

# World turns for butadiene

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Butadiene is an important intermediate that has caused quite a few manufacturers headaches over the past three years. Prices have swung sharply up, and down, on availability and market sentiment. Underlying fears of tighter markets and structurally higher prices have been driven by the shift in the global cracker feedstock slate from liquids to gas.

But just how influential will that shift be when the wider availability of butadiene is taken into account?

Some of the views expressed at the 2<sup>nd</sup> ICIS Butadiene & Derivatives conference in Berlin this week suggest that for the most important C4 the world may have turned. [blocked URL](#)

Butadiene is not ethylene, or for that matter propylene. It is a co-product in liquids steam cracking and annual global output is only 8.5% of that of ethylene, or 9.5m tonnes.

This means that relatively small capacity additions, on-purpose or otherwise, could have a significant impact on market dynamics.

Some 95% of butadiene currently comes from steam crackers. And to date there is very little on-purpose butadiene production, some in Russia and some in China.

But more on-purpose production is planned and extractive capacity from C4 streams is increasing, largely to take advantage of predicted China demand.

Chinese players have not been sitting on the sidelines as downstream demand, largely for synthetic rubber, has increased with China's demand for automobiles. Some producers in Europe have decided to extract more butadiene, on-purpose technology from n-butane is being dusted off in the US, and more production from n-butene is planned in China.

About 1.1m tonnes of new butadiene capacity is expected to come on-stream in Asia this year, mainly to help fulfil China's demand growth, Philip Cook, of JACOBS Consultancy, [said](#) at the 2<sup>nd</sup> ICIS butadiene conference in Berlin on Tuesday, and there is more to come. Cook also noted the significant shift in butadiene international trade over the past two years.

Most of the new capacity is expected on-stream in China from n-butene dehydrogenation. The n-butene is a by-product in the production of the gasoline oxygenate MTBE (methyl tertiary butyl ether) production.

In 2012, China imported 249,000 tonnes of butadiene, compared with just 50,00 tonnes in 2011. European net exports of butadiene in 2012 were 628,000 tonnes, provisional data show, compared with a 2011 export figure 293,000 tonnes.

New butadiene extraction capacity in Europe will chase exports but China's economic slowdown and new China production capacity imply that the chase might ultimately be fruitless.

This new capacity together with the fundamentally soft global demand picture mean that inter-regional trade could shift significantly again.

Throw into this mix the fact that Texas Petrochemicals (TPC) is expected to go ahead with construction of a 270,000 tonne/year on-purpose butadiene unit in Texas based on old butane conversion technology and the future looks even more uncertain.

The US imported 237,000 tonnes of butadiene in 2012, up from 264,000 tonnes in 2011.

"There is the potential for the largest import market to substantially decrease in only a couple of years," Cook said, referring to the planned TPC unit.

In total, 400,000 tonnes/year of new butadiene capacity is expected to be added globally by 2015, he added.

SOURCE *Icis News*