



Concrete moves...



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Concrete contribution to
a changing world

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EUROPEAN READY MIXED CONCRETE ORGANIZATION

THE POWERHOUSE ALLIANCE – THE ROAD TOWARDS PLUS-HOUSES

Smeplass, Sverre ⁽¹⁾ and Stene, Rune ⁽²⁾

(1) Skanska, Trondheim, (2) Powerhouse alliance, Oslo

Abstract

Powerhouse takes a particularly ambitious view of energy positive, and that makes its buildings role models. A Powerhouse building creates more energy than it uses throughout its entire life cycle through existing technologies applied in innovative ways. The energy produced by a Powerhouse building must compensate for producing the materials; for constructing and then operating the building; and finally for demolition at the end of its useful life. Energy use is closely correlated with carbon emissions, so with society concerned about our warming planet and the availability of natural resources, it's increasingly important to produce buildings that require less energy and carbon. Powerhouse is introducing new parameters for concrete and the embodied energy as MJ per m³ of concrete is one of these.

Companies and organizations need to become part of the solution for climate change. Nearly every country has signed the Paris Agreement. But climate challenges can't be solved by governments alone. Companies need to create and expand the markets to take solutions forward.

The customer behind every building needs to find the right level of green for them and their project. For most, it is not about breaking new ground. The competencies are already there. The solutions are there. The materials are there.

'Form follows function' is a traditional design expression. We have shifted that with Powerhouse, and made it 'form follows environment.' For example, with Powerhouse Brattørkaia, to be the world's northernmost energy-positive office building, the high environmental and climate ambitions will make buildings look different.

Carbon is becoming another factor to manage during design and construction. The construction industry is skilled at managing quality, cost and schedule to deliver projects. Adding carbon to the equation makes the balancing act even more difficult. If we add some materials to increase quality, we might have to add some solar panels to compensate for the carbon and energy from producing those materials.

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