新竞争环境下的增长战略

The strategy under New Competitive Environment




中国石化股份有限公司

SINOPEC 目录

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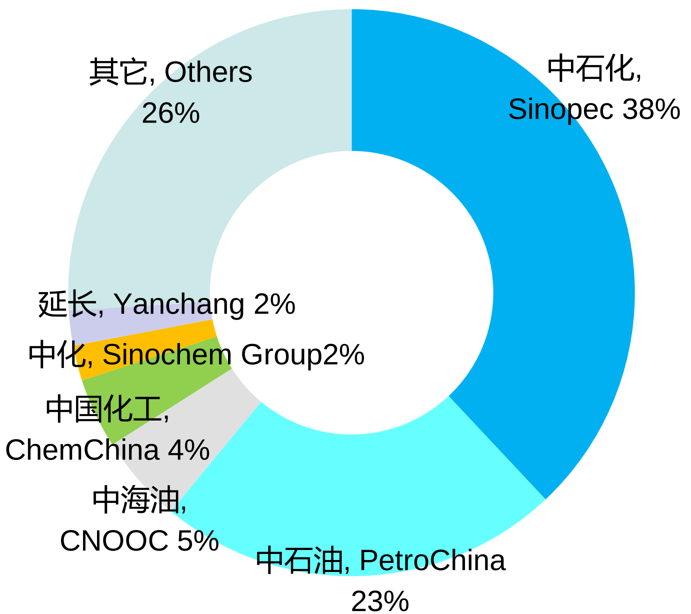
石化行业现状分析——产能
Petrochemical Industry Analysis - Capacity

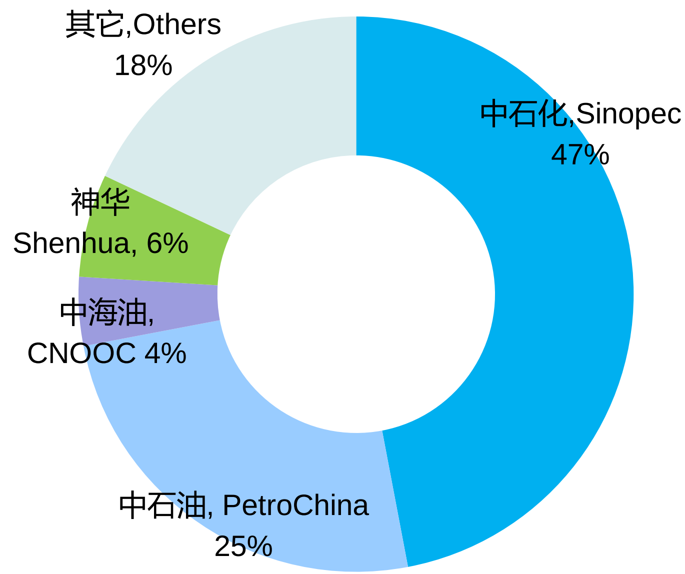
中国石化 SINOPEC

2017年中国大陆企业炼油能力
China Refining Capacity in 2017



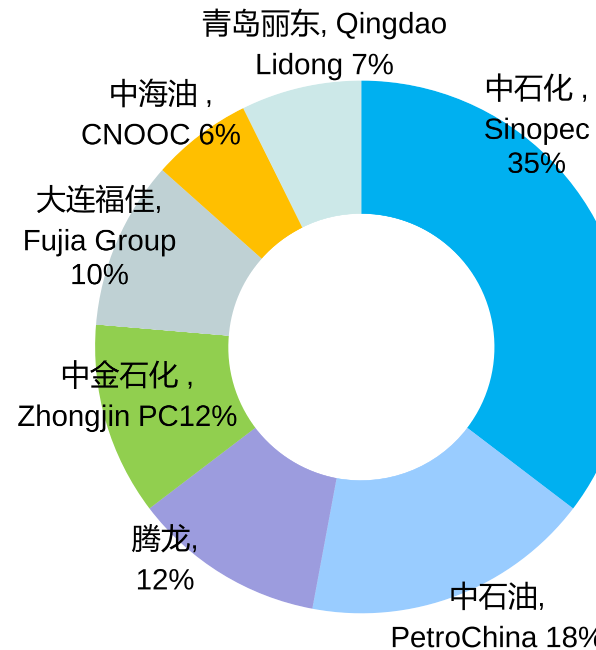
- 中国炼油能力2017年达到8.16亿吨/年，2010-2017年年均增长4.9%。
- China refinery capacity reached 816 Million ton/yr in 2017 with an average annual growth of 4.9% from 2010 to 2017

2017年中国大陆企业乙烯产能
China Ethylene Capacity in 2017



- 中国乙烯产能2017年达到2366万吨/年，2010-2017年年均增长4.7%。
- China ethylene capacity reached 23.6 Million ton/yr in 2017 with an average annual growth of 4.7% from 2010 to 2017

2017年中国大陆企业PX产能
China PX Capacity in 2017



- 中国PX产能2017年达到1370万吨/年，2010-2017年年均增长9.4%。
- China PX capacity reached 13.7 Million ton/yr in 2017 with an average annual growth of 9.4% from 2010 to 2017

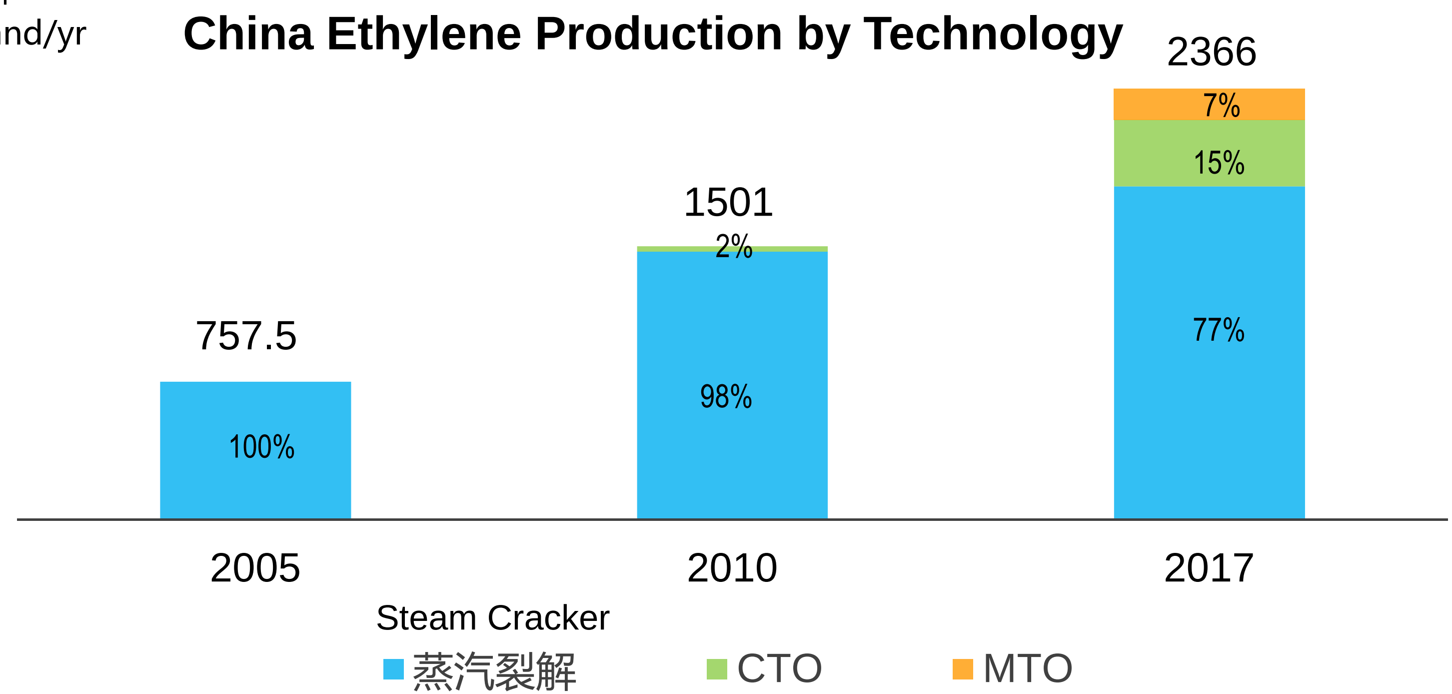
中国石化 SINOPEC

烯烃原料结构多元化基本成型，中国大陆乙烯不同原料路线所占比例的变化趋势

Diversified technologies have structurally set olefin production pattern

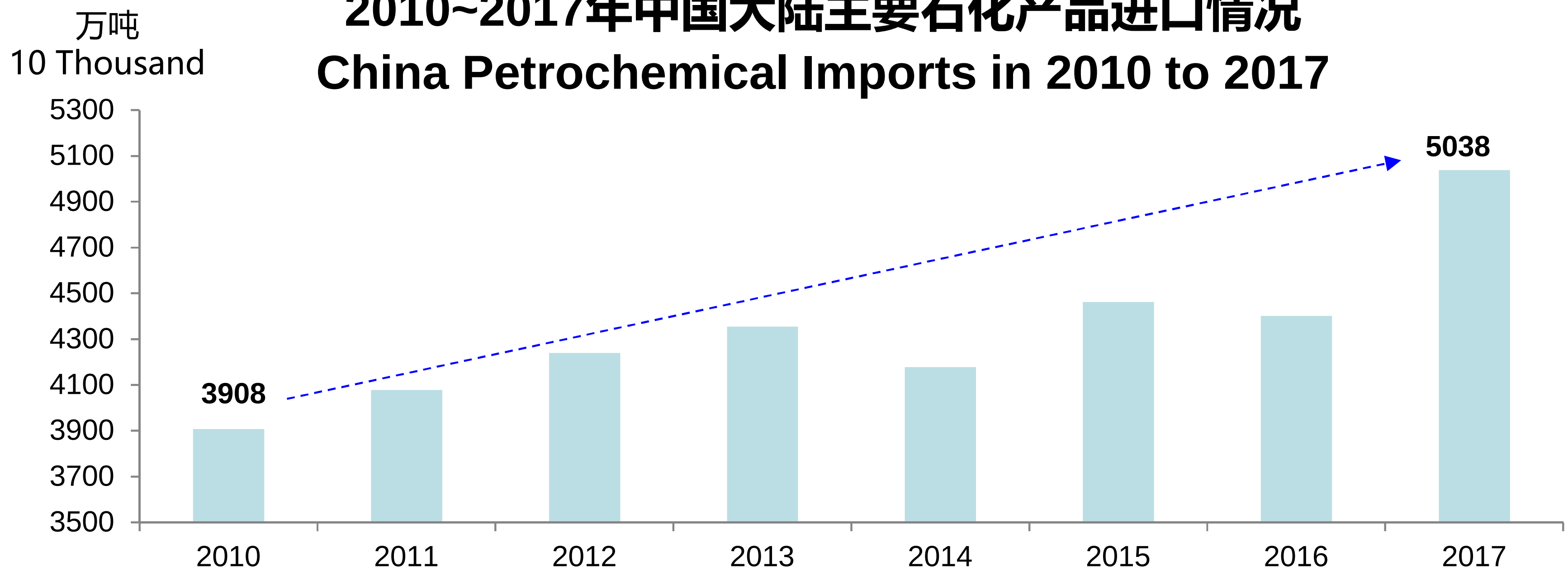
随着煤化工项目建成投产，MTO、CTO在国内乙烯行业中的投资比重快速上升。
With the completion of coal chemical projects, MTO and CTO's investment in the domestic ethylene industry has increased rapidly

单位：万吨/年
10 thousand/yr



中国石化 SINOPEC

2010~2017年中国大陆主要石化产品进口情况
China Petrochemical Imports in 2010 to 2017



主要化工产品2017年合计进口5038万吨，比2016年大幅增长14.4%，2010-2017年平均增长3.7%。
China has imported 50.38 million tons of chemical products in 2017 with a substancial increase of 14.4% from 2016 and an average growth of 3.7% from 2010 to 2017

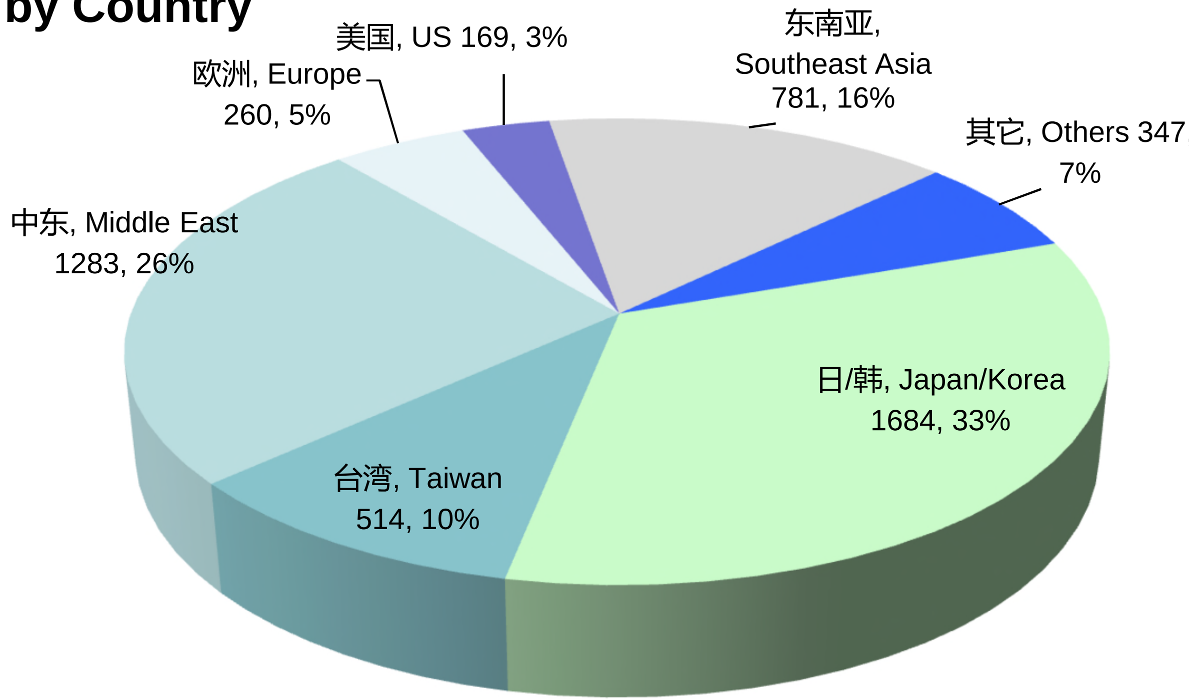
说明：本表主要石化产品指：主要24种主要化工产品（下同）作为统计分析对象，包括合成树脂（PE、PP）、合成橡胶（顺丁、丁苯、SBS、丁基）、合纤原料（PX、PTA、MEG、AN、CPL、PVA）、合成纤维（涤纶、腈纶）和有机化工（苯、邻苯、丁二烯、苯乙烯、苯酚、丙酮、正丁醇、辛醇、醋酸乙烯、环氧乙烷）。

*Chemical shown in the charts involved the following 24 products. (PE, PP, BR, SBR, SBS, IIR, PX, PTA, MEG, AN, CPL, PVA, Polyesters, Acrylics, BZE, Butadiene, Styrene, Mixed Xylene, Phenol, Acetone, Butanol, Octanol, VAM, EO)

中国石化 SINOPEC

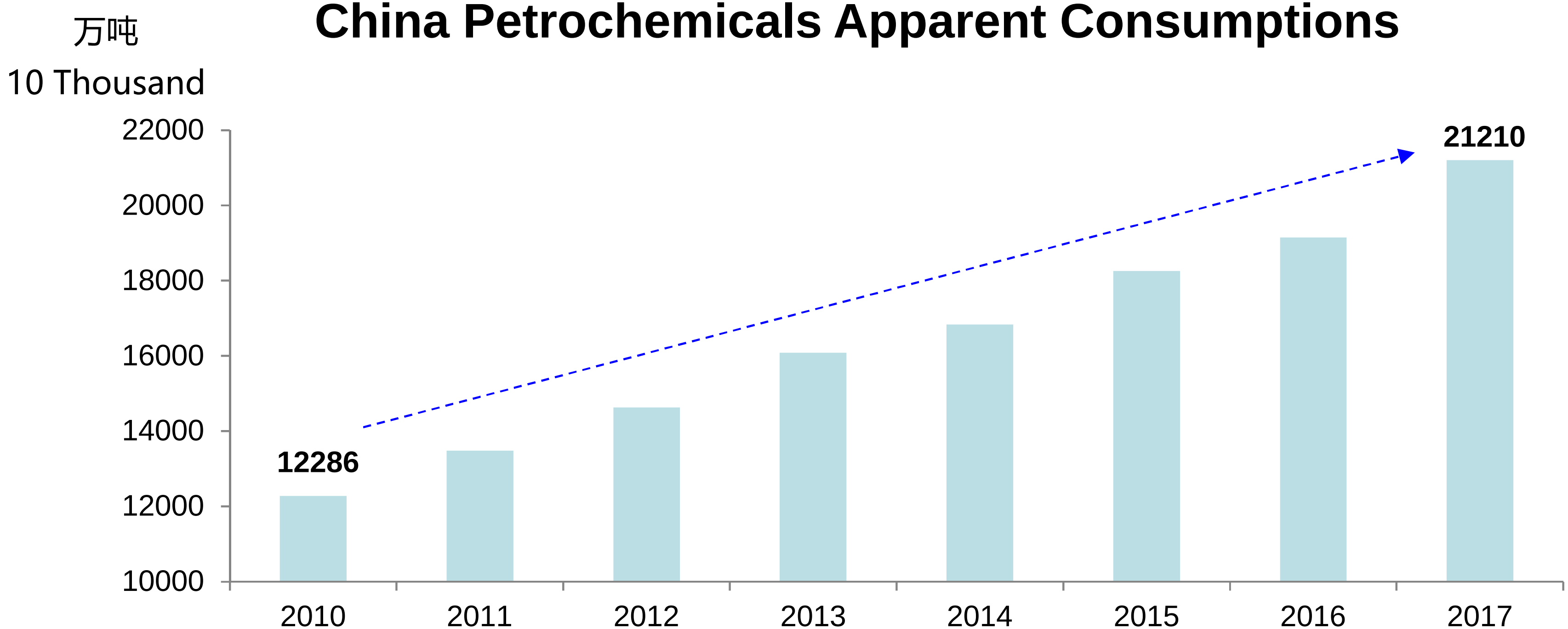
2017年中国大陆主要石化产品进口来源地
China 2017 Chemical Imports by Country

单位：万吨，%
10 Thousand, %
数据来源：海关总署
Source: General Administration of Customs



- 进口量与2016年同比，日/韩增加12.7%，中国台湾增加4.2%，中东增加11.9%，欧洲增加15.2%，美国增加40.9%，东南亚增加19.6%。
- Imports from Japan/Korea increased by 12.7% from 2016, from Taiwan increased by 4.2%, from Middle East increased by 11.9%, from Europe increased by 15.2%, from the United States increased by 40.9%, and from Southeast Asia increased by 19.6%.

2010~2017年中国大陆主要石化产品表观需求增长趋势
China Petrochemicals Apparent Consumptions

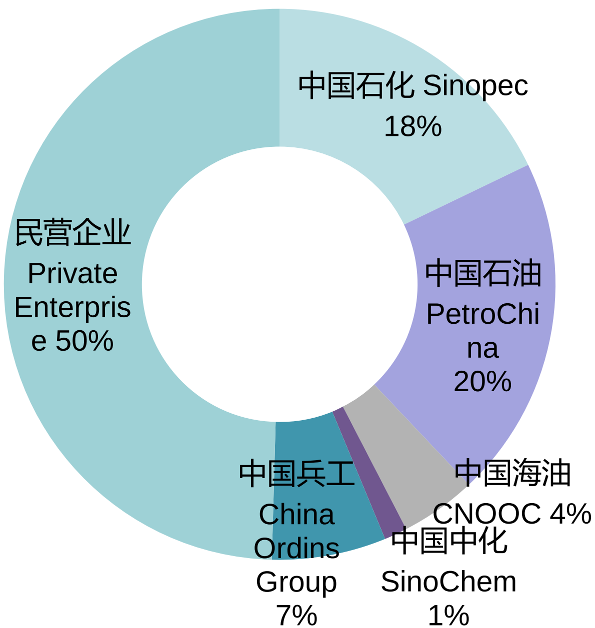


- 中国大陆主要石化产品2010年表观需求量12286万吨，到2017年表观需求量21210万吨，年均增长**8.1%**。
- The apparent consumptions for petrochemical products in China in 2010 was 122.86 million tons, and by 2017, and this was raised to 2.21 million tons with an average annual increase of **8.1%.**

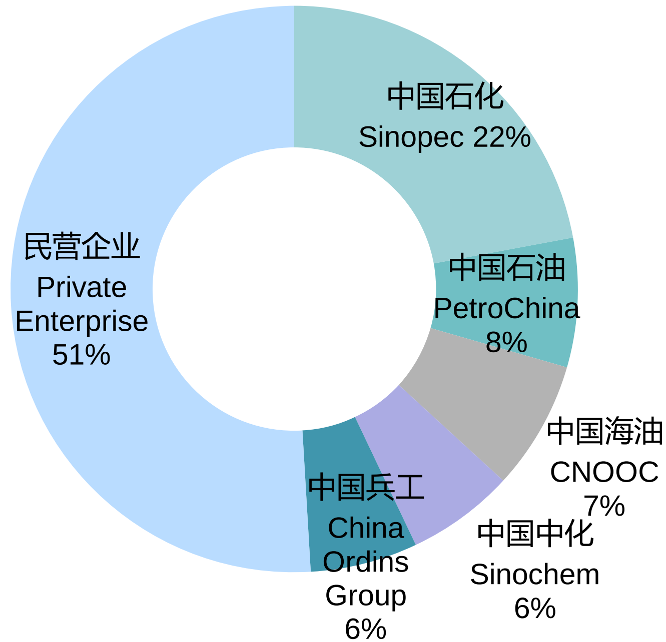
石化行业展望—中国大陆炼油产能规划（2018-2020年）
Petrochemical Industry Outlook – China Refinery Capacity (2018-2020)

中国石化 SINOPEC

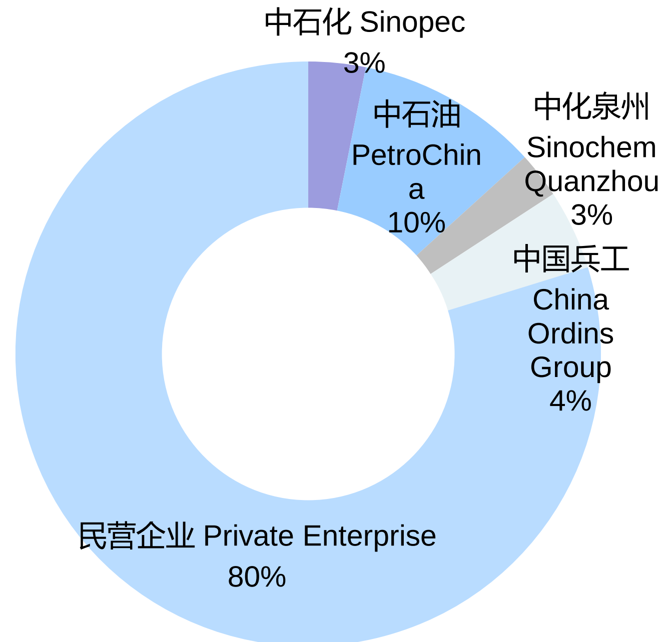
炼油规划合计22400万吨
Refinery CAPS 224 Million Ton



乙烯规划合计1630万吨
Ethylene CAPS 16.3 Million Ton



PX规划合计3167万吨
PX CAPS 31.67 Million Ton

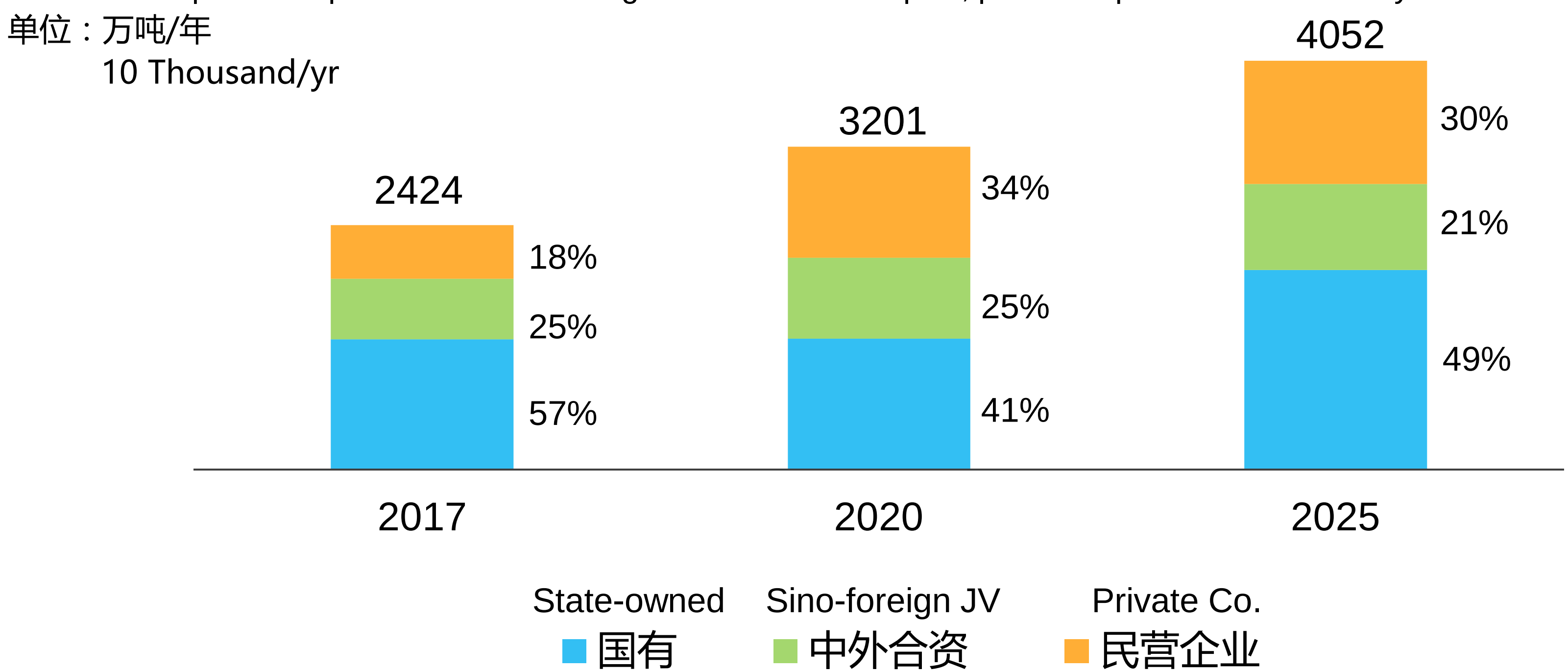


中国大陆乙烯产能投资主体所占比例的变化趋势

China Ethylene Capacity by Ownership

随着民营炼化一体化项目建成投产，民营资本在国内乙烯行业总投资中的比重快速上升。

With the completion of private-owned refining and chemical complex, private capital in domestic ethylene industry has risen rapidly



石化行业展望——乙烯当量
Petrochemical Industry Outlook – Ethylene Equiv.

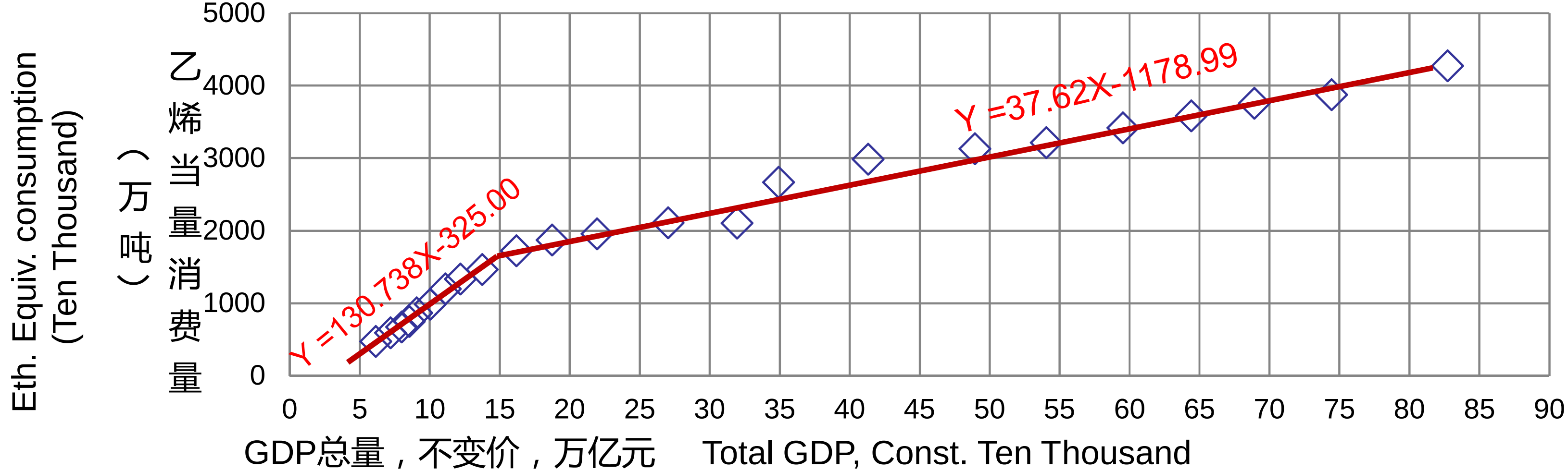
中国石化 SINOPEC

1995-2017年中国大陆GDP总量与乙烯当量消费量的关系
China GDP vs. Ethylene Equivalent consumption

以各年度GDP总量与乙烯当量消费量作散点图，反映经济增长对化工产品消费需求的拉动作用

The ethylene equivalent consumption as a function of total GDP reflect the pulling effect of economic growth towards chemical products demand

数据来源 (Source)：IMF； 中国石化 (Sinopec)



- 2017年中国GDP总量达到82.7万亿元，按照每年6.5%的增长水平预测，2018-2020年中国GDP总量将分别达到88.1、93.8和99.9万亿元，根据上述拟合函数测算，2018-2020年乙烯当量消费量将分别达到4493、4708和4937万吨。
- The total GDP of China in 2017 reached 82.7 trillion yuan. Based on an annual growth rate of 6.5%, the total GDP in 2018-2020 are forecast to 88.1, 93.8 and 99.9 trillion yuan, respectively. Using the above fitting function, 2018- 2020 ethylene equivalent consumption are estimated to be 4,493, 4708 and 49.37 million tons, respectively.

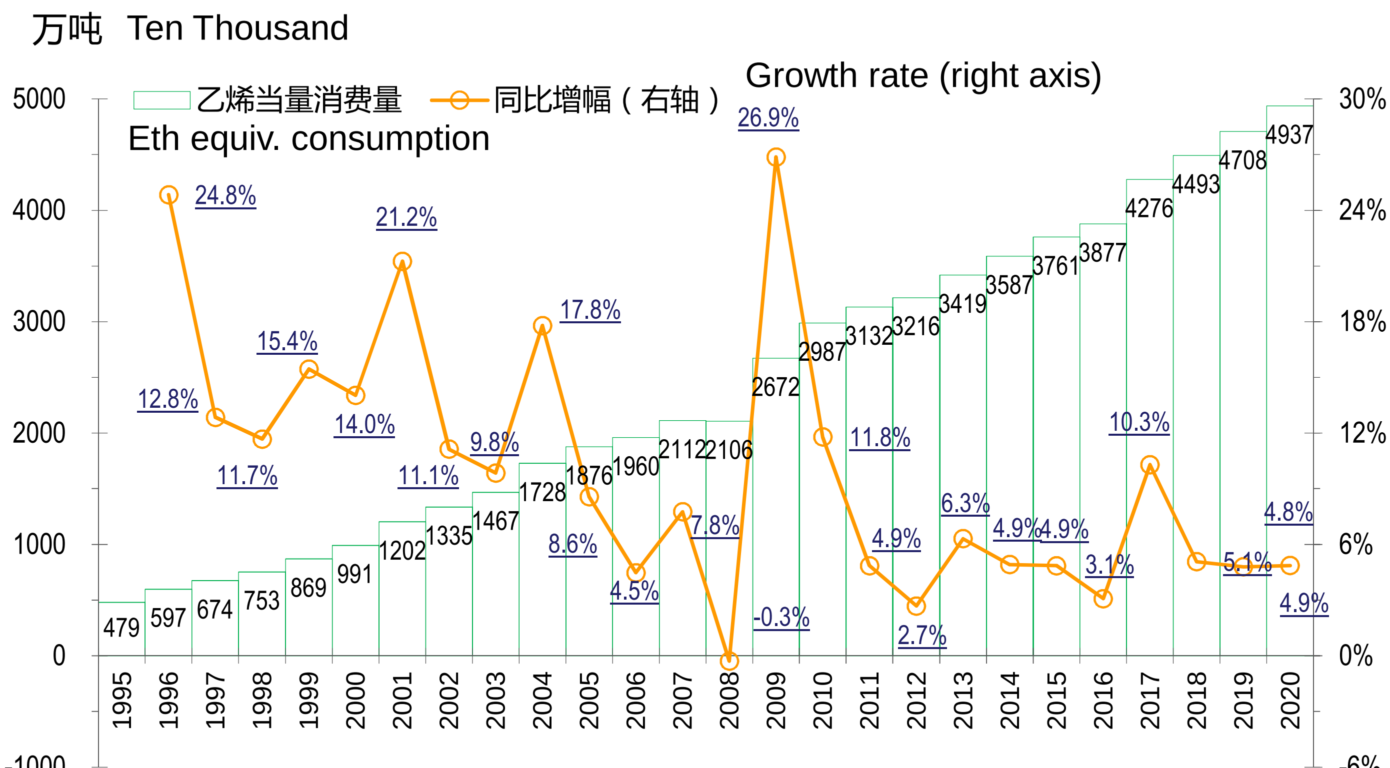
石化行业展望——乙烯当量
Petrochemical Industry Outlook – Ethylene Equiv.

中国石化 SINOPEC

2010-2020年中国大陆乙烯当量消费增长情况

China Ethylene Equivalent Consumption in 2010-2020

数据来源(Source)：中国石化 Sinopec



中国大陆乙烯消费将进入中速增长期

China ethylene consumption will lower to a moderate growth pace

	乙烯当量消费年均增幅 Eth equiv. AAGR
1995-2000	15.7%
2000-2005	13.6%
2005-2010	9.7%
2010-2015	4.7%
2015-2020(预测 /forecast)	5.6%

中国石化
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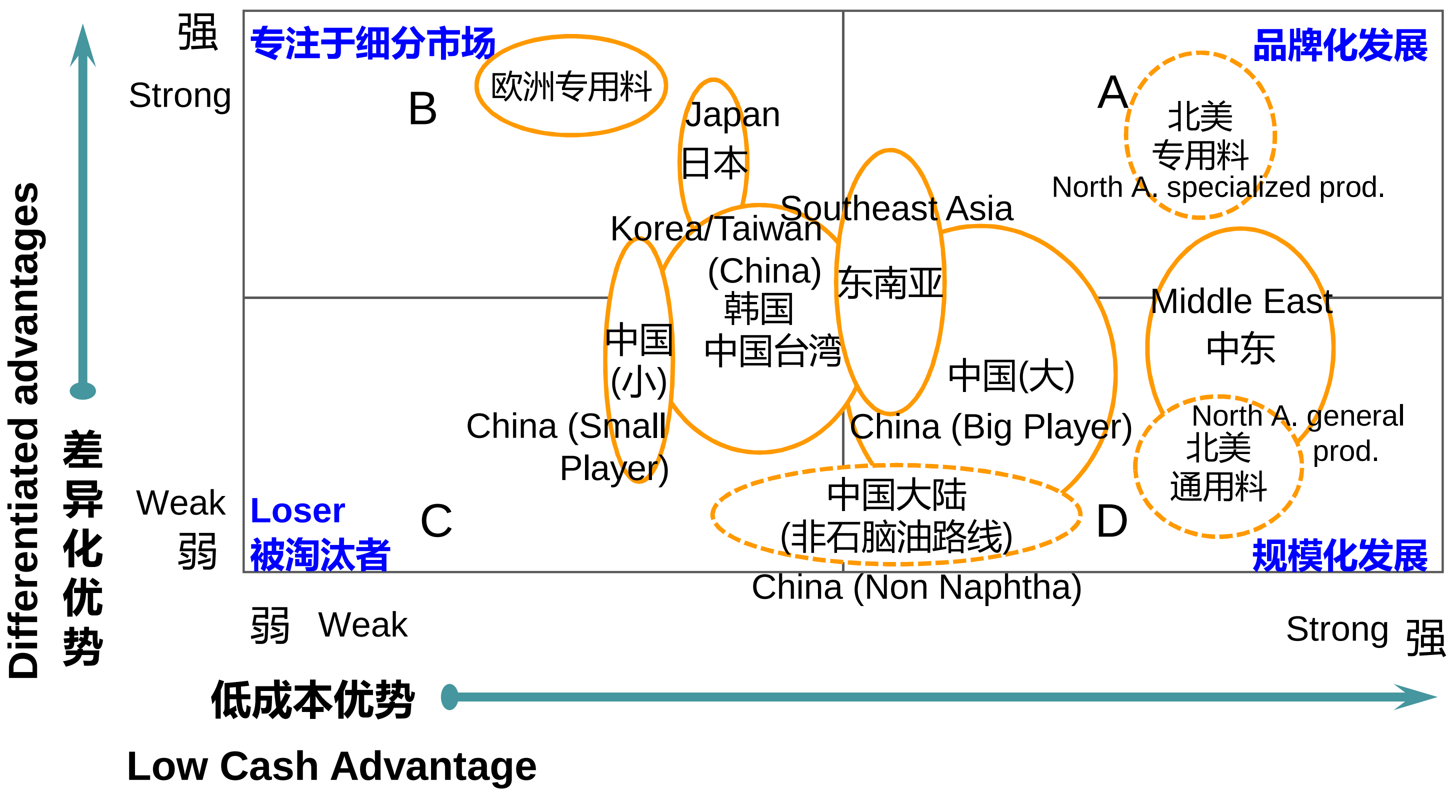
几个地区聚烯烃市场竞争新格局：差异化发展任重道远

New pattern of the polyolefin market: Development for differentiation is critical in the long term



- **欧洲、日本：**以小规模为主，主要面向高端细分市场；
  Europe/Japan: small scale, targeting high-end segment market;
- **北美和中东：**向品牌化、规模化、低成本化发展；
  North Am./Middle East: developing towards branding, large scale, low cash cost;
- **中国大陆和东南亚：**规模较大，但低成本优势不明显；
  China/Southeast Asia: Large scale production but low cost advantage is fading;
- **韩国、中国大陆和中国台湾：**规模相对较小不具备优势，面临淘汰危机。
  South Korea, China and Taiwan: The relatively small scale does not have advantages and faces a crisis of elimination.

石化行业展望——政策环境
Petrochemical Industry Outlook – Policy

供给侧结构性改革
Structural Supply Reform

- 持续淘汰落后产能，运用市场化和行政措施，有效处理“僵尸”企业，严控过剩行业新上产能。
- Continue to eliminate backward capacity. Use market and administrative measures to effectively remove idle facilities and strictly control over-capacity

油气市场化改革
Oil and Gas Market Reform

- 油气体制改革涉及石油天然气上中下游各领域，将进一步开放准入条件，向全面市场化推进。
- The reform of the oil & gas system involves upstream, midstream and downstream, and moving towards full-scale marketization.

国有企业改革
State-owned Co. Reform

- 加大兼并重组，推动强强联合，通过体制机制改革，发挥国企、民企、外企各自的优越性，加速供给侧结构性调整。
- Promote new mergers and reorganizations. Fully utilize the advantages of different organizational features through institutional revolution, and accelerate the structural adjustment

环保政策
Environmental Policy

- 环境保护部发布了企业排放标准，与发达国家最严标准接轨，甚至更加苛刻。石油化工产业将面临更大环保压力。
- The Ministry of Environmental Protection has issued corporate emission standards that are in line with the most stringent standards in developed countries and are even more demanding. There exists more downward pressure on petrochemical industry

自贸区政策
Free Trade Agreement

- 目前中国已签署自贸协定14个自贸区一般要求取消90%税则号和贸易额的产品关税，对国内石化行业冲击较大。
- China has now signed 14 FTAs. It is generally required to cancel 90% of tariffs based on the agreement, which will have a greater impact on the domestic petrochemical industry.

“禁废令”政策
Recycle Import Ban

- 2017年国务院发布关于禁止进口固体废物管理制度，2018年全面禁止进口固体废物入境。
- The State Council of China issued recycle import ban in 2017. The import of solid waste will be completely banned in 2018

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中国石化增长战略/SINOPEC Growth Strategy

中国石化
SINOPEC

国家层面 National Level

推进能源生产和消费革命，构建清洁低碳、安全高效能源体系.

Promote the revolution in energy production and consumption, and build a clean, low-carbon, safe and efficient energy system.

中石化层面 SINOPEC Level

围绕“能源化工公司”定位，把握能源发展大势，拥抱“电动革命”，打造“移动能源解决方案供应商”：

Focusing on the “Energy and Chemical Company”, grasping the trend of energy development, embracing the “Electric Revolution" and being the “Provider of Mobile Energy Solution":

化工：突出向价值链中高端升级，坚持“基础+高端”；

Chemicals: Promote the high-end value chain, while adhere to the “base chemical + high-end";

信息化：推进“数字革命”，深化信息技术应用，打造智能工厂。

Informatization: Promote the "digital revolution", deepen the application of information technology, and build smart factories.

中国石化增长战略/SINOPEC Growth Strategy

中石化“十三五目标”
SINOPEC’s “13th Five-Year Goal”

- 到2020年，中国石化集团应形成可持续、有竞争力的、可循环更替的业务组合，其中接替新业务比例达到20%，伺机退出的业务比例低于10%。
- By 2020, Sinopec will form a sustainable, competitive, and recyclable portfolio, in which the new business replacements will reach 20%, while the business waiting for an exit will be less than 10%.

五大原则/Five Principles

- 效益原则/Benefit
- 竞争力原则/Competitiveness
- 创新发展原则/Innovation
- 可持续发展原则/Sustainability
- 环境友好原则/Environment Friendly

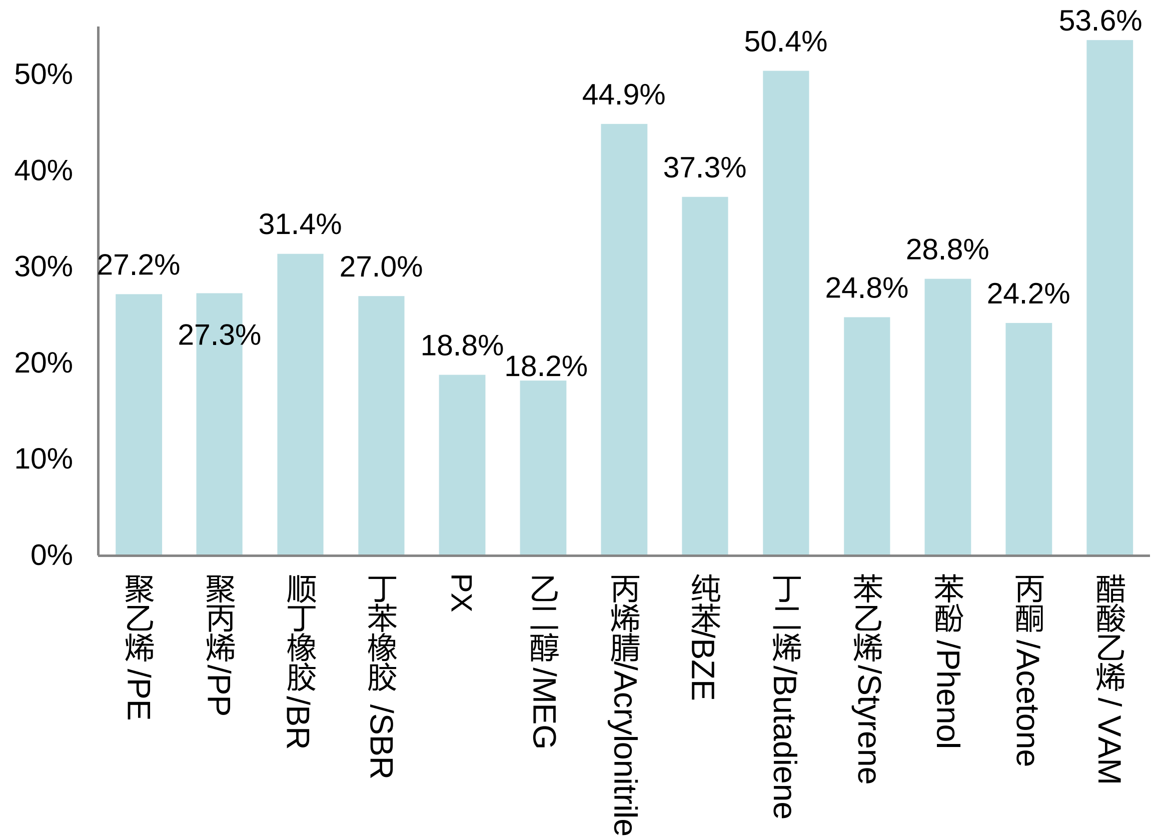
五大战略/Five Strategies

- 价值引领/Value Oriented
- 创新驱动/Innovation Driven
- 资源统筹/Resource Coordination
- 开放合作/Cooperation
- 绿色低碳/Green & Low Carbon

中国石化主要化工产品市场占有率
Market Share of Sinopec's Main Chemical Products

- 中国石化是中国大陆最大的炼油企业和乙烯企业，炼油产能占38%，乙烯产能占47%。
- Sinopec is the largest refiner and ethylene producer in mainland China, with a refining capacity of 38% and ethylene capacity of 47%.

- 中国石化主要化工产品国内市场占有率处于领先地位。
- Sinopec's main chemical products occupy a leading position in the domestic market.



中国石化增长战略—竞争优势/SINOPEC Growth Strategy—Competitiveness

中国石化 SINOPEC

企业集中度 Integration	❖ 所属炼化企业形成集群化，炼化一体化优势明显。/The integration of refining and chemical production has obvious advantages.
区位优势 Location	❖ 炼化企业主要位于国内经济最具活力的东部和南部地区，市场区位优势得天独厚。/The refining and chemical companies are mainly located in East and South China where the economy is robust.
销售网络 Sales Network	❖ 营销网络布局、电商平台和物流体系初具规模，具有较强的市场控制力和影响力。/The marketing network layout, e-commerce platform and logistics system begins to take shape, with strong market control and impact.
炼化技术 Technology	❖ 一流科研队伍，两院院士23人，主要炼油和部分化工技术优势明显。/First-class scientific research team with 23 academicians of the two institutes. Advantages in most oil refining and some chemical technologies。

中国石化增长战略—装置规划/SINOPEC Growth Strategy—Facility Planning

★ 石化产业基地项目
Petrochemical Base Projects

★ 其他地区规划项目
Other planed projects

○ 中石化现有生产企业
Sinopec existing projects

- 按照石油和化工行业“十三五”规划，中国石化炼油装置围绕应对竞争建设先进产能，化工围绕高端材料，加快产品结构调整。
According to the "13th Five-Year Plan" of the petroleum and chemical industry, Sinopec's oil refining facilities will build advanced production capacity against competition, while the chemical sector will focus on high-end materials to speed up product structure adjustment.

- 至2020年，中石化炼油产能将达到约3.44亿吨/年，乙烯产能将达到约1479万吨/年。
By 2020, Sinopec's refining capacity will reach approximately 344 million tons/year, and ethylene capacity will reach approximately 14.79 million tons/year.

中国石化增长战略—装置规划/SINOPEC Growth Strategy—Facility Planning

中国石化 SINOPEC

"十三五"中国石化煤化工装置规划及投产情况
Sinopec's Coal-Based Chemical Projects of "13h Five-Year Plan"

单位：万吨/年
Unit: 10 KTA

	项目地址 Location	甲醇 Methanol	聚烯烃 Polyolefin	备注 Status
中安联合 Zhong'an United	安徽淮南 Huainan, Anhui	170	70	建设中 Construction
中天合创 Zhongtian Henchuang Energy	内蒙古 鄂尔多斯 Ordos, Inner Mongolia	360	137	已投产 Started
宁东煤化 Ningdong Coal Chemial	宁夏银川 Yinchuan, Ningxia			已投产 Started
毕节煤化 Bijie Coal Chemical	贵州毕节 Bijie, Guizhou		60	建设中 Construction
准东煤化 Zhundong Coal Chemical	新疆准东 Zhundong, Xinjiang			前期工作 开展中 In progress

- 面对其他原料路线，中国石化目前布局了5个煤化工基地，开展了包括宁夏宁东煤制化学品项目、内蒙古中天合创煤制烯烃项目、安徽中安煤制烯烃项目、贵州毕节煤制烯烃项目和新疆准东煤制气项目的规划建设。Sinopec currently has deployed five coal-based chemical projects, including the Ningdong Coal Chemical project, Inner Mongolia Zhongtian Hechuang CTO project, Anhui Zhong'an CTO Project, Guizhou Bijie CTO project, and Xinjiang Zhundong coal to gas project.
- 其中，宁夏和内蒙古项目已经投产运行，安徽项目正在建设之中，贵州项目已经通过环评，新疆项目已开展前期工作。Among them, the projects in Ningxia and Inner Mongolia have been put into operation, the Anhui project is under construction, the Guizhou project has passed the environmental assessment, and the Xinjiang project has carried out preliminary work.

结构调整—化工原料结构
Structure Adjustment —Chemical Feedstock Structure

充分发挥炼化一体化优势，合理利用干气、尾气、轻烃等资源。 Take the advantages of refining and chemical integration; rationally utilize dry gas, recovered gas, light olefin and other resources.

积极寻求稳定的轻烃资源，统筹资源利用。 Actively seek stable light olefin resources and coordinate resource utilization.

加快石脑油储备库建设，缓解区域性、阶段性不平衡问题。 Accelerate the construction of naphtha tank farm to ease regional and periodic imbalances

统筹解决石油化工发展的原料问题，持续推进原料结构调整，提升竞争能力。 Coordinate and resolve the supply issues of feedstock; continuously promote the feedstock structure and enhance competitiveness

中国石化增长战略—结构调整/SINOPEC Growth Strategy—Structure Adjustment

中国石化
SINOPEC

结构调整—装置结构
Structure Adjustment —Technology Structure

研究开发传统石脑油裂解装置与MTO、PDH等工艺的组合技术，降低生产成本；
Conduct research on developing the combined technology of conventional naphtha cracking, MTO and PDH to reduce the production cost;

针对未来芳烃市场变化，研究采用吸附分离与结晶分离工艺组合，改造现有芳烃装置，保持低能耗的同时，增加产能。
In view of the future changes in the aromatics market, we will adopt a combination of adsorption and crystallization separation technologies to increase the capacity of existing aromatic projects, while maintaining low energy consumption

结构调整—产业结构
Structure Adjustment —Industrial Structure

建立化工产品退出机制，对于市场前景不好，盈利空间不足的产品实现平稳退出；
The establishment of an exit mechanism for chemical products will result in a smooth exit for products with poor market prospects and insufficient profit margins;

对于具有发展前景的高端产品和新材料，多渠道快速进入。
Rapidly push the high-end products and the new materials with prospective potentials into market through multi-channels

结构调整—布局结构
Structure Adjustment —Portfolio Structure

1

统筹石油化工、煤制天然气、煤化工和精细化工业务。
Coordinate petrochemical, coal-to-gas, coal chemical and fine chemical business.

2

研究利用海外天然气资源，发展天然气化工，拓展海外化工业务。
Utilize natural gas resources overseas to develop natural gas based chemical business and expand overseas chemical business.

3

研究海外化工业务投资可行性，逐步进入海外市场。Research the feasibility of investment to chemical business overseas and gradually enter the foreign markets.

4

加快与大型民营企业产能合作，实现产能优化配置，推进混合所有制改革。
Accelerate the cooperation with large-scale private enterprises; achieve optimal allocation of production capacity and promote the reform of mixed ownership.

总结/Summary

中国石化
SINOPEC

1

相当长时间内，中国大陆化工行业结构性过剩与结构性短缺同时存在，高端产品供不应求，低端市场竞争加剧。
For quite a long time, structural surpluses and shortages of the chemical industry in mainland China has existed simultaneously. The supply of high-end products is in short while the competition in the low-end market has intensified.

2

民营石化产能迅速崛起，成为市场供应的重要力量。这些产能和资源的释放，将继续冲击中国石化传统市场影响力，降低市场占有率。
The rapid rise of private petrochemical capacities has become an important source of market supply. The release of these capacities and resources will continue to impact the influence of Sinopec in the market and reduce its market share.

3

北美、中东等新产能快速投产，成本低廉，中国大陆传统化工企业面临竞争压力，中国大陆将成为全球化工市场价格凹地。
As the emerging capacities in North America and the Middle East with lower cost put into operation, the traditional chemical companies in mainland China will encounter pressure from the competition, and China will become a global price “concave” in the chemical market.

4

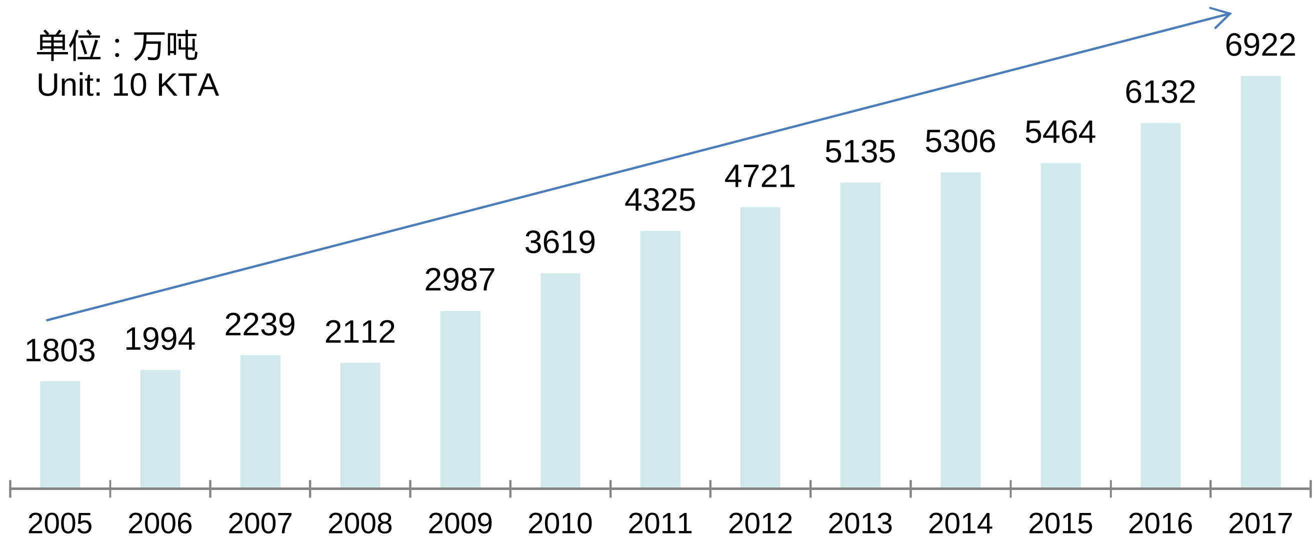
绿色低碳发展成为强制要求，必须不断调整原料结构，适应新政策环境，必须加大装置改造升级力度，提升可持续发展能力。
Green and low-carbon development has become a mandatory requirement. It is necessary to constantly adjust the structure of raw materials and adapt to the environment of new policy. It is critical to increase the intensity of upgrading production facilities and enhance the capacity for sustainable development.

化工销售有限公司/Chemical Sales Co., Ltd.

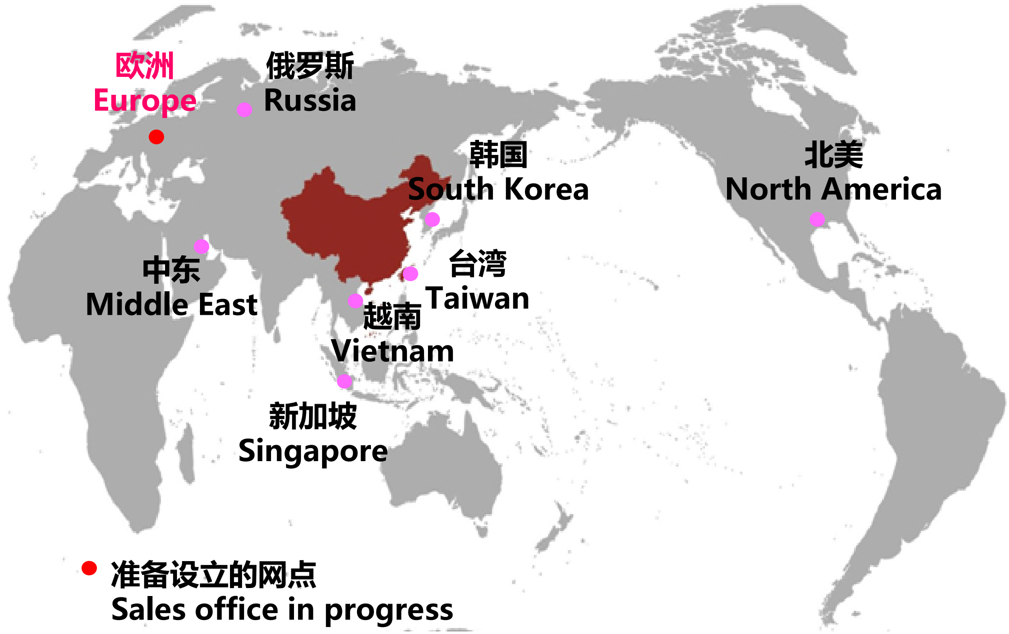
中国石化 SINOPEC

- 化工销售有限公司是中国石化的下属全资子公司，为市场提供合成树脂、合成橡胶、合纤原料及聚合物、合成纤维、有机化工、中副产品以及特殊化学品，具体品种超过2000个。
Chemicals Sales Co., Ltd. is a wholly-owned subsidiary of Sinopec Corp. and provides the market with synthetic resins, synthetic rubber, synthetic fiber raw materials and polymers, synthetic fibers, organic chemicals, by-products, and specialty chemicals, with more than 2,000 specific varieties.

- 2005-2017年，化工销售有限公司经营量年均增长11.86%；2017年，化工销售经营总量近7000万吨。
From 2005 to 2017, the sales volume of Chemical Sales Co., Ltd. increased by 11.86% annually; in 2017, the total sales volume of chemical products reached nearly 70 million tons.

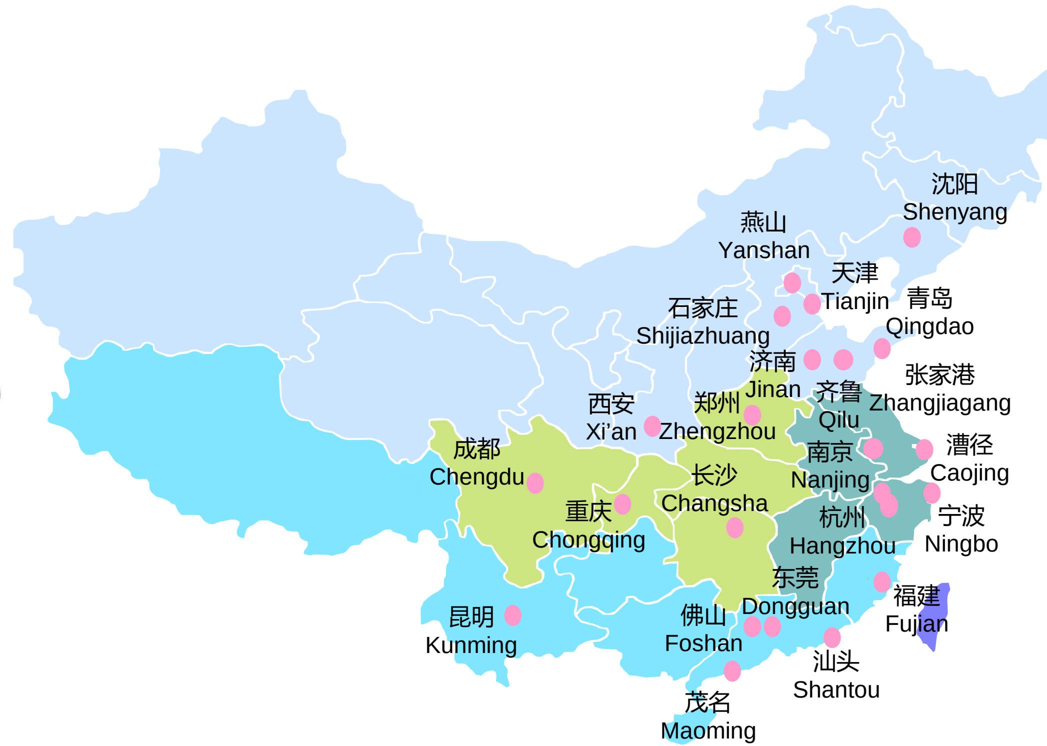


化工销售有限公司/Chemical Sales Co., Ltd.



● 准备设立的网点
Sales office in progress

● 已有网点
Existing sales office



- 化工销售公司在国内设有24个网点，境外设有7个网点。
  The Chemical sales Co., Ltd has 24 sales offices in China and 7 other regions.
- 与国外多家公司开展业务和投资合作
  Engaging in business and investment cooperation with a number of companies in the world wide

谢 谢！

Thank you!