#### NEMETSCHEK GROUP

# COMPETENCES 2022 SHAPE THE WORLD IN ALL DIMENSIONS



## SHAPE THE WORLD IN ALL DIMENSIONS

## Our vision is to shape the world in all its dimensions.

This involves our 13 brands developing digital solutions in four customer-oriented segments across the entire building lifecycle and the media industry. Our portfolio enables all players to design, construct and operate buildings and shape creative worlds.

## SHAPE THE WORLD WITH DIGITAL TWINS

The complexity of buildings and infrastructure is ever increasing and the individual requirements of the parties involved are multiplying. The data-driven approach of Building Lifecycle Intelligence and the use of digital twins make possible better planning, greater sustainability, a reduction in costs and, above all, better decisions - throughout the entire lifecycle.

Digital twins support processes in every phase of a property, from planning to construction to operation. In combination with the Nemetschek Group's Building Lifecycle Intelligence approach based on open standards, all players in the construction industry, can manage building data as an unbroken chain of interconnected information across the entire lifecycle of buildings, thus increasing efficiency and sustainability. The focus is on connectivity and collaboration instead of silo thinking.

As early as the planning stage, better decisions can be made with a digital twin, as all stakeholders have access to all current data. In the construction phase, the current status can be continuously compared with the planned design. Errors and reversals are avoided. In the operational phase, digital twins ensure significantly greater efficiency and the optimization of energy consumption. In addition, structures can be redesigned more easily because all data is available centrally. The Nemetschek Group is significantly driving this technological progress. Together with all those involved in the building process, we are shaping the world – in all its dimensions.





## SHAPE THE ENTERTAINMENT WORLD

Digitalization is at the heart of the media and entertainment industry. Consumer behavior has changed drastically in recent years. Internet video, streaming models, video games, e-sports and virtual reality have become commonplace. Artists and creatives also draw upon the potential of digital solutions to realize their ideas and visions.

The result – amazing visual effects for feature films, TV shows and commercials, as well as video games. But also the fields of medical illustration, architecture and industrial design benefit from visualizations and three-dimensional animations.

Digital solutions for creatives and artists play a crucial role in the emergence of the Metaverse too. The Metaverse represents an advancement of the Internet, consisting of lasting, shared, virtual 3D spaces. These spaces form a perceptible, in other words visible, virtual universe – a complementary world alongside reality, ideally based on common standards and interoperability. This can help break down barriers to create a seamless transition between different virtual applications and from the real world to virtual reality. The Metaverse Standards Forum brings companies and organizations together to accelerate the development and rollout of these Metaverse interoperability standards. The Nemetschek Group – represented by its Maxon brand, as a leading developer of professional 3D software solutions – is a founding member of the Metaverse Standards Forum. Together with creatives and artists, we shape the world in all its dimensions.



Our mission is to be the preferred and most trusted software provider and partner for the AEC/O and 3D animation industries.

We enable everyone involved in the building process, including architects, designers, engineers, construction managers, project owners, general contractors, and construction companies, as well as building owners, general managers, facility managers, and creatives, to shape the world. Our solutions enable them to make their ideas and visions reality: future-oriented, sustainable and safe cities, with top-quality buildings and infrastructure, like bridges, roads and tunnels, that improve people's quality of life in the long term.

#### The Segments and Brands of the Nemetschek Group

#### PLANNING + DESIGN ----- BUI

Precise, innovative, a en planning and design v

ALLPLAN C GRAPHISOFT

**SOLIBRI** 

**W** | VECTORWORKS

NEMETSCHEK ENGINEERING

607

BUILD + CONSTRUCT

Collaborative, efficient, and ustainable construction processes

MINEVARIS

Tubid -

DIGITAL TWIN Business Un

dRofu

MANAGE + OPERATE

building management

CREMSOLUTIONS

SPACEWELL

#### MEDIA + ENTERTAINMENT

## Shape architecture & engineering

With the software solutions in the "Planning & Design" segment, architects and engineers can model, design and calculate more efficiently and precisely.





#### THE PROJCET Bern 131 Bern, Switzerland

**Located in** the center of a highway junction, the office building BERN 131 is shaped like an arched triangle with a partially covered roof terrace that invites visitors to enjoy the view of Bern and the Alps. The building is designed to produce more energy than it consumes through sustainable solutions such as timber construction and heating, ventilation, and air conditioning concepts.



#### PRODUCT:

Vectorworks Architect

**WEBSITE:** www.vectorworks.net

#### SOLIBRI

**PRODUCTS:** Solibri Office, Solibri Site, Solibri Anywhere

**WEBSITE:** www.solibri.com

THE PROJCET Puskás Aréna Budapest, Hungary

An iconic building of Budapest was reborn with the geometric center of the Puskás Aréna exactly matching that of the old People's Stadium. The demolished concrete structures were crushed and reused in a resource-saving way to be later used as the foundations and walls of the new stadium.





**PRODUCTS:** Allplan Bridge, Allplan Engineering

**WEBSITE:** www.allplan.com

THE PROJCET Mantes-la-Jolie Viaduct Paris, France

**The viaduct** was engineering office COGECI's first largescale use of Allplan Bridge and Allplan Engineering, and it was a thorough success. The added value of the 3D visualizations provided much better insight than 2D drawings, thus enabling an optimal approach to coordinating with other disciplines.





#### **GRAPHISOFT**

PRODUCTS: Archicad, Bimx

**WEBSITE:** www.graphisoft.com

#### THE PROJCET Inteli Educational Complex São Paulo, Brazil

**This university building** in São Paulo was designed by Pitá, a leading interior design firm in Brazil. The project comprises a 105,486 sq ft complex, with 3 buildings and a large outdoor area. The use of different visualization techniques and Graphisoft BIMx helped them deliver customer value by precisely communicating their design intent in the early design phases.

#### THE PROJCET Orange County Museum of Art Newport Beach, USA

**The Orange** County Museum of Art's new home is a 53,000 sq ft building featuring exhibition galleries, educational programing, and areas for public gathering. It is an integral part of the larger campus of the Segerstrom Center for the Arts. Surrounding a large, multi-story glass atrium, it consists of a concrete and steel structure that is exposed in some parts of the building for visual effects.



PRODUCT: RISA-3D

**WEBSITE:** www.risa.com





THE PROJCET Headquarters Tojo Schorndorf, Germany

**Tojo Möbel** is responding to its growth with the construction of a warehouse that also includes a show room and offices. The engineers from SCHATZ projectplan GmbH, who were responsible for the architecture, technical building equipment and structural design of the building, carried out all static calculations using FRILO software.



**PRODUCTS:** More than 140 analysis programs (including GEO Building Model)

**WEBSITE:** www.frilo.eu

THE PROJCET EUROVEA || Bratislava, Slovakia

**The Eurovea** project comprises not only one building but a whole city quarter with shopping, housing, offices, and other facilities. Several floors of the shopping mall connected to the previous stage form the backbone of the project. An exeptional part of the design process was handling the demand that the roof should be assembled without any permanent scaffolding.



PRODUCT: SCIA Engineer

**WEBSITE:** www.scia.net





## Shape construction

The digital solutions from the "Build & Construct" segment ensure a perfectly coordinated workflow on the building site.



THE PROJCET Black Forest Medical Group Freiburg, Germany

**The Futuristic** world of neurosurgery: Organic architecture, interdisciplinary work islands in the office area and a production area oriented towards Lean – the new building planned and executed by the general planner Vollack Group using BIM optimally reflects the spirit of the client from the medical technology sector.

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**PRODUCTS:** NEVARIS Build, NEVARIS Finance

WEBSITE: www.nevaris.com





**PRODUCT:** dRofus

**WEBSITE:** www.drofus.com

**THE PROJCET** Baptist Health Jacksonville, USA

**Baptist Health** consists of five hospitals with 1,190 beds in multiple locations and medical centers. This required a solution for sharing documentation across the design and construction teams, which was found in dRofus' room templates.



PRODUCT: Revu

**WEBSITE:** www.bluebeam.com

THE PROJCET Bus Station Merthyr Tydfil, Great Britain

**Social value** and sustainability are the focus of this iconic 14-bay bus station. The first piece of the puzzle in a strategic master plan for the city center, it won three national awards in 2021. Thanks to Bluebeam, the quantity and cost-estimating processes were accelerated by at least 80%.



## Shape operation of buildings

Today, buildings are managed efficiently and in a resource-saving way with software solutions from-the "Operate & Manage" segment.









#### THE PROJCET

Headquarters booking.com Amsterdam, the Netherlands

**booking.com** is one of the largest online travel agencies. It is currently implementing Spacewell Workplace Management software (IWMS) at its new campus in Amsterdam. This is a first project, part of a phased approach to subsequently activating the software at other locations as well and running their buildings in a resource-saving way.



**PRODUCT:** Integrated Workplace Management System (IWMS)

WEBSITE: www.spacewell.com

#### **THE PROJCET** KÖ-Bogen II Dusseldorf, Germany

At the entrance to one of the most popular shopping streets, the B&L Group, as the administrator, has built a spectacular property with green terraces and roof areas. For its combination of ecology, economy, innovation and sustainability, the building was awarded the highest possible DGNB Platinum certification.

#### CREMSOLUTIONS

#### PRODUCT:

iX-Haus

**WEBSITE:** www.crem-solutions.de



## Shape virtual reality

Virtual reality is only one of the countless possibilities in which the software from the "Media & Entertainment" segment can be used.





THE PROJCET Moon Village Space

**The design** of a scientific and commercial settlement that could one day allow humans to live permanently on the moon. It was developed in collaboration with the European Space Agency and MIT.



**PRODUCT:** Maxon ONE

WEBSITE: www.maxon.net

#### **PICTURE CREDITS**

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