



INTERNATIONAL
COUNCIL OF
CHEMICAL
ASSOCIATIONS



OXFORD
ECONOMICS

The Global Chemical Industry: Catalyzing Growth and Addressing Our World's Sustainability Challenges

THE CHEMICAL INDUSTRY
DIRECTLY ADDED
\$1.1 TRILLION
TO GLOBAL GDP IN 2017

equivalent to
the GDP of
Indonesia



THE CHEMICAL
INDUSTRY IS THE
5TH LARGEST
MANUFACTURING SECTOR



120 
MILLION JOBS
ARE SUPPORTED BY THE
GLOBAL CHEMICAL INDUSTRY

equivalent to the
population of Mexico

FOR EACH JOB
IN THE CHEMICAL INDUSTRY,

7 

ADDITIONAL JOBS ARE
CREATED ELSEWHERE
IN THE ECONOMY

\$5.7
TRILLION
SUPPORTED IN
GROSS VALUE ADDED

equivalent to 7% of global GDP
(or equivalent to the combined GDPs
of India, Brazil, and Mexico)



\$2.6 TRILLION
GDP
83 MILLION
JOBS



THE ASIA-PACIFIC
CHEMICAL INDUSTRY MADE
THE LARGEST ANNUAL
CONTRIBUTION IN 2017,
FOLLOWED BY EUROPE
AND NORTH AMERICA

OUT OF THE OVER \$300 BILLION
PAID BY THE INDUSTRY IN
WAGES AND SALARIES, NEARLY
\$200 BILLION
OF CONSUMER SPENDING
IS INJECTED INTO
LOCAL ECONOMIES
ACROSS THE WORLD
EACH YEAR



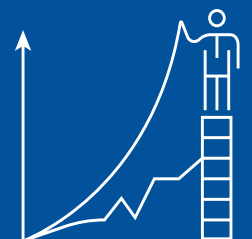
DIRECT EMPLOYMENT OF
15 MILLION
IS EQUIVALENT TO
THE POPULATION
OF KOLKATA,
THE 14TH LARGEST CITY IN THE WORLD

CHEMICAL
MANUFACTURING IS
HIGHLY
PRODUCTIVE
WITH
\$75,000
GVA PRODUCED BY
EACH EMPLOYEE

\$51 BILLION
IN GLOBAL CHEMISTRY R&D
INVESTMENT
IN 2017



IN THE US, THE BASIC CHEMICAL
INDUSTRY IS CHARACTERIZED BY
ABOVE-AVERAGE
PATENT INTENSITY





The Global Chemical Industry: Catalyzing Growth and Addressing Our World's Sustainability Challenges

As the global voice of the chemical industry, the International Council of Chemical Associations (ICCA) is committed to helping the world overcome its most pressing sustainability challenges. ICCA commissioned Oxford Economics to provide a detailed assessment of the chemical industry's contributions to the global economy and the critical role we play in improving people's daily lives. The study aims to examine the full extent of the chemical industry's "economic footprint" – whereby production of chemical products supports activity not just in the industry itself,¹ but in a wide range of other sectors throughout the supply chain,² and via wage-financed effects.³

The Global Chemical Industry: Catalyzing Growth and Solving Our World's Sustainability Challenges, confirms that the chemical industry is an integral part of the global economic landscape – permeating through nearly every good-producing sector. Given today's ever-growing population and limited resources, the chemical industry's crucial role in most sectors of regional economies around the world has led to innovative, life-enhancing products and technologies that not only support the global economy, but also help people live longer, healthier, and more sustainable lives.

The industry's longstanding presence worldwide has turned the tide of human history. Many of the products and processes made possible by chemistry, have had substantial, positive impacts on global development, including progress towards the United Nation's 17 Sustainable Development Goals (SDGs). Our industry is helping to provide

clean drinking water and deliver a safe, adequate food supply. We support the pursuit of a more circular economy, whereby resources and materials are continuously recycled to eliminate waste while creating value for all. We are also helping to improve energy efficiency in today's modern transportation vehicles and buildings to contribute to a less carbon-dependent society. By using the innovations of chemistry, new renewable energy sources and technologies can become more efficient, affordable, and scalable.

The chemical industry is also an important source of skilled employment. It supports a substantial amount of activity and jobs in the wider global economy, as a result of the money spent on materials and services used in chemical production processes. These inputs range from the natural gas needed to produce fertilizers, to the transportation equipment used to move raw materials and products, to consultancy services which assess chemical companies' returns and audit books.

The findings of this report have made it clear that the chemical industry plays an essential role in driving progress across all three dimensions of sustainable development – environmental, social, and economic. By better understanding the chemical industry's global economic contribution, we can continue to provide the financial resources, innovation, jobs, and products that can help a growing population make the best use of the world's scarce resources, support the 2030 agenda, and accelerate progress towards the SDGs.

1 (direct impact)

2 (indirect impact supported through procurement of intermediate goods)

3 (payroll-induced impact sustained via consumption spending of workers employed by the industry and its suppliers)