



科学至上
IN SCIENCE WE TRUST

2018

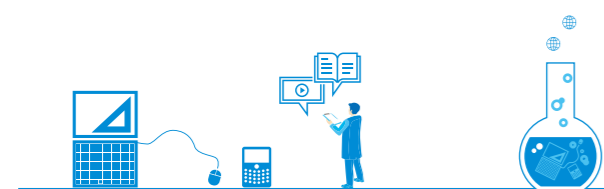
可持续发展报告 Sustainability Report



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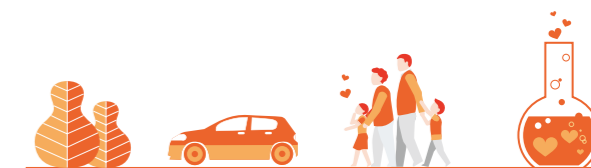


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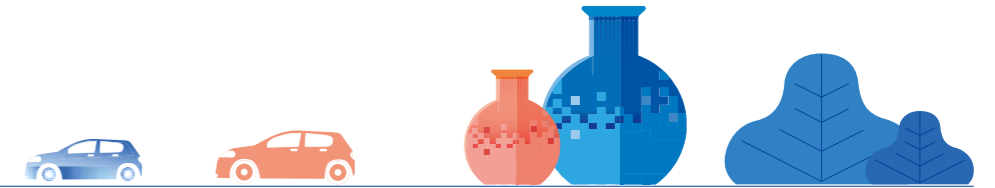
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About This Report



时间范围

Reporting Period

以 2018 年度（2018 年 4 月 1 日—2019 年 3 月 31 日）为主，部分信息超出以上时间范围。

The Report covers from April 1, 2018 to March 31, 2019, and also includes additional information beyond the stated reporting period.

报告边界

Reporting Boundary

涵盖圣奥化学科技有限公司及下属子公司（详见“公司简介”）。

Sennics Co., Ltd. and its subsidiaries (Please refer to "Company Profile" for details).

报告依据

Compilation Principles

本报告参考《关于中央企业履行社会责任的指导意见》、全球可持续发展标准委员会（GSSB）发布的《GRI 可持续发展报告标准》（GRI Standards）、中国社会科学院《中国企业社会责任报告编制指南》（CASS 3.0）和 GB/T 36001-2015《社会责任报告编写指南》编写。

The Report is prepared in accordance with *Guidelines to the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities*, *GRI Sustainability Reporting Standards* (GRI Standards) issued by Global Sustainability Standards Board, *Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises* (CASS-CSR 3.0) issued by Chinese Academy of Social Sciences, and *GB/T 36001-2015: Guidance on Social Responsibility Reporting*.

信息来源

Data Source

本报告所披露的信息和数据来源于圣奥化学科技有限公司的官方文件及相关统计数据。报告中所披露的信息经过公司确认。

All information and data disclosed in the Report come from official documents and statistical reports of Sennics Co., Ltd. All information disclosed in the Report has been confirmed by the Company.

报告称谓

References in the Report

本报告中视语境将“中国中化集团有限公司”称为“中化集团”，将“中化国际（控股）股份有限公司”称为“中化国际”，将圣奥化学科技有限公司简称为“我们”“圣奥化学”或“公司”，将子公司“山东圣奥化学科技有限公司”“泰安圣奥化工有限公司”“安徽圣奥化学科技有限公司”“连云港圣奥化学科技有限公司”“山东华鸿化工有限公司”分别简称“山东圣奥”“泰安圣奥”“安徽圣奥”“连云港圣奥”及“山东华鸿”。

In the Report, "Sinochem Group" is abbreviated as "Sinochem", "Sinochem International Corporation" as "Sinochem International", Sennics Co., Ltd. as "We", "Sennics" or "the Company", and its subsidiaries "Sennics Co., Ltd. Shandong", "Sennics Co., Ltd. Tai'an", "Sennics Co., Ltd. Anhui", "Sennics Co., Ltd. Lianyungang" and "Shandong Huahong Chemical Co., Ltd." as "Sennics Shandong", "Sennics Tai'an", "Sennics Anhui", "Sennics Lianyungang" and "Shandong Huahong" respectively.

报告周期

Reporting Cycle

本报告为年度报告，上一次报告发布时间为 2018 年 9 月。

The sustainability report is released annually. The most recent sustainability report was released in September 2018.

报告获取

Accessibility of the Report

本报告以印刷版和电子版两种形式供您阅读，您可登陆 <http://www.sennics.com/develop4.html> 获取电子版报告；如需获取纸质版报告或对本报告有任何疑问或建议，请发送电子邮件至 CSR@sennics.com，或致电 86-21-31769966/9988。

The Report is available in both paper and electronic versions. For the electronic version, please visit <http://www.sennics.com/develop4.html>. For the paper version or if you have any further inquiries or suggestions of the Report, please contact us at CSR@sennics.com or 86-21-31769966/9988.

科 | 学 | 至 | 上

董事长致辞

Message from the Chairman



可持续发展对化工行业至关重要。气候变化、战略性资源短缺、人口增长等全球性问题使化工行业发展面临严峻挑战。同时，化工行业也可以帮助解决环境和社会问题，贡献可持续发展。圣奥化学以“引领聚合物添加剂行业的绿色发展”为使命，以“成为全球聚合物添加剂用户的最优选择”为愿景，致力于最大化公司运营的积极影响，最小化消极影响，在全价值链推动可持续发展。

2018年，圣奥化学在中化集团“科学至上”核心价值观和中化国际“深化改革”总纲领的引领下，全面启动管理变革工作，持续创造经济、社会、环境综合价值，引领行业可持续发展。我们践行“科学至上，创新致远”的企业精神，把科学技术和创新作为公司核心的驱动力，持续加大科研创新投入，打造“一高三中心两站”科技平台，推动公司智能化、信息化建设；我们一以贯之地把HSE作为公司核心竞争力，持续完善HSE管理，关心员工职业健康安全，大力发展循环经济，引领行业绿色发展；我们致力于在全价值链推动可持续发展，以优质的产品和服务努力成为全球客户值得信赖的合作伙伴，携手供应商等合

作伙伴积极推动绿色产业链发展，实现合作共赢；我们践行“以人为本”的理念，视人才为企业创新发展的不竭动力，为员工提供成长平台，积极参与社区建设，大力开展扶贫帮困工作，开展社区公益活动，汇聚幸福力量。

展望未来，圣奥化学将继续以创新驱动绿色可持续发展，更好满足客户需求和社会期待，携手各利益相关方共同应对可持续发展机遇与挑战，走向一条受人尊敬的发展之路！

圣奥化学科技有限公司董事长 刘红生

Sustainable development is crucial to the chemical industry. The chemical industry is confronted with severe challenges brought about by global concerns such as climate change, scarcity of strategic resources and population growth. Meanwhile, the chemical industry can also help solve environmental and social problems and contribute to sustainability. With the mission of “Leading through Green Innovation” and the vision of “First Choice for Polymer Additives Worldwide”, Sennics has been committed to maximizing the positive impacts of operation, minimizing negative impacts and promoting sustainable development in the whole value chain.

In 2018, with the core values of “In Science We Trust” of Sinochem and the general guidelines on “deepening reform” of Sinochem International, Sennics embarked on management reform, continued to create economic, social and environmental values, and led the sustainable development of the industry. We implemented the enterprise spirit of “In Science We Trust and Innovation Drives Progress” and regarded technology and innovation as the pivotal driving force of the Company. We continued to increase investment in science and research innovation and built the technical platform with “one high-tech enterprise, three centers and two stations” to propel the intelligent construction and informatization of the Company. Regarding HSE as our core competitiveness, we continuously improved HSE management, cared for the occupational health

and safety of employees, vigorously developed circular economy, and endeavored to lead the green development of the industry. Committed to promoting sustainability in the whole value chain and providing quality products and services, we have endeavored to become a trustworthy partner of global customers. Together with cooperation partners such as suppliers, we actively promoted the development of the green industry chain for win-win cooperation. With the concept of “people first”, we regard talents as the inexhaustible driving force for innovation and development of the enterprise, and we provided employees with the growth and development platform, actively engaged in community construction, carried out poverty alleviation, and held public welfare activities in communities to promote public wellbeing.

Sennics will continue to lead the industry through green innovation and sustainable development, better meet the needs of customers and the expectations of the public, join hands with stakeholders to seize opportunities and handle challenges of sustainable development, moving forward to a respectable development path for the industry!

Hongsheng Liu, Chairman of Sennics Co., Ltd.

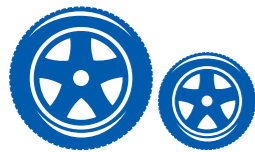
公司简介 Company Profile

圣奥化学科技有限公司是全球领先的聚合物添加剂供应商，产品包括防老剂 PPD 以及中间体 RT 培司、不溶性硫黄、高纯度 TMQ 等。公司专注于聚合物添加剂的研发、生产及营销服务，是中化国际（控股）股份有限公司下属成员企业。公司位于中国上海自由贸易试验区，在中国设有多个生产基地及研发中心，并在欧洲、北美、东南亚等地设立全资销售子公司。

Sennics Co., Ltd. (Sennics), a global leading polymer additives supplier, produces antioxidant PPD, intermediate RT-Base (4-ADPA), insoluble sulfur and high-content TMQ among others. As one of the subsidiaries of Sinochem International Corporation, the Company specializes in the R&D, production, marketing and sales of polymer additives. With the operation center located in China (Shanghai) Pilot Free Trade Zone, Sennics has several production and R&D bases across China with wholly-owned sales subsidiaries in Europe, North America and Southeast Asia.

公司与世界主要轮胎生产商建立了长期合作伙伴关系，业务范围覆盖全球 50 多个国家和地区，拥有海内外员工近 1800 人。

Sennics has established long-term partnerships with the world's leading tire manufacturers. Its businesses have extended to more than 50 countries and regions in the world, with total approximately 1,800 employees both at home and abroad.



控股股东简介

Profile of the holding shareholder of Sennics

中化国际（控股）股份有限公司（简称：中化国际）是在中间体及新材料、农用化学品、聚合物添加剂、天然橡胶等领域具有核心竞争力的国际化经营大型国有控股上市公司，客户遍及全球 100 多个国家和地区。2018 年，中化国际营业收入 599.57 亿元人民币、总资产 503.29 亿元人民币。

Sinochem International Corporation (Sinochem International) is a large-scale state-owned listed enterprise with international business. Boasting the core competitiveness in intermediates and new materials, agrochemicals, polymer additives, and natural rubber, it provides products and services to over 100 countries and regions. In 2018, the revenue of Sinochem International reached RMB 59.957 billion, with total assets of RMB 50.329 billion.

中化国际将商业实践与社会价值共融，追求可持续发展，注重环境保护，致力于建设资源节约型、环境友好型社会，实现“精细化学 绿色生活”的企业发展愿景。

Sinochem International integrates business practices with social values. With its pursuit of sustainable development and focus on environment protection, it is committed to building a resource-saving and eco-friendly society and realizing its vision of "Fine Chemistry, Green Life".

本报告期内公司所获荣誉（部分）

Honors in Reporting Period (partial)

颁发时间 Date	获奖公司 Company	荣誉名称 Honor	颁奖机构 Awarding Institution
2018 年 6 月 June 2018	安徽圣奥 Sennics Anhui	安徽省绿色工厂 Green Factory in Anhui Province	安徽省经济和信息化委员会 Economy and Informatization Commission of Anhui Province
2018 年 7 月 July 2018	泰安圣奥 Sennics Tai'an	山东省首批绿色制造项目库“绿色工厂” “Green Factory”, the first batch of green manufacturing project database of Shandong Province	山东省经济和信息化委员会 Economy and Informatization Commission of Shandong Province
2018 年 8 月 August 2018	圣奥化学 Sennics	中国石油和化工企业 500 强 Top 500 Chinese Petroleum and Chemical Enterprises	中国石油和化学工业联合会、 中国化工企业管理协会 China Petroleum and Chemical Industry Federation, China Chemical Enterprise Management Association
2018 年 9 月 September 2018	山东圣奥 Sennics Shandong	2018 年两化融合管理体系贯标试点企业 Pilot Enterprise for Industrialization and Informatization Integration Management System Implementation in 2018	中华人民共和国工业和信息化部 Ministry of Industry and Information Technology of the People's Republic of China
2018 年 9 月 September 2018	山东圣奥 Sennics Shandong	2018 年山东省制造业百家高端品牌培育企业 Top 100 Premium Brands of Manufacturing Industry of Shandong Province in 2018	山东省质量技术监督局 Shandong Bureau of Quality and Technology Supervision
2018 年 11 月 November 2018	山东圣奥、 泰安圣奥 Sennics Shandong, Sennics Tai'an	绿色工厂 Green Factory	中国石油和化学工业联合会 China Petroleum and Chemical Industry Federation
2018 年 11 月 November 2018	泰安圣奥 Sennics Tai'an	绿色工厂 Green Factory	中华人民共和国工业和信息化部 Ministry of Industry and Information Technology of the People's Republic of China
2018 年 11 月 November 2018	圣奥化学 Sennics	2018 中国精细化工百强 Top 100 Fine Chemical Enterprises of China in 2018	中国化工信息中心、 中国化工情报信息协会、 全国精细化工原料及中间体行业协作组 China National Chemical Information Center, China Chemical Industry Information Association, National Fine Chemical Industrial Raw Materials & Intermediates Industry Cooperative
2019 年 1 月 January 2019	山东圣奥 Sennics Shandong	山东省第二批制造业单项冠军企业 Championship (single), the second batch of manufacturing enterprises in Shandong Province	山东省工业和信息化厅 Department of Industry and Information Technology of Shandong Province
2019 年 1 月 January 2019	圣奥化学 Sennics	2018 年度国家技术发明奖二等奖 The second prize of National Technology Invention Awards in 2018	中华人民共和国科学技术部 Ministry of Science and Technology of the People's Republic of China
2019 年 1 月 January 2019	圣奥化学 Sennics	企业公民楷模·最具社会责任企业 Corporate citizen model · Enterprise with the Best Social Responsibility Performance	中国石油和化学工业联合会、中国化工报社 China Petroleum and Chemical Industry Federation, China Chemical Industry News

20th 科技引领，创新驱动： 铸就圣奥化学二十年可持续发展之路

Innovation-driven Development Led by Technology:
Sennics's 20 Years of Sustainable Development

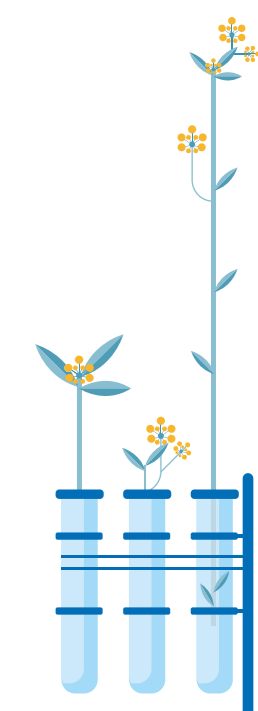
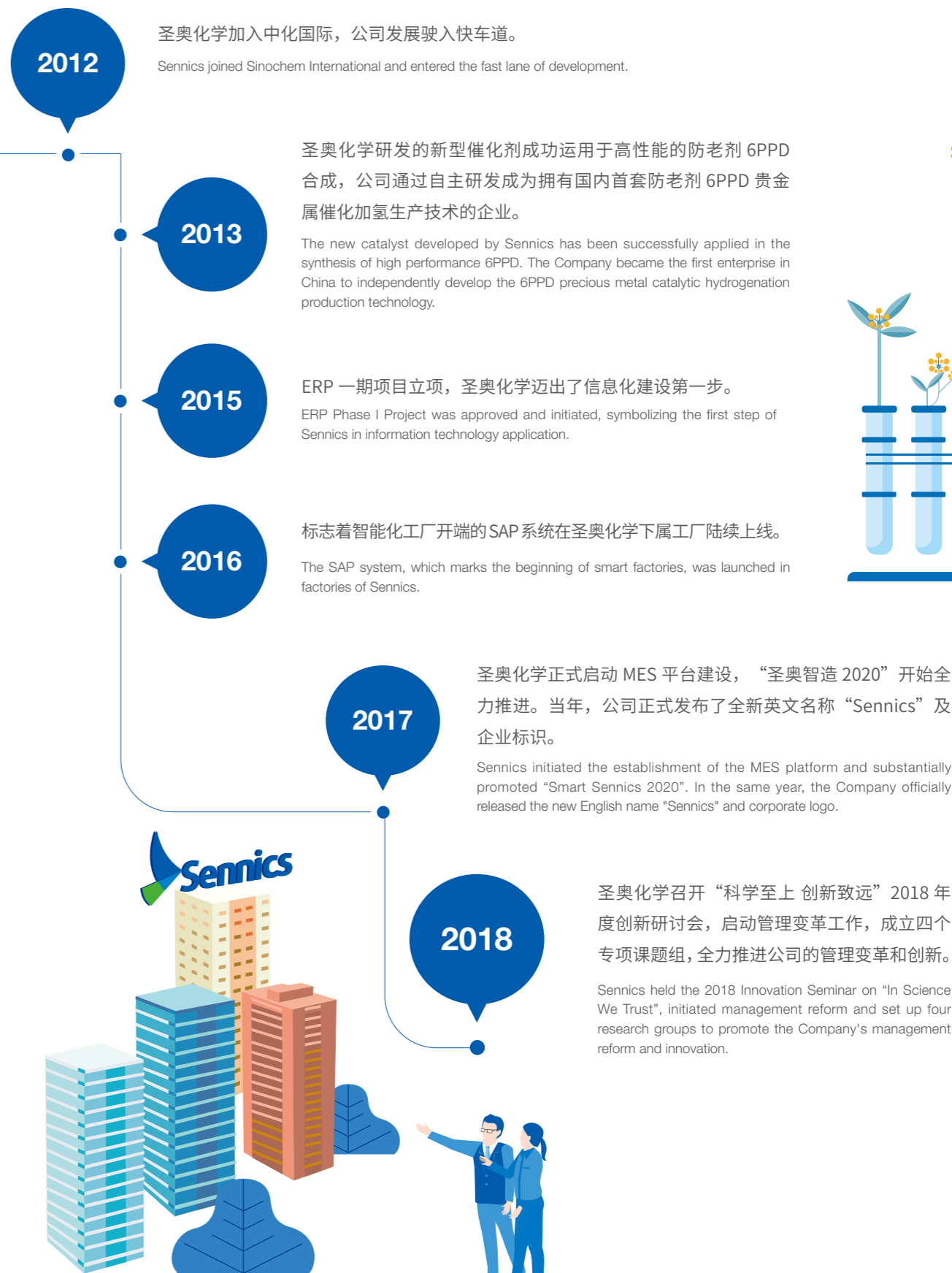
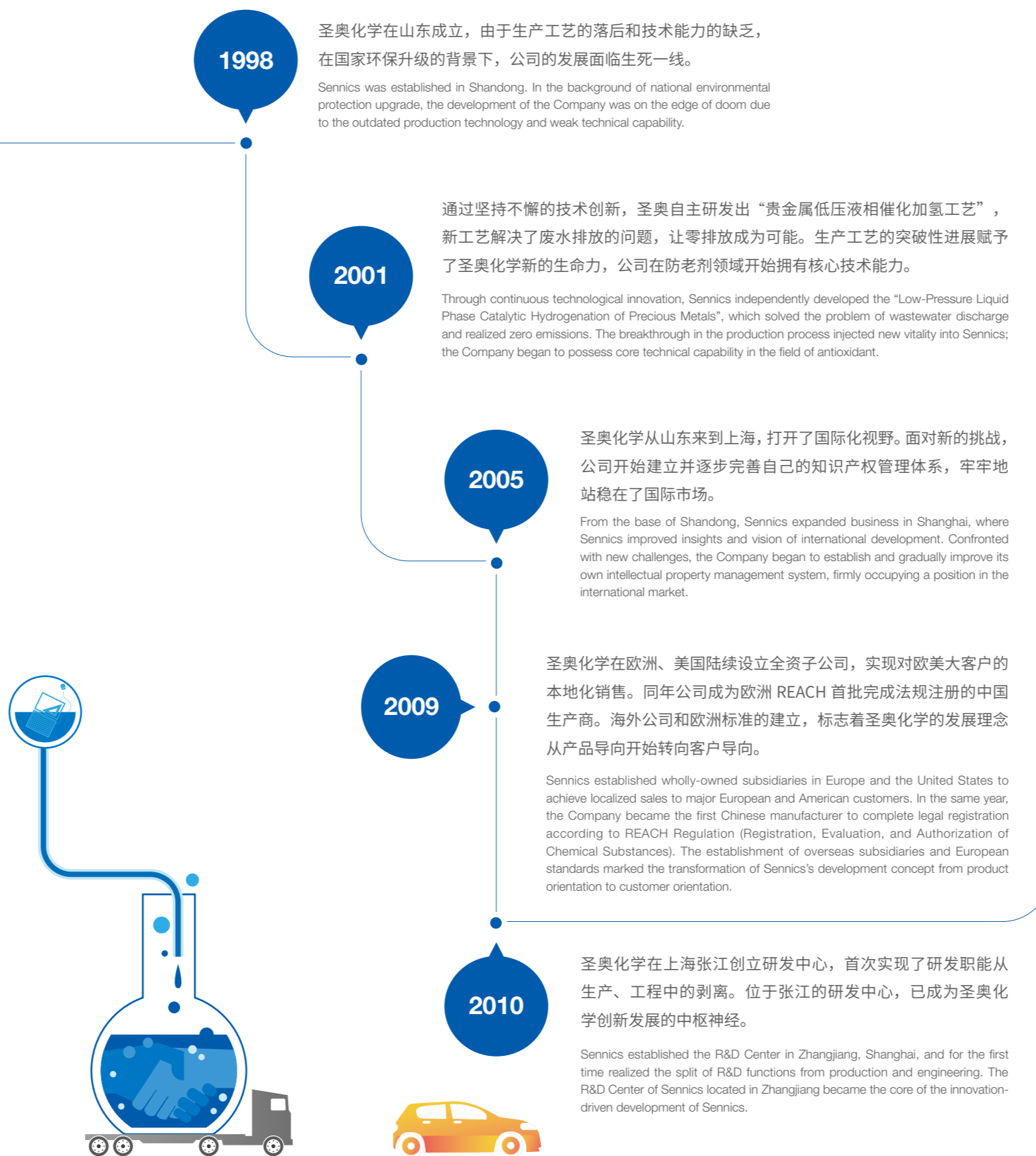
当前，科技发展正以前所未有的力量改变人们的工作和生活，并影响人们对未来的想象和实践。在中国经济处在转型升级的关键时期，只有以创新驱动发展、以科学破局前行，才能迎接未来各种挑战。回顾圣奥化学二十年的成长历程，从曹县到泰安、到铜陵、再到连云港，从山东到上海、再到全世界，从防老剂、到促进剂、再到更广泛的聚合物添加剂，正是科技创新的精神驱动着圣奥化学不断突破一个又一个难关，取得丰硕的成果。

At present, scientific and technological development is changing people's work and life in an unprecedented way and exerting an impact on people's imaginations and practices for future. At such a critical period when Chinese economy is undertaking transformation and upgrading, only the innovation-driven and science-based development can prepare us for challenges in future. In retrospect of the last 20 years, Sennics's footprints have covered from Cao County to Tai'an, Tongling and Lianyungang, and from Shandong to Shanghai and to the whole world; its product portfolio extends from antioxidant, accelerator to polymer additives. It is technological innovation that drives Sennics to get through obstacles and make breakthroughs.

二十年发展之路，创新从未止步 Continuous Innovation for Two Decades

作为一个精细化工企业，创新是圣奥化学实现可持续发展的关键因素，也是圣奥化学二十年来不断坚守与传承的精神。通过创新，圣奥化学自主研发了“贵金属低压液相催化加氢工艺”并拥有了核心技术能力，走上科学创新、持续改进的创业发展之路；在迎来国际化机遇的同时，圣奥开始意识到知识产权管理体系的建设对于创新型企业的的重要性；“贵金属低压液相催化加氢工艺”的突破，实现了源头创新，进一步推动了我国防老剂行业技术升级……与此同时，圣奥化学在不断发展中也深刻地意识到，创新不仅是在技术和产品领域，理念创新与管理创新同样重要。SAP 系统与生产过程执行系统（MES）的上线，让圣奥化学的管理创新迈上了新台阶。

As a fine chemical enterprise, innovation is a key factor in the sustainable development of Sennics and it is also the spirit that Sennics has insisted and inherited in the past two decades. Through innovation, Sennics has independently developed the "Low-Pressure Liquid Phase Catalytic Hydrogenation of Precious Metals" and obtained the core technical capability, embarking on the cause of scientific innovation and continuous improvement for entrepreneurship; while embracing the opportunities of internationalization, Sennics begins to recognize the importance of the establishment of the intellectual property right management system to innovation-driven enterprises; the technological breakthrough of the "Low-Pressure Liquid Phase Catalytic Hydrogenation of Precious Metals" has realized the innovation from the source and further promoted the technological upgrading of the antioxidant industry in China... At the same time, Sennics is deeply aware that innovation can be made not only in the field of technology and products, but also in concept and management. The launch of the SAP system and the Manufacturing Execution System (MES) has brought the management innovation of Sennics to a new level.



拥抱战略元年，开启可持续发展新征程

Embracing the First Year of Strategy and Launching a New Journey of Sustainable Development

2018 年是圣奥化学成立的第 20 个年头。在这一年，圣奥化学重新定位公司发展战略，决定在未来三到五年，全力发展科技含量高、精细化程度高、附加值高的聚合物添加剂产业，打造百亿圣奥的目标。在现有的橡胶防老剂业务基础之上，集中资源，为各个利益相关方创造更大的价值，推动公司的转型与创新发展。新的战略定位开启了圣奥化学的战略元年，也开启了圣奥化学的可持续发展新征程。

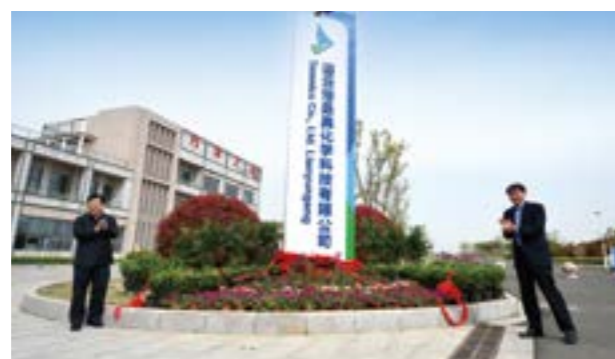
2018 年 3 月，中化集团董事长宁高宁提出“科学至上”的核心价值观，中化集团全面转型为一家科技驱动的创新平台公司。“科学至上”核心价值观的提出为圣奥化学的未来发展指明了方向，即“创新是永恒”的主题。为贯彻“科学至上”的核心价值观，圣奥化学开启了具有自身特点的“科学至上 创新致远”之路。

2018 年 4 月，连云港圣奥化学科技有限公司揭牌成立。连云港圣奥不仅是圣奥化学创新创业的新起点，更是企业响应国家科技创新、高质量发展的新战略、新状态，是在中化集团“科技至上”号角声中励志再转型的“独角兽”。

In April 2018, Sennics Co., Ltd. Lianyungang was founded. Sennics Lianyungang is not only a new starting point for Sennics's innovation and entrepreneurship, but also a new strategy and new state for the Company to respond to national technological innovation and high-quality development. It is a "unicorn" that aspires to make transformation with Sennics's call of "In Science We Trust".

2018 is the 20th anniversary of the founding of Sennics. During the year, Sennics reevaluated its development strategy and decided to develop the polymer additives industry, an industry with high technology content, high degree of refinement and high added value, in the next three to five years, so as to create a ten-billion-worth Sennics. Based on the existing rubber antioxidant business, we integrate resources to create greater values for all stakeholders and promote the Company's transformation and innovation-driven development. The new strategic positioning has launched the first year of Sennics's new strategy, and it has also initiated a new journey of sustainable development.

In March 2018, Gaoning Ning, Chairman of Sinochem Group, put forward the core values of "In Science We Trust". With this belief, Sinochem Group has transformed into a technology-driven innovation platform company. The proposal of "In Science We Trust" has pointed out the direction for future development of Sennics, i.e., focusing on "innovation is eternal". In order to implement the core values of "In Science We Trust", Sennics has embarked on a path of "In Science We Trust and Innovation Drives Progress" with its own characteristics.



连云港圣奥揭牌仪式
Opening ceremony of Sennics Lianyungang

头脑风暴 激活创新潜力

Conducting Brainstorm Sessions to Motivate Innovation Potentials

“科学至上 创新致远”并非简单的口号。圣奥化学积极探索创新发展之路，将对“科学至上”的理解转化为实际行动和成果，实现“知行合一”。为加快公司战略推进和转型发展，满足企业变革和组织创新的需求，圣奥化学于 2018 年 8 月初，在连云港徐圩新区召开“科学至上 创新致远”2018 年度创新研讨会。会上成立四个课题组，聚焦如何践行“科学至上”，展开头脑风暴。针对会上讨论总结出的“工程能力、激励机制、无机增长和授权”四大问题，公司以四个课题组为依托，推动管理创新和体制变革，完善薪酬激励制度，大力推进无机增长发展，并启动对下授权和管理体系再造，打造一个全新的战略布局和环境氛围。

"In Science We Trust and Innovation Drives Progress" is not a simple slogan. Sennics actively explores the road of innovation-driven development, and transforms the understanding of "In Science We Trust" into practical actions and achievements, making words into deeds. In order to accelerate the Company's strategic advancement and transformation and meet the needs of enterprise revolution and organizational innovation, we held the 2018 Innovation Seminar on "In Science We Trust" in the Xuwei New District of Lianyungang in early August 2018. Four groups were set up at the meeting to conduct brainstorm sessions on how to implement the action plan of "In Science We Trust". In response to the four major issues of "engineering capability, incentive mechanism, inorganic growth and empowerment" discussed at the meeting, the Company relied on four research groups to promote management innovation and institutional reform, improve the remuneration and incentive system, and vigorously promote the development of inorganic growth. Moreover, we launch the project to reconstruct the authorization and management system, aiming to create a new strategic layout and environment.



科研成果转化课题组

Research Achievements Transformation Group

• 加强科研规划与公司战略规划的匹配度
Strengthen the matching between research planning and corporate strategic planning

• 明确工程转化输入条件清单
Identify engineering transformation and input condition list

• 根据需求进行技术研究专业人员的专业配置
Provide professional configuration of technical research professionals on demand

• 合理授权，加强项目考核与激励
Offer reasonable authorization to strengthen project evaluation and incentives

• 建立模块化通用资源的配置平台
Establish a modular configuration platform for universal resources

• 完善和落地项目管理制度
Improve and implement project management system

无机增长课题组

Inorganic Growth Group

• 扩展标的公司搜索范围
Expand the search range of target companies

• 扩展投资方式
Increase investment methods

• 并购资源储备
Conduct resource reserve M&A

• 优化战略并购激励机制
Optimize strategic M&A incentive

制度及流程优化课题组

System and Process Optimization Group

• 优化授权受控体系，增加对子公司授权
Optimize the controlled system of authorization and increase the authorization for subsidiaries

• 结合业务发展，全面梳理和优化主要业务的管理制度
Combine business development to comprehensively manage and optimize the management system of major businesses

机制体制创新及人力资源课题组

Mechanism System Innovation and Human Resources Group

• 与业务部门共同制定人才规划，积极引进人才，重视人才储备
Work with business departments to develop talent planning, actively introduce talent, and focus on talent pool

• 完善激励措施，制定并实施多元化、多维度的激励方案，薪酬向核心技术人员倾斜
Improve incentives, develop and implement diversified, multi-dimensional incentives, and provide more compensation to core technicians

• 调整组织架构以适应公司新业务
Adjust organizational structure to accommodate new business

• 梳理科技管理职能，为新产品开发搜集前沿技术情报，寻找外部合作资源
Combine technology management functions to collect cutting-edge technical intelligence for new product development, and find external cooperation resources

四个课题组践行“科学至上”的行动计划

Plans of four groups to implement "In Science We Trust"

科学至上
IN SCIENCE WE TRUST

01

连云港圣奥化学科技有限公司 Sennics Co., Ltd. Lianyungang

圣奥化学科技有限公司是全球领先的聚合物添加剂综合服务商，为中化国际（控股）股份有限公司成员企业。其绿色聚合物添加剂项目依托国家东中西区域合作示范区（连云港徐圩新区）石化产业园丰富的原料资源，聚焦聚合物添加剂产业，围绕“绿色、循环”和产业链的上下游延伸，投资百亿元，建成多种产品组合及上下游配套的百万吨级的清洁化、智能化绿色聚合物添加剂生产基地。

Sennics Co., Ltd. is the world's leading comprehensive supplier of polymer additives and a member of Sinochem International Corporation. The project of green polymer additives relies on rich raw material resources in the Petrochemical Industrial Park of China's Eastern-Central-West Regional Cooperation Demonstration Zone Xuwei New District of Lianyungang focusing on "green, recycling" and upstream and downstream extension of the industrial chain in the polymer additives industry. With an investment of tens of billions yuan, we have built a million-ton green and smart production base for green polymer additives such as accelerators, vulcanizers and ecological plastic additives, refined waxes and hydrogenated petroleum resins.

科学至上
IN SCIENCE WE TRUST

02

推动重要战略方向的无机增长。通过并购等方式实现公司业务战略拓展。2018 年 9 月，圣奥化学完成收购山东华鸿化工有限公司 100% 股权，极大地丰富了公司的产品结构，并提高了供应的稳定性。

Promoting inorganic growth in important strategic directions, and realizing the strategic business expansion of the Company through mergers and acquisitions. In September 2018, Sennics completed the 100% equity acquisition of Shandong Huahong Chemical Co., Ltd., which greatly enriched the Company's product portfolio and improved supply stability.

科学至上
IN SCIENCE WE TRUST

03

大力引入重点战略领域和研究项目的行业专家，培养一支领先的创新型科技人才队伍，在部分关键技术领域与高校、科研单位深化合作，共同开展技术开发和研究。

Vigorously introducing industry experts in key strategic areas and research projects, cultivating a leading team of innovatively technological talents, deepening cooperation with universities and research institutes in some key technical fields, and jointly carrying out technical development and research.

科学至上
IN SCIENCE WE TRUST

04

持续推进“组织和战略拓展能力，创新和持续改进能力，卓越运营能力，核心客户服务能力”四项核心能力建设，更好地满足客户需求和社会的期待。

Continuing to promote the building of four core capacities, "organizational and strategic development capability, innovation and continuous improvement capability, operational excellence, and core customer service capability", so as to better meet customers' needs and social expectations.

思想聚焦 赋能发展战略

Focus on Empowering Future Development of Sennics

以数字化、网络化、智能化为特征的新工业革命的蓬勃发展正迅速改变着产业和经济增长模式。如何抓住新技术革命和新经济、新业态快速发展的机遇，创新商业模式和增长方式，实现新旧动能转换，是圣奥化学时刻在思考的问题。2018年11月，圣奥化学在苏州召开以“发展引领变革 战略成就目标”为主题的战略研讨会。这场广度与深度并存的研讨会让圣奥化学对未来发展的战略形成了共识，也将赋能公司未来发展。

The booming development of the new industrial revolution characterized by digitization, internetization and intellectualization is rapidly changing the pattern of industry and the economic growth mode. How to seize the opportunity of the new technological revolution and the rapid development of the new economy and new business, innovate in the business mode and growth mode, and replace old growth drivers with new ones is the question that Sennics is always thinking about. In November 2018, we held a strategic seminar in Suzhou on the theme of "Development Brings About Revolution, Strategy Leads to Achievement of Goals". The seminar, with extensive coverage and deep insights, enabled Sennics to reach a consensus on future development strategy and would also empower our future development.

用户洞察 User insights	<ul style="list-style-type: none"> 以客户需求为中心，为客户提供个性化选择 Providing customers with personalized choices by centering on customer needs 成为提供客户一站式整体解决方案的综合服务供应商 Becoming a comprehensive service provider with one-stop total solutions
数字赋能 Digital empowerment	<ul style="list-style-type: none"> 数字驱动，打造智能化工厂和智能化服务 Digital technology drives the building of intelligent factories and intelligent services
技术领先 Technology leadership	<ul style="list-style-type: none"> 加大研发力度，继续保持技术领先优势 Increasing R&D efforts and continuing to maintain technological leadership

圣奥化学战略研讨会上对未来发展达成的共识

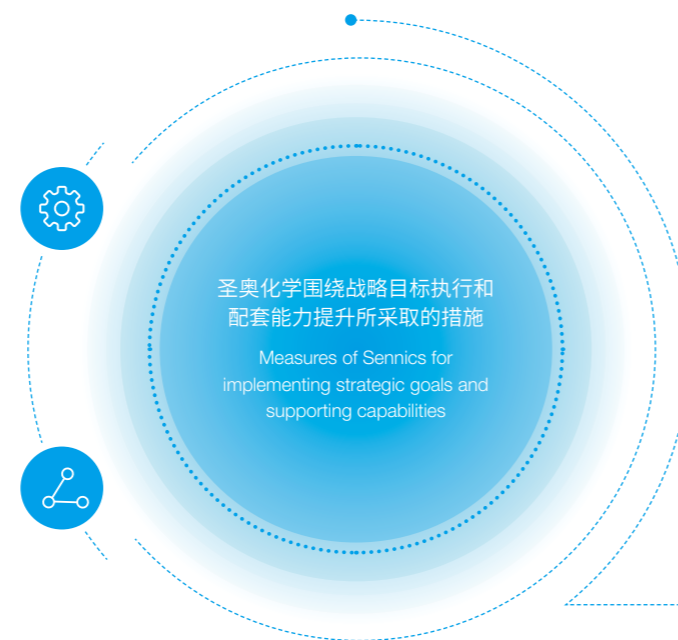
A consensus on future development strategy reached on the strategic seminar in Suzhou in 2018

坚定不移加快推进既定战略，扎扎实实做好战略落地，包括连云港项目的建设、现有工厂的产品链延伸计划以及新的无机增长目标。

We unwaveringly accelerate the implementation of the established strategy, including the construction of the Lianyungang project, the extension plan of product chain for the existing factories, and the new inorganic growth target.

细化战略规划，尤其是产品链的延伸规划、连云港上下游产业链的规划。

We refine our strategic planning, especially the extension plan of product chain and the planning of upstream and downstream industrial chains in Lianyungang.



唯有创新，才能致远。回顾圣奥化学 20 年的发展历程，能让一家濒临倒闭的小厂不断发展壮大至今，最核心的因素就是科技创新。圣奥人始终发扬传承、创新、奋斗的企业精神，坚持创业初心、创新发展，才在橡胶助剂行业内取得了今天的成就。如今，刚度过 20 岁生日的圣奥化学，犹如朝气蓬勃的热血青年，怀揣着对国家和社会的责任与使命，昂首阔步地走在可持续发展新征程上。未来，圣奥化学将以创新为己任，不断增强自身的核心竞争力，用实际行动去践行“科学至上”核心价值理念，努力为全球聚合物添加剂用户提供最优质、最卓越的产品和服务。

Only innovation can lead to the future. From Sennics's 20 years of development can we see that it is possible to make a small factory that is on the verge of bankruptcy survive and thrive and the core factor is technological innovation. It is because we, Sennics employees, have always carried forward the entrepreneurial spirit of inheritance, innovation and hard work, and kept in mind the original mission of entrepreneurship and innovation-driven development, which help us achieve so much so far in the rubber auxiliaries industry. Today, Sennics, at its 20th anniversary, like a youthful and energetic young man shouldering responsibilities and mission to the country and society, strides forward on a new journey of sustainable development. In future, Sennics will take innovation as its own responsibility, continuously enhance its core competitiveness, and practice the core values of "In Science We Trust", striving to provide the best quality products and services for global users of polymer additives.



集中优势资源，加快提升技术和研发能力的水平、提升工程转化能力。

We gather our superior resources to accelerate the improvement of technology and R&D capabilities, and enhance engineering transformation capabilities.

大力引进研发等创新型人才，促进公司创新发展。

We vigorously introduce innovative talents such as R&D team to promote the Company's innovation and development.

提高组织结构的设计能力，加快组织建设步伐。

We improve the design capabilities of the organizational structure and accelerate the pace of organizational development.



公司治理

Corporate Governance

管理团队

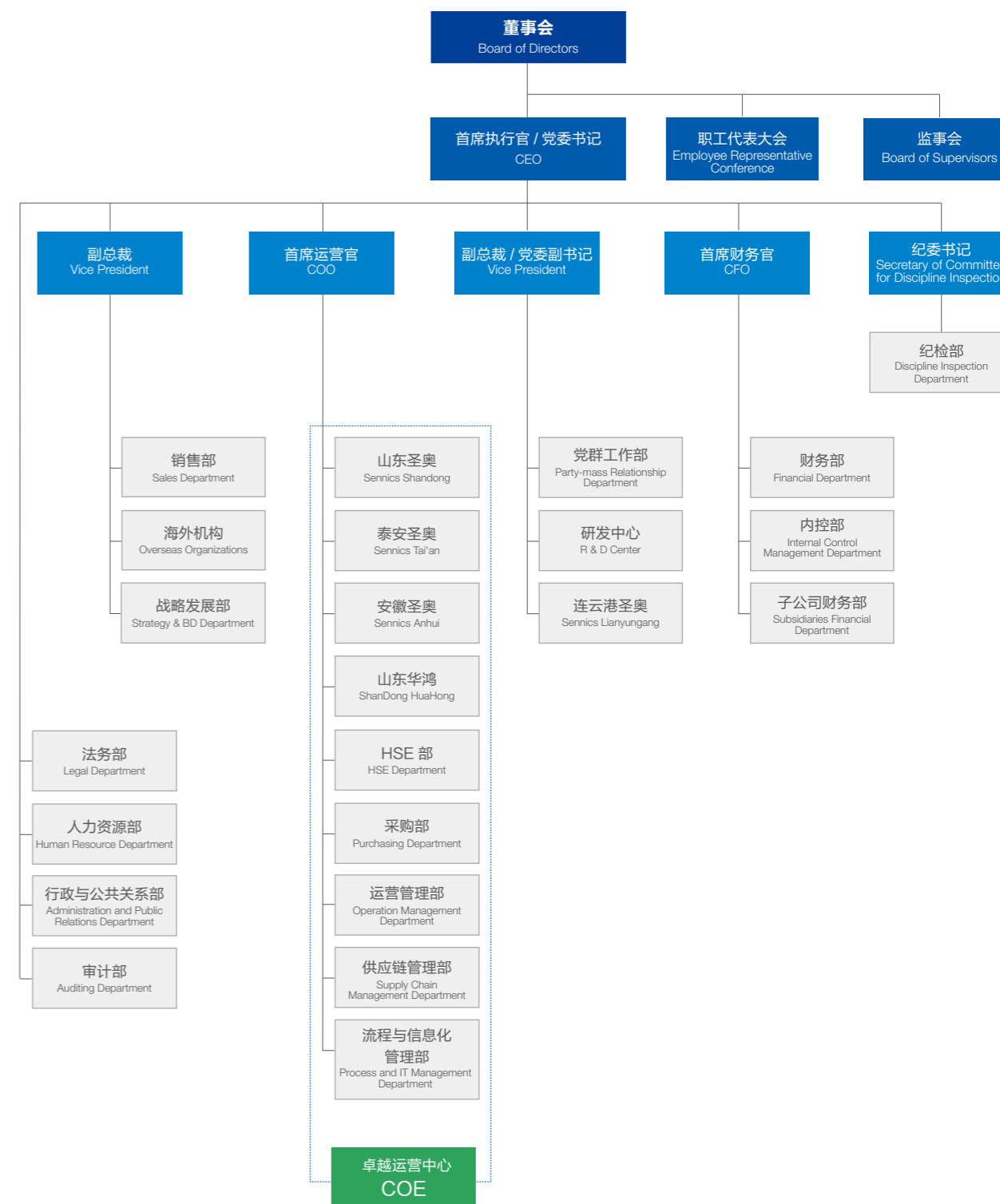
Management Team



鲁波 Bo Lu 副总裁 Vice President	陈蕾 Lei Chen 纪委书记 Secretary of Discipline Inspection Committee	唐志民 Zhimin Tang 党委副书记、 副总裁 Vice President	苏赋 Fu Su 董事、 首席执行官、 党委书记 Director, Chief Executive Officer	高世明 Shiming Gao 董事、 首席运营官 Director, Chief Operating Officer	黄辉 Hui Huang 首席财务官 Chief Financial Officer
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组织架构

Organizational Structure



合规和商业道德

Compliance and Business Ethics

合规是企业的必尽责任，也是实现企业可持续发展的必然要求。圣奥化学把合规和商业道德作为公司发展的基石，不断完善合规制度和流程，严守商业道德规范，加强海内外合规管理，在确保合规的基础上支持公司业务发展。

Compliance is the obligation of an enterprise and the inevitable requirement for achieving sustainable development. Regarding compliance and business ethics as the cornerstone of corporate development, Sennics continuously improves compliance system and process, strictly abides by business ethics, and strengthens compliance management at home and abroad, supporting the Company's business development on the basis while ensuring compliance.

公司根据外部环境变化，结合自身实际，全面推进合规管理，通过组织高管层面的合规培训、员工层面的基本制度培训，以及签署合规责任书等措施，护航公司稳健发展。在海外合规经营方面，公司结合海外地区实际情况，审视并持续完善公司合规管理体系，坚持高标准的商业道德，确保合规运行。

In consideration of external environment changes and the Company's actual situation, Sennics has comprehensively promoted compliance management and safeguarded the steady development of the Company by organizing compliance training at senior management level and basic system training for ordinary employees, and signing letters of compliance, etc. In terms of overseas compliance management, the Company examines and continuously improves the compliance management system based on the actual situation of overseas business, and sticks to high standards of business ethics to ensure compliance operation.

党建和廉政工作

Party Building and Clean Governance

公司坚持以习近平新时代中国特色社会主义思想、党的十九大精神为指导，践行中化集团“科学至上，知行合一”理念，通过在重点项目建设中成立党员技术创新小组、设置党员先锋岗、开展网格化管理等措施，全面推进党组织建设、党员队伍建设，为公司改革转型发展提供有力的思想保障和组织保障。

With the guidance of Xi Jinping Thought on Socialism with Chinese characteristics for a New Era and the guiding principles of the 19th CPC National Congress, Sennics practices the concept of "In Science We Trust and the Unity of Knowledge and Action" and comprehensively promotes the construction of Party organizations and Party member teams through measures such as establishing the Party member technical innovation team in key projects, setting up Party member model positions, and carrying out grid management, providing strong ideological and organizational guarantee for the Company's transformation and development.

公司加强从严治党，加强党风廉政建设，持续完善反腐败制度建设。2018年，公司发布《圣奥化学反腐败体系标准》中英文版，对反腐败政策、反腐败行为准则和反腐败工作机制等内容进行详尽阐述，进一步完善反腐败体制机制建设，对任何形式的腐败行为采取零容忍政策，营造良好的廉洁文化氛围。

The Company strengthens rigorous governance over the Party, enhances the construction of clean governance, and continuously improves the establishment of anti-corruption system. In 2018, the Company issued the *Anti-corruption System Standards of Sennics* in both Chinese and English to elaborate on anti-corruption policies, codes of conduct and working mechanisms, further improved the anti-corruption system and mechanism, and adopted a zero tolerance policy for any form of corruption to create the culture of integrity.

01

一岗双责

One Position with Two Duties

包括首席执行官在内的 30 多位关键岗位人员签署廉洁岗位书并公示

More than 30 key-position personnel, including the CEO, signed letters of integrity and disclosed them.

03

廉洁培训

Anti-corruption Training

每年针对关键岗位、敏感岗位（采购、销售、财务等）、及各子公司开展廉洁从业培训

Conducting anti-corruption training for key positions, sensitive positions (procurement, sales, finance, etc.) and subsidiaries.

02

廉洁提醒

Anti-corruption Reminder

通过公司网站、微信公众号、邮件等方式在节假日发送廉洁提醒

Sending anti-corruption reminders on holidays through company website, WeChat account, and emails, etc.

04

海外反腐败与贿赂

Overseas Anti-corruption and Bribery

制定海外反腐败制度和体系，将反腐败反贿赂写进员工入职合同，并定期对海外公司开展内部检查

Formulating the overseas anti-corruption institution and system, incorporating the provision of anti-corruption and anti-bribery into employees' employment contracts, and regularly conducting internal inspections of overseas subsidiaries.

公司党风廉政建设举措

Measures of Sennics for building clean governance

全面风险管理

Comprehensive Risk Management

圣奥化学不断梳理和完善制度与权责体系，在加强风险管理的同时，优化流程、提升效率。公司建立巡察、纪检、内部审计“三位一体”为核心的专责监督机制，融合职能监督、群众监督等手段，通过信息共享、资源共用等举措，推进监督网格化、全覆盖，完善全面风险管理和审计工作。

Sennics continuously sorts out and improves the institutions and the power and responsibility system, and optimizes processes and improves efficiency while strengthening risk management. The Company has established a "trinity" supervision mechanism integrating inspection, discipline supervision, and internal audit as the core. By means of functional supervision and mass supervision, etc. with information and resource sharing, Sennics promotes grid and full-coverage supervision, and propels comprehensive risk management and audit.

2018年，公司更新《内部审计管理规定》《经济责任审计管理办法》《工程项目审计管理办法》等制度，进一步加强对研发和工程项目、投资并购、下属子公司管理等方面管控，确保公司制度和权责体系的动态更新，加强风险管理。此外，公司制定三年全覆盖审计项目计划，对圣奥化学本部、各子公司包括海外子公司开展运营审计、经济责任审计、审计调查项目等，识别项目管理、销售管理、研发管理、资产管理、人力资源管理等方面重点风险，护航公司稳健经营与发展。

In 2018, the Company renewed the *Regulations on Internal Audit Management*, *Economic Responsibility Audit Management Measures*, *Regulations on Engineering Project Audit Management*, and further strengthened management and control of R&D and engineering projects, investment mergers and acquisitions, and management of subsidiaries to ensure dynamic updating of the Company's institutions and power and responsibility system to strengthen risk management. In addition, the Company has established a three-year full coverage audit project plan. We conducted operational audits, economic responsibility audits, audit investigation projects, etc. in the Headquarters of Sennics, domestic and overseas subsidiaries, to identify key risks in project management, sales management, R&D management, asset management, and human resources management, etc., safeguarding the Company's stable operation and development.

知识产权保护 Intellectual Property Protection

圣奥化学高度重视科技创新和知识产权保护，持续建立健全覆盖专利、商标、商业秘密、著作权等内容的知识产权保护制度体系，并在软硬件、文件管理、人员管理、对外管理等方面规定相关的知识产品保护措施。此外，公司还通过开展专利人才培训和知识产权培训，组织世界知识产权日主题活动等方式，营造良好的知识产权保护氛围。2018年12月，山西翔宇化工有限公司等侵犯公司商业秘密案终审裁决生效，公司主动对客户、市场进行通知公告，展现公司知识产权保护力度和决心。

Sennics attaches great importance to technological innovation and intellectual property protection, continuously establishes and improves the intellectual property protection system covering patents, trademarks, trade secrets, copyrights, etc., and stipulates relevant measures of intellectual property protection in aspects of hardware and software, document management, personnel management, and external management. Moreover, the Company also organizes activities such as patent talent training and intellectual property training and the theme activity of World Intellectual Property Day to create a good atmosphere for intellectual property protection. In December 2018, the final judgment of the case of Shanxi Xiangyu Chemical Co., Ltd. and other companies infringing on the Company's business secrets took effect. The Company made announcement to notify customers and the market of the case, demonstrating the Company's efforts and determination to enhance intellectual property protection.



公司每年组织开展世界知识产权日主题活动，通过有奖问答、微信调查问卷和宣讲等活动，充分调动员工互动性和积极性，加强知识产权的宣传普及，提升员工知识产权保护意识。

The Company organizes the World Intellectual Property Day theme activity every year, fully mobilizes the interaction and initiative of employees through award-winning quizzes, WeChat questionnaires and presentations, so as to strengthen the popularization of intellectual property rights and enhance employees' awareness of intellectual property protection.

社会责任管理

Social Responsibility Management

圣奥化学致力将社会责任打造成一项核心能力，将社会责任目标与企业的使命、愿景、战略和实践相结合，不断识别公司业务发展与社会责任之间的关系，形成具有自身特色的社会责任管理和推进路径，积极回应利益相关方诉求，努力创造综合价值最大化。

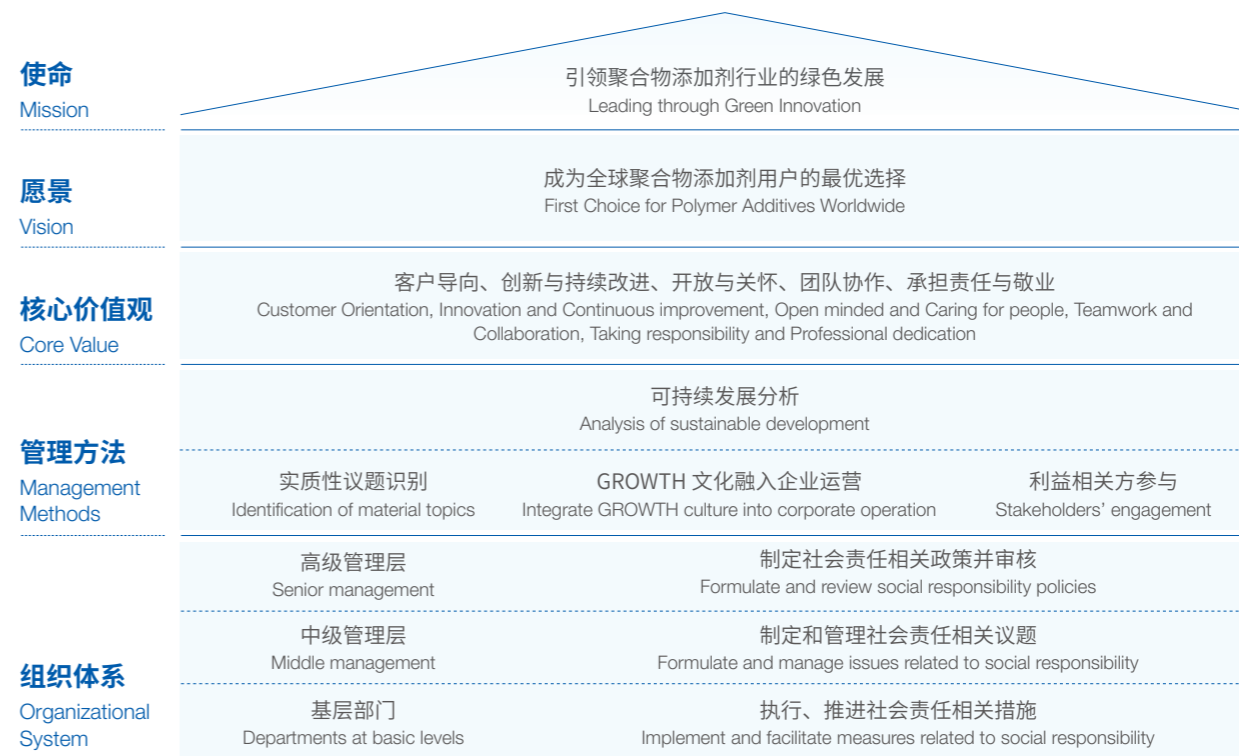
Sennics is committed to building CSR as core competence by integrating social responsibility objectives with the Company's mission, vision, strategy and practice and constantly identifying the relationship between business development and social responsibility. We have formed social responsibility management and promotion path with Sennics characteristics. Moreover, we actively respond to stakeholders' appeals and strive to create maximal comprehensive values.

社会责任管理架构

Social Responsibility Management Framework

圣奥化学将社会责任理念、要求融入到各部门的管理流程和制度中，实现社会责任与经营决策、运营的融合，并将社会责任工作进行分解，让公司内部各层级都理解并承担各自的社会责任。公司还以编写社会责任报告为契机，梳理公司社会责任管理现状，提出优化方案，促进公司社会责任管理水平不断提升。

Sennics integrates the concept and requirements of social responsibility into management processes and systems of departments, trying to realize the integration of social responsibility and business decision-making and operation, and decomposing social responsibility work. This makes all levels within the Company understand and assume their own social responsibilities. The Company also seizes the opportunity of compiling the social responsibility report to figure out the status quo of CSR management, and proposes improvement plans, so as to elevate CSR management.



圣奥化学社会责任管理架构
Social responsibility management framework of Sennics

实质性议题分析

Materiality Analysis

圣奥化学以编制社会责任报告为契机，系统进行社会责任实质性议题分析工作。公司通过回顾、识别、排序以及验证等过程综合分析出对于公司和利益相关方重要的 19 项实质性议题，在报告中进行系统性披露，也为今后推进公司社会责任管理工作提供方向。

Sennics takes the opportunity of compiling the social responsibility report to systematically conduct analyses of materials topics of social responsibility. Through processes of review, identification, prioritization and verification, we sorted out 19 material topics that are important to the Company and stakeholders as well, systematically disclosed them in the report, and provided insights into CSR management in future.

01 回顾 Review

依据 2018 年的利益相关方反馈和回顾，为实质性议题分析提供参考依据

Based on feedbacks and review of stakeholders in 2018, and provide reference for analyzing the material topics for 2018

02 识别 Identification

通过公司内刊、政策文件、内外利益相关方沟通、公司高层访谈、外部专家等来源，识别分析圣奥化学 2018 年的实质性议题

Identify and analyze the material topics of Sennics in 2018 through internal publications, policy documents, internal and external stakeholder communication, interviews with the company's executives, external experts and other sources

03 排序 Prioritization

依据对圣奥化学的重要性和利益相关方的关注程度对识别出的实质性议题进行优先性排序

Prioritize identified material topics based on two dimensions: their importance to corporate development and the concern of stakeholders

04 验证 Validation

公司高管及外部专家结合公司当年战略和经营方针，对实质性议题排序结果进行验证

Combining corporate strategy and operating principles, senior management and external experts conduct validation of the material topics results



圣奥化学 2018 年实质性议题与 SDGs 目标对应表

Material topics of Sennics in 2018 and corresponding SDGs

实质性议题 Material Topics	对应报告标题 Section in the Report	对应 SDGs 目标 SDGs Mapping
安全管理 Safety management	完善 HSE 管理 强化安全风险防控 Improving HSE management Enhancing safety risks control	
职业健康与安全 Occupational health and safety	保障职业健康安全 Safeguarding occupational health and safety	
创新发展 Innovation-driven development	科技引领，创新驱动：铸就圣奥化学二十年可持续发展之路 Innovation-driven Development Led by Technology: Sennics's 20 Years of Sustainable Development 创新驱动绿色研发 Innovation drives green R&D	
智能制造 Intelligent manufacturing	科技引领，创新驱动：铸就圣奥化学二十年可持续发展之路 Innovation-driven Development Led by Technology: Sennics's 20 Years of Sustainable Development 数字赋能智能制造 Digitalization empowers intelligent manufacturing	
绿色生产 Green production	倡导绿色运营 Advocating green operation	
资源有效利用 Effective resource utilization		
供应链管理 Supply chain management	携手供应商共同进步 Making progress with suppliers together	
责任采购 Responsible procurement		
产品质量管理 Product quality management	追求卓越的客户服务 Pursuing excellent customer service	
客户服务质量 Customer service quality		

实质性议题 Material Topics	对应报告标题 Section in the Report	对应 SDGs 目标 SDGs Mapping
合规治理 Compliance management 风险管控 Risk management	公司治理 Corporate governance	
经营业绩 Operation performance	社会责任管理 Social responsibility management	
培训与发展 Training and development 工作与生活平衡 Balance between work and life 基本权益保障 Safeguarding basic rights and interests 员工多元化 Responsible procurement	培育卓越人才 Cultivating excellent talents	  
推动行业发展 Promoting industrial development	引领行业的绿色发展 Leading green development of the industry	
社区参与 Engagement in communities	传递社区关爱 Caring for local communities	 

利益相关方参与

Stakeholder Engagement

圣奥化学注重利益相关方的识别和参与，通过倾听并回应利益相关方的需求，与利益相关方缔结更加紧密的合作关系，促进公司与社会的共同发展。

Sennics focuses on the identification and engagement of stakeholders. Through listening to and responding to the needs of stakeholders, we have established closer cooperation with stakeholders to promote common development of the Company and society.

利益相关方 Stakeholder	主要诉求 Major Appeals	我们的回应 Our Responses
 客户 Customers	合规运营 提供绿色优质产品 提供品质服务 Compliance operation Providing green and premium products Providing quality service	全力保证持续稳定供应 建立客户双向沟通机制 根据客户需求研发新产品 Guaranteeing continuous, stable and compliant supply Establish a two-way communication mechanism with customers Develop new products according to customers' requirements
 员工 Employees	保障基本权益 为企业发展提供建议 促进职业发展 创造良好工作环境 Guaranteeing basic rights and interests Providing suggestions for the development of the Company Promote career development Create a good working environment	召开职工代表大会 实施员工培训 实行合理化建议奖励制度 加大员工职业健康投入 Holding workers' congress Organizing trainings for employees Implementing the rewarding system for proposal of rational suggestions Enhancing investment in occupational health of employees
 环境 Environment	实现清洁生产 落实节能减排 保护生态环境 Realize green production Implement energy conservation and emission reduction Protect ecological environment	配合环保部门检查 推进清洁生产 研发绿色产品 开展环保公益活动 Cooperate with environmental protection departments to conduct inspections Promote green production Developing green products Conducting public welfare activities of environmental protection
 社区 Communities	服务社区发展 投身社会公益 Contributing to the development of local community Engaging in public welfare	带动就业和当地经济发展 扶持本地供应商 支持教育事业 Drive employment and local economic development Support local suppliers Support education
 政府 Government	守法合规 服务国家经济发展 确保安全生产 Legal compliance Contributing to national economy Securing work safety	依法纳税 定期汇报工作 实现稳健经营 加强安全管理 Paying taxes according to law Regularly reporting work progress Achieving stable operation Enhancing safety management
 供应商 Suppliers	实施公平、透明采购 促进共同发展 Conducting fair and transparent procurement Promoting shared development	推行稳定采购政策 建立公平透明的采购流程 帮助供应商进步 Promote stable purchase policy Establish fair and transparent procurement principle and process Help suppliers make progress
 股东 Shareholders	增强盈利能力 完善公司治理结构 履行信息披露义务 Enhancing profitability Improving corporate governance structure Fulfilling the responsibility of information disclosure	实现健康增长 建立股东沟通机制 定期发布年度报告 Achieving healthy growth Establishing the shareholder communication mechanism Regularly releasing the annual report

创新智远

Innovation Leads to a “Smart” Future



9 产业、创新和基础设施
INDUSTRY INNOVATION
AND INFRASTRUCTURE

11 可持续城市和社区
SUSTAINABLE CITIES
AND COMMUNITIES

12 负责任消费和生产
RESPONSIBLE
CONSUMPTION
AND PRODUCTION

全球石化行业已进入转型升级的重要变革时期，科技创新正处于追赶爆发阶段，数字化和智能化正快速成长，绿色研发与生产正逐渐成为行业形态主导。作为一家化工企业，创新是推动圣奥化学持续发展的源泉和动力。圣奥化学紧紧围绕中化集团提出的“全面转型为科学技术驱动的创新型公司”发展战略，通过智能研发、智能制造，不断践行“科学至上”的理念。

The global petrochemical industry has entered an important period of transformation and upgrading. Scientific and technological innovation is in the stage of explosive development. Digital and intelligent trend are growing rapidly. Green R&D and production are gradually becoming the dominant modes in the industry. As a chemical company, innovation is the source and driving force of Sennics for sustainable development. Sennics closely focuses on the development strategy of “technology-driven innovation company” proposed by Sinochem Group. Through intelligent research and development and intelligent manufacturing, we constantly practice the ideal of “In Science We Trust”.

利益相关方期望

Stakeholder Expectations

建设美丽中国是新时代对化工行业提出的发展与保护的新要求。绿色制造已成为未来工业发展的重点。同时，以数字化、网络化、智能化为特征的新工业革命已经蓬勃发展，是化工制造行业未来发展的重要机遇。圣奥化学如何利用自身优势，应对当下新的挑战？

Building a beautiful China is a new requirement for the development and protection of the chemical industry in a new era. Green manufacturing has become the focus of future industrial development. At the same time, the new industrial revolution characterized by digitization, internetization and intelligence has thrived and become an important opportunity for future development of the chemical manufacturing industry. Sennics should consider how to leverage its strengths to meet the new challenges at the moment.

圣奥化学的回应

Sennics Response

圣奥化学坚持“科学至上”的理念，持续推进绿色创新，建立健全绿色低碳循环发展的生产体系，以科技领先、清洁环保为方向，在研发应用、工艺技术以及工程设备等方面不断创新，提升产品的安全绿色环保性能，助力美丽中国建设。同时，以“圣奥智造2020”的战略目标，以信息化、智能化作为公司战略跃升的新动能，有步骤、有策略搭建多层次集成信息平台，推动组织架构优化与流程重塑，促进公司持续健康发展。

Adhering to the philosophy of “In Science We Trust”, Sennics has continuously promoted green innovation. We have established a sound production system for green and low-carbon recycling, and promoted innovation for technology-driven green production and environmental protection in R&D applications, process technology and engineering equipment, enhancing the safety and environmental performance of products and helping build a beautiful China. Meanwhile, with the strategic goal of “Smart Sennics 2020”, we give full play to the new growth drivers of informatization and intelligence for strategy upgrade, and try to build a multi-level integrated information platform in steps to promote organizational structure optimization and process reshaping, aiming to promote the Company’s sustainable and healthy development.

创新驱动绿色研发

Innovation Drives Green R&D

研发处于圣奥化学全产品链条的首端环节，对带动产品链改造升级具有重要影响。圣奥化学始终把加强技术创新和提升研发能力放在重要位置，在不断加强自身研发投入和能力建设的同时，更积极汇集高校和社会资源，共同在研发方面做出努力和探索。

R&D is at the forefront of the entire product chain of Sennics, which has an important impact on the transformation and upgrading of the product chain. Sennics always puts emphasis on strengthening technological innovation and improving R&D capability. While continuously strengthening R&D investment and capacity building, we also actively integrate resources from colleges and society to make joint efforts to improve R&D.

- 01 基于公司核心业务发展防老功能配方产品，创新科技发展模式
Based on the Company's core business, we develop antioxidant formula products and innovate in technical development modes.
- 02 自主新产品研发，紧跟国际同类先进产品的发展水平，致力于逐步实现橡胶助剂多个产品的进口替代
We conduct independent research and development of new products, keep up with the development level of similar international advanced products, and strive to gradually realize the substitution of several rubber additives import.
- 03 侧重技术应用和商业化研发，涉足具有重大发展潜力的细分市场
We focus on technical application and commercial R&D to enter a market segment with significant development potentials.
- 04 在满足本土市场需求的同时，不断改进产品工艺，为全球市场提供技术研发支持
While meeting the needs of local market, we constantly improve our production processes and provide technical R&D support for global market.

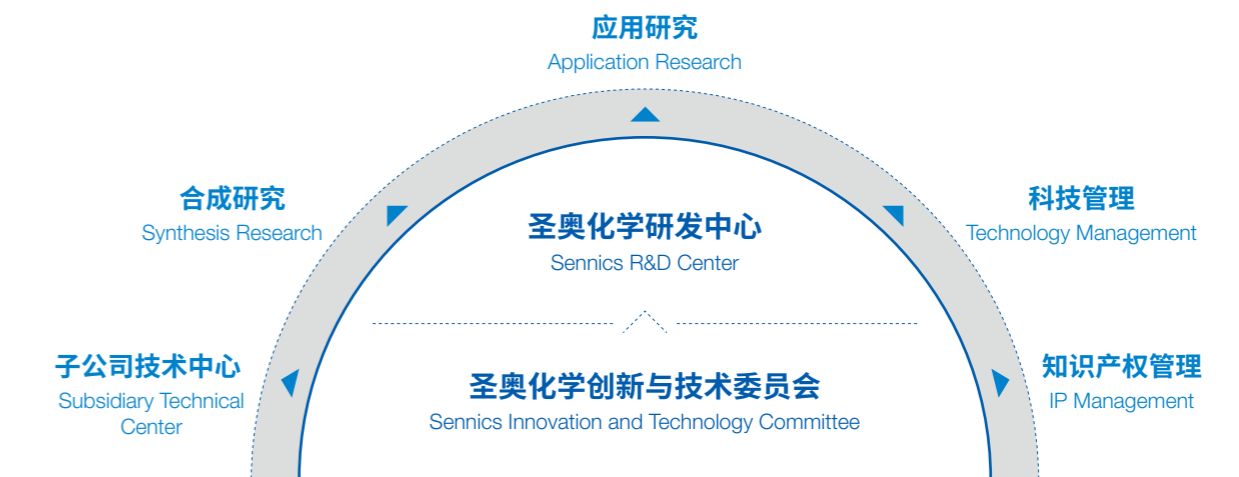
圣奥研发工作的部分重点内容
Part of major contents of Sennics R&D

健全创新研发体系

Improving the Innovation and R&D System

圣奥化学构建以市场为导向，坚持“产学研用”紧密合作的研发模式，形成以上海研发中心为核心，以各子公司相关技术中心为重点，以国内外知名院校合作研究的开放式创新体系为依托，以科技成果产业化为最终目标的研发架构。

Sennics has adhered to a market-oriented mode and the R&D mode characterized by industry-university-research-application collaboration. We have formed the R&D framework with Shanghai R&D Center as the core, relying largely on related technical centers of every subsidiary, cooperating with renowned universities at home and abroad, and aiming ultimately at the industrialization of technological achievements.



圣奥化学科技创新体系—组织架构
Sennics Scientific and Technological Innovation System: Organizational Structure

带你认识圣奥化学“聚合物添加剂大家庭”

Introducing you the “the Family of Polymer Additives”



我是橡胶防老剂，我是圣奥化学聚合物添加剂大家庭的元老级产品，我可以帮助汽车轮胎及其他橡胶制品延缓因光照、臭氧、机械损伤等情况造成的橡胶老化，而且在我的合成制备过程中是完全绿色环保的，是真正的绿色产品哦！圣奥化学的“绿色定制化配方解决方案”通过持续创新，让我不断焕发新的活力。

I am a rubber antioxidant, a senior member of Sennics's polymer additives family. I can help car tires and other rubber products delay rubber aging caused by light, ozone, mechanical damage, etc. I am a 100% green product, for my synthetic manufacturing process is completely ecological! The “Green Customized Formulation Solution of Sennics” promotes continuously innovation to empower me with new competitiveness.



我是不溶性硫磺，是一种橡胶硫化剂，我能使子午线轮胎中的钢丝与橡胶粘合更牢固，并有效防止胶料喷霜，提高轮胎的耐热、耐磨性能，提高轮胎整体结构强度，使高速行驶更安全。在圣奥化学的多产品发展战略中，我是构建绿色、循环产业链的重要依托。

I am insoluble sulfur, a kind of rubber vulcanizer. I can make the steel wire in the radial tire bond with rubber more firmly, effectively prevent the rubber from blooming, and improve the heat resistance,

wear resistance and the overall structural strength of the tire, making high-speed driving safer. In the multi-product development strategy of Sennics, I am an important support for building a green and circular industrial chain.



我是橡胶促进剂，在轮胎“硫化”过程中加入我，可以大幅度减少硫化时间，提高交联密度，延长焦烧时间，保持硫化曲线平坦，提高硫化效率。在我的研发与生产中，圣奥化学以绿色工艺、高端品质为目标，杜绝大量含盐废水的产生，并实现上下游循环配套，以新工艺、新技术推动产业整体升级。

I am a rubber accelerator. Adding rubber accelerator during the “vulcanization” process of the tire can greatly reduce the time of vulcanization, increase the crosslink density, prolong the time of scorch, keep the vulcanization curve flat, and improve the vulcanization efficiency. In R&D and production of rubber accelerator, Sennics aims at green technology and high quality, thus eliminates production of a large amount of salty wastewater, realizes recycling in upstream and downstream, and promotes the overall upgrading of the industry with new production processes and new technologies.



我是塑料助剂，我可以改善塑料制品的加工工艺和性能。高性能的绿色、环保、无毒、高效塑料助剂的研发和生产是圣奥化学的主攻方向。

I am a plastic additive. I can improve the processing technology and performance of plastic products. The development and production of high-performance green, eco-friendly, non-toxic and highly efficient plastic additives is the focus of Sennics.



圣奥化学科技创新体系
Technological innovation system of Sennics

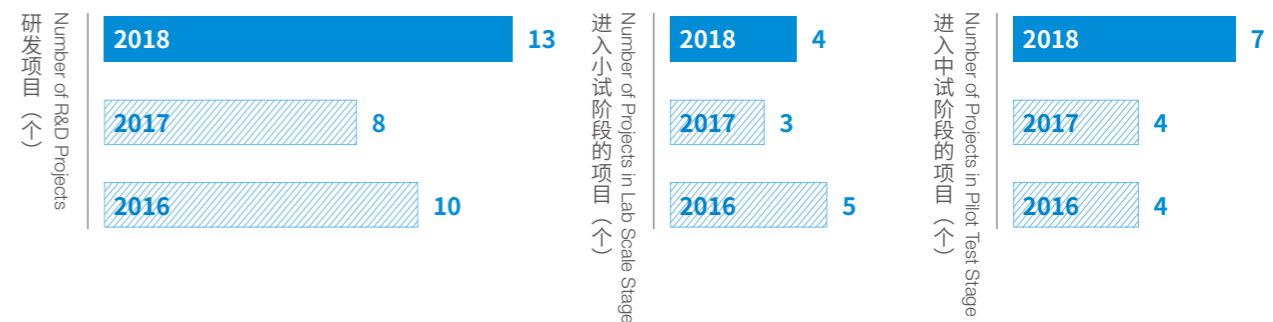


高校和科研院所基础和研究理论方面有更强的能力，圣奥化学积极与高校开展合作，优势互补，共同提升中国化工行业尤其是精细化工产业的科技研发及产业化水平。2018年，圣奥化学与清华大学、南京大学、北京化工大学、华东理工大学、华南理工大学、南京工业大学、浙江工业大学等国内重点高校和知名工程公司签署合作备忘录，将在部分关键技术领域与上述高校、科研单位共同开展技术开发和研究，各方将在克服创新难点、环境和资源瓶颈等方面携手展开全面深化合作。

Universities and research institutes have stronger capabilities of basic and theoretical research. Sennics actively cooperates with universities and complements each other to jointly improve the level of scientific R&D and industrialization of the chemical industry of China, especially the fine chemical industry. In 2018, Sennics signed a memorandum of cooperation with Tsinghua University, Nanjing University, Beijing University of Chemical Technology, East China University of Science and Technology, South China University of Technology, Nanjing Tech University, Zhejiang University of Technology and other key universities and well-known engineering companies in China. Sennics will collaborate with them and other research institutes to carry out technical R&D in certain key technological fields, overcome innovation difficulties, and break environmental and resource bottlenecks.



管理成效 Management Performance



激活创新研发动力 Stimulating Innovation and R&D Vitality

圣奥化学在提升科技研发硬件能力的同时也不断加大软件方面的投入，包括对企业自身研发人员的培养及外部研发人才的引进，内外并举，全方位地提高企业科技研发和创新管理水平。

Sennics has continuously increased investment in software while improving hardware R&D capability, including cultivation of R&D personnel and introduction of external R&D personnel. Through internal and external channels, we strive to improve technological R&D and innovation management.

加大人才引进和人才培养力度 Increasing talent introduction and talent training

引进博士充实到研发第一线，同时加强现有人才的培养，着重强化技能型人才的培养，培育工匠精神；鼓励研发人员走出研发中心，参加行业交流；走进生产一线，培养发现问题、解决问题的能力。

建立人才晋升双通道发展路径 Establishing a dual-channel promotion path

实行“管理发展与技术发展”双通道晋升路径，普通员工发展为高潜员工后，可选择管理者或专家两种晋升路径，使人才发展不再局限于有限的管理岗位。

Introducing Ph.D. to the R&D frontline, strengthening the cultivation of existing talents, focusing on strengthening the cultivation of skilled talents, and fostering the spirit of craftsmanship; encouraging R&D personnel to go out of R&D centers and participate in industrial exchanges; entering the production line to develop the capability of detecting and solving problems.

The dual-channel promotion mechanism of "management and technical path" is implemented. After promoted to high-potential employees, the ordinary employees can choose two promotion paths for managers or experts, so that talent development is no longer limited to limited management positions.

为员工发展提供经费支持 Providing financial support for employee development

鼓励员工参与职称评定、高级技工申报等，并提供相应的经费支持。

建立健全激励机制 Establishing and improving the incentive mechanism

制定《圣奥化学科技有限公司科技激励管理办法》，激励内容贯穿科技创新全过程；建立征集+评审非科技创新提案的平台；对公司作出重要贡献的团队和个人进行表彰激励。

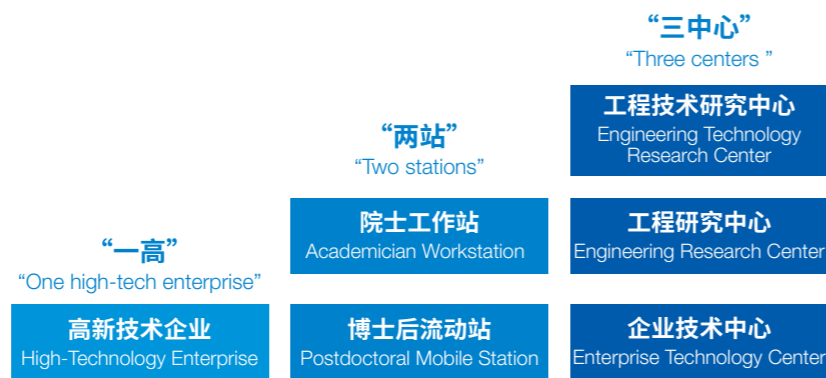
Encouraging employees to participate in job title evaluation, senior technician application, etc., and providing corresponding funding support.

Formulating the *Measures of Sennics for Science and Technology Incentive Management*, and integrating the incentives in the whole process of technological innovation; establishing a platform for collecting and reviewing non-technical innovation proposals; and commending the incentives for teams and individuals who have made important contributions to the Company.

公司对科研及技术人才的管理措施
Measures of Sennics for R&D personnel management

圣奥化学打造“一高三中心两站”科技平台，通过持续推进“平台建设”，深挖科技创新能力，系统性解决研发投入、人员培养等问题。

Sennics has built the technical platform with "one high-tech enterprise, three centers and two stations", continuously promoted "establishment of platforms", and tapped potentials of technology innovation to systematically solve problems such as R&D investment and personnel cultivation.



成立首个院士工作站，打造圣奥“创新桥头堡”

Establishing the first academician workstation to build the "Innovative Bridgehead" of Sennics

2018年，安徽圣奥成立圣奥化学第一个院士工作站——“绿色橡塑助剂院士工作站”，致力于促进圣奥化学实现“高端智力”与“产业化”的精准对接，实现科技效益、经济效益、社会效益的多方共赢。“绿色橡塑助剂院士工作站”的成立标志着圣奥化学迈上科技研发、工程化探索、产业化发展三者高效协同运作的“品质创新”新征程。圣奥化学把院士工作站作为促进企业战略跃升的“创新桥头堡”，继续秉承“绿色、极致”的发展理念，积极响应“品质革命”，持续提升自主研发、应用研究等科技创新综合能力，为全球用户提供卓越的产品和服务，为区域经济腾飞贡献力量，为推动聚合物添加剂行业可持续发展发挥重要作用。

In 2018, Sennics Anhui established the first academician workstation - Academician Workstation for Green Rubber and Plastics Auxiliaries, which is dedicated to promoting Sennics's targeted efforts in "high-end intelligence" and "industrialization" to realize win-win cooperation for technological benefits, economic benefits and social benefits. The establishment of this Workstation symbolizes Sennics's new journey of "Quality Innovation" which relies on highly efficient collaboration of technical R&D, engineering and industrial development. Sennics regards the academician workstation as the "innovation bridgehead" that promotes strategic upgrade. We continue to inherit the ideal of "green, exquisite" development, actively respond to "quality revolution", and continuously enhance comprehensive technological innovation capabilities of independent R&D and application research, providing users across the world with excellent products and services, contributing to the regional economic growth, and playing an important role in promoting the sustainable development of the polymer additives industry.



“ 院士工作站是‘科技创新、产品研发、人才集聚’的‘产学研’战略高地，圣奥化学要以此为契机，在新时代走出一条独具圣奥特色的创新奋斗之路。

The Academician Workstation is the strategic highland of 'Industry-University-Research Collaboration' based on 'technological innovation, product R&D and talent polling'. Relying on the Academician Workstation, Sennics should seize the opportunity to embark on a road of innovation and hard work with unique characteristics of Sennics in a new era.

——中国石油和化学工业联合会原会长 李勇武

Yongwu Li, former President of China Petroleum and Chemical Industry Federation

促进创新成果转化

Promoting Transformation of Innovation Achievements

圣奥化学的科技研发工作为产业化而服务，因此公司将科技研发的着眼点放在产品、工艺、技术的改进上，以提升产品的性能和质量。通过加强产学研合作，公司积极推动创新成果转化。

The technological R&D of Sennics serves industrialization. Therefore, the Company focuses on the improvement of products, processes and technologies and upgrades the performance and quality of products. By strengthening industry-university-research cooperation, the Company actively promotes the transformation of innovation results.

2018年，圣奥化学申请专利 获得专利授权

15 件 6 件

In 2018, Sennics applied for 15 patents and obtained 6 patents.



山东圣奥获得“山东省科学技术奖”

The Science and Technology Award of Shandong Province won by Sennics Shandong

圣奥化学获得 2018 年度国家技术发明奖二等奖

Sennics wins the second prize of the 2018 National Technology Invention Award

圣奥化学参与完成的“取代芳胺系列产品绿色催化合成关键技术与工业应用”项目获 2018 年度国家技术发明奖二等奖。项目团队突破了防老剂催化剂及其应用的创新、工艺技术以及工程设备的创新三大技术难点，将圣奥化学首席科学家陈新民带领研发中心及安徽圣奥相关研发人员自主研发的“贵金属催化氢化合成防老剂 6PPD 新工艺及产业化技术”成功运用于防老剂 6PPD 的合成，使得生产过程低能耗、高品质、高收率，基本无“三废”产生，同时也降低了对设备与操作的要求。

The project of "Key Technology and Industrial Application of Green Catalytic Synthesis for Substituted Aromatic Amines Products", which was completed by Sennics and other institutions, won the second prize of the 2018 National Technology Invention Award. The project team broke through the three technical difficulties, namely, the process technology, engineering equipment and application innovation of antioxidant catalysts. They successfully applied the new process and industrialization technology of precious metal catalytic hydrogenation synthesis antioxidant 6PPD, which was independently developed by Xinmin Chen, Chief Scientist of Sennics, the R&D center and R&D personnel of Sennics Anhui. The application realizes low energy consumption, high quality, high yield, and nearly no "three wastes" of the production process, and also reduces the requirements for equipment and operation.

该创新项目产品具有自主知识产权的工艺技术，技术水平与产品品质居国际领先，实现了“源头创新”，带动全行业技术升级，并在客户使用后，获得良好的反响，具有广阔的市场前景，为推动我国精细化工行业高效、绿色、安全可持续性发展做出了重要贡献，并形成良好的环境效益、经济效益和社会效益。

The innovation project and products have the independent intellectual property rights, holding the leading position in technology and product quality globally. It realizes “innovation from the source” and drives the technology upgrade of the whole industry; positive feedback has been obtained after customers use. With broad market prospects, the project contributes much to promoting the efficient, green, safe and sustainable development of the fine chemical industry of China, and has generated much environmental, economic and social benefits.



项目组研发人员
R&D personnel of the innovation project team



拓展阅读
Extended reading

取代芳胺是一类核心精细化工原料，被广泛地应用于抗高温、阻燃、绝缘、抗紫外光等特需材料的合成，满足军用装备、高铁、特高压输电和核能等高端需求，也是医药、农药、染料等合成原料。对苯二胺类产品属于取代芳胺系列产品的一种，可直接作为橡胶防老剂使用。然而，由于原有生产技术与工艺存在诸多不足，市场亟待出现高质量、低能耗、高性能的防老剂产品，这将有利于提升行业整体技术水平，推动产业可持续发展。

Substituted aromatic amines is a kind of core material in fine chemical industry, which is widely used in the synthesis of special materials with high temperature resistance, flame retardant, insulating and anti-ultraviolet light performance. The material meets the high-end requirements of military equipment, high-speed rail, UHV transmission and nuclear energy, and also is a synthetic raw material for medicines, pesticides and dyes. P-Phenylenediamine products are one of the substituted aromatic amines products and can be directly used as a rubber antioxidant. However, due to shortcomings in the original production technology and process, the market is in urgent need of high quality, low energy consumption, high performance antioxidants, which will help improve the overall technical level of the industry and promote sustainable development of the industry.

数字赋能智能制造 Digitalization Empowers Intelligent Manufacturing

圣奥化学的生产基地不仅是绿色环保的，更是数字化、自动化、智能化的。“圣奥智造 2020”战略，把信息化建设作为创新发展的核心举措，以生产管控、设备管理、安全环保、能源管理、物流管理、辅助决策六个方面为重点，以企业资源计划系统(ERP)的信息系统建设为基础，结合分布式控制系统(DCS)自动化改造及生产过程执行系统(MES)、HSE 管理系统、设备管理系统(iEAM)建设，新建安全仪表系统(SIS)和中央控制室，实现流程工业智能化，并以此推动组织结构优化、重塑流程管理，逐步实现以数字驱动运营管理创新的目标。

Sennics's production base is not only green, but also digital, automated and intelligent. “Smart Sennics 2020” strategy regards information technology application as the core measure of innovation-driven development. With the focus on six aspects of production control, equipment management, safety and environmental protection, energy management, logistics management and supporting decision-making, we rely on the enterprise resource planning (ERP) system, integrate the establishment of the distributed control system (DCS) automation transformation and manufacturing execution system (MES), HSE management system, equipment management system (iEAM), and newly build the safety instrumented system (SIS) and the central control room to achieve intelligent industrial process. Meanwhile, we aim to promote organizational structure optimization, reshape process management, and gradually achieve the goal of innovation in digital-driven operation management.

MES 加速拥抱智能化

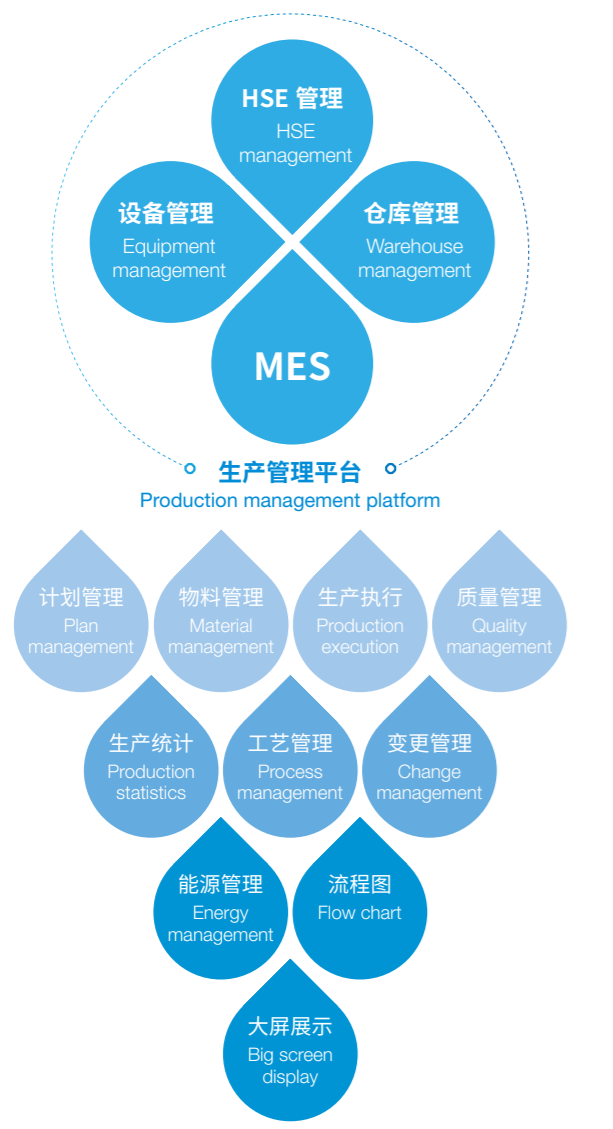
MES Speeds Up Pace to Embrace Intelligence

圣奥化学通过信息化和工业化的深度融合，以数字工厂为基础、以企业门户为目标，不断创新对外服务模式，稳步推进“圣奥智造 2020”方案。公司通过循序渐进推进流程和信息系统再造，以 ERP 信息系统建设为突破点，结合 DCS 自动化改造及 MES 生产管理平台的建设，不断提高智能化生产能力、打造卓越“智”造力。

Through the deep integration of information and industrialization, Sennics continuously innovates in the external service model based on the digital factory and the enterprise portal, steadily promoting the “Smart Sennics 2020” program. The Company promotes the re-engineering of process and information system step by step, takes the establishment of ERP information system as a breakthrough point, and integrates the DCS automation renovation and the construction of MES management platform to continuously improve intelligent manufacturing capacity.

2018 年 8 月，MES 系统一期上线，标志着圣奥化学在推进信息化、智能制造、优化生产管理与执行体系方面取得重大进展。对圣奥化学而言，MES 系统是实现智能制造的重要载体，在帮助公司实现生产过程的自动化、网络化和智能化等方面发挥着重要的作用。MES 系统的上线对提升生产效率、降低单位能耗、促进工艺优化以及节约资源等有着显著的影响。

In August 2018, the first phase of the MES system was launched, marking the significant progress made by Sennics in promoting information technology, intelligent manufacturing, and optimization of production management and execution systems. For Sennics, the MES is an important carrier for intelligent manufacturing, and plays an important role in helping the Company realize automation, internetization and intelligence of the manufacturing process. The launch of the MES has a significant impact on improving manufacturing efficiency, reducing energy consumption per unit of manufacturing output, facilitating process optimization, and saving resources.



圣奥化学 MES 系统
MES of Sennics

- 2019 年 10 月**
MES 三期 (山东圣奥) 上线
 October 2019
 MES Phase III (Sennics Shandong) was launched
- 2019 年 8 月**
MES 二期 (泰安圣奥) 上线
 August 2019
 MES Phase II (Sennics Tai'an) was launched
- 2019 年 3 月 20 日**
MES 一期项目后评价暨数字化提升行动讨论会在安徽圣奥召开
 March 20, 2019
 The MES Phase I Post-Evaluation Meeting and Digital Improvement Action Symposium was held in Sennics Anhui
- 2019 年 3 月 14 日**
MES 二期项目在泰安圣奥启动
 March 14, 2019
 MES Phase II Project was initiated in Sennics Tai'an
- 2018 年 11 月 1 日**
MES 一期 (安徽圣奥) 正式上线
 November 1, 2018
 MES Phase I (Sennics Anhui) was launched
- 2017 年 11 月 2 日**
MES 一期项目在安徽圣奥启动
 November 2, 2017
 MES Phase I Project was initiated in Sennics Anhui

圣奥化学的 MES 发展之路
Milestones of Sennics MES

2018 年，圣奥化学 MES 项目组在智能制造方面实现新突破，荣获中化集团化工事业部“卓越运营奖”。作为圣奥化学数字化战略的重要举措，MES 的实施帮助公司进一步深化运营管理的变革，真正实现“透明化”管理，助推圣奥数字化创新与战略转型。

In 2018, Sennics MES project team achieved new breakthroughs in intelligent manufacturing and received the "Excellent Operation Award" from the Chemicals Division of Sinochem. As an important measure of Sennics's digital strategy, the implementation of MES helps the Company further deepen the revolution of operation management, truly realize "transparent" management, and promote digital innovation and strategic transformation of Sennics.



关于 MES
About MES

拓展阅读
Extended reading

MES (Manufacturing Execution System) ，是对生产执行层进行全方位管理的信息系统，从生产计划的执行、生产过程的追溯、设备的高效使用，到产品质量的保证、安全控制等多个维度对生产现场进行集成管理。MES 作为生产执行层的核心系统，起着承上启下的桥梁作用，MES 系统串联起上层管理系统和下层控制系统，实现无缝衔接，全面记录和跟踪生产行为，实现生产“透明化”管理。

MES (Manufacturing Execution System) is an information system that manages all aspects of the manufacturing execution, covering the centralized site management from the execution of manufacturing plans, the traceability of manufacturing processes, the efficient use of equipment, to the guarantee of manufacturing quality, the control of safety and other dimensions. As the core system of manufacturing execution system, MES plays the role of a linking bridge to connect the upper management system and the lower control system, achieving seamless connection, comprehensive recording and tracking of manufacturing behavior, and realizing "transparency" in manufacturing management.

安徽圣奥通过国家两化融合管理体系认证

Sennics Anhui passes national certification for information and industrialization integration



自 2017 年获得“国家级两化融合贯标试点”以来，安徽圣奥紧跟信息时代脚步，不断加大信息化投入，并于同年 9 月份正式启动两化融合管理体系贯标工作。安徽圣奥部署深度融合战略，以打造“精细化管控能力和绿色制造能力”为工作导向，以 DCS 系统和 MES 系统为数据支撑，推动大数据、物联网、智能制造等先进理念和技术与企业的组织结构和业务流程有效优化融合，进而提高数据开发利用水平，强化企业在信息时代背景下的竞争优势。下一步，安徽圣奥将利用关键数据和信息，不断提升工厂的智能化、信息化水平，向“智能工厂”目标迈进。

Since winning the honor of "state-level pilot project of information and industrialization integration" in 2017, Sennics Anhui has kept pace with the information age and continuously increased investment in information technology. In September 2017, the company officially launched the information and industrialization integration management system. It deployed a deep integration strategy to build up "fine management and control capability and green manufacturing capability"; with DCS and MES as data support, the company promoted the integration of advanced concepts and technologies in its organizational structure and business processes, and effectively optimized them, so as to improve data development and utilization and strengthen its competitiveness in the information age. In the next step, Sennics Anhui will use key data and information to continuously improve the intelligence and information technology application of the factories and strive toward the goal of "smart factory".

“ 我们做智能工厂的最大目标是借助数字化持续推动企业技术进步、创新发展，并最终为客户创造更大价值。我们要尽快建立创新开发平台，把创新平台做成技术交流、推动技术进步的平台，不断为客户、供应商乃至整个精细化工行业提供高标准的解决方案。

The first goal of our smart factory is to continuously promote technological progress, innovation-driven development, and ultimately create greater values for customers. We need to establish an innovation-driven development platform as soon as possible, and build the innovation platform into one for technical exchange and technological progress, constantly providing high-standard solutions for customers, suppliers and even the entire fine chemical industry.

——圣奥化学首席运营官 高世明
Shiming Gao, COO of Sennics

安净至上

Putting Safety and Green Production First



安全与环境是化工企业生产和运营过程中最为重要的管理内容。圣奥化学持续完善 HSE 管理，关心员工职业健康安全，努力为员工创造一个安全舒适的工作环境，持续减少生产运营过程中给环境带来的不良影响，为企业健康可持续发展奠定坚实的基础。

Safety and environment are the most important management content in production and operation of chemical companies. Sennics continues to improve HSE management, and cares for employees' occupational health and safety while creating a safe and comfortable working environment for them. We continuously reduce the negative impact on the environment during production and operation, laying a solid foundation for the healthy and sustainable development of the Company.

利益相关方期望

Stakeholder Expectations

中国化工行业经历了几十年的快速发展，粗放式经营思路为如今频发的安全事故埋下隐患。化工园区内重大危险源高度集中，一旦发生火灾或泄漏会快速形成连锁反应，事故造成的人身伤害、财产损失以及环境破坏无法计量。圣奥化学如何进行有效的风险防控机制牢守安全生产底线？

The chemical industry of China has experienced rapid development for decades; however, the idea of extensive development has laid a hidden danger and caused frequent security incidents today. The major dangerous sources in the chemical parks are highly concentrated. Once a fire or leak occurs, a chain reaction will be caused immediately. Personal injury, property damage and environmental devastation caused by the accident is immeasurable. Sennics should consider how to implement effective risk prevention and control mechanism to secure the bottom line of safe production.

圣奥化学的回应

Sennics Response

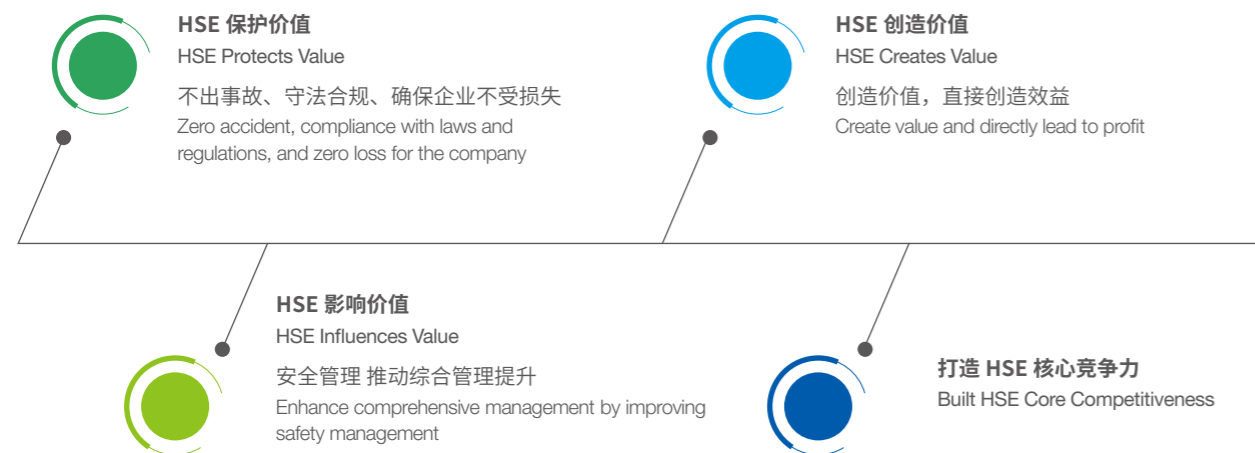
圣奥化学积极落实“有感领导、直线职责、属地管理、全员参与”HSE 管理十六字方针，实现全员参与 HSE 管理，注重对生产过程中的危险源识别和风险防控，营造安全文化，已连续多年实现 HSE “零事故、零污染、零伤害”的管理目标。

Sennics actively implements the HSE management principles of “felt leaders, line responsibility, line responsibility, and total involvement” to effectively engage every employee in HSE management. Our employees are urged to focus on the identification and prevention of hazards in production process and foster safety culture. Sennics has realized the HSE management goal of “zero accident, zero pollution, zero damage” for many years.

完善 HSE 管理 Improving HSE Management

圣奥化学将打造 HSE 核心竞争力作为公司战略。公司通过 OHSMS 18001:2007 职业健康安全管理体系和 ISO 14001:2004 环境管理体系认证,并在中化集团 HSE 13 要素的指引下,结合杜邦安全管理 22 要素,形成独具特色的 HSE24 要素体系,全面夯实 HSE 基础管理,努力营造安全绿色的工作环境,为自身持续健康发展的提供必要条件。

Sennics regards building HSE core competitiveness as a corporate strategy. The Company has passed the certification of OHSMS 18001:2007 Occupational Health and Safety Management System and ISO 14001:2004 Environmental Management System. Moreover, under the guidance of Sinochem's 13 HSE factors, we have formed a unique 24-factor HSE system to comprehensively consolidate basic HSE management based on the 22 factors of DuPont Safety Management, striving to create a safe and green working environment, and providing necessary conditions for the Company's sustainable and healthy development.



HSE 的多重价值
Multiple values of HSE

健全管理体系

Improving the management system

圣奥化学设立 HSE 管理委员会,严格遵守国家标准和相关管理部门规定,结合公司实际情况,建立了具有自身特色的 HSE 管理 24 要素体系并有效运行。公司组织制定个人年度安全行动计划作为一种管理机制,上至公司首席执行官,下至工厂班组长均列出推动 HSE 提升的挑战性行动并公开展示,主动接受员工监督。

圣奥化学积极响应中化集团各项要求,推进全员参与 HSE 管理,为公司可持续发展以及 HSE 核心竞争力的打造积淀了深厚的土壤,奠定了坚实的基础。

Sennics has established the HSE Management Committee. Strictly following national standards and relevant management regulations, we have established the 24-factor HSE management system with Sennics characteristics according to the actual situation of the Company. We have achieved effective operation of the system. We organize the formulation of the annual security action plan for individuals and develop it as a management mechanism. From the Company's CEO to the head of a factory team, they all list and manifest challenging actions to promote HSE improvement, and actively accept supervision from employees.

Sennics actively responds to the requirements of Sinochem and promotes engagement of all employees in HSE management, laying a solid foundation for the Company's sustainable development and the building of HSE core competitiveness.



圣奥化学 HSE 管理委员会框架
The Framework of HSE Management Committee

“要真真正正把‘有感领导、直线责任、属地管理、全员参与’这十六个字贯彻好,把‘HSE 打造成核心竞争力’的想法贯穿在我们每一天、每一分、每一秒的工作中。”

I really want to implement the HSE management principles of 'felt leaders, line responsibility, line responsibility, and total involvement', and integrate the idea of 'building HSE into a core competitiveness' in our daily work.

——圣奥化学首席执行官 苏赋
Fu Su, CEO of Sennics

有感领导 Felt leadership

管理者深度落实有感领导行动,重视 HSE 管理工作,并提供多方面的资源支持,推动企业安全管理文化升级,逐步实现全员从“要我安全”到“我要安全,我会安全”的转变

Managers should be deeply committed to "felt leadership" actions, attach importance to HSE management, and provide multi-faceted resource support to promote the upgrades of corporate safety management culture, and gradually realize the staff transform from "I should to be safe" to "I want to be safe and will be safe".

直线责任 Line responsibility

属地的直线管理者是本属地 HSE 负责人,是推动本属地职责的责任承担者

The line manager of the localized operation is the head of the HSE work and is the responsible person for promoting the duties of the localized management.

属地管理 Localized management

HSE 工作不仅是 HSE 部门的事情,各个业务部门也必须深度落实 HSE 程序制度,让安全渗透到每一个工作细节

HSE work is not only a matter of the HSE department, but each business unit must also implement the HSE system, so that safety awareness penetrates into every work detail.

全员参与 Total involvement

通过全员参与营造良好的安全氛围,提升全员安全技能,进而整体提升自主管理水平

Through the participation of all employees, we create a good safety atmosphere, improve the safety skills of all employees, and thus improve the overall management level.

圣奥化学持续打造 HSE 核心竞争力的途径
Measures of Sennics for continuously building the core competitiveness of HSE

HSE 管理对接融合，提升新并购工厂 HSE 管理能力

Improving HSE management capability of a newly merged factory



2018 年 8 月，圣奥化学通过采取安全文化融合宣贯、HSE 人员配置与组织机构调整、HSE 文件制度贯彻、HSE 日常管理等措施，对新收购的山东华鸿进行管理融合，并派安全管理师对员工进行 HSE 文件制度培训、HSE 体系审核。同时，圣奥化学还对山东华鸿开展工厂间互助、政府资源互助等共同资源共享，多措并举提升山东华鸿 HSE 管理能力。

In August 2018, Sennics provided management integration for the newly acquired factory - Shandong Huahong by adopting measures such as safety culture integration publicity, HSE staffing and organizational adjustment, HSE document system implementation, and daily HSE management, and sent security management personnel to conduct training on HSE document system and HSE system audit for employees. At the same time, Sennics also shared common resources such as mutual assistance between factories and mutual assistance of government resources with the factory, increasing its HSE management capability through multiple measures.

2018 年圣奥化学目标指标 Sennics's Targets in 2018

目标指标 Target	实际值 Actual Value	目标完成情况 Target Completion
死亡事故为 0 0 death accident	0	完成 Completed
重伤事故为 0 0 heavy injury accident	0	完成 Completed
直接经济损失人民币 50 万元（含）以上事故为 0 0 accident with a direct economic loss above RMB 500,000 (including RMB 500,000)	0	完成 Completed
直接经济损失人民币 50 万元以下事故不大于 4（包含承包商和外来人员） Less than 4 accidents with a direct economic loss less than RMB 500,000 (including contractors and external personnel)	0	完成 Completed
交通事故不高于 2 No more than 2 traffic accidents	0	完成 Completed
集体中毒事件为 0 0 collective poisoning incident	0	完成 Completed
一般及以上环境事件为 0 0 environmental event of general impact and above	0	完成 Completed
新增职业病事故为 0 0 occupational disease incident	0	完成 Completed
三标管理覆盖率 100% 100% coverage of "Three Standard" management	100%	完成 Completed
重大影响的 HSE 负面舆情事件为 0 0 HSE negative public opinion event with significant impacts	0	完成 Completed

2018 年，圣奥化学三工厂（山东圣奥、泰安圣奥、安徽圣奥）被授予中化集团 HSE “五星工厂”荣誉
In 2018, three factories of Sennics (Sennics Shandong, Sennics Tai'an, Sennics Anhui) were awarded "Five-Star Factory" of HSE by Sinochem.

2018 年，圣奥化学三工厂（山东圣奥、泰安圣奥、安徽圣奥）杜邦千分制年度审核均突破 750 分
In 2018, three factories of Sennics (Sennics Shandong, Sennics Tai'an, Sennics Anhui) scored over 750 points in the annual 1,000-point audit of DuPont.

加强 HSE 管理信息化建设

Enhancing IT application of HSE management

HSE 信息化建设是圣奥化学实现“数字化工厂”“圣奥智造 2020”的核心组成部分。2018 年，公司依据国家安全标准化、安全体系、环境体系及公司 HSE 管理 24 要素，结合目前 HSE 管理存在的难点和重点，拟建风险识别、隐患排查与治理、教育培训、作业安全许可等 8 大模块。HSE 信息系统的建立可实现自动风险预判分析、及时了解安全生产趋势，为公司和工厂安全趋势提供依据。

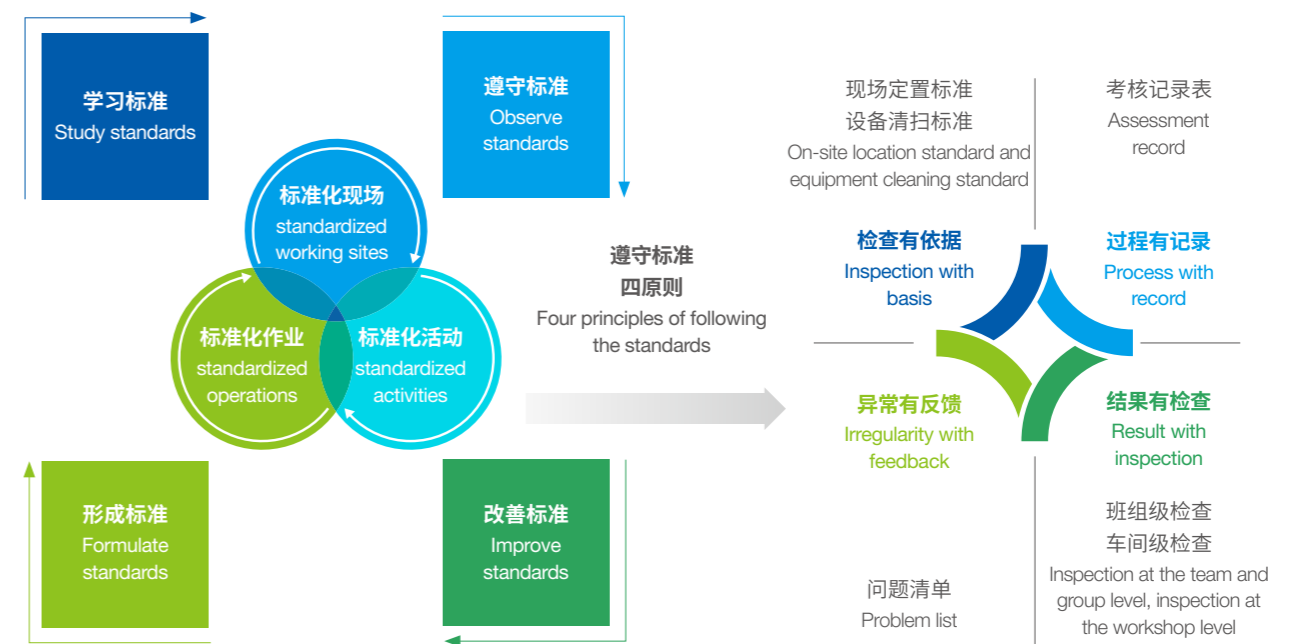
The IT application in HSE system is a core component for Sennics's realization of "Digital Factory" and "Smart Sennics 2020". In 2018, based on the national security standardization, security system, environmental system and the Company's 24-factor HSE management, we considered the current difficulties and priorities of HSE management and proposed to build eight modules including risk identification, hidden dangers investigation and management, education and training, work safety permits, etc. The establishment of HSE information system can realize automatic risk pre-judgment analysis, timely grasp safe production trends, and provide a basis for predicting the Company' and factories' safety trends.

拓展“三标”管理

Expanding "Three Standards" management

圣奥化学始终坚持将“三标”（“标准化现场、标准化活动、标准化作业”）管理作为基层安全管理的基础，2018 年，公司进一步拓展“三标”管理范围，将“三标”管理由一线操作岗位推向非操作岗位和基层管理岗位，持续提升自主管理水平，促进安全管理由严格监管文化向自主管理提升转变。

Sennics always insists on "Three Standards" management ("standardized working sites, standardized activities, standardized operations") as the basis of frontline safety management. In 2018, the Company further expanded the scope of "three standardizations" management from frontline operation positions to non-operational positions and frontline management positions, which helped improve self-management continuously and promote safety management transform from a strict regulatory culture to independent management.



营造安全文化

Fostering safety culture

“生命无价、安全至上”。圣奥化学持续落实全员参与 HSE 管理，持续推进学分制机制及安全里程碑机制，通过体验式培训、现场学习和交流等活动增强全员安全意识，在公司内形成浓厚的安全文化氛围。

“Life is priceless and safety is paramount.” Sennics continues to engage all employees in HSE management, and promote the credit system and safety milestone mechanism. Through experiential training, on-site learning and communication activities, etc., we have fostered a rich atmosphere of safety culture in the Company.

安全使命

Safety Mission

承担社会责任，成为化工行业安全管理的典范

Take social responsibility and become a model of safety management in chemical industry

安全愿景

Safety Vision

杜绝一切安全事故，构建安全圣奥，成为社会、用户、员工信赖的化工企业

Put an end to all safety accidents, build safe Sennics and become a chemical enterprise trusted by society, users and employees.

安全价值观

Safety Values

以人为本，安全第一

People-oriented, safety first

圣奥化学安全文化
Safety culture of Sennics

强化安全风险防控

Enhancing Safety Risks Control

化工企业在生产、经营、储存、运输和使用诸多环节中都存在不安全因素。圣奥化学注重对生产过程中的危险源识别和风险控制，积极采取相应的控制措施，使风险降低到“可接受程度”以下。多年来，圣奥化学圆满完成国家、地方政府和中化集团设定的各项 HSE 目标指标，持续实现了 HSE “零事故、零污染、零伤害”的管理目标。2018 年，圣奥化学安全生产总投入 1532.6 万元，较 2017 年增加 15%。

For chemical companies, hazards exist in many aspects of production, operation, storage, transportation and use. Sennics pays attention to the identification of hazard sources and risk control in production process, and actively adopts corresponding control measures to reduce risks under the “acceptable level”. For years, we have successfully completed the HSE targets set by the central and local governments and Sinochem, and continuously achieved the HSE management goal of “zero accident, zero pollution, zero damage”. In 2018, Sennics invested RMB 15.326 million in safe production, an increase of 15% compared with that in 2017.

工艺过程安全

Process safety

圣奥化学严格管控生产工艺参数，严格执行工艺变更管理，最大程度降低工艺过程安全风险。圣奥化学将日常巡检落到实处，严格执行年度检修计划，进一步确保工厂生产运营安全。

Sennics strictly controls the production process parameters and implements process change management to minimize safety risks during the process. Sennics implements daily inspections and strictly executes the annual maintenance plan to further secure production and operation safety of Sennics factories.



圣奥化学工艺过程安全管理
Process safety management



日常安全巡检
Daily safety inspections

“作为圣奥化学的一名员工，我感到很安全，企业定期或不定期地开展‘隐患排查治理’‘周三主任班组长车间隐患自查整改’‘合理化建议’‘体验改善活动’等活动，这些活动的目的都直指安全，培养员工的安全习惯。消除一次隐患，就是消除一次事故，只有员工习惯了安全，生产运营才会更加安全。

As an employee of Sennics, I feel very safe. The Company conducts activities such as 'Hidden Hazard Investigation and Management', 'Director Urges Self-Inspection and Rectification of Plant Hazards on Wednesday', 'Proposing Rational Suggestions', 'Experiential Improvement Activities', etc. on a regular or irregular basis. All these activities aim to improve safety and help employees develop habits of safety behavior. Eliminating a hidden hazard is to prevent an accident. Only when employees are used to safety behavior can production and operation be safer.

——山东圣奥员工 葛志建

Zhijian Ge, an employee of Sennics Shandong



安徽圣奥为生产系统部分带班长、工段长、专兼职安全员组织《JSA（工作前安全分析）培训》

Sennics Anhui organizes JSA (Job Safety Analysis) Training for some heads of project teams, construction sections, and full-time and part-time safety personnel in production system

组织安全演练

Organizing safety drills

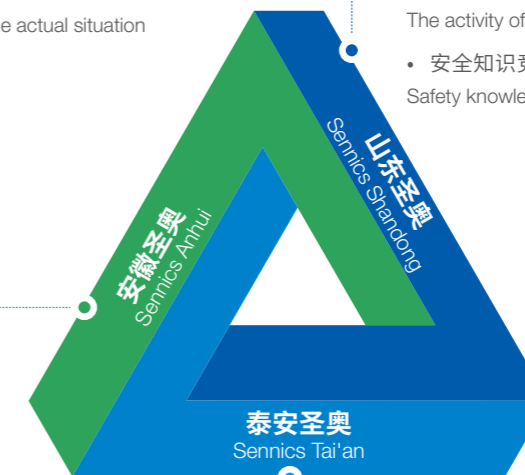
圣奥化学每年定期开展安全月系列活动，在提高员工对安全生产工作重要性认识的同时，也增强了员工的安全技能和责任心，为筑牢企业安全发展之路打下坚实的基础。2018年6月，圣奥化学在三家工厂围绕“生命至上，安全发展”的主题，紧密结合各工厂实际情况进行统一部署，大力开展形式多样、寓意深刻的“安全生产月”活动。该活动已连续开展多年。

Sennics regularly conducts a series of "safe production month" campaign every year. While raising awareness of the importance of safe production among employees, we also enhance employees' safety skills and sense of responsibility, laying a solid foundation for safe development. In June 2018, with the theme of "life first, safe development", the three factories of Sennics carried out centralized deployment based on the actual situation of all factories. They vigorously launched the "safe production month" campaign in various forms. The event has been organized for many consecutive years.



“安全生产月”活动
"Safe production month" campaign

- 引入外部专业安全宣讲
Introducing external professionals to give safety lectures
- 安全技能比武大赛
Safety skills competitions
- 结合工作实际的隐患排查
Inspecting hidden hazards based on the actual situation
- WHY TREE 事故分析
WHY TREE accident analysis
- 安全知识竞赛等
Safety knowledge contests, etc.



- 开展全员安全知识学习与测试
Conducting all-staff safety knowledge learning and exams
- 公司级危险化学品泄漏事故应急救援预案演练
Company-level emergency rescue drills for hazardous chemicals leakage accidents
- 安全生产风险分级管控与隐患排查治理活动周
Hierarchical management and control of safety production risks and the event of Hidden Hazards Inspection and Management Week
- 安全演讲比赛
Safety speech contests
- 安全生产宣传咨询日
Safety Production Publicity and Consultation Day
- “我当一天观察员”
The activity of "I am today's observer"
- 安全知识竞赛等
Safety knowledge contests, etc.

- 安全宣传教育培训
Safety education and training
- 典型事故案例警示教育
Safety education and training
- 消防技能基础训练与技能比武
Typical accident case warning education
- 保命规则宣贯及落实
Basic training of firefighting skills and firefighting skill competition
- 全员安全责任制培训
All-staff safety accountability training

- 安全生产大检查
Safety overhauls
- “夏季十防”风险危害再辨识与管控
"Ten Preventions in Summer" risks and hazards reidentification and control
- 事故应急预案演练
Accident emergency plan drills
- 作业现场事故隐患排查等
Hidden accident hazards investigation on working sites, etc.

管理成效 Management Performance

2018年，圣奥化学在中化集团化工事业部首届“红旗班组竞标及技能比武大赛”中，获得总分第二名的优异成绩，其中获得隐患排查第一名、带压堵漏和叉车项目取得第二名，同时获得了“五星红旗班组”“最佳创新奖”两项重量级荣誉称号。

In 2018, Sennics won the second prize in the first "Red Flag Teams in Bidding and Skills Competition" in the Chemical Business Division of Sinochem, ranking 2nd in terms of total score, 1st in terms of hidden hazards inspection, 2nd in terms of pressure plugging and forklifts. The project also won the honors of "Five-Star Red Flag Team" and "Best Innovation Award".

保障职业健康安全 Safeguarding Occupational Health and Safety

为员工提供健康安全的工作环境是公司应尽的责任。圣奥化学重视员工职业健康与安全，为员工提供各类安防用品，开展职业健康培训，降低职业病发生几率。

It is a company's obligation to provide employees with a healthy and safe working environment. Sennics attaches great importance to occupational health and safety of employees, provides various security products for them, and conducts occupational health training to reduce the incidence of occupational diseases.



圣奥化学员工健康管理主要措施
Main measures of Sennics for employee health management



圣奥化学还积极推广和普及应急知识，提升应急技能，公司定期邀请专业人员对员工进行应急救援专项培训，提高员工风险防范意识与应急自救、互救能力。

Sennics also actively promotes and popularizes emergency knowledge and enhances emergency skills. The Company regularly invites professionals to conduct special emergency rescue training to improve employees' risk prevention awareness, emergency self-rescue and mutual-rescue capabilities.

倡导绿色运营 Advocating Green Operation

追求“绿色、低碳、环保”的道路永无止境，圣奥化学全面推进资源高效循环利用和节能减排技术改造，积极构建高效、清洁、低碳、循环的绿色制造体系，努力践行绿色可持续安全生产理念。

The pursuit of “green, low-carbon and environmental protection” is endless. Sennics comprehensively promotes the efficient recycling of resources and the transformation of energy-saving and emission reduction technologies, and actively builds a highly efficient, clean, low-carbon and recycling green manufacturing system, striving to practice the concept of green, sustainable and safe production.

绿色制造工艺

Green manufacturing technology

圣奥化学以“安全绿色”生产工艺为指引，持续进行工艺改进，不断创新绿色节能技术和产品，将化工生产与环境和谐共存提升到新的高度，在自身的产品链规划中，始终遵循“循环经济”理念。

Guided by the “safe, green” production process, Sennics continues to improve the production process, continuously innovates in eco-friendly and energy-saving technologies and products, and elevates the harmonious coexistence of chemical production and environmental protection to a new level. In the product chain planning, we always pursue circular economy.

圣奥化学“绿色聚合物添加剂项目”坚持以自主研发的绿色环保工艺路线、新技术为主导，打造“绿色、循环”产品链，积极响应国家科技创新、高质发展战略。

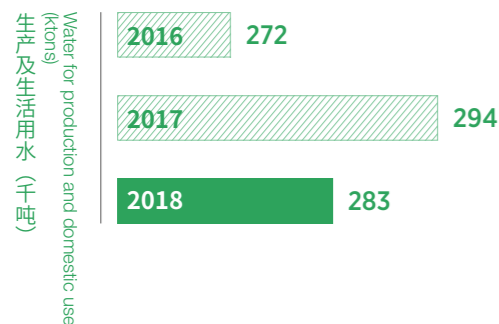
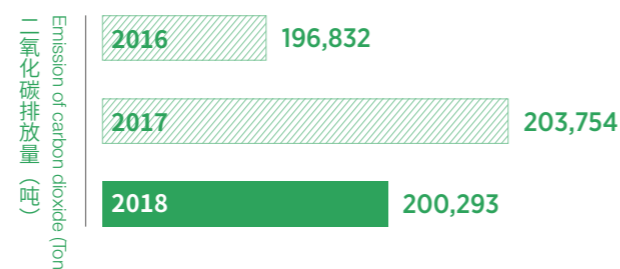
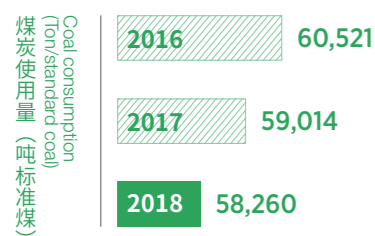
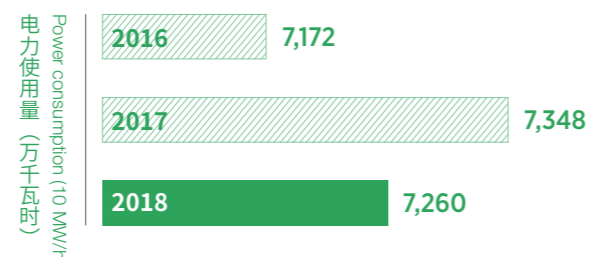
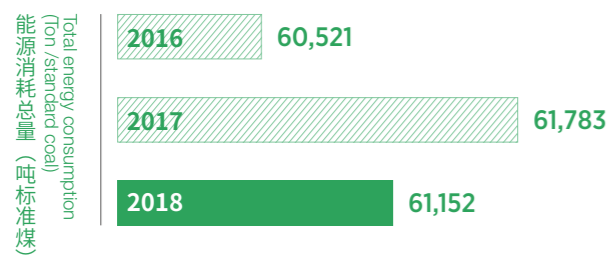
The Green Polymer Additives Project of Sennics, with the core of independent research and development of eco-friendly processes and new technologies, the project builds a “green, recycling” product chain as a active response to the national strategy of technological innovation and high quality development.

节能减排

Energy conservation and emission reduction

圣奥化学严格执行《环境保护法》《大气污染防治法》《水污染防治法》《固体废物污染环境防治法》等国家和地方排放管理相关的法律法规，制定并实施《环境保护考核制度》等一系列专项制度，积极开展污染物综合治理等项目，确保各项排放符合法律法规要求，实现对排放物的精细管理。2018年，山东圣奥、泰安圣奥、安徽圣奥累计新制定7项减排管理制度，在单位产品综合能耗、碳排放量方面均处于行业领先水平。

Sennics has strictly implemented the *Environmental Protection Law, Air Pollution Prevention and Control Law, Water Pollution Prevention and Control Law, Law on the Prevention and Control of Environmental Pollution Caused by Solid Waste* and other national and local emission management laws and regulations, and formulated and implemented a series of special systems such as *Environmental Protection Assessment System* to actively carry out projects such as the comprehensive treatment of pollutants, so as to ensure that emission indexes meet the requirements of laws and regulations and achieve lean management of emissions. In 2018, Sennics Shandong, Sennics Tai'an and Sennics Anhui formulated seven emission reduction management systems, occupying a leading position in the industry in terms of comprehensive energy consumption and carbon emissions per unit output of product.



山东圣奥
Sennics Shandong

锅炉烟气超低排放改造项目
完成新一轮清洁生产审核，共提出 14 个清洁生产方案
Boiler flue gas ultra-low emission transformation project
Completed a new round of green production audit and proposed 14 production plans

泰安圣奥
Sennics Tai'an

燃气替代燃煤有机热载体锅炉，减少环境大气污染物排放
新建危废焚烧炉，处理厂区生产过程中产生的危险废物
Replacing coal-fired boilers with gas-fired organic heat boilers to reduce air pollutant emissions
Newly building hazardous waste incinerators to treat hazardous waste generated in the production process of the plant

安徽圣奥
Sennics Anhui

淘汰落后机电设备
在锅炉烟气管道增加蒸发器，对高温烟气的热量进行回收，减少蒸汽锅炉的生产负荷
Replacing coal-fired boilers with gas-fired organic heat boilers to reduce air pollutant emissions
Newly building hazardous waste incinerators to treat hazardous waste generated in the production process of the plant

圣奥化学三家工厂节能减排措施
Measures of Sennics Shandong, Sennics Tai'an and Sennics Anhui for energy conservation and emission reduction

建设焚烧设备提升公司危废自处理能力

Improving the incineration equipment to enhance hazardous waste treatment capacity



为妥善处理厂区现有生产过程产生的危险废物，泰安圣奥投资新建焚烧炉一座，设计焚烧能力 100kg/h，并将厂区产生的废气引入焚烧炉无害化处理。焚烧炉还配套建设 1.0t/h 的余热锅炉及烟气处理设施，将焚烧时产生的热量用于余热锅炉加热，锅炉生成的蒸汽再用于日常生产，在减少危废排放的同时，也有效节约生产成本和危废处理费用，减轻社会处理危废的压力，更实现了废物再利用目标。

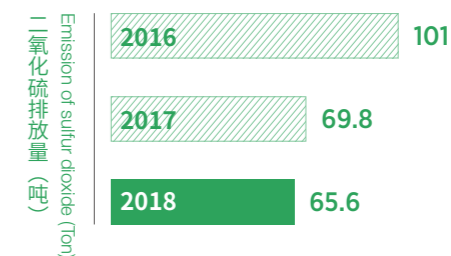
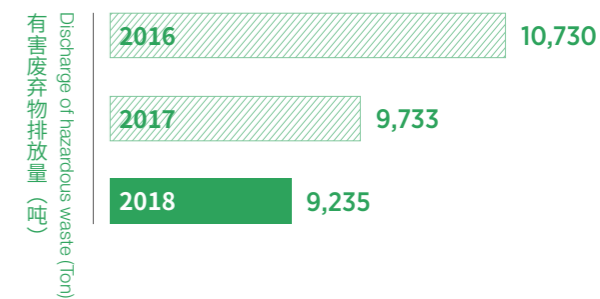
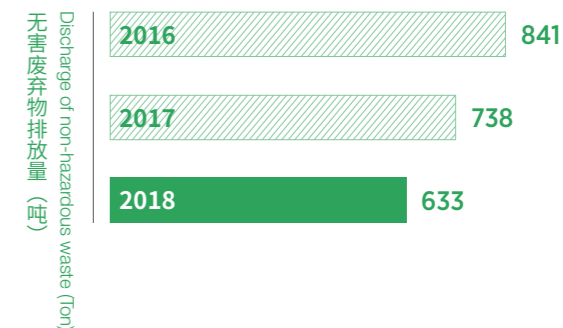
In order to properly handle the hazardous waste generated in the existing production process of the plant, Sennics Tai'an invested in a new incinerator with a designed incineration capacity of 100kg/h and transferred the waste gas generated in the plant into the incinerator for harmless treatment. Equipped with a 1.0t/h waste heat boiler and flue gas treatment facility, the incinerator uses the heat generated during incineration for the waste heat boiler and the steam generated by the boiler for daily production. While reducing hazardous waste emissions, it effectively saves production costs and hazardous waste treatment expenses, reducing the pressure on society to handle hazardous waste and achieving the goal of waste recycling.

管理成效

Management Performance

2018 年，圣奥化学在化工行业和工信部都获得了“绿色工厂”的称号。山东圣奥、泰安圣奥和安徽圣奥均获得化工行业“绿色工厂”称号；泰安圣奥获得国家工信部“绿色工厂”称号。

In 2018, Sennics Shandong won the honor of "Green Factory" in the chemical industry and by the Ministry of Industry and Information Technology. Sennics Shandong, Sennics Tai'an and Sennics Anhui won the honor of "Green Factory" in the chemical industry; Sennics Tai'an won the honor of "Green Factory" by the Ministry of Industry and Information Technology.



和舟共济

Cooperation for Shared Development



圣奥化学秉承“科学至上”以创新驱动发展的同时，注重将科学理念与客户服务、供应商管理和行业发展相融合，积极探索服务和管理创新模式，将社会责任理念传递给客户、供应商、行业等利益相关方，携手利益相关方共同实现可持续发展。

Adhering to the principle of "In Science We Trust" for innovation-driven development, Sennics emphasizes the integration of scientific philosophy with customer service, supplier management and industry development. We are actively exploring service and management innovation models, passing the philosophy of social responsibility to customers, suppliers, industries and other stakeholders, and working with stakeholders to achieve sustainable development.

利益相关方期望

Stakeholder Expectations

现在轮胎行业开始逐渐重视打造绿色供应链，对轮胎原料的供应商在环境保护方面提出了更高的标准。圣奥化学作为轮胎行业的上游企业，是如何促进行业绿色供应链建设的？

Now the tire industry has begun to pay more attention to building a green supply chain, and puts forward higher standards for suppliers of raw materials in environmental protection. As an upstream enterprise in the tire industry, Sennics should consider how to promote the green supply chain in the industry.

圣奥化学的回应

Sennics Response

圣奥化学将科技创新作为发展的核心竞争力，通过自主研发绿色工艺，在实现自身的节能降耗和绿色环保的同时，也与客户和行业伙伴加强绿色供应链项目合作，为行业贡献圣奥智慧，促进行业的进步。此外，圣奥化学还将环保作为供应商审核的重要依据，严控自身供应链，提升供应商的履责水平，持续打造绿色供应链。

Sennics regards technological innovation as the core competitiveness of development. Our independent research and development of green technology not only helps realize the energy saving consumption reduction and environmental protection, but also facilitates the cooperation of green supply chain projects with customers and industry partners, contributing wisdom to the industry and promoting its progress. In addition, we also take environmental protection as an important basis for supplier audit, strictly controls our own supply chains, improve the level of supplier CSR fulfillment, and continue to build a green supply chain.

追求卓越的客户服务

Pursuing Excellent Customer Service

圣奥化学致力于为客户带来卓越的服务，我们所有的工作都围绕这一目标而开展。公司将“客户导向”的核心价值观贯穿研发、生产、供应链、运营、销售等每一个环节，不断改进工艺，提升产品质量，为客户提供最优质的服务，为客户创造综合价值。

Sennics is committed to providing excellent service to our customers, and all our work is focused on this goal. The Company inserts "customer-oriented" core values throughout R&D, production, supply chain, operation, sales and other aspects, and constantly improves the process and product quality, so as to provide the best quality service and create comprehensive value for customers.

匠心铸造极致品质

Pursuing the Best Quality

圣奥化学遵循“科学至上”的发展理念，以“高质发展”为目标，聚焦产品质量和客户满意度，持续追求极致品质，努力成为全球客户值得信赖的合作伙伴。

Sennics follows the development philosophy of "In Science We Trust" and aims at "high-quality development". Focusing on product quality and customer satisfaction, we pursue the best quality and strive to become a trustworthy partner of global customers.

完善质量管理体系

Improving quality management system

圣奥化学不断完善质量管理体系，夯实原材料、生产、物流运输的全流程质量管理，对产品质量精益求精，持续满足和超越客户期望。

Sennics continuously improves the quality management system, consolidates the whole process quality management of raw materials, production and logistics transportation, and strives for excellence in product quality, in an effort to continuously meet and surpass customer expectations.

生产过程中按照 ISO 9001:2015 质量管理体系的要求，不断提升产品质量和稳定性
Sennics strictly follows the ISO 9001:2015 quality standard to continuously improve product quality and stability.

通过 IATF 16949:2016 汽车行业质量管理体系标准认证，更大程度地满足了客户的质量需求

Sennics has obtained the certification of the automotive quality management system IATF 16949:2016. It is better positioned to meet customers' quality requirements.

按照 GB/T 19580-2012《卓越绩效评价准则》，实施卓越绩效管理，促进质量管理体系的持续改进

In accordance with GB/T 19580-2012 Criteria for Performance Excellence Sennics has implemented the performance excellence management model to promote ongoing improvement of its quality management system.

强化源头与过程控质

Strengthening source and process quality control

圣奥化学延续“源头绿色”的研发理念，持续强化原材料质量控制，最大限度地降低原材料的质量风险。同时，公司加强过程管控，全方位保障产品质量过关。2018年，圣奥化学对设备进行更新改造，保证实验数据精密性和准确性；加强过程能力分析，保证分析及时性，保障产品稳定性；在三个工厂之间开展交叉式审核，加强对产品交付时限和交付过程管理，减少客户投诉。

Sennics continues the "green source" R&D philosophy, continuously strengthens the quality control of raw materials, and minimizes the quality risk of raw materials. The Company also strengthens the process control to guarantee the quality of products to meet the standards in an all-round way. In 2018, Sennics upgraded the equipment to ensure the precision and accuracy of experimental data, and strengthened process capability analysis to ensure timely analysis and product stability. The cross-checking among the three factories were carried out to strengthen the management of product delivery time limit and delivery process, with an aim to reduce customer complaints.

培育质量管理文化

Cultivating quality management culture

圣奥化学通过多重措施，积极创造追求极致质量文化氛围。有效推行中化集团质量管理模式下的“QC小组活动”，致力于流程改造和优化。持续深入精益六西格玛管理，既提高产品质量稳定性、减少浪费，又有助于养成员工对品质极致追求的行为和习惯。

Sennics actively creates an atmosphere of quality culture through multiple measures. For example, we effectively carry out Sinochem's "QC Group Activity" under the quality management model to promote process transformation and optimization. We continue to deepen Lean Six Sigma (LSS) management to improve product quality stability and reduce waste, which also helps employees develop the habits to pursue best quality.

仓库的保姆——装卸工

Warehouse nanny-stevedore

刘全胜是山东圣奥装卸队成员，确保最终到达客户手中的每一批次产品外包装无懈可击是他追求的终极目标。虽然从库房到装车区只有几步之遥，但他每天来回能走出十几公里。刘全胜的工作不仅仅是按照客户要求，把手中产品打托包装，还包括检查标签使用有无污染或破损，产品订单号和批次号是否正确，监督运输车辆的卫生状况等各种质量和安全问题。对刘全胜来说，追求极致品质的道路没有终点。



Quansheng Liu is a member of Sennics Shandong loading and unloading team. The ultimate goal he pursues is to ensure that every batch of outer packing of products received by the customers is intact. Although it is only a few steps from the warehouse to the loading area, he can walk more than ten kilometers back and forth every day. Liu's work is not only to pack the products according to customers' requirements, but also to check whether the labels are contaminated or damaged, whether the product order number and batch number are correct, and to supervise the hygienic condition of transport vehicles and other quality and safety issues. For him, there is no end to pursue the best quality.



管理成效 Management Performance

2018年有18家重点客户对圣奥化学进行审核，包括国际客户、区域大客户、国内重点客户对公司质量管理体系进行现场审核，公司均获得了A级的认证。

In 2018, 18 international, regional and domestic customers and other key customers conducted on-site audits of Sennics quality management system, all of which were certified as A-level.



山东圣奥获评“3A级质量信用企业”
Sennics Shandong was awarded "3A Quality Credit Enterprise".

精心打造优质服务 Building High Quality Service

服务止于至善，持续提升客户服务能力是圣奥化学为之努力的目标。通过不断完善服务流程和措施，为客户创造可持续的价值。

Service only ends when it reaches its perfect state. Sennics aims to improve its customer service capability through continuous improvement of service processes and measures, trying to create sustainable value for customers.

客户导向的闭环管理

Customer-oriented closed-loop management

圣奥化学将“客户导向”贯穿生产运营所有环节与部门，由生产部门梳理客户诉求，形成解决方案，由研发、销售等部门进行配合，将最终解决方案在客户端进行验证，打造客户服务的闭环管理。

Sennics inserts "customer-oriented" concept throughout all aspects and departments of production and operation. The production department sorts out the customer's demands and forms a solution. The R&D, sales and other departments cooperate to verify the final solution on the customer end and create closed-loop management for customer service.

强化客户沟通

Strengthening customer communication

从生产到售后的每一个环节，圣奥化学都十分注重客户沟通，通过定期与客户进行包括研发、技术更新、供应链、法务财务等全方位的交流与沟通，充分了解客户诉求，为客户制定满意的解决方案。

For every link from production to after-sales, Sennics pays great attention to customer communication. Through regular communication with customers including R&D, technology update, supply chain, legal affairs and finance, we fully understand customer demands and develop satisfactory solution for customers.

海外市场本土化

Localization of overseas markets

圣奥化学的供应链实现全球布局，以最短距离或最优方案合理安排供货。公司启动海外自建生产基地的工作，推进产能海外布局，实现从中国生产转变为全球生产。

Sennics's supply chains realize global layout, with the shortest distance or optimal solution for supply demand. The Company started the work of self-built production bases overseas, promoted the overseas distribution of production capacity, and realized the transformation from Chinese production to global production.

圣奥化学打造
优质服务的措施
Measures to build
quality service

管理成效 Management Performance

2018 年客户满意度 96.2 分

In 2018, the customer satisfaction was 96.2 points



海外客户参观审核泰安圣奥。审核期间，客户参观了公司生产车间，对成品包装线、成品库、质量分析室和中央控制室进行了全面细致的审核。公司良好的工作环境、有序的生产流程、严格的质量控制、和谐的工作氛围给客户留下了深刻的印象，客户表示希望加深合作、共同发展、实现共赢。

Overseas customers visit and audit Sennics Tai'an. During the audit, customers visited the Company's production workshop and conducted a comprehensive and meticulous audit of the product packaging line, product warehouse, quality analysis room and central control room. The Company's good working environment, orderly production process, strict quality control and harmonious working atmosphere left a deep impression on customers. They expressed their hope to deepen cooperation for common development and win-win achievement.

携手供应商 共同进步

Making Progress with Suppliers Together

圣奥化学坚持责任采购，持续强化供应商管理，帮助供应商提升可持续发展的意识和能力，提高供应链的竞争力，携手供应商共同成长和发展。

Sennics insists on responsible purchasing and work with suppliers for common growth and development. We continuously strengthen supplier management to help suppliers enhance their awareness and ability of sustainable development and improve the competitiveness of supply chain.

提升采购管理

Improving Purchasing Management

2018 年，圣奥化学制定新的三年采购目标，追求集约管控，智能管理，并将采购管理重心从事务性处理向战略性管理推进。同时，为保障供应稳定，公司与重要供应商签订年度协议，提高年度长约合作的业务比例，并根据“二八原则”分散采购，降低采购风险。此外公司还与电商平台合作，借助电商平台的规模化和物流优势，提升采购效率和服务质量。

In 2018, Sennics set a new three-year procurement target, pursuing intensive control, intelligent management, and shifting the focus of procurement management from business processing to strategic management. At the same time, in order to ensure stable supply, the Company signed annual agreements with key suppliers, in which the proportion of annual long-term contract cooperation business was increased, and decentralized procurement was implemented in accordance with the 80/20 Rule to reduce procurement risks. In addition, the Company also cooperated with e-commerce platforms to improve procurement efficiency and service quality by virtue of the scale and logistics advantages of e-commerce platforms.

	通过 ISO 9001 认证 Suppliers who pass ISO 9001 certification	通过 OHSAS 18001 认证 Suppliers who pass OHSAS 18001 certification	通过 ISO 14001 认证 Suppliers who pass ISO 14001 certification
A 类 Grade A	16	10	9
B 类 Grade B	14	5	7
D1 类 Grade D1	9	2	4

“ 圣奥化学在环保安全、产品品质、售后服务等方面对供应商有着较高的要求。但我们觉得只有把这些方面做得尽善尽美才能取得双方的共赢。

Sennics has high requirements for suppliers in environmental protection, safety, product quality and after-sales service. But we think that only by doing these things perfectly can we achieve a win-win situation for both sides.

——圣奥化学供应商
Sennics supplier

圣奥化学珍视与供应商间的合作，除了为供应商提供平等竞争的机会，也愿意帮助供应商，尤其是中小供应商提升履责水平。当供应商出现问题时，会与供应商一起分析原因，为供应商提供针对性的技术指导，并进行后续跟进，持续加强产业链的可持续发展能力。

Sennics values cooperation with suppliers. Besides providing equal opportunities for suppliers to compete each other, Sennics is also willing to help suppliers, especially small and medium-sized suppliers, improve their CSR practices. When suppliers have problems, we will work with suppliers to analyze the reasons, provide targeted technical guidance and follow-up, continuously strengthening the sustainable development ability of the industrial chain.

强化供应商审核 Enhancing Supplier Audit

圣奥化学建立了完善的供应商评估审核体系，通过供应商评价和现场审核等流程，评估供应商的质量、劳工、环境、安全等方面绩效，并与供应商签署《廉洁从业责任书》，从自身和供应商两方面进行有效管理，杜绝商业贿赂，防范腐败风险。

Sennics has established a perfect supplier evaluation and auditing system to assess supplier performance in terms of quality, labor, environment and safety, etc. through supplier evaluation and on-site auditing processes. The Company also has signed the Incorruptible Employment Responsibility Letter with suppliers to effectively manage itself and suppliers, eliminate commercial bribery and prevent corruption risks.

供应商评估审核体系 Supplier evaluation and review system

新供应商 New supplier

- 小试样品检验合格
- 现场审核，将供应商的合规、环境、人权等因素作为审核内容，达到一定分值列入《准供方名录》

A lab test sample passes the inspection. The on-site audit includes the supplier's compliance, environment, human rights and other factors as the content of the audit, and when the audit score reach the standards, the suppliers will be included in the "accessible supplier list".

准供应商 Prospective supplier

- 进入《准供方名单》三个月、使用原料三批及以上后，开展评估
- 评估合格后列入《合格供方名录》

Suppliers are evaluated three months after their being included into the "list of prospective suppliers" and the use of three or more batches of raw materials. They are listed in the "list of qualified suppliers" after passing the evaluation.

合格供应商 Qualified supplier

- 每三个月进行监督复评，根据评价结果将供应商评为 A、B、C 三个等级；根据分级决定现场审核周期
- 现场审核，对采购过程的高风险节点进行识别和评估

Carry out supervision and re-evaluation every three months, and rate suppliers as A, B and C according to the evaluation results; determine on-site review cycle based on classification. Conduct site review to identify and evaluate high-risk parts in the purchasing process.

严控物流质量 Strictly Controlling Logistics Quality

圣奥化学严格管控仓储和运输等物流环节，落实《产品国内发运过程防护规程》《产品防护交付管理规程》等规章制度要求，确保产品不因运输环节发生问题。



管理成效 Management Performance

2018 年，产品交付合格率

100 %

因物流造成客户投诉数量

0

In 2018, the qualified rate of product delivery was 100%. The number of complaints from customers caused by logistics was 0.

Sennics strictly controls logistics links such as warehousing and transportation, implements rules and regulations such as *Regulations on Protection for Domestic Delivery and Transportation of Products and Regulations on Product Protection and Delivery Management* to ensure that products do not have problems during the process.

为提升物流供应商的能力，保障产品的品质，圣奥化学与物流供应商建立常态化的双向沟通机制，定期召开物流供应商质量会议。会议针对物流运输过程中的质量事故类型和成因与物流供应商进行交流，进一步强调公司的质量要求，并邀请优秀供应商分享经验，促进相互间的学习。2018 年，圣奥化学还积极分享“互联网+”新技术，引导物流供应商紧跟社会发展趋势，提升质量保障能力。

In order to improve the ability of logistics suppliers and ensure the quality of products, Sennics and its logistics suppliers establish a normal two-way communication mechanism and hold regular quality meetings. Sennics exchanges with logistics suppliers on the types and causes of quality accidents in the process of logistics transportation, further emphasizes Sennics's quality requirements, and also invites excellent suppliers to share experiences and promote mutual learning. In 2018, Sennics actively shared the "Internet +" technology, and guided logistics providers to closely follow the trend of social development and enhance the quality assurance capability.

0 质量事故激励提高运输质量 Zero quality accident incentive improves transportation quality

圣奥化学追求运输质量精益求精。2018 年，对物流供应商除了设置正常的处罚措施以外，还设立奖励机制，对全年 0 质量事故的物流供应商给予奖励，有效激发物流供应商活力，提升了服务质量。

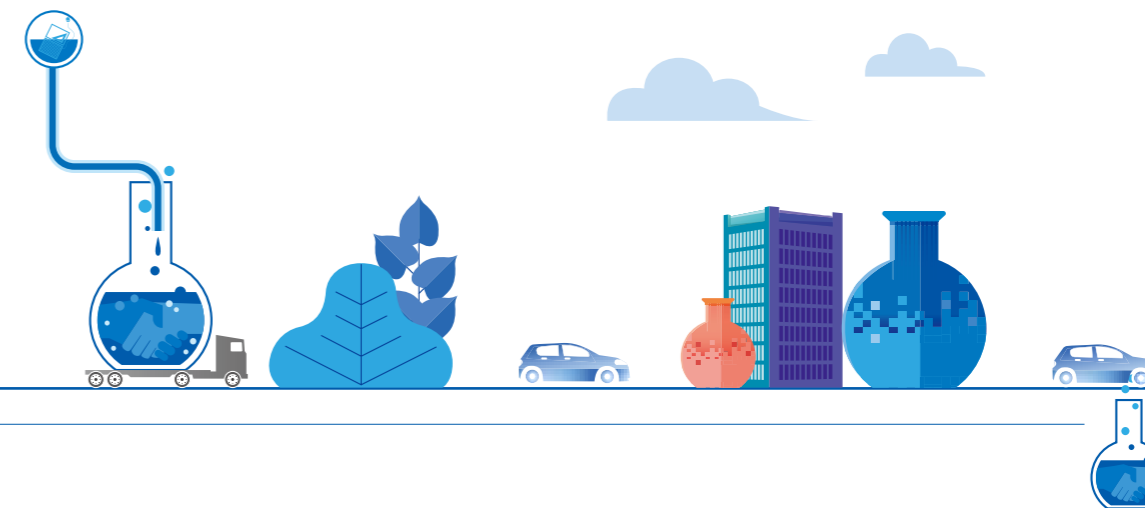
Sennics pursues the excellent transportation quality. In 2018, in addition to taking normal punishment measures for logistics suppliers, an incentive mechanism was set up to reward logistics suppliers with zero annual quality accident, which effectively stimulates the vitality of logistics suppliers and improves the quality of service.

引领行业的绿色发展

Leading Green Development of the Industry

作为一家围绕聚合物添加剂开展主营业务的细分领域企业，圣奥化学肩负引领行业绿色发展的使命。作为绿色产业链的积极推动者，公司通过持续创新发展与产业链和同业伙伴共同利用自身力量推动实现节能减排，以绿色、自主创新引领产业升级，共同创造行业未来。

As an enterprise with polymer additives as its main business, Sennics shoulders the mission of leading the green development of the industry. As an active promoter of the green industry chain, the Company promotes energy conservation and emission reduction with the industry chain and its partners through its continuous innovation-driven development and their strengths. We lead the industrial upgrading with green and independent innovation, and jointly create the future of the industry with our partners.



共话创新、共享未来

Dialogue on innovation and sharing the future

2018年8月28日，圣奥化学在上海举办行业高峰论坛，邀请社会各界专家学者，聚焦行业新观点、探讨产业新前景，共同激发各方对于创新和未来的思考，圣奥化学也以此论坛为契机，规划行业创新资源共享的新途径，推动自身新一轮创新发展。

On August 28, 2018, Sennics held an industry summit forum in Shanghai, inviting experts and scholars to focus on industry views, explore industry prospects together and stimulate the thought on innovation and the future. Taking this forum as an opportunity, Sennics also planned new ways for the industry to share innovative resources and promote its new round of innovation and development.



时任中化集团总裁张伟
Wei Zhang, Then President of Sinochem Group



中化国际总经理、圣奥化学董事长刘红生
Hongsheng Liu, General Manager of Sinochem International, and Chairman of Sennics



圣奥化学首席执行官苏赋
Fu Su, CEO of Sennics



圣奥化学高峰论坛，是圣奥化学在不断创新发展中与行业内专家学者、合作伙伴携手面向未来的共同平台，也是圣奥化学对中化集团“科学至上”理念的重要实践。论坛汇聚了上海交通大学、华东师范大学、北京化工大学等中国高端智库，轮胎行业的一流制造公司，以及霍尼韦尔、杜邦等业内顶级服务供应商，与中化人共同开展科学与创新、行业与产业的思想碰撞。

Sennics Summit Forum is a common platform for Sennics to cooperate with experts, scholars and partners in the industry during its continuous innovation and development. It is also an important practice of "In Science We Trust". The forum brought together China's high-end think tanks, such as Shanghai Jiaotong University, East China Normal University, Beijing University of Chemical Technology, the first-class manufacturing companies in the tire industry, and the top service providers in the industry such as Honeywell and DuPont. They worked with Sennics to explore the collision of ideas on science, innovation and industry.



中国工程院院士钱旭红、上海交通大学殷承良教授、北京化工大学张立群教授、中策橡胶董事长沈金荣、蔚来资本合伙人朱岩与中化国际首席技术官陈宝树，共同就行业发展进行研讨

Xuhong Qian, Chinese Academy of Engineering academician, Chengliang Yin, Professor of Shanghai Jiaotong University, Liqun Zhang, Professor of Beijing University of Chemical Technology, Jinrong Shen, Chairman of Zhongce Rubber Group, Yan Zhu, Weilai Capital Partner and Baoshu Chen, Chief Technology Officer of Sinochem International, jointly discussed the development of the industry.

“ 圣奥化学加入中化后，公司以立足‘聚合物添加剂’领域为战略，以‘打造创新力、凝聚力、整合力的独角兽’为目标，以‘引领聚合物添加剂行业的绿色发展’为使命，以创新致远，将会步入一个更广阔的发展空间。

When Sennics joined Sinochem, the company took the strategy of 'polymer additives' as its strategy and aims at 'creating an innovative, cohesive and integrated unicorn' to 'Leading through Green Innovation'. To pursue development driven by innovation, it will step into a broader development space.

”

——中国石油和化学工业联合会原会长 李勇武

Yongwu Li, Former Chairman of China Petroleum and Chemical Industry Federation

在国内外行业论坛活动中也活跃着圣奥化学的身影。作为全球领先的聚合物添加剂生产企业，圣奥化学乐于与产业链伙伴分享自身实践经验，共同推动行业可持续发展。

Sennics is also active in the industry forum activities at home and abroad. As the world's leading polymer additive manufacturer, Sennics is willing to share its practical experience with industry chain partners to promote sustainable development.



圣奥化学作为橡胶化学品服务商出席 2018 全球轮胎技术论坛，并发表《防老剂挥发性物质与轮胎气味》主题演讲，向与会嘉宾介绍了汽车轮胎的气味来源，以及在轮胎胶料加工过程中对产生的主要挥发性物质的控制措施

Sennics attended the Global Tire Tech Forum 2018 as a rubber chemicals service provider and delivered a keynote speech on *VOCs in Tires*, introducing the source of automobile tire odor and the control measures for the main volatile substances produced in the process of tire compound processing to the participants.



圣奥化学参加第十八届中国国际橡胶技术展，展台设计和内容融合科学至上及绿色、环保等元素，展现出公司遵循科学至上核心价值观，用创新驱动绿色可持续发展、以创新致远的发展理念

Sennics participated in the 18th International Exhibition on Rubber Technology 2018. The design and content of the exhibition stands integrated with "In Science We Trust", environmental protection and other elements. It showed that the Company follows the core values of "In Science We Trust" and the development philosophy of driving green sustainable development with innovation, and promoting progress with innovation.



圣奥化学参加 2019 年德国国际轮胎技术展 (Tire Technology 2019)，并进行《VOCs in Tires》(防老剂挥发性物质与轮胎气味) 主题演讲，展示公司创新能力和研发能力，以及坚定不移走绿色环保和可持续发展之路的决心

Sennics participated in the Tire Technology 2019 and gave a keynote speech on *VOCs in Tires* (antioxidant volatiles and tire smell), which showed the Company's innovative ability and R&D capabilities as well as its determination to pursue green and sustainable development.



惠聚幸福

Benefiting the Society to Gather Happiness



圣奥化学秉承“以人为本”的理念，营造多元、平等、包容的企业文化和氛围，激发员工创新精神，实现公司与员工共同发展；关注并积极参与社区建设，开展帮困扶贫工作，发扬志愿服务精神，践行社区公益，为社区美好生活贡献力量。

Sennics upholds the concept of "people first" and takes a series of measures to realize the common development of the Company and employees, such as creating a pluralistic, equal and inclusive corporate culture and atmosphere to stimulate the innovative spirit of employees. The Company also pays close attention to and actively participates in community development. By carrying out poverty alleviation, providing the voluntary service and engaging in community public welfare, we contribute to a better life of the community.

利益相关方期望

Stakeholder Expectations

企业的竞争力是实现企业持续发展的保证，加强人才建设是提升企业竞争力的根本。圣奥化学是如何构筑人才发展机制的？

The competitiveness of a company is the guarantee to realize the sustainable development, and strengthening talent team management is the fundamental to enhance its competitiveness. How Sennics build a talent development mechanism?

圣奥化学的回应

Sennics Response

尊重人才、发现人才、培养人才是圣奥化学的人才发展观，公司不仅将每位员工培养成合格员工，更致力于将员工培养成社会需要的人才。2018年，圣奥化学成立机制体制创新及人力资源课题组，建立健全“管理发展与技术发展”双通道机制，优化员工激励机制，持续打造更完善的人才建设体系，助力企业持续健康发展。

Respecting, discovering and training talents is the Company's view of talent development. We not only train qualified employees, but also help them develop into talents needed by the society. In 2018, Sennics set up a research group on mechanism innovation and human resources, established the dual-channel promotion mechanism of "management and technical path", and optimized staff incentive mechanism, constantly building a more perfect talent development system to drive sustainable and healthy development of the Company.

培育卓越人才

Cultivating Excellent Talents

人才是企业创新发展的不竭动力。圣奥化学秉承“以人为本”的理念，保障员工基本权益，支持并培育员工成长成才，持续推进 GROWTH 企业文化，提升员工获得感和幸福感。2018 年，公司共有近 1800 名员工。

Talents are the inexhaustible momentum of the innovation-driven development of the Company. Sennics protects employees' basic rights and interests, supports and nurtures their growth and continuously promotes corporate culture of GROWTH so as to promote employees' sense of fulfillment and happiness. In 2018, the Company had nearly 1,800 employees.

保障员工权益

Protecting Employees' Rights and Interests

和谐的劳动关系是企业健康发展的基石。公司致力于营造多元、平等、包容的企业文化，尊重并保障员工基本权益，严格遵守《中华人民共和国劳动法》等国家和地方相关法律法规，遵守国际人权公约及劳工标准，恪守公平公正的用工政策，杜绝任何歧视性行为，禁止并反对雇佣童工和强迫劳动等侵犯人权的事件。

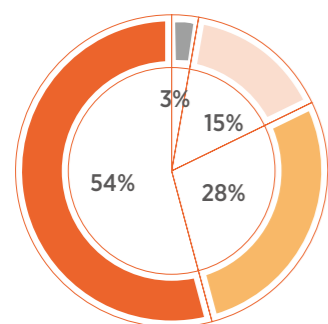
Harmonious labor relationship underpins the healthy development of enterprises. Respecting and protecting the basic rights and interests of employees, Sennics is committed to creating a corporate culture of diversity, equality, and inclusion. The Company strictly abides by relevant national and local laws such as the *Labor Law of the People's Republic of China*, abides by International Human Rights Conventions and labor standards and follows fair and just employment policies. We forbid any discriminatory acts, prohibit and oppose any behavior that violates human rights, such as child labor and forced labor.

公司注重倾听员工心声，通过职工代表大会制度、厂务公开、定期举办员工沟通会等措施，畅通员工沟通渠道，鼓励员工为公司发展建言献策，实现公司与员工共同发展。2018 年，公司总部共收集合理化建议 45 条。

To achieve the common development of the Company and employees, we listen to employees through the workers' congress system, transparent corporate affairs, regular staff meetings and other measures, unblocking employee communication channels and encouraging them to make suggestions for the development of the Company. In 2018, Sennics headquarter received a total of 45 reasonable suggestions.

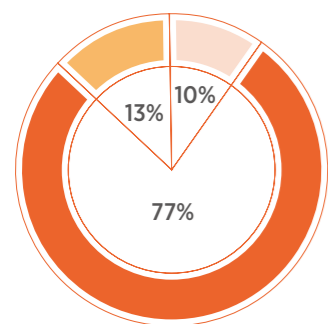
按学历划分的员工比例

Education background of employees



按年龄划分的员工比例

Age structure of employees



管理成效 Management Performance

安徽圣奥工会荣获“全国模范职工之家”称号
Sennics Anhui trade union won the title of National Model Workers' Home.

助力员工发展

Supporting Employee Development

员工的成长为公司发展提供有力支撑。公司不断完善员工职业发展通道，针对不同层级员工需求开展针对性的培训，加强员工激励，打造员工成长与发展的平台。

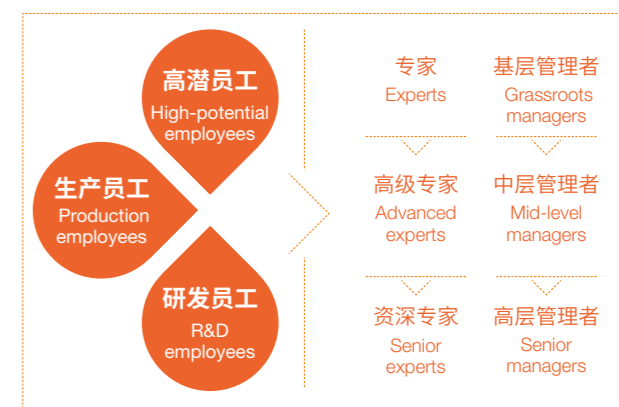
The growth of employees provides strong support for the development of the Company. Sennics constantly improves the career development channels, carries out targeted training for different levels of employees, strengthens staff incentives, and build a platform for staff growth and development.

职业发展路径

Career development path

公司为员工提供完善的职业发展路径。2018 年，公司将“管理发展与技术发展”双通道晋升途径扩展到工程和生产方面，进一步健全和完善员工发展通道，支持员工成长。

Sennics provides employees with a sound career development path. In 2018, the Company extended the dual-channel promotion mechanism of "management development and technical development" to engineering and production segment, further improving the staff development channels.



圣奥化学人才晋升双通道
The dual-channel promotion path of Sennics

多元化培训

Diversified training

圣奥化学针对不同层级员工开展针对性的培训，通过技能比武、专业培训等方式，为员工打造职业技能提升和发展的平台。2018 年，公司全体员工培训投入 197 万元。

Sennics carries out targeted training for different levels of employees via skills competition, professional training and other ways, aiming to create a platform for the improvement of vocational skills. In 2018, the Company invested RMB 1.97 million in employees training.

关键绩效 Key Performance	单位 Unit	2016	2017	2018
全体员工人均培训时长 Average training hours per employee	小时 Hour	46.37	22.38	48.57
女性员工人均培训时长 Average training hours per female employee	小时 Hour	45.63	21.56	46.47
男性员工人均培训时长 Average training hours per male employee	小时 Hour	46.72	22.88	52.00
工厂员工人均培训时长 Average training hours per factory worker	小时 Hour	47.46	23.28	51.00
管理人员人均培训时长 Average training hours per management personnel	小时 Hour	40.48	17.53	50.41

参与技能比武，夯实专业基础

Participating in skills competition to consolidate professional foundation



2018年6月，中化集团化工事业部举办首届红旗班组竞标及技能比武大赛，圣奥化学风云队以扎实的理论功底、熟练的操作技能和良好的团队凝聚力，在技能比武、红旗班组竞标和特色展板评比三个项目中取得优异成绩，进一步提高了圣奥化学班组建设、技能人才队伍建设和安全生产工作水平，展现圣奥化学员工拼搏进取的风采。

In June 2018, the Chemicals Division of Sinochem held the first Red Flag Team Bidding and Skills Competition. A team from Sennics, with solid theoretical foundation, good operation skills and great team cohesion, achieved excellent results in skills competition, Red Flag Team bidding and special exhibition board evaluation, which further improved Sennics team building, skilled personnel team building and safe production level, and demonstrated Sennics staff's enterprising spirit.

强化人才战略 支持高潜人才发展

Strengthening talent strategy to support the development of high-potential talents

2018年12月，公司启动圣奥化学工厂青年高潜人才发展项目。通过采用“SIAC能力发展模拟舱(Self Insight Assessment Center)”，开展虚拟工厂管理、模拟商业活动和性格测评等方式，学员进入到自我观察和互相观察的模拟情景中，并与项目伙伴互动、相互辅导的方式进行“发展式”学习。同时，项目邀请公司十余名关键岗位人员与外部专家共同担任“评估观察员”，以公正、客观的方式进行评估，并为学员提供个性化辅导以及详细的培训结论，为学员配套能力培养发展计划奠定良好的基础。

In December 2018, the Company launched the Sennics Factory Youth High-Potential Talent Development Project. We used "SIAC (Self Insight Assessment Center)" to carry out virtual factory management, simulated business activities and personality assessment. The trainees entered the simulation scenario of self-observation and mutual observation, and conducted "developmental" learning through interaction and mutual guidance with project partners. At the same time, the project invited more than ten key post personnel and external experts to act as "evaluation observers", evaluating trainees in a fair and objective way, and providing personalized coaching and detailed training conclusions, which laid a good foundation for the ability training and development plan of trainees.

“以前对自己的了解并不全面，通过这次培训增强了自我认知，并积极寻求变化，改变的过程虽然痛苦，但是有希望。未来，值得期待。”

I did not know myself well. This training enhanced my self-awareness, and actively helped me seek change. Although the process of change is painful, it is hopeful. The future is to be expected.

——泰安圣奥 杨军
Jun Yang, an employee from Sennics Tai'an



圣奥化学工厂青年高潜人才发展项目
Sennics Factory Youth High-Potential Talent Development Project

开展专利人才培训，培育创新精神

Developing patent talents training to cultivate innovative spirit



为加强知识产权保护，培养创新性人才，公司开展系统的专利人才培训，通过对专利等知识产权基本概念的普及，对专利文献、专利检索和专利撰写等内容的培训，鼓励员工学以致用，提升科研创新能力。经过两期的培训，公司专利数量和质量均有明显的提升，为公司创新发展奠定了良好的基础。

In order to strengthen the protection of intellectual property rights and cultivate innovative talents, Sennics carried out systematic training for patent talents. Through the popularization of the basic concepts of intellectual property such as patents, the introduction of patent documents, patent retrieval and patent writing, etc., the training encouraged employees to apply what they have learned and improve their ability of scientific research and innovation. After two periods of training, the quantity and quality of patents of Sennics had been significantly improved, which laid a good foundation for the Company's innovation-driven development.

员工激励机制

Employee Incentive Mechanism

公司不断完善激励奖励机制，包括针对管理层的中长期激励、针对连云港等重点项目的专项激励方案，针对公司内部孵化的新项目采取员工入股、风险抵押等多种激励方式，激发员工的创造性和积极性，实现员工价值和公司发展相统一。

2018年，圣奥化学成立20周年，公司向优秀员工颁发“感动圣奥特别贡献奖”，表彰和激励为公司发展耕耘奋斗的一线员工。

The Company continuously improves the incentive mechanism, and has implemented various incentive methods, such as medium and long-term incentive for the management, project-based incentive scheme for key projects in Lianyungang, ways of employees equity and risk mortgage for new projects incubated within the Company, striving to stimulate the creativity and enthusiasm of employees and promote the unity of employee value and corporate development.

In 2018, on the 20th anniversary of the funding of Sennics, the "Moving Sennics-Special Contribution Award" was awarded to outstanding employees to commend and motivate front-line employees who worked hard for the Company's development.



圣奥化学向与公司共同成长的十名优秀员工颁发“感动圣奥特别贡献奖”

Sennics awarded the "Moving Sennics-Special Contribution Award" to 10 outstanding employees who grew up with the Company



利益相关方感言

Voice of Stakeholders



二十年与圣奥风雨同舟，感谢圣奥成就了自己，也感谢自己一路的付出。

For twenty years with Sennics through thick and thin, I thank Sennics for what it makes me, and thank myself for all my efforts along the way.

——安徽圣奥优秀员工代表 黄贤洋
Xianyang Huang, an excellent employee representative of Sennics Anhui

每一名员工的成长道路不同，但感恩的心是相通的，今后将更加努力去回报公司发展。

Every employee's growth is different, but the gratitude is common. In the future, I will devote more efforts to repay the Company.

——山东圣奥优秀员工代表 杨思兴
Sixing Yang, an excellent employee representative of Sennics Shandong



唯有公司发展，才能成就个人发展，感谢公司多年的培养，愿圣奥在“科学至上，创新致远”精神指引下再创辉煌。

Only the Company develops, can we achieve personal development. Thank Sennics for its many years of training. May Sennics create greater glories under the guidance of the spirit of "In Science We Trust and Innovation Drives Progress".

——圣奥化学优秀员工代表 焦仁平
Renping Jiao, an excellent employee representative of Sennics

关爱员工生活

Caring for Employees Life

圣奥化学积极营造温馨的工作氛围，关心关爱困难员工，打造温暖的员工之家，开展丰富多彩的文化活动，倡导工作和生活的平衡，增强员工幸福感。

Sennics enhances employees' happiness by actively creating a warm working atmosphere, caring for employees in need, and building a warm home for employees. The Company also carries out colorful cultural activities to advocates work-life balance.

员工关怀

Employee Care

公司不断完善福利体系，设立阳光基金为困难员工提供帮助和支持，悉心关爱女性员工，并通过多种举措为员工提供福利，打造温暖的员工之家。

The Company continuously improves the welfare system. We have established Sunshine Fund to provide help and support to employees in difficulty, care for female employees and provides welfare for employees through various measures, creating a warm home for employees.



新增福利举措

New welfare initiatives

关怀员工父母，送去重阳节慰问；提高体检标准；增设员工自主管理的图书角等

Caring for employees' parents, visiting them during the Double Ninth Festival; improving medical examination standards; adding a library corner for employees to manage independently



关爱女性员工

Caring for female employees

增加妇科类体检项目；三八妇女节活动；女性职工特色活动

Increasing gynaecological examinations; Women's Day activities; Female employee activities



帮助困难员工

Helping employees in need

阳光基金扩大员工和家属的使用范围，为弱势员工提供帮助

Sunshine Fund expands its coverage for employees and their family members, and helps vulnerable employees

管理成效 Management Performance



2018年，圣奥化学使用阳光基金 惠及员工及其家属

49.42 万元

173 名

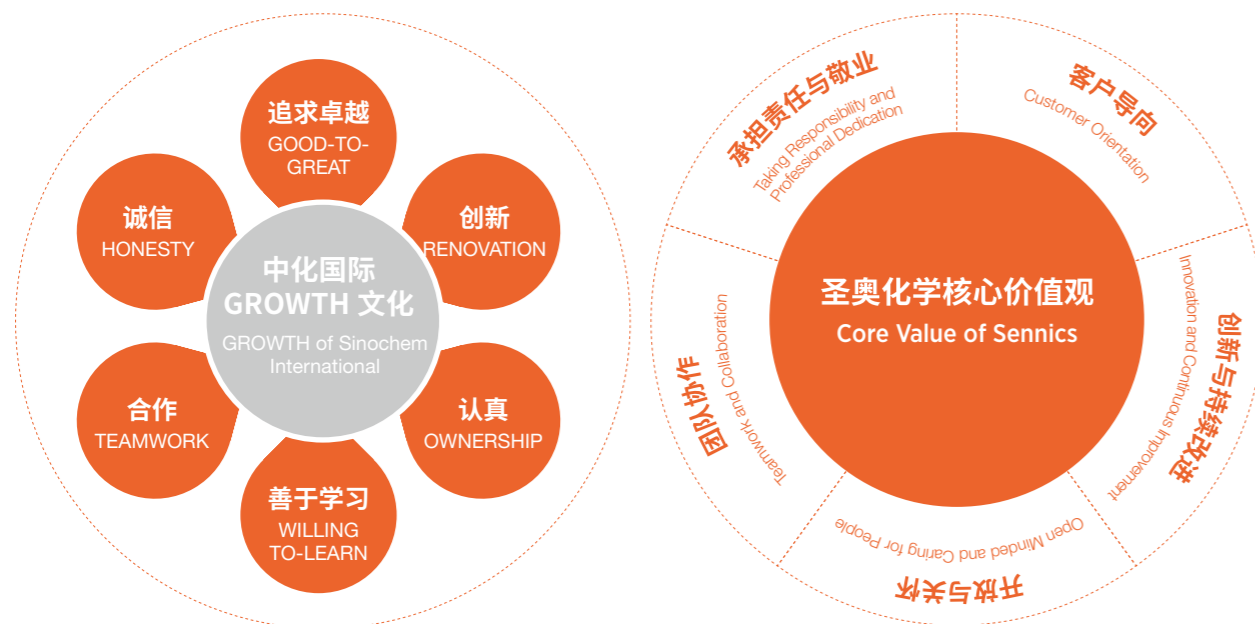
Sennics spent RMB 494,200 from the Sunshine Fund in 2018 to help 173 employees and their families.

倡导工作与生活平衡

Advocating Work-life Balance

圣奥化学持续推进 GROWTH 企业文化建设，开展企业文化周等系列活动，与员工共享成长，助力提升员工生活品质。

Sennics continues to promote the corporate culture of GROWTH, and carries out a series of activities such as Corporate Culture Week, to share growth with employees and help improve their quality of life.



中化国际 GROWTH 文化与圣奥化学核心价值观
Sinochem International's GROWTH culture and the core values of Sennics



“青春正当时 勇创新圣奥”活动
“Brave Innovation in Youth” activity



“青春血脉 红色传承”城市定向赛
“Inheritance of Red Spirit” city orienteering competition



山东圣奥举办“科学至上 知行合一 创领未来”主题拓展培训
Sennics Shandong held the theme development training of “In Science We Trust and the Unity of Knowledge and Action for a Better Future”



安徽圣奥“印象青春”活动
The “Impressive Youth” activity of Sennics Anhui



安徽圣奥开展新品牌形象拼图活动
New brand image jigsaw activity in Sennics Anhui

传递社区关爱

Caring for Local Communities

圣奥化学积极履行社会责任，用心回馈社会，通过支持教育事业发展，开展对口帮扶、践行公益志愿活动，助力社会和谐发展。2018 年，圣奥化学公益总投入 65.7 万元，开展圆梦行动“百企帮百村”等公益志愿活动 8 项，参与公益志愿者活动人数 630 人次。

Sennics actively fulfills its social responsibility and devotes itself to giving back to the society. By supporting education, Sennics carries out paired assistance and voluntary activities to help the harmonious development of society. In 2018, Sennics launched eight volunteer activities such as "Dream Action" and "Enterprise-Village" project, and the total input reached RMB 657,000, involving 630 participants in voluntary activities.

支持教育事业

Supporting Education

教育是人才发展的重要途径。圣奥化学持续关注并支持教育事业，自 2010 年 3 月设立南京工业大学圣奥化学奖助学金以来，已连续 8 年向优秀本科生和研究生发放奖助学金，累计 160 人获奖，80 人受助，奖助学金总额达 80 万元。圣奥化学奖助学金的设立，既鼓励和支持优秀人才发展，也加强了校企合作，为培育优秀人才打造发展平台。

Education is an important way of talent development. Sennics has been paying close attention to and supporting education. Since the establishment of Sennics Scholarship in Nanjing Tech University in March 2010, we have provided scholarship for 160 outstanding undergraduates and postgraduates and subsidized 80 students with RMB 800,000 for eight years. The Sennics Scholarship not only encourages and supports the development of outstanding talents, but also strengthens the cooperation between the university and Sennics, creating a development platform for the cultivation of outstanding talents. Sennics headquarter received a total of 45 reasonable suggestions.



圣奥化学向南工大学子颁发 2017 年度奖助学金
Sennics awards the 2017 annual scholarship to the students of Nanjing Tech University

践行社区公益

Engaging in Community Public Welfare

圣奥化学响应国家精准扶贫战略，开展教育扶贫和对口帮扶，助力贫困地区经济社会发展。同时，公司积极投身社区公益，开展社区志愿服务，为社会和谐奉献力量。

Sennics responds to the national targeted poverty alleviation strategy, provides educational support and paired assistance to help the economic and social development of poverty-stricken areas. At the same time, the Company actively engages in community public welfare, and launches community voluntary services to contribute to social harmony.

助力精准扶贫

Supporting targeted poverty alleviation

圣奥化学响应并落实国家精准扶贫战略，积极参与中化集团教育扶贫“圆梦行动”项目。2018 年，公司员工为内蒙古自治区阿鲁科尔沁旗贫困学生捐赠 25000 元助学金，帮助孩子们摆脱辍学的命运。此外，公司下属子公司积极在当地社区开展结对帮扶工作，安徽圣奥与铜陵市枞阳县横裕村对接帮扶，捐赠 2 万元帮助横裕村困难村民度过温暖祥和的春节；山东圣奥连续多年支持曹县“慈心一日捐”活动，捐赠 10 万元助力曹县“企村帮扶”建设，并为贫困村民捐赠电脑，助力贫困村民脱贫，为社区送去温暖。



圣奥化学为社区送温暖活动
Sennics visits residents and delivers warmth to the community

Sennics responds to and implements the national targeted poverty alleviation strategy and actively participates in the "Dream Action" education project of Sinochem. In 2018, our employees donated RMB 25,000 to poor students in Inner Mongolia Autonomous Region Ar Horqin Banner to help them access to education. In addition, subsidiaries of the Company actively carried out paired assistance in local communities. Sennics Anhui provided assistance in Hengyu Village, Zongyang County, Tongling City, and donated RMB 20,000 to help villagers in difficulties enjoy a warm and peaceful Chinese Spring Festival. Sennics Shandong has supported Cao County's "Goodwill Donation" campaign for many years, donating RMB 100,000 to help "Enterprise-Village" project. The company also donated computers to villagers, helping them lift out of poverty and sending warmth to the community.

开展志愿活动

Engaging in volunteer activities

圣奥化学倡导志愿服务精神，深入社区开展帮困助老、爱心助学、灾害救助等公益志愿活动，以实际行动传递关爱，回馈社会。

Sennics advocates the spirit of volunteerism and carries out volunteer activities in communities, such as helping the elderly, supporting education, disaster relief and so on. We convey care and give back to the society through practical actions.



山东圣奥践行志愿精神，服务高考学子
Sennics Shandong practices volunteerism to serve candidates for college entrance examination

未来展望

Outlook

圣奥化学将持续秉持“科学至上，创新致远”的企业精神，坚定不移地推进管理变革，将科学技术和创新作为企业核心竞争力，提升服务客户能力，打造 HSE 核心竞争力，做引领行业变革的先行者，为人们的美好生活的需求贡献力量。

Sennics will continue to uphold the enterprise spirit of "In Science We Trust and Innovation Drives Progress", unswervingly promote management reform, regard technology and innovation as the core competitiveness, and enhance our ability of customer service. We will continue to build HSE core competitiveness and to be a leader of the industry reform, making contribution to the people's needs for a better life.

圣奥化学将坚定不移地推进管理变革，将可持续发展理念融入公司运营和发展，以市场为导向，坚持“产学研用”的创新研发模式，持续提升公司研发创新能力，推动“圣奥智造 2020”建设，为客户提供更具价值的产品和服务。

We will unswervingly promote management reform. We will continue to integrate the concept of sustainable development into the operation and development of the Company, follow the market trend, and adhere to the innovative R&D model of industry-university-research-application collaboration to continuously enhance the Company's R&D innovation ability, thus further promoting "Smart Sennics 2020" and providing customers with more valuable products and services.

圣奥化学将继续夯实 HSE 核心竞争力，不断完善 HSE 管理体系，牢守安全防线，为员工营造安全健康的工作氛围，深入开展绿色工厂建设，大力发展循环经济，通过负责任的生产运营有效控制和减少对环境的影响。

We will continue to consolidate HSE core competitiveness by continuously improving the HSE management system and securing the safety, so as to create a safe and healthy working atmosphere for employees. We will enhance the construction of green factories, vigorously develop circular economy, and effectively control and reduce the impact on the environment through responsible production and operations.

圣奥化学将坚持“客户导向”的价值观，不断提升产品质量和服务品质，加快海外市场布局，增强为海外市场提供本土化服务能力，为客户创造更多价值。公司将通过信息化建设不断完善和加强供应商管理，坚持责任采购，在全价值链推动可持续发展，推动行业绿色变革。

Adhering to the "customer-oriented" value, we will continuously improve product quality and service quality, accelerate the overseas market layout, enhance local service for overseas markets, and create more value for customers. The Company will continue to improve and strengthen supplier management through information technology application, and practice responsible procurement, to promote sustainable development in the full value chain and facilitate the green innovation in the industry.

圣奥化学将继续贯彻落实“以人为本”的理念，营造温馨和谐、积极进取的企业文化氛围，吸引并培养优秀人才，实现员工与公司共同发展。公司将继续深入开展扶贫助困工作，积极开展公益志愿活动，为社区和谐发展贡献绵薄之力。

We will continue to implement the "people first" concept, and create a harmonious, positive and enterprising corporate culture atmosphere to attract and train outstanding talents, striving to realize the common development of employees and the Company. Poverty alleviation will be carried out in an in-depth manner, and public welfare volunteer activities will continue, the Company will do our best to facilitate the harmonious development of the community.

2019 年是公司战略实施和落地的关键一年，圣奥化学将继续携手利益相关方，汇聚可持续发展合力，共同引领和推动化工行业绿色变革，为美好的未来而不断奋斗！

2019 is a key year for the implementation of the Company's strategy. Sennics will continue to work with stakeholders to gather forces for sustainable development, jointly lead and promote the green transformation of the chemical industry, and strive for a better future!

责任绩效

CSR Performance

所属板块 Category	指标名称 Indicators	单位 Unit	2016	2017	2018
经济 Economic	总营业收入 Operating income	亿元人民币 RMB 100 million	23.25	28.23	29.33
	新增知识产权数（含专利、著作权） Number of new intellectual property rights (including patents and copyrights)	个 /	3	2	17
	供应商数量 Number of suppliers	个 /	60	86	93
社会 Social	新进员工数 New employees	人 Person	25	28	257
	员工总人数 Total employees	人 Person	1,510	1,563	1,779
	男性员工数 Total male employees	人 Person	1,052	1,073	1,235
	女性员工数 Total female employees	人 Person	458	490	544
	少数民族员工数 Total employees of minority nationality	人 Person	12	14	14
	残疾员工数 Total employees with handicaps	人 Person	14	15	15
	硕士及以上学历员工 Employees with a Master's degree or higher	人 Person	39	45	58
	本科学历员工 Employees with a Bachelor's degree	人 Person	202	240	276
	大专学历员工 Employees graduated from junior colleges	人 Person	337	404	492
	中专及以下学历员工 Employees graduated from technical secondary schools or lower	人 Person	932	874	953
管理岗位员工 Number of management personnel	人 Person	58	47	61	
女性管理人员 Number of female management personnel	人 Person	17	14	11	

所属板块 Category	指标名称 Indicators	单位 Unit	2016	2017	2018
社会 Social	集体合同覆盖率 Coverage of collective contract	%	100	100	100
	社会保险覆盖率 Coverage of social insurance	%	100	100	100
	参加工会率 Trade union membership rate	%	100	100	100
	员工流失率 Employee turnover rate	%	4.97	3.19	2.51
	员工培训资金总投入 Total training investment	万元人民币 RMB 10,000	160	160	197
	员工培训总时长 Total training hours	小时 Hour	74,190	35,812	86,402
	参加培训总人数 Total number of employees trainees	人次 Person/time	18,383	11,078	12,053
	管理人员参加培训时长 Total training hours of management personnel	小时 Hour	3,431	3,550	3,363
	接受定期绩效、职业发展考评的员工（除管理人员）比例 Percentage of employees who receive regular performance assessment and career development appraisal (management personnel excluded)	%	100	100	100
	接受定期绩效、职业发展考评的管理人员比例 Percentage of management personnel who receive regular performance assessment and career development appraisal	%	100	100	100
	男女员工基本薪金比 Basic salary ratio for male and female employees	-	1.29	1.25	1.24
	办公室员工平均带薪休假天数 Average paid leave of office employees	天 Day	13	13	13
	生产线员工平均带薪休假天数 Average paid leave of manufacturing workers	天 Day	12	12	12
	年度新增职业病和企业累计职业病 New occupational diseases in 2018 and accumulated occupational diseases	次 /	0	0	0
	体检及健康档案覆盖率 Coverage of employees' health check and records	%	100	100	100
	安全生产总投入 Total investment in safe production	万元人民币 RMB 10,000	2,273	1,332.7	1,532.6
	安全生产事故数 Safe production accidents	次 /	0	0	0
	员工伤亡人数 Number of casualties among employees	人 /	0	0	0
	公益总投入 Total investment in public welfare	万元人民币 RMB 10,000	70	71.8	65.7

所属板块 Category	指标名称 Indicators	单位 Unit	2016	2017	2018
社会 Social	公益项目数 Number of public welfare projects	个 /	9	8	8
	员工公益志愿者人次 Number of volunteers for public welfare	人次 Person/time	606	556	630
	公益活动服务时间 Length of services for public welfare	小时 Hour	252	248	248
环境 Environmental	能源消耗总量 Total energy consumption	吨标准煤 Ton/ standard coal	60,521	61,783	61,152
	生产及生活用水 Water for production and domestic use	千吨 1,000 tons	272	294	283
	电力使用量 Power consumption	万千瓦时 10 MW/h	7,172	7,348	7,260
	煤炭使用量 Coal consumption	吨标准煤 Ton/ standard coal	60,521	59,014	58,260
	纸张使用量 Paper consumption	张 Piece	153,000	149,000	146,000
	包装材料总量 Total amount of packaging materials	吨 Ton	870	910	935
	废水排放量 Discharge of wastewater	万吨 10,000 tons	0	0	0
	无害废弃物排放量 Discharge of nonhazardous waste	吨 Ton	841	738	633
	有害废弃物排放量 Discharge of hazardous waste	吨 Ton	10,730	9,733	9,235
	二氧化碳排放量 Emission of carbon dioxide	吨 Ton	196,832	203,754	200,293
	COD 排放量 Emission of COD	吨 Ton	1.29	0	0
	二氧化硫排放量 Emission of sulfur dioxide	吨 Ton	101	69.8	65.6
	节能技术改造投入 Investment in energy-saving technological improvement	万元人民币 RMB 10,000	210	660	368
	节能技术改造项目数 Number of energy-saving technological improvement	个 /	3	17	6
配置 LED 照明灯节约电量 Power saved by installing LED lamps	万千瓦时 10 MW/h	11.5	18.7	19.8	
节约用水 Water saving	万吨 10,000 tons	17.55	15.38	16.65	

GRI Standards 指标索引

GRI Standards Content Index

本报告参考 GRI 可持续发展报告标准 (GRI Standards) 的核心方案编写。

The Report is prepared in accordance with Core Option of GRI Standards.

披露项目 Category	章节 Indicators	对应页码 Unit	备注 Reason for Omission
组织概况 Organizational profile	102-1 组织名称 102-1 Name of the organization	公司简介 Company Profile	P5
	102-2 活动、品牌、产品和服务 102-2 Activities, brands, products, and services	公司简介 Company Profile	P5
	102-3 总部位置 102-3 Location of headquarters	公司简介 Company Profile	P5
	102-4 经营位置 102-4 Location of operations	公司简介 Company Profile	P5
	102-5 所有权与法律形式 102-5 Ownership and legal form	公司简介 Company Profile	P5
	102-6 服务的市场 102-6 Markets served	公司简介 Company Profile	P5
	102-7 组织规模 102-7 Scale of the organization	公司简介 Company Profile	P5
	102-8 关于员工和其他工作者的信息 102-8 Information on employees and other workers	“惠”聚幸福 Benefiting the Society to Gather Happiness 责任绩效 CSR Performance	P63-P72 P76-P78
	102-9 供应链 102-9 Supply chain	公司简介 Company Profile “和”舟共济 Cooperation for Shared Development	P5 P56-P62
	102-10 组织及其供应链的重大变化 102-10 Significant changes to the organization and its supply chain	科技引领, 创新驱动: 铸 就圣奥化学二十年可持续 发展之路 Innovation-driven Development Led by Technology: Sennics's 20 Years of Sustainable Development	P7-P14
	102-11 预警原则或方针 102-11 Precautionary Principle or approach	公司治理 Corporate Governance	P15-P19
	102-12 外部倡议 102-12 External initiatives	“和”舟共济 Cooperation for Shared Development	P59-P62
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战略 Strategy	102-14 高级决策者的声明 102-14 Statement from senior decisionmaker	董事长致辞 Message from the Chairman	P3-P4

披露项目 Category	章节 Indicators	对应页码 Unit	备注 Reason for Omission
道德和诚信 Ethics and integrity	102-16 价值观、原则、标准和行为规范 102-16 Values, principles, standards, and norms of behavior	社会责任管理 Social Responsibility Management	P20
	102-17 关于道德的建议和关切问题的机制 102-17 Mechanisms for advice and concerns about ethics	公司治理 Corporate Governance	P15-P19
管治 Governance	102-18 管治架构 102-18 Governance structure	公司治理 Corporate Governance	P15-P16
利益相关方参与 Stakeholder engagement	102-40 利益相关方群体列表 102-40 List of stakeholder groups	社会责任管理 Social Responsibility Management	P24
	102-41 集体谈判协议 102-41 Collective bargaining agreements	“惠”聚幸福 Benefiting the Society to Gather Happiness	P63-P72
	102-42 利益相关方的识别和遴选 102-42 Identifying and selecting stakeholders	社会责任管理 Social Responsibility Management	P20-P24
	102-43 利益相关方参与方针 102-43 Approach to stakeholder engagement	社会责任管理 Social Responsibility Management	P20-P24
	102-44 提出的主要议题和关切问题 102-44 Key topics and concerns raised	社会责任管理 Social Responsibility Management	P20-P24
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披露项目 Category	章节 Indicators	对应页码 Unit	备注 Reason for Omission	
GRI 201: 经济绩效 GRI 201: Economic Performance	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	董事长致辞 Message from the Chairman 社会责任管理 Social Responsibility Management	
	议题专项披露 Topic-specific disclosures	201-1 直接产生和分配的经济价值 201-1 Direct economic value generated and distributed	责任绩效 CSR Performance	
		201-2 气候变化带来的财务影响以及其他风险和机遇 201-2 Financial implications and other risks and opportunities due to climate change	董事长致辞 Message from the Chairman 安“净”至上 Putting Safety and Green Production First	
GRI 205: 反腐败 GRI 205: Anti- corruption	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	公司治理 Corporate Governance	
	议题专项披露 Topic-specific disclosures	205-2 反腐败政策和程序的传达及培训 205-2 Communication and training about anticorruption policies and procedures	公司治理 Corporate Governance	
		205-3 经确认的腐败事件和采取的行动 205-3 Confirmed incidents of corruption and actions taken		未发生经确认的腐败事件 No confirmed corruption incidents
GRI 206: 不正当竞争行为 GRI 206: Anti- competitive Behavior	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	公司治理 Corporate Governance	
	议题专项披露 Topic-specific disclosures	206-1 针对不正当竞争行为、反托拉斯和反垄断实践的法律诉讼 206-1 Legal actions for anticompetitive behavior, antitrust, and monopoly practices		未发生针对不正当竞争行为、反托拉斯和反垄断实践的法律诉讼 No legal action for anti-competitive behavior, anti-trust, and monopoly practices
GRI 302: 能源 GRI 302: Energy	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	安“净”至上 Putting Safety and Green Production First	
	议题专项披露 Topic-specific disclosures	302-1 组织内部的能源消耗量 302-1 Energy consumption within the organization	安“净”至上 Putting Safety and Green Production First 责任绩效 CSR Performance	
		302-5 降低产品和服务的能源需求 302-5 Reductions in energy requirements of products and services	安“净”至上 Putting Safety and Green Production First 责任绩效 CSR Performance	
GRI 305: 排放 GRI 305: Emissions	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	安“净”至上 Putting Safety and Green Production First	

披露项目 Category	章节 Indicators	对应页码 Unit	备注 Reason for Omission
GRI 305: 排放 GRI 305: Emissions	议题专项披露 Topic-specific disclosures	305-1 直接 (范畴 1) 温室气体排放 305-1 Direct (Scope 1) GHG emissions	安“净”至上 Putting Safety and Green Production First 责任绩效 CSR Performance
		305-7 氮氧化物 (NO _x)、硫氧化物 (SO _x) 和其他重大气体排放 305-7 Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	安“净”至上 Putting Safety and Green Production First 责任绩效 CSR Performance
GRI 306: 污水和废弃物 GRI 306: Effluents and Waste	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	安“净”至上 Putting Safety and Green Production First
	议题专项披露 Topic-specific disclosures	306-2 按类别及处理方法分类的废弃物总量 306-2 Waste by type and disposal method	安“净”至上 Putting Safety and Green Production First 责任绩效 CSR Performance
GRI 401: 雇佣 GRI 401: Employment	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	“惠”聚幸福 Benefiting the Society to Gather Happiness
	议题专项披露 Topic-specific disclosures	401-1 新员工和员工流动率 401-1 New employee hires and employee turnover	“惠”聚幸福 Benefiting the Society to Gather Happiness 责任绩效 CSR Performance
		401-2 提供给全职员工 (不包括临时或兼职员工) 的福利 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	“惠”聚幸福 Benefiting the Society to Gather Happiness
GRI 403: 职业健康 与安全 GRI 403: Occupational Health and Safety	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	安“净”至上 Putting Safety and Green Production First
	议题专项披露 Topic-specific disclosures	403-2 工伤类别, 工伤、职业病、损失工作日、缺勤等比率 403-2 Hazard identification, risk assessment, and incident investigation	安“净”至上 Putting Safety and Green Production First 责任绩效 CSR Performance
GRI 404: 培训与教育 GRI 404: Training and Education	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	“惠”聚幸福 Benefiting the Society to Gather Happiness
	议题专项披露 Topic-specific disclosures	404-1 每名员工每年接受培训的平均小时数 404-1 Average hours of training per year per employee	“惠”聚幸福 Benefiting the Society to Gather Happiness 责任绩效 CSR Performance
		404-2 员工技能提升方案和过渡协助方案 404-2 Programs for upgrading employee skills and transition assistance programs	“惠”聚幸福 Benefiting the Society to Gather Happiness
		404-3 定期接受绩效和职业发展考核的员工百分比 404-3 Percentage of employees receiving regular performance and career development reviews	“惠”聚幸福 Benefiting the Society to Gather Happiness 责任绩效 CSR Performance

披露项目 Category	章节 Indicators	对应页码 Unit	备注 Reason for Omission
GRI 405: 多元化与 平等机会 GRI 405: Diversity and Equal Opportunity	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	“惠”聚幸福 Benefiting the Society to Gather Happiness
	议题专项披露 Topic-specific disclosures	405-1 管治机构与员工的多元化 405-1 Diversity of governance bodies and employees	“惠”聚幸福 Benefiting the Society to Gather Happiness 责任绩效 CSR Performance
	405-2 男女基本工资和报酬的比例 405-2 Ratio of basic salary and remuneration of women to men	责任绩效 CSR Performance	P76-P78
GRI 406: 反歧视 GRI 406: Non- discrimination	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	“惠”聚幸福 Benefiting the Society to Gather Happiness
	议题专项披露 Topic-specific disclosures	406-1 歧视事件及采取的纠正行动 406-1 Incidents of discrimination and corrective actions taken	
GRI 408: 童工 GRI 408: Child Labor	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	“惠”聚幸福 Benefiting the Society to Gather Happiness
	议题专项披露 Topic-specific disclosures	408-1 具有重大童工事件风险的运营点和供应商 408-1 Operations and suppliers at significant risk for incidents of child labor	报告期内未发生童工事件 No child labor incident occurred during the reporting period
GRI 409: 强迫或强制劳动 GRI 409: Forced or Compulsory Labor	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	“惠”聚幸福 Benefiting the Society to Gather Happiness
	议题专项披露 Topic-specific disclosures	409-1 具有强迫或强制劳动事件重大风险的运营点和供应商 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	报告期内未发生强迫或强制劳动事件 No forced or compulsory labor incident occurred during the reporting period
GRI 413: 当地社区 GRI 413: Local Communities	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	“惠”聚幸福 Benefiting the Society to Gather Happiness
	议题专项披露 Topic-specific disclosures	413-1 有当地社区参与、影响评估和发展计划的运营点 413-1 Operations with local community engagement, impact assessments, and development programs	“惠”聚幸福 Benefiting the Society to Gather Happiness
	413-2 对当地社区有实际或潜在重大负面影响的运营点 413-2 Operations with significant actual and potential negative impacts on local communities		无实际或潜在重大负面影响的运营点 No operation with significant actual and potential negative impacts on local communities

披露项目 Category	章节 Indicators	对应页码 Unit	备注 Reason for Omission
GRI 414: 供应商社会评估 GRI 414: Supplier Social Assessment	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	“和”舟共济 Cooperation for Shared Development
	议题专项披露 Topic-specific disclosures	414-2 供应链对社会的负面影响以及采取的行动 414-2 Negative social impacts in the supply chain and actions taken	供应链未发生负面影响 No negative social impact in the supply chain
GRI 416: 客户健康与安全 GRI 416: Customer Health and Safety	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	“和”舟共济 Cooperation for Shared Development
	议题专项披露 Topic-specific disclosures	416-2 涉及产品和服务的健康与安全影响的违规事件 416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	未发生违规事件 No violations occurred
GRI 417: 营销与标识 GRI 417: Marketing and Labeling	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	公司治理 Corporate Governance “和”舟共济 Cooperation for Shared Development
	议题专项披露 Topic-specific disclosures	417-1 对产品和服务信息与标识的要求 417-1 Requirements for product and service information and labeling	公司治理 Corporate Governance “和”舟共济 Cooperation for Shared Development
	417-2 涉及产品和服务信息与标识的违规事件 417-2 Incidents of non-compliance concerning product and service information and labeling		未发生违规事件 No violations occurred
GRI 418: 客户隐私 GRI 418: Customer Privacy	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	“和”舟共济 Cooperation for Shared Development
	议题专项披露 Topic-specific disclosures	418-1 与侵犯客户隐私和丢失客户资料有关的经证实的投诉 418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	未发生违规事件 No violations occurred
GRI 419: 社会经济合规 GRI 419: Socioeconomic Compliance	GRI 103: 管理方法披露 GRI 103: Management Approach	对实质性议题及其边界的说明; 管理方法及其组成部分; 管理方法的评估 Explanation of the material topic and its Boundary; The management approach and its components; Evaluation of the management approach	公司治理 Corporate Governance
	议题专项披露 Topic-specific disclosures	419-1 违反社会与经济领域的法律和法规 419-1 Non-compliance with laws and regulations in the social and economic area	未发生违规事件 No violations occurred

意见反馈表

亲爱的读者：

您好！感谢您阅读《圣奥化学科技有限公司 2018 可持续发展报告》。我们非常重视并期望聆听您对圣奥化学社会责任工作和这份报告的反馈意见。您的意见和建议，是我们持续提高社会责任信息披露水平、推进企业社会责任管理和实践的重要依据。您可以填写下表，通过邮递、电子邮件或传真反馈给我们，我们非常欢迎并由衷感谢您提出宝贵意见！

1、报告整体评价（请在相应位置打“√”）					
选项	非常好	好	一般	差	较差
报告结构是否合理？					
通过报告能否了解公司的责任理念和实践特点？					
报告是否友好易读？					
本报告的内容安排和版式设计是否合理？					
报告的总体评价如何？					

2. 您最为关注哪方面的议题？（可多选）	
<input type="checkbox"/> 责任管理	<input type="checkbox"/> 商业道德
<input type="checkbox"/> 创新	<input type="checkbox"/> 商业价值
<input type="checkbox"/> 环境	<input type="checkbox"/> 员工
<input type="checkbox"/> 供应链	<input type="checkbox"/> 社区
<input type="checkbox"/> 其他	

3. 您所关注信息在议题中披露程度如何？	
<input type="checkbox"/> 很全面	<input type="checkbox"/> 比较全面
<input type="checkbox"/> 有所涉及	<input type="checkbox"/> 涉及很少
<input type="checkbox"/> 未涉及	

4. 您对圣奥化学企业社会责任报告的建议：	

5. 您对圣奥化学履行企业社会责任的建议：	

本报告为中英文版，您可在网站下载本报告，网址为：<http://www.sennics.com/develop4.html>

您可以通过以下方式联系我们：

圣奥化学科技有限公司

地址：上海市浦东新区长清北路 233 号中化国际广场 7 楼

邮编：200126 电话：86 021 31769966/9988

传真：86 021 31769199 电子信箱：CSR@sennics.com

Feedback Form

Dear Sir/Madam:

Thank you for reading Sennics Sustainability Report 2018. We attach great importance to your feedback on our social responsibility work and the Report. Your opinions and suggestions are important basis for our improvement of CSR information disclosure as well as CSR management and practice. You may submit the feedback via letter, e-mail, or fax after you have filled it. Your precious feedback will be appreciated!

How do you think of the Report?					
	Very good	Good	Far	Poor	Very poor
What do you think about the structure of the Report?					
Can you figure out our CSR philosophy and practice features through the Report?					
What do you think about the readability of the Report?					
What do you think about the contents and the design of the Report?					
What is your overall evaluation of the Report?					

What is/are the issue(s) of your concern? (Multiple choices)	
<input type="checkbox"/> CSR management	<input type="checkbox"/> Business ethics
<input type="checkbox"/> Innovation	<input type="checkbox"/> Business value
<input type="checkbox"/> Environment	<input type="checkbox"/> Employee
<input type="checkbox"/> Supply chain	<input type="checkbox"/> Community
<input type="checkbox"/> Others	

How much does the Report cover the issues of your concern?	
<input type="checkbox"/> All	<input type="checkbox"/> Many
<input type="checkbox"/> Some	<input type="checkbox"/> A Little
<input type="checkbox"/> None	

What is your suggestion on the Sustainability Report of Sennics?	

What is your suggestion on the CSR fulfillment of Sennics?	

This Report is prepared in both Chinese and English languages. You may download the Report on the following website:

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You may contact us via:

Sennics Co., Ltd.

Add: 7/F, Sinochem International Plaza, No. 233 North Changqing Rd., Pudong New Area, Shanghai, P. R. China

Post Code: 200126

Tel: 86 021 31769966/9988

Fax: 86 021 31769199

Email: CSR@sennics.com

 本报告采用环保纸制作

圣奥化学科技有限公司
Sennics Co., Ltd.

上海市浦东新区长清北路 233 号中化国际广场 7 楼

7F, Sinochem International Plaza, No.233 North Changqing Road,
Pudong New Area, Shanghai 200126, P.R.China

T: 86 21 3176 9988 F: 86 21 5011 7200

www.sennics.com