



## Materials & Corrosion Engineering Management (MACEM)

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# Materials & Corrosion Engineering Management (MACEM)

## Editorial

Corrosion is the deterioration of metals in contact with the specific environment, leading to relevant effects on asset safety and maintenance. Corrosion of metals and their alloys strongly affects many sectors of a nation's economy. The first estimation of the economic impact of materials corrosion and protection was carried out in the 1970s by the British Government, with the conclusion that the amount of expenses for the restoration of the damaged structures was around 3% of the Gross Domestic Product (GDP). Thus, the economic impact of materials corrosion has constantly increased as the GDP has grown during the years. Physicochemical interaction between a metal or alloy and its environment results in changes in the properties of the metal or alloy, which may often lead to impairment of the function of the metal or alloy, the environment, or the technical system of which these form a part. Corrosion is one of the main sources of metallic material loss. It contributes to environmental pollution and poses a threat to human health. Material and corrosion control technologies are essential for safe, stable operation. Therefore, it is not only important to keep the risk due to corrosion at a low level but also to demonstrate that the risk is kept at the low level. For these purposes, appropriate corrosion-management best practices must be implemented. Materials & Corrosion Engineering Management (MACEM) focus on implementation of corrosion-management best practices.

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