

# Primary resource

Resource efficiency has always been a key priority for the industrial minerals sector, writes **Michelle Wyart-Remy**

**T**he Industrial Minerals Association, Europe, represents the interests of the European industrial minerals industry. Industrial minerals constitute an intrinsic part of a range of products we use in our daily lives, but this fact, and the many benefits they confer to these everyday products is not widely known.

In reality, without these primary raw materials, it is practically impossible to manufacture the myriad products that make up our lives: glass, ceramics, plastics, paper, steel, pharmaceuticals, paints, rubber, cosmetics, to name but a few, all contain industrial minerals. In addition, industrial minerals offer eco-friendly solutions, such as water treatment and filtration, or flue gas desulphurisation, and can replace rarer, more critical raw materials, or raw materials with a higher carbon footprint.

Resource efficiency has always been a key priority for the industrial minerals sector. Making the best of a resource in a sustainable manner is a driver of any economically viable mining company. For the industrial minerals sector, eco-efficiency starts with primary resource efficiency. This means efficient sourcing through sustainable mining and processing. Further downstream, industrial minerals improve the performances of the products they contribute to enhancing, enabling savings and increasing their efficiency of usage. Industrial minerals also contribute to secondary resource efficiency through the valorisation of by-products and mining waste, thus enabling the reduction of waste streams. At the end of their lives, many products are recycled, so industrial minerals are recovered through the recycling of the products that contain them. This demonstrates that industrial minerals' contribution to eco-efficiency is manifold. In reality, eco-efficiency is a holistic concept that should be assessed in an integrated life-cycle approach. In addition, resource efficiency is just one of the aspects of eco-efficiency. Indeed the world business council for sustainable development devised eco-efficiency in 1992, as a management philosophy allowing the delivery of



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“competitively priced goods and services that satisfy human needs and bring quality of life while progressively reducing environmental impacts of goods and resource intensity throughout the entire life-cycle to a level at least in line with the Earth’s estimated carrying capacity”. In concrete terms, eco-efficiency can be achieved through reduction of energy, water and virgin material use; reduction of waste levels; extension of function and therefore product/service life; incorporation of life cycle principles; consideration of the usefulness and recyclability of products/services at the end of their useful life and, finally, increased service intensity. The concept should not be restricted.

As is the case for many naturally occurring raw materials, there is no geological scarcity of industrial minerals. The increase in worldwide demand linked to the demographic boom and the legitimate development of emerging economies has resulted in placing significant pressure on certain raw materials, now assessed as critical in terms of their domestic supply within the EU. While graphite, fluorspar and rare earths were assessed as critical, according to the European commission recent assessment, most industrial minerals are not. However, this may evolve as patterns change and some minerals may be at higher risk than others. This is particularly true on certain markets where mineral resources may be heavily constrained by local, regional or national restrictions dictated by ecological and cultural interests. For the industrial minerals sector it is essential that the eco-efficiency concept be considered holistically and that resource efficiency encompasses aspects from efficient extraction, to processing, manufacturing, usage, and finally, whenever feasible, recycling. If our sector were to opt for a slogan, it would be “Using better, living better”. ★

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