



中鋼碳素  
CHINA STEEL CHEMICAL

# China Steel Chemical Corp.

2018 / 11 / 02



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# Safe Harbor Statement

This presentation may contains forward-looking statements. All statements other than historical and current fact, without limitation, including business outlook, predictions, estimates, are forward-looking statements. Such statements are based upon management's current beliefs and expectations and are subject to various risks, uncertainties and other factors that could cause actual outcomes and results to differ materially.

We caution readers not to place undue reliance on forward-looking statements as these statements speak only as of the date they are made, and we disclaim any obligation to, update or alter any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law or regulation.

This cautionary statement is applicable to all forward-looking statements contained in this presentation.



# Company overview: Business snapshot

## Major business

### Steel Core Businesses

- China Steel Corporation
- Chung Hung Steel Corporation
- Dragon Steel Corporation
- CSC Steel Sdn. Bhd.
- China Steel Sumikin Vietnam (CSVC )
- China Steel Corporation India Pvt. Ltd (CSCI)

### Other Group Businesses

#### Engineering Businesses

- China Steel Machinery Corporation
- China Steel Structure Co., Ltd.
- China Ecotek Corporation
- Info-Champ Systems Corporation
- CSC Solar Corporation

#### Logistic Businesses

- China Steel Express Corporation
- China Steel Global Trading Corporation
- China Steel Precision Metals Qingdao Co., Ltd.
- United Steel Engineering and Construction Co., Ltd (Kunshan coil center)

#### Industrial Materials Businesses

- C. S. Aluminum Corporation
- **China Steel Chemical Corporation (1723 , CSC holds 29.04%)**
  - **Ever Glory International Co., Ltd. (100%)**
  - **Ever Wealthy International Co., Ltd (100%)**
  - **Formosa Ha Tinh CSCC (Cayman) Limited (50%)**
  - **Changzhou China Steel New Materials Technology Co.,Ltd (100%)**

#### Service and Investments Businesses

- CHC Resources Corporation
- Himag Magnetic Corporation
- China Steel Precision Materials
- China Steel Resources Corporation
- CSC Precision Metal Industrial Corporation
- Gains Investment Corporation
- China Steel Security Corporation
- China Prosperity Development Corporation
- China Steel Management Consulting Corporation



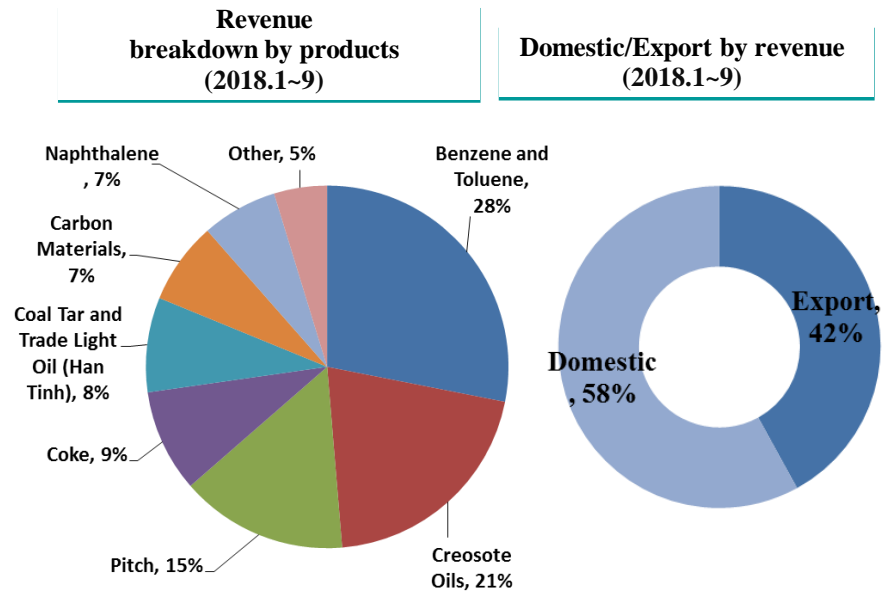
# Company overview: Business snapshot

## Overview

- China Steel Chemical Corporation (CSCC) is the only coal chemical industry in Taiwan incorporated for processing the coking by-product, coal tar and light oil produced by the integrated steel mills.
- The headquarters and primary plant are based in Kaohsiung City. Further, CSCC also erected a new graphite chemical plant in the Ping Nan Industrial Park in southern Taiwan.
- Coal 270 tmt/year, Light Oil 120 tmt/year
- Design capacity : Mesophase 5 tmt/year (2018 7.5tmt/year) , ACS 30 mt/year (2018 75mt/year)

## Major business

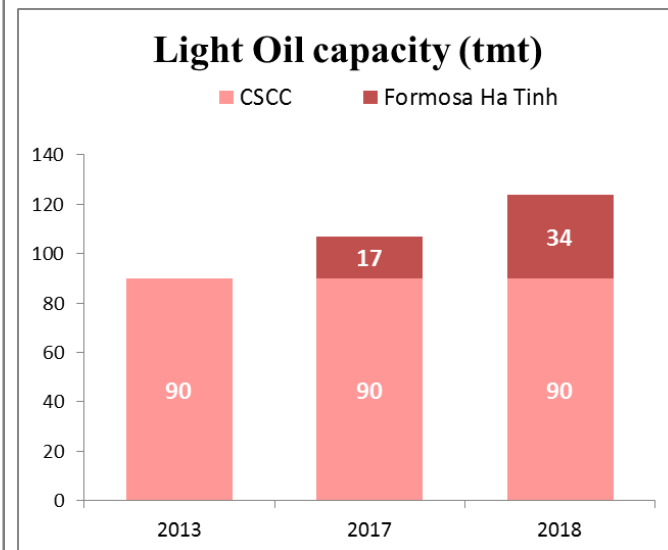
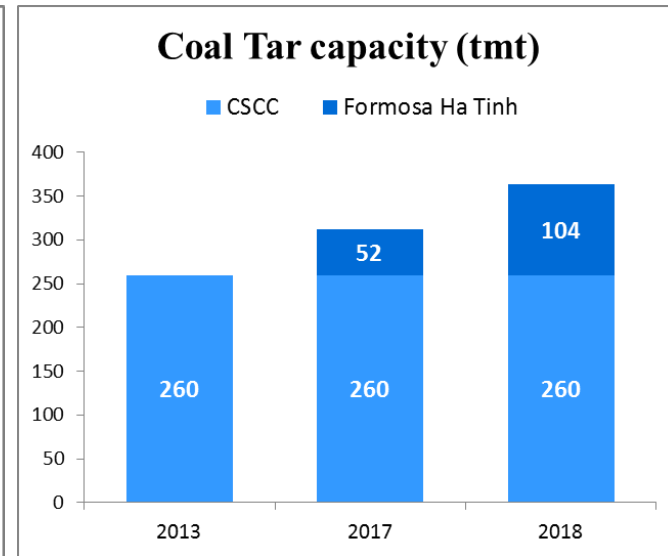
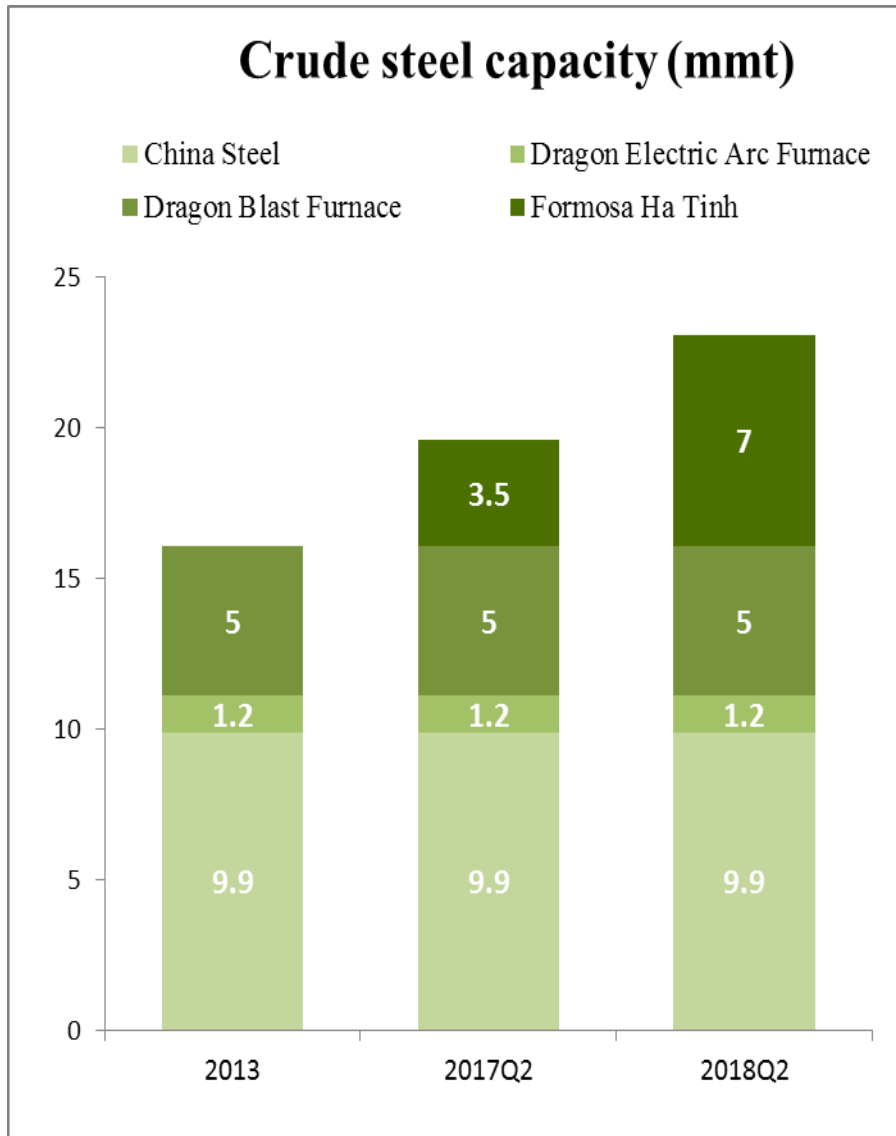
- **Light oil** : Benzene (Domestic 100%)
- **Coal Tar** : Soft Pitch (Export 40% , Domestic 60%)  
Naphthalene (Export)  
Creosote Oils (Export)
- **Mesophase** : Green Mesophase Powder (Export )  
Mesophase Graphite Powder (Export & Domestic)
- **Coke** : Domestic



# Company overview: The relationship between Coal Tar, Light Oil and Crude Steel

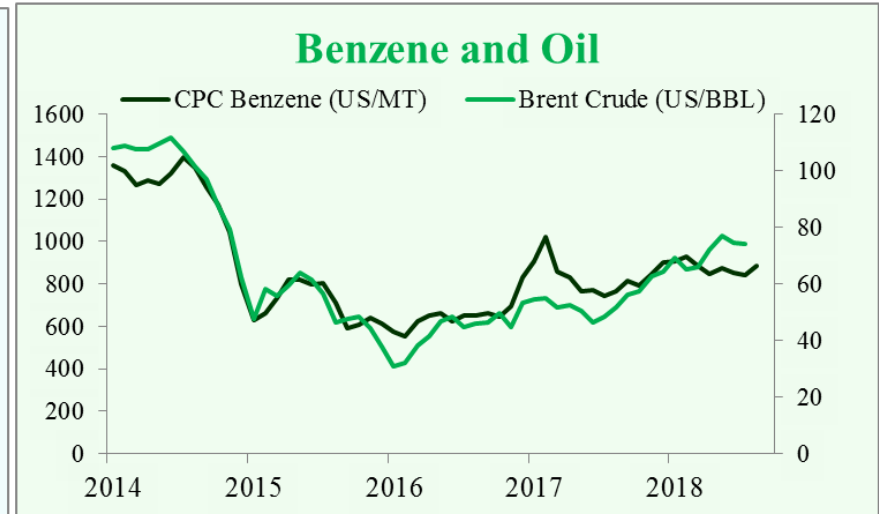
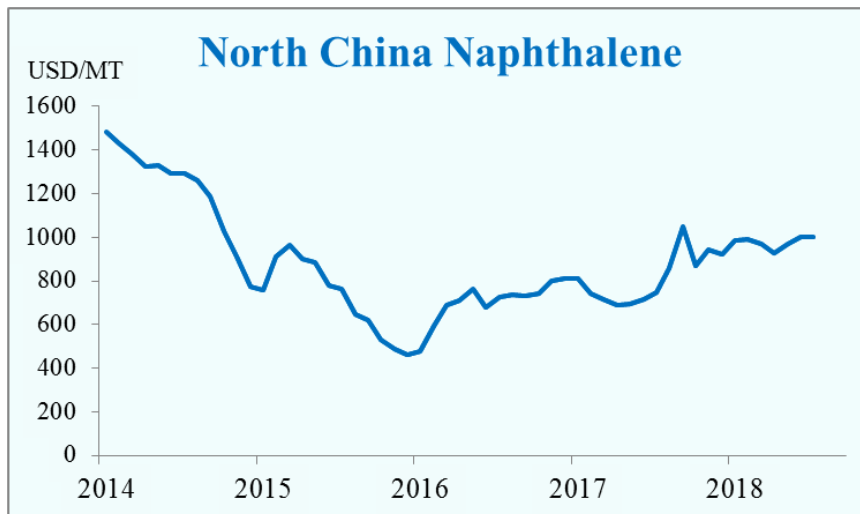
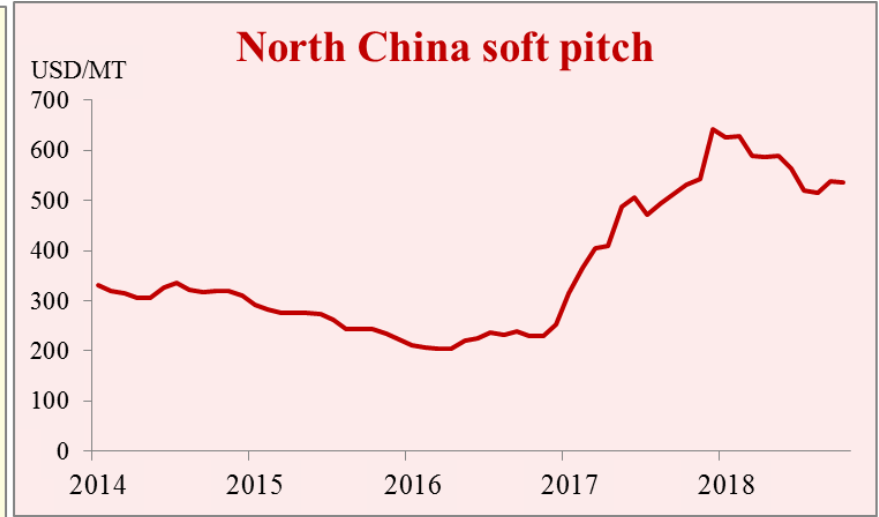
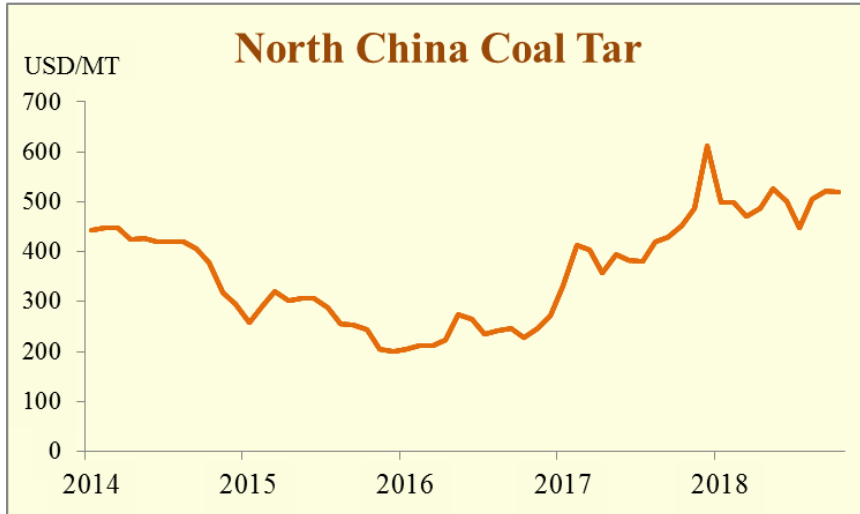


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# Raw material trend and market analysis





# Performance

Amount: NT\$ million

Item	2014	2015	2016	2017	2018/ 1Q	2018/ 2Q	2018/ 3Q
Revenue	8,904	5,738	5,144	6,242	2,013	2,019	2,316
Income after Tax	2,189	1,239	1,039	1,208	325 419*	378 467*	540*
EPS	9.50	5.37	4.45	5.00	1.40 1.80*	1.63 2.01*	2.33*
Oil Price	96	51	43	55	65	72	73

\*preliminary result





# Performance

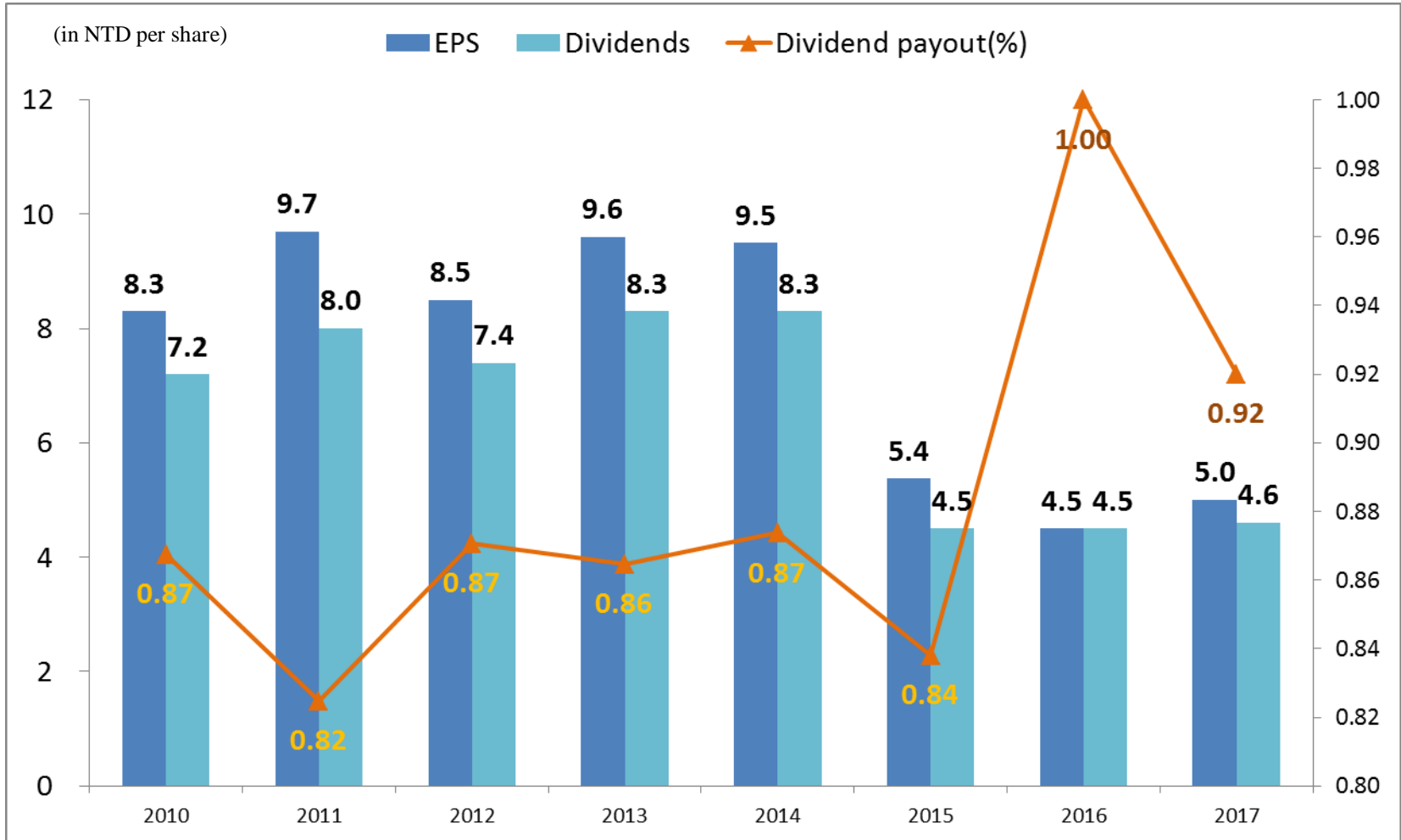
Unit : NTD Thousands

<b>2016</b>	<b>2016Q1</b>	<b>2016Q2</b>	<b>2016Q3</b>	<b>2016Q4</b>	<b>Total</b>
<b>Revenues</b>	<b>1,225,971</b>	<b>1,340,731</b>	<b>1,309,864</b>	<b>1,267,174</b>	<b>5,143,740</b>
<b>Operating Income</b>	259,247	261,719	294,328	287,952	1,103,246
Operating Profit Margin	21%	20%	22%	23%	21%
<b>Income Before Tax</b>	278,813	290,701	296,489	344,664	<b>1,210,667</b>
Earning Before Tax Margin	23%	22%	23%	27%	23%
<b>Oil Pirce</b>	<b>33</b>	<b>45</b>	<b>45</b>	<b>49</b>	<b>43</b>
<b>2017</b>	<b>2017Q1</b>	<b>2017Q2</b>	<b>2017Q3</b>	<b>2017Q4</b>	<b>Total</b>
<b>Revenues</b>	<b>1,687,246</b>	<b>1,514,443</b>	<b>1,563,442</b>	<b>1,476,693</b>	<b>6,241,824</b>
<b>Operating Income</b>	330,754	256,006	323,263	339,241	1,249,264
Operating Profit Margin	19%	17%	20%	23%	20%
<b>Income Before Tax</b>	326,138	303,166	352,661	383,201	<b>1,365,166</b>
Earning Before Tax Margin	19%	20%	22%	26%	22%
<b>Oil Pirce</b>	<b>53</b>	<b>49</b>	<b>65</b>	<b>59</b>	<b>55</b>
<b>2018</b>	<b>2018Q1</b>	<b>2018Q2</b>	<b>*2018Q3</b>	<b>2018Q4</b>	<b>*Total(Q1~Q3)</b>
<b>Revenues</b>	<b>2,012,517</b>	<b>2,019,437</b>	<b>2,316,431</b>		<b>6,348,385</b>
<b>Operating Income</b>	421,520	419,272	500,753		1,341,545
Operating Profit Margin	21%	21%	21%		21%
<b>Income Before Tax</b>	418,904	466,955	540,238		<b>1,426,097</b>
Earning Before Tax Margin	21%	23%	23%		22%
<b>Oil Pirce</b>	<b>65</b>	<b>72</b>	<b>73</b>		<b>70</b>

\*preliminary result



# Performance- Historical EPS and dividends paid



# Key Strategies



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1

**Expansion of existing Coal Tar and Oil revenue profit.**

2

**Expanding and improving the production value of cathodic materials.**

3

**Invigorating the participation of assets in the investment of green energy and biological industries being developed by the Group.**

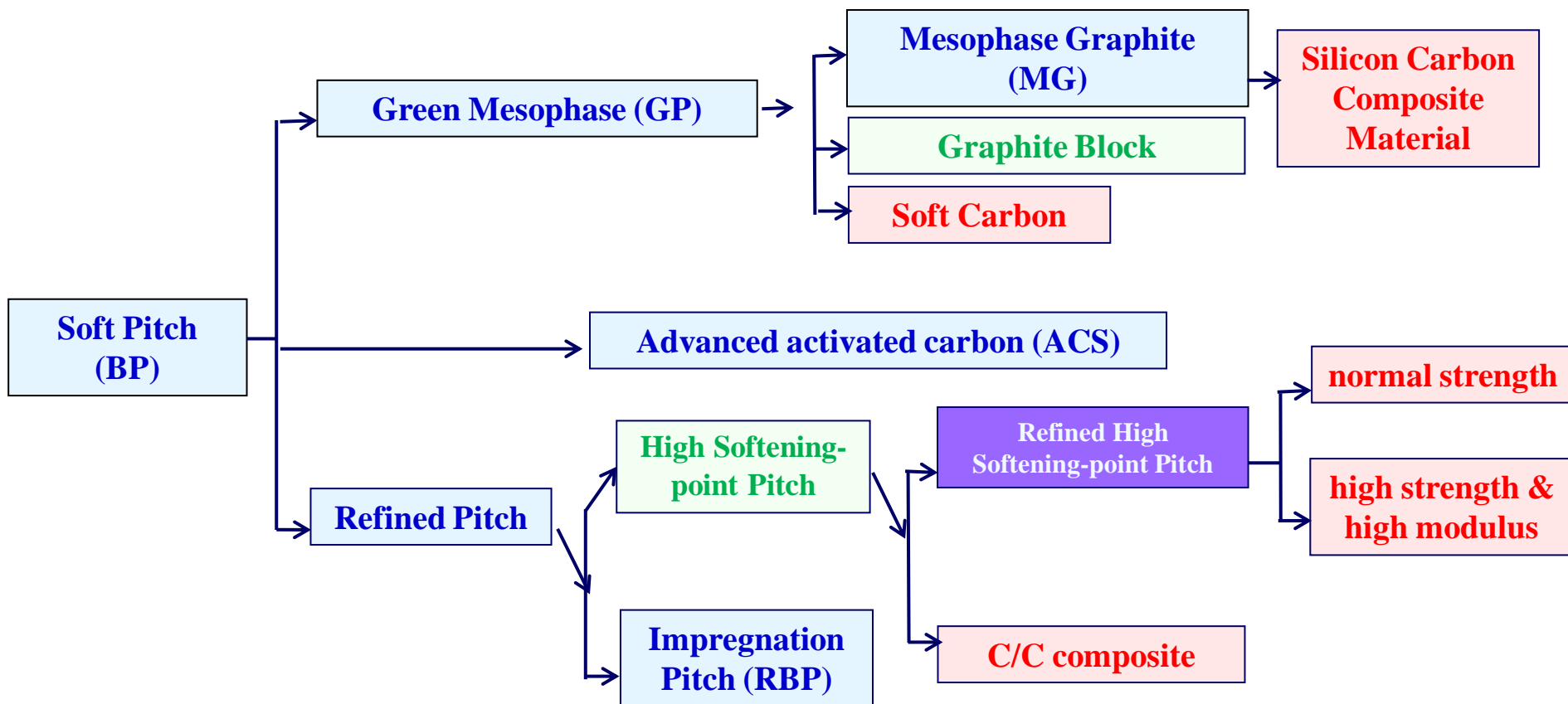


## Cooperation Agreement with Formosa Ha Tinh Steel Corporation

- 1. We signed a Cooperation agreement with the Ha Tinh Steel Corporation for the organization of a joint venture company with 50% (equivalent to US\$10 million) of shares equally contributed by both parties respectively. The joint-venture company will be engaging in the production and sales of coal tar and light oil.**
- 2. The first blast furnace has been ignited for launching the production on May 29<sup>th</sup>, 2017 (yearly output will be 3,500,000 tons of steel, 52,000 tons of coal tar and 17,000 tons of light oil), and the second blast furnace was ignited on May 18<sup>th</sup>, 2018.**
- 3. Until now, the joint-venture company has sold 60,000 tons of coal tar and 18,000 tons of light oil, which is one times more than 2017. The light oil is mainly purchased by CSCC for processing and sales in order to enhance the capacity utilization rate of the existing equipment. .**
- 4. In the meantime, we will launch the construction of carbon black oil plant. After being erected, the carbon black oil will be put into production for selling in order to enhance the production value and the revenue.**
- 5. When the third blast furnace is erected in Formosa Plastics Group's Ha Tinh Plant, we will construct the coal tar distillation and light oil purification plant.**



# Carbon Materials



- Goods on-shelf
- Test in process
- Goods off-shelf
- Developing



2

## Expanding and improving the production value of cathodic materials

### -(1) Erection of Mesophase Graphite production line

**The first production line of Mesophase Graphite was constructed, which yield 2,000 tons per year. Second production line is assessing.**

- 1. It has also been resolved that the Mesophase Graphite production line was completed by the end of December 2017. The production line has gradually increased the proportion of trial runs since January 2018. The capacity utilization rate is up to 80% now.**
- 2. This investment plan of two more lines (yearly output 2,500 tons) will be completed by the end of this year. It will Formally put into production in 2019.**
- 3. We are trying to develop new battery clients outside the China. After assessing the schedule, we will expand the second production line of Mesophase Graphite in good time.**
- 4. After the production of Mesophase Graphite, the cathode materials will be directly supplied to the battery cell manufacturers, supported by the selling of Mesocarbon Microbeads for supplying to cathodic material plant.**



2

## Expanding and improving the production value of cathodic materials -(2) Expanding Green Mesophase production line

**Expanding the Green Mesophase of the Xiao Gang Plant 2,400 ton/year (total output will be 7,500 ton/year).**

- 1. In this investment case, two more lines will be expanded for the existing 6 production lines in the Xiao Gang Plant (yearly output 5,000 tons) and the required material (Soft Pitch) will also be sufficiently supplied.**
- 2. In this investment case, we have fully considered the common demands of facilities required for further expansion of the Green Mesophase production line. We will expand the next two production lines of Green Mesophase (yearly output 2,500 tons) at the same time as the second Mesophase Graphite production lines in construction.**



2

## Expanding and improving the production value of cathodic materials -(3) Expanding the Super Capacitor Active Carbon Production Line

**Expanding the Super Capacitor Active Carbon Production Line (45 tons per year) at the end of 2018.**

- 1. Until now, we have developed high-ratio surface area (1,500, 2,000, 2500m<sup>2</sup>/g) activated carbon (ACS). It has also been successfully applied in super capacitors and lead-carbon batteries. On this basis, it will be continuously promoted for using as the energy-storing or power components required for starting/stopping the battery of light-rail trams, electric buses, wind turbine generators and automobiles, etc.**
- 2. The sales amount is 0.6 ton in 2015, 4.1 tons in 2016 , 8.1 tons in 2017, 8 tons in 2018. In the meantime, the number of customers and the consumption are also steadily growing, the production capacity is insufficient now.**
- 3. We plan the new production line will be 90 tons per year. The first phase is 45 tons per year. The next 45 tons will expand at the right moment.**





## Expanding and improving the production value of cathodic materials

### -(3) Introducing the impregnated asphalt in high-end application

#### Introducing the Impregnation Pitch in high-end application

1. With its features of low quinolone insoluble matters (QI) and high coking value, the Impregnation Pitch (RBP) can be used as the impregnating agent for graphite electrode and carbon blocks.
2. RBP has excellent impregnating mass, higher density, enhanced tensile strength and lower product resistance. After being impregnated, less pitch will remain on the surface.
3. Being supported by the soaring price due to the short supply of upstream coal tar and owing to the stimulation of strong demand for downstream graphite electrodes and cathodic materials, the climbing of price and sales amount of Impregnation Pitch is being experienced. The sales amount in 2017 is about 2000 tons and that of 2018 expected to be 10,000 tons, 15,000 tons in 2019.



3

## **Invigorating the participation of assets in the investment of green energy and biological industries being developed by the Group.**

### **1. Participation in the investment of solar power generation**

**In August 2016, a resolution was approved by the Board of Directors that a certain amount fund will be allocated for incorporating the solar power electrical concession business (CSC Solar Corporation) together with China Steel Corporation. For this project, an amount of NT\$261,600,000 will be contributed (NT\$180,000,000 for Phase 1 & 2) in holding 15% of share. For this case, the revenue of third quarter of 2018 was NT\$ 156,000,000 and the profit was around NT\$ 54,000,000. The efficiencies were visual gradually.**

### **2. Participation in the investment of biological venture business**

**In September 2016, a resolution was approved by the Board of Directors to participate in the raising of funds for Chi-Hang-II Venture Investment Foundation and an amount of NT\$160,000,000 (in two terms, The first term is NT 80,000,000) will be contributed. In participating in the Chi-Hang-I Investment Venture Foundation, profit has been earned and it is now close to closing. By estimation, the performance of the Chi-Hang-II Investment Venture Foundation would be higher than Chi-Hang-I and we will take part in such investments in order to disperse the non-operation profit for the venture business.**



## Conclusion

- 1. The resource Coal Tar and Light Oil already increased since 2018, CSCC will put effort to add value.**
- 2. Green Mesophase and Mesophase Graphite production line had already gone into operation in 2018. CSCC will expand the production line in good time.**
- 3. Future expansion plan: Expanding two additional production lines of the Green Mesophase (2,500 ton/year) and the second line of Mesophase Graphite (2,000 ton/year)**

A photograph of an industrial refinery or chemical plant. The scene is dominated by a complex network of metal structures, including tall distillation columns, storage tanks, and intricate piping systems. A prominent feature is a tall, slender tower with a red and white spiral pattern. The foreground shows a walkway with a metal railing. The sky is a clear, bright blue with scattered white clouds. The overall image has a slightly faded or semi-transparent appearance, serving as a background for the text.

**Thank You**