

Building(s in) the Future: building material and trends in the construction sector

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Italcementi, the story, the present and the future of the concrete in Italy



For over 150 years Italcementi **is leader** in the field of **construction materials**.

Today this widespread and rooted presence across the country, and the ability to offer innovative high-quality products, are the foundation for integrated solutions and applications that meet the needs of the cement and concrete market.

From the first cement, which was ground in a water-powered mill near Bergamo, to the biodynamic cement that was a protagonist at Milan Expo 2015, the story of Italcementi intersects with the development and growth of Italy.

Innovation & Sustainability

- **Photocatalytic cement** based on the active principle **TX Active**, with its self-cleaning and depolluting properties, can contribute to improving air quality.
- **i.light transparent cement** used for the external walls of the Italian Pavilion at Expo 2010 Shanghai.
- **i.design EFFIX cement** for creativity used by designers to make furniture and design items.
- **i.idro DRAIN draining cement**, to build roads and floors that respect the natural cycle of water.
- **i.active BIODYNAMIC cement** used to build Palazzo Italia at Expo 2015 Milano.
- **i.power RIGENERA** the solution for existing building, infrastructures



KM Rosso workscapes



KM Rosso workscapes

Location

Bergamo - Italy

Client

Kilometro Rosso

Designers

Studio De Ferrari, Rizzi, Bombassei

Year
realisation

2018/2019

Application
by
Italcementi

1. **i.idro Drain**
«architectural»
pervious concrete
external pavement
2. **White cement:**
precast elements

Atalanta stadium



Atalanta stadium project sheet

Location	Bergamo - Italy
Client	Atalanta football
Designers	De8 studio
Site destination	Tertiary / sport
Objectifs of the project	- expand the capacity of the stadium - redefine the architectural style
Year realisation	2019/2021
Application by Italcementi	1. Special concrete: tiers and external pavement 2. Recycled Aggregate Concrete

V-A-C Foundation



V-A-C Foundation

Location	Moscow - Russia
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Client	privat
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Designers	RPBW
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Site destination	Cultural center
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Objectifs of the project	- recovery of old industrial site (power factory)
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Year realisation	2018/2020
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Application by Italcementi	1. Fair faced concrete grey: facades
	2. i.active Biodynamic precast elements: interior slabs, auditorium

Biblioteca degli Alberi park



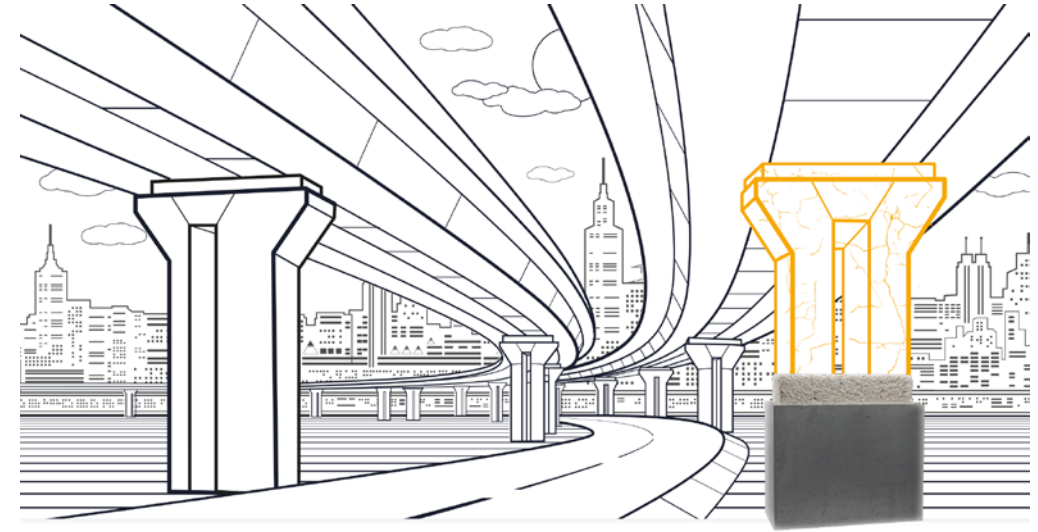
Biblioteca degli Alberi park

Location	Italy - Milan
Client	Riccardo Catella Foundation
Designers	Inside Outside. Petra Blaisse
Site destination	Porta Nuova
Objectifs of the project	- Concrete pavement for garden design
Year realisation	2017/2019
Application by Italcementi	i.idro DRAIN pervious concrete external pavement i.design MOSAICO architecture for aesthetic pavement solutions

Italcementi and the concrete of the future

i.power RIGENERA: the solution for the regeneration of bridges, viaducts and existing infrastructures

Italcementi offers a new product and the know how to **solve the problem of infrastructures durability**, increasing their life, guaranteeing the seismic adjustment and the restoration of the damaged parts.



The solution i.power RIGENERA consists in casting a **very fluid fiber-reinforced concrete** able to "wrap" the structural element and creates a few centimeters thick sort of new skin.

Italcementi and the concrete of the future

The i.power RIGENERA features:

- ❑ **LIGHT:** few centimeters thick sort of new skin.
- ❑ **VERSATILE:** no interruptions to viability during the restoration of viaducts.
- ❑ **SUSTAINABLE:** reduced maintenance costs. Low environmental impact solution.
- ❑ **DURABLE:** increase in the life span of the structure up to more than 100 years.
- ❑ **SISMO-RESISTANT:** high capacity to dissipate the seismic energy.
- ❑ **RESISTANT TO HIGH TEMPERATURE:** high mechanical characteristics even at high temperatures.



Future Challenges

- Digital solutions could contribute to sustainable growth.
- Digital tools impact directly onto all the aspects of our life enabling one new lifestyle and one new concept of urban areas transforming cities into “**smart cities**”.
- “Smart cities” include a wide range of **digital tools** and **materials** able to generate a huge amount of data for many applications.



“A smart city is a city that incorporates information and communication technologies (ICT) to enhance the quality and performance of urban services such as energy, transportation and utilities in order to reduce resource consumption, wastage and overall costs. The aim of a smart city is to enhance the quality of living for its citizens through smart technology [and materials].”

Source: www.technopedia.com

How cement & concrete will fit in the future?

Challenges in Construction

Players along the industry value chain – architects, designers, engineers, building materials suppliers, contractors and operations & maintenance companies – need to prepare strategically to **thrive amid the disruption the new technologies and trends could cause.**

**The Future
of Concrete**

**Concrete
for The Future**

Research and Innovation: investments for the future

Research and Innovation: Italcement continues to invest in the research because today more than ever **quality and innovation** are the **key drivers for the future of our Company**.

The present and future challenges of the sector require a constant upgrading of the product and Italcementi has all the characteristics to win these challenges and bring more and more innovative products onto the market.

An **excellent knowledge** of materials, of their productive process and their market means guaranteeing a **high quality product**, which is **durable, safe, sustainable, competitive in cost and of high aesthetic value**, and capable of exploiting the **new digital technologies** to the maximum.

