

# China Three-way Catalytic Converter Industry Report, 2014

Mar. 2015

## STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

## REPORT OBJECTIVES

- ◆ To establish a comprehensive, factual, annually updated and cost-effective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- ◆ To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- ◆ To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- ◆ To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- ◆ To help company to succeed in a competitive market, and

## METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

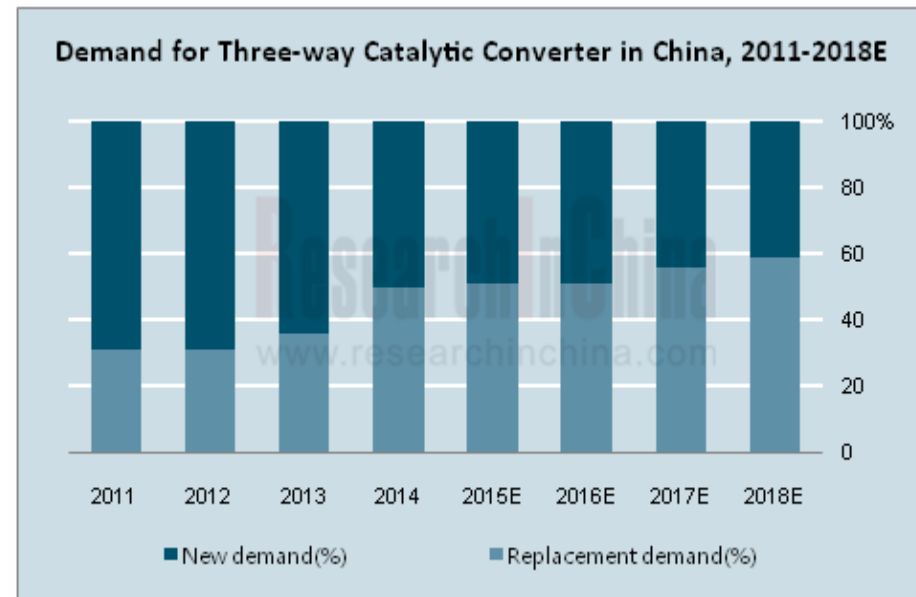
## INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

## Abstract

Three-way catalysis refers to the catalysis that converts harmful gases including CO, HC and NOx from automobile exhaust into harmless carbon dioxide, water and nitrogen via oxidization and reduction, mainly with a three-way catalytic converter, which is carried by a porous ceramic material and mounted on a special exhaust pipe. The reason it is called carrier is that it itself does not participate in catalytic reaction, but is covered with a layer of platinum, rhodium, palladium and other precious metals, and is the most important purification device outside the machine installed in an automobile exhaust system.

Chinese three-way catalytic converters for passenger cars are mainly divided into two parts, i.e. new demand and replacement demand. From the measured historical data, 2014 is the milestone year for three-way catalytic converter demand. Prior to that, the new demand, influenced by a large base of new cars and still not a replacement tide for three-way catalytic converter, had been significantly higher than the replacement demand, e.g. 17.93 million and 15 million respectively in 2013. However, the replacement demand (20.02 million) exceeded the new demand (19.92 million) in 2014. In the future, with a slowdown in domestic automobile production and sales and the arrival of peak demand for replacing automotive three-way catalytic converters, China's three-way catalytic converter and industry chain parts will be beneficiaries.



Source: China Three-way Catalytic Converter Industry Report, 2014 by ResearchInChina

With regard to catalyst, 26.41 million liters were needed by passenger cars in 2014, of which, over 80% were provided by foreign companies and the remaining 20% by domestic Chinese peers. According to China Internal Combustion Engine Industry Association, as of 2013, all catalysts for joint-venture passenger cars were made by foreign companies, and even for independent brand passenger cars, only 55% of catalysts thereof came from domestic companies.

As far as catalyst encapsulation is concerned, the main market is still dominated by foreign-funded or joint-venture enterprises represented by Faurecia and Tenneco which mainly occupy the middle and high-end market and support joint-venture vehicle manufacturers. Wuxi Weifu Lida Catalytic Converter Co., Ltd., a large-scale domestic manufacturer of automobile exhaust purifier, mainly supports self-owned brands.

The report highlights the followings:

- Overview of three-way catalytic converter, including definition, structure, industry policies, etc.
- Global three-way catalytic converter market demand, including global automobile production and sales, demand estimation, etc.;
- China's three-way catalytic converter market demand, consisting of the development status, competition pattern, market demand, etc. of China's automobile industry;
- 18 manufacturers in three-way catalytic converter industry chain e.g. Implats, Kunming Sino-Platinum Metals, Heraeu, Cataler, BASF, Johnson-Matthey, Tianjin HySci Company, involving their revenue, net income, revenue structure, production base, catalyst business, etc.

### 1. Definition of Three-way Catalyst (TWC)

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- 1.2 Composition and Structure
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  - 1.2.2 Catalyst
  - 1.2.3 Ceramic Substrate
  - 1.2.4 Liner
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