



BIOGRAPHY:

Patricio Barrios is a graduated from the University of Seville, Spain, where he earned degrees of BSc Chem., MSc Chem. Eng. and PhD in Chemistry. In addition, along his professional career, he completed his education in different institutions receiving a Dipl. Environmental Eng. at the Technical University of Madrid, Spain; Dipl. R&D Management CSIC (High Counsel Scientist Research) and a Dipl. in Business Administration by ESADE (Barcelona, Spain) and The International Social Science Council (Paris, France).

In 1973, he took a job as Head of the Process, Research and Geochemistry Lab at the Rio Tinto Patiño's Smelter and Refinery in Huelva, Spain.

In 1975, he joined, as Process Engineer, the Planning & Metallurgical Department of the Huelva Smelter, where he worked as metallurgist and conducted several projects for environmental and performance improvements. In 1978, he took over the responsibility of heading the Planning & Metallurgical Department at the Rio Tinto Minera's Smelter and Refinery in Huelva.

In January 1986, he was appointed Smelting and Refining Production General Manager and in 1993, he was named Vice President Metallurgy & ExCom Member at Rio Tinto Metal (a new company, controlled by Freeport McMoRan Copper and Gold, as the result of the carved out of the Rio Tinto Minera's smelting and refining activities). He took full responsibility for the Huelva Smelting & Refinery site, totaling 600 employees and 450 million € revenues.

In 1996, as Senior Vice President Operations and ExCom Member at Atlantic Copper (former Rio Tinto Metal), affiliate to Freeport McMoRan Copper and Gold, he added to the full corporate responsibility for the Smelting & Refining Unit in Huelva the same responsibility for the Copper Products Units in Cordoba and Barcelona, totaling 800 employees and 1.2 Billion US\$ revenues.

In his capacity of SVP Operations, he led the team that conceived, developed and executed in 1996 the Huelva Expansion Project a 215 million US\$ EPCM Project that increased the smelter capacity from 150k/a to 270kt/a and then to 290Kt/a of New Copper ex-concentrates and the refinery capacity from 133Kt/a to 215Kt/a of Cathode and then to 250Kt/a.

In 1999, he was appointed SVP Corporate Development and ExCom Member at Atlantic Copper, adding to his responsibility for supervising the business unit operations, the search and development of new business opportunities and growth.

At the same time he served as Member of the Board of Directors of Abrasivos Huelva, subsidiary of the Rio Tinto Minera Holding and as Chairman of the Board of Directors of Rio Tinto Energia, a JV of Rio Tinto Minera and Sevillana-Endesa.

In 2005, Dr. Barrios moved to London to accept the position of Senior Adviser - Non Ferrous Metals at Hatch Corporate Finance (HCF) International Advisers, a leading corporate finance advisory firm focused exclusively on the mining and metals sectors worldwide. He conducted several assignments from

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international clients for strategic advice on M&A opportunities and advised on the structuring of the transaction execution.

In 2006, Dr. Barrios moved to Brussels to accept the position of Vice President Operations and ExCom Member at Cumerio, a public Belgian company resulting from the carve out of the former Copper operations of Union Minière. He took full corporate responsibility for the operations and projects of the Cumerio Group: the Copper Refining BU and the Copper Products BU, in Pirdop, Bulgaria; Olen, Belgium and Avellino, Italy; totaling 1500 employees and 3.5 Billion € of revenues. Among others he was full corporate responsible for the execution of three strategic projects at Pirdop: a low-CAPEX debottlenecking expansion to raise the capacity to 290Kt/a, which prepared the smelter for a further expansion with no need of major shutdown; a Greenfield Copper Refinery with a design capacity of 180Kt/a, but prepared for increasing the current density to achieve up to 230Kt/a of Cathodes and an environmental compliance program to match the EU IPPC Directive.

As part of his corporate responsibilities he served as Member of the Board of Directors of Cumerio Belgium, a subsidiary of the Cumerio Group; Member of the Board of Directors and Executive Director of Cumerio Med JSCO (Bulgaria) another subsidiary of the Cumerio Group.

In 2008, following the merging of Cumerio and Norddeutsche Affinerie, he moved to Hamburg as Senior Vice President - Projects Primary Copper at Aurubis AG, the new public company with operations and activities in 22 countries around Europe, North America and Asia, totaling 6400 employees and 13.8 Billion € revenues. He took over responsibilities for the Primary Copper Business Unit growing projects with main focus on new business opportunities and external projects.

Since 2009 he led the team that built and developed an agreement with Teck Resources to jointly adapt the CESL technology to the treatment of high-Arsenic bearing Copper concentrates in a sustainable way. As a result of that Teck and Aurubis have jointly patented a new breakthrough mine-to-metal technology that allows unlocking the development of Copper mine projects with high Arsenic content.

From January 2016, Dr. Barrios started a new stage, acting as Principal Adviser – Primary Copper Business Unit at Aurubis AG, being responsible to provide high level strategic advice to the SVP-Primary Copper BU, which includes assisting on the overall direction and function of Business Development, participating on special projects, including liaison and development of key relationships with selected business partners.

Dr. Barrios is a fellow of a number of international professional societies and he has been a frequent speaker and presenter at conferences and symposia.