

Data Connectivity, a Key Feature of the Smelter of the Future

Claude Vanvoren

Vice President, Strategic Projects,
Technology and Project Development, Aluminium
Rio Tinto, Voreppe, France
Corresponding author: claude.vanvoren@riotinto.com

Abstract

We already had opportunity to share Rio Tinto vision of the Smelter of the Future. The core elements enabling step change in energy consumption, productivity and environmental footprint will be a new generation of reduction cell and intensive usage of automation.

However another critical element to achieve significant improvement in efficiency will be data connectivity throughout the smelter. Presentation will discuss the different layers of activity from real time operational execution to development of advanced data analytics.

Example will be presented to illustrate also how some elements could be incrementally implemented in existing plant, hence how technology can contribute to global smelter performance enhancement (from HSE to productivity), a fundamental objective in the current difficult business context.

Keywords: Smelter of the future; energy consumption; productivity; environmental footprint; automation; data connectivity.