**THE IMPACT OF CHEMISTRY ON THE GLOBAL ECONOMY**

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| **ABSTRACT**  Chemistry plays an integral role in driving the global economy by providing the fundamental building blocks for various industries and sectors. Its impact is pervasive, influencing everything from the production of energy and materials to the development of pharmaceuticals and agricultural advancements. The chemical industry itself generates substantial economic output, contributing significantly to global GDP and employment. Moreover, advancements in chemistry fuel innovation across other industries, leading to the creation of new products, processes, and services that further stimulate economic growth. Chemistry-using professionals play a significant role in the labor market. In 2019, there were an estimated 275,000 chemistry-using professionals in employment in the UK, up from 272,000 in 2013. The largest shares are in London and the South East, with the North West also acting as an important regional hub. Chemistry-using professionals encompass a wide range of occupations, from academic chemists in universities and professional chemical scientists in industry to chemistry teachers in schools and those in sales and marketing roles. They classified them into four distinct groups: Group 1 includes occupations where chemistry knowledge is of high importance (academics, professional chemists), while Group 4 includes those where chemistry knowledge is less important, but still a significant component of the role (sales, marketing, some engineering and science professionals). They are, overall, a highly qualified cohort, with most occupations classified under Major Groups 2 and 3 (Professional and Associate Professional and Technical occupations) in the Standard Occupational Classification 2010, which generally (but not necessarily) require a first degree or higher to enter [1]. Records have shown that the chemical industry plays a pivotal role in the strength of many developed economies such as that of the United States, Germany, United Kingdom, Belgium, etc., and the advancement of humankind. The many sectors reliant on the United States (U.S.) chemical economy which account for about 25% of the U.S. GDP and support 4.1 million U.S. jobs are worthy of note [2]. The comprehensive situation of the chemical industry in the world, with our primary focus on a few countries; the U.S.A, Germany, China, and Nigeria, and what challenges face the chemicals sector as it moves toward green (sustainable) chemistry. The main attention is also paid to the impact of these chemical industries on the world’s economy [3]. Due to modern innovative techniques and recent technological advancements, IP now forms a significant proportion of a company's assets. Compared to other industries, firms in the chemical industry constantly generate IP assets, making IP the driving force for creating value within the industry. With the significant expansion of M&A activity ongoing within the industry, IP continues to drive the industry for growth, strategic change, and consolidation. Besides the increasing M&A activity, a more complicated set of dynamics of high M&A failure rate is at work, particularly within the European Union (EU) chemical industry, where the average failure rate sits at 70-90% [4].  **References:**  [1] Econometrics, C. Chemistry’s Contribution: workforce trends and economic impact.  [2] Udourioh, G. A., Okpo, E. O., & Nweke, P. I. (2023, November). Catalyzıng Sustaınable Economıc Development In Afrıca: The Potentıal Of Chemıcal Scıences And Chemıcal Industrıes. In *Proceedıngs*.  [3] Titilayo, E. A., & Hanchar, A. I. (2022). The place of the chemical industry in the world.  [4] Adetona, A. (2022). The Effect of Mergers and Acquisitions on the Management of Intellectual Property: A Case of the European Chemical Industry [Online]. Leeds Beckett University. |

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