field and owns the only ion membrane caustic soda plant production technology in China</td>
<td>• The world’s third largest rubber machinery manufacturer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Our Yixiangji series is the best-selling Chinese-made rubber machinery in the international marketplace</td>
</tr>
<tr>
<td>Chemical equipment</td>
<td>• ChemChina enjoys technical superiority in the chemical machinery manufacturing field and owns the only ion membrane caustic soda plant production technology in China</td>
<td>• ChemChina ion membrane caustic soda plant ranks third in the world in terms of output and sales volume, and has 70% domestic market share</td>
</tr>
</tbody>
</table>
## Key Performance Matrix

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>2013</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economic performance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total assets</td>
<td>RMB 100 million</td>
<td>2,936</td>
<td>2,674</td>
<td>2,485</td>
</tr>
<tr>
<td>Business income</td>
<td>RMB 100 million</td>
<td>2,440</td>
<td>2,017</td>
<td>1,724</td>
</tr>
<tr>
<td><strong>Technology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R&amp;D spending</td>
<td>RMB 100 million</td>
<td>41.50</td>
<td>40.66</td>
<td>40.32</td>
</tr>
<tr>
<td>R&amp;D spending as a percentage of business income</td>
<td>%</td>
<td>1.80</td>
<td>2.14</td>
<td>2.37</td>
</tr>
<tr>
<td>Number of patents granted</td>
<td></td>
<td>605</td>
<td>692</td>
<td>629</td>
</tr>
<tr>
<td>Number of invention patents granted</td>
<td></td>
<td>250</td>
<td>364</td>
<td>326</td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mortality per 1000</td>
<td>%</td>
<td>0.08</td>
<td>0.05</td>
<td>0.06</td>
</tr>
<tr>
<td>Spending on occupational safety</td>
<td>RMB 10,000</td>
<td>53,700</td>
<td>72,450</td>
<td>69,000</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comprehensive energy consumption per RMB 10,000 output</td>
<td>Tons of standard coal per RMB 10,000</td>
<td>1.09</td>
<td>1.18</td>
<td>1.23</td>
</tr>
<tr>
<td>Total volume of effluent discharge</td>
<td>10,000 tons</td>
<td>10,502.11</td>
<td>10,799.08</td>
<td>11,042</td>
</tr>
<tr>
<td>COD emissions</td>
<td>tons</td>
<td>12,462.46</td>
<td>12,804.34</td>
<td>13,079</td>
</tr>
<tr>
<td><strong>Employee</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td></td>
<td>125,002</td>
<td>133,121</td>
<td>140,274</td>
</tr>
<tr>
<td>Percentage of female staff</td>
<td>%</td>
<td>29</td>
<td>27</td>
<td>29</td>
</tr>
</tbody>
</table>
1. VISION AND VALUES

Our vision:
To become a world-class, resource-efficient, environmentally friendly, and intrinsically safe chemical company that creates economic and social value.

Core values:
Creating value for shareholders and jobs for the wider society.

2. STRATEGIC OBJECTIVES

We will re-define our “new science and new future” strategic position and build a business portfolio that centers on material, life and environmental sciences for its future business success but is strategically supported by basic chemicals.

We quickened our transformation and our approach to business growth by adding four core capacities: business portfolio optimization, world-class manufacturing, investment and project management, and marketing and application development. We achieved this by optimizing our capital structure, our business structure, our organizational structure and our human resources structure.
4. CORPORATE GOVERNANCE

We have adopted a general manager responsibility system that is in accordance with the provisions of the State-owned Industrial Enterprise Law of the People’s Republic of China and other applicable Chinese laws and regulations. The general manager’s office serves as our decision-making body and decides important business management issues. We run nine specialized committees including a budget committee and an investment decision review committee, which support and offer suggestions to the decision-making body of the company. SASAC fulfills its duties as a promoter on behalf of the central government, and the State Council maintains a board of supervisors for major state-owned enterprises at ChemChina. The board supervises the company’s corporate value and ensures the appreciation of state-owned assets in accordance with the Interim Regulation on Board of Supervisors of State-owned Enterprises.
In its day to day operations, ChemChina abides by moral codes as well as laws and regulations, enhancing its level of transparency, respecting and responding to the concerns and expectations of stakeholders. It undertakes responsibility towards its effect on the economy, society and the environment, encouraging the harmonious mutual benefit of the country, enterprises, employees, society and the environment.

1. GOVERNANCE OF RESPONSIBILITY

ChemChina attaches importance to and actively promotes social responsibility work. It has established a Social Responsibility Promotion Work committee with the general manager as the first person responsible. It is responsible for the overall leadership and harmonization work during the social responsibility promotion process of the group company. The committee has set up an office beneath it, it is managed by production and management of the group company and is made up from the planning department and related staff. The Social Responsibility Promotion Work Office is responsible for routine work such as setting up systems related to social responsibility promotion work, organizing social responsibility work training, and compiling and issuing reports concerning annual sustainable development for the group company.
## 2. Stakeholders and Key Issues

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Common Objective</th>
<th>Main Communication Channel</th>
<th>Our Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>SASAC</td>
<td>• Maintain and increase the value of national assets</td>
<td>• Regular work reports</td>
<td>• Promoting strategic transformation and marketing reform</td>
</tr>
<tr>
<td></td>
<td>• Technological innovation guides industry development</td>
<td>• Participation in corresponding meetings</td>
<td>• Increasing science and technology innovation system construction</td>
</tr>
<tr>
<td></td>
<td>• Safe production, energy conservation and emission reduction</td>
<td>• Submitting information</td>
<td>• Improving the SHE management system, promoting “zero emissions” management</td>
</tr>
<tr>
<td></td>
<td>• Bring employment to promote social harmony</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clients</td>
<td>• High quality goods and services</td>
<td>• Visiting clients</td>
<td>• Promoting scientific and technological innovation, accelerating the building of private brands</td>
</tr>
<tr>
<td></td>
<td>• Abide by commercial ethics</td>
<td>• Contractual agreements</td>
<td>• Providing products that concord with technological standards of environmental protection</td>
</tr>
<tr>
<td></td>
<td>• Satisfy diverse demands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee</td>
<td>• Reasonable salary and welfare</td>
<td>• Labor union activities</td>
<td>• Linking salary with achievement</td>
</tr>
<tr>
<td></td>
<td>• Training and development of professional career</td>
<td>• Workers’ congress meetings</td>
<td>• Capability and quality assessments and performance feedback</td>
</tr>
<tr>
<td></td>
<td>• Good work environment</td>
<td></td>
<td>• Establishment of corporate culture</td>
</tr>
<tr>
<td>Government</td>
<td>• Compliance with the law</td>
<td>• Paying taxes according to law</td>
<td>• Promoting the combatting of corruption and upholding integrity</td>
</tr>
<tr>
<td></td>
<td>• Drive regional employment and economic development</td>
<td>• Participating in government investigations and surveys and signed cooperation agreements</td>
<td>• Communicating actively with various government departments</td>
</tr>
<tr>
<td>Suppliers/ cooperative partners/ those in the same industry</td>
<td>• Fair competition</td>
<td>• Industry conferences and forums</td>
<td>• Transparent Procurement</td>
</tr>
<tr>
<td></td>
<td>• Encourage industry progress</td>
<td></td>
<td>• Scientific and technological innovation</td>
</tr>
<tr>
<td>Environment</td>
<td>• Energy conservation and emission reductions</td>
<td>• Maintaining contact with environmental protection administration and social organizations</td>
<td>• Reasonable use of resources</td>
</tr>
<tr>
<td></td>
<td>• Green development</td>
<td>• Learning and exchanging green production technology</td>
<td>• “Zero emissions” management</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Environmentally friendly work</td>
</tr>
<tr>
<td>Community</td>
<td>• Devotion to public welfare</td>
<td>• Chemical Industry Museum of China</td>
<td>• Promoting local employment</td>
</tr>
<tr>
<td></td>
<td>• Serving community development</td>
<td>• BlueStar Summer Camp</td>
<td>• Promoting cultural fusion</td>
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<td></td>
<td></td>
<td>• Community volunteer events</td>
<td>• Working for the public good</td>
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</tbody>
</table>
## 3. RESPONSIBILITY MATRIX

<table>
<thead>
<tr>
<th>Good business performance for the creation of new value</th>
<th>Driving new growth through technical innovation</th>
<th>Setting a new benchmark for production safety</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ChemChina</strong></td>
<td><strong>Advanced chemical materials and special chemicals</strong></td>
<td><strong>Basic chemicals</strong></td>
</tr>
<tr>
<td>• Persisting with “3+1” business portfolio</td>
<td>• Actively expand business overseas</td>
<td>• Carry out sustainable improvement work for all staff and processes</td>
</tr>
<tr>
<td>• Continuous improvement of management levels</td>
<td>• Launch Integrated Product Development (IPD) system construction</td>
<td>• Resource integration, promotion of construction of scientific and technological platform</td>
</tr>
<tr>
<td>• Internationalized operations</td>
<td>• Building innovative platforms for science and technology</td>
<td>• General survey of whole system’s basic safety work</td>
</tr>
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<td></td>
<td>• Building science and technology innovation teams</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Promoting application of science and technology innovation results</td>
<td>• Strengthen safety production inspection and standard work specification management</td>
</tr>
<tr>
<td></td>
<td>• Optimizing SHE system construction</td>
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<td></td>
<td>• Strengthening trouble shooting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Strengthening of emergency management</td>
<td></td>
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<tr>
<td></td>
<td>• Strengthening management of dangerous chemicals</td>
<td></td>
</tr>
<tr>
<td><strong>Oil processing and refinery products</strong></td>
<td><strong>Agrochemicals</strong></td>
<td><strong>Rubber products</strong></td>
</tr>
<tr>
<td>• Strengthen DCS application optimization</td>
<td>• Establish digital “wisdom factory”</td>
<td>• Whole value chain management</td>
</tr>
<tr>
<td>• Pursue “client-manager management mode”</td>
<td>• Open up public WeChat platform for “Jiangsu Anpon Electrochemical Co., Ltd”</td>
<td>• Protect intellectual property rights</td>
</tr>
<tr>
<td></td>
<td>• Strongly implement technical innovation and management project</td>
<td>• Construct national level enterprise technology center</td>
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<td>• Strengthen safe production cost management</td>
<td>• Launch safety and troubleshooting assessment</td>
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<td><strong>Agrochemicals</strong></td>
<td><strong>Rubber products</strong></td>
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<td>• Accelerate marketing integration</td>
<td>• Accelerate integration of scientific and technological innovations</td>
<td>• Whole value chain management</td>
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<td>• Safe management network construction</td>
<td>• Protect intellectual property rights</td>
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<td>• Construct national level enterprise technology center</td>
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### Green and environmental, expanding the new space
- Promote “zero emissions” management
- Strongly encourage energy conservation and emission reduction
- Research and develop environmental protection technology
- Systematically promote process optimization, raise general efficiency

### Employee growth, creating new business opportunities
- Guarantee basic rights and interests for employees
- Encourage vocational education
- Promote integration of CDM results
- Create a harmonious corporate culture
- Increase attraction of occupational managers

### Sharing new results in a harmonious society
- Implement “going out” and “attracting in” strategies
- Improve supplier management mechanism
- Encourage cultural fusion in various aspects
- Improve supply chain management
- Strengthen fixed-point poverty alleviation
- Promote cooperation between enterprises and banks

### Further Actions
- Cleaner production
- Raise resource utilization efficiency
- Lower greenhouse gas emissions
- Enrichen spiritual and cultural lives of female workers
- Actively recruit fresh graduates
- Assist poor areas
- Actively participate in charitable donations
- Promote supplier responsibility
Along with the growth and development of New China, the aerospace industry of China has gone through more than 50 years’ development, realized outstanding achievements such as “atomic and hydrogen bombs and man-made satellite”, “manned space flight” and “lunar exploration” and so forth. The space technology has played an important role in science and technology advancement, national defense construction as well as economic and social development. Ever since the beginning of the new century, China has implemented remarkable plans regarding manned space flight and lunar landing. A series of heroic undertakings such as satellite launch, manned space flight, “Chang’ e” manned spacecraft flying to Moon and “Tiangong” docking not only boosted the national pride but also became the highlights of China’s science and technology field. The aerospace industry of China sticks to independent innovation, consistently enriches and develops space flight technology so as to demonstrate marvelous national strength and uphold state security. It has made great outstanding contributions to the development of human history and civilization.

ChemChina applies its strong technical force in the field of new chemical materials to provide products such as Shenzhou series spacecraft, Tiangong system project, and “Chang’e” manned spacecraft and air bus with various kinds of important chemical products and components, so as to safeguard the successful completion of space mission and draw a glorious chapter of Chinese chemical workers.

ChemChina has dozens of high-tech enterprises including Jiangxi Xinghuo New Aerospace Materials Co., Ltd., China BlueStar Chengrand Research Institute of Chemical Industry, Liming Research Institute of Chemical Industry, Jinxi Research Institute of Chemical Industry, Guangming Research Institute of Chemical Industry, Zhonghao Chenguang Research Institute of Chemical Industry, North Paint & Coatings Industry Research and Design Institute, Northwest Rubber and Plastics Institute, Shenyang Rubber Research & Design Institute, Shuguang Rubber Institute, Zhuzhou Rubber Institute and Nantong Xingchen Synthetic Material Co.Ltd. It provides matching products and components to Shenzhou series spacecraft and “Chang’e” lunar exploration satellite launch series.

It is DOL-3000 protective coating developed by the Marine Chemical Research Institute. It is used for protection of cryogenic insulation system of carrier rocket.

It is the liquid propellant developed by Jiangxi Xinghuo New Aerospace Materials Co., Ltd., the main fuel for rocket launch.

The fluororubber developed by China BlueStar Chengrand Research Institute of Chemical Industry is used for sealing of strong incendiary agent and oxidant system.

It is the special protective clothing for rocket propellant developed by Shuguang Rubber Institute. It is indispensable for launch tasks implemented by Satellite Launch Center which could protect the staff from the toxic and hazardous biochemical substances.
“From Shenzhou No.1 to Shenzhou No.10, we have made no error in product quality. We are infinitely proud of all the recognitions received. We have successfully accomplished our mission and will provide better products to our country, as everyone says.”

— Han Dong, an employee from Jiangxi Xinghuo New Aerospace Materials Co., Ltd.

“The rubber finger cover and palm insulation mat made by Shenyang Rubber Research & Design Institute are very good.”

— Zhai Zhigang, Chinese astronaut

“It is the thermodynamic medium independently developed by Zhonghao Guangming Research Institute of Chemical Industry to provide protection for “Chang’e No.3” lander and “Jade Rabbit” lunar rover and enables “Jade Rabbit” to deal with severe environment under extreme temperature conditions.”

Developed by North Paint & Coatings Industry Research and Design Institute, it is the special coating material used to paint colors for national flags on “Chang’e No.3” lander and “Jade Rabbit” lunar rover. It enables the five-star red flag to always keep the fresh colors under the conditions of vacuum, alternating between low and high temperature, ultraviolet radiation and impacts of HER including proton.

Developed by Shuguang Rubber Research Institute for extra-vehicular activity suits and intra-vehicular activity suits of Shenzhou No.7.

It is the special glove for astronauts. It takes less than 3 years for Shenyang Rubber Research & Design Institute to successfully develop about 500 kinds of rubber products for extra-vehicular activity suits of “Shenzhou No.7” that are divided into 5 series and 12 specifications. All products shall ensure normal use within the temperature range of -120-120°C and withstand damages from space radiation and space debris.

They are liquid propellants developed by Liming Research Institute of Chemical Industry. It is used as monopropellant for attitude control of aerospace vehicle and could make the satellite move along the predetermined orbit.

They are seals made of special rubbers. The Northwest Rubber and Plastics Institute has developed more than 11,900 pieces of special rubber seals of 53 types to support “Goddess Chang’e” space flight tasks, including ground test pieces, spare parts and formal assembly products. They have played important roles in many steps including rocket launching, orbit injection of satellite, attitude adjustment, orbital transfer and deboost for lunar landing and so forth.
GOOD BUSINESS PERFORMANCE FOR THE CREATION OF NEW VALUE

Confronted by an ever-changing international and domestic economic landscape, we have managed to, with the keynote of “steady progress” and theme of “improving development quality and efficiency”, maintain smooth and stable production and operation throughout the company in a coordinated way through solid work.

1. OPTIMIZING OUR INDUSTRY MIX

We have continued to push forward the industrial development strategy with business portfolio focusing on material, life, and environmental sciences as well as basic chemicals (“3+1” business portfolio). We have further enhanced our competitiveness by integrating internal resources, optimizing industrial layout and operational structure, eliminating outdated capacity, upgrading toward hi-tech & high value-added products, and transforming toward “service-oriented manufacturing”.

TYPICAL INITIATIVES

- We quickened the pace of life science development, propelled the integration of domestic and foreign enterprises and brought the cooperative advantage of international and domestic enterprises into full play.
- We integrated such environmental science resources as R&D, design, production and engineering service to build up the environmental science section.
2. OPERATIONAL RISK PREVENTION AND CONTROL

We have continued to pursue a seamless integration of our legal risk management, disciplinary inspection, supervision and audit, and we are working hard to minimize operational risks so that our company can develop in a positive manner.

Legal Risk Control

Focusing on the new three-year objective of legal management, we have further improved our prevention mechanism against legal risks. Rules, contracts and major decisions audited accounted for 95% of total. We have made efforts to establish and improve relevant rules and regulations and incorporate them into the informationization process to enhance the internal control system.

The Group began to render legal contract audit and specialized legal services. We audited 169 copies of various contracts with the amount of subject matter accounting to RMB 5.9 billion. In general, our legal advice and suggestions were adopted.

The Group organized 9 training sessions to more than 400 persons to improve the professional competency of our legal service personnel.

Disciplinary Inspection

We have begun to identify potential risks in key areas, sectors and links and integrated the identification and assessment of corruptive and operational risks into the comprehensive risk management system. Through advance of the punishment and prevention system, we have stepped up our efforts in improving Party conduct and upholding integrity as well as organizing relevant education to provide an uncorrupt environment for healthy development of the Company.

We carried out intensive activities to study and practice the mass line and made efforts to improve Party conduct.

We built up a punishment and prevention system of accountability for improving Party conduct and upholding integrity. We organized 214 activities themed anti-corruption and clean governance in which 79 person-times of executives at various levels turned in gifts, cash, and securities worth RMB 795,000.

We organized our executives to read the book Moral Revelation for Leading Officials and watch the film Danger of Misconduct – Moral Revelation for Leading Officials to advocate integrity at various specialized companies.
Supervision and Inspection

We have strengthened our capacity in risk prevention and control thorough intensifying supervision and regulation. We have established and continued to refine the internal control mechanism to set up a defense system against risks.

Audit

We have cooperated with the SASAC and SOE Board of Supervisors in regulating our internal auditing system and carrying out overall inspections on rectification of the auditing system, involving 420 audits with 1,188 pieces of advice and savings of RMB 193 million after auditing.

3. IMPROVING OUR MANAGEMENT PERFORMANCE

We continue to deepen management improvement and improve overall management performance benchmarking against cost reduction & efficiency increase as well as informationization so as to lay a sound foundation for building the Company into a world-class enterprise.

3.1 Continuous Improvement

Benchmarking against world-class manufacturing and continuous improvement, we have tried to set up a comprehensive management system comprising Six Sigma, lean production, plant management, supply-chain management, innovation management and “debottleneck” to promote the Company’s industrial transformation and upgrading.

TYPICAL INITIATIVES

We implemented the decision mechanism of “major issues, high-ranking officials, major investment and use of large amount of capital” as well as launched special campaigns to fight crimes and evils during which legal violations were settled.

We completed the petition response and whistle-blowing management system of the Group. We issued 12 monthly publications of disciplinary inspection and petition every month, settled 23 petitions regarding disciplinary inspection and received 18 visits of 31 person-times.

We reinforced the team building of disciplinary inspection & supervision and carried out corresponding trains to executives responsible for disciplinary inspection & supervision. We organized post practice for 60 trainees, 11 free trainings concerning various themes and offered assistance in 31 trains held by various enterprises.

The Group conducted 42 audits (4 accountability audits and 38 audits on construction projects), with the amount of total assets accounting to RMB 102.4 billion.

Reviewed the 11 accountability audit reports compiled by the Group from 2008 to 2013.

We fostered 32 black belts, 193 green belts and 11,530 yellow belts following the Six Sigma system with 31.07% of employees certified to a belt; and mainly sought advice from our own black belts and experts instead of external consultative institutions.

During the five years, we launched 2,160 work-class manufacturing/continuous improvement projects generating RMB 2 billion earnings, including quality improvement, process improvement, energy conservation and cost reductions, with the return rate increasing from 4.03x to 26.87x.

Haohua Honghe Chemical Co., Ltd. honored as an advanced enterprise for Six Sigma management

We launched the world-class manufacturing capacity evaluation to measure our operational & managerial expertise and sustainable development in all respects.
3.2 Cost Reductions and Efficiency Increases

We have managed to reduce costs and improve efficiency by reinforcing investment management, decreasing non-productive costs and implementing centralized purchasing management in an all-around way.

Improving Investment Management Practices

We have optimized our investment decision-making process, refined our investment management system and built up a sound investment management & control system. The changes make our investment decision-making process more scientific, standardized and professional.

The diversified investment strategy turned out positive results by introducing strategic investment to various specialized sectors.

We intensified our capacity in project planning, proofing and analyzing in virtue of consulting firms’ specialties.

We reduced the number of construction project with a year-on-year decrease of 56.8%.

We vigorously applied for various funds. Our N-butyl ester project was listed as a national key project of industry revitalization and restructuring special and fluorine materials project was listed as a national strategic emerging industrial project.
Reducing Non-Productive Costs

We have further reduced our non-productive costs via enhancing manufacturing and operation management and advocating diligence and thrift.

**TYPICAL INITIATIVES**

- We carried forward lean production to improve our plant operation. The Company achieved the goal of a 90% input rate of automatic control devices of its distributed control system (DCS) with over 80% stable utilization.
- We made sustained efforts to practice strict economy and combat against extravagancy. We successfully reduced our expenditure in official vehicles, receptions, overseas trips and conferences & trainings by 30%, documentation fees by 19% and conferences by 37%.

**Case: Daqing Zhonglan Petrochemical practiced "reward-punishment" performance evaluation**

Daqing Zhonglan Petrochemical Co., Ltd. practiced the "reward-punishment" performance evaluation (If the unit consumption of the equipment or agent exceeds the planned target in that month, a punishment needs to be given according to the calculated assessment quota at the time of the monthly examination; if the unit consumption of the chemical has fallen, an award of twice the quota will be given.) in its efforts to improve its evaluating methods for use of agent for oil refining equipment. The evaluation system hooked up the effectiveness in saving the agent for oil refining equipment to employees’ performance to arouse their enthusiasm and reduce the costs for agent for oil refining equipment.

Centralized Purchasing Management

We actively promoted the centralized purchasing management. We managed to set up our informationized purchasing platform based on the coordination of centralized and individual purchasing to improve resource integration at the Group level.

3.3 Informationization Construction

We have managed to improve management efficiency, keep our information channel unblocked and reduce management costs by close integration of operation process, further application of the information system and improved informationization.

**TYPICAL INITIATIVES**

- We expanded the application of enterprise resource planning (ERP) for better results. Benching against key indicators specified by the Group, we practiced quantitative evaluation on online businesses and published ranking every month. As a result, 80% businesses showed obvious progress.
- We applied the tier-3 ITSM system in setting up main operation process regarding issue response and event management, etc. to improve responsiveness to operation & maintenance.
- We synchronized our office platforms with management systems of trademark, asset & equity and projects and enhanced our information resource integration capacity.
4. IMPROVING THE CAPACITY TO SERVE

We managed to promote market needs through our services and handle the double pressure from sluggish markets and growing competitions by enhancing our marketing system, changing our marketing concepts and adjusting our marketing strategies.

TYPICAL INITIATIVES

- We stepped up management of custom channels, product & service and sales team and extensive application of "six tools".
- We took good control of pricing trend of raw materials and products and managed to adjust our pricing strategies timely.

Case: BlueStar (Beijing) Chemical Machinery gained an upper hand in the competitive market with quality services

Revolving the development strategy embracing professional, service, engineering and the world, BlueStar (Beijing) Chemical Machinery Co., Ltd. adjusted its work content, staffing, working places of the installation & maintenance businesses and refined its service process. To collect users' information and operation data, BlueStar (Beijing) managed its technical personnel based on locations and rendered technical support for users in a new service mode to gain advantages in competing market with quality services.

Case: Shandong Huaxing Petrochemical put great priority to ERP

Shandong Huaxing Petrochemical Group Co., Ltd. continued to optimize the ERP system to rationalize its core operation processes of integrating logistics, information stream and funds. The company continued to carry out reforms in promoting extensive application of ERP in its management so as to refine its management.
ChemChina strives to enhance the supporting ability of science for its dominant businesses by promoting scientific transformation, facilitating the commercialization of scientific achievements and improving the Company’s scientific competitiveness.

1. Technical Innovations

During 2013, we developed 793 scientific research projects covering a wide variety of fields, among which, 95 were national key technology development programs, 150 were projects supported by the ChemChina Science and Technology Foundation and key programs at the provincial and municipal levels as well as horizontal programs and 326 were the key corporate independent development programs. Totally 186 R&D projects were completed, appraised and accepted, leading to innovation achievements with independent intellectual property up to advanced level by both domestic and foreign standards.

We promote our competitive advantages by focusing on intellectual property strategy. During 2013, 719 patents were filed, including 385 patents for invention and 605 patents were granted, including 250 patents for invention. We now own 2,435 patents for invention which makes us top 5 among the central enterprises in three consecutive years.

Innovation achievements (Partial)

- The new products of Shenyang Chemical Co., Ltd. realized a contribution rate of 11% through independent R&D as well as through promoting the industrialization of R&D achievements.
- The first set of the industrialization demonstration project of coke-oven gas-to-compressed natural gas of Southwest Research and Design Institute of the Chemical Industry was put into production.
- “The water swelling polyurethane elastomer sealing products” by Northwest Research and Design Institute of the Chemical Industry solved a worldwide problem by keeping tunnels remaining water-tight for over one hundred years.
2. IMPROVING THE TECHNICAL INNOVATION SYSTEM

We strive to bring new energy into the promotion of the Company’s competitiveness by constructing an open innovation system in order to improve our innovation power, establish new innovation platform, facilitate the development of key technologies and generic technologies and promote the industrialization of scientific and technology achievements.

2.1 Building a R&D Team

We strive to establish an introduction and cultivation policy focusing on high-level talents such as the Chief Technology Officer and academic leaders as well as a growth channel for Young and middle-aged scientific and technological personnel by focusing on the optimization of scientific and technology innovation system together with the construction and introduction of a science and technology innovation platform targeting high-end talent team in order to promote the scientific and technology innovation power and the core competitiveness of the Group. As of the end of 2013, there were 8,300 R&D personnel throughout the system, among which, 3 were academicians of Chinese Academy of Engineering, over 2,900 senior technical personnel.

Honors and acknowledgements (Partial)

- The 1.2 MMTA Potassium sulfate packaged technology of Lop Nor Saline Lake Project developed by Changsha Design and Research Institute and China BlueStar Lehigh Engineering Corporation won the first prize of National Science and Technology Advancement Award.
- The organosilicon developed by BlueStar won the Techtexil New Material Innovation Award.
- The new type of textile coatings developed by BSI won the Innovation Award on Frankfurt International Industry Fair.
- Elkem broke through the conventional manufacturing technology and won three grand awards issued by “Casting Expo and Metal Casting Fair” held in US.
- The “One type of copolymer paste resin and its preparation method” invented by Shenyang Chemical Industry Co., Ltd. and the “Radial ply tyre with body filling glue” invented by GuiLin Rubber Machinery won the Excellent Award of the Fifteenth China Patent Award.
- The “high-temperature-resistant flanged edge conveyor belt” invented by Qingdao Rubber Six Group Co., Ltd. was granted the patent for invention by both US and EU, which is the only patent of international level won by China rubber industry.

Case: Zhonghao Chenguang Research Institute of Chemical Industry establishes the Model Worker Innovation Studio

Zhang Jianxin, the R&D Director of Zhonghao Chenguang Research Institute of Chemical Industry was honored “the model worker of Sichuan Province”. In order to take this chance and utilize the guiding effect of the model worker, the Company set up a scientific research team focusing on research, technique and practice in the R&D Center which integrates scientific research innovation, management innovation, method innovation and business innovation as its main tasks to cultivate more advanced talents and enhance the team’s abilities in learning, innovation and professional quality by amplifying the brand effect of modal worker through “Passing-on, Helping and Guiding”. The Company established the Model Worker Innovation Studio with this team as its core.

8,300 R&D personnel throughout the system
3 academicians of Chinese Academy of Engineering
Over 2,900 senior technical personnel
2.2 Increasing Input in Technical Innovation

We established a mechanism with stable input increase in scientific and technology by steadily increasing our input into scientific and technology innovation and by combining the “3+1” (3 refers to material science, environmental science and life science while 1 refers to basic chemical engineering) development strategy of the Group with the new plan for scientific and technology innovation. And we also established the ChemChina Scientific and Technology Development Foundation, ChemChina Scientific Technology Award and ChemChina Excellent Patent Award at the same time we were applying for the national scientific program. During 2013, RMB 4.15 billion were invested in scientific and technology investment, completing the arrangement for 570 scientific and technology plans, among which, 95 were national key technology development programs.

2.3 Establishing Technical Innovation Platform

We provided solid guarantee for scientific and technology innovation by facilitating the planning and construction of “Innovation Base for Overseas High-level Talents” and speeding up the establishment of the corporate technology innovation platform. As of the end of 2013, over 100 R&D institutes were established, among which, 22 were of national level. Totally 2 national key labs, 10 national engineering technology research centers, 9 state-recognized enterprise technology centers, over 10 workstations for post doctorate and academician, 4 supervision and testing centers of national level and over 40 supervision and testing centers of industrial and provincial levels were established in order to provide technological support for facilitating science and technology innovation and technological advancement in the chemical industry of China.

4.15

RMB 4.15 billion invested in scientific and technology investment in 2013

Completed 570 scientific and technology plans

95 national key technology development programs

TYPICAL INITIATIVES

“State Key Laboratory for Marine Coatings” and “National Research Center for Carbon Black Engineering Technology” were accepted.

Subsidiaries including Zhonghao Chenguang Research Institute of Chemical Industry, Guilin Rubber Machinery, Tianhua Institute of Chemical Machinery & Automation Co., Ltd., ChemChina, Guilin Tire Co., Ltd., Yiyang Rubber & Plastics Machinery Group Co., Ltd., Hubei Sanonda Co., Ltd. and Xinghuo Organic Silicone Plant were rated by “State Recognized Enterprise Technology Center”.

National Seawater Desalination Industry Alliance was established under the initiation of Hangzhou Water Treatment Technology Development Center in a bid to promote complementary advantages in production, study, research and business.

R&D regional layout was optimized by Adisseo Group and a R&D center was established in Rhone Alpes region.
3. FACILITATING THE APPLICATION OF SCIENTIFIC ACHIEVEMENTS

We facilitate the application of scientific achievements and use science and technology to promote corporate value and competitiveness by optimizing technical potentials in order to realize “debottleneck” in equipment technology reform.

**Commercialization of key technical innovations in 2013 (Partial)**

- Carbon Black Research & Design Institute broke through the bottleneck in core technologies and obtained general contracting capability focusing on carbon black system solution, and won RMB 174 million EPC contract from Nippon Steel Corporation.

**Case: Southwest Research and Design Institute demonstrating its industrial emissions-gas-to-thylene glycol units in Hebei Province**

The construction of the demonstration unit for industrial emissions-gas–to-thylene glycol independently developed by Southwest Research and Design Institute started in Xinji, Hebei Province.

This technology drastically reduce the emission of SO₂ and CO₂ by utilizing the industrial emissions-gas–to-thylene glycol which at the same time can further merge into high value-added downstream products and present promising significance in sustainable development and environment protection.
4. PROMOTING TECHNOLOGICAL ADVANCEMENT IN THE CHEMICAL INDUSTRY

While we are searching for the inexhaustible motive force for corporate development, we also devoted ourselves into formulating the industrial standard, deepening the cooperation and exchange among peer industries in order to bring about a win-win situation between enterprise and the society.

Case: Three industrial problems cracked by Haohua Yuhang Chemical Co., Ltd.

Three industrial technology problems are cracked by Haohua Yuhang Chemical Co., Ltd. These problems include 108m³ polymerizer sticking kettle which has been impeding the stable operation in the production process among chlor-alkali enterprise for a long time, and the poor stability of Hydrogen chloride synthesis furnace in operation, as well as excess chloridion in the regenerated wastewater in chelating resin tower. On December 22, 2013, it was announced by the Science and Technology Department of Henan Province after examinations conducted by its experts that the achievements were up to top domestic level.

Case: Kiloton Mercury-free catalytic vinyl chloride of ChemChina successfully put into operation

The 2,000-5,000 ton pilot test unit utilizing the new technology of Mercury-free catalytic reforming preparing vinyl chloride co-developed by multiple units including Dezhou Shihua Chemical Co., Ltd. and Shanghai Advanced Research Institute, Chinese Academy of Sciences was successfully put into operation and produced ideal experimental data. This technology opened up a new path for PVC production focusing on energy conservation and environment protection by utilizing Acetylene and Dichloroethane in the synthesis of mercury-free catalyst of vinyl chloride which not only completely eliminates industrial mercury pollution but also reduces the consumption of raw carbide by half, presenting huge potential in the promotion of both economic and social benefit by reducing the comprehensive energy consumption by around 70 kg per ton standard coal in the production of PVC resin and reducing the comprehensive cost by around RMB 10 million.
4.1 Participating in the Formulation of Industry Standard

We devoted our effort into industrial development by taking advantage of the industrial standard formulation process in combination with our advantages in the industry. The number of the technology standards we formulated, participated in formulating and amending throughout this year stands at 93, among which, two were international standards, 45 were standards of national and industrial levels.

Case: The 62nd annual meeting of the International Plastic Standardization Technology Committee undertaken by China BlueStar Chenggrand Research Institute of Chemical Industry

China BlueStar Chenggrand Research Institute of Chemical Industry together with Sinopec and PetroChina co-undertook the 62nd annual meeting of the International Plastic Standardization Technology Committee hosted by Standardization Administration of China. During the meeting, over 90 standards including Carbon Footprints in Plastic and Plastic Products and Terminologies in Plastic Industry were discussed by over 200 representatives from over 20 countries. Through this meeting, more standard workers of China are able to take part in the formulation of international plastic standards, which provides a favorable platform for transforming Chinese technological standards into international ones.

Case: Two national major standards for conveyer belt drafted and amended by Qingdao Rubber Six Group Co., Ltd.

Qingdao Rubber Six Group Co., Ltd. drafted two national standard as the first amending unit which are GB/T 7984-2001 General Purpose Fabric Conveyor Belts with Rubber or Plastic Coatings and GB/T 9770-2001 General Purpose Steel Cord Conveyor Belts. These two standards are both polar products behind the conveyer belt industry, on the basis of which, most of the conveyer belt products were derived.

4.2 Technical Exchanges and Cooperation in the Industry

We achieve complementary advantages and enhance the competitiveness of our corporate technology by facilitating cooperation and exchange on science and technologies among peer industries and promote advancement in industrial technologies by initiating and participating in a number of open technology innovation strategy alliances for production, study and research.

Case: MCRI Debuted the “Public Open Day”

In May 2013, the National Key Laboratory of Marin Coatings at the Marine Chemical Research Institute (MCRI) launched its first “public open day” and saw the participation by more than 50 students from colleges and universities including Qingdao University and Qingdao University of Science & Technology. The engineers demonstrated six different marine coatings and functional materials for the students, introduced the function mechanism and areas of application of these coatings, and opened some participatory experiments to give the students a chance to operate in person and immerse themselves in the charm of science.

TYPICAL INITIATIVES

- The research teams from the Department of Fiber Business of BlueStar and the Research Institute of Machinery conducted exchange focusing on the short-process modeling and package units and technology for Lightweight, high strength composite materials.
- 8 institutes under the Group joined with over 20 experts from the 5th Research Institute of China Aerospace Science and Technology Corporation in project technical communication in order to better understand the technical demand of the next generation of products for the purpose of deepening cooperation.


Chemical Industry Museum of China participated in the “2013 Nobel Laureates Beijing Forum – New Materials & New Energy Exhibition” hosted by the Development Research Center (DRC) of the State Council, Chinese Academy of Sciences [CAS], China Association for Science and Technology [CAST] and Beijing Municipal People’s Government, organized by Beijing Association for Science and Technology and the Foreign Affairs Office, Beijing Municipal People’s Government. The section radial tire and the rubber parts of space wear on display showcased China’s current position and prospects in the fields of new materials and new energy. The space wear rubber parts [inner liner] are named as "highlight exhibit items".
We have established a SHE management system based on a common value of “love and cherish life, no bloody profits”. We also actively promote “five steps to safety” and “SHE behaviors supervision” and carry out safety culture activities to increase safety performance throughout the company.

1. IMPROVING OUR SAFETY MANAGEMENT SYSTEM

We focus on the implementation of safety standardization to further regulate production safety behaviors of subsidiaries and strengthen basic management of safety. We keep on improving the SHE management system, and have issued many system documents like SHE Management Specification, SHE Management Regulations, SHE Management Inspection Form covering product life cycle, providing a framework and guidance for professional suppliers and subsidiaries.

Qenos became the model of the industry for the case of no overhauling for 12 consecutive years and won the award of manufacturer of the year issued by the Government of Melbourne. Qenos SHE system has been widely applied by domestic enterprises.
2. SOLIDIFYING OUR FOUNDATION FOR PRODUCTION SAFETY

We built a solid defensive line of production safety, promoted “five steps to safety” and “SHE behaviors supervision”, and standardized operation behaviors of staff. We actively carried out supervision of production safety, implemented the reform, and improved essential safety capabilities. In 2013, the investment in production safety of the system is RMB 537 million.

2.1 Safety Hazard Identification

We earnestly implemented the arrangements and requirements of the Work Safety Committee of the State Council, the State Administration of Work Safety and SASAC, formulated safe production inspection solutions, conducted safety supervision inspections, complete safety management measures and comprehensively raise the safety management of the enterprise, achieving safe and stable operation across the whole system. From June to September, the group put emphasis on the supervisory inspection of 21 enterprises; finding 676 hidden dangers, raising 202 suggestions and sending out 21 notifications, accumulating a total of 7,104 hidden dangers that were found across the entire system, with 6,877 of these rectified and reformed, a rate of 96.8%.

Case: Special Equipment Inspection Campaign Carried out in Daqing Zhonglan Petrochemical Industry Co., Ltd.

Daqing Zhonglan Petrochemical Industry Co., Ltd. has conducted an “inch-by-inch search” for atmospheric distillation units to solidify production safety in winter, and it also thoroughly investigated unit by unit, took photos to make sure of the hazards found on site, and issued the notification for rectification which required completion within a specified period of time. All production units, including auxiliary production units, were put into the rectification plan to be solidified and improved. The safe operation capacity of production units was further improved through strict investigation and careful management.
2.2 Improving Intrinsic Safety

We have increased our investment in occupational safety to ensure our production operation units and equipments are advanced and sound, and function properly.

Case: Tianjin Petrochemical Industry Co., Ltd. has employed the electronic patrol system for intelligent production monitoring

Tianjin Petrochemical Industry Co., Ltd. has installed the electronic patrol system to standardize the supervision of patrol inspection of operating personnel during production process, including 186 inspection points, 38 inspection lines which covered the on-call posts of main production units posts, electrics, instruments, fitters responsible for transporting and fire fighting, and realized the intelligent inspection system of overall process and safety assurance of the company and improved the safety supervision level of production line.

2.3 Intensifying Emergency Management

We enhanced our emergency management system, improve the ability to deal with emergencies and minimize losses resulting from accidents and emergencies.

TYPICAL INITIATIVES

We have intensified our emergency management system and issued the Emergency Response Plans of China National Chemical Corporation [Third Edition]. We required each enterprise to write the on-site management plans and intensify field drills, inspect the plans and its feasibility & scientificity, and enhance the emergency capacity of staff.

We have increased our investment in emergency rescue, installed fire detection alarm system and set up emergency supplies reserve warehouses for units, storage tank areas and switching rooms, and equipped emergency rescue materials like positive pressure air breathing apparatuses, gas masks, medical rescue boxes, oxygen cylinders, portable flammable gas and toxic gas alarm detectors.

Case: Heilongjiang Haohua Chemical Group Co., Ltd. has intensified emergency management

Heilongjiang Haohua Chemical Group Co., Ltd. has developed emergency response plans for major hazards like liquid chlorine, VCM storage tanks, etc. so that the best solutions can be worked out based on actual production situation. Heilongjiang Haohua Chemical Group Co., Ltd. organized the operating personnel to conduct an actual operation by the unit of workshop and a systematic theoretical analysis of sudden power cut of external networks, emergency cut-off of boilers, trip of air compressors, emergency power cut of polymerizer and fire of acetylene stations. By on-site drills, the emergency management capabilities of staff at the production line were improved and the risks of having accidents were decreased.
2.4 Improving Our Management of Hazardous Chemicals

We have implemented the supervision of hazardous process of key areas, hazardous products and major hazards, trying to prevent and minimize hazardous chemicals accidents.

**TYPICAL INITIATIVES**

- We invited Qenos experts and domestic HAZOP (using the analysis of hazards and operability) experts to carry out the HAZOP training for key enterprises in the system and the report on process accidents in BlueStar experimental unit, and explored the establishment of process accidents early warning mechanism.

- Cangzhou Dahua Group Co., Ltd. has earned the title of honorary national hazardous chemicals emergency aid base with financial support of RMB 38.75 million.

- Out of 4 professional companies involved in hazardous chemicals, 3 of them were equipped with safety directors, reaching the coverage rate of 75%.

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### Company | Management Measures for Hazardous Chemicals
--- | ---
#### Changyi Petrochemical Co., Ltd. | • Authorized Shandong Siwei Safety Assessment Center to conduct an on-site study of evaluation on major hazards of the production units and tank fields of the company, and carried out the requirements of national *Interim Provisions on the Supervision and Management of Major Hazards of Dangerous Chemicals* to further standardize and normalize the management of major hazards of the company.

#### Haohua Aerospace Chemical Co., Ltd. | • Carried out a comprehensive inspection on major hazards of liquid ammonia, liquid chlorine, chloroethylene and calcium carbide of the production system and made sure that no safety hazard would be found by examining safety accessories of chloroethylene, calcium carbide, liquid ammonia and other major hazards, emergency drills, emergency on duty, everyday inspection, control and analysis of nitrogen trichloride.

#### Guangxi Tintom New Material Co., Ltd. | • Transferred five groups of major professional staff in the company to form an analysis team of safety, process, equipments, electrics & instruments, and operating artisans to make a process hazard analysis of titanium dioxide gas station of the second branch, newly-built gas station and acidolysis by analysis of hazards and operability (HAZOP)

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2.5 Occupational Health and Safety

We lay emphasis on the detection of occupational hazards and the prevention & control of occupational diseases and we keep improving the sanitary condition of workplaces and the condition of occupational safety and health of staff; we raise the level of the prevention & control of labor protection appliances whose repellency will be strengthened with close integration of humanized designs.
3. FOSTERING A SAFETY CULTURE

We take safety culture as a major method for improving the level of safety management, and intensify the education of safety culture, continually carry out activities of realizing “Model Enterprise of Safety Culture of ChemChina” and improve the safety protection of staff.

3.1 Conducting Safety Training

Through safety training, every employee can know well of production safety knowledge, safe operation skills and safety protection knowledge to improve their safety protection awareness and accident management capabilities.

- Conducted safety trainings for maintenance personnel going out for long time of assembly shop, special topic of how to make scientific hedge, precautionary measures and emergency plans in terms of working environment, operation methods and equipments and focused on the most neglected safety matters in everyday and production process by offering accident cases.

- Employed experts from Qilu Petrochemical to train shift leaders of electric maintenance, shift leaders of electric operation, safety officers of electrical works, technicians of electrical works, and minister & vice minister of electrical works of subordinate companies about analysis of safety hazards of electrical works existing in key companies directly under ChemChina Petroleum Co., Ltd., electrical safety management system which shall be set up by the companies, standardization management of transformer substations, electric constructions safety management, technical progress of electrical equipments and technical measures (safety measures) management.

We organized certified safety engineers and safety management staff of the company to participate in the continuing education training for certified safety engineers.

We carried out the experiential learning of students for deputy safety directors to implement the learning of work plans. 31 people were directly appointed safety directors or deputy safety directors directly under the enterprise.
3.2 Building a Safety Culture

We continued to carry on the building of “Model Enterprise of Safety Culture of ChemChina”, fostered and improved the staff’s safety awareness of home life, transportation and daily work, and stimulated the building of a safety culture of the entire enterprise.

**Daily work**

**Transportation**

**Home life**

Stimulated the building of safety culture of the entire enterprise

**TYPICAL INITIATIVES**

- We have drawn up a Safety Behavior Guidance for Enterprise Management Personnel and Picture Collection of Unsafe Conditions of Chemical Enterprises.
- We have carried out 6 theme activities of at-home safety culture including questionnaire surveys, essays and comics, and excellent works were widely spread in *Information Morning Post* (a newspaper of chemical industry) and internal networks.
- We have built a field of “safety culture messages of harmonious families”, “safety letters” and “photos of family harmony” to promote the awareness of work safety.

**Company**

**China National BlueStar (Group) Co., Ltd.**

- Continued the at-home safety culture activities and received over 3,000 at-home safety questionnaires, 1,000 safety essays and 580 comics by the end of May according to six theme activities of at-home safety

**Shandong Changyi Petrochemical Co., Ltd.**

- Organized activities including safety knowledge contest, safety skills competition, safety letters, “production safety month”, and 150 days of hard work to fully rectify safety hazards”. Made the best use of OA system of the company, Changyi Petrochemical Newspaper, safety board of the department, safety propaganda column to create a public opinion atmosphere of “attention for safety and caring for life” and realized the transformation of the staff from “need me to be safe” to “I need to be safe”. Shandong Changyi Petrochemical Co., Ltd. was awarded “Model Enterprise of Safety Culture of Qingdao of Provincial Level”
GREEN AND ENVIRONMENTAL, EXPANDING THE NEW SPACE

We continue to promote “zero emission” management, implement the production idea of being green, low-carbon and recycled. Further promote energy conservation and emissions reduction, improve the efficiency of comprehensive utilization of resources and energy to build a circular economy. Provide new-type, high-efficiency and low-carbon products and services to realize clean development, low-carbon development as well as sustainable development.

1. IMPROVING OUR ENVIRONMENTAL MANAGEMENT SYSTEM

We have improved our environmental management system and established a network platform that covers the Group’s three-tier management structure. We are strengthening our long-term benchmarking mechanism pursuing “comparison with the advanced, gap analysis, continuous improvement and continual surpassing” to optimize our environmental management model.

Case: Siping Haohua Chemical Company Limited revised its environmental management system

Siping Haohua, revised and updated six working standards based on practical production. The company added four new environmental management systems, including such management provisions for automatic monitoring facilities of key pollution sources, measures for troubleshooting and rectification of environmental hazards, environmental information reporting process and management provisions for environmental emergencies. The new work management provisions for environmental protection defined rights, obligation, rewards and punishment clearly, making environmental management and governance more detailed and strict.

2. PROMOTING GREEN OPERATIONS

We implement the circular economy concept of “innovation, continuous improvement and cleaner production”, establish complete and recycled economic industry system and foster a group of growth-oriented manufacturers of low input, low consumption, low emission and high efficiency based on the principle of circular economy of “reduction and recycling, and resource and reduction first”.
2.1 Promoting Energy Conservation and Emissions Reduction

We vigorously boost "zero emissions" management and promote energy conservation and emission reduction through technological innovation, upgrading of devices, and debottlenecking reform. We enhance process control and early warning, and achieve various projected goals of energy conservation and emission reduction. The Group’s energy consumption per ten thousands yuan output is decreased by 7.8% on a year-on-year basis.

**TYPICAL INITIATIVES**

1. During the period of 2010-2012 third-tenure assessment by SASAC, depending on the energy consumption per ten thousands yuan output decreased by 17.6% compared to 2009, we over-fulfilled the tenure performance objective of decrease by 8.7% and won the title of "Excellent Enterprise of Energy Conservation and Emission Reduction".

2. We prepared and issued *Performance Assessment Measures for Energy Conservation and Emission Reduction*, signed responsibility document of annual objectives of energy conservation and emission reduction, and put more efforts to enhance assessment and accuracy of energy conservation and emission reduction, and

3. We supervised and urged the subordinate companies involved in "Comprehensive Program on Energy Conservation and Emission Reduction" implemented by National Development and Reform Commission to analyze and summarize, and notified companies failing to fulfill the program publicly.

4. We organized sectors of oil gas, chlor-alkali and synthesis ammonia to conduct energy benchmarking activities to reduce energy costs.

**Conservation of Energy Sources**

<table>
<thead>
<tr>
<th>Company</th>
<th>Typical initiatives and achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>BlueStar Daqing Company</td>
<td>Put more efforts to device-based water saving, issue limited-time rectification notice to companies concerned for excessive on-site drainage and displacement, running water, untight closure of valve and leakage, and trace and check the rectification.</td>
</tr>
<tr>
<td>SINOPEC Tianjin Petrochemical</td>
<td>By means of technology innovation, and through implementation of a series of energy consumption optimization and energy conservation reform projects, translated waste heat from production into those required by production, and boost energy consumption in the course of production to realize its reasonable, scientific and positive cycle</td>
</tr>
<tr>
<td>Qenos</td>
<td>Renovation and extension project of Qenos realized CO₂ emission reduction of 100,000 tons, cogeneration of 21 MW and drinking water saving of 2 billion litres</td>
</tr>
<tr>
<td>Shuangxi Rubber</td>
<td>Carried out campaigns such as energy conservation publicity week and low carbon day, and implemented &quot;My Suggestion on Energy Conservation, Emission Reduction and Low Carbon&quot;, which resulted in receipt of 272 suggestions on energy conservation and consumption reduction from employees</td>
</tr>
</tbody>
</table>
Pursuit of “Zero Emission”

We further establish the idea of “zero emission”, promote clean production audit, enhance pollution source governance and control pollutant discharge under certain standards.

2.2 Building a Circular Economy

We will continue to implement the circular economy concept of “innovation, continuous improvement and clean production”, promote advanced production methods, and improve our resource efficiency from such aspects as system, technology and management to realize waste reduction and recycling, and build the industry chain based on circular economy.

2.3 Advocating Green Office

We carried out energy conservation publicity and education, raised awareness on issues related to energy saving and rational energy utilization. We promoted green office in terms of water consumption, electricity consumption, paper consumption, vehicle consumption, and recycling of wastes and endeavored to build a favorable production and construction environment and living environment.

We strictly enforced requirements for environmental protection in terms of pollutant discharge, desulfurization and dust removal facilities for coal-fired boiler, comprehensive treatment of organics, gasoline and diesel production, and coal procurement.

Aeolus Tyre Co., Ltd. won the title of “Leading Enterprise for Efficiency of Major Energy-consuming Products in Petroleum and Chemical Industries in 2012” and was rated as “Excellent Enterprise for Implementation of Clean Production in Henan” by Henan Environmental Protection Department.

**Typical Initiatives**

- We carried out energy conservation publicity and education, raised awareness on issues related to energy saving and rational energy utilization.
- Electrical energy saving
- Paper saving
- Water saving
- Vehicle consumption
- Waste recovery
3. PROMOTING GREEN SERVICES

We promote and use new environment-friendly technologies, and put efforts on R&D of green and environment-friendly products to promote low-carbon development of the chemical industry.

3.1 Researching and Developing Environmental Technology

We actively researched, developed and promoted environmental technologies with favorable environmental benefits and application prospect, making contributions to sustainable development of enterprises in chemical industry.

<table>
<thead>
<tr>
<th>Company</th>
<th>Initiatives and effectiveness of environmental R&amp;D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hangzhou Water Treatment Technology Development Center</td>
<td>• It made report of <em>Application of Double-membrane Method in Advanced Treatment of Printing and Dyeing Waste Water</em> in National Seminar of New Technologies and New Equipment for Industrial Waste Water Treatment and Engineering Application, explained its idea from the perspective of current situation, treatment difficulties and existing solutions of printing and dyeing waste water, and fully presented advantages and prospects of promotion of double-membrane method in printing and dyeing industry based on such projects undertaken by the center as 30,000 tons per day waste water treatment system in Datang, Foshan and 5,000 tons per day waste water treatment system for dyeing and finishing in Jiaming, Zhejiang and from perspectives of water quality of inlet/outlet, differential pressure and investment costs of the system • “Research and demonstration of industrialization of high-performance blend sea water desalination composite membrane” project obtained RMB 50 million of special funds for R&amp;D and industrialization</td>
</tr>
<tr>
<td>Zhonghao Guangming Research &amp; Design Institute of Chemical Industry Corporation</td>
<td>• Scientific achievements of <em>Super-critical Carbon Dioxide Water-free Dyeing Technology for Fiber and Garments</em> jointly declared by Guangming Institute and Dalian Polytechnic University jointly declared won the second prize for technological invention of the Ministry of Education. This technology uses industrial exhaust gas-CO₂ to replace traditional aqueous medium and completes clean production of fiber materials in the course of dyeing through biochrome-based super-critical CO₂ white discharge, extraction and dyeing, solving water pollution issues at its source and realizing reasonable recycling of resources</td>
</tr>
</tbody>
</table>

3.2 Providing Eco-Friendly Products and Services

We used our advantages in energy management and chemical technology, put more efforts to development of low-energy-consumption and low-emission products, promoted enhancement of energy conservation and environmental protection capacity of the petrochemical industry, and realized win-win situation meeting our approach of “we invest, you save energy, and three parties benefit”.

Case: BlueStar Environment Engineering Co., Ltd. carried out eco-friendly cleaning project

The company undertook Ningbo Wanhua’s cleaning project of polyurethane actinic unit, separate heat exchanger and reaction still, analyzed characteristics of dirt in heat exchanger based on features of cleaning of on-site equipment, measured working space of equipment, built space shield of high-pressure water-jet hydraulic giant and fastened bellows used for drainage. At the same time, it provided confined protection for operation of the hydraulic giant, and sent waste water collected to water treatment system to ensure there is not any drop of waste water falling to the ground, wining most praise.
EMPLOYEE GROWTH, CREATING NEW BUSINESS OPPORTUNITIES

We uphold the idea that “staff supports the development of the enterprise”. We view employees as our most important resource and valuable asset, regularly strengthen the talent team construction and enhance the cohesiveness by corporate culture, and provide them with good development opportunities.

1. PROTECTING THE INTERESTS OF OUR EMPLOYEES

We standardize the management of our labor contracts; reinforce the interaction between salary & welfare and employees’ performance and operate the labor union in a standard way. We respect the legitimate rights and interests of our employees, and protect employees’ personal information and privacy. No major labor dispute occurred in 2013.

We regularly strengthen the management of our labor contracts, and improve our labor and employment mechanism. In 2013, 100% of our staff signed labor contracts and collective contract rate was 100%. We have 125,002 employees, of whom 71% are male and 29% are female. The Company employs 4,318 minorities, or 3.45%, 10,325 overseas employees, who account for 8.25%, and 1,201 fresh graduates are newly enrolled.

We continuously optimize our welfare system to fully utilize incentives. We make reasonable regulation of total wages on the basis of the principle of ergonomics; strictly regulate the position-related consumption and optimize the remuneration system. We have implemented an enterprise annuity plan.

We steadily push forward the transparency of factory affairs and promote the standard operation of the labor union. The labor union has a 100% staff membership rate, with funds of RMB 19,700, holding 120 meetings of the workers’ congress, collecting 3,817 opinions and suggestions with a 90.3% of adoption rate. The labor union has sorted out 13 kinds of common tasks in 5 categories and 10 sets of labor union standard operation documents, each of which includes procedures, detailed rules and instruments to facilitate the internal communication within the labor union.
2. ACHIEVEMENT OF EMPLOYEES’ VALUE

We constantly improve our construction of training system and expand career development path by increasing employees’ competence, qualities and professionalism as well as enhancing their lifelong learning and lifelong employability prospects.

2.1 Diversification Education Training

We constantly enhance the training frequency, innovate the training forms and enrich the training contents to create a multi-dimensional education and training system.

- Successor and leadership development programs: training leadership team members at all levels of the company
- ChemChina Central Party School training courses: training leading young and middle-aged cadres
- Team leader remote training: enhancing the skills and management capacity of grassroots leaders as a “connecting link” in the enterprise
- Deputy CHRO classes: training the deputy Chief Human Resources Officer
- Deputy CFO classes: training the deputy Chief Financial Officer
- Discipline inspection and supervision classes: training cadres on discipline inspections and supervision
- Youth League committee secretary training courses: training the Youth League committee secretary
- Deputy director of security training courses
Case: Strengthened Team Building and steady advance of the “1,000 Team Leaders Plan”
ChemChina deepened efforts in improving quality of team leaders and tried to manage team building of team leaders in HR management perspective. In addition, the Group made continuous efforts to push forward team building by setting up proper selection & appointment mechanism and career development system. Remote trainings on “Qualification for Team Leaders’ Post Management Capacities in Central Enterprises” were carried out for 5,313 team leaders and employees held core posts across the Group with. Up to now, 3,134 employees have been certified after receiving the training.

2.2 Optimizing Career Development Opportunities
We improve employees’ career development path design, gradually improve the open, just and fair promotion channel and provide them a stage without ceiling.
3. ENHANCING EMPLOYEES’ WELL-BEING

We value the culture development as an important part in employee working, and integrate the culture in employee activities. We care about our employees and their family, and always seek to improve their well-being and enthusiasm on participating in enterprise building.

3.1 Creating a Harmonious Corporate Culture

We regard "Enhancing Internal Cohesiveness and External Image of ChemChina" as the keynote for culture development, utilizing the guiding and model effect of typical employees to promote the harmonious atmosphere and pass on the corporate culture of "there must be a use for my talent".

**TYPICAL INITIATIVES**

- We deepen the activity of excelling in work. 12 models have been selected to develop their model demonstration and guidance effect.
- We carry on the selection of "ChemChina Medal" 40 persons was awarded "ChemChina Medal".
- Li Chao, an operator in Shenyang Chemical, was selected as one of "Most Beautiful Front-line Workers in Central Enterprises" on the website of SASAC.
- We vigorously develop activities for youth. All levels of Youth League organizations have organized series education activities themed with "Chinese Dream, ChemChina Dream" and carried out "Learning, Practicing, Competing and Excelling" activities over hundred times. "Youth Shock Brigade" and "National Youth Model Post for Production Safety" have played a significant role in accomplishment of production and operation and in urgent, difficult, dangerous and important tasks. "Youth • Whetting" Exercise & Growth Experience Exchange Meeting for Young Cadres was held with 136 young cadres worldwide participated.

**Case: BlueStar Dream Come True won the Second Prize of “New State-owned Enterprise in Chinese Dream” Micro Film Festival**

*BlueStar Dream Come True*, planned and produced by the Corporation, stood out in 418 entrants and won the Second Prize of "New State-owned Enterprise in Chinese Dream" Micro-film Festival. The micro film described the history process of French-Sino cooperation on construction of first methionine project with self-owned intellectual property rights in BlueStar Adisseo (Nanjing) Co., Ltd, showed the change and improvement brought by the international cooperation and advanced management concept, as well as the joint efforts of enterprise and employees to realize domestication of methionine production, a dream pursued by ChemChina workers for decades.

**Case: Searching for “The Beautiful ChemChina Worker”**

With themes of “Dedicated Workers in ChemChina” and "Moving ChemChina", we planned and designed the selection program of Searching for "Beautiful Workers in ChemChina" which aimed at discovering "Beautiful Workers in ChemChina" who worked and devoted themselves in grassroots. The event has effectively passed on the corporate culture of “born to win”, encouraging a wide range of grassroots workers to establish the positive outlook on life and the positive values to promote the harmonized development of the company with positive energy.
3.2 Caring for Our Employees

We are committed to make a good corporate atmosphere of sharing mutual assistance and care between our employees. Labor unions at all levels assisted employees to solve 717 practical problems and did more than 5,000 beneficial things for them.

**Case: Xinghuo Organic Silicone Plant arranged “special bus to college entrance examination room”**

Xinghuo Organic Silicone Plant arranged four buses to transport children of employees taking the national college entrance test to make sure they were safe and performed their best.

**Case: The poverty alleviation scholarship foundation of GRM deliver bursaries**

GRM established the poverty alleviation scholarship foundation in August 2005 to help children of employees with actual financial hardship. GRM provided RMB 5,000 for 4 children of employees who were admitted to universities and met the requirements after investigation in September 2013. The continuous development of the activity reflected the systematism and standardization of employee assistance and greatly enhanced the cohesiveness in enterprise.

### Staff honors (Partial)

<table>
<thead>
<tr>
<th>Awards</th>
<th>Quantity</th>
<th>Awarded by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Groups in Central Enterprises</td>
<td>5</td>
<td>SASAC and Ministry of Human Resources and Social Security</td>
</tr>
<tr>
<td>Model Workers in Central Enterprises</td>
<td>8</td>
<td>SASAC and Ministry of Human Resources and Social Security</td>
</tr>
<tr>
<td>Most Beautiful Front-line Workers in Central Enterprises</td>
<td>1</td>
<td>SASAC</td>
</tr>
<tr>
<td>Most Beautiful Youth Workers</td>
<td>1</td>
<td>Central Communist Youth League</td>
</tr>
<tr>
<td>Youth Medal for Young Worker in Central Enterprises</td>
<td>1</td>
<td>Youth League Work Committee of Central Enterprises, Youth Federation of Central Enterprises</td>
</tr>
<tr>
<td>Nomination for “Youth Medal for Young Worker in Central Enterprises”</td>
<td>1</td>
<td>Youth League Work Committee of Central Enterprises, Youth Federation of Central Enterprises</td>
</tr>
<tr>
<td>Medal of ChemChina</td>
<td>40</td>
<td>ChemChina</td>
</tr>
</tbody>
</table>
Cultural and sports activities of employees (Partial)

China BlueStar Group Co., Ltd.
Employee physical fitness activities on Labor Day

Yellow Sea Rubber Co., Ltd.
Activity of “Youth Dialogue – Face-to-Face with Idol Mentor”

Yiyang Rubber Works
Participating in “Yiyang Dream – Poetry Recitation Evening” in Yiyang

ChemChina Guilin Tire Co., Ltd.
“Distinctive Lantern Riddles” entertainment for celebrating Mid-Autumn Festival

ChemChina Zhuzhou R&D Institute for Rubber & Plastics
“Morality Lecture”
SHARING NEW RESULTS IN A HARMONIOUS SOCIETY

The development of ChemChina would be impossible without the support and cooperation from all sectors of the community. We cooperate with all parties with an open mind, engage in the construction of harmonious communities with a global perspective, sincerely organize public welfare donations and volunteer activities, and share development results with all sectors of the community.

1. STRATEGIC COOPERATION

We will, aiming at construct a harmonious supply chain from a global perspective, actively implement our strategy of “going global” and “introducing in”, make full utilization of markets and resources and conduct forward-looking cooperation, to share complementary advantages and promote industry progress.

TYPICAL INITIATIVES

😊 Aeolus Tyre became the only officially designated product of the tire industry for the first China Grand Rally (CGR), which was the first time that a China’s proprietary tire brand made its debut in a grade-A rally racing.

😊 ChemChina Storage & Transport Co., Ltd. is cooperating with the Agricultural Bank of China (ABC) in financing and construction to step up the development of the its expansion project for a tank yard with a storage capacity of 222,000 m³.

Case: BlueStar Elkem and Russia’s KAMAZ signed a 2014 Cooperation Agreement

BlueStar Elkem and KAMAZ signed an agreement for direct supply of casting products for 2014, which worth more than EUR 2.5 million. The agreement has increased Elkem’s influence on Russian market and facilitated lean product distribution with an optimized logistics system. As the biggest (heavy) automobile manufacturer in Russia, KAMAZ has produced more than 2.1 million cars to date, with production facilities covering the whole industry chain from model development, production, assembly, parts processing to market development and after-sales services.
Case: The Zhengzhou-Europe shuttle train named “Aeolus” heading for Europe for the first time

On November 23, 2013, the first “Aeolus” Zhengzhou-Europe International Freight Shuttle Train (Zhengzhou-Europe Shuttle Train) laden with more than 10,000 sets of “Aeolus” TBR tires made started off. The Aeolus train is the first Zhengzhou-Europe shuttle train named after an enterprise, i.e. Aeolus Tyre Co., Ltd., and is also the first train solely contracted by an enterprise. The opening of the Aeolus Zhengzhou-Europe Shuttle Train will save about 20 days for enterprises exporting to Europe, and at least reduce 50% of inventories for overseas sales agencies, effectively reducing costs and further enhancing competitiveness of Chinese enterprises on European markets.

2. PROTECTING THE INTERESTS OF OUR SUPPLIERS

We are improving our supplier management mechanism by adhering to transparent procurement, establishing specific suppliers at different level and enhancing their overall quality. We insist that suppliers monitor their environmental performance and assess their efforts accordingly. We also use our management mechanism to give preference to strong suppliers while eliminating weaker and less appropriate suppliers in an effort to enhance suppliers’ performance capability.

<table>
<thead>
<tr>
<th>Company</th>
<th>Main measures</th>
</tr>
</thead>
</table>
| China BlueStar Group Co., Ltd. | • Improve management system. The strategic procurement management framework and standard operating procedures were established, and a range of management systems including Supplementary Management Rules of China BlueStar Group Co., Ltd. for Bidding Procurement of Bulk Raw Materials and BlueStar Suppliers Assessment & Management Scheme were developed.  
• Optimize supplier structure. As a result of revising 2013 Suppliers Assessment & Management Measures, standardizing the admittance thresholds for suppliers at different categories, quantifying assessment criteria and classification standards, expanding the scope of quantitative assessment for suppliers and establishing an exit mechanism, strategic suppliers has increased to 218, accounting for 40% of total suppliers, with procurement value accounting for 56% of total procurement value, an increase of five percentage points year-on-year.  
• Implement logistics transformation and optimization scheme. Regional centralized tendering for enterprises in East China, North China and Northeast China, reducing the number of carriers in these regions from 42 to 11 and increasing the scale of carriers. Among the 130 qualified carriers group wide, 23 are grade-I carriers. |
| Huaxing Petrochemical Group Co., Ltd. | • Revise systems regarding contractor management.  
• Strengthen safety education for contractors, including inbound safety education, accident case study and special safety education on maintenance and repair. |
| Guilin Rubber Machinery        | • Collect basic data about suppliers and create an electronic database.  
• Create supplier quality information files, change the outsourcing model, sign strategic framework agreements and improve the delivery ratio.  
• Conduct comprehensive assessment on the production capacity, quality, the ability to fulfill financial commitments and reputation of new suppliers. |
| Yiyang Rubber Machinery Works  | • Put in place the Rules on Dynamic Management of Suppliers.  
• Group suppliers into four grades A, B, C and D, which represent outstanding, good, qualified and unqualified.  
• The supplier management committee closely follows market developments, actively seek and cultivate suppliers with strong technical capability and sound management to avoid the situation where individual suppliers have too big market share that leads to monopoly.  
• Consolidate outsourcing and subcontracted suppliers to establish a modular and stable supplier network. |
3. SERVING RURAL DEVELOPMENT

As China’s largest and the world’s six largest pesticide producer and distributor, we are committed to providing advanced technologies and mature plant protection solutions, supplying more and safer food for increasing global population and providing technical support for farmers and peasants.

3.1 Providing High-Quality Agricultural Products

As the world’s largest non-patent pesticide manufacturer, we respond to customer needs by regularly improving our investment in R&D and developing environmentally friendly and agricultural products that enhance agricultural prevention and disaster relief and increase food production and food safety.

Our products include herbicides, insecticides, fungicides and plant growth regulators and other series of products. We produce more than 120 varieties of original drugs and have more than 800 preparations. We have registered approximately 5,000 products and have more than 6,000 trademarks in 120 countries around the world. Our market share for dichlorvos, topiramate ketone and other products is ranked first in China.
3.2 Improving Our Agricultural Service System

We use our technological advantages to expand the industrial chain, promote agricultural technology for farmers, and accelerate the application of advanced and applicable technologies. We are strengthening our marketing system, optimizing our marketing strategies, conducting regular visits to farms, and are working hard to improve all aspects of our rural services.

<table>
<thead>
<tr>
<th>Company</th>
<th>Main measures and performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makhteshim Agan Industries (MAI)</td>
<td>As a world-leading and well-known provider of generic plant protection solutions, MAI has proposed a sustainable development strategy focusing on simplified agriculture through three years of exploration and study, regarding farmer-focus and agricultural transformation for &quot;the general public&quot; as the core of enterprise development and striving to provide effective solutions, help farmer combat plant diseases and improve agricultural yields.</td>
</tr>
<tr>
<td>Changyi Petrochemical Gas Stations</td>
<td>Strengthened their services to support farmers and offered to provide all-round services for wheat harvest, including: developing a supply assurance plan for &quot;three summers (summer harvest, summer planting and summer field management&quot;; communicating with local governments and agriculture authorities to grasp demand for &quot;three summers&quot; resources and strengthening the allocation and transport of oil products to ensure timely delivery of oil products. Changyi Petrochemical also issued notices to its gas stations under its jurisdiction, requiring them to make clear responsibilities and division of labor, improve service quality, collaborate with relevant parties closely, proactively increase the reserve of oil products and add signs indicating gas filling dedicated to agricultural vehicles at a prominent place at gas stations, which served as a &quot;green passage&quot; for agricultural vehicles and ensured 24/7 oil supply with both quantity and quality assured.</td>
</tr>
<tr>
<td>Anpon Electrochemical</td>
<td>Opened an account on WeChat to facilitate convenient interactions and communication with customers and let customers learn about its company profile, production information and contact details at any time anywhere, and facilitate the establishment of the Company’s integrity service system.</td>
</tr>
</tbody>
</table>
4. PROMOTING CULTURAL INTEGRATION

As an international enterprise, we actively promote communication exchanges between domestic and foreign staff to deepen their awareness of Chinese culture and promote the integration of Chinese and Western cultures through organizing the BlueStar Summer Camp and encouraging subsidiaries to jointly launch entertainment & sports activities.

Case: 24th BlueStar Summer Camp

The 24th BlueStar Summer Camp set up 22 sub-camps nationwide and was participated by 980 children of BlueStar Chinese and foreign staff, the children from all over the world had fun in the camp, and experienced and grew together.

1. Opening ceremony of Beijing sub-camp, the 24th BlueStar Summer Camp
2. Closing ceremony of the 24th BlueStar Summer Camp
3. "Paper bridge" competition in Beijing No.1 sub-camp
4. Lianyungang sub-camp
5. Ruicheng sub-camp
6. Jinan sub-camp
7. Shenyang Chemical sub-camp
8. Jiangxi sub-camp
9. Dongda sub-camp
10. Beijing No.2 sub-camp
5. ENTHUSIASTIC ABOUT PUBLIC WELFARE

We rely on the support of our employees and various sectors of the community to engage in the undertakings of philanthropy and convey positive messages to the society primarily through public welfare donations and volunteer activities.

5.1 Public Welfare Donations

To ensure the openness and transparency of public welfare donations, we directly donate or launch employee donations to create an atmosphere of mutual aid and off our love and compassion to the society.

Case: BlueStar Adisseo participated in the 252 km race and donated for the “Warm up the Year” Campaign

BlueStar Adisseo (Nanjing) Co., Ltd encouraged employees to participate in the “2013 Shanghai International Marathon”, and committed to donate RMB 100 to charitable organizations for each kilometer finished by its employees in the race. Seven foreign employees run 252 km in the race, so BlueStar Adisseo donated RMB 25,200 to the Amity Foundation to fund its public welfare initiative “Warm up the Year”.

Case: Dongda Chemical helped a village cultivating vegetable in Gaoqing County

Shandong Dongda Chemical Industry Co., Ltd. helped the village party branch and village committee consolidate the existing vegetable wholesale models to turn to centralized marketing relying on the brand of “Zhaocai Specialized Vegetable Planting Cooperation” that helped vegetable growers and the village to sell their vegetables. Dongda Chemical funded the drilling of three wells, which helped solve the water supply problem in the planting area.

5.2 Volunteer Activities

Our growing volunteer team has launched rich volunteer activities which fully exhibited our employees’ compassion and presence. As of 2013, the Company had 1,832 youth volunteers who volunteered more than 32,163 hours in total.

Case: Yellow Sea Rubber’s employees participated in stem cell blood sample collection

21 employees from Yellow Sea Rubber Co., Ltd. went to the People’s Hospital in the District to participate in stem cell blood sample collection, volunteered to donate stem cell in hope of helping others, which demonstrated the devotion to public welfare undertaking and the good heart and spirit of the employees of Yellow Sea Rubber.

Case: Yiyang Rubber Machinery Works engaged in volunteer activities

Youth League members from Yiyang Rubber Machinery Works participated in the first “Gathering in Zijiang and Hiking with Love” campaign organized by Xiangyi Happy Volunteers. The campaign aimed at raising money to fund needy students and promoting a new lifestyle that embraces philanthropy, environmental protection and fitness for all.
PROSPECTS FOR THE FUTURE

In 2014, deep and complex changes will occur in the international and domestic environment. In a new age where opportunities coexist with challenges, ChinaChem will continue, while becoming an internationally first rate enterprise, to persist in seeking improvement in stability, transforming the mode of development, promoting structural reform, implementing new motivation for innovation, deepening management improvement, and searching for new breakthroughs in reform. Practically raise the quality and efficiency of enterprise development and put up a tough fight for realizing the transformation and upgrading of ChemChina.

To strengthen operational concepts, expand value space.

Strengthen structural adjustment, promote business integration and product adaption step-by-step, further highlight major works, and optimize the composition via “buying and selling”. Promote management improvement, strengthen and improve long-term mechanisms for management improvement, apply management improvement results to daily production and management, solidify this to the system process. Strengthen construction of the marketing system, transform marketing concepts, respond to market requirements, innovative marketing modes, expanding the scope of the market, increasing service capabilities.

To establish the dominant role of innovation, lift enterprise innovation ability.

Establish the dominant role of enterprise innovation, continue to promote structural transformation, properly grasp various scientific and technological types of plan management. Actively develop science and technology prize declarations and appraisals and intellectual property management, continue to complete work relating to Beijing “Future Science and Technology City”, comprehensively raise enterprise innovation ability.

To improve safety management, implement energy conservation and emission reduction.

Strengthen enterprise entity responsibility, strengthen supervision and inspection of safe production, improve troubleshooting and rectification mechanisms. Strengthen SHE management, establish experience sharing and information exchange mechanisms for SHE system construction and operation; popularize safety knowledge for employees, solidify the production basis of safety management. Persist with “zero emissions” management, increase cyclic utilization, eradicate waste and pollution, strengthen supervision and governance, achieve annual energy conservation and emission reduction targets.

To scientifically create a talent team, to improve the salary and welfare system.

Implement a strategy of talent strengthening enterprises, strengthen talent attraction and management, accelerate the forming of a talent management system with international competitiveness. Promote comprehensive implementation of training results, raise the capability levels of talented people of various kinds. Research optimum solutions for salary systems, and promote experimental implementation at the right times.

To actively implement social responsibility, vigorously encourage social harmony.

Deeply promote strategic cooperation, practically guarantee the legal rights and interests of suppliers, continuously raise personal service ability. Increase input into public welfare. Establish a good corporate image, achieving the harmonious mutual benefit of enterprises and stakeholders.

It is only when the concept of social responsibility is incorporated into the strategic planning of an enterprise can new vitality be added for its development. In 2014, ChemChina will continue to persist with this innovative idea, continuously deepening reform, raising its position in the industry, winning even more space for the development of itself and stakeholders, achieving sustainable development.
The report embodies strong force of the cultural spirit of the corporation. Human beings are closely bound with chemicals. Chemical products not only provide us with clothing, food, housing and transportation, but also ensure growth of national economy and boost regional economic growth. In various means, ChemChina helps the public understand the chemical industry. The Chemical Industry Museum of China displays evolution of chemicals and spreads knowledge of chemicals, thus providing a perfect education platform for the young. The BlueStar Summer Camp, giving attention to education and growth of employees’ kids, promotes exchanges of diversified culture, passes on love and creates the bright future.

The third plenary session of the 18th CPC Central Committee proposed the target and main task of deepening the reform of state owned enterprises. At the same time it will adopt assuming social responsibility as a main measure for deepening this reform. Central enterprises, as the backbone of the national economy, will strive to become models for assuming social responsibility. We look forward to ChemChina further improving its sense of social responsibility, strengthening its management of social responsibility, implementing the harmonious development strategy of the 12th Five-Year Plan for central enterprises and continuously strengthening sustainable development ability, raising its overall economic, social and environmental value creation ability, and striving to achieve continuous development.

Deputy Director General of Research Bureau of SASAC, State Council
Hou Jie
## GRI INDEX

Note: ● Fully disclosed, ○ Partly disclosed, ○ Not disclosed, N Not applicable

<table>
<thead>
<tr>
<th>No.</th>
<th>GRI Content Index</th>
<th>Extent of Disclosure</th>
<th>Where Reported (Catalog of Report)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Statement from the most senior decision-maker of the organization</td>
<td>●</td>
<td>P10</td>
</tr>
<tr>
<td>1.2</td>
<td>Description of key impacts, risks, and opportunities</td>
<td>●</td>
<td>P2</td>
</tr>
<tr>
<td>2.1</td>
<td>Name of the organization</td>
<td>●</td>
<td>P7</td>
</tr>
<tr>
<td>2.2</td>
<td>Primary brands, products, and/or services</td>
<td>●</td>
<td>P4-P5</td>
</tr>
<tr>
<td>2.3</td>
<td>Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures</td>
<td>○</td>
<td>P11</td>
</tr>
<tr>
<td>2.4</td>
<td>Location of organization’s headquarters</td>
<td>●</td>
<td>P7</td>
</tr>
<tr>
<td>2.5</td>
<td>Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report</td>
<td>●</td>
<td>P7</td>
</tr>
<tr>
<td>2.6</td>
<td>Nature of ownership and legal form</td>
<td>●</td>
<td>P7</td>
</tr>
<tr>
<td>2.7</td>
<td>Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries)</td>
<td>●</td>
<td>P8</td>
</tr>
<tr>
<td>2.8</td>
<td>Scale of the reporting organization</td>
<td>●</td>
<td>P7</td>
</tr>
<tr>
<td>2.9</td>
<td>Significant changes during the reporting period regarding size, structure, or ownership</td>
<td>●</td>
<td>P18</td>
</tr>
<tr>
<td>2.10</td>
<td>Awards received in the reporting period</td>
<td>○</td>
<td>P27/P35/P45-P46</td>
</tr>
<tr>
<td>3.1</td>
<td>Reporting period [e.g., fiscal/calendar year] for information provided</td>
<td>●</td>
<td>Inside front cover</td>
</tr>
<tr>
<td>3.2</td>
<td>Date of most recent previous report (if any)</td>
<td>●</td>
<td>Inside front cover</td>
</tr>
<tr>
<td>3.3</td>
<td>Reporting cycle (annual, biennial, etc.)</td>
<td>●</td>
<td>Inside front cover</td>
</tr>
<tr>
<td>3.4</td>
<td>Contact point for questions regarding the report or its contents</td>
<td>●</td>
<td>Inside front cover</td>
</tr>
<tr>
<td>3.5</td>
<td>Process for defining report content</td>
<td>●</td>
<td>Inside front cover</td>
</tr>
<tr>
<td>3.6</td>
<td>Boundary of the report [e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers]. See GRI Boundary Protocol for further guidance</td>
<td>●</td>
<td>Inside front cover</td>
</tr>
<tr>
<td>3.7</td>
<td>State any specific limitations on the scope or boundary of the report</td>
<td>●</td>
<td>Inside front cover</td>
</tr>
<tr>
<td>3.8</td>
<td>Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations</td>
<td>○</td>
<td>Inside front cover</td>
</tr>
<tr>
<td>3.9</td>
<td>Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the indicators and other information in the report</td>
<td>●</td>
<td>Inside front cover</td>
</tr>
<tr>
<td>3.10</td>
<td>Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement [e.g. mergers/acquisition, change of base years/periods, nature of business, measurement methods]</td>
<td>●</td>
<td>Inside front cover</td>
</tr>
<tr>
<td>3.11</td>
<td>Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report</td>
<td>●</td>
<td>Inside front cover</td>
</tr>
<tr>
<td>3.12</td>
<td>Table identifying the location of the Standard Disclosure in the report</td>
<td>●</td>
<td>P57-P60</td>
</tr>
<tr>
<td>3.13</td>
<td>Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s)</td>
<td>○</td>
<td>Inside front cover</td>
</tr>
<tr>
<td>No.</td>
<td>GRI Content Index</td>
<td>Extent of Disclosure</td>
<td>Where Reported (Catalog of Report)</td>
</tr>
<tr>
<td>-----</td>
<td>------------------</td>
<td>----------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>4.1</td>
<td>Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight</td>
<td>●</td>
<td>P11</td>
</tr>
<tr>
<td>4.2</td>
<td>Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization’s management and the reasons for this arrangement)</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>4.3</td>
<td>For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>4.4</td>
<td>Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body</td>
<td>●</td>
<td>P11</td>
</tr>
<tr>
<td>4.5</td>
<td>Linkage between compensation for members of the highest governance body, senior managers and executives (including departure arrangements), and the organization’s performance (including social and environmental performance)</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>4.6</td>
<td>Processes in place for the highest governance body to ensure conflicts of interest are avoided</td>
<td>●</td>
<td>P11</td>
</tr>
<tr>
<td>4.7</td>
<td>Process for determining the composition, qualifications and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity</td>
<td>●</td>
<td>P10</td>
</tr>
<tr>
<td>4.8</td>
<td>Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental and social performance and the status of their implementation</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>4.9</td>
<td>Procedures of the highest governance body for overseeing the organization’s identification and management of economic, environmental and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>4.10</td>
<td>Processes for evaluating the highest governance body’s own performance, particularly with respect to economic, environmental and social performance</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>4.11</td>
<td>Explanation of whether and how the precautionary approach or principle is addressed by the organization</td>
<td>●</td>
<td>P10-P11</td>
</tr>
<tr>
<td>4.12</td>
<td>Externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or endorses</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>4.13</td>
<td>Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: Has positions in governance bodies; Participates in projects or committees; Provides substantive funding beyond routine membership dues; or Views membership as strategic</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>4.14</td>
<td>List of stakeholder groups engaged by the organization</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>4.15</td>
<td>Basis for identification and selection of stakeholders with whom to engage</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>4.16</td>
<td>Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>4.17</td>
<td>Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting</td>
<td>○</td>
<td></td>
</tr>
</tbody>
</table>

**Economic**

- **EC1**: Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments. ● P9
- **EC2**: Financial implications and other risks and opportunities for the organization’s activities due to climate change. ● P39
- **EC3**: Coverage of the organization’s defined benefit plan obligations. ● P42
- **EC4**: Significant financial assistance received from government. ● P46
- **EC5**: Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation. ● P42
- **EC6**: Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation. ● P49-P50
- **EC7**: Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation. ● P42
- **EC8**: Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement. ● P53
- **EC9**: Understanding and describing significant indirect economic impacts, including the extent of impacts. ○ P53
<table>
<thead>
<tr>
<th>No.</th>
<th>GRI Content Index</th>
<th>Extent of Disclosure</th>
<th>Where Reported (Catalog of Report)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Environmental</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN1</td>
<td>Materials used by weight or volume.</td>
<td>●</td>
<td>P39</td>
</tr>
<tr>
<td>EN2</td>
<td>Percentage of materials used that are recycled input materials.</td>
<td>●</td>
<td>P41</td>
</tr>
<tr>
<td>EN3</td>
<td>Direct energy consumption by primary energy source.</td>
<td>●</td>
<td>P39-P40</td>
</tr>
<tr>
<td>EN4</td>
<td>Indirect energy consumption by primary source.</td>
<td>●</td>
<td>P41</td>
</tr>
<tr>
<td>EN5</td>
<td>Energy saved due to conservation and efficiency improvements.</td>
<td>●</td>
<td>P39</td>
</tr>
<tr>
<td>EN6</td>
<td>Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.</td>
<td>●</td>
<td>P40</td>
</tr>
<tr>
<td>EN7</td>
<td>Initiatives to reduce indirect energy consumption and reductions achieved.</td>
<td>●</td>
<td>P39</td>
</tr>
<tr>
<td>EN8</td>
<td>Total water withdrawal by source.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>EN9</td>
<td>Water sources significantly affected by withdrawal of water.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>EN10</td>
<td>Percentage and total volume of water recycled and reused.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>EN11</td>
<td>Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>EN12</td>
<td>Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>EN13</td>
<td>Habitats protected or restored.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>EN14</td>
<td>Strategies, current actions, and future plans for managing impacts on biodiversity.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>EN15</td>
<td>Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>EN16</td>
<td>Total direct and indirect greenhouse gas emissions by weight.</td>
<td>●</td>
<td>P39-P40</td>
</tr>
<tr>
<td>EN17</td>
<td>Other relevant indirect greenhouse gas emissions by weight.</td>
<td>●</td>
<td>P40</td>
</tr>
<tr>
<td>EN18</td>
<td>Initiatives to reduce greenhouse gas emissions and reductions achieved.</td>
<td>●</td>
<td>P39</td>
</tr>
<tr>
<td>EN19</td>
<td>Emissions of ozone-depleting substances by weight.</td>
<td>●</td>
<td>P40</td>
</tr>
<tr>
<td>EN20</td>
<td>NOx, SOx, and other significant air emissions by type and weight.</td>
<td>●</td>
<td>P39</td>
</tr>
<tr>
<td>EN21</td>
<td>Total water discharge by quality and destination.</td>
<td>○</td>
<td>P40</td>
</tr>
<tr>
<td>EN22</td>
<td>Total weight of waste by type and disposal method.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>EN23</td>
<td>Total number and volume of significant spills.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>EN24</td>
<td>Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>EN25</td>
<td>Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization’s discharges of water and runoff.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>EN26</td>
<td>Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.</td>
<td>●</td>
<td>P41</td>
</tr>
<tr>
<td>EN27</td>
<td>Percentage of products sold and their packaging materials that are reclaimed by category.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>EN28</td>
<td>Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>EN29</td>
<td>Significant environmental impacts of transporting products and other goods and materials used for the organization’s operations, and transporting members of the workforce.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>EN30</td>
<td>Total environmental protection expenditures and investments by type.</td>
<td>●</td>
<td>P39</td>
</tr>
<tr>
<td>No.</td>
<td>GRI Content Index</td>
<td>Extent of Disclosure</td>
<td>Where Reported (Catalog of Report)</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------</td>
<td>----------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>LA1</td>
<td>Total workforce by employment type, employment contract, and region, broken down by gender.</td>
<td>●</td>
<td>P42</td>
</tr>
<tr>
<td>LA2</td>
<td>Total number and rate of new employee hires and employee turnover by age group, gender, and region.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>LA3</td>
<td>Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation.</td>
<td>○</td>
<td>P42</td>
</tr>
<tr>
<td>LA4</td>
<td>Percentage of employees covered by collective bargaining agreements.</td>
<td>●</td>
<td>P42</td>
</tr>
<tr>
<td>LA5</td>
<td>Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.</td>
<td>○</td>
<td>P42</td>
</tr>
<tr>
<td>LA6</td>
<td>Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>LA7</td>
<td>Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities by region.</td>
<td>○</td>
<td>P9</td>
</tr>
<tr>
<td>LA8</td>
<td>Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.</td>
<td>●</td>
<td>P46</td>
</tr>
<tr>
<td>LA9</td>
<td>Health and safety topics covered in formal agreements with trade unions.</td>
<td>●</td>
<td>P36</td>
</tr>
<tr>
<td>LA10</td>
<td>Average hours of training per year per employee by gender, and by employee category.</td>
<td>●</td>
<td>P43</td>
</tr>
<tr>
<td>LA11</td>
<td>Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>LA12</td>
<td>Percentage of employees receiving regular performance and career development reviews, by gender.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>LA13</td>
<td>Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>LA14</td>
<td>Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>LA15</td>
<td>Return to work and retention rates after parental leave, by gender.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>HR1</td>
<td>Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>HR2</td>
<td>Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>HR3</td>
<td>Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>HR4</td>
<td>Total number of incidents of discrimination and corrective actions taken.</td>
<td>●</td>
<td>P42</td>
</tr>
<tr>
<td>HR5</td>
<td>Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>HR6</td>
<td>Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>HR7</td>
<td>Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>HR8</td>
<td>Percentage of security personnel trained in the organization’s policies or procedures concerning aspects of human rights that are relevant to operations.</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>HR9</td>
<td>Total number of incidents of violations involving rights of indigenous people and actions taken.</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>HR10</td>
<td>Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>HR11</td>
<td>Number of grievances related to human rights filed, addressed, and resolved through formal grievance mechanisms.</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>GRI Content Index</td>
<td>Extent of Disclosure</td>
<td>Where Reported (Catalog of Report)</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------------------------------------------------------</td>
<td>----------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td></td>
<td><strong>Society</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S01</td>
<td>Percentage of operations with implemented local community engagement, impact assessments, and development programs.</td>
<td>●</td>
<td>P48</td>
</tr>
<tr>
<td>S02</td>
<td>Percentage and total number of business units analyzed for risks related to corruption</td>
<td>●</td>
<td>P21</td>
</tr>
<tr>
<td>S03</td>
<td>Percentage of employees trained in organization’s anti-corruption policies and procedures</td>
<td>●</td>
<td>P21</td>
</tr>
<tr>
<td>S04</td>
<td>Actions taken in response to incidents of corruption</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>S05</td>
<td>Public policy positions and participation in public policy development and lobbying.</td>
<td>N</td>
<td>P21</td>
</tr>
<tr>
<td>S06</td>
<td>Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>S07</td>
<td>Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>S08</td>
<td>Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>S09</td>
<td>Operations with significant potential or actual negative impacts on local communities.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>S010</td>
<td>Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Product Responsibility</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PR1</td>
<td>Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.</td>
<td>●</td>
<td>P30</td>
</tr>
<tr>
<td>PR2</td>
<td>Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>PR3</td>
<td>Type of product and service information required by procedures and percentage of significant products and services subject to such information requirements.</td>
<td>●</td>
<td>P8</td>
</tr>
<tr>
<td>PR4</td>
<td>Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>PR5</td>
<td>Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.</td>
<td>○</td>
<td>P25</td>
</tr>
<tr>
<td>PR6</td>
<td>Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.</td>
<td>●</td>
<td>P25</td>
</tr>
<tr>
<td>PR7</td>
<td>Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>PR8</td>
<td>Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.</td>
<td>○</td>
<td></td>
</tr>
<tr>
<td>PR9</td>
<td>Monetary value of significant fines for noncompliance with laws and regulations concerning the provision and use of products and services.</td>
<td>○</td>
<td></td>
</tr>
</tbody>
</table>
Respected readers,

Thank you for reading this report. This is the fourth sustainability report we have released. To improve our efforts relating to corporate social responsibility and enhance our fulfillment thereof, we hope very much that you could spare some time from your busy schedule to comment on this report and make suggestions to help us improve it.

1. What is your overall evaluation on the 2013 Sustainability Report of ChemChina?
   - □ Very Good
   - □ Good
   - □ Fair
   - □ Not good

2. Do you think this report is a complete reflection of the work we have undertaken in promoting economic, environmental and social coordination and sustainable development?
   - □ Very Good
   - □ Good
   - □ Fair
   - □ Not good

3. What do you think about our work in saving energy and environmental protection?
   - □ Very Good
   - □ Good
   - □ Fair
   - □ Not good

4. What do you think about our work in employee care?
   - □ Very Good
   - □ Good
   - □ Fair
   - □ Not good

5. What do you think about our work in making social contributions?
   - □ Very Good
   - □ Good
   - □ Fair
   - □ Not good

6. Do you think this report has disclosed sufficient data and information?
   - □ Very Good
   - □ Good
   - □ Fair
   - □ Not good

7. What do you think about the design of the contents and the layout of this report?
   - □ Very Good
   - □ Good
   - □ Fair
   - □ Not good

8. Your are welcome to give your comments and suggestions about the 2013 Sustainability Report of ChemChina:

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

   You can submit your feedback in any of the following ways:
   Tel: 0086-10-82677365
   Fax: 0086-10-82677088
   Mail: Department of Social Responsibility,
        Office of Production & Operation,
        China National Chemical Corporation,
        No. 62 West Road North 4th Ring Road, Haidian District, Beijing 100080