

## CEMEX's POSITION

### The Issue

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As one of the world's largest providers of heavy construction materials, CEMEX has contributed to a large number of projects globally, including roads, bridges, airports, dams and docks. In some geographies, CEMEX has evolved from supplying cement and concrete to offering turnkey solutions for pavements, flooring, and bridges, among other projects. Infrastructure development has provided a lever for economic growth and recovery. It has also fostered the creation of jobs and improved access to public services such as transportation, power generation, or water supply and treatment.

Still, a large infrastructure deficit prevails on a global scale. This problem calls for a more efficient use of public resources and an unprecedented upturn in private funding for infrastructure projects. CEMEX's experience over the years in dealing with both public and private clients has provided insight on the critical drivers to increase efficiency and propel infrastructure investment around the globe.

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Our experience and analysis show that the dissemination of best practices in areas such as public procurement and tendering processes, as well as the standardization of building products and construction methods, can avoid unnecessarily high social costs, including environmental impacts over the full life of an infrastructure project.

In order to optimize the societal benefit of infrastructure projects, CEMEX recommends that the following factors be taken into account when regulations are designed or updated.

#### **Procurement / Tendering Process**

**Functional tenders:** Tenders for infrastructure projects are often overly prescriptive and impose previously defined materials. The pre-selection of materials and construction solutions often omits options that are more cost-efficient or offer other advantages. Therefore, the use of functional tenders that only specify the performance requirements should be encouraged. For example, some state governments in the United States use the Alternate Design / Alternate Bidding (ADAB) approach, which allows tender participants to suggest pavement materials, fostering competition in project bids. Similar structures have also been successfully applied in European countries such as

Germany. This type of tender usually increases the bid pool, which has proven to result in lower bid prices to the contracting agency. It considers future expenditures, reduces risk of material price fluctuations, and can lead to innovative solutions and lower costs.

**Life-cycle costing:** Low upfront costs are the decisive factor for the selection of a winning project bid in many countries, but these short-term savings often come at considerable additional expense in the long run. Tools that systematically consider all costs over the full life cycle of an infrastructure project will help reduce overall costs. Indeed, their use should be mandatory to inform the process of material selection. Ideally, such an analysis will use a detailed forecast for future costs and other crucial parameters (e.g., reasonable growth rates for average daily traffic in the case of road projects).

**Integration of non-economic factors:** The focus on initial costs also often leads to suboptimal solutions in terms of environmental and social impacts. In some cases, even safety can be compromised. Ideally, these factors should be systematically integrated in the decision-making process. For instance, a life-cycle assessment can help compare the environmental impacts of different competing solutions over the full life cycle of an infrastructure project.

**Public-Private Partnerships (PPP):** Insufficient public funding is often a major barrier to the development of necessary infrastructure. Well-structured PPP projects can help overcome this barrier. Governments should provide the necessary conditions to facilitate investments in these types of projects. There is significant potential to expand the use of this instrument for the benefit of all stakeholders.

### **Standards and Designs**

**Share successful new technologies:** If new solutions have proven their technical suitability, cost efficiency, and, often, environmental or other additional benefits, they should be disseminated as quickly as possible. CEMEX, therefore, welcomes efforts for increased international collaboration in the field of norms and standards.

**Improved pavement design:** In many countries, current pavement designs, as specified by relevant bodies, are overdesigned for their application, leading to significantly increased initial investments, but comparatively small savings in later maintenance cycles. The life-cycle cost of cement-based pavements could be significantly reduced by the application of available know-how.

## Looking Forward

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We will maintain our commitment to maximize the efficient use of natural resources and deliver products that respond to our customers' growing environmental expectations. We will continue working with governments and society to promote effective mechanisms that support sustainable infrastructure construction practices and we will maintain an open channel of communications to disclose our progress.