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**1° FORUM ITALIA-RUSSIA SULL'ALLUMINIO**  
24-25 GIUGNO 2021



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## **1° Forum Italia-Russia sull'Alluminio**

**Evento online, 24-25 giugno 2021**

**SVILUPPARE SCAMBI ALTAMENTE TECNOLOGICI, CONOSCENZE E SINERGIE DEDICATI  
ALL'ALLUMINIO TRA ITALIA E RUSSIA**

# **Il futuro dell'alluminio nel settore edile e delle costruzioni**

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# The future of aluminum in buildings

- International Energy Agencies say the construction sector is responsible for about 40 percent of global CO2 emissions through the construction, heating, cooling and demolition of existing buildings.
- By 2035, around 75 percent of all buildings will be either new or renovated.
- Most of these buildings will be assessed in national or international systems.
- These rating systems consider greenhouse gas emissions, water pollution and a range of different impacts for each material used in the building.

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# Aluminium systems can improve building ratings

Aluminium, through its properties, can contribute in structure, facades and permanently installed building elements.

Aluminium systems can improve building ratings through:

- Energy performance
- Acoustic performance
- Renewable energy production
- Thermal comfort
- Optimization of daylight
- Raw material sourcing

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## Aluminium is sustainable, flexible and strong material

- Architects are more creative when using flexible materials.
- Aluminium works well alone or with other building materials. Its combination of light weight and high strength provide design freedom. It is fully recyclable.
- Environmental Product Declarations (EPDs) also support the choice of aluminium as a material for buildings.

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## aluminium plays an important role in the façade industry

- 25% of all aluminium produced worldwide is used in construction
- Aluminium is today is used in high-rise buildings and skyscrapers:
- The light weight of Aluminium gives more space for the architect to realise his creative vision. In addition, it is simpler, faster and more convenient to work with lightweight structures.

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## Aluminium and glass facades

- Skyscrapers are Aluminium's business card in modern architecture.
- Their floor-to-floor glass walls or translucent panes represent a combination of glass and Aluminium frames.
- An all glass external area on a building makes it possible to let much more sunlight in and reduce the use of artificial lighting.

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# Aluminium and its structural applications

- The gridshell technique is largely used in contemporary modern architecture for building entertainment, exhibition, trading and other constructions.
- Light and at the same time strong, gridshell makes it possible to build not only large-area buildings, but also to give them unusual shapes.

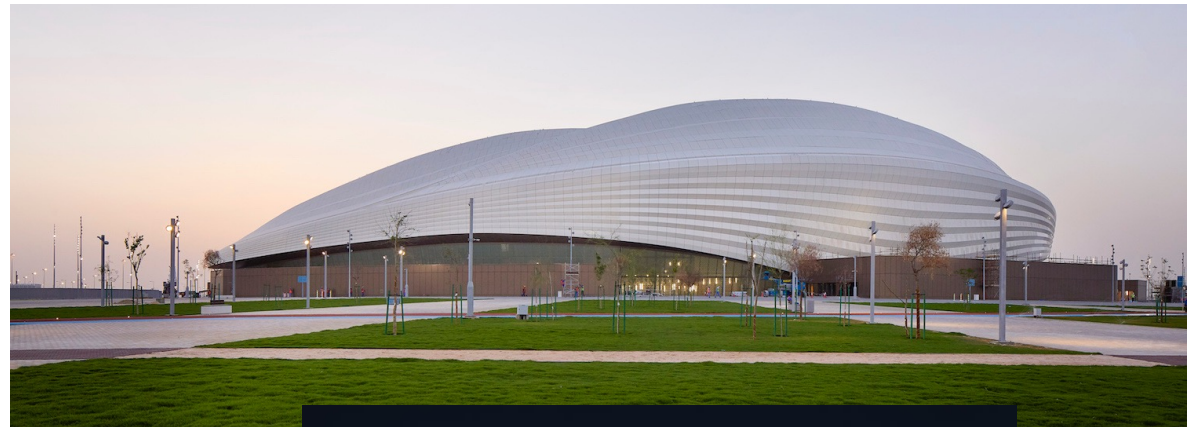




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# Aluminium and its structural applications

- Aluminium is widely used in large-scale structures with customized shapes such as stadiums, covered pools and other sports facilities.



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**Thank you**

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