

The Trentino Research System in Russia for the construction of the future

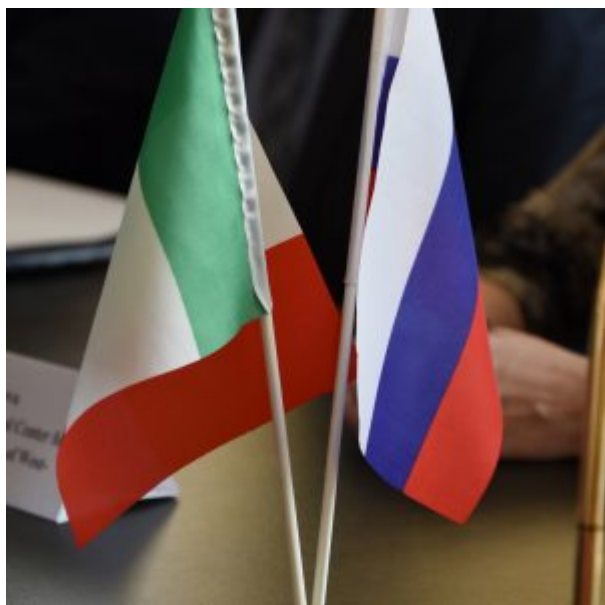
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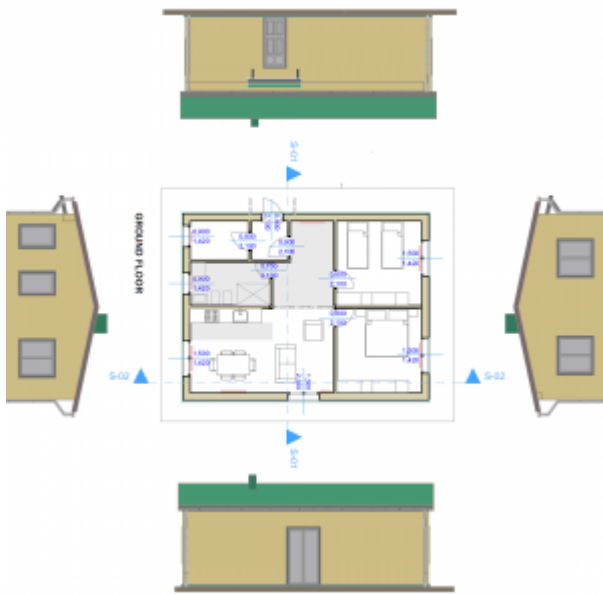
FBK is part of the IsolMAX project that will build and monitor for five years a building designed to withstand extreme weather conditions in Siberia

Testing and monitoring innovative housing solutions for extreme weather conditions to develop guidelines for the construction of the home of the future.

This is the goal of IsolMAX, a research project promoted by the Trentino Research System and supported by the Department of Economic Development, Research and Labor of the Autonomous Province of Trento, which includes **Fondazione Bruno Kessler** and the **University of Trento** as well as the **Siberian Federal University of Science and Technology of Novosibirsk** and the **Siberian State Technical University of Barnaul**, Russia.







IsolMAX is expected to build an 80 sqm laboratory-building in Barnaul, south-western Siberia, designed according to the steelMAX® construction model, a system patented by Cogi that enables “dry” construction in residential buildings, with metal supporting frames, which cut down construction time, costs and complexity compared to traditional building systems.

The building, whose construction is underway, will be equipped with a **series of sensors – developed by Fondazione Bruno Kessler – that will allow the constant monitoring of both the structure and the indoor comfort conditions**, during operation and in severe weather conditions due to strongly variable temperatures (from -40° in winter to + 37° in summer).

After the early design and materials analysis stage started in 2018 by Cogi, Fondazione Bruno Kessler and the University of Trento, the project has now entered the operational phase with the laying of the first stone in the Barnaul construction site.

The result expected by the project partners – which will end in 2023 after a phase of accurate analysis of the data collected during the observation period – is to **obtain valuable information and new knowledge to define what the design guidelines of the house of the future** with the steelMAX® construction system should be: the correct choice and installation of more efficient materials and construction elements, the best technical and design solutions to ensure high performance in energy saving, indoor comfort and durability of the building structure even in extreme weather conditions.

In addition, the knowledge acquired by Cogi technicians will bring back to the Trentino area those skills that are critical to increase the competitiveness of the local system in the construction market including that addressing climate extremes.

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AUTHORS

- Salvatore Romano