

1 Market Perspective

Pharmaceutical fine chemicals include both active pharmaceutical ingredients (APIs) and the chemical intermediates used to produce them. They are high-value, low-volume, complex compounds. Facilities that manufacture the raw materials used to produce pharmaceutical intermediates and APIs are highly regulated to ensure that safety and quality standards are met.

Pharmaceutical fine chemicals can be synthesized in-house by drug manufacturers or their production can be outsourced to contract development and manufacturing organizations (CDMOs). Intermediates are also referred to as building blocks, as typically several steps involving the production of often increasingly complex compounds (intermediates) are required to convert starting materials to final APIs.¹

The global market for pharmaceutical fine chemicals in 2016 was valued by Grand View Research at \$78.2 billion.² This value corresponds to roughly 8% to 9% of total pharmaceutical sales at the manufacturer level.¹ The U.S. share of the market that year was \$22.46 billion.² Approximately 50% of the total global market demand for fine chemicals is thought to be attributed to CDMOs providing outsourced services to drug companies.¹

Chemicals used for the production of branded drugs accounted for a greater share than chemicals used to produce generic drugs, but demand for the latter intermediates is expected to grow at a rapid pace, given the increasing importance of generics as a means for reducing healthcare costs.² The percentage of the cost for formulated drugs that can be contributed to final chemical costs varies significantly depending on the type of drug product. In 2015, this ranged from approximately 3% for over-the-counter products to as much as 25% for generics sold in emerging markets, with the percentage of costs for prescription drugs under patent protection, and generics sold in Western markets, at about 5% and 10%, respectively.¹

2 Demographics

In 2017, Nice Insight conducted its first Pharmaceutical and Chemical Intermediates Survey.³ A total of 545 respondents representing companies of all sizes located around the world – 38% of in Asia, 37% in Europe and 25% in North America – participated in the survey. Participants from large pharma companies with sales >\$5 billion/year are the largest single group, accounting for 36% of the total, followed by respondents from medium-sized (\$500 million-\$5 billion/year, 31%), small (\$100 million-\$500 million/year, 28%) and emerging pharma (<\$100 million/year, 5%) companies. It should be noted that there are large differences between the sizes of the companies on a regional basis, with a much higher proportion of respondents from Asia coming from small- or medium-sized firms compared to survey participants in North America and Europe.

PHARMACEUTICAL INTERMEDIATES SURVEY RESPONDENT PROFILE BY REGION

38% Asia

North America

25%

Europe

37%



The vast majority of respondents – 88% overall hold executive-level positions, including 35% of survey participants from North America, 62% of those from Europe and 45% of those from Asia.

PHARMACEUTICAL INTERMEDIATES SURVEY RESPONDENT PROFILE BY COMPANY SIZE

36% Big Pharma

Midsized Pharma/Biotech

31%

Small Pharma/Biotech

28%

Emerging Pharma/Biotech

5%

