ALUBOOK

DESIGNING TOMORROW

LOOK AFTER THE ENVIRONMENT
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ALUBOOK
ALBUM OF TRENDS
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ALUPROF SA

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Dear Reader,

Tomasz Grela
CEO and President of the Board, ALUPROF SA

It is with great pleasure that I present the fourth edition of the AluBook album of trends, a unique publication from ALUPROF. As with the previous editions, our focus remains on topics connected with the construction industry of the future.

The sector is currently undergoing significant transformation to reduce its environmental impact, facing challenges such as climate change adaptation, reduction of CO_2 emissions, the renovation and circular economy trends, adapting to new technologies, innovation, and changing habits, all bring us closer to achieving climate neutrality by 2050.

Despite the challenges confronting the entire industry today, we aim to blaze a trail, promote available market solutions and educate the sector. This commitment is evident in our ongoing dialogue with our partners, our tailored product range meeting the demands of the market and our investment in enhancing the environmental performance of our products. One effective way of decreasing climate impact is by reducing the consumption of primary raw materials, embracing closed product lifecycles and prioritising recycling to build a circular economy.

ALUPROF low-emission aluminium profiles exemplify our response to this challenge, with a production process grounded in recycling, resulting in a CO_2 value of 3.3eCO_2, compared to the European average of 6.7eCO_2.

This latest edition of AluBook showcases elements of ALUPROF's international campaign, 'Control the Climate, Control the Costs,' which highlights the principles of sustainable construction and environmental stewardship. As part of our commitment to these values, we have partnered with renowned football referee Szymon Marciniak to further amplify our message.

Our dedication to the future of the construction industry is encapsulated in our tagline, 'Let's Build a Better Future' prompting us toseek answers to key questions about the sector's development direction. Through our Future Builders platform, we facilitate debates involving architects, global construction industry experts, and authorities in urban planning, sociology of space, and building certification. This year marks the prestigious 5th 'Building of the Year created with Aluprof systems' competition, which will also provide an opportunity to continue our conversation about the future. An integral part of our Future Builders project, it recognises the most interesting buildings featuring our systems. In this edition of AluBook, we present the winners of the fourth edition.

In line with current trends, including the development of digital technology, and out of our ongoing concern for the environment, we are publishing this edition of AluBook as an e-book.

I invite you to immerse yourself in this latest edition of our AluBook. An Album of Trends. I trust it will captivate your interest and provide ample food for thought and inspiration.

Warm wishes,

Tomasz Grela
CEO and President of the Board, ALUPROF SA

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THE FUTURE

CHANGES ARE COMING. ARE WE READY FOR THEM?

Are we capable of meeting the challenges brought by the future of the sector?

/ THE FUTURE OF THE CONSTRUCTION INDUSTRY

IS THE IMPERATIVE OF RESPONDING TO THE CHALLENGES OF THE CONTEMPORARY WORLD

According to *Emerging Trends in Real Estate 2022*, a report compiled by PwC, the construction industry is responsible for around 40% of the world's energy consumption and carbon dioxide emissions. Since buildings play a pivotal role in combating climate change, the future of the sector would seem to be inextricably linked to ecology and providing maximum user comfort. It is thus concern for the state of the natural environment and its preservation in the best possible condition for future generations which should dictate new directions for development in the sector. In order to meet these challenges, the construction industry has to start adapting to the demands being made of it. It needs to evolve and introduce innovations which will make it possible to minimise the negative effects of phenomena such as expanding urbanisation and the ensuing increase in population density and housing shortages. Are we ready for these changes? Are we capable of meeting the challenges brought by the future of the sector?

With the environment and people in mind

Contemporary architecture is not merely the art of designing buildings. First and foremost, it is a response to emerging civilisational challenges and the shifting needs of society. Everything we design and build has a direct impact on the climate and the condition of the natural environment, both now and in the future. In this era of intensifying climate change, ecology has thus become a crucial factor in the development of the construction industry. Pursuing this line of thought, the future should belong to energy-efficient, autonomous buildings which are both environmentally and people-friendly. This is vital inasmuch as most of us spend around ninety 90% of our time indoors.

/ What will they look like, these buildings combining ecological qualities and concern for the comfort of residents and users? How will they function?

Meeting the following requirements would appear to be vital.

Increasing the energy efficiency of buildings

The focus here is first and foremost on using monitoring and smart energy management systems which make it possible to minimise consumption without detriment to the residents' or users' comfort. Another point of no small significance is the use of suitable windows and doors which provide high thermal performance and guarantee not only the ingress of natural light, but also the reduction of heat loss and energy requirements while increasing the energy quality and profitability of a development.

Maximising the use of natural resources and sources

Using photovoltaic panels on the roofs of buildings makes it possible to obtain clean energy, which a smart control system will direct to where it is most needed.

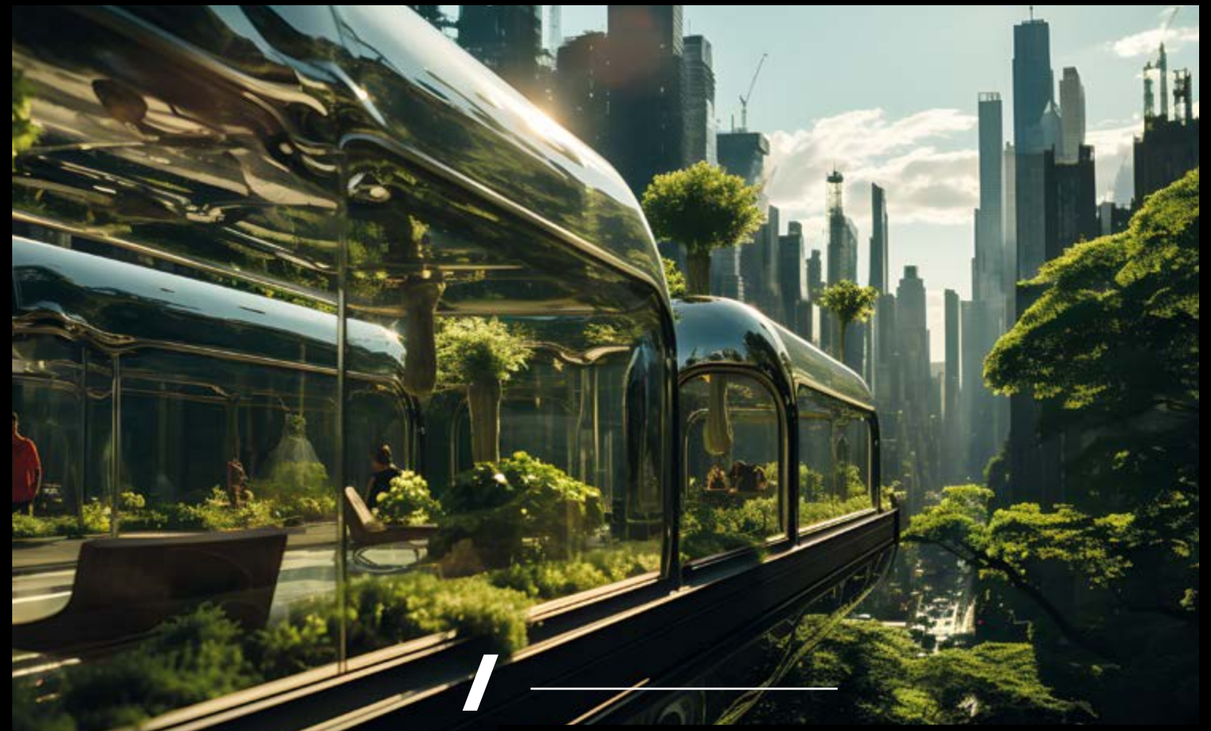
Moving on, the water autonomy of buildings will be boosted by solutions such as rain gardens, which support water retention, neighbourhood treatment plants and grey water recovery systems. Grey water can be used to flush toilets, water greenery and wash cars.

Increasing the number of green spaces to provide a closer connection with nature

Modern design thinking should take into account not only maximising the extent of the landscaping between buildings, but also creating roof gardens. Refraining from mowing lawns sets up favourable conditions for beneficial pollinators and helps to lower the temperature during heatwaves, as does replacing lawns with meadows. Planting air-purifying plants will enhance aesthetics and air quality alike.

In addition to the condition of the natural environment and efforts to curb climate change, the future of the sector is also bound up with the dynamic development of new technologies. Although the use of artificial intelligence in architecture is still at a relatively early stage, it is certainly safe to assume that it will have an enormous impact on the evolution of the sector. In fact, it would be difficult to overestimate the positive sides of this groundbreaking technology.

AI THE DEVELOPMENT OF TECHNOLOGY IS THE DEVELOPMENT OF THE CONSTRUCTION INDUSTRY



Michał Marcinowski
Director of Architectural Systems Development

With its capability for rapidly processing and analysing huge quantities of data, artificial intelligence is able to streamline the process of designing a building and speed it up considerably. Even so, it's unlikely to have the ability to match the creativity of architects and designers in the near future. We have to remember this; it's a solution which is constantly being improved and, at the moment, it's based on analysing existing data. That, in turn, might give rise to accusations that the designs it generates lack originality and even that they involve infringements of copyright. There is also a question as to what extent artificial intelligence will be able to take the sociocultural context of a given place into consideration and to meet environmental requirements and developers' needs.

/ ALUPROF. AN INDUSTRY TRAILBLAZER

Given that the future of the construction sector is irrevocably linked to environmental concerns, the entire industry is facing the challenge of providing solutions which will mean that even the boldest, ecologically sound designs can be turned into reality.

Construction materials play a major role in this process. In order to meet developers' requirements, the products should stand out in terms of their low-carbon manufacture, their potential for recycling and their ecological neutrality. At the forefront of materials which fit that bill is aluminium. It offers architects unique opportunities as regards not only the properties of the material itself, but also the versatility of the ways it can be used.

Find out more about our commitment to environmental protection

Tomasz Grela
Chief Executive Officer, ALUPROF SA

We offer products that are largely manufactured using recycled aluminium materials. That puts us right on trend as far as sustainable building is concerned. Aluminium is a material that can be recycled almost indefinitely and recycling it saves up to 95% of the energy needed to produce primary aluminium. Compared with producing primary aluminium, recycling also means 95% less air pollution and 97% less water pollution.
In addition, aluminium doesn't only make it possible to bring architects' most creative visions to life. It also helps us to achieve sustainability goals. Aluminium systems are lightweight, durable and corrosion-resistant. Thanks to that, they'll go on functioning for many years, which eliminates the need for maintenance and replacement.
And that makes buildings greener!

BE A PART OF FUTURE BUILDERS

FUTURE BUILDERS

future-builders.com

/ BUILDING A BETTER FUTURE

AS PART OF ITS **FUTURE BUILDERS** INITIATIVE, ALUPROF IS CREATING A SPACE FOR DEBATE ON THE TITULAR TOPIC

What should the future of the construction industry be? What should distinguish exemplary buildings and neighbourhoods, not to mention entire towns and cities? What should they feature in order to be not only functional and ecological, but also providers of comfort to their residents?

To obtain answers to questions like these, ALUPROF established a space for shared conversations where construction industry representatives, architects and urban planners come together with sociologists and other experts to exchange thoughts and experience. AluBook is delighted to present ALUPROF's Future Builders, an international initiative.

FUTURE BUILDERS

NEW EUROPEAN BAUHAUS

FUTURE BUILDERS is a platform for discussion on current trends and how to improve them or what to replace them with in order to create responsible building of the highest quality. The conversation encompasses ecological solutions and the materials of the future, on the one hand, and design, on the other. Design is also a focus for New European Bauhaus, an interdisciplinary project set up by the European Commission to support drives such as the transformation of the construction industry with a view to improving quality of life and negotiating the turn towards a circular economy. Indeed, New European Bauhaus was one of the topics during the most recent Future Builders event. What is it and what will it look like in practice?

It isn't making itself manifest in the construction industry alone. These are the three pillars: buildings that are increasingly energy-efficient and have a social function; every product innovation, all of which have to help connect new, sustainable solutions to our lives; and the dissemination of knowledge about sustainable development and the concept of circular economy.

Alicja Kuczera
Managing Director, PLGBC

Jacek Ewý
architect, Ingarden & Ewý Architekci

It imposes a particular way of thinking about the future and sustainable development. Every product... and a building is also a product... every product should have a life cycle and be built using materials that can be reused.

future-builders.com

FUTURE BUILDERS

TRANSFORMING CITIES

FUTURE BUILDERS

Another topic of debate among the participants in the most recent Future Builders event was transforming cities and towns for the twenty-first century.

Agnieszka Kalinowska-Sołtys
President of the SARP Management Board architect, APA Wojciechowski

Transforming cities isn't a process that takes just a year or two. It's a matter of several decades. We have to begin with urban planners who are on the ball and with educating the public. In Poland, we can be proud of beautiful buildings (...) with a reduced carbon footprint; most of them hold certificates and were designed with lowering the carbon footprint in mind. That's the first step towards the transformation. The public sector should be taking its cue from the private and learning how to design these kinds of energy-efficient buildings that are healthier for people.

Proof of how vital it is to hold discussions like those that took place during ALUPROF's Future Builders conference can be found in the enormous interest generated by previous editions of the event. The conference was successfully launched in 2021, when it took the form of online gatherings and discussions. The following year, it was held in hybrid form and confirmed that the warmth of the reception enjoyed by the first edition was no accident.

Bogdan Zaha
architect and associate
Zaha Hadid Architects

Thanks to debates like Future Builders, we have an opportunity not so much to explore contemporary problems and challenges... I think we're all well aware of them... as to share ideas for solutions, work together to seek for answers to troubling questions and inspire one another.

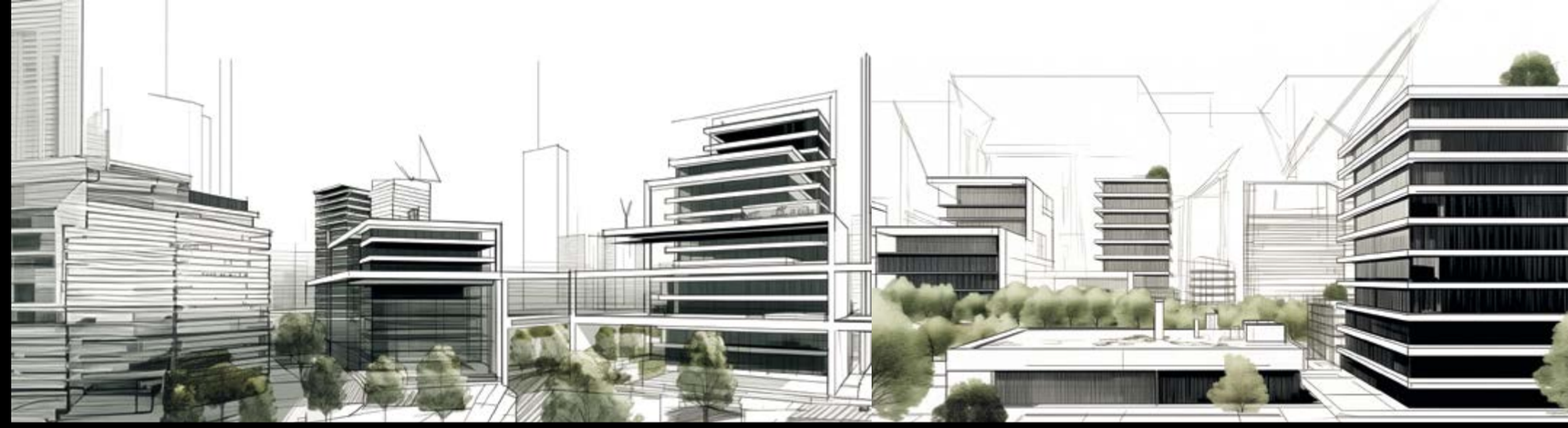
future-builders.com

The discussions held on-site at the event featured nationally and internationally recognised experts, including **Álvaro Leite Siza Vieira**, **Przemo Łukasik**, **Robert Konieczny**, **Zbigniew Maćków**, **João Rodrigues** and **Neil Pennell**. They were watched by more than five hundred representatives of the architectural and construction industries present at the conference and the event was also broadcast live. The insights presented by the experts became the subject of analyses during subsequent gatherings and projects. This, too, demonstrates the value of the Future Builders initiative and serves as evidence of how crucial it is both to continue with it and to implement the lessons learned from it.

interviews with the panellists

/ CITIES OF THE FUTURE

AS THE EXPERTS SEE THEM



/ AluBOOK: Nowadays, the fact that we should be building ecologically and leaving the minimum possible negative footprint on the planet is obvious. However, in addition to working for the good of the climate, are there other aspects that ought to be taken into account when designing the cities of the future?

Neil Pennell: I think we have to think of cities as the main driving force of how we're going to live in the future. We know that half the world's population already lives in urbanised areas. And it's going to be two-thirds by 2050. Cities are responsible for around 70% of the global gross domestic product and they're the primary forces driving prosperity, which is why we have to extend their lifetime and, with an eye to the future, 'reutilise' them. When we create new buildings, let's do it sustainably. We have to meet the needs of the ever-growing populations who will be living in the cities of the future, but what we have at the moment is something of a 'use it and lose it' approach. What I'm thinking of here is the way we use resources. Ellen MacArthur has talked about the circular economy model and, bearing in mind the fight for increasingly scarce resources, we have to think in those categories. There's a massive responsibility resting on us as a sector; the responsibility for creating buildings, maintaining them in good condition, being flexible about their use in the future and ensuring that we maximise the utilisation of the resources we have.

Neil Pennell
architect, Head of Design, Innovation and Property Solutions, Landsec

As we build, we can't be indifferent to the question of reducing facilities in the future, either. I remember one of the projects I did; it was conceived so that it was easy to erect and, if necessary, it could also be demolished later. If a building is thought through in that way from the outset, then dismantling it in the future will be easier and the materials can be reused time and again. And that makes it possible to reduce the carbon footprint.

/ AluBOOK: Will the city of the future be mainly a city for business, for working people? Or will it also be family friendly? Will families feel they fit in there?

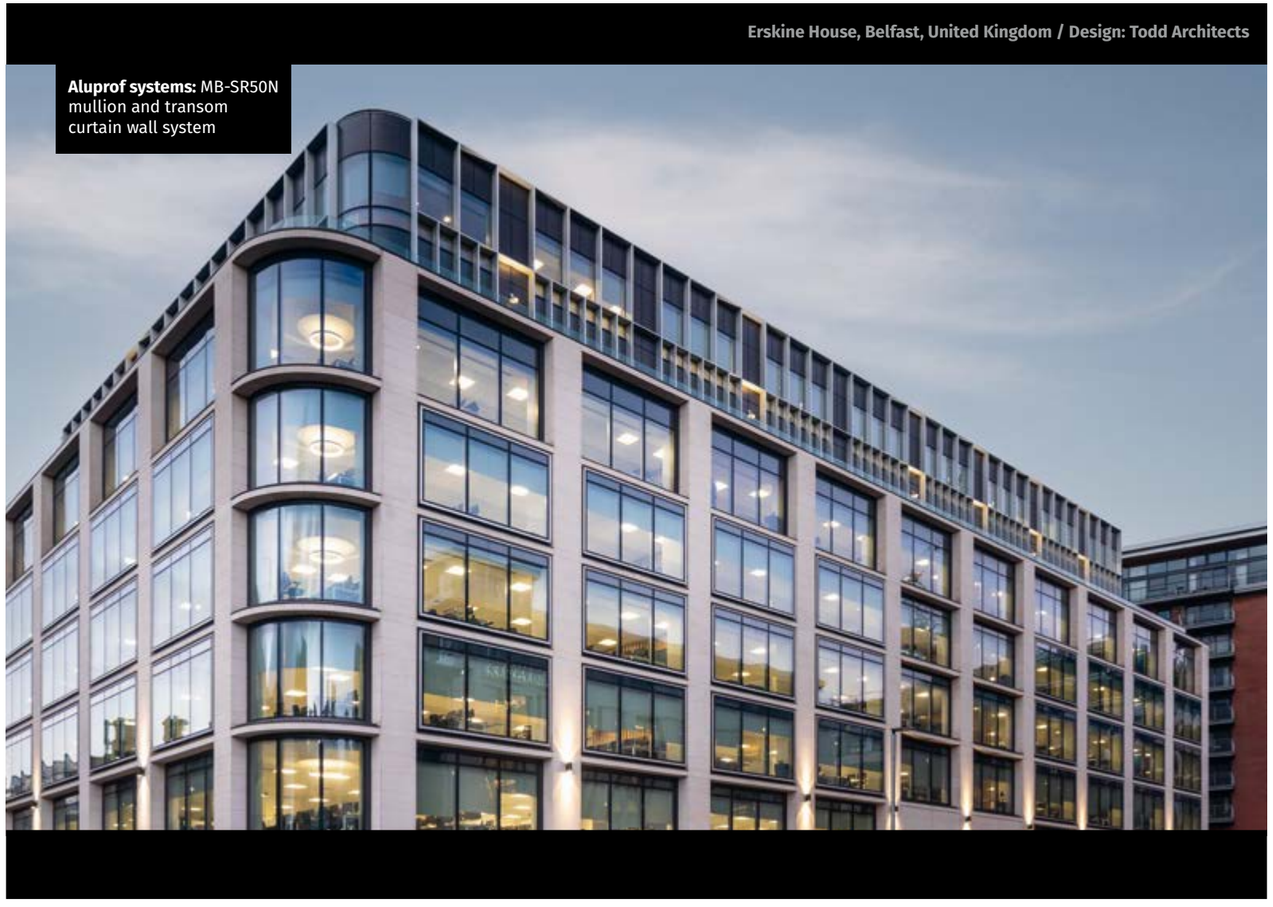
João Rodrigues: Families are a vital part of the ecosystem we call 'the city'. If you live there and you can't afford entertainment, then you're not able to enjoy life to the full. If we need an ecosystem for life, then a city has to be a place for work and for play. Maintaining the right balance between urban development and the needs of the individual is very important here. We have to take up the gauntlet and answer the question as to what we're doing wrong, because that's the springboard to moving on. In my design office, the first question on a new project is what expectations are directed towards it. What's the problem that has to be solved? If traffic jams are an issue, then you have to find a way of solving them. If you don't like the fact that there are dangerous areas, no-go areas, then solve it. If you like green areas, then it's time you created them. Warsaw's a good example. I've had the opportunity of visiting it. Despite its tragic history, the last eighty years have seen some wonderful work. It's a beautiful city. It's proved possible to preserve the old and open up to the new in the right way. It could serve as an inspiration for every city in Africa, Asia, Northern Europe, Southern Europe and the Americas. Everything has its own heritage, its own values. We just have to seek out the bits that don't fit. It isn't easy to answer your question about the needs of families. The family is the fundamental social cell. If you live in an ecosystem, you need a family, just like you need a job. We spend eight or nine hours at work, inside a building. We either need to get outside more, or we need to give buildings a different form, because a building isn't a container. I mean, it can hold living space. To answer your question, the family has to be situated in an ecosystem known as a 'city-place'.

João Rodrigues
architect, JRCP Arquitectos

/ AluBOOK: **How about the technology used in designing cities? Taking the automotive industry or, to be more precise, the electric and autonomous vehicles market as an example, we can see that we're allowing technology to steer our lives to an ever-increasing extent. Is the same thing going to happen with cities? Are they going to evolve into creations that will be making technology-based decisions about what we're allowed to do and what we aren't? About how we get around, where we go and what times we should go there? Is that a realistic scenario, or just a pessimistic vision?**

Robert Schmitz
architect and partner,
White Arkitekter

Robert Schmitz: I think that the cities of the future have to be environmentally friendly and flexible in their own way. We need to start adapting to climate change here and now. It's great that we're producing vehicles driven by electricity, but we also have to change the way we commute. Not everyone has to have a car. It's a good thing that we have artificial intelligence along for the ride and that, as humans, we can make the most of it as a tool for increasing efficiency and our engagement with society's needs. Artificial intelligence is a step in the right direction. That's the road we need to take in order to change our way of thinking about how we're going to develop on this planet. If we don't do that,then it won't be long before we don't even have a planet.



Erskine House, Belfast, United Kingdom / Design: Todd Architects

Aluprof systems: MB-SR50N mullion and transom curtain wall system

/ AluBOOK: **There's a word that's been making quite a name for itself recently... and that word is 'inclusive'. It's also being said that the city of the future should be inclusive. How should we understand that? What does it mean for a city of the future to be inclusive?**

Bogdan Zaha
architect and associate
Zaha Hadid Architects

Bogdan Zaha: I think it's really fairly straightforward. Inclusive, as in for anyone and everyone. For everyone. With no discrimination. Which is more of an issue in some parts of the world than it is in others. That's the reason we bear the responsibility of presenting our clients with a very particular kind of challenge and it's something we should always do, in all our projects, whenever the opportunity arises. We work all over the world, we have so very many projects for so very many people and we're frequently judged by them. We're also very often judged for the clients we work for, because even though we can choose them, that's not true all of the time, but it's always our duty to give of our best. I strongly believe that we have a power, that we can have an effect on changing at least a small fraction of their thinking. And that can be 'paid forward' and be echoed in the thinking of other people. The discussion on the future city is an extensive one and it could probably go on more or less for ever. There's no one, single solution. But what I've personally learnt from working in a global company is that, with every project, you have to look at what's specific to that particular place and whether it's actually important. If the designer's ethos and ambition is strongly individual in nature, then it can still be brought into use while simultaneously reflecting the local questions present in a given community. In most cases, architects' tools are really quite global, they're pretty much universal. Someone might have more background in some of the local aspects than someone else does, but we can always educate ourselves, can't we? We even have a duty to educate ourselves in terms of the given design requirements.

THE CITIES OF THE FUTURE

/ AluBOOK: What examples from your own countries or professional practice can you point to as exemplary as far as designing the cities of the future is concerned?

Bogdan Zaha: One of the projects in London that I consider to be something of a success and that we were part of as a design studio was Walkable London. In brief, the project was concerned with how to reduce the number of vehicles in central London and make it more pedestrian friendly. With the outbreak of the pandemic, some of our ideas were brought to life with quite good effect, even though you'll certainly be able to find a taxi driver who's angry because they can't take a familiar shortcut. Anyway, a sizeable number of London streets, in the boroughs of Hackney and Islington, for instance, were successfully closed to vehicles and handed back to pedestrians, reducing traffic and returning the areas to their communities. And don't all of us have towns and cities with historical infrastructure that we somehow have to take back, transform and pass over to their communities? It's very important that we make spaces like that welcoming to people. I'm thoroughly convinced that the city of the future is a city that's vibrant and pulsing with life. It's a place where communities can have a sense of belonging, a place that excites people, a place where you want to be and where you want to make your own contribution. Our responsibility is to design spaces like that. And to transform these places into captivating community spaces that can be used by one and all.

Robert Schmitz: We carry out all sorts of projects all over the world. Among them is one where we're moving an entire city or, in fact, creating a new one. It's for the residents of Kiruna, a mining community in northernmost Sweden. We're having lengthy conversations with the people of Kiruna because we want to create a city from scratch. We're finding out what the residents expect from it, how they want to live in it and how they want to interact with it. When we hold dialogues with people, we have to put it in context, of course. The power of this kind of activity is that people's involvement really does mark out our future path. It's their lives. They're the ones who are going to be living in the city. They're the ones who'll be moving around it. I think that the flexibility factor is a strong argument, as well. Architects can also take the impact of the climate into account during discussions, so that we understand that we can't simply build a pavement, that we can't have black façades and roofs, that we have to have more greenery in our towns and cities so as to create better microclimates. There's a multitude of things that we have to give consideration to in order to adapt to the oncoming climate changes.

/ AluBOOK: To finish with, what role do contemporary cities play and what direction should designers be heading in when they create the cities of the future?

Neil Pennell: I think that, at the end of the day, we're all human and people like coming together. The role of the city is to make it easy to do that, to make it possible. When we think of the world's major cities and amazing places, we think of St. Mark's Square in Venice, Trafalgar Square in London and Times Square in New York or of the great city parks. Places that are landmarks, that are important to the city. Buildings themselves play a crucial role, too. Winston Churchill said that "We shape our buildings and afterwards our buildings shape us"; they have an influence on how we behave. Somehow, we need to understand this, but sometimes asking questions is dangerous and sometimes the answers we receive are ambiguous. As we've seen more recently, we have to interpret this, to think wisely. People have to come up with apposite answers as to how to create the spaces we're going to be needing in the future. And we have plenty of tools for doing that. We know that, if we establish good public transport links, cities where it's easy to get around, then we can create wonderful places that people can make the most of. We shouldn't neglect nature. We should have parks and green spaces and we have to connect them all together. At the same time, cities and towns have to be safe. Civil management and control are necessary. The public and private sectors have to work together. Urban planners play a truly essential role in endeavouring to forge all this into a plan which gives architects, designers, clients and developers the opportunity of creating solutions that meet the requisite needs. And that's a highly complex infrastructure. But cities have somehow managed to succeed.

Now they have to face up to new challenges and there are some good signals as far as that's concerned. I'm thinking of the C40 Cities initiative, which is a global network of mayors working to share ideas and ways of thinking. Nonetheless, we have to look at solutions that are suitable for a specific environment, because a solution for a tropical environment will differ from one for a northerly climate. It's necessary to understand the context of the place we're in, but because people's needs are fundamentally the same all over the world, architects play a vital role. They have to take up the challenges and turn them into something tangible. The clients are also crucial, because they often provide the investment that makes particular projects possible, while we have to balance physical, natural and social requirements in the solutions we create. Warsaw as it was eighty years ago and as it is now is a splendid example. It's a fantastic achievement to have reconstructed the historical buildings and created a new, vibrant area that corresponds to contemporary needs. That's the direction we have to continue in our work. An additional challenge is the awareness that we have to operate within the frame of the resources we have available to us. We only have the one planet. We only have the one set of resources and we have to connect all these aspects. We have to solve our energy problems using the tools that are available. It's challenging, but it's also the greatest of opportunities and a fantastic time to be involved in striving to attain that goal within the next few decades. It's all we have. We talk about 2050 and about what will happen after that, but it's seriously not all that far in the future.

The conversation took place during a panel at Future Builders, the international conference held in Warsaw in September 2022

Watch the Future Builders conference

/ THE BUILDINGS OF THE FUTURE ARE BEING CREATED TODAY

THE BUILDING OF THE YEAR CREATED WITH ALUPROF SYSTEMS COMPETITION

Among the finest buildings in Poland and around the world, there is no lack of stunners which have systems by ALUPROF as part of their structure. The most impressive and compelling of them are rated by a jury of eminent designers in the Building of the Year Created with ALUPROF Systems competition, a biennial event conceived, instigated and run by the company. It provides not only an opportunity to shine a light on the most original and functional developments, but also an occasion for debate on the condition and future of the construction industry.

The Building of the Year Created with ALUPROF Systems competition, a prestigious high point on the calendar, selects the most interesting, completed projects where the company's architectural systems were used. They include office, public and residential buildings. The presence on the jury of renowned and respected architects speaks to the competition's standing.

Elżbieta Dziubak
Architect General,
ALUPROF SA
Member of the jury

An award in the Building of the Year Created with ALUPROF Systems is not only an accolade for the people who created it, but also a motivator for the entire sector and an incentive to blaze a trail in developing the construction industry of the future. We have to take responsibility for the environment, human well-being and what the cities of future generations will look like. That's why we're developing technologies and products which enable the creation of ecological buildings. We also want to recognise architects and architectural practices that use our systems to enable themselves to achieve ambitious goals without detriment to the appearance of the buildings they design.

In the most recent competition, which was held in 2022, the list of award-winning architectural gems included the Faculty of Modern Languages and Institute of Applied Linguistics building designed for the University of Warsaw by Kuryłowicz & Associates, which received the Grand Prix. Hotel Nobu Warsaw, the work of Medusa Group, was another jewel of architecture to win a prize, as was the Warsaw Breweries complex, by JEMS Architekci. In the international category, White Arkitekter was singled out for the Sara Kulturhus, a twenty-storey arts and culture centre built using aluminium and wood.

Although the winning buildings differ from each other, they have a number of features in common. They combine outstanding design and functionality and they are also proof positive that it is possible to create sustainable, energy-efficient buildings without making compromises. As it happens, the ecological aspect is no accident here. The competition was conceived with the idea of promoting that particular trend in the construction sector. It therefore comes as no surprise that the winners include buildings which have received green certificates such as BREEAM and LEED.

The 2022 competition was the fourth time that ALUPROF invited distinguished architects to select the most compelling projects and honour their creators.

WHAT TRENDS WILL WE BE SEEING IN THE FIFTH COMPETITION?
It won't be long until we find out!

/ DESIGNER CHIC, ECOLOGY AND FUNCTION

THE AWARD-WINNING BUILDINGS IN THE FOURTH **BUILDING OF THE YEAR** CREATED WITH ALUPROF SYSTEMS COMPETITION

Time has passed since 2022, when the fourth, and most recent, edition of the prestigious Building of the Year Created with ALUPROF Systems competition was held. Even so, the buzz surrounding the winning buildings is still going strong. Which is hardly surprising, given that they all combine superb design and environmentally friendly solutions which support sustainable development, not to mention that most of them have also won other major industry awards.

The regard in which the competition is held is borne out by the number of entries from Poland and around the world; in 2022, there were more than two hundred in total. The esteem it receives is also reflected in the fact that the entrants include renowned architectural practices such as Maćków Pracownia Projektowa, Medusa Group, Kuryłowicz & Associates and AMC – Andrzej M. Chołdzyński. To this day, the winning buildings in each of the previous competitions are recognised as true gems of contemporary architecture, exemplifying innovativeness and serving as trailblazers for urban design. It has been no different for those selected for an award in 2022 and AluBook is delighted to present the winners of the fourth Building of the Year Created with ALUPROF Systems competition.

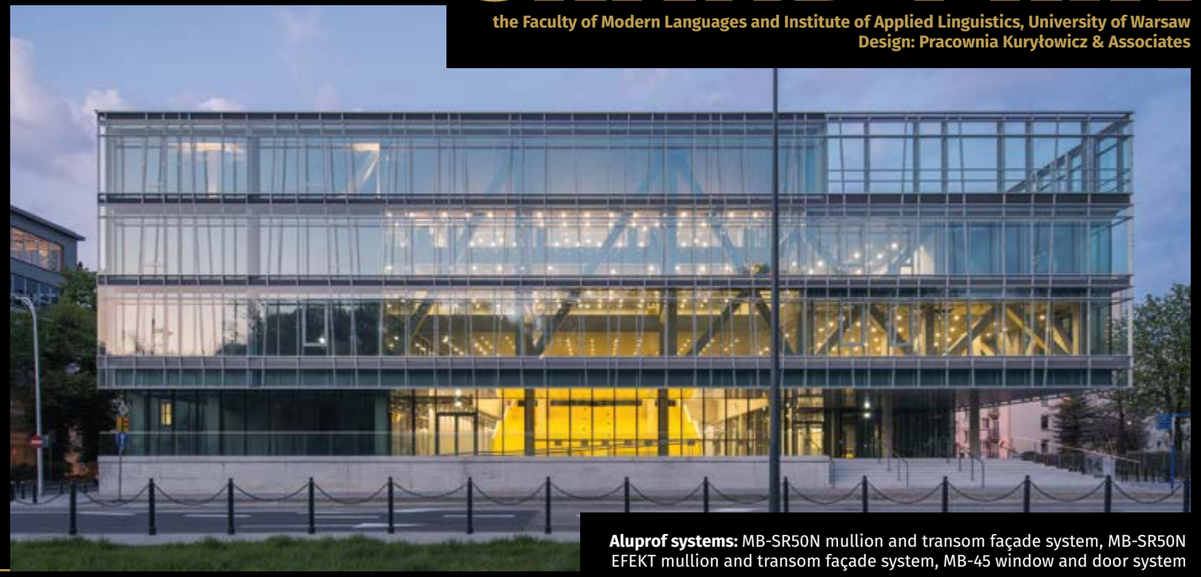
GRAND PRIX

FIRST PLACE

the Faculty of Modern Languages and Institute of Applied Linguistics building, designed for the University of Warsaw by Kuryłowicz & Associates Sp. z o.o.

Located in the Powiśle district of Warsaw, this new University of Warsaw building was created both to connect the departments of the faculty and institute and to be a friendly space for the residents of the capital city. On the one hand, it has almost one hundred teaching spaces, several dozen research/teaching facilities, conference rooms and a multimedia space accommodating one hundred and fifty people. On the other hand, there is also room for student recreational facilities, a roof garden and public courtyards which flood the interior of the building with light. On the outside, the eye-catching double façade features green glazing, while the sheet metal wall on the ul. Wiślana side is another showstopper. The ALUPROF MB-SR50N system and its aesthetic variant, the MB-SR50N EFEKT, were used to produce lightweight curtain walls with high thermal performance for the façade. The designers also chose windows and doors from the MB-45 system, which have a wide range of uses, including partition walls, sliding doors, swing doors and shopfronts.

the Faculty of Modern Languages and Institute of Applied Linguistics, University of Warsaw
Design: Pracownia Kuryłowicz & Associates



Aluprof systems: MB-SR50N mullion and transom façade system, MB-SR50N EFEKT mullion and transom façade system, MB-45 window and door system

FIRST PLACE

SECOND PLACE

Hotel Nobu Warsaw, by Medusa Group

The building, which belongs to the Nobu global luxury hotel group, was built to a triangular plan. Even so, it does not thrust aggressively into the junction of ul. Koszykowa and ul. Wilcza. Instead, it greets passers-by with a view of gentle curves and segments laid on top of one another and shifting subtly in relation to each other. The hotel's unique façade was made possible by two ALUPROF façade systems, the MB-SR50N EFEKT and the MB-SR50N EI EFEKT, which are complemented here by MB-SR50N OW tilt-and-slide windows. A more penetrating look at the structure of the building reveals the MB-86 SI and the MB-86 ST, two versions of a window and door system featuring thermal breaks, MB-SKYLINE sliding doors with a concealed frame and, last but by no means least, a system designed strictly to increase safety, the MB-78 EI, for the production of fire barriers.

Hotel Nobu Warsaw
Design: Medusa Group

Aluprof systems: MB-SR50N EFEKT mullion and transom façade system, MB-SR50N EI EFEKT mullion and transom façade system, MB-SR50N OW tilt-and-slide window system, MB-86 SI and MB-86 ST thermally broken window and door system, MB-SKYLINE sliding door system with concealed frame, MB-78 EI fire-rated partition system with doors

SECOND PLACE

BUILDING OF THE YEAR 2024

THIRD PLACE

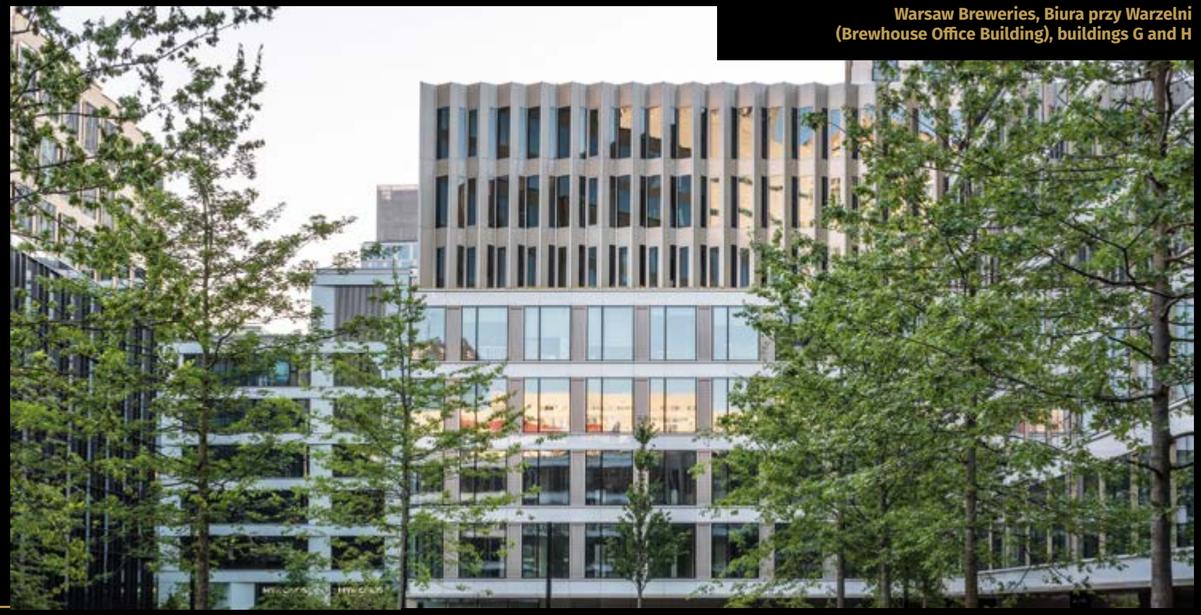
Warsaw Breweries, Apartamenty przy Warzelni, budynek E
Design: JEMS Architekci

Warsaw Breweries, Biura przy Warzelni, budynki G, H,
Design: JEMS Architekci

This once-thriving industrial space fell into disrepair after the production of beer ceased there. Now, thanks to an exemplary regeneration initiative, the Warsaw Breweries is enjoying a second lease of life as a residential and services complex. In addition to the numerous gastronomic and retail outlets, residents can enjoy squares abounding in greenery and appealing street furniture. The functions flow seamlessly from one to the next and the industrial nature of the complex works in perfect harmony with modern solutions. This is a spot where contemporary office and apartment buildings are ranged alongside historical presences like the Schiele Villa, the Laboratory and the Rackhouse.
ALUPROF solutions played a significant part in the regeneration. The façade, with mullions and transoms just 60 mm wide, was created using the MB-SR60N and the MB-SR50N EFEKT, which showcases dividing lines with a width of merely 20 mm. The interiors of the buildings are fitted with MB-86 ST thermally broken windows and doors, MB-SR50N tilt-and-slide windows and MB-77HS parallel lift-and-slide doors.

Warsaw Breweries, Apartamenty przy Warzelni (Brewhouse Apartments), building E
Design: JEMS Architekci

Aluprof systems: MB-SR60N mullion and transom façade system, MB-SR50N EFEKT semistructural façade system, MB-86 ST thermally broken window and door system, MB-SR50N tilt-andslide window system, MB-77HS parallel lift-and-slide door system



Warsaw Breweries, Biura przy Warzelni (Brewhouse Office Building), buildings G and H

Aluprof systems: MB-SR60N mullion and transom façade system

BUILDING OF THE YEAR 2024

JURY'S HONOURABLE MENTION AND WINNER OF THE INTERNET USERS' AWARD

The new Press Glass company headquarters, by Konior Studio, Tomasz Konior

A unique, three-storey building, the company headquarters is striking in form, being built to a triangular plan. It also showcases architectural solutions which were used in order to save the greenery that surrounds it and preserve the stream that flows across the plot. The building is open to the world of nature around it. It has a green courtyard inside and there are terraces filled with plants to be enjoyed on every floor. The use of the ALUPROF MB-SR50N EFEKT made it possible to attain what appears to be a uniform wall of glass. The design also incorporated the MB-86 SI window and door system, which provides outstanding insulation, and the MB-77HS, a slender, durable, parallel lift-and-slide door system that makes it possible to build a low-threshold panel weighing up to 600 kilos, with a maximum height of 3.24 metres and a width of up to 3.3 metres.

Press Glass headquarters
Design: Konior Studio, Tomasz Konior

Aluprof systems: MB-SR50N EFEKT semi-structural façade system, MB-86 SI window and door system, MB-77HS parallel lift-and-slide patio door system

HONOURABLE

WINNER OF THE FOREIGN BUILDINGS CATEGORY

Sara Kulturhus, Sweden, by White Arkitekter

There was no lack of buildings from around the world among the competition entries. One which met with a particularly warm reception from the jury was the world's tallest wooden building, the twenty-storey Sara Kulturhus in Sweden. The winner of the Foreign Buildings category, it combines culture and leisure, housing concert halls, a hotel, a restaurant and a spa facility, to name but a few of the attractions it offers. It features several ALUPROF systems. The façade in the lower section of the building was constructed with the MB-SR50N HI+, which offers standout thermal performance. The inner skin was produced using the MB-SW55, which was custom-designed for the project, and the inner glazing was made with the MB-86 SI.

Sara Kulturhus
Design: White Arkitekter

Aluprof systems: MB-SR50N HI+ mullion and transom façade system with high thermal performance, MB-SW55, MB-86 SI thermally broken window and door system

MENTION

BUILDING OF THE YEAR 2024

02. RESPONSIBILITY

In the face of growing climate change and the consequences for nature which are already making themselves felt, a responsible approach to designing, constructing, using and decommissioning buildings is steadily gaining in significance. The implementation of solutions which reflect the principles of responsible building is intended not only to minimise the construction industry's negative impact on the environment, but also to ensure the safety, comfort and health of a building's users, along with the efficient use of resources.

/ RESPONSIBLE BUILDING

Responsible. In other words, sustainable

Responsible building is primarily grounded in halting climate change. The aim is thus decarbonisation, in other words, the reduction of carbon dioxide and other greenhouse gas emissions at every stage of a building's life cycle. It applies to the construction process itself, the subsequent functioning of a building and its eventual demolition. Sustainable building emphasises the use of renewable energy sources, effective thermal insulation, ecological construction materials and technologies which reduce water consumption.

Why is responsible building so crucial? First and foremost, it is because the construction industry is responsible for a significant percentage of global resource consumption and greenhouse gas emissions. Estimates suggest that, annually, the sector generates almost 40% of total carbon dioxide emissions and consumes approximately 36% of the world's energy. The right practices therefore have enormous potential as regards combating climate change. In addition, buildings are, by definition, long-term investments with an impact on their surroundings and users which extends over decades. Introducing the principles of responsibility at the beginning of the entire process makes it possible to stem the negative consequences in the future.

Aluprof systems: MB-70HI window and door, SR50N mullion and transom façade, MB-SR50N EFEKT semi-structural façade

Viacom International Media Network (VIMN) Headquarters, London, United Kingdom / Design: 5Plus Architects

Putting a stop to climate change. A challenge for the construction industry

Society's long-term survival and development is inextricably bound up with our ability to stop climate change. Given the impact that the construction industry has on greenhouse gas emissions and the use of natural resources, it can safely be said that there is no future without responsible building. Sustainable building contributes to the achievement of climate goals like those set out in the Paris Agreement, which established the goal of keeping the rise in the global temperature to below two degrees Celsius. However, responsibility in the sector is not only a matter of the environment. It also encompasses social and economic fairness. This is understood as providing access to safe and affordable housing and creating healthy and sustainable workplaces, in line with *Transforming our World: the 2030 Agenda for Sustainable Development*, a United Nations resolution which was signed by all one hundred and ninety-three UN member states in 2015. It sets out what are known as the 17 Sustainable Development Goals (SDGs) and the 169 Targets which the world should achieve by 2030. As an organisation, ALUPROF has undertaken to implement the SDGs which are relevant to its operations.

ALUPROF. Connecting with the mission to create a better future

Promoting the concept of sustainable development is one of the key objectives adopted by ALUPROF under its Environmental, Social and Governance policy. In line with those objectives, the company intends to make an even greater commitment to protecting the environment in order to attain climate neutrality by 2050. Furthermore, although it has been following through with ecological initiatives for many years, it has placed further emphasise on their importance by including them in its strategic economic objectives for 2021-2025.

3,3 kg CO_2e/kg

Aleksandra Baksik
Brand & Sustainable Development Manager
Aluprof SA

ALUPROF is part of Grupa Kęty (Kęty Group). We recycle aluminium within the group and, as a result, the total carbon footprint and emission levels for the aluminium profiles we extrude from ingots from our own foundry is significantly lower than the European average. The carbon footprint of Grupa Kęty profiles is just 3.3 kg CO_2e/kg (2.8 kg Co_2e/kg per billet), while the average published by the European Aluminium Association is 6.7 kg CO_2e/kg. The estimated annual carbon footprint reduction is 335 tons CO_2e/ year. In addition, the profiles supplied by Grupa Kęty have received an Environmental Product Declaration in line with EN 15804 and have been verified by an authorised external auditor as compliant with ISO 14025. *ALUPROF's commitment to environmentally friendly activities is also confirmed by our investment in our own renewable energy sources at our facility in the town of Kęty and in the fact that the company's products are Cradle to* ***Cradle Certified®****. Cradle-to-cradle design is the basis of ecodesign and circular design, which demands a great deal of effort from an organisation in terms of things like its supply chain. The international certificate is awarded to the pioneers introducing products that drive the concept of a circular economy onto the market. It's also the basis for continuous process and product improvement.*

Responsible building. Driving the industry onwards and upwards

Responsible building is a matter not only of the technologies and materials used, but also of philosophy and professional ethics, which means taking decisions that are rooted in an understanding of, and a respect for, nature and human needs alike. The drive towards sustainable building demands ongoing education, innovation and collaboration from every representative of the industry. In this way alone can harmony be attained between the development of infrastructures and preservation of a healthy environment for future generations.

ALUPROF has been a member of the Polish Green Building Council (PLGBC) since 2018 and is committed to the active support of that organisation's mission and goals. The company achieves this by integrating sustainability into its business operations and promoting fair and ethical practices among its suppliers and service providers.

PLGBC
Polskie Stowarzyszenie Budownictwa Ekologicznego

WORLD GREEN BUILDING COUNCIL

/ SUSTAINABLE BUILDING

AS A DIRECTION WITH NO TURNING BACK

Oliwia Dec-Wolszczak
architect, DWAA Architekci

/ AluBOOK: Is sustainable building a path from which there's no turning back?

Oliwia Dec-Wolszczak, DWAA: I hope that sustainable building and design in the spirit of sustainable development isn't a fleeting trend and that it'll become the standard. Mind you, I do have the impression that a great many people in the industry are still treating the topic as a passing fashion and are only incorporating solutions of the renewable energy source type into their buildings because it's the done thing. It's not following through on any consciousness of why it might be vital from a broader perspective and in the longer term. Fortunately, awareness of the subject is growing year by year. And more and more designs are setting a good example by showing what genuinely green and sustainable building should look like. What we need here is a revolution as far as thinking and approaches to design are concerned and, happily, that's slowly starting to happen. The greatest challenges are the single-family, multi-residential and public sectors, where the client is a public organisation, like a company owned by the State Treasury, for instance. It's hard to convince that client group to use renewable energy source installations or other sustainable building solutions. We're seeing a much greater awareness of this among the companies and developers building offices and shopping centres.

/ AluBOOK: How has the ecological standpoint changed your approach to designing?

Oliwia Dec-Wolszczak, DWAA: We realise that, as designers, part of the ecological responsibility rests on our shoulders.Unfortunately, when I was at university, I had very few classes or lectures on green building and renewable energy sources. That was all only just beginning to evolve in Poland. There were a lot of well-worn templates winding their way through the course. For example, a wall is concrete or reinforced concrete blocks, with nothing about how it could be cross-laminated timber or pre-fabricated concrete. It wasn't until I had several years of professional experience under my belt that I started exploring ecological solutions and materials and the whole process of designing in the spirit of sustainable development. Sadly, a lot of people see sustainable building as a cost, not an investment. In spite of that, we're trying to use solutions that have a positive impact on the environment in our designs and when a developer or self-builder is sceptical about those solutions, then our role as an architect is to get them to realise that it's not a matter of a passing trend, but of our shared future, and that it will pay dividends over the years.

/ AluBOOK: Does architecture in the spirit of sustainable development impose limitations on designers. Or, on the contrary, does it open up new possibilities?

Oliwia Dec-Wolszczak, DWAA: It might seem as if sustainable building limits the architect or designer. On the other hand, things are improving by the year, with more and more options, materials and technologies being brought out. We should also remember that the architect's task is not only to adapt to the needs of the developer or self-builder, the context of the place and the requirements of the building, but also to raise awareness, to point out the potential of materials and installations and steer the client towards it. So we treat sustainable building as new opportunities and not barriers.

/ AluBOOK: While we're on the subject of materials, could we touch on how aluminium is a vital raw material for green building?

Oliwia Dec-Wolszczak, DWAA: Yes, it's actually at the top of the tree when it comes to recyclable materials and it can be put to a very wide range of uses. Not only in the construction industry, either, but also in interior design and even in making jewellery. That it can be given a second lease of life is an established fact.

/ AluBOOK: DWAA Architekci created the architectural design for Warsaw West railway station, where you used innovative photovoltaic skylights created using ALUPROF systems. At which stage of the project did you lay down a marker about doing something so wholly unique?

Oliwia Dec-Wolszczak, DWAA: We try to analyse the market on an ongoing basis and pick up on technological innovations. We want to provide our clients with state-of-the-art architectural solutions that we anticipate will translate into a wide range of benefits in all sorts of aspects. That way, before we

Visualisation: DWAA Architekci

Warsaw West Railway Station, Warsaw, Poland / Design: DWAA Architekci

embark on each new project, we know what's possible, what cutting-edge technologies and materials can be used. And that's what happened with the architectural design for Warsaw West. Our research was extensive. We went abroad and visited dozens of railway stations and station buildings, railway and bus. We analysed them from the angles of function, construction, material and technology. We also studied everything in terms of useability so as to be sure about which solutions would work best. We knew that the new station would be an ultramodern interchange featuring various architectural solutions which would have to be up-to-the-minute now and in the future. We knew that it had to meet the highest of useability requirements and serve generations to come.It was important to us to use natural light in the interiors. We also had to meet the specific guidelines that the developer faced the designers with. One of those requirements was for at least 75% of each of the eight platforms to be roofed. That meant thirty-five thousand square metres of platform roofing. There were plenty of ideas at the initial stage. A green roof... Completely glazed roofing... but the maintenance of such a vast area and the costs were always present at the back of our minds. Mind you, right from the start, we also knew that the roofing couldn't simply be a roof. It had to illuminate the platforms, as well, and we wanted it not only to light the underground passage to some extent, but also for elements of it to produce energy. We did an analysis of what was possible and, on the basis of experience, we knew that the market would make innovative and custom-designed solutions doable. As we designed it, the form we gave the station, including the canopy roofing for the platforms, needed those kinds of solutions. When we were at the stage of designing the form of the roofing, we carried out an efficiency analysis and checked the angle, the direction and the places where we would use insulated glass units with photovoltaic cells. We even took into account the fact that, in the future, buildings with up to some twenty or so storeys might be built on the south-facing side, the Aleje Jerozolimskie side, and we calculated what would happen with the sunlight and shade after their eventual construction. The result was that we could plan the photovoltaic skylights for maximum efficiency now and in fifteen or twenty years' time. All of that also had to be based on various aluminium systems of the highest quality.

/ AluBOOK: Then, I suppose it was time for the construction design. Was that when the close collaboration with ALUPROF began?

Oliwia Dec-Wolszczak, DWAA: It was a public tender for selecting the general contractor so we couldn't include any particular solutions in the construction design. Once the tender was over, we began collaborating with ALUPROF, as a first-class partner whatever the scale, and with ML System for the photovoltaics. In addition to the roofing and the skylights, which needed an integrated solution, we consulted ALUPROF about the aluminium profiles for the entire station. From the outset, ALUPROF was highly supportive, adapting its best solutions to the needs of our design and providing precise descriptions of the potential of the various profiles. A good example of the company's flexibility and quality is the fact that we couldn't use standard profiles for the skylights because we needed them to be tailored to the integrated photovoltaic solutions.

/ AluBOOK: Was it difficult to convince the developer about innovative solutions like that?

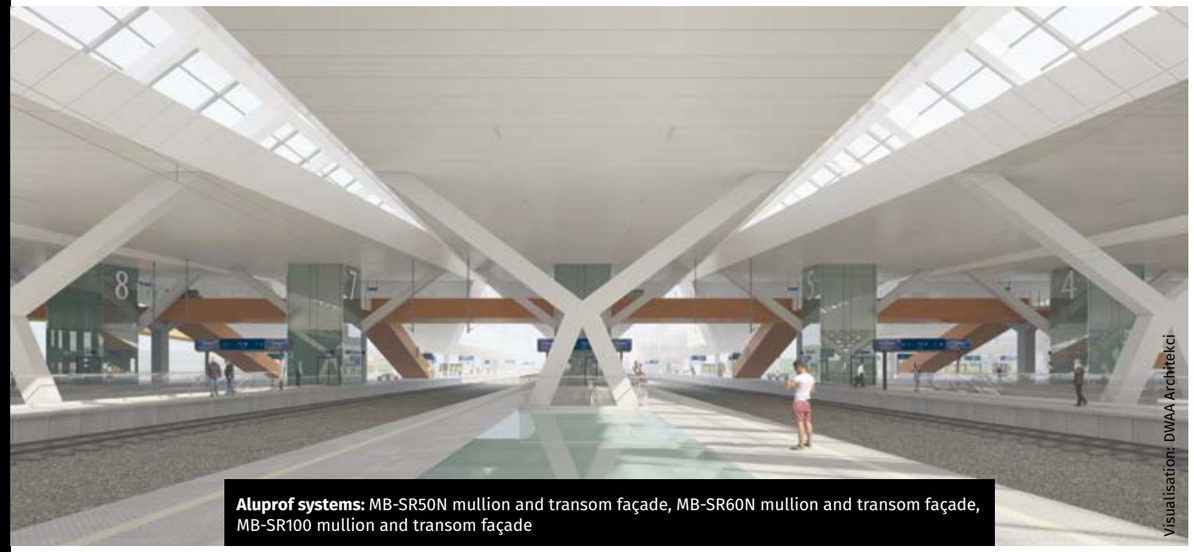
Oliwia Dec-Wolszczak, DWAA: As we began designing, we started talking to the developer about using renewable energy sources and demonstrating the range of benefits linked to that. We drew up economic analyses showing just how much they'd save. The panels in the roofing at Warsaw West will produce around 30% of the energy needed for the station roofing, underground passage and main concourse, but not for servicing the rail traffic. Energy prices have risen significantly since then, so the ROI we calculated for the panels will happen even faster. Another aspect is that investing a few tens of millions in renewable energy sources isn't so great an expenditure when the entire development totals two and a half billion zloties. The fact that the ecological trend has taken hold in architecture also supports such an innovative design. In many ways, Warsaw West is a symbol of the times it's being built in. The idea is for it to stand as a marker and stimulus for public building to move on in that direction. Including railway buildings. Thankfully, we convinced the developer early on, so we could integrate the photovoltaic skylights into the roofing as soon as we began designing. The developer's fast decision and openness allowed us to use a comprehensive approach in designing the architectural solutions. So we didn't have to add the panels to already designed roofing and skylights. We were determined that the solution would please the eye and that the calculable benefits and efficacy would be right on trend. Combining the photovoltaic panels and the glazed roof elements gave us the right illumination for the platforms, without the sun's dazzling glare.

Warsaw West Railway Station, Warsaw, Poland
Design / DWAA Architekci

WARSAW WEST RAILWAY STATION

SHINING A NEW LIGHT ON TRANSPORT

The renovated Warsaw West railway station is to be an integrated, comfortable public transport interchange fit for the twenty-first century. It will also be one of the largest railway stations in Poland, connecting with underground tram stops, a set of bus stops, taxi ranks and parking for cars and bicycles. The modernised, multilevel building will amaze users with its functionality, accessibility and innovative architectural solutions. One of those solutions is a skylight. Created by ALUPROF, it is unique on a global scale.



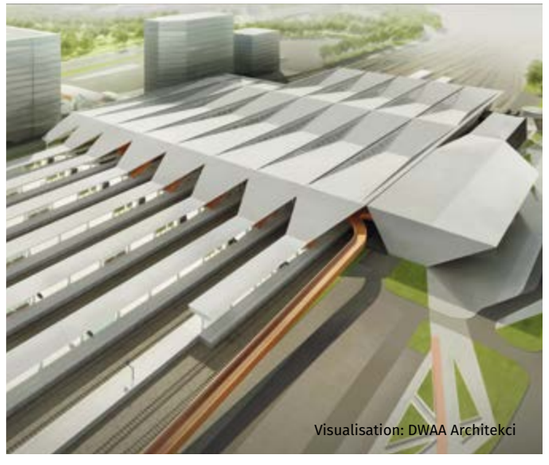
Aluprof systems: MB-SR50N mullion and transom façade, MB-SR60N mullion and transom façade, MB-SR100 mullion and transom façade

Visualisation: DWAA Architekci

Its history might stretch back to the last century and the period between the two world wars, but Warsaw West railway station, which is located in the vicinity of ul. Tunelowa and Aleje Jerozolimskie, has had to wait many a year to emerge in all its glory. The facility on the southern side was handed over and went into use in 2015, but only now is Warsaw West receiving the infrastructure it truly warrants.

One building. Multiple functions

The comprehensive design for the redevelopment of the station was created by DWAA Architekci. It encompassed everything, from the main station concourse, a multipurpose building and an underground passage, via platform canopies and a footbridge, to benches and information boards. Underground tram stops and a tunnel for trams have also been designed and are located beneath the station and railway tracks. The entire facility has obtained a contemporary architectural form. First and foremost, though, care has been taken to ensure that it will be comfortable and accessible to all users. Access to the platforms will be available via not only the traditional stairs, but also escalators and lifts, making it user-friendly for disabled people and passengers travelling with heavy luggage, a bike or a child in a pram or buggy. The underground passage has been widened from eight metres to more than sixty and houses ticket offices, shops, cafés and services. The design provides for canopies over all the platforms and it will be possible to change to and from public transport without going outside.



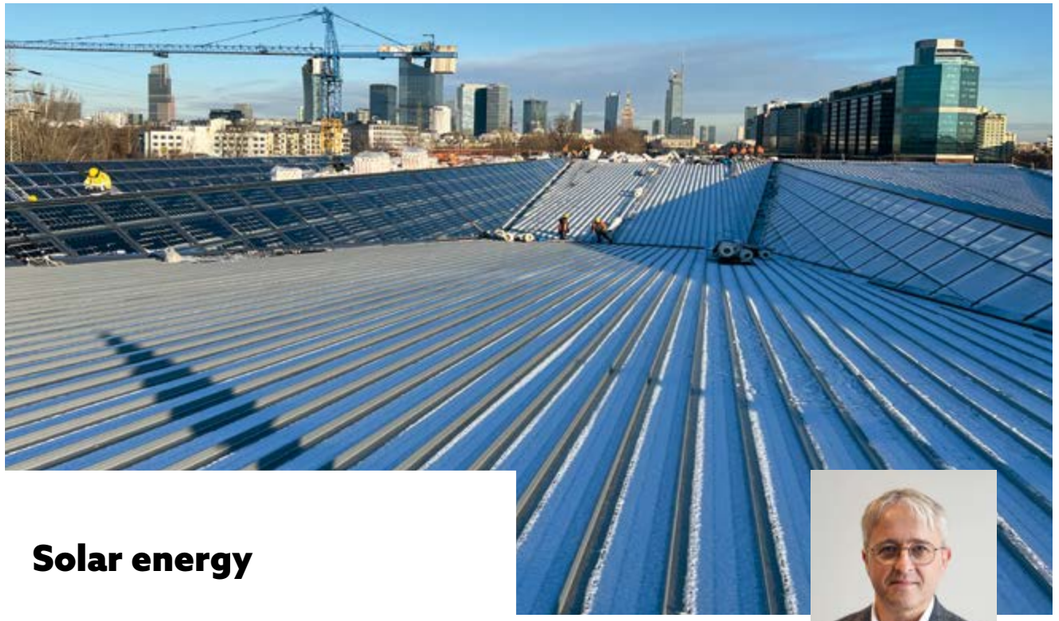
Visualisation: DWAA Architekci

Unique solutions make for a multifunctional roof

One important element of the station is the roofing over the main concourse and platforms. It not only provides the standard protection from the weather, but also creates an appearance which is interesting both inside and out. Crucially, it was planned in a way that lets the daylight in. All of this was possible thanks to the skylights. They had to comply with all the requisite standards for this kind of building in terms of durability, fire resistance, air permeability and watertightness, which was why a skylight based on ALUPROF's MB-SR50N EI aluminium mullion and transom system was chosen. A high-performance solution, it provides excellent technical parameters and guarantees fire safety. It can also be used to create various architectural elements, namely, connections with an angle of up to 7.5 degrees, façades with a deviation of up to 10 degrees from the perpendicular and roof glazing with a slope of 0 to 80 degrees. This makes it possible to turn even the most complex architectural visions into reality.

Oliwia Dec-Wolszczak
architect, DWAA Architekci

I really do like the approach where there's no need to reinvent the wheel. Instead, you just use systems that are already available on the market and customise them to suit the needs of a particular project. It's the essence of sustainable architecture, which uses existing resources and incorporates them as needed at a given moment. It's a dynamic process which changes from project to project and never fails to add an innovative touch.



Solar energy

The uniqueness of the ALUPROF skylights used for the Warsaw West railway station goes further than facilitating the creation of exceptional architectural structures, though. In collaboration with ML System, it proved possible to combine an MB-SR50N aluminium profile with a module featuring innovative, semi-transparent photovoltaic technology, complete with an illumination function, and create glass technology and a pane of glass that produces electricity from solar energy and functions as illumination which also provides the requisite transparency and lets natural light in. By the same token, the station's environmental performance was increased. In a building on this scale, the use of photovoltaic modules can actually result in considerable savings on the energy which would have been necessary for artificial lighting.

Sylwester Korzeniak
Project Manager
ML System SA

Working on Warsaw West railway station, our greatest challenge was producing modules that reflected the architects' vision by providing illumination to the space beneath the roofing while simultaneously retaining the intended architectural and energy effect, the planned geometry of the various shapes and the functions, in other words, several dozen types of formats producing electricity and integrated lighting at the same time.

Visualisation: DWAA Architekci

Two of ALUPROF's façade systems, the MB-SR60N and the MB-SR100, were used for the skylights. They differ in terms of profile width. The MB-SR100, which is wider, made it possible to conceal all the parts making up the photovoltaic modules. This, in turn, was essential to enhancing the aesthetics of the skylights. At the same time, it is worth emphasising that the MB-SR100 is a completely new technical solution for aluminium and glass curtain walls. As such, it is proof positive of the skill which ALUPROF brings to meeting the needs of even the most ambitious and demanding architectural designs.

The revolutionary skylight has been tested, obtaining an REI 30 fire rating, which confirms that this is a solution of the highest possible class. Revolutionary in the fields of glazing and roofing, it could well be a breakthrough in the energy balance of buildings.

Visualisation: DWAA Architekci

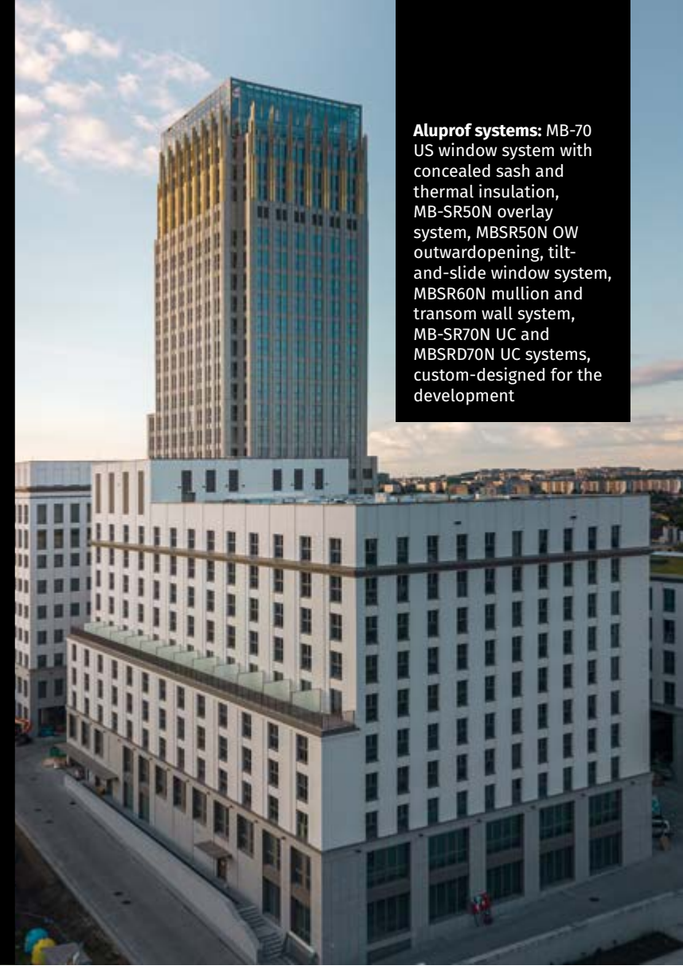
There were a great many people who thought this development would never be finished. Work began on building the tallest tower block in Krakow in 1975, but it was halted after four years. The structure that was left was soon dubbed ‘Szkieletor’, a neologism rooted in *szkielet*, which translates as ‘skeleton’. Not quite half a century later, the improbable became the actual and Poland’s royal city acquired a state-of-the-art complex featuring systems by ALUPROF.

UNITY CENTRE, Krakow, Poland
Design / BE DDJM Architekci

UNITY CENTRE

A NEW LEASE OF LIFE FOR KRAKOW’S FAMOUS SKELETAL LANDMARK

UNITY CENTRE is a multifunctional space formed by five buildings; a hotel, a residential building, two multi-storey office blocks and the one that soars above its surroundings; UNITY Tower. Located between the buildings is UNITY Square, created to help Krakovians and visitors to the complex to integrate. UNITY Tower, which fills the space formerly occupied by Szkieletor, is **10.5 metres taller** than its predecessor was designed to be. It has twenty-seven floors, which are crowned with two almost completely glazed storeys created to function as a viewing point that is both unique and the city’s highest.



Aluprof systems: MB-70 US window system with concealed sash and thermal insulation, MB-SR50N overlay system, MBSR50N OW outwardopening, tilt-and-slide window system, MBSR60N mullion and transom wall system, MB-SR70N UC and MBSRD70N UC systems, custom-designed for the development

The complex has been designed to meet the expectations pinned on contemporary, sustainable construction that is friendly to people and nature alike. The buildings use solar energy. They have green roofs and operate under a smart building management system. There is parking not only for cars, but also for bicycles, along with charging stations for electric versions of both those modes of transport.

UNITY CENTRE’s appearance and functioning can be partly attributed to the ALUPROF solutions used in its construction. The list of those systems includes the MB-SR60N mullion and transom wall, which features slender dividing lines a mere sixty millimetres wide. It also offers a broad range of profiles and accessories, making it very much easier for designers to bring their creative visions to life. The unique MB-70 US windows are another particularly noteworthy element. The design of the system makes it possible to conceal the sash, rendering it invisible from the outside and identical in appearance to the fixed window lights.

/ THE ROLE OF CERTIFIED BUILDING

IN THE DEVELOPMENT OF THE CONSTRUCTION INDUSTRY

AluBOOK talks to Dominik Włodarczyk, EngD, a team leader at Sweco Polska and a BREEAM Accredited Professional for New Construction and Refurbishment and Fit-Out assessments.

/ AluBOOK: What's next for green building? Is certification the remedy for burning problems like global heating?

Dominik Włodarczyk, SWECO Polska: Those are two tremendously important questions. The simplest answer to the second is obviously 'No'. However, it's all a lot broader in interpretation and if we want to answer the first question, then we certainly have to look at it from the process-oriented perspective. Anyone who's been involved in sustainable development for any length of time knows how difficult it's been until recently to get the message about these issues across to the market, meaning developers, designers, contractors, supplies and material manufacturers. I think that one of the things that the certification of buildings has done is spread the way of thinking about a building as something which consumes energy, material and ecological resources and also as a source of emissions in the form of CO_2, noise and other pollutants. Certification has promoted the thinking that upping a building's 'eco-value', as well as reducing its environmental impact, is connected with a certain amount of effort in terms of decision-making, design, execution and use. The fact that the market today is aware of the topic is partly down to building certification. That's not enough nowadays, though, because being that aware, we also know that a certification diploma isn't going to stop global heating. Here and now, we know that the only recipe for what's essential to sustainable development is a root-and-branch transformation of the entire real estate sector as we move towards zero emissions. Putting it extremely figuratively, we simply have to stop heating the planet if we're going to pass it on to future generations in a state that's no more degraded than now. That's not going to happen today, but it's crucial

The rise in the number of certified buildings in recent years is proof of a growing appreciation of the value of certification among developers and builders. There's an increasing demand for certificates like BREEAM, LEED and WELL from tenants and builders who want to be sure that a building is energy-efficient and healthy for its users and that its environmental impact is minimal. In addition, the certification is a vital element of achieving climate neutrality goals, which are a priority for the European Union. The certification system operators themselves can see this and are either referring or planning to refer to compliance with the taxonomy or decarbonisation pathways in line with the Paris Agreement, in their systems. That's why we can expect the importance of building certification to carry on growing in Poland.

4 WELLINGTON PLACE, Leeds, United Kingdom / Design: Sheppard Robson

to approach it systemically. There are numerous new instruments to support the transformation, like the Carbon Risk Real Estate Monitor, or CRREM, decarbonisation pathways for buildings and net zero reports, the EU's taxonomy laws, the European New Green Deal, *etcetera*. I'm overjoyed as I watch these initiatives grow, because I can see that change is going in the right direction. I know that the tools, combined with the certification of buildings, new and existing alike, will make it possible to formulate the right process for attaining the goals for the transformation of the real estate sector.

/ AluBOOK: Is building certification gaining ground in Poland?

Dominik Włodarczyk: Yes, definitely. According to the *Sustainable Certified Buildings:* 2023 Report, which was compiled by the Polish Green Building Council, there are already more than one thousand, six hundred certified buildings in our country, with a total floor area of thirty-six million square metres. That's an increase of 27% in the course of a year. The leading certification system in Poland is BREEAM, with a market share of approximately 82%.

/ AluBOOK: Who can obtain green certificates? And how? And what benefits do buildings with those kinds of documents offer builders and tenants?

Dominik Włodarczyk: Green certificates can be obtained by builders and developers who decide

4 WELLINGTON PLACE, Leeds, United Kingdom
Design: Sheppard Robson / Design: Sheppard Robson

Aluprof systems: MB-77HS parallel lift and slide patio door, MB-86 FOLD bifold door, MB-SR60N and MB-SR60N HI mullion and transom wall

4 WELLINGTON PLACE

to construct or modernise buildings in line with the specific standards for sustainable building. The certification process begins at the land acquisition stage and encompasses every stage of the project, from design to the building in use. There are a number of certification systems operating in Poland, including BREEAM, LEED, WELL, DGNB and HQE. They all have their own requirements and certification procedures. Nonetheless, the evaluations boil down to a cross-sectional assessment of the building following broadly defined sustainability criteria.

The benefits of holding green certificates are numerous and affect builders and tenants alike. For builders, having a green certificate raises the market value of the property and makes it more attractive to potential tenants and buyers. For example; a study carried out in London by a consultancy company confirmed that the owners of buildings with BREEAM certification ratings ranging from 'Very Good' to 'Outstanding' can expect rental rates that are between 3.7 and 12.3% higher than corresponding buildings without certification. The actual percentage value may vary, depending on a great many factors like location, the type of property and particular features of the building, but the trend of growing market values and rental rates for green buildings is well documented and perceptible on the real estate market.

For tenants, green buildings offer improved indoor air quality, greater energy efficiency and better working conditions in general. There are scientific studies which confirm that people working in green-certified spaces have reported an increased sense of well-being and higher productivity in comparison to staff working in traditional buildings. The studies have also shown that those working in certified buildings report less illness.

That suggests that better quality of air and lighting could help to give rise to fewer sickness-related absences. Mind you, when analysing these kinds of results, we need to remember that this impact can differ, depending on a number of factors, like the type of certificate, the kind of building, the sector in question, the geographical region and people's individual preferences and characteristics. In addition, green certificates confirm that the development was sustainably designed and build, which contributes to environmental protection and accomplishing the goals for climate neutrality, as per the Paris Agreement, decarbonisation, the taxonomy and so on.

/ AluBOOK: Will every new building have a LEED, WELL or BREEAM certificate or something similar?

Dominik Włodarczyk: Property market trends indicate that green certification is growing in popularity and increasingly being seen as desirable. The rise in the number of certified buildings in Poland and around the world is proof that developers and builders are increasingly appreciating the value of sustainable building certification. But will every new development hold green certificates? That depends on numerous factors. For example; it could be influenced by the introduction of new laws which would require developers to apply specific sustainable building standards. The European Union's *Energy Performance of Buildings Directive* introduces definite requirements relating to the energy intensity and carbon performance of buildings. Apart from that, society's growing ecological awareness and the rising expectations of tenants and builders could also trigger an increase in the number of certifications. Plenty of people appreciate the benefits of living or working in buildings that are energy efficient, healthy for their users and have a minimal impact on the environment. It's also worth adding that in some countries, like the United Kingdom, for instance, the requirement to have a BREEAM certificate for a new building is part of the building permit process, which also has an effect on the popularity of the system there.However, in spite of all these trends, there are still challenges in connection with green building certification. One that's worth mentioning is the lack of universal international standards for assessing developments. That might have an effect on developers' uncertainty when introducing new technologies. It's also important to bear in mind the fact that it's possible to build an amazing energy-efficient building without a certificate and a really rather poor one with certification at one level or another. So certificates aren't the remedy to the energy-efficiency and emission problems of buildings. But they're certainly useful if the systems are put in place correctly.

To sum up, although the number of certified buildings will most probably rise in the future, there's nothing certain about whether or not new developments will hold green certificates. That will depend on numerous factors, like the laws, market requirements and technological progress.

Aluprof systems: MB-SR60N and MB-SR60 NY mullion and transom wall

61 NINTH AVENUE, United States, New York
Design: Rafael Vinoly Architects PC

61 NINTH AVENUE

AFI V. OFFICES, Krakow, Poland
/ Design: Iliard Architecture & Interior Design

AFI V. OFFICES

/ AluBOOK: As we see it, the V.Offices building seems to be the *magnum opus* of green building in Poland. What makes it so super-ecological?

Dominik Włodarczyk: The V.Offices building in Krakow is considered to be one of the most ecological, BREEAM-certified office buildings in the world. It's achieved that through a range of innovative, green building solutions. The ecological systems used for it include zero-emission, solar collector roof systems, low emission, gas-fired cascade boilers, a high-efficiency ventilation system and state-of-the-art, energy-efficient lifts and lighting. As far as users' health and well-being in the office spaces is concerned, care was taken as regards the finishing materials, which were tested for formaldehyde and volatile organic compounds..

The high-efficiency ventilation system ensures a better quality of indoor air, which has an impact on the health and well-being of staff. In addition, the building has an extensive patio that's also accessible from the outside, allowing people a moment of relaxation in greenery-filled surroundings. It also has excellent transport links with other parts of the city and is equipped with infrastructure for cyclists and charging points for electric cars.Thanks to all those features, V.Offices was awarded a prestigious BREEAM certificate with a rating level of 'Outstanding' after achieving a record certification score of 98.87%, the highest score in the history of BRE Global, the certification operator for developments located in Poland. That translated into the unprecedented success of the building's BREEAM certification in the international arena. V.Offices has won the esteemed Best of BREEAM Awards statuette for the best BREEAM ecological building in Central and Eastern Europe not once, but twice!

And it was also shortlisted in the same competition for the global Commercial Post-Construction award. It just goes to show the kind of success a Polish office building that comes down firmly on the side of ecology can achieve!

/ AluBOOK: ALUPROF had a hand in V.Offices. How do aluminium systems affect certification assessments? Are they an important aspect?

Dominik Włodarczyk: Absolutely. The façade provides not only continuity of thermal insulation, but also ventilation, acoustics and both visual and thermal comfort inside. It's the first thing to be perceived visually, as well. In addition, the recurrent nature of the elements facilitates good functional division and spot repairs. All of those aspects are standard assessment points for BREEAM certification and the V.Offices façade did excellently.
With that façade, though, we went a few steps further. It was designed to be a light colour in order to prevent overheating from the sun's rays. There was also the fact that the ventilator parts were given beautiful, perforated ornamentation. But something that's just a visual element to most people was a subject for analysis to us in terms of the building's natural ventilation potential. We used simulation modelling to check the amount of air that enters the interiors via this route as part of the natural ventilation option. So ALUPROF's systems were a superb match for the V.Offices design philosophy, which set out with the intention of achieving an above-average, sustainable building result through integrated collaboration between various sectors.

/ AluBOOK: There's a sense that, with V.Offices, everything was driven by the BREEAM certification requirements, from the design stage, via the selection of materials, right up to the construction stage. Is that a valid feeling?

Dominik Włodarczyk: Yes, it's true. When we look at V.Offices through the prism of its green credentials and successes, we need to consider not only the 'what was achieved', but also, and above all, the 'how it was achieved'. AFI Europe Poland, the creators of

Aluprof systems:
MB-SR50N mullion and transom façade, MB-86 SI window, MB-SR50N EFEKT semi-structural façade, MB-77HS HI parallel lift and slide patio door

Photo: AFI Europe Poland

the architectural design from Iliard Architecture & Interior Design and our consultants from SWECO Poland shared the ambition of designing an exemplary building that would stand out on the Polish market for its sustainability. Everything, from the design stage, via the selection of materials, right up to the construction stage, really was geared towards obtaining that BREEAM certification. The result is that V.Offices is currently one of the greenest office and service buildings in the world. The outcome achieved by AFI V.OFFICES is an expression of consistent action and harmonious collaboration between all the parties to a development process that was constantly searching for the optimal solutions. None of us left so much as a single aspect of the design, construction and BREEAM certification process to chance. We were all perfectly well aware of our roles and responsibilities.

That's something that very rarely happens in development processes. But when it came to the design, BREEAM was an equal participant in the process, on a par with the rest of the team.

An excellent example of the control we had over the certification process is the points we didn't get. From the outset, we knew exactly which credits to give up and it stayed that way until the very end. We didn't inflate the score artificially, either. There were credits where the technical specifications of the building put forward a solution method that differed from the one proposed by BREEAM and they were rejected in full awareness. That approach, where the certification is placed on an equal footing with the other design and contractor sectors, worked extremely well. Despite the time that's passed, the building, with its rating of "Outstanding' and 98.87% score, is still the one with the highest BREEAM certification in Poland and one of the highest BREEAM-certified office buildings in the world.

/ LET'S BUILD A BETTER FUTURE !

The modern construction industry

is deeply involved in combating climate change. A great deal of the credit for this belongs to designers, architects and, first and foremost, to the manufacturers of construction products. They are the ones who, through their use of advanced technologies and ongoing improvement of their production processes, are able to supply the industry with tools which effectively support the reduction of a building's energy requirements, decreasing the use of natural resources and cutting CO_2 emissions. Awareness of how the actions of the entire sector affect the conditions which future generations will be living under is extraordinarily important. It is manufacturers who shape the trends on the construction market and, thanks to their initiatives, they are in a position to have a real impact on accelerating the decarbonisation process. An excellent example of the industry's commitment to environmental protection and corporate social responsibility in a broader sense can be seen in ALUPROF's activities.

ALUPROF. Setting an example to the entire industry

Data from the UN show that the construction industry is responsible for around 38% of global carbon dioxide emissions. The effective decarbonisation of the sector thus demands commitment from all its representatives, including construction material manufacturers. Nowadays, it would be hard to imagine a socially responsible business paying no attention to climate change and the impact which its own operations exert on the environment. The use of innovative technologies and cutting-edge products mean that buildings can be made more energy efficient and friendlier to humans and nature alike. In a time of growing climate crisis, sustainable building is thus not a passing fad; it is, quite simply, an obligation. ALUPROF is perfectly well aware of this and not only regularly launches solutions designed to improve the energy efficiency of buildings, but has also been working intensively to reduce the carbon footprint of its products for many years now.

In line with its motto, *Let's build a better future*, the company promotes the concept of sustainable development in the building sector and is enacting a programme of corporate social responsibility which includes reducing its carbon footprint

Our ambition is to achieve climate neutrality by 2050 and a 20% reduction in our carbon footprint by 2025

In order to reach these impressive goals, the company has long been taking steps to optimise and automate its production process. It has invested in state-of-the-art, energy-efficient plant, which translates into lower energy consumption. At ALUPROF, there is also a major focus on using recycled materials, particularly as regards the role of aluminium, the reduction of raw material consumption and the recovery of vast quantities of manufacturing waste.

Tomasz Grela
Chief Executive Officer, ALUPROF SA

We take environmental questions into account right from the product design stage. That's why most of our products are created with the intention of obtaining confirmation of their ecological attributes with certificates like Environmental Product Declarations, or EPDs, for example, and the prestigious Cradle to Cradle Certified® accreditation. These kinds of credentials are particularly helpful to developers when they apply for the green building certification that's now standard across the commercial property market. Another crucial factor is our use of aluminium, a raw material that's easy to access and a widely available natural resource. Its plasticity opens up a world of potential to architects and, most importantly of all, it's 100% recyclable. With our drive towards a zero emissions construction industry, we definitely make of the most of that. As part of Grupa Kęty, we recycle the aluminium waste generated by all the companies in the group. In 2022, the total scrap content of our recycled aluminium was a rather creditable 65%.
At the same time, don't let's forget the digital solutions that also contribute to decarbonisation. With the aim of optimising design and work processes in the sector, ALUPROF has set up a Building Information Modelling, or BIM, library, where digital models of our products can be accessed.

Using BIM technology enables designers to create detailed digital, 3D models of buildings. There is more to it than that, though, since it provides vital support to the construction industry in the drive towards sustainable development. It facilitates the thorough analysis and optimisation of a project before the physical construction even begins. Another important aspect of BIM is its extraordinary usefulness during a building's life. It expedites efficient and effective property management, including maintenance and modernisation planning. This leads to a longer life for the building and a lower requirement for building materials.

Magdalena Płocica
BIM Technology Section Head
ALUPROF SA

BIM technology involves modelling buildings in a virtual space. Using it doesn't only make it even easier and faster to create more precise construction designs. Above all, it facilitates better coordination of the work of design teams and the avoidance of numerous errors that usually go undetected until the construction stage. It optimises both the design process and the selection of the right products. And that, in turn, makes it possible to determine the quantity of materials needed more precisely and reduce potential waste. So the environmental advantages are obvious and, since we want to meet circular economy requirements, we regularly expand our BIM library by adding more products.

Prestigious certificates confirm our commitment to environmental protection

Further confirmation of ALUPROF's commitment to environmentally friendly activities is found in the fact that the company joined the Polish Green Building Council (PLGBC) in 2018. The organisation brings together players from the construction and real estate sectors. Its aim is to instigate the transformation of the construction industry and do everything possible to reduce the sector's negative impact on the natural environment. As part of its work with the PLGBC, ALUPROF is playing an active role in a project named *CIRCON. The circular economy in the construction industry:* Ecodesigning circular buildings. The project objectives include strengthening the implementation of a circular economy in the construction industry and disseminating knowledge on designing buildings in line with circular economy principles among key stakeholders in the sector.

The company's products are also Cradle to Cradle Certified®. This prestigious rating is awarded by Cradle to Cradle Products Innovation Institute Inc., an independent organisation, to products which fulfil the principles of circular economy. It serves as confirmation that a product can be recycled, that it is safe for end users and that it has a positive impact on water management and reducing carbon footprint. The criteria established by the institute for the assessment of construction products are acknowledged as being the most stringent on the market. Other vital elements in the company's product range are its architectural solutions for renovation projects and the support it provides architects via access to libraries of solutions in BIM format as a way of streamlining communication in the building proces.

ALUPROF. Working for the local community

ALUPROF puts the concept of sustainable development into practice not only in the form of environmental protection measures and responsibility along its supply chain, but also through investing in human resources both by ensuring the safety and personal development of its staff and by committing to supporting development in the local community. As far as the last of these is concerned, the company has been carrying out initiatives via **Fundacja Grupa Kęty Dzieciom Podbeskidzia** (the Grupa Kęty Children of the Podbeskidzie Region Foundation) since 2011. The foundation's primary aims are to support children and young people from children's homes, to work towards equal opportunities and to combat social exclusion.

From the outset, it has provided financial assistance to numerous charitable institutions and organisations, taking part in arranging cultural events, supporting the aspirations of talented sportspeople and creating conditions to help children and young people engage in sports. One of the most important campaigns it has run since its inception is Children's Christmas Dreams, which sets out to fulfil the dreams of children who express them in letters to Father Christmas. Since the campaign was launched, almost two thousand, three hundred Christmas parcels have made their way to youthful epistolarians.

Another important aspect of ALUPROF's corporate culture is the voluntary activities undertaken by its staff. The company regularly encourages them to undertake activities for the benefit of others.

One example of an ongoing initiative that their commitment helps to accomplish is the Bike Helps campaign, which is organised by the ARKA Ecological Foundation. People cycle and add the kilometres they cover to the collective count. The kilometres are then converted into funds which are used to purchase bicycles for children and young people and to buy vegetables for animals housed in the shelter run by Fundacja Przystań Ocalenie (the Safe Haven Foundation). Solidarity with Ukraine was a social responsibility project of great importance to ALUPROF. It involved setting up teams to support staff members and families adversely affected by the aggression in Ukraine. Within Grupa Kęty, more than one and a half million zloties were allocated for the purpose and help was given to more than a thousand people who had been affected.

Aluprof systems:
MB-SR50N HI mullion and transom wall, MB-RW roof window, MB-77HS HI parallel lift and slide patio door, MB-86 SI window and door system with thermal break, MB-SR50 mullion and transom wall

ULRICH GARDENS

WHERE HISTORY, NATURE AND TECHNOLOGY MEET

Ulrich Gardens is a unique development on the border of two districts of Warsaw, Wola and Bemowo. The project involved the regeneration of almost two hectares of what was once the Ulrich family horticultural farm and is now owned by INGKA Centres, which is part of the IKEA group. Situated in front of the Wola Park shopping centre, Ulrich Gardens consists of several features. There is a historical show garden with prized species of trees, including two which have been designated natural monuments. There is also a complex of greenhouses, the Ulrich Villa and an outbuilding that now houses a restaurant.

Ulrich Gardens, Warsaw, Poland / Design: WXCA Architecture Office

Jan Bogumił Ulrich was the nephew of Jan Chrystian Mencke, court gardener to Stanisław August Poniatowski, who ruled Poland from 1764 to 1795. Ulrich entered the world of horticulture at an early age, as an apprentice at Warsaw's famous Saxon Garden. The horticultural enterprise he went on to found won renown for its innovative solutions. For instance, the Ulrichs built more than one iron-framed greenhouse. Fitted with central heating, they were a marvel of their time. The exotic flora that flourished inside them included pineapples, which were all the rage among the Warsaw aristocracy, along with lemons and palm trees, to name but a few.

The regeneration of the historical building presented no small challenge, which was taken up by WXCA Architecture Office.

The remaining walls of the historical greenhouse still stand in the regenerated Ulrich Gardens, along with the underground corridor and the original brick chimneys. Walls which could no longer serve a structural purpose were given a system of supports and the gaps were filled with bricks which were modelled on the originals and made to order at a brickyard. In the underground areas, black deposits can still be seen on some of the walls today. They date back to the times when the furnaces and coal cellars, which were elements of Warsaw's first central heating system, were located there. Nowadays, they are still technical spaces, just as they were in the past, and they are open to visitors thanks to the public functions held in them. Above ground, the metal structure of the greenhouse was reconstructed, together with the geometry of the original roofs, the details of the glazing and the white joinery. The interior walls were whitewashed with lime, in line with traditional horticultural practices. A set of hothouses with the appropriate temperature and humidity were designed, ready to house exotic plants and a seven-metre, living green wall.

Monika Lemańska
architect, WXCA Architecture Office

The architects approached the work with extraordinary sensitivity. During the design phase, they turned to archival documents and collaborated with conservation experts. Conservation work was carried out on the surviving walls of the nineteenth-century greenhouses, the underground passageway and the chimneys. In the underground areas, black deposits can still be seen on some of the walls. They date back to the times when the furnaces and coal cellars, which were elements of Warsaw's first central heating system, were located there.

The greatest challenge was to preserve the unique identity of the Ulrich greenhouse while ensuring that the site meets the needs of present-day residents and complies with the highest of ecological standards. The pro-environmental objective was achieved thanks to a successful collaboration between WXCA and ALUPROF. For the construction of the walls and roof, one of the systems used was the MB-SR50N HI high thermal performance mullion and transom wall. The system has been certified by the Passive House Institute in Darmstadt, where it received the highest rating of A+, confirming that structures made with it meet the requirements for passive buildings. The MB-RW roof window system was also used, as was the MB-77HS HI lift and slide patio door system and the MB-86 SI window and door system with thermal break. The patio and the vestibule of the greenhouse feature the MB-SR50 system and sliding doors fitted with automation by GEZE. All the solutions used for Ulrich Gardens are a guarantee of durability, functionality and refined aesthetics serving to preserve the site's historical character.

The Forge, London, United Kingdom / Design: Bryden Wood, Piercy&Company

Aluprof systems:
MB-SE 120 SUM
unitised façade

THE FORGE

BRITAIN'S FIRST ZERO-EMISSIONS COMMERCIAL BUILDING

The Forge, which is located in central London, is a building unique in many ways. It was designed with the idea of earning BREEAM and WELL version 2 certification with ratings of 'Excellent' and 'Gold', respectively. The certification process is under way as this AluBOOK goes to press and, in the case of WELL, it has reached the pre-certification stage. The Forge is the first commercial building in Britain with zero carbon dioxide emissions during the construction stage and during its subsequent use, in line with the requirements of the UK Green Building Council. The building will also feature photovoltaic panels and a state- of-the-art system for managing cooling, heating, lighting and ventilation. In addition, the development is intended to increase biological diversity in its immediate vicinity.

The innovativeness of the development also lies in the construction method. With a total area of more than 12,500 square metres, The Forge is the first office building of its size and kind in the world to be built using an approach known as 'platform design for manufacture and assembly' (P-DfMA). The approach is grounded in the use of prefabricated components and repeatable processes, making it possible to build spatial structures with great speed and precision. As a result, less material was used during the construction and less waste was generated, while carbon dioxide emissions were reduced by 25% in comparison with traditional construction technologies.

Among the innovations used for The Forge is the MB-SE 120 SUM unitised façade system. Custom designed and developed by ALUPROF for the project, its basic mullion width of 120 millimetres is a standout feature. The specifications for the development stipulated a series of rigorous tests, which were conducted in southern Poland by the independent ALUPROF Research and Innovation Centre. The MB-SE 120 SUM passed them all successfully. The system is distinctive for its vertical fins, which serve as light deflectors. The unitised façade has 986 prefabricated elements, the largest of which measure 3 by 4.76 metres. Crucially, all the prefabrication work was carried out at the ALUPROF prefabrication plant in Goleszów, Poland. The solution has won the appreciation of the contractors and met with a very positive reception on the construction site. The MB-SE 120 SUM has thus become part of an innovative, environmentally friendly development which could well inspire architects and designers not only in UK, but all over the world.

Climate protection.
PROPRIETARY SOLUTIONS FROM ALUPROF

ALUPROF IN THE TRI-CITY

GDYNIA

SOPOT

GDAŃSK


TRANSATLANTYK


WATERFRONT


ENTER


PLAC UNII


POMERANIAN SCIENCE AND TECHNOLOGY PARK


3T OFFICE PARK


ŁUŻYCKA OFFICE PARK


HAFFNER CENTRE


SHERATON HOTEL


TENSOR


MERA SPA HOTEL


RADISSON BLU


INVICTA EUROPEAN FAMILY CENTRE


FORMAT


BALTIC TERRACES


GATO OFFICE BUILDING


HIRO OFFICE BUILDING


ERGO ARENA


NEON (ALCHEMIA IV)


PGE ARENA


ETERNUM


EUROPEAN SOLIDARITY CENTRE


MUSEUM OF THE SECOND WORLD WAR


HILTON GDAŃSK HOTEL


LEOPOLD WINTER RESIDENCE


DEO PLAZA

03.

ON THE COAST

Recent years have seen a real boom in construction along Poland's coastline. The Tri-City agglomeration of Gdańsk, Gdynia and Sopot, together with Szczecin and other cities and towns on the Baltic, are seeing more and more developments which merge perfectly with the urban fabric, skilfully blending the latest trends with respect for history and constituting superb examples of sustainable building. Contemporary office buildings, top-end hotels and public buildings like the Museum of the Second World War and the European Solidarity Museum in Gdańsk are changing the face of the entire Polish seaboard.

Is there, then, such a thing as coastal architecture and is it possible to find a point that the buildings emerging along the country's coastline have in common? In search of answers to those questions, AluBOOK turned to Dżafar Bajraszewki, Architect-Partner, board member and manager of the Tri-City branch of APA Wojciechowski Architekci.

Dżafar Bajraszewski
architect-partner and board member
APA Wojciechowski Architekci

/ COASTAL ARCHITECTURE

KEEPING AN EYE ON THE DETAILS AND A VIEW OF NATURE

/ AluBOOK: You were born in Gdańsk, but you're a Gdynian by choice. What is it that draws you to this city?

Dżafar Bajraszewski, APA Wojciechowski Architekci: You can't choose where you're born, but you can choose where you live. And in my case, yes, actually, it was Gdynia. My affection for it began when I was a teenager. That's when I had the feeling that I'd like to live here in the future. I went to high school here, in the very centre, by the sea. Gdynia is right at the top of the rankings for the best places to live and I don't have any qualms at all about confirming that! The concept of the fifteen-minute city is right on-trend at the moment and it's shaping up very well indeed in the city centre here. You can reach almost everything on foot, whether it's a cinema, a museum, a theatre, the sea or a forest. That makes it easy for residents to give up using their cars and to walk and cycle a lot. The coastal winds are effective when it comes to reducing smog, too. There are far fewer tourists here than in Gdańsk and that also has its advantages, particularly when you live your daily life here. The built landscape has a positive effect on social relationships, as well, because thanks to the fact that the city centre is so compact, a great many people know each other personally and the surroundings aren't as anonymous as they are in Warsaw, say, where I've also had the chance to live.

/ AluBOOK: From an architect's standpoint, do the surroundings in Gdynia please the eye? Or are they painful to behold?

Dżafar Bajraszewski: They definitely please the eye! I'm in love with Gdynia's modernism. Years have passed and I'm rediscovering it. I really like the architecture and I feel good in its setting, but I have the impression that it's not all that widely appreciated. Gdańsk conquers tourists' hearts in a flash, but Gdynia doesn't sweep you off your feet immediately with its modernism expressed in brightly plastered buildings. Fortunately, when I show friends from beyond the Tri-City around Gdynia, they do get carried away by its style.

/ AluBOOK: You lived 'in exile', so to say, for a decade, including spells in Berlin and Warsaw. Has that enabled you to view the architecture of the Tri-City with distance? How do you evaluate it?

Dżafar Bajraszewski: As a student, I lived in Berlin. For me, that was an important opening up of the world. The city's multiculturalism makes it possible to get to know so many interesting people and explore various viewpoints, religions, philosophies and cultures.

It was also a chance for me to see architecture from a completely different perspective, in terms of academic teaching and of the urban fabric itself. While I was at university there, Germany's capital city was going through a period of intense development, so I was absorbing the building designs, which made an immense impression on me. Once I'd graduated, I wound up in Poland's capital city. I lived there for seven years, working in the Warsaw office of APA Wojciechowski Architekci. The large studio, the large projects, the important clients... it was an entry into the world of serious architecture. At present, I'm managing the Tri-City branch of APA Wojciechowski Architekci. It was after a decade spent first in one capital city and then in the second, that I came back to the Tri-City and I really did look at it with distance. I now had a different attitude towards the historical architecture of Gdańsk and Gdynia, but I was also noticing a great many new developments, on a smaller scale than in Berlin and Warsaw, tasteful, intimate and well-designed, with great attention to detail. A thought emerged for the first time; where in the Tri-City were the interesting locations that one could design and build something new for? In urbanistic terms, what stood out was Gdynia, which had been designed from the ground up around an interesting idea. There's a harmony and order here that mainly makes itself manifest in the centre of the city. You can see that it was thoughtfully planned. Admittedly, there are areas of the Tri-City, particularly the business districts, where the kind of chaos we know so well from Warsaw is a bit of a presence, but there are urban and architectural incentives for not going in that direction.

/ AluBOOK: Can you single out any shared architectural identity in the Tri-City? Or are there, perhaps, elements that fit in with the wider picture of coastal architecture?

Dżafar Bajraszewski: The Tri-City is made up of three different creations in terms of history, identity and the residents, who have strong ties to their particular city. So, architecturally speaking, they're three different beings. There's modernist Gdynia, there's the seaside and health resort of Sopot and there's Gdańsk, a historical city with a wealth of ancient brickwork, monuments and so on. An excellent way to see this is to take an SKM rapid transit train through the three cities, because then the visual borders between them are easy to spot. At first glance, I don't see a common denominator amidst our coastal architecture and I wouldn't want to operate on the basis of clichés like sails, waves and 'inspired by amber'. It's certainly possible to find features that the cottages of the fishing communities along the coastline have in common, but I really don't think that would be enough thread to spin a shared identity from.

/ AluBOOK: Alchemia is an interesting project in Gdańsk Oliwa, a district with a long and colourful history, not to mention a wealth of historical sites. Is it difficult designing for locations like that, where you have to keep the balance between the traditional and the contemporary? Or have designs as bold as Hala Olivia blazed a trail and granted permission for a less conservative approach to form?

Dżafar Bajraszewski: It's an office building with some mixed-use elements. It's worth noting that, when the developer, Torus, was planning the project, that approach hadn't become popular, so we're talking about what was then a pioneering attitude towards workspaces. It encompasses not only offices, but also a swimming pool, a gym, a climbing wall, a restaurant and so on. As it happens, it's in an area that isn't part of Oliwa's historical fabric. Alchemia's surroundings are the business quarter, the large buildings of the university campus and the SKM station. And there's also Hala Olivia, an icon that's defined the modern approach to local projects to a certain extent. A kilometre away from Alchemia, there's another of our projects, the FORMAT, which is situated right next to the Oliwa SKM station. Both buildings have the same

functions and they're located in 'practically' the same district; I say 'practically', because formally, FORMAT is just over the boundary in the Przymorze Małe district. But for all that, they're very different in form... which is dictated by their immediate vicinity.
FORMAT stands right alongside Gdańsk Oliwa railway station in the historical quarter of the district. So it's fitting that it alludes to local history and tradition. Alchemia and FORMAT are both excellent examples of the need not only to respect tradition, but also to maintain a healthy balance between history and the present day.

/ AluBOOK: Staying with Oliwa, do you agree with the thesis that suggests aluminium and glass are playing a growing role in that district? Is the architecture of Gdańsk moving in that direction?

Dżafar Bajraszewski: The example of Alchemia and its surroundings demonstrates that it will certainly apply in the business quarter of Oliwa. The style there is what you might call 'downtown'. There's an abundance of glass and aluminium and it's fairly densely built up, so designers are all the keener to illuminate the office spaces as effectively as possible. Mind you, there's also a new trend emerging. It leans more towards increasing the proportion of solid wall to glazing in façades. And I'm happy to say that the importance of wood in building and of green walls is growing, as well, almost certainly a result of the sustainable building movement and the desire to drive down the construction industry's carbon footprint. It's a significant trend, because using the right proportions of glass, aluminium and wood can help us to obtain interesting results.

/ AluBOOK: Is there anything missing from the existing urban fabric of the Tri-City in your opinion? Or, as both a resident and architect, do you see it as a complete creation now?

Dżafar Bajraszewski: Without a doubt, there's a lack of organised space between buildings. I think that's a problem not only in the Tri-City, but in other Polish cities and towns, too. What I have in mind here isn't only the ubiquitous 'concreteosis', but also the chaos that's perpetually subordinated to cars and not pedestrians. I was in Copenhagen not long ago and, thanks to an app developed by the Danish Architecture Centre, I was able to take myself on a tour of the city's architectural gems. The quality of the space between the buildings!... abounding in cycle paths, squares, pavements, greenery and street furniture... made more of an impression on me than the buildings themselves! What they have there is the idea and the consistent follow-through. We still have a lot to do in that area. Another thing the Tri-City undeniably lacks is the development of the post-shipyard areas. But I believe that a great many of the projects that were slowed down both by the pandemic and by the economic and geopolitical situation will be successfully completed. At the moment, one of the things we're working on is the office section of the DOKI development. I'm also waiting for the Gdynia landscape resolution to be implemented. The Gdańsk one has been introduced and the 'clean-up' is already visible; at last all those intrusive, shouty hoardings, advertisements and neon signs have started to disappear.

/ LOCAL DESIGN.

CAN WE TALK ABOUT A TRI-CITY SIGNATURE ARCHITECTURAL STYLE?

Marcin Woyciechowski
architect
Grupa Inwestycyjna Hossa SA

/ AluBOOK: You're involved with the Tri-City on a daily basis as both a resident and an architect. Does the local architecture build the region's identity?

Marcin Woyciechowski, Grupa Inwestycyjna Hossa SA: It's a complex topic, because the Tri-City itself is far enough away from other centres to have a certain separateness. As seen from Katowice, Warsaw, Wrocław and Bielsko-Biała, it's a far-off agglomeration and you can get that kind of impression from that kind of distance. However, from the local perspective, it's much easier to identify the differences within the Tri-City than those between the Tri-City and other parts of Poland. We have terms like 'Gdynian architecture', which is connected with the local modernism, 'Gdańskian architecture', tied to the city's strong Hanseatic influences, and 'Sopotian architecture', with its clear Secessionist impressions. But they don't have a common denominator. On the other hand, respect for history is something they do have in common. At APA, if we have the chance to preserve something precious in our designs, then we'll always try to do that. The aim is, quite simply, to arrange the space, from urban composition to architectural elements, so that history becomes an added value for the project. Opening modern interiors up to historical aspects by way of extensive glazing is one of the elements that fit in with this kind of aspiration, like the Gato office building, for example, or The Art of Choosing in the Garnizon Kultury spaces. It's something that ALUPROF plays a part in, too. If I were to look for something that's building the identity of Pomeranian architecture, I can see one such element. Maybe it's more a matter of wishful thinking, but I have this compelling impression that there's an architectural airiness, a transparency, that's brought into play more in Pomerania. It stands out clearly from the other regions of Poland.

/ AluBOOK: In other words, although we often talk about the metropolis in its entirety, it's hard to point to architectural elements that the Tri-City has in common.

Marcin Woyciechowski: Yes, actually, I'd find it impossible to identify something that you could call the 'Pomeranian style of architecture'. We work on a variety of projects throughout the Tri-City and we try to tie each of them in with the identity of their

Plac Unii, Gdynia, Poland / Design: Marcin Woyciechowski

location.Plac Unii in Gdynia is an interesting example. The windows, including the curved ones, were created in collaboration with ALUPROF. The project encompasses numerous allusions to 1920s modernism along with thought-provoking contemporary elements. I'm convinced that it works well with the urban fabric of Gdynia. In Gdańsk, the long-term Garnizon project is an APA flagship and there, thanks to the red ceramics and Corten steel, we have masses of historical references. They're not just to nineteenth-century brickwork, either, but also to events that happened around the shipyard, because in this region, Corten steel is irrevocably associated with the Gdańsk Shipyard. So everything interweaves with the context of the site's traditions.

/ AluBOOK: How do you envisage the architecture of the Tri-city fifty years from now?

Marcin Woyciechowski: The layout of the Tri-City is linear and there are plenty of voices saying that the layout makes it tough to give up one's car. The linearity has its advantages and disadvantages and they include the possibility of giving up on moving around by car and using a reasonably efficient public transport system which is also cyclist-friendly. I firmly believe that our optics will have changed over the course of half a century and we'll have stopped looking at, designing and thinking about the public space through the prism of cars. It's quite possible that, in fifty years' time, private cars will have ceased to exist... in public spaces, at any rate. I'd also hope to obtain control over the administrative and opinion-forming aspects of 'cabbage patch' developers; in other words, spatial incidents that are completely random and spring from the fact that someone bought a plot of land and erected a group of buildings on it. It's endemic on the outskirts, but it sometimes happens in the centre, as well, actually destroying the surroundings. Fortunately, there's a growing awareness on the topic of old-new urban planning, because there's now talk of building frontages, open ground floors and glass shopfronts. I'm counting on the city returning to being a place that's pleasant to walk around, where a new perspective emerges every now and then and where you can gaze through an expansive window into a different space. All of that fits in with sustainable development and the concept of the fifteen-minute city. I'm also counting on a gradual move away from 'mass produced' architectural solutions in favour of more freely, digitally created forms born of spatial logic, structural optimisation and the right climate, rather than from the shape of the formwork or cladding that's available. And all of this in the spirit of conserving resources. It requires a revolutionary change in thinking on all sorts of planes, but I'd say we owe it to the planet to do exactly that.

/ WITH RESPECT FOR THE PAST.

WITH THOUGHT FOR THE FUTURE. THE MUSEUM OF THE SECOND WORLD WAR AND THE EUROPEAN SOLIDARITY CENTRE

Museum of the Second World War, Gdańsk, Poland / Design: Bazyli Domsta, Jacek Droszcz, Zbigniew Kowalewski, Andrzej Kwieciński and team

GDAŃSK is one of those cities which has made its own unique mark on the history of our country. It therefore comes as no surprise that, among its multitude of buildings, there is no shortage of those fulfilling the role of commemorating the history not only of the region, but also of Poland and Europe. The Museum of the Second World War and the European Solidarity Centre occupy a particular place on the tourist map. Situated on the banks of the Martwa Wisła and Motława rivers, the buildings are an eloquent symbol of the fight for freedom and their interesting architectural solutions are a source of delight.

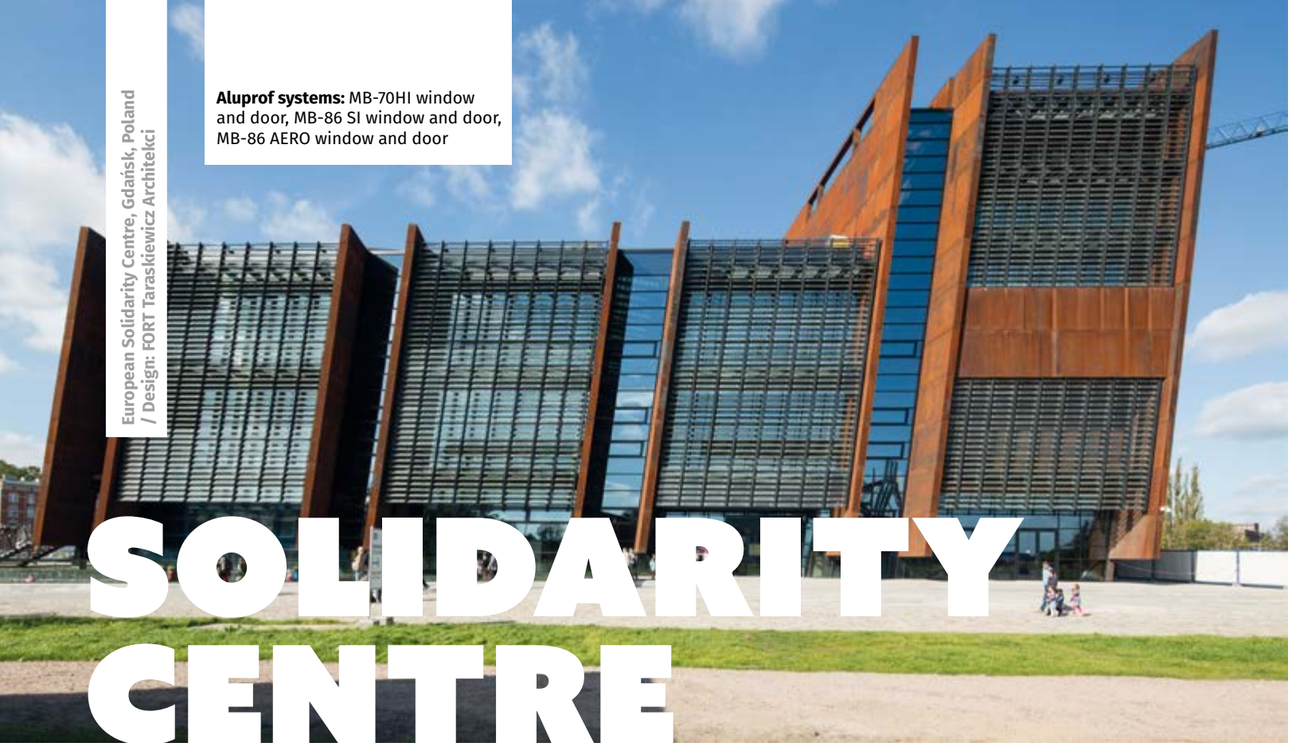
The Museum of the Second World War. An expressive accent on the map of Gdańsk and the world

Passing indifferently by the Museum of the Second World War building is not something easily done. Created in glass and concrete, the sloping, prismatic volume forms a sharply outlined spatial accent against the panoramic backdrop of the Motława and the cranes of the shipyard. It is an outstanding example of the successful use of advanced engineering and structural solutions. The museum was built close to Plac Władysława Bartoszewskiego in Gdańsk, near the historical heart of the city. The building itself measures 58,000 square metres, with a useable area of 23,000. The grounds cover 1,700 square metres. The design is the work of Studio Architektoniczne Kwadrat and the general contractor was Hochtief Polska i Warbud.

The division of the museum into three zones creates a symbolic link between what has been, in this case, the Second World War, and what will be. The first of the zones is the past, hidden in the building's subterranean area. The present is manifest in the open square around the building and the future is expressed through the dominant feature, completed with viewing platform.

The part of the building above ground consists of eight storeys in the shape of a sloping tower. Rising more than forty metres skywards, its form is reminiscent of a prism with a trapezoid base and an incline reaching fifty-six degrees at the steepest point. One of the tower walls is completely glazed, with the remainder featuring cladding in a distinctive red. The facilities housed in the tower include a library and education rooms, along with a café and restaurant offering a panoramic view of the city. The building also has six subterranean storeys. At a depth of fourteen metres, it holds a permanent exhibition displayed over an area of 5,000 square metres, making it one of the largest presented by a historical museum anywhere in the world.

The Museum of the Second World War building features ALUPROF's MB-SR60N mullion and transom wall. At sixty millimetres, the width of the mullions and transoms allows the maximum possible natural light to enter from above. At the same time, it facilitated the creation of a striking façade, with visible, slender dividing lines. Given the building's steep slope, the façade was installed on a steel substructure that uses tendons. A custom-designed attachment system made it possible to compensate for the perpendicular and parallel displacements of eleven and seven millimetres, respectively, to the plane of the wall.



European Solidarity Centre, Gdańsk, Poland
/ Design: FORT Taraskiewicz Architekci

Aluprof systems: MB-70HI window and door, MB-86 SI window and door, MB-86 AERO window and door

SOLIDARITY CENTRE

The European Solidarity Centre. An eloquent symbol of freedom

The European Solidarity Centre stands in the historical quarter of Gdańsk, right by Plac Solidarności and not far from the famous Gate No. 2 of the Gdańsk Shipyard and the Monument to the Fallen Shipyard Workers of 1970. The building, which covers an area of almost 25,350 square metres and has five storeys, houses not only a permanent exhibition presenting contemporary Polish history, the birth of the Solidarity movement and its legacy, but also an archive, a library, a media library, a multifunctional space, a year-round garden and a café.

Visually, it alludes to Solidarity's shipbuilding history. The powerful, austere volume outlined by the gently sloping planes of the walls brings the hull of a ship to mind. That effect is reinforced by the façade, which was created in Corten steel with a reddish hue that gives the impression of rust. The design was created by Wojciech Targowski of FORT Taraskiewicz Architekci. Several systems by ALUPROF were used in the European Solidarity Centre. One was the MB-70H window and door system with thermal break, which made it possible to create slender, durable window and door structures featuring a sensationally low heat transfer performance. The MB-86 Aero and MB-86 SI systems, including an innovative aerosol material with superb thermal insulation, were also used.

An interview with Jacek Droszcz of Studio Architektoniczne Kwadrat, which was responsible for the design of the Museum of the Second World War

/ AluBOOK: The design for the Museum of the Second World War had to unite the functions of a museum with a difficult historical context and also had to fit in with its surroundings. That must have been quite a tough task you were faced with?

Jacek Droszcz, Studio Architektoniczne KWADRAT: The design for the Museum of the Second World War was selected as the result of an international architectural competition. The competition terms and conditions included a highly specific programme as regards the functioning of the permanent exhibition. The scenario for that, in turn, was based on a design by a Belgian studio, Tempora. Two years earlier, they'd won a competition for the design of the museum's main exhibition. So a rather rare situation emerged, where the designers had to design a building that would be the 'packaging', so to say, of a tightly defined museum setting. It was no easy task, because it demanded a truly inquiring disposition as far as understanding the primary principles and concepts of Tempora's design was concerned. On the other hand, though, that significantly reduced the scope of the analysis to be carried out on the functional and spatial solutions for the exhibition and, by the same token, it accelerated the work on the final decisions.
Our search for the right architectural form gained further momentum once it had been decided to head downwards and conceal the entire exhibition area underground. Given the very high groundwater level caused by the close proximity to two rivers, the Radunia on one side and the Motława on the other, it was a risky decision. But we were determined, since we'd recognised that we couldn't build some gigantic architectural form across the entire one-and-a-half hectare plot. We were seeking a way of making a sculptural spatial structure in proportion to its environs. Its expressive form has become a powerful symbol in that space, marking an important point in the topography of Gdańsk. An architectural 'exclamation mark' that also carries out a unique kind of dialogue with other buildings, accentuating the city's skyline with its many church and town hall towers and spires. Searching for all those connections and solving the problems wasn't so much difficult as complicated, but also incredibly exciting. It gave us great joy and the result was immensely satisfying.

/ AluBOOK: Which elements of the design best convey its Gdańskian essence, or even more broadly, perhaps, it's coastal essence?

Jacek Droszcz: Defining... well, let's call it the 'Gdańskness'... doesn't seem all that difficult. In general, the Tri-City is something of an architectural phenomenon. It presents huge stylistic diversity. Light, bright, modernist Gdynia. Eclectic Sopot and its wealth of turrets and verandas, its bay and oriel windows. And finally, Gothic-Renaissance Gdańsk, with its distinct, red-brick facture. All three externalise their features in their own city-centre spaces, their historical layouts and their squares. In addition, Gdynia and Sopot seek opportunities to present themselves as cities seen from the sea, particularly Gdańsk Bay, which opens up so expansively before them. Even though Gdańsk is undeniably both a port city and a coastal city, its location means that it doesn't have that same potential for presenting an extensive view of itself from the sea. It's a waterfront city, a city of many waterfronts

Museum of the Second World War, Gdańsk, Poland / Design: Bazyli Domsta, Jacek Droszcz, Zbigniew Kowalewski, Andrzej Kwieciński and team

Aluprof systems:
MB-78EI fire partition with door, MB-86 window and door, MB-SR60N mullion and transom façade, MBRW roof window, MB-SR50N HI+ mullion and transom façade; MB-SR50N OW window

MUSEUM OF THE SECOND WORLD WAR

stretching along numerous canals. The location of the museum is somewhat peripheral to the Old Town and the Main Town. The site's most powerful context is the water of the Radunia and Motława canals.

Just as it reflects the townhouses, the Crane and the city gates of Gdańsk, so the water reflects the soaring, tapered volume of the museum like a mirror, creating a unique show that shifts and changes with the time of day and the weather. In addition, the museum becomes one with the city's physiognomy thanks to its colour, its texture and its distinctive form.

/ AluBOOK: Historical towns often struggle to find a new symbolism and identity for themselves. Is the Museum of the Second World War actually a new symbol of Gdańsk?

Jacek Droszcz: Every city and town seeks its new, contemporary symbols. I'm delighted that, in the eyes of the residents and the city authorities, the museum is perceived as a contemporary icon of Gdańsk, along with the European Solidarity Centre and the Gdańsk Shakespeare Theatre. That's a great honour for us and very satisfying.

/ AluBOOK: In this edition of AluBOOK, we're in search of answers to a question; does coastal architecture exist? In your opinion, is it possible to identify it as a style?

Jacek Droszcz: The edge between water and land is a magical place. It conjures up tension within the space and that inspires creative exploration. The surface of water is a superb plane for observation. Coastal cities and towns... or, even more broadly, waterside cities and towns... make the most of that, endeavouring to present their best features and forms from that side. Waterfronts often become a symbol of cities and towns. That spurs architects on to design buildings which are bold and audacious in form, but first and foremost, distinctive and recognisable. Waterfronts perpetuate the image of a city by creating its unique identity. So it's hard to talk about a costal architectural style. It's more of a phenomenon where urban structures densify as they move towards water and it often involves the use of post-industrial sites, especially ports. And that's what's happening in Gdańsk.

Radisson Blu Hotel, Sopot, Poland / Design: Marcin Woyciechowski, Pracownia Projektowa Hossa, in collaboration with Andrzej Kwieciński

RADISSON BLU HOTEL

The Radisson Blu Hotel is a development which has been thought through right down to the very last detail, from its location, surrounded by greenery in a quiet quarter of Sopot just a quarter of a kilometre from the beach, via its architectural allusions to the coastal scenery, the shapes of the waves and the dunes, to the cutting-edge ecological solutions which are appreciated by even the most discerning of guests.

A UNIQUE POINT ON THE TRI-CITY MAP

Aluprof systems:
MB-Slimline windows with slender profiles

Marcin Woyciechowski
architect, Pracownia Projektowa Hossa

An intimate resort at the very heart of the Tri-City, the Radisson Blu Hotel is situated at the border of Sopot and Gdańsk. The Tri-City Landscape Park is just a twenty-minute walk away, a ten-minute stroll will bring you to the city's main pedestrian street, Sopot's famous ulica Bohaterów Monte Cassino, and you can be at the beach in under three minutes. Hop into the car and enjoy the Old Town of Gdańsk a mere twenty minutes later. Everything is close, yet guests will still have the sense of being in a quiet, secluded spot, far from the madding crowd.

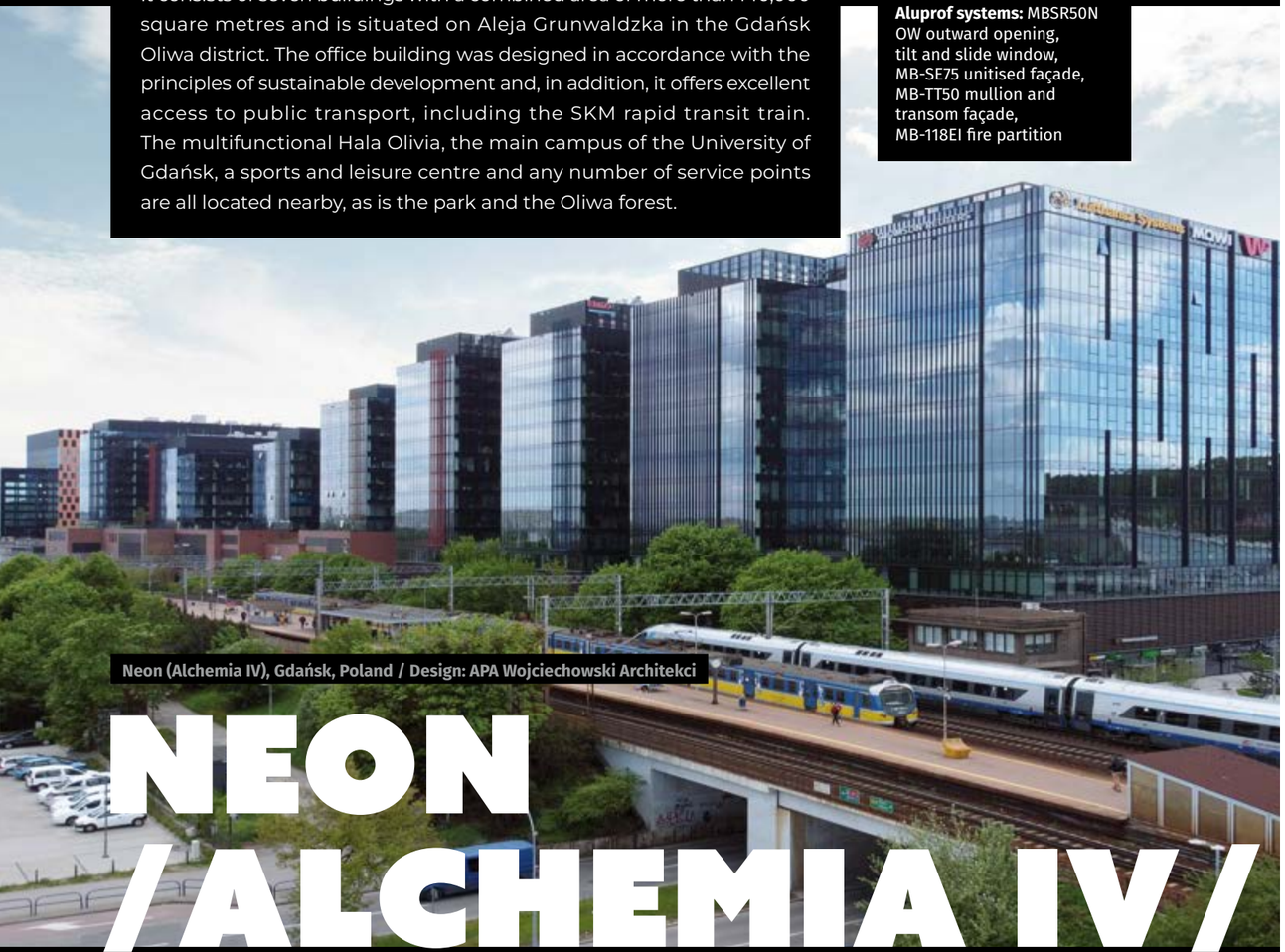
Superb design hand in hand with ecology. The design of the hotel is the work of Marcin Woyciechowski, Main Architect and Board Member of Grupa Inwestycyjna Hossa S.A. The inspiration drawn from the coastal scenery, the shapes of the waves and dunes, is clear to see.

Airiness is something you experience with every step in the Tri-City. A way of expressing it more literally would be a certain 'sail-likeness', from form and fabric, the taut elements, via lightness, to the firm grounding in the varied history that shapes the diversity of Gdańsk, Sopot and Gdynia. Those sails are fairly literal, of course, but the airiness can also be brought to life in less obvious forms. With the Radisson Blu in Sopot, that translucency is built into the lobby, which is open to the space by way of the fully glazed façade. We also used ALUPROF'S slender-profiled MB-Slimline window system, which enabled us to bring the lightness of the volume into prominence. It's a substantial project. There are more than two hundred and fifty rooms, not to mention a swimming pool and conference centre, but it's not overpowering as a whole and we succeeded in weaving it into the coastal landscape.

The MB-Slimline window system is distinctive not only for its slender profiles, but also for its excellent thermal and acoustic performance, high air- and watertightness and high structural durability. Taking the context of the site into consideration and using innovative construction solutions meant that the designer was able to obtain a unique, intimate, spa-like atmosphere. One unmistakable standout feature of the Radisson Blu is the green roof connecting a pavilion that is not permanently attached to the hotel with the conference centre. At the same time, it melds seamlessly with the recreational area around the building. The space has also been made all the more abundant by the addition of a rain garden designed for the spot where the roof connects with the ground. By the same token, the building fits the principles of low water retention, which bring measurable benefits to users and nature alike in several ways, including improving the water balance in a given area and increasing its biodiversity.

NEON IS ALCHEMIA STAGE IV, the final building to be constructed as part of the stunning Alchemia complex, a project developed by Torus. It consists of seven buildings with a combined area of more than 140,000 square metres and is situated on Aleja Grunwaldzka in the Gdańsk Oliwa district. The office building was designed in accordance with the principles of sustainable development and, in addition, it offers excellent access to public transport, including the SKM rapid transit train. The multifunctional Hala Olivia, the main campus of the University of Gdańsk, a sports and leisure centre and any number of service points are all located nearby, as is the park and the Oliwa forest.

Aluprof systems: MBSR50N OW outward opening, tilt and slide window, MB-SE75 unitised façade, MB-TT50 mullion and transom façade, MB-118EI fire partition



Neon (Alchemia IV), Gdańsk, Poland / Design: APA Wojciechowski Architekci

NEON /ALCHEMIA IV/

THE JEWEL IN THE CROWN OF THE TRI-CITY'S LARGEST OFFICE AND SERVICES COMPLEX

Impeccable aesthetics and functionality

The design of Neon is the work of APA Wojciechowski Architekci. The development is an exquisite example of cutting-edge architecture, combining top-end aesthetics, functionality and ecology. In line with the designers' concept, the motifs and materials used to create the elevation were used for the other Alchemia buildings, in other words, strips of coloured mesh, corresponding to Aurum and Platinum, and ceramic shapes for the lower part, echoing the Argon building. Air conditioning, raised floors, state-of-the-art cabling and smoke alarms are all part of the standard finishings. The complex is one of the largest and most prestigious office developments in the Tri-City. With twelve above-ground storeys and three below ground, it offers almost 35,000 square metres of office space for lease. The on-trend interior spaces can also be adapted to tenants' needs. The lobby houses the stylishly elegant reception area, complete with access control. Neon also features a wide range of services, including restaurants, cafés, retail outlets, banks and pharmacies. It connects with the Oxygen building via an underground shopping arcade.

Ecology bearing a PLATINUM stamp

Like the rest of the Alchemia complex, Neon combines office, retail, sports, leisure and cultural functions, creating a space which is friendly to people and the environment alike. Global giants including Amazon, Bayer and PwC, have their offices there and the building regularly hosts a wide variety of cultural and sporting events. A number of innovative solutions by ALUPROF were used in the construction of Neon, including the MB-SR50N OW window system, the MB-SE75 façade system, the MB-TT50 mullion and transom wall with high thermal insulation and the MB-118EI fire partition system with an EI120 fire-resistance rating.

The use of high-quality materials and innovative technology means that, like the other Alchemia buildings, Neon has received a LEED certificate with the highest possible score, PLATINUM, which also places it at the head of Poland's most ecological buildings. It is worth emphasising that LEED certification is not only an accolade for buildings and their developers alike. It also contributes to improving quality of life and protecting the climate.

Dżafar Bajraszewski
architect-partner and board member
APA Wojciechowski Architekci

Neon is the culmination of our 'alchemical' work, which we've created in collaboration with Torus. In architectural terms, the building is a compositional 'clasp', bringing together elements of the first and third construction stages. The H-shaped floor plan for the office space is similar to Argon's. That was stage three. However, there are two separate core areas operating on each floor. We decided that Neon should continue the arcade begun on the Aleja Grunwaldzka side in stages one and two. Our findings show that it was very well received by users. In turn, the passage between Neon and Argon is the central point on the Alchemia map. It leads to a tunnel that takes us straight onto the SKM platform. It's also a space where people can meet up, relax and unwind, where the paths of office workers, students, local residents and random passers-by cross.

There are places which have a unique character and a style all of their own. Without a doubt, Gdynia is one of them. A port city, it stands out for its one-of-a-kind buildings. There is even a temptation to say that, in terms of architectural solutions, it is phenomenon on a nationwide scale and possibly even a global one. How can the development and new buildings that are inevitable be worked into a space of that kind? Designer Marcin Woyciechowski undertook exactly that task, drawing on the best of Gdynian modernism to design Plac Unii, comfortable, modern apartment buildings which blend seamlessly into the existing urban fabric.

Plac Unii, Gdynia, Poland
/ Design: Marcin Woyciechowski

Aluprof systems: MB-SR50N mullion and transom, MBSR50N PL mullion and transom façade, MB-SR50N EI mullion and transom fire wall, MB-86 US window with concealed vent, MB-86 window and door with thermal break, MB-45 window and door without thermal insulation, MB-78EI fire partition with door

PLAC UNII

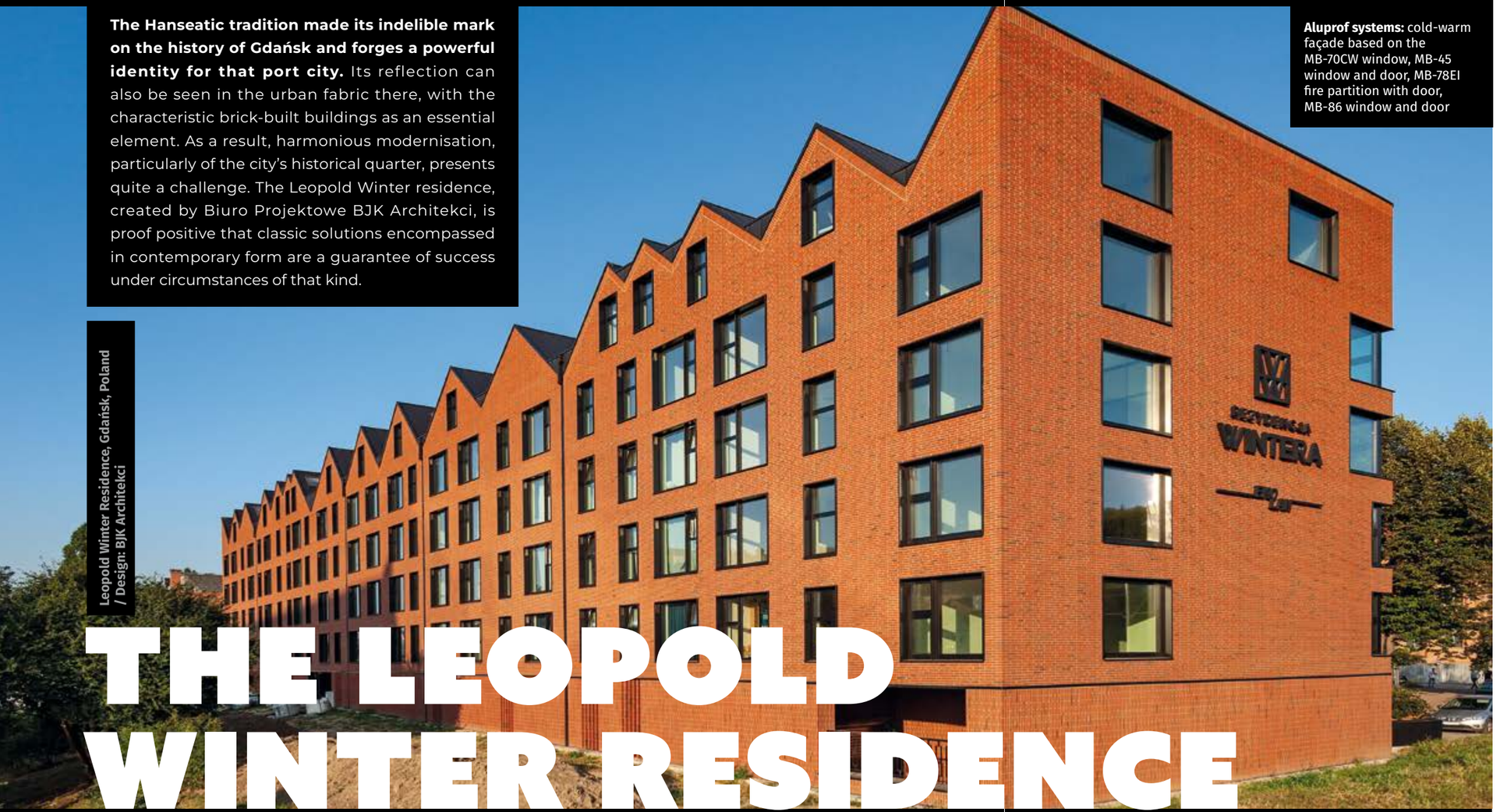
A CONTEMPORARY JEWEL OF GDYNIAN MODERNISM

In the nineteen twenties and thirties, modernism reigned supreme over European architecture. It indubitably also had an enormous influence on what was then the emergent city of Gdynia, a youthful port which drew copiously on the principles of that style. The result was something rare to agglomerations; it proved possible to obtain continuity in the built areas, with their simple and functional lines and features. Modern Gdynia is likewise striving to preserve that uniqueness and Plac Unii is an outstanding example of this. A complex of four luxury residential buildings and one given over to public use, it slips neatly into the grid formed at the centre of the city by three streets, Obrońców Wybrzeża, Władysława IV and Armii Krajowej.

The respectful approach taken towards the city's history by the developer, Grupa Inwestycyjna Hossa, is reflected in the simplicity and minimalism that set the development apart. Both qualities are expressed in the white façades and in the lightness and linearity of the buildings. The design of the residential buildings situated around Plac Unii also alludes to the most characteristic features of Gdynian modernism, namely, the maritime motifs in the form of large, curving sweeps of glass and the volumes of the buildings, which bring to mind the hulls of ships. All of this made it possible to construct aesthetically interesting buildings which provide the exceptionally comfortable of living and working typical of that architectural style.

Achieving an effect of this kind was facilitated by the use of innovative technological solutions, including ALUPROF's MBSR50N, MB-SR50N PL, MB-SR50N EI, MB- 86 US, MB-86, MB-45 and MB-78EI systems. These state-of-the-art solutions made it possible to build the large-scale, glazed surfaces which exceed standard dimensions and endow the buildings with a unique lightness and, at the same time, create bright, restful interiors. The challenge came with the curving shape of the structure. However, for Plac Unii, those sections could also be glazed. This was entirely thanks to ALUPROF's profiles, which afford the possibility of bending and can therefore be used to create curves. In addition, customised systems for the patio doors provided the capability of creating roomy ways out onto to the terraces and balconies, which play a dual role in the case of this development. Not only are they allusions to the structure of a ship, but they also open up the interiors, providing an opportunity to relish the maritime atmosphere and drink in the amazing, panoramic views of the city.

The Hanseatic tradition made its indelible mark on the history of Gdańsk and forges a powerful identity for that port city. Its reflection can also be seen in the urban fabric there, with the characteristic brick-built buildings as an essential element. As a result, harmonious modernisation, particularly of the city's historical quarter, presents quite a challenge. The Leopold Winter residence, created by Biuro Projektowe BJK Architekci, is proof positive that classic solutions encompassed in contemporary form are a guarantee of success under circumstances of that kind.



Leopold Winter Residence, Gdańsk, Poland / Design: BJK Architekci

Aluprof systems: cold-warm façade based on the MB-70CW window, MB-45 window and door, MB-78EI fire partition with door, MB-86 window and door

THE LEOPOLD WINTER RESIDENCE

MODERNITY IN CONCORD WITH THE QUALITIES OF A PORT

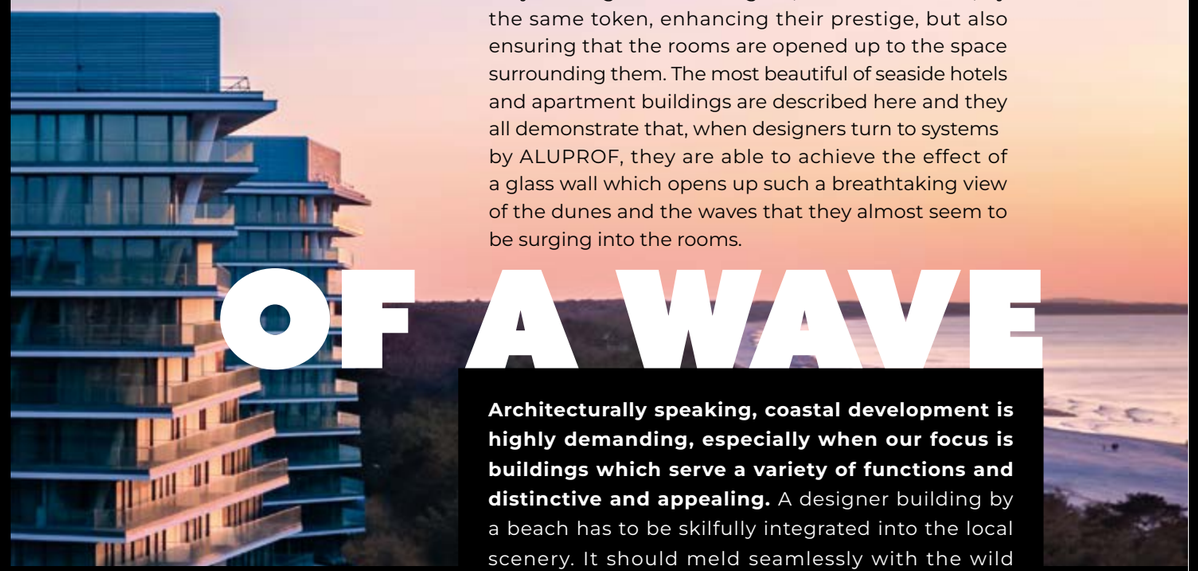
The demands made of modern apartment buildings include energy-efficiency, innovative technological solutions befitting the twenty-first century and user comfort. At the same time, there is an expectation that prestigious urban residences will be situated in an attractive location in the centre of their city. This very often involves the tough task of setting new buildings into the built areas of a surviving old town. An excellent example of introducing a modern building into a historical context is the Leopold Winter Residence, which stands on the bank of the Motława River in the ancient district of Gdańsk Przedmiejście. Keeping the nature of the city as a port at the forefront of their minds and working with respect for tradition, the designers from BJK Architekci created a multifamily building with architecture which alludes to the sharply tapering, red-brick, Hanseatic townhouses that line the adjacent river. The use of rough-textured bricks and sinters in various hues enabled them to achieve the subtle effect of an ancient, weathered façade which corresponds superbly with the historical buildings located on the far side of the former buttermilk market.

Without a doubt, it is the large windows with their simple form which lend the Leopold Winter residence a modern touch. To bring the design to fruition successfully, systems by ALUPROF were used, including the MB-70CW, the MB-45, the MB-78EI and the MB-86, all of which can be employed for building façades with masonry walls. In this case, it was highly significant because of the neighbouring brick buildings. ALUPROF's solutions, with their increased thermal insulation, made it possible to create warm façades with extensive glazing, emphasising the exceptional nature of the site. On the one hand, the red elevations and high, geometric gables look out proudly over the waters of the Stare Motława and, on the other, like a sheet of water, the glazed façades reflect the built space with its historical townhouses. This union of the building's minimalist solutions and traditional volume conveys the quintessence of a subtle dialogue between ancient and modern.

Wave Apartments, Międzyzdroje, Poland / Design: MODO Architektura

ARCHITECTURE ON THE CREST OF A WAVE

Impressive glazing is a hallmark of contemporary apartment buildings and hotels. When these types of buildings are located on the coastline, extensive glazing seems to be quite simply indispensable, not only lending them an elegant, modern feel and, by the same token, enhancing their prestige, but also ensuring that the rooms are opened up to the space surrounding them. The most beautiful of seaside hotels and apartment buildings are described here and they all demonstrate that, when designers turn to systems by ALUPROF, they are able to achieve the effect of a glass wall which opens up such a breathtaking view of the dunes and the waves that they almost seem to be surging into the rooms.



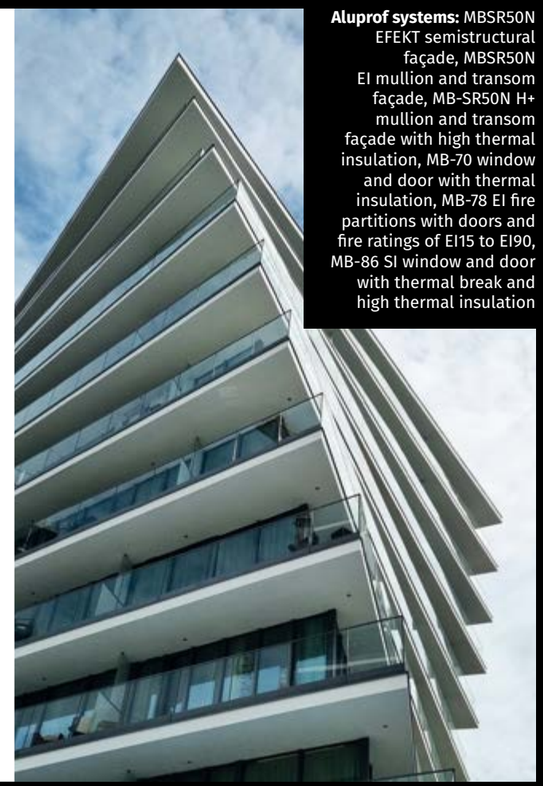
CONTEMPORARY COASTAL BUILDINGS

Architecturally speaking, coastal development is highly demanding, especially when our focus is buildings which serve a variety of functions and distinctive and appealing. A designer building by a beach has to be skilfully integrated into the local scenery. It should meld seamlessly with the wild nature of the dunes, not disrupting the ecosystem, but enabling users to commune directly with nature. The Polish coastline has plenty of buildings that exemplify how contemporary architecture combines respect for the surroundings with the needs of tourists. Their common denominator is their extraordinary lightness of structure, which opens up the rooms, letting in the blue of the sea.

WAVE APARTMENTS

The beauty of the dunes by the Baltic Sea can be admired by the owners of the apartments located in one of five luxury buildings situated at the heart of Międzyzdroje. The thirty-four-metre high buildings making up the Wave Apartments complex are impressive not only for their location, but also for their unconventional design. Each successive storey is rotated by three to four degrees in relation to the one below it. The spiralling arrangement of the towers and their blue-and-white colour scheme are a powerful allusion to maritime traditions and call to mind the sight of waves gathering. The effect is all the stronger when the entire complex is viewed from a distance because then it can be seen that, together, the ten-storey buildings form the shape of a sailing ship.

The unique façade was created thanks to the use of ALUPROF's MB-SR50N EFEKT system, in conjunction with the MB-SR50N EI and MB-SR50N H+. The structure was further enhanced by the MB-70, MB-78 EI and MB-86 SI systems, which were designed for projects demanding robust external thermal and acoustic insulation.



Aluprof systems: MBSR50N EFEKT semistructural façade, MBSR50N EI mullion and transom façade, MB-SR50N H+ mullion and transom façade with high thermal insulation, MB-70 window and door with thermal insulation, MB-78 EI fire partitions with doors and fire ratings of EI15 to EI90, MB-86 SI window and door with thermal break and high thermal insulation

SEASIDE PARK HOTEL

Seaside Park Hotel, Kołobrzeg, Poland / Designer: RDZ-A (RDZ Architekten) Jacek Sudak

Aluprof systems: MB-SR50N mullion and transom façade, MB-SR50N EFEKT semi-structural façade, MB-SR50N EI mullion and transom façade, MB-77HS lift-and-slide balcony door, MB-86 window and door

A new hotel and apartment complex, Seaside Park Hotel, located in Kołobrzeg, right by a wide, sandy beach, perfectly matches the requirements for facilities providing a comfortable spot to relax and unwind in nature's embrace. Situated at the heart of the resort, it offers two hundred and ten hotel rooms and one hundred and eighty-one suites, along with a wealth of gastronomic, wellness and spa facilities, all situated in buildings where the volume was inspired by the beach, wooden yacht hulls and white sails. ALUPROF's MB-SR50N system and its MB-SR50N EFEKT and MB=SR50N EI variants were used to create the façades, skylights and glazed roofs, with the appropriate fire-resistance parameters. MB-77HS lift and slide doors provide maximum user comfort and the MB-86 window and door system enhances the effect of extensive, comfort-oriented glazing.

SEASIDE GARDEN

Seaside Garden Apartments & Wellness, Świnoujście, Poland / Design: Archice

Aluprof systems: MB-79N SI window and door with thermal insulation, MB- 77HS HI parallel lift-and-slide balcony door, MB-78EI fire partitions with doors and fire ratings of EI15 to EI90

Świnoujście prides itself in holding a Blue Flag certificate for the most beautiful beach on the Polish coast. A title like that also lays an obligation on developers constructing buildings in the vicinity. Seaside Garden was created with exactly that in mind. A multifamily building, it alludes to classicist buildings of a high standard. The glazed façade features additional enhancement in the form of decorative pilasters and cornices, endowing the development with an air of majesty. There are seventy spacious apartments located over the six floors above ground. They correspond to the needs of people seeking timeless design wedded to closeness with nature. The effect of the rooms opening up into the greenery around them was achieved by way of glazing produced using ALUPROF's MB-79N SI and MB-77HS HI systems. The partitions were built using the MB-78-EI with increased fire protection.

APARTPARK

Apartpark Baltic Home, Świnoujście, Poland / Design: Pniewski Architekci

Aluprof systems: MB-86 SI window and door with thermal break and high thermal insulation, MB-86 ST window and door, MB-SUNPROF external venetian blind

Apartpark Baltic Home is a luxurious facility enfolded in the greenery close to the beaches of Świnoujście. Located by the shoreline, right next to the dunes, it offers three hundred and seventy spacious apartments with glorious views of the sea. The exceptionally extensive glazing was built using ALUPROF's MB-86 HI and MB-86 ST window and door system with high thermal insulation and the entire building was enhanced by the addition of MBSUNPROF external venetian blinds, which give protection against not only excessive sunlight, but also any possible loss of energy.

For several years now, the landscape of Poland's coastline has been undergoing a metamorphosis. Alongside the cosy hotels and guesthouses, luxury resort facilities and apartment buildings showcasing exceptional architecture are on the increase. Right by the seashore, buildings on a par with those found in world-class resorts are beginning to appear, offering getaways with every comfort, closely surrounded by nature. Their stunning designs have very often been brought to life through systems by ALUPROF. Some are existing, ready-made solutions and others are custom-designed to the functional and ecological needs of a particular project and the requirements that will bring a unique vision to life

Shellter Hotel & Apartments complex, Rogowo, Poland
/ Design: Głębowski Studio | Tomasz Głębowski

Aluprof systems:
MB-45 window and door, MB-86 SI parallel lift and slide patio door, MB-77HS parallel lift and slide patio door

SHELLTER HOTEL & APART MENTS

FORM DOMINATED BY ITS SURROUNDINGS

A union between comfort and exceptional design plus the opportunity of close contact with nature... the architects of głębowski studio tackled this challenging task and succeeded in finding the golden mean between the two different worlds The Shellter Hotel & Apartments complex, winner of a prestigious A'Design award, is located on the coast in Rogowo and it serves as an excellent example of a perfect symbiosis between the natural world and contemporary architecture.

The numerous undersized patches of land to be dealt with was a major challenge, which is how the notion of villas and apartment buildings was born quite quickly. In principle, it also fitted our initial concept of communion with nature and discovering the unique coastal atmosphere. We planned the five larger buildings for the more degraded areas, with the ten intimate villas destined for the spots where the military buildings had previously stood. Thanks to the extensive glazing, all the buildings offer stunning, expansive views of the natural world along the seashore.

Tomasz Głębowski
architect,
Głębowski Studio

Luxury, coastal style

Shellter Hotel & Apartments in the Rogowo area, not far from Kołobrzeg, is a hotel and apartment complex. It consists of fifteen apartment buildings, a luxury hotel and extensive facilities. There are gastronomic outlets, sports, a conference area and entertainment zones featuring multimedia rooms for digital games and all kinds of diverting activities. The spa and wellness zone offers a saunarium, recreation rooms and a swimming pool complex. The pool and relaxation zone extends outside the building, gently merging into the surroundings. The complex is situated between the seashore and Lake Resko Przymorskie. Such a picturesque setting made it essential to suit the form of the hotel to the space surrounding it, while also taking questions of protecting the natural environment into account. The designers of głębowski studio faced no small challenge in creating a thoroughly modern hotel and apartment complex with respect for the unique flora and fauna of its setting. The result is an ideal balance in terms of style. The simple, contemporary volumes, with their muted colours, echo the coast elements and preserve the qualities of the surroundings.

Glass walls for better contact with nature

The guiding objective for the developer and architects was to create a place that would be an invitation to people to retreat from the hurtling pace of their daily lives and catch their breath in a calming forest environment. One of the ways that effect was achieved was through the extensive glazing in the rooms and public areas. The ALUPROF MB-45, MB-86 SI and MB-77HS systems used for the development provide the rooms with the light they need and afford the guests staying in the spacious apartments the opportunity of almost constant communion with nature. In addition, the use of the MB-77HS sliding balcony door, which takes up no space in the room when open, creates a comfortable way out onto the terrace. In line with the Shellter Hotel & Apartments mission, guests can enjoy the state-of-the-art amenities and luxury facilities in unspoiled natural coastal surroundings.

/ SHELLTER HOTEL & APARTMENTS

FORM DOMINATED BY ITS SURROUNDINGS

An interview with Tomasz Głębowksi of głębowski studio

/ AluBOOK: Designing more than a dozen apartment buildings so that they would function in symbiosis with the natural world around them can't have been an easy task. So what was the design process in Rogowo like and how did it differ from your other projects?

Tomasz Głębowski: Yes, actually, we did have to take a different approach to the design in that instance. It was defined by the buildings' unusual location and their functions. The surroundings were crucial to the final shape of the development. In the city, we quite simply integrate into the urban fabric, but that's something completely different from fitting in with nature, where, with every building we sketch out, we're a 'foreign body'. Compromise is of the essence. Creating buildings that are totally 'hidden' in their surroundings won't fulfil their expected functions as recreational and tourist services. The buildings we designed don't just blend in with their surroundings. They also fulfil the functions that the developer clearly defined. The plot that Shellter Hotel & Apartments was built on is typical of the coast and it's situated between the sea and a lake. There are virtually no other developments within a radius of several kilometres. That's because it was a closed military area in the past, located a good distance away from the surrounding infrastructure. The underlying concept for the complex was to create a natural coexistence between the architecture and the untouched nature of the coastal site. Although there's a Natura 2000 area around it, the terrain of the plot was fragmentarily degraded by the military. The main objective was to come up with an urban design that would create an intimate resort while preserving all the unspoilt nature we possibly could. That was achieved by matching the volumes we designed to the shape of the terrain, the scale, the elevations, the stands of trees and so on. Our overriding aim was to preserve the flora on the site, rather than chopping everything down and creating a piece of city there.

/ AluBOOK: So the priority was nature and the building designs were to be the outcome of what nature would permit?

Tomasz Głębowski: Not entirely. The priority was the final effect, in other words, achieving a unique costal atmosphere. We adapted a hundred per cent to the natural form of the terrain, to the plant life and to the dunes. Of course, that demanded compromises, because we had to reduce the volumes of the buildings somewhat, which was crucial to the developer, but in doing that, they gained something unique… nature coming into contact with a hotel, apartment buildings and villas. Some of the trees are growing a mere two metres away from the façade and, interestingly enough, the neighbouring buildings don't bother the pines at all on account of their particular root system. We were in contact with the Regional Directorate of Environmental Protection from the outset and with plant-life experts who carried out a study on the flora and the previously degraded areas where it would be possible to erect buildings with a minimum of interference with the surroundings. Fortunately, it was a form of dialogue and not a monologue. In designing Shellter Hotel & Apartments we took not only the flora into account, but also the fauna. As I said, the development's located between the sea and a lake and it turned out that there are natural flight paths for birds passing through the terrain. Windows can prove to be a major threat because they often constitute an invisible obstacle. To take precautionary measures against that we tucked ourselves away between the trees so that none of the buildings protruded above them. Apart from that, we also consulted experts on placing glass so that it's safe for animals. The technical protection of the dunes was just as vital. For that, we had to implement the guidelines issued by the Maritime Office.

/ AluBOOK: And what about the hotel, which completes the whole thing and is going to be the largest building in the complex?

Tomasz Głębowski: That's a work in progress at the moment. The hotel is the most important element of the puzzle because without it, the complex is missing the spark that gives it life. It's where the commercial and utility functions will be conglomerated, which is why it has to be executed to the highest of standards. By definition, that kind of building has to have a sizeable area if it's going to accommodate all the many functions assigned to it and it also has to be properly situated in order to fulfil them. Our assumption was that it will meld with the atmosphere of the villas and apartment buildings; in other words, it will be close to nature, hidden in the forest and become one with the surroundings. We've been successful enough with that for some major hotel chains to be interested in it.

The tourism potential of places like this is being recognised more and more often. Scandinavia has already proved that you don't need sunny weather to attract holidaymakers and that you can do it with closeness to nature. Shellter Hotel & Apartments fits that trend perfectly. The Polish coast seems to be very attractive to visitors from abroad, not only for sunbathing and swimming in the waves, but also for its particular, and very healthful, microclimate. It's also a truly awesome experience to sit in a luxury apartment or suite with a view of the sea and watch a storm. I seriously recommend it. The elements raging around you, the pine trees bowing to a ferocious wind which lifts the sea and hurls it at your windows like someone throwing bucketfuls of water at them... and you, watching it all in peace and quiet, thanks to the achievements of leading-edge technology in the form of top-quality windows, That kind of attraction and atmosphere isn't something you get in popular holiday resorts.

/ AluBOOK: When it comes to the kind of buildings we're talking about here, the choice of materials must be hugely important. What was the key to your selections for Shellter Hotel & Apartments?

Tomasz Głębowski: Operation and durability are two aspects which need considering in particular when you're designing coastal buildings. The high level of salinity and strong winds are crucial parameters when it comes to selecting the right materials. Then, on top of that, there's the question of sustainability. We set out with the assumption that it's necessary to maintain a healthy balance because more environmentally friendly materials can sometimes wear out more quickly and need replacing prematurely. And that leads to an overall consumption of significantly more resources. For Shellter Hotel & Apartments we mainly used composite panels and aluminium. And for finishings, we turned to nature, to wood and to stone. We didn't leave the choice of materials to chance. The mock-ups of all the elevations were tested under 'combat' conditions! We were looking for durability and quality so that the elevations and other external elements won't have to be replaced in their entirety two or three decades from now. Since our idea from the outset was for this project to meld with nature to the greatest possible extent, it needs to age beautifully and the materials we've chosen will certainly gain in nobility with time.

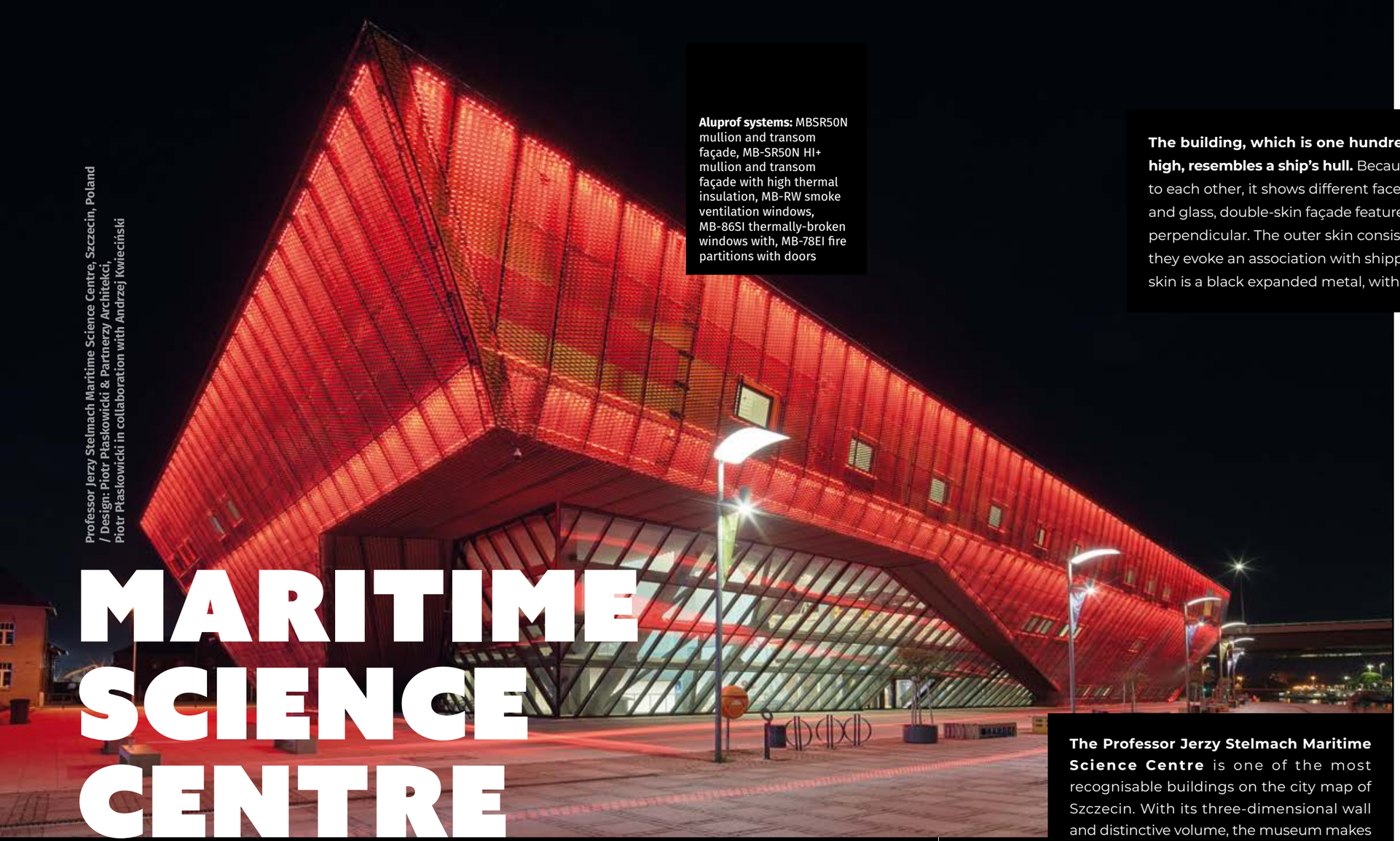
/ AluBOOK: So could your project be recognised as the essence of 'coastal architecture' because it seems to blend naturally into the local coastline?

Tomasz Głębowski: It's hard to compare the Shellter Hotel & Apartments project with the new hotels in Kołobrzeg or Świnoujście that function within an urban structure. Their purposes are different. The opinions doing the rounds about the development in Rogowo is that it hasn't changed the local surroundings all that much and that we're not destroying nature... and I deem that to be a major success. Is it coastal architecture? That's a tough question to answer unequivocally. If someone staying there has a sense of a unique maritime atmosphere, as if they're communing directly with nature, then could that be the essence of this kind of architecture? They can see the sea from where they are, they can see the dunes, the pine trees, the aquatic birds... maybe that's what it's actually all about?

The phrase 'architecture in harmony with nature' is more meaningful to me in this instance and I hope that architecture in the region heads in that direction for future buildings. We have to remember that dunes are a one-off creation. Once we destroy them, they can never be remade. Future developments should be as thoroughly integrated into the greenery as they can be. And they shouldn't be gaudy or garish. They should be as quiet as possible. Different rules govern cities and towns. There, we quite simply thirst for standout, dominant buildings. When it comes to unspoilt land right by the sea, it's not dominant structures that we need, but communion with nature.

/ AluBOOK: Let's move on to the line between architect and systems supplier. With projects as ambitious and demanding as Shellter Hotel & Apartments, does it need to be an exceptionally firm connection?

Tomasz Głębowski: With urban architecture, solutions are often repeatable, because the fundamental challenge has long s been solved. In Rogowo, we were redefining so many things. We were confronting the unknown and so was ALUPROF. From the start, there was a puzzle; would a more-or-less thirty-metre façade withstand the pressure and suction of the wind during storms? That wouldn't be a problem in a city, but in Rogowo, without an answer, we wouldn't have known whether we could actually bring our vision to life at all. I don't think that kind of project would be possible without a dialogue with the systems supplier. Sadly, not everyone wants to talk to a design studio about projects that ambitious. But ALUPROF has never been afraid of tackling challenges and seeking solutions. Their staff devote a lot of time and attention to us. We discussed Shellter Hotel & Apartments for a year. The design took another twelve months. Our conversation with ALUPROF is never just about answering our questions and our discussions are lively. We inspire each other and that leads to new discoveries. It's the only approach that gets interesting projects off the ground!



Professor Jerzy Stelmach Maritime Science Centre, Szczecin, Poland
/ Design: Piotr Płaskowicki & Partnerzy Architekci,
Piotr Płaskowicki in collaboration with Andrzej Kwieciński

Aluprof systems: MBSR50N mullion and transom façade, MB-SR50N HI+ mullion and transom façade with high thermal insulation, MB-RW smoke ventilation windows, MB-86SI thermally-broken windows with, MB-78EI fire partitions with doors

MARITIME SCIENCE CENTRE

CULTURE WRITTEN INTO A PORT LANDSCAPE

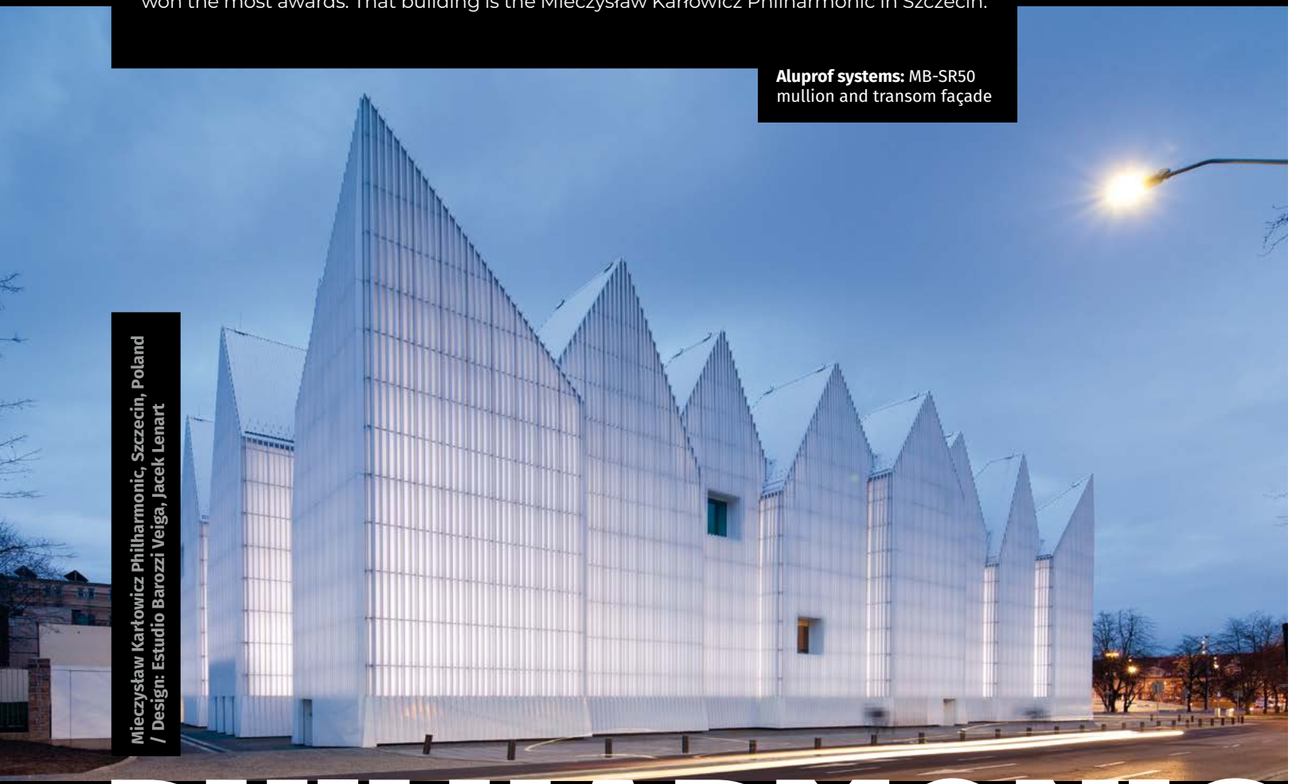
The building, which is one hundred and twenty-two metres long and fourteen metres high, resembles a ship's hull. Because the side walls have been positioned at different angles to each other, it shows different faces, depending on the side it is seen from. The aluminium and glass, double-skin façade features a marked angle, inclining by 22 to 42 degrees from the perpendicular. The outer skin consists of coloured elevation panels. In their layout and form, they evoke an association with shipping containers stacked one on top of another. The inner skin is a black expanded metal, with a texture that creates an appealing spatial effect.

The Professor Jerzy Stelmach Maritime Science Centre is one of the most recognisable buildings on the city map of Szczecin. With its three-dimensional wall and distinctive volume, the museum makes an extraordinary impression, reflecting the nature of the site as a port and fitting in perfectly with the riverscape. An important cultural element of the city, it not only stuns the viewer with its appearance, but also promotes the concept of sustainability and creates a space friendly to the environment and people alike.

The design of the building was selected by way of a competition, which was won by Piotr Płaskowicki of Piotr Płaskowicki & Partnerzy Architekci, a practice specialising in public buildings. However, at the construction stage, it was decided to expand the functions of what was originally intended to be just a museum and turn it into an interactive centre of science. This mean that, from the first line drawn by the architects to completion, the project eventually took eleven years. It was well worth the wait, though, because the Maritime Science Centre makes an unrepeatable impression.

Thanks to the architecturally innovative approach, the Maritime Science Centre is unique in character and has become another major landmark on the map of the city. Equally as crucial is the fact that the building not only captivates people with its appearance and functionality, but also follows the principles of sustainable building to a T and plays a vital role in creating an environmentally friendly urban space. To a great extent, this is down to the aluminium systems by ALUPROF which were used in the structure, namely, the MB-SR50N mullion and transom façade in a version finished with flat horizontal strips, a skylight from the MB-SR50N HI+ façade system, with MB-RW smoke ventilation windows, MB-86SI windows with a thermal break and MB-78EI fire partitions with doors. These solutions are distinctive not only for their high-level aesthetics, but also for their thermal insulation performance, which has a significant impact on the building's energy efficiency.

Buildings like philharmonic and concert halls and opera houses present designers and architects with no small challenge. By virtue of their prestigious nature, venues of that kind are seen as flagships of their cities and the feeling is that their appearance should be eye-catching and that they should attract not only music lovers but also tourists. At the same time, given the role they fulfil, projects of this kind have to be functional and adapted to demanding requirements in areas such as acoustics, for instance. One example of a facility of this kind is one of the most beautiful cultural buildings in Poland. It has also won the most awards. That building is the Mieczysław Karłowicz Philharmonic in Szczecin.



Aluprof systems: MB-SR50 mullion and transom façade

Mieczysław Karłowicz Philharmonic, Szczecin, Poland / Design: Estudio Barozzi Veiga, Jacek Lenart

PHILHARMONIC

ALUMINIUM HARMONISING WITH CULTURE

As regards form, the philharmonic was innovative from the outset. Mind you, it went through a period of seeping into the public's consciousness. Because of the cladding material, a great many residents dubbed it the 'tin hut' to start with. But once its international career took off, with all the awards from architectural competitions, people began to forge a place for it within the urban myth and it became an important reference point for the local community. The best evidence that the building really has become a symbol of the city is the fact that television stations often use it as their background for live broadcasts from Szczecin. So it's grown into being a landmark that's now a permanent fixture of the Szczecin cityscape. If we were to take that as a definition of what it is to be an icon, then that's actually what happened with the Szczecin Philharmonic. It's also worked its persuasive magic on artists. They appreciate its acoustic quality... which wasn't just a priority for us when we were designing it, but also a challenge. The union of quality and sound is our shared success.

Something I've heard from a lot of people is that they came to Szczecin specially to go to a concert at the philharmonic. They wanted to experience the uniqueness of the sound and see the view stretching out in front of it. It's a wonderful thing, the fact that architecture contributes to experiencing what's actually a 'music factory', as it were. As architects, we can do our bit... with better architecture, people gain a fuller sense of what the main content of a building is. We create a kind of packaging or machine for the production of impressions, of sensations and thoughts. People appreciate that. And that's a source of enormous satisfaction. People who come to the Mieczysław Karłowicz Philharmonic in Szczecin leave with the feeling that the time they spent there wasn't wasted. It's the same with the artists, because they're happy to come back and they say that the building 'plays beautifully'.

Jacek Lenart
architect, co-creator of the Szczecin Philharmonic design, Studio A4

The Szczecin Philharmonic triggers all sorts of associations... the Hanseatic period, icebergs, corrugated metal and even wind-filled sails. That's wonderful, because the effect architecture has doesn't have to be a description of reality, but a description of the impression it's made on reality. My favourite element are the strips outlining the gables. They're what gives the marvellous sense that the building's melting in the sun. Maybe that's why some people see an iceberg in it? The right angles disappear visually and the building creates an ambiguous narrative. That opens the way for a multitude of associations, interpretations and impressions.

The MB-SR50 is intended for the creation of lightweight and infill curtain walls, glazed roofs, skylights and other spatial structures. The wide selection of mullion profiles, along with the state of the art solutions for accessories and connectors, make it possible to build aesthetic façades with slender, visible dividing lines. In addition, the shape of the profiles allow a flush surface effect to be achieved with the mullions and transoms on a façade interior or give a glazed structure the appearance of a uniform chequerboard.

04.
SELF-BUILDING

/ SELF-BUILDING

WHICH PATHS IS IT TAKING AND WHAT REQUIREMENTS MUST IT MEET TO SATISFY HOMEOWNERS' MOUNTING EXPECTATIONS?

Kamil Domachowski
architect, IFA Group

Reconcile attractive design and functionality! Take into account the constraints imposed by the size and shape of the plot! Don't forget its location in relation to the world!... This is barely the beginning of the challenges that architects face when they start work on designs for self-builds and residential developments. One thing that can be seen in the world of contemporary residential construction is a marked turn towards minimalism and, at the same time, a growing interest in innovative solutions. A building of simple volume and muted colours, integrated into its surroundings, grounded in cutting-edge technology and completed with state-of-the-art finishing materials, is a building featuring the elements that are permeating the designs of homes for a host of self-builders and developers. The range of solutions opted for with ever-increasing frequency includes large-scale glazing based on systems with parameters that will meet expectations as regards not only quality, safety, security and functionality, but also aesthetics. What path is selfbuilding taking? And what role does fenestration play in its journey? In search of some answers to these questions, AluBOOK turned to Kamil Domachowski of IFA Group.

/ AluBOOK: How have self-builders' requirements changed? Are you seeing emerging trends that need to be given consideration?

Kamil Domachowski, IFA Group: Self-builders are becoming more and more aware... their sensitivity to their surroundings is growing all the time. That's almost certainly why one of their main requirements right now is extensive glazing. When we're talking to them, we try to focus attention on the surroundings and the context of the site. We work to sensitise them to this, so that when it comes to the designs, they can frame the views and place the windows where they're important, not forgetting the privacy aspect, either. It's our clients who are supposed to be drinking in the views of what's outside... not passers-by enjoying a view of what's inside. We shape and place the windows in line with the needs and so that they capture the daylight or, on the contrary, so that the users can escape from it in a given room, because designing a building so as to heat it is a lot easier than designing it so as to cool it.
Self-builders talk about their dreams and expectations. Developers talk about residents' dreams and expectations. The architect's role is to define all that so that the views and spaces are created controllably.

A House in Gdańsk, aka the Cap House, Poland / Design: IFA Group

Aluprof systems: MB-86US ST window with concealed sash

We explain the context of the site to our clients and point out nearby examples where that context has been maintained. And we also try to rediscover that context in our designs. Only time will verify the validity of those assumptions, of course. What we endeavour to do is create something that might settle into its surroundings and local area. I wouldn't call this a trend and I wouldn't want to follow it. The trend is the new technologies and the concept is timeless, so what we're doing is making an attempt to create that timeless idea.

/ AluBOOK: What's the starting point when you're designing contemporary homes? And what role do window and doors play?

Kamil Domachowski: It's best to take the ideas underlying the neighbourhood as a starting point for designing a home, because the neighbourhood stems from the local history and we're setting out to become part of that neighbourhood. We also look at the design from the inside out, so that we can plan precisely what the household is going to see through their glazing. What we do depends on the location of the plot. We may want to enhance the views, framing them to create a kind of picture. Or we might do the opposite, closing the form to shut out an unattractive view. In the latter case, we might place windows beyond the users' sightline... on the roof, for instance, or just above the floor, so that the lack of a view doesn't mean the lack of natural light in the space. The concept of place is one thing. The building's details are another. They're both crucial and, together, they create the final, polished style.

/ AluBOOK: As you see it, which is the more important when it comes to self-builds... form or function? Or perhaps the balance between the two is what's important?

Kamil Domachowski: The balance is definitely the priority. A building has to fulfil all kinds of tasks, from form and aesthetics, via economic considerations, to useability and functionality. All that makes up the architecture and it has to be as good as possible. You can't say which comes first in design. either; volume or function. The order here is personal and it depends on what inspires us first, what the environment suggests and what the self-builder or developer expects.

/ MODERNISM WITH A CONTEMPORARY TWIST.

UNIQUE HOMES DESIGNED BY IFA GROUP

The growing awareness among people who decide to build their own home means that designers and architects now face quite a challenge in meeting the expectations of selfbuilders. They are increasingly given their attention not only to the functionality and appearance of their building, but also to how it fits in with its surroundings. This is why extensive glazing is popular. It brings natural light indoors and makes it possible to blur the boundary between a living room and patio or garden. In order to achieve the requisite effect, designers are keen to turn to aluminium windows and door solutions which have demonstrated their capabilities in all sorts of projects, including three which were designed by IFA Group and have won recognition from the industry; a House in Gdańsk, a House in Gdynia and a House in Iława.

A House in Gdańsk

The original finishing of the top floor of this house in Gdańsk has led to it becoming better known as 'the Cap House'. Although it is very modern, it blends in subtly with the buildings around it, which date from the nineteen seventies, and with the context of the site. It is impressive for its unobtrusive volume and that term seems highly appropriate in this particular case. The house, which is located in the Oliwa district of Gdańsk, features a roof which is an interpretation of a mansard roof. Its form enters into a dialogue with its neighbours on the frontage, one of them lower and the other, higher. This treatment meant that it proved possible to reduce the property optically. It actually has an area of two hundred and ninety square metres.

ALUPROF's MB-86US ST window system with concealed sash was used for the building. The fenestration was matched to the colour scheme of the façade; on the ground floor and first floor, it is white, but the windows of the highest storey are a shade which is identical to the titanium-zinc roofing.

The Cap House, Gdańsk, Poland / Design: IFA Group

Aluprof systems: MB-86US ST window with concealed sash

A House in Gdynia, Poland / Design: IFA Group

Aluprof systems: MB-86 SI thermally-broken window and door system, MB-77HS lift-and-slide patio door

A House in Iława, Poland / Design: IFA Group

Aluprof systems: MB-86 SI thermally-broken window and door system, MB-77HS lift-and-slide patio door

A House in Gdynia

The house is situated in the Gdynia Orłowo district. Despite being new, it gives the impression of having stood there forever. The designers from IFA Group deserve enormous credit for this. They ensured that it not only stands out from those around it and fits in perfectly with the context of the site, but also that it met the requirements of the historical buildings and monuments conservation officer. The house in Orłowo skilfully brings together nineteen-twenties modernism and contemporary minimalist architecture, with its characteristic simplicity and austereness, which is expressed in number of ways, including the colour of the elevation and the use of concrete slabs.

There is no lack of leading-edge solutions, either. One example of that would be the use of aluminium architectural systems. ALUPROF's MB-86 SI window and door system with high thermal insulation was used, as was the MB-77HS lift-and-slide patio door system, which is notable for its high thermal and acoustic insultation and its water- and airtightness.

A House in Iława

When the architects were designing the house in Iława, the real challenge they faced was to incorporate the volume of the building, which was intended to be something of a 'breath of fresh air', into the plot's rather particular surroundings. It is situated in close proximity to apartment blocks and single-family homes that date back to the nineteen sixties and represent all sorts of shapes and proportions. In addition, the plot is fairly narrow and has a river flowing past it at the point where it ends. Thanks to the efforts of IFA Group, it proved possible to create a space which is modern and, at one and the same time, warm and family-friendly. It makes maximum use of natural light and. by the same token, allows the household to enjoy some beautiful views from the windows. ALUPROF's MB-86 SI window and door system with thermal break, which is noteworthy for its high thermal insulation performance, was used for the house, as was the MB-77HS system, which provides a convenient way out into the surrounding garden.

Unusual IFA Group projects featuring systems from ALUPROF

In spite of the visible differences between each of the three family homes designed by IFA Group and located in northern Poland, in Gdańsk, Gdynia and Iława, respectively, they also have several features in common. As well as their attractive, modern appearance and their unobtrusively shaped, out-of-the-ordinary volumes, they all have ALUPROF window and door systems, which made it possible to let the maximum amount of light in and open the interiors up to the natural world around them.

Kamil Domachowski
architect, IFA Group

The collaboration with the systems provider is really intensive. A multitude of details concerning the execution have to be worked out so that the end result will be the best we can possibly achieve. For highly individual projects like these, the detailed choice of technological solutions for the fenestration is grounded in working together closely with the manufacturer of a particular system. We've done this successfully with ALUPROF on numerous occasions. The common denominator for this kind of working relationship is the tremendous importance that's placed on detail. That's one of the most crucial things for us when we're designing.

Aluprof systems: MB-SKYLINE sliding door with concealed frame

Szara 8, Warsaw, Poland/ Design: Atelier Tektura

SZARA 8.

LUXURY FLATS INTEGRATED INTO A VARSOVIAN PARK LANDSCAPE

Szara 8 is a unique development at the heart of the Powiśle quarter of Warsaw's Śródmiejście district. This exclusive space surrounded by soothing greenery was created with the idea of meeting the expectations of people who dream of living a frenetic, pulsating life in the big city, yet relish tranquillity and closeness to nature.

Szara 8 is situated in the green heart of Powiśle, in other words, the historical Marszałek Rydz Śmigły Park. A walking trail starts there and, if you follow it, it will take you all the way to the Bulwary Wiślane embankment on the Vistula River. The city's most fashionable area, ulica Mokotowska and Plac Trzech Krzyży is nearby, resplendent with luxury boutiques, the studios of renowned designers and stylish cafés. As planned, the development will offer twenty-four premium-quality flats spread over seven storeys, which will enable the atmosphere of privacy to be maintained. Exceptional comfort is provided by way of the Private Fitness Zone, a reception desk open 24/7 and a two-level garage. The developer has also seen to it that the area around the building is appealing, by opting for gardens with low-level planting which can be admired from the glazed façades of the recessed balconies. Another indubitable advantage is the fact that the property is situated in the park, meaning that the residents will have access to green spaces that offer an unbeatable spot for relaxing and unwinding. All of this makes the development synonymous with quality and luxury in a building that unites comfort, unique technological solutions and superb design.

Rafał Syrocki
Bausan Aluminium Sp. z o.o. an ALUPROF Premium Partner for slender-profiled structures

Since Szara 8 is the largest project to date to use slim-profiled sliding systems, fulfilling the order was quite a challenge. Producing and installing the system is very time-consuming and the developer required a really short lead time for delivery to the construction site. So good delivery logistics have been a necessity, along with a very large production area, not least because the panes of glass in the SKYLINE system are glued into place in the horizontal position and we're dealing with more than five hundred of them. In addition, the installation work was going on while the construction of the reinforced concrete structure of the top floors was still under way. And the building's location, with the park on one side of it, has made transporting the large, heavy parts of the windows no easy matter. Even so, thanks to the hard work of the entire Bausan and ALUPROF team, we brought the job in not merely on time, but ahead of the original deadline!

At the stage of selecting the windows, we weighed up several options with the developer. In the end, though, we decided on using the version of the SKYLINE system with rollers not least because of the specific conditions relating to the structure of the building. The design engineer allowed for the fact that there might be deflection of the ceilings after it goes into use and while it isn't all that much of a problem above the top profile of a sliding window that we have access to and anticipate adjusting, there's no similar access to the bottom profile once it's been built in. In a situation like that, the ability to adjust the glazing by +/-3mm using the rollers located under the sliding sashes will make it easier for us to carry out maintenance work if any deflection occurs once the premises is in use. Another major aesthetic plus was the introduction of new types of minimalist lock profiles and locks tailored to the needs of this project and featuring the Bausan logo. They were used for the first time on Szara 8 and we were involved in improving the prototypes as they were being introduced. Small improvements like that mean that the completed building reflects the architects' and developer's vision even more faithfully, which is why we're looking forward to moving ahead with the next stages of the project.

What makes the MB-SKYLINE distinctive is its extraordinary lightness and aesthetics. It is based on slender profiles, giving the structure an on-trend, minimalist look and providing a panoramic view at one and the same time.

Aluprof systems: MB-79N SI and MB-79N SI Exclusive window and door system with thermal insulation, MB-77HS HI lift-and-slide patio door with increased thermal insulation, MBSR50N SI mullion and transom wall

Villa Havet, Kuningattarenranta district, Loviisa, Finland
Design: Arkkitehtitoimisto Eero Korhonen, Eero Korhonen

VILLA HAVET

A BUILDING INTEGRATED WITH NATURE

Situated in the picturesque Kuningatta-renranta district of the Finnish town of Loviisa, **Villa Havet** is a unique, single-storey home built on a sloping plot overlooking the sea. With its distinctive stone and glass construction, it fits in with the natural landscape perfectly, allowing its occupants to relish the beauty of nature surrounding them. Amongst those who have appreciated its attractive design are the visitors attending the Housing Fair 2023, which was held in Loviisa. Indeed, such was their appreciation that they awarded it the first prize in no less than three categories.

The primary emphasis of the design was on high functionality, the use of natural light and the harmonious integration of the home into its surroundings. Thanks to the extensive, large-scale glazing, including lift-and-slide doors, the owners have gained an uninterrupted view of the seascape with the added bonus of easy access to the patio and garden. The solution made it possible to create a seamless transition between the interior of the home and the natural world outside it. The décor is Scandinavian in style, but there is no shortage of luxurious touches that bring simplicity and outstanding design together and create a harmonious whole. The home is also noteworthy for its ecological solutions, which can be seen in the use of geothermal heating and natural building materials. **The result is that it has achieved class A energy efficiency, an energy consumption factor of 78 and a carbon footprint of 15.18 kg CO_2e/person/year. This makes Villa Havet a first-class example of sustainable building.**

A stunning home with a view of the sea

Designed by Eero Korhonen of Arkkitehtitoimisto Eero Korhonen, with Jämerä Kivitalot as the contractor, Villa Havet is true architectural gem. A single-storey, stone and concrete home with an area of almost two hundred square metres, it is located in one of Finland's most attractive natural areas, where the rocks are pervaded by pine trees. The care with which the area around the house was designed made the maximum preservation of the trees and the natural scenery possible.

Modernity and functionality

The high energy efficiency and eye-catchingly attractive appearance of Villa Havet was recognised by the visitors attending the summer housing fair in Loviisa. They awarded it the first prize in the Best House, Best Decoration and Best Garden categories, a success which is largely down to the aluminium systems used in its construction. The systems are innovative solutions by ALUPROF and they provide high aesthetic values and functionality, offering superb thermal insulation and safety, as well as being easy to use. They include the MB-79N SI window and door system, the MB-79N SI Exclusive front door, the MB-77HS HI and the MB-SR50N SI, which is intended for creating and building lightweight curtain walls. These solutions were designed primarily with a view to meeting intensified thermal insulation requirements and opening up the possibilities of creating large-scale glazing. The aluminium components used for Villa Havet is a shade of structural black, which sets up an interesting contrast to the white of the building.

Aluprof systems:
MB-77HS parallel lift-andslide patio door, MB-SR50N mullion and transom wall

Wind House, residential property, Izabelin, Poland / Design: Studio Mobius, Przemek Olczyk

WIND HOUSE

A HOME SUBORDINATED TO NATURE

Situated in the village of Izabelin, not far north-west of Warsaw, Wind House is a building it would be challenging to pass without a second glance. The reason for that is the highly original volume, which has been completely subordinated to nature. **The design was created by Przemek Olczyk of Mobius Architekci, who submerged the house in the beautiful forest landscape while preserving the existing stands of trees. This unusual home is captivating in its appearance, its functionality and the solutions used to create it.**

A house in symbiosis with nature

The original shape of the home with the bewitching name of Wind House is the result of the designer's departure from traditionally understood design. Rather than focusing on form, Olczyk took the preservation of the magnificent pine trees growing untouched on the plot as his starting point. What emerged from that is an only partially closed volume which 'slots' into the greenery that surrounds it, a volume that beguiles with its form and makes the building utterly unique. Its irregular shape made it impossible to delineate two parallel axes and this influenced the unexpected functional layout of the rooms. That, in turn, means that the house can most certainly be considered unconventional.

A window onto the forest

The effect that the building creates of merging with the forest is intensified by the use of a wooden façade. The openwork panels of Siberian larch and the louvres made using the same material complement each other perfectly. Juxtaposed with the stone used for part of the elevation, they mean that Wind House commands attention, yet fades into the landscape surrounding it. The opportunity for unending contact with nature is greatly enhanced by the sheer quantity of glazing, which dissolves the boundaries between the interiors and their surroundings, giving the impression that the forest is making its way into the house. The glass also works to create an optical enlargement of the rooms and their optimal illumination, while its expansive sweep endows the building with a lightness and a modern feel.

Aleksanda Baksik
Sustainable Development Manager Aluprof SA

Wind House is an example of a building where the designer's and self-builder's respect for nature is plain to see. One of the ways it's made manifest is through the use of systems by ALUPROF, which are largely manufactured from recycled aluminium and thus help to reduce the carbon footprint. Another thing in its favour is that it can be recycled and reused multiple times without diminishing its properties.

ALUPROF's MB-77HS and MB-SR50N systems were used for Wind House. The MB-77HS is ideal as a structure connecting an interior with the environment outside, creating a convenient way out onto a balcony or patio or the open space of a garden. The MB-SR50N, on the other hand, is intended for creating and building aesthetic, robust, durable façades.

When we were designing Wind House, our ruling principle was that the user should have a constant sense of communing with the forest. I defined the volume so that the building winds around the trees, with a number of directions, branches and axes. I also opted for plenty of glazing, particularly on the ground floor. We devoted a lot of time to inventorying the trees, both at the base and at specific heights. Only then could we move on to the stage of inscribing the building into the existing surroundings while preserving the most important and most beautiful elements of the flora. The construction process itself was a major challenge. The house has a basement and there was a danger of the heavy equipment damaging the plant life during excavation. We used ropes to bend the trees away from the site so that no serious damage was done. We also took the roots of the plant life into consideration so that no harm was done to them, either.
Wind House is adjacent to Circle Wood House, our other 'woodland' design, which received an honourable mention in the 2022 Building of the Year Created with ALUPROF Systems competition. We had no guidelines from the owner for that.
We saw a few designs that spoke to their focus on the visual impression of a building with sweeping dimensions. With Wind House, the owner was very clear that they wanted the effect of living in a forest and didn't want a box stuck between the trees. That's the root of the concept of avoiding four traditional walls and going for a dynamic, polygonal form. I'd say that both designs reflect the symbiosis of house and forest, but obtain it through different forms of expression. In Circle Wood House, trees are located at the centre of the building, which opens up onto the atrium.
The exterior of the building is more intimate, with fewer windows and a sense of privacy. But Wind House features a volume that's open in several directions, with the building wrapping itself around the stand of trees.

Przemek Olczyk
architect, Studio Mobius

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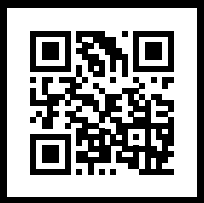

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