

The Irina Viner-Usmanova Rhythmic Gymnastics Center in the Luzhniki Complex, Moscow, Russia | Rendered Image | Courtesy of CPU Pride

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# Impressive Architecture and Efficient Construction: The Irina Viner-Usmanova Rhythmic Gymnastics Center in Moscow

Munich, August 19, 2020 – The <u>annual report</u> of the Nemetschek Group features an impressive architecture project: the Irina Viner-Usmanova Rhythmic Gymnastics Center in Moscow. Software solutions from GRAPHISOFT, Solibri, and Allplan were involved in planning and "shaping" this building. The sports facility seats 4,000 people and hosts competitions and training events. Its striking feature is the unique roof shape resembling the form of a gymnastic ribbon fluttering above the ground. The project was led by Creative Production Union (CPU) PRIDE, an architecture office in Moscow.

This astonishing building shows what collaboration and cooperation during the design and construction process looks like in an ideal world: dialogueoriented, open, and without software barriers. "The project demonstrates the consistent use of Open BIM in a real-life application, leveraging different software solutions from the Nemetschek Group," says Viktor Várkonyi, Chief Division Officer of the Planning & Design Division and member of the Executive Board of the Nemetschek Group.

The broad application of Building Information Modeling (BIM) is a high priority for CPU PRIDE. Undertaking the complex planning activities for this project required a comprehensive BIM solution. It served as the main tool for coordinating the work of the architects and the specialist engineers. For the design, they worked with the BIM planning software **Archicad from GRAPHISOFT**, which also served as an important collaboration tool. "We were able to develop the first 3D model in less than a month," explains Elena Myznikova, chief architect at CPU PRIDE.

To locate errors, **Solibri Office** was used to perform collision detection analysis within the information models. "BIM helps prevent human errors. The first model we received from the engineers during the design development phase contained 1,800 collisions. And this, by the way, is not that many. Using 2D drawings, it would be simply impossible to detect all of these conflicts," said Vitaliy Krestianchik, chief architect at CPU PRIDE.

As part of the project, a reinforced concrete structural model was created with **Allplan**.

The Center for Rhythmic Gymnastics was managed in a single BIM model. CPU PRIDE consistently relied on Open BIM: the data exchange with internal and external parties took place via IFC. It enabled all the project participants to interact, regardless of the software used. Despite the large number of programs used during the project, the Open BIM workflow made it possible to work consistently, to detect planning errors in advance of the construction phase, and to increase the quality of the documentation.

More details about the project can be found at <u>Irina Viner-Usmanova</u> <u>Rhythmic Gymnastics Center</u>.

### About CPU PRIDE

<u>CPU PRIDE</u>, founded in 2013, is a fast-growing office that provides a full range of services, from concept planning and assessment of urban potential to the development of design and construction documentation all the way through to building permitting. The team of 80 employees has already worked on significant projects such as the Luzhniki Olympic complex, Irina Viner-Usmanova Rhythmic Gymnastics Center, and the Seliger City residential complex.

#### About the Nemetschek Group

The Nemetschek Group is a pioneer for the digital transformation in the AEC industry. With its software solutions, it covers the complete life cycle of building and infrastructure projects and guides its customers into the future of digitalization. As one of the world's leading corporate groups in this field, the Nemetschek Group increases quality in the construction process and improves the digital workflow of all those involved in the construction process. This revolves around the use of open standards (Open BIM). The innovative solutions of the 16 brands in the four customer-oriented divisions are used by approximately six million users worldwide. Founded by Prof. Georg Nemetschek in 1963, the Nemetschek Group today employs more than 3,000 experts.

Publicly listed since 1999 and quoted on the MDAX and TecDAX, the company achieved revenue in the amount of EUR 556.9 million and an EBITDA of EUR 165.7 million in 2019.

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