

A BOOK

2018

Inspiring Great Spaces®

Armstrong
CEILING SOLUTIONS



“

**Aesthetics, acoustics,
sustainability, wellbeing
and installation: in this year's
A Book, we've collected the
year's best projects tackling
the issues that matter to all
of us in architecture and
construction.”**

Wilfred Middel
VP and Managing Director EMEA
Armstrong World Industries

”



Contents

06. Welcome

**08. A New Dimension
Of Aesthetics**

CH – Hallenbad Indoor Swimming Pool, Uster
UK – Blake House
CZ – Notino
BE – A World-Leading Beverage Firm Headquarters
CH – BDO
DE – MOXY Hotel
SI – Gorenjska Banka

28. All The Right Noises

UK – Ystalyfera Welsh Medium
Comprehensive School
FR – Café Otto
CZ – Masaryk University
PL – AXA Assistance
RU – McDonald’s Hamburger University
ES – B. Braun

**44. In With The Old...
And In With The New**

CZ – IBM
PL – Takeda
IT – TWINSET
CZ – ChyronHego
DE – CLW
SK – BASF

**60. Helping People
Live, Work, Learn,
Heal And Play – Better**

IT – International Technology Company
UK – Royal Holloway, University of London
FR – L’Exception
PL – Hines
BE – Aurubis
UK – Harman House – Armstrong Ceiling Solutions EMEA HQ

76. Fit For The Project

AT – Austria Center Vienna
FR – Université Toulouse 1 Capitole
AT – Spannrahmen Auditorium, ‘In der Wirke’
FR – Mairie de Tosse
PL – Stanley Black & Decker

Welcome to the 2018 edition of the Armstrong A Book

WITHIN THESE PAGES, WE'VE COLLECTED
12 MONTHS OF GREAT ARCHITECTURE,
GREAT CONSTRUCTION AND GREAT CEILING
SYSTEMS FROM ACROSS THE REGION.

We've also looked in brief at some of the key issues set to
challenge all of us over the next year, from aesthetics and
sustainability to wellbeing, acoustics and installation – and
showcase projects that have already tackled these successfully.

Above all, it's our hope that spending a little time with this
A Book will give you the inspiration to create your most stunning
designs and iconic buildings yet. Keep it close to hand and look
to it when you're seeking that next big idea – there's something
here to help everyone create the next inspiring great space.

Wilfred Middel
VP and Managing Director EMEA
Armstrong World Industries



A NEW DIMENSION
Of Aesthetics

OUR SKYLINES ARE CHANGING. AS NEW TECHNOLOGIES ALTER THE WAY WE BUILD, HOW ARE AESTHETICS EVOLVING THE CEILING SPACE?



When was the last time you looked up and loved what you saw? Scan any architecture journal, and you'll see articles on nearly every part of building design. Structure and vision; building envelope and brickwork; glass façade; clever use of light and space — yet the ceiling takes a relative back seat, as an often blank, overshadowed canvas.

LOOKING BACK

It wasn't always this way. Look back at the great buildings of old — from the Sistine Chapel through to Washington D.C.'s Library of Congress; from the palaces of Venice to the UK's Houses of Parliament — and you'll see form meeting function with a flourish. Ancient builders used the ceiling to convey meaning — like the spherical, holed ceiling of Rome's Pantheon — seeing their ceilings as everything from religious tributes to markers of wealth and power.

So, what happened? New technologies, new cost and usage demands, new regulations. As the world moved on, the ceiling became less feature, more function — until we arrive at today, where ceilings are simply spaces for light fittings and concealing structural work. But times change...



Custom ceilings are making creativity commonplace. Driving this is the floating ceiling, enabling designers to use shape and distance to make the spaces above our heads more playful. That can be as simple as moving away from rectangular tiles to hexagons or circle canopies, or as complex as 'feature ceilings' in reception areas, or sloping ceilings that add depth and atmosphere to a room. Modern ceilings should blend invention with usability, form with function, inviting the eye without distracting it — creating friendlier, more accessible spaces.

LOOKING UP

At Armstrong, our teams across Europe take this as our cue to help architects push for new possibilities, from our work at IBM in the Czech Republic to the cutting-edge metal aesthetic of Ernst & Young's Polish headquarters: two examples of how standard and custom ceilings can enhance aesthetics — and you'll see more throughout this A Book.

Taking a big-picture view, however, the ceiling should indeed be seen as another canvas; a new dimension on which we can explore aesthetics that enhance the wider build. It's just a matter of looking up.



LOOKING FORWARD

A greater choice of materials is inspiring architects to push boundaries and seek out styles that focus the eye on the 'sixth surface', and enhance spaces with light, shape and form. We're entering the age of the 'aesthetic ceiling' — so, what might this look like?



HALLENBAD INDOOR SWIMMING POOL, **Uster**

ARCHITECT

K&L Architekten AG

CLIENT

City of Uster, Healthcare Department

CEILING CONTRACTOR

Isolag AG

COUNTRY

Switzerland



01



—Ambition

In creating a world-class Olympic pool and one of Switzerland's most modern, state-of-the-art swimming facilities, the architect, contractor and client needed to work closely together throughout a construction period lasting over one and a half years. Acoustics and corrosion resistance played key roles throughout – but everyone's united ambition was to create a stunning aesthetic space to welcome the world's swimmers and families.

—Achieved

When specifying ceilings, high humidity and a demanding environment are the first considerations needed for a swimming pool. But when the ambition is to create a stunning ceiling that enhances the whole building, the team set out to create a uniquely playful, golden aesthetic.

A special gold coating was applied to 1,500m² of the Metal R-H 200 ceiling in the Olympic pool, with 3,000m² of Metal R-H 200 in RAL 9010 covering the water park and surrounding areas. The pre-treated aluminium ceilings were primed and installed on a concealed suspension system to prevent corrosion – and reinforced by a moisture-resistant elastomer and fibreglass fleece backing to further improve resistance and acoustic performance.



02



03

PREVIOUS PAGE
Metal R-H 200
NCS Brown, Rd 1522
U-Profile + J-Bar

01.
Custom Metal
R-H 200 in Aluminium
with swimming pool
suitable gold coating
U-Profile + J-Bar

02 & 03.
Custom Metal
R-H 200 in Aluminium
with swimming pool
suitable RAL 9010 coating
U-Profile + J-Bar

Photographer:
© Foto Lautenschlager

Blake House

ARCHITECT
BPR Architects

CLIENT
Henry Boot Developments

MAIN CONTRACTOR
Apex

CEILING CONTRACTOR
StroyResurs, LLC

COUNTRY
United Kingdom

—Ambition

Part of a prestigious £3.9 million office refurbishment on behalf of a major UK property developer, Blake House is a purpose-built, three-story commercial building. The aim was to create a space people would actively want to work in: bright, open and airy – while at the same time providing easy access for ongoing maintenance and improvement.

—Achieved

A combination of Metal V-P 500 Baffles with US Walnut finish, 2,800m² of Metal MicroLook tiles, Ultima⁺ Vector Mineral tiles and Armstrong's Drywall Grid System delivered an exciting architectural style. In particular, this was the first UK project to feature wood-effect Metal Baffles, which bring a contemporary linear aesthetic to a new lobby extension and refurbished main stairs. The fixtures and fittings around communal spaces are accentuated with a black walnut look to echo the aesthetic of the Baffles without over-prescribing the design.

As well as visual impact, the choice of solutions enables easy integration of services and achieves the required acoustic performance through the use of perforated sides and acoustic inlay fleece. The Baffles are also highly durable and scratch resistant, made from up to 30% recycled steel and are quick and easy to install – making this the ideal all-round solution for a state-of-the-art, sustainable and productive 21st-century workspace.



“Armstrong’s wood-effect Metal Baffles soften the acoustics in the lobby, and the timber effect brings the outside environment of trees inside the building.”

Ross McMahon, BPR Architects



01.
Metal V-P 500 Baffles
with US Walnut finish
Hanging Kit
Ultima⁺ Vector
Prelude 24 TLS
02.
Metal V-P 500 Baffles
with US Walnut finish
Hanging Kit
03.
Metal V-P 500 Baffles
with US Walnut finish
Hanging Kit
Ultima⁺ Vector
Prelude 24 TLS

Photographer:
© Philip Durrant

Notino

ARCHITECT

Kyzlink Architects

CLIENT

Notino, s.r.o.

CEILING CONTRACTOR

Šmak CZ, stavební firma s.r.o.

COUNTRY

Czech Republic

—Ambition

Established in 2004, and growing rapidly over the last decade, Notino has made a name for itself as a globally trusted online store for cosmetics and beauty products. But even when the internet is your storefront, your physical offices need to be high-quality to continue growing. This was the task: to create a new, fresh and original headquarters for the business, with a bright, timeless and beautiful aesthetic that matched the brand's reputation for elegance.

—Achieved

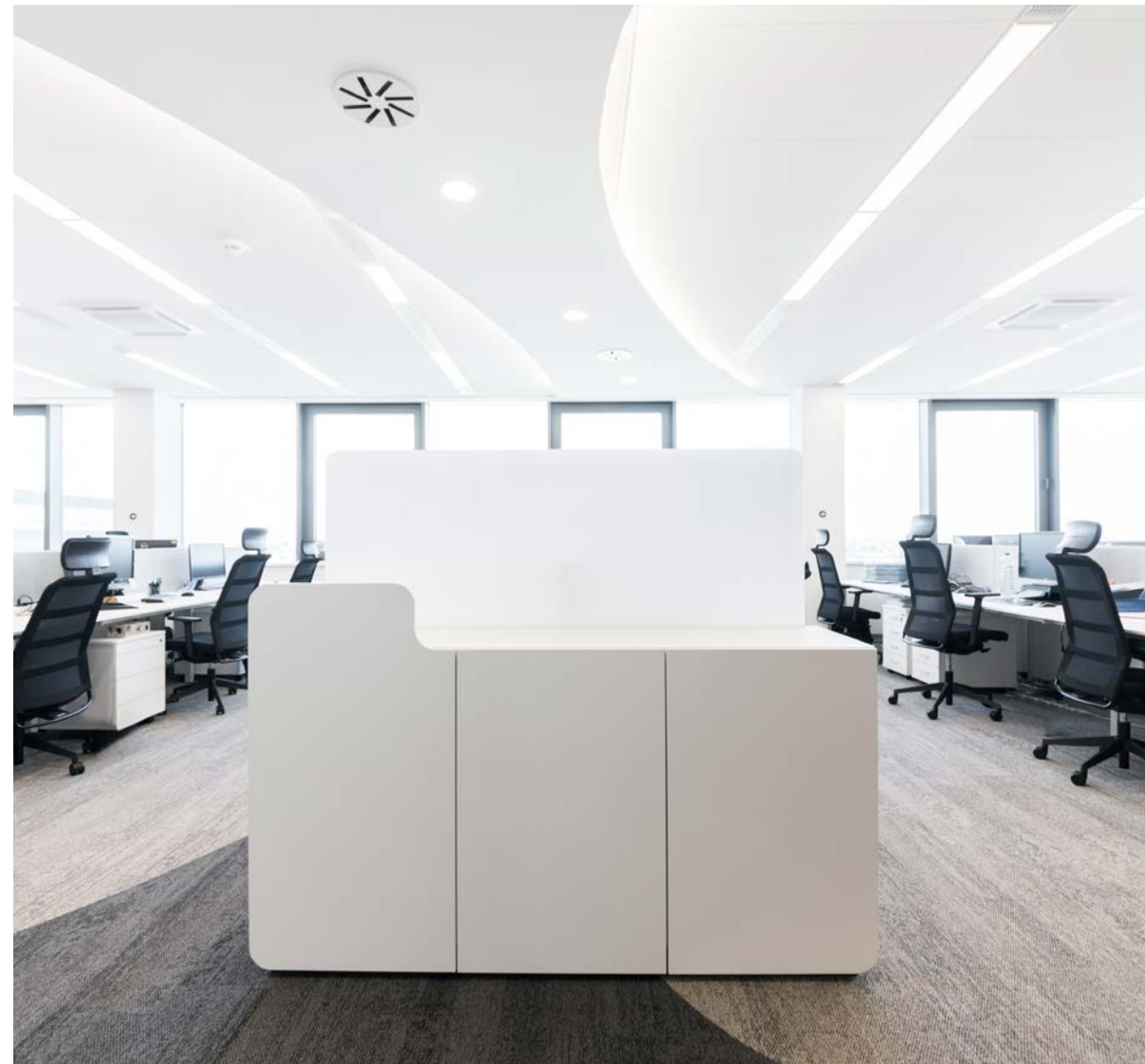
Beauty and elegance were the guiding principles of the architects' brief, but practicality and efficiency also needed to play a significant role – which was why the team combined a 2,000m² TechZone solution with Ultima⁺ SL2/MicroLook 90 tiles for the offices.

The industry's first easy-to-specify and easy-to-install ceiling solution, with integrated technical services including lighting, air diffusers and returns, TechZone ensured quick and easy installation and maintenance – as well as a clean monolithic look using standard ceiling tiles and suspension systems. The design and integration of all elements ensured the perfect balance of beauty of design and practicality of installation.

02



03



01, 02 & 03.
TechZone solution with
Ultima⁺ SL2/MicroLook 90 tiles
and Metal MicroLook 8,
Lv 27045 with black acoustic fleece,
600x150mm technical panels,
Prelude 15 XL²

Photographer:
© Jiří Hloušek

01



A WORLD-LEADING **BEVERAGE FIRM** **Headquarters**

ARCHITECT

Muriel Hagendorf,
Jones Lang Lasalle sprl/bvba

CEILING CONTRACTOR

Lusobati

COUNTRY

Belgium



—Ambition

When the world's biggest soft drinks producer needed a new headquarters in the heart of Brussels, the team aimed to create something special: a modern, cutting-edge yet elegant design that would be as iconic as the brand.

—Achieved

To achieve this, 1,800m² of Metal Q-Clip F Rg 2516 tiles created a monolithic surface effect with a high-end look, coupled with a bright, airy sense of lightness alongside a concealed suspension system.

The standard perforation of the solution also carried practical benefits, as well as aesthetic, providing greater acoustic comfort for workers in the contemporary, open-plan spaces within the building. Looks and performance, together, give this building the finish that this world-leading, household-name brand deserves.

01



02



03



PREVIOUS PAGE
Metal Q-Clip F,
Global White, Rg 2516
U-Profile + DP12 A-Bar

01, 02 & 03.
Metal Q-Clip F,
Global White, Rg 2516
U-Profile + DP12 A-Bar

Photographer:
© Michael van Oosten

ARCHITECT

Ensemble Architecture et Urbanisme SA

CLIENT

BDO SA

CEILING CONTRACTOR

M+M Montage-Maintenance SA

COUNTRY

Switzerland

—Ambition

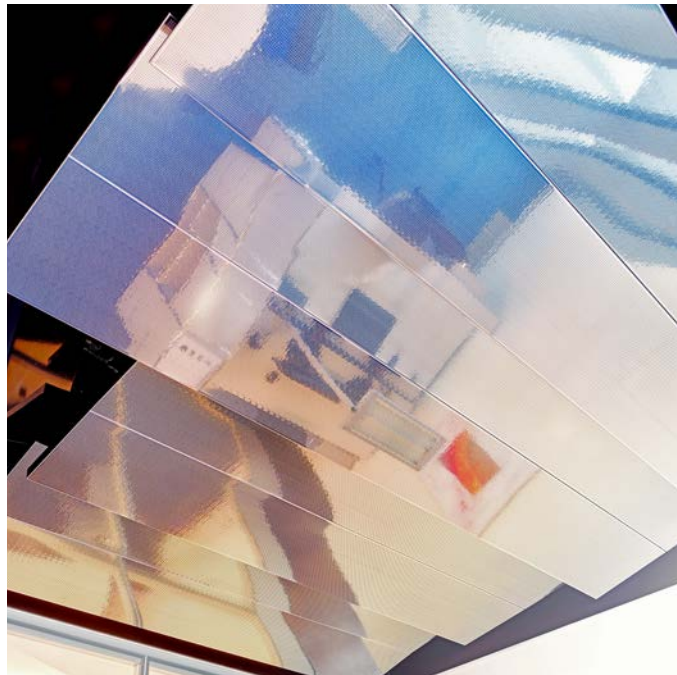
A Swiss expert in audit, accountancy and assurance, BDO had a clear idea of what it wanted for its Lausanne office expansion. For compact premises with complex needs, the client provided a picture that the team needed to analyse technically, to deliver a unique ceiling that pleased aesthetically and performed acoustically. The requirements were clear: to brighten dark areas, bring symmetry and harmony to all parts of the premises, and create a workspace that is comfortable and perfectly adapted to today's demands.

—Achieved

These requirements demanded that the team move away from standard practices and think differently. In doing so, the architect chose a geometric approach titled 'The Diagonal' — based on the bishop's diagonal movement in chess.

300m² of custom Metal R-H 220 triangular-shaped tiles, together with 15 custom mirror aluminium Easy Canopies made this vision a reality, creating an aesthetically unique ceiling. Complementing these bright, intriguing shapes was a playful approach to lighting, with LEDs integrated in a way that alternated light and dark, creating shadows and depths that simultaneously lit required areas while taking the ceiling far beyond a banal, 'flat' surface — becoming a central feature in the newly expanded offices.

01



02

03



01.
Custom Metal Easy Canopy in Aluminium, with mirror surface Hanging Kit

02 & 03.
Custom triangular-shaped Metal R-H 220 with integrated LED U-profile + J-bar

Photographer:
© Sébastien Puiatti

MOXY Hotel

ARCHITECT

Vastint Hospitality B.V.

CLIENT

Marriott Hotels

CEILING CONTRACTOR

SN Trockenbau GmbH

COUNTRY

Germany

01



02



—Ambition

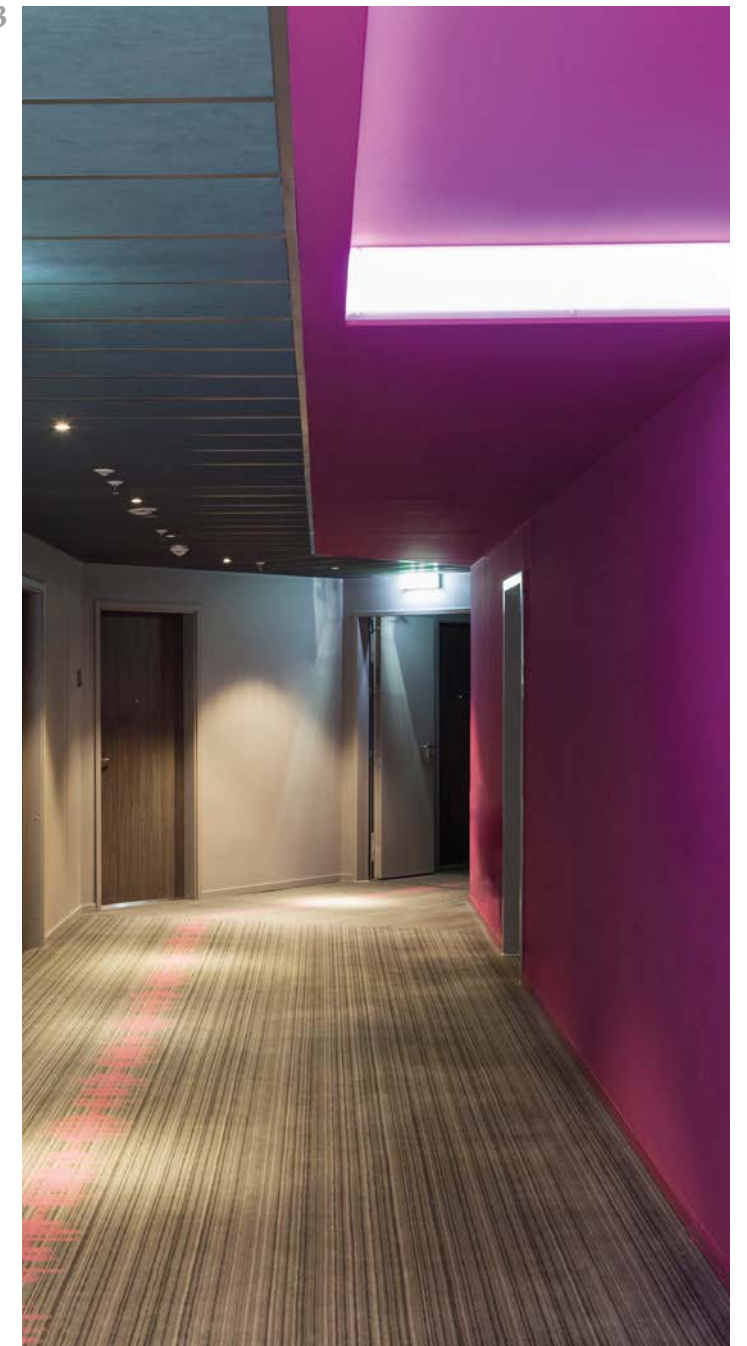
As part of the globe-spanning Marriott Hotels brand, MOXY Hotels are known worldwide for being chic, boutique accommodation that's both stylish and affordable. The ceilings within these hotels need to reflect that – and, in Germany, it was crucial to uphold the warm, relaxing yet contemporary look and feel of the MOXY brand and concept.

—Achieved

Within the hotel's corridors, 855m² of Neeva Board Mineral tiles in RAL 7043, as well as Prelude 24 XL² suspension systems and perimeter trims in similar colours, achieved the bold, modern aesthetic expected of a MOXY Hotel.

Meanwhile, in the hotel's meeting rooms, a ceiling solution comprising 18m² of Metal Axal Vector in RAL 7043 and 220m² of Cradle to Cradle Certified™ Perla OP 0.95 MicroLook and Board tiles provided an effective balance between hospitable aesthetics and practical acoustics, while being efficient and easy to install within a tight timeframe, to exacting corporate standards.

03



01.
Metal Axal Vector, RAL 7043
Prelude 24 XL²

02.
Perla OP 0.95 MicroLook
Prelude 15 XL²

03.
Neeva Board, RAL 7043
Prelude 24 Butt Cut

Photographer:
© David Güntsch

GORENJSKA Banka

ARCHITECT

Atelier Arhitekti d.o.o.

CLIENT

Imobilia-gbk d.o.o., Kranj

CEILING CONTRACTOR

Montaža Škerjanec d.o.o.

COUNTRY

Slovenia

01



01, 02 & 03.
Sahara Vector
Prelude 24 XL²
Optima L Canopy Circle
Hanging Kit

Photographer:
© Jurij Kobe

—Ambition

An established, trusted and reliable bank needs physical premises that match its reputation. So, when one of Slovenia's leading financial institutions needed to modernise itself, the team looked to a dynamic approach that would combine a contemporary and accessible style with solid acoustic performance, easy maintenance and a clean finish.

—Achieved

Using a combination of Optima L Canopy Circle and Sahara Vector, the team's creation of a 120m² bright, modern ceiling system gave Gorenjska Banka's flagship branch a simple, attractive aesthetic, reflecting the bank's reputation and approachability.

The Optima L Canopy achieved high levels of sound absorption, ensuring the ceiling performed as well as it looked, while the use of Sahara Vector ensured the perfect balance between price and performance – fitting for a financial institution.



02



03

ALL THE Right Noises

SOUND IS ONE OF THE FIRST THINGS ARCHITECTS NEED TO CONSIDER – AND YET IT’S OFTEN ONE OF THE LAST THINGS BUILDING OCCUPANTS THINK ABOUT. IT’S TIME TO TAKE A CLOSER LOOK AT ITS POTENTIAL...

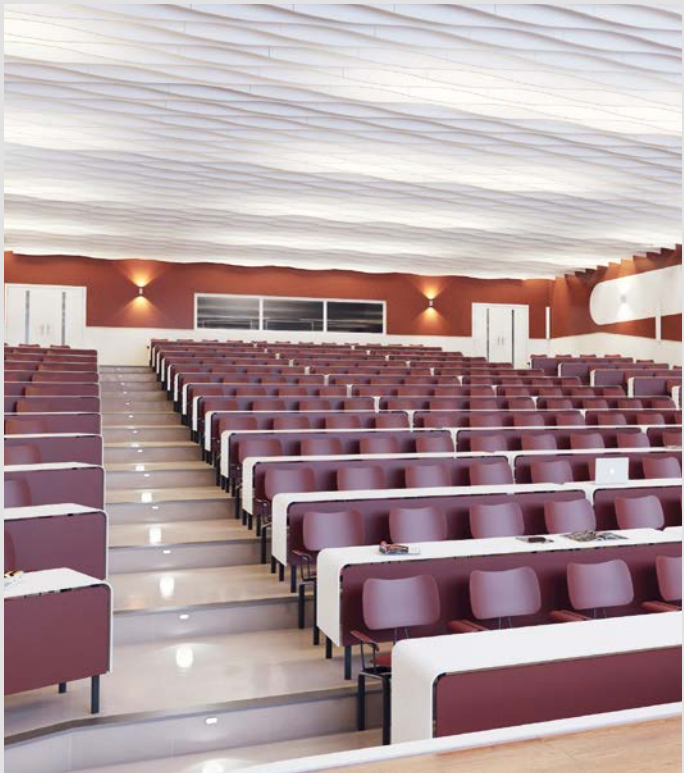
Using a ceiling to simply dampen sound and eliminate noise is just one side of the story. Following the principles of user-centred design in creating great spaces, how do we use sound to become a positive part of the environment?

FUNCTION DRIVES FORM IN THE WORKPLACE

Workplace studies have tried to find the best sonic environment for productivity: creative work is best performed at around 70 decibels, while detail-focused work is best at around 55 decibels. At 85 decibels, all work suffers. Of all workplace noise, speech seems to be the most distracting. 77% of people prefer quiet when they need to focus, while 53% say other people distract them.

So, in an age of open-plan offices, ceilings need to absorb reflected sound, block direct sound and cover speech intrusion. But, beyond this, architects need to create ‘acoustic zones’ for different types of work.

Meeting areas, for example, can use ceiling clouds, canopies and vertical baffles to complement furnishings while focusing sound within the area. For focus, mid-absorption and attenuation ceilings create a quiet space. Privacy areas require high attenuation and absorption ceilings to create a secluded space where conversation stays in that area. In all these examples, function drives form to direct sound differently around the workplace, aiding wellbeing, productivity and focus.



SOUND AS PERFORMANCE

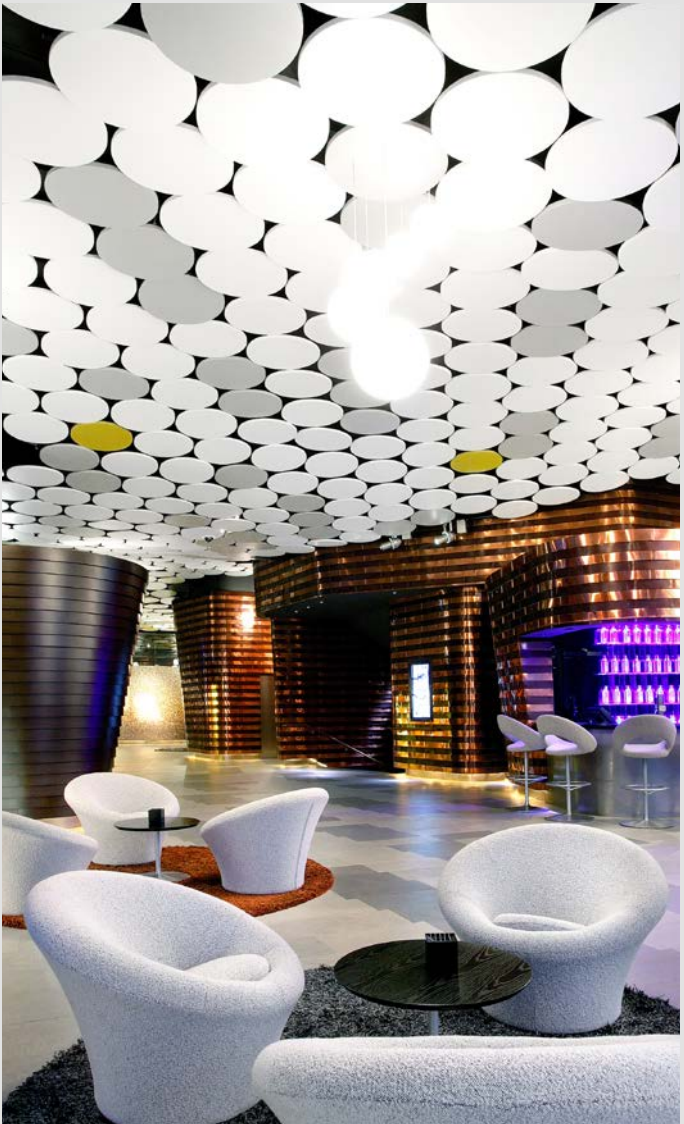
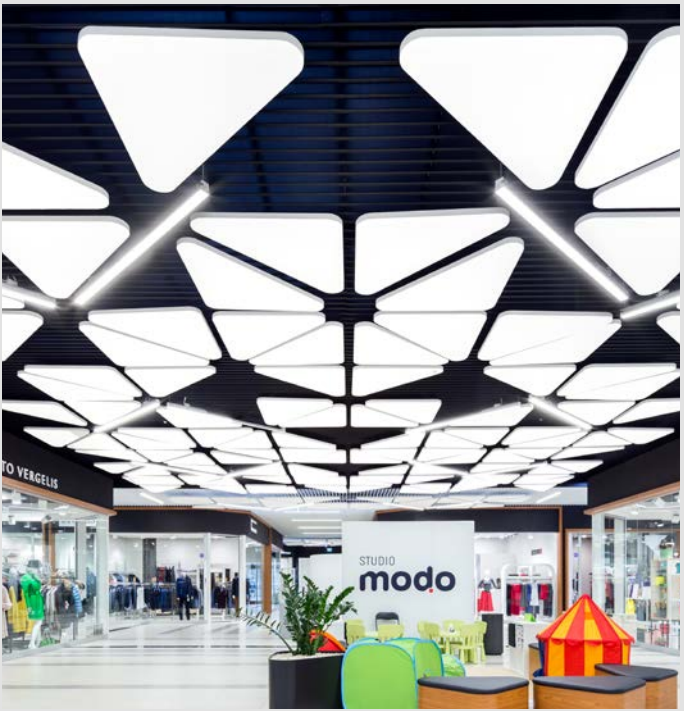
Workspaces are one thing – but how can sound enhance art? Ceilings can not only direct the eye towards the stage, but can draw the ear through sound architecture, whether that’s integrating audio speakers or using acoustic transparency and physical shape to direct sound around auditoriums. It’s entirely possible to ensure that sound plays as much a part in performance as light and shape.

A CASE FOR ACOUSTIC ENHANCEMENT?

Schools, universities, hospitals and hotels need to control sound while complying with rigorous legislative demands. Schools especially need ‘zones’ of sound direction, absorption and attenuation. Canteens and common areas need to contain noise; classrooms and lecture halls need to project it.

Hospitals need ceilings to minimise the spread of noise on wards and corridors. Hotels’ rooms need to prevent the passage of noise, while their conference suites need sound to travel throughout, yet be contained. They also require large, welcoming atria and reception areas that balance aesthetics with approachability, where guests and staff can be heard clearly.

All these environments demand different solutions. Attenuation and absorption are two measures – but we need to think beyond. We need to think how our designs can direct noise towards where it’s needed, and away from where it’s not. It’s time to realise the potential of acoustics for creating great spaces that sound as good as they look.





YSTALYFERA WELSH MEDIUM Comprehensive School

ARCHITECT/CLIENT

Neath Port Talbot County Borough Council

MAIN CONTRACTOR

Dawnus Construction

CEILING CONTRACTOR

SAM Drylining

COUNTRY

United Kingdom



01

—Ambition

For a new £12.5 million secondary teaching block in South Wales, this 19-month project needed to realise an institution fit for the 21st century – as well as meeting BREEAM “Excellent” and BIM Level 2 standards. But the real ambition was to create a space where sight and sound are at the core of the learning experience – and not a distraction.

—Achieved

2,000m² of Metal D-H 700 Microperforated floating ceilings, Axiom Knife Edge Canopies and Axiom Classic Profiles, with Ultima+ Vector tiles, Metal MicroLook 8 tiles in Oak wood-effect finish, and Cradle to Cradle Certified™ Perla tiles: all combined to create contemporary, open and bright spaces that would help students focus.

Crucial to this was the acoustic performance of the ceiling system solutions, limiting the passage of noise between areas while still enabling tutors to be heard throughout each classroom – as well as boosting the structure’s thermal qualities, ensuring the building performs as well as it looks.



“The ceiling rafts in the classrooms complied with sound and visual requirements but also allowed us to use the exposed structural slab as thermal mass.”

Spokesperson, Neath Port Talbot County Borough Council

02



03



PREVIOUS PAGE
Metal MicroLook 8,
Oak wood-effect finish
Axiom Classic Profile
Prelude 15 XL²

01.
Ultima+ Vector
Axiom Knife Edge Canopy
Prelude 15 XL²

02.
Metal MicroLook 8,
Oak wood-effect finish
Axiom Classic Profile
Prelude 15 XL²

03.
Metal D-H 700
Microperforated
U-Profile

Photographer:
© Philip Durrant

Café Otto

CLIENT
Café Otto

CEILING CONTRACTOR
Norpano Chaussivert

COUNTRY
France

01



—Ambition

Paris is, quite possibly, the world capital of café culture. So, to stand out, a new café must offer outstanding service, compelling surroundings and — above all — a unique atmosphere that will attract passers-by and encourage them to spread the word about the establishment. Every element is vital to this — not least the need for an aesthetically pleasing ceiling.

—Achieved

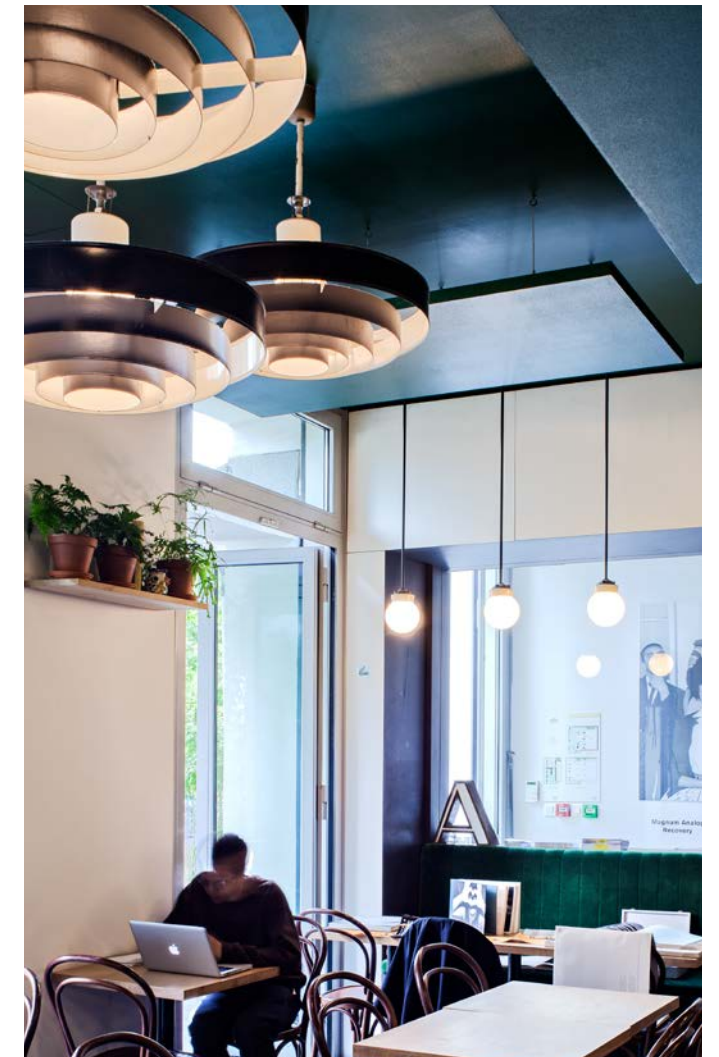
Combining square and large rectangular Optima Canopies and dedicated hanging kits enabled the project team to create an astonishingly cosy atmosphere within the café; a warm, welcoming environment with excellent acoustic performance to ensure customers could converse in comfort.

The black and green slate colour of the materials also contributed to a unique, modern ceiling that gave Café Otto a bold and contemporary flair — helping to make it a prime destination for Parisians and other visitors to the capital of café culture.

02



03



04



01, 02, 03 & 04.
Optima Canopy Square
and Large Rectangle
Hanging Kit

Photographer:
© StudioVu

MASARYK University

ARCHITECT

Ing. arch. Petr Davídek

CLIENT

Masarykova Univerzita

MAIN CONTRACTOR

U1 s.r.o.

COUNTRY

Czech Republic

—Ambition

Based in Brno, Masaryk University – the second-largest university in the Czech Republic – is a highly prestigious institution delivering excellence across a range of faculties, from law to medicine, science to the arts. A project to reconstruct the Masaryk University Auditorium, therefore, needed to blend the practicality of a learning environment with the prestige of its history and achievements.

—Achieved

Using 100m² of Metal R-H 215 Extra Microperforated tiles with acoustic fleece, the project team created a ceiling with a modern, elegant and minimalist design that perfectly complements the surrounding architecture.

Balancing this, the solution also provided outstanding acoustic performance – crucial for an auditorium space. With this system in place, not only was conversational noise attenuated and absorbed, but sound could be easily directed from the front to the back – making it easy for professors, lecturers and guest speakers to hear and be heard.

01



01, 02 & 03.
Metal R-H 215
Extra Microperforated
with acoustic fleece
U-Profile + H-Profile 35

Photographer:
© U1

02



03



AXA Assistance

ARCHITECT

Retail & Development

CLIENT

AXA Assistance

COUNTRY

Poland

—Ambition

As one of the world's oldest and largest assistance providers, AXA Assistance is guided by delivering satisfaction, broadening knowledge and driving innovation – and its ambition for its new headquarters was focused on the same criteria. Modern and functional, open and conducive to creativity, the brief was to be a showcase of innovation and good design, while being based on easily accessible standard elements that can make future maintenance easier.

—Achieved

The architect turned to Optima L Canopy Circle floating ceilings – a standard solution, but arranged in a unique way to achieve outstanding acoustic performance. The thinking behind this: to control reverberation and provide acoustic comfort for customers and customer-facing staff, as well as for those working in the building's large, open-plan offices.

In smaller meeting rooms, Sierra OP MicroLook 90 ceiling tiles provide acoustic comfort with a minimalist aesthetic. The panels are fully demountable, providing easy access to the services above for future maintenance, while contributing to a clean, modern and distinctive space with unparalleled acoustic performance.

01



02



03



01.
Optima L Canopy Circle
Hanging Kit

02.
Sierra OP MicroLook 90
Prelude 15 XL²

03.
Optima L Canopy Circle
Hanging Kit

Photographer:
© Szymon Polański

MCDONALD'S HAMBURGER University

ARCHITECT

CJSC "Moscow-McDonald's"

CLIENT

McDonald's

CEILING CONTRACTOR

StroyResurs, LLC

COUNTRY

Russian Federation

—Ambition

People are the heart of any business — and even one of the world's most famous and iconic brands needs to secure a steady supply of talent to safeguard its future. The worldwide network of 'Hamburger University' campuses were established to do this — and, in Moscow, the challenge was to create the perfect acoustic environment for learning while staying true to McDonald's strong look and feel.

—Achieved

A balance was needed between acoustic performance and pristine brand aesthetics. So, using a combination of Wood Board, Alder Wood Veneer, Lg 8002 Grooves, Wood Board, Limewood Veneer, Lg 8002 Grooves and Prelude 24 TLX grid, the team created a custom ceiling solution that carried through McDonald's warm wood aesthetic — a look now present in its restaurants across the world.

The system solution also provided good acoustic attenuation properties throughout lecture theatres, tutorial rooms and supporting offices — ensuring that teachers and students can hear and be heard, as well as enjoy more visually pleasing areas for quiet study.

01



02



03



01, 02 & 03.
Wood Board,
Alder Wood Veneer,
Lg 8002 Grooves
Prelude 24 TLX

Photographer:
© Alexandr Gorchakov

B. Braun

ARCHITECT
IDP Architecture & Engineering

CLIENT
B. Braun

CEILING CONTRACTOR
Hygarsystem

COUNTRY
Spain

—Ambition

B. Braun, a European leader in medical technologies and hospital supplies, sought to expand its Barcelona facility with a new, state-of-the-art 40,000m² plant. The ambition for the interior spaces was to balance technical excellence with aesthetic appeal to create a functional facility in which people would enjoy working.

—Achieved

To achieve a designer finish, high acoustic performance and easy maintenance, over 3,000m² of Metal Axal Vector Extra Microperforated tiles with a B15 acoustic infill were successfully installed, creating a contemporary visual with enhanced acoustics and providing a downward demountable solution for easy access to the ceiling void.

Meanwhile, in corridors, the Metal F-L 601 system and a B15 acoustic infill were chosen for greater acoustic comfort, while the cafeteria area featured Metal Axal Vector Microperforated ceilings with an OP19 acoustic infill, as well as Optima Baffles for reducing background noise, increasing light reflection and creating a very welcoming communal area aesthetic.

Finally, Axiom Perimeter Trims and Transitions, which create a smooth transition between plasterboard and ceilings, were used for a seamless, sleek effect befitting the cutting-edge facility.



01.
Metal F-L 601
with Premium B15
acoustic infill
Perimeter Trim

02.
Optima Baffles
Hanging Kit

03.
Metal Axal Vector
Microperforated
with Premium OP19
acoustic infill
Prelude 24 XL²

Photographer:
© Jordi Canosa

IN WITH THE OLD... And In With The New

EVERYONE CAN DO THEIR BIT FOR SUSTAINABILITY – EVEN IN THE CEILING BUSINESS. IT’S JUST A MATTER OF COMBINING OLD AND NEW TO CREATE SOMETHING GREAT FOR THE YEARS AHEAD.

Rest assured, this isn’t yet another take on sustainability – you’ll know the practices, processes and implications inside and out. You’ll know your BREEAM from your LEED, and you’ll have some idea of the role your ceilings can play in enhancing sustainability. Here, however, we’re serving as something of a refresher, looking over the big focuses for sustainability, and at the possibilities for recycling and reusing old materials and styles to create something entirely new – and entirely sustainable.

REDUCE

Minimising our environmental impact while optimising our use of Earth’s limited resources, resource efficiency involves doing more with less within a circular economy. More productivity, less waste. More creativity, fewer materials.

Ceiling design can play a big part in this, diverting materials from landfill and ensuring full, 100% recyclability within ceiling systems. This is already playing a key part in Armstrong’s own product development programmes, for example, as Europe’s first ceiling company holding full Cradle to Cradle Certified™ status. But more can always be done.

It’s more important than ever to see how sustainability goes beyond reusing and recycling materials and resources. It’s also about safeguarding quality of life. Wellbeing is one of the key categories of BREEAM certification, and ceilings can play a vital role in this through everything from aesthetics to light, sound and thermal performance – creating spaces that can sustain happiness as much as our environment.



REUSE

So, how does this work in practice? One technique for ensuring resource efficiency, circular economy and wellbeing is that of integrating old ceiling structures with new styles to create unique and sustainable fusions of old and new. For example, an increasingly common approach to sustainably addressing the need for lighting is to create a ceiling to channel natural light through creative use of sun tunnels or ceiling portholes.

RECYCLE

While green materials and options abound for modern construction, from metal to wood, recycling is the true test of a sustainable ceiling. And thankfully, ceilings are highly recyclable, with closed-loop processes taking them from manufacturer to building, and around again. And again...

Aside from Cradle to Cradle Certified™ status, and zero waste to landfill targets, ceilings with high levels of recycled content have a range of other benefits. No landfill or skip costs, for example, plus plenty of support for diverting waste from landfill, as well as additional credits for LEED, BREEAM and other accreditations.

However, the end benefit must be for the environment. It’s our mission to enhance the spaces where people live, work, learn, heal and play – but it’s ultimately the mission of everyone in construction to play their part in building a better world.





IBM

ARCHITECT & DESIGNER
U1 s.r.o.

CLIENT
IBM Česká republika, spol. s r.o.

COUNTRY
Czech Republic



—Ambition

As befits a pioneering company – first in computing and now in business solutions development – the ambition for IBM's offices is an open-plan format that reflects its fast-moving, future-thinking ethos. For the IBM Client Innovation Center, in Brno, the company wanted a workspace that could reflect its fluid, organic and creative development processes, while still complying with the brand's strict global standards.

—Achieved

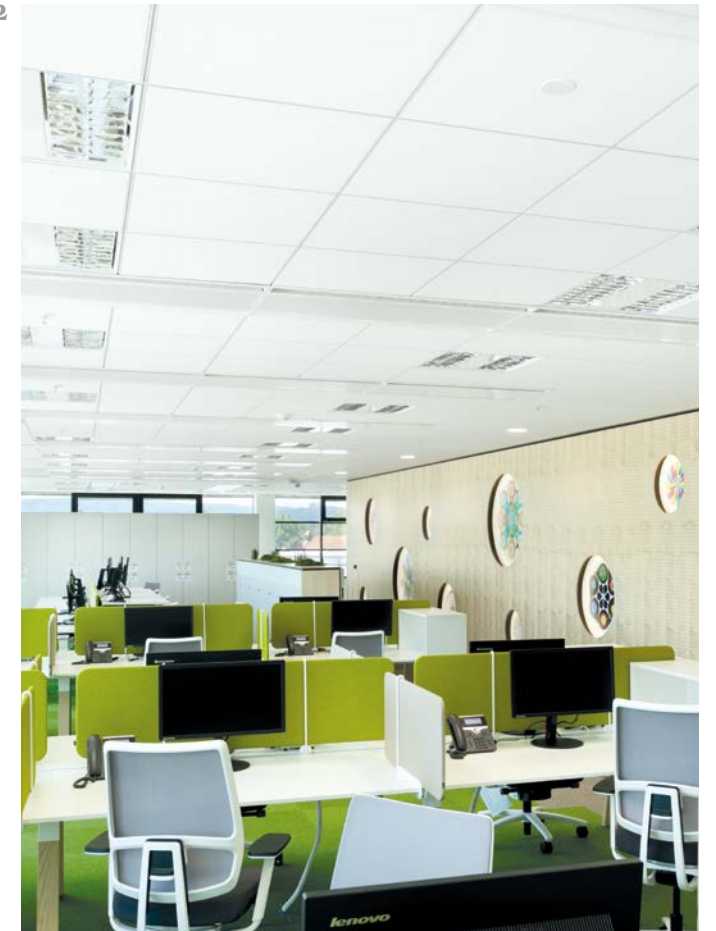
Working within these parameters, the project team used Perla OP 0.95 MicroLook on Silhouette designer grid system to create a space built on Cradle to Cradle Certified™ sustainability, wellbeing and comfort – all critical to the IBM workplace creation standards.

At the core of the aesthetic approach for the project was the idea of communion with nature. As such, the team played with shapes, light and depth to create a softer, more organic feel for the Client Innovation Center – the perfect environment for creativity to shine.

01



02



03



PREVIOUS PAGE
Perla OP 0.95 MicroLook
Silhouette designer grid

01, 02 & 03.
Perla OP 0.95 MicroLook
Silhouette designer grid

Photographer:
© U1



01

Takeda

ARCHITECT
 Rolfe Judd Polska sp.z o.o.

CEILING CONTRACTOR
 Takeda Polska

COUNTRY
 Poland

—Ambition

The ambition of Takeda, Japan's largest pharmaceutical firm, is to improve the health of people around the world through advances in medicine. In Poland, however, it also had an ambition to create headquarters with a clear aesthetic that matched the personality of the business and its commitment to wellbeing.



02



03

01, 02 & 03.
 Ultima® MicroLook 90
 Prelude 15 TL
 Axiom Profile 50mm

Photographer:
 © Szymon Polański

—Achieved

Form and functionality needed to be perfectly in balance. Indoor air quality and acoustic comfort were vital for workers, so the team needed to reduce reverberant noise and isolate sound between rooms.

Ultima® MicroLook 90 ceilings not only offered a smoother, whiter finish, but also provided a balance of both sound absorption and sound attenuation to improve acoustic comfort and wellbeing for workers – as well as raising indoor air quality through its VOC A+ and ISO 5 rating.

Axiom Profiles were used to create custom perimeter pockets which enabled ventilation to be invisibly integrated, maintaining the ceiling's aesthetic harmony, improving air quality and wellbeing for everyone in the building.

TWINSET

ARCHITECT
BP Architects

CLIENT
TWINSET

CEILING CONTRACTOR
Emilia Finitura

COUNTRY
Italy



01

02



01, 02 & 03.
Ultima+ MicroLook 90
Prelude 15 TL

Photographer:
© Matteo Colla

—Ambition

With a reputation for innovation, quality, creativity and attention to detail, the fashion brand TWINSET sought to build these values into a renovation of an 8,000m² industrial shed and a completely new 7,000m² headquarters in Carpi, Modena. Critical to this ambitious project was the need for sustainable, energy-efficient solutions in all aspects of the build – inside and outside, floor to ceiling.

—Achieved

Design and style should always be linked to how a building performs. So, in a project where efficiency and respect for the environment were key, over 3,000m² of Ultima+ MicroLook 90 ceiling tiles ensured the highest levels of sustainability, aesthetics and performance, as well as ease of access for above-ceiling maintenance.

The Ultima+ ceiling features a brighter, whiter, smoother surface, with 87% light reflectance to help achieve 16% cost savings compared with indirect lighting, which – together with the system's Cradle to Cradle Certified™ status – puts the solution at the core of the building's sustainable performance.



03

“The decision to use
Ultima+ ceilings is particularly
advisable in busy working
environments where a balance
of acoustic comfort and end
user wellbeing is key.”

Alessandro Buldrini, Armstrong Ceiling Solutions

ChyronHego

ARCHITECT

Radek Mašinda, U1 s.r.o.

CLIENT

ChyronHego Czech s.r.o.

MAIN CONTRACTOR

U1 s.r.o.

COUNTRY

Czech Republic

01



—Ambition

For a cutting-edge company whose broadcast graphics are seen on screens around the world, the project to give ChyronHego a truly world-class Czech Republic headquarters needed to combine an iconic, unique design with modern techniques and features – and this approach extended to the need for an unusual approach to its ceilings.

—Achieved

Perfect acoustics. Floating ceilings. These challenges and requirements combined to present the team with a project that demanded a custom combination of 500m² of Optima Vector and Axiom Knife Edge Canopy ceiling solutions.

The ease of installation of this solution, together with easy access and semi-concealed edges, made this both a practical and aesthetically pleasing way to transform ChyronHego's HQ. Contemporary shapes, understated design, and a responsive and supportive approach within the team ensured the ambitious plans for the building were fulfilled on time – making a potentially complex build simple and efficient.

02



03

01, 02 & 03.
Optima Vector
Axiom Knife Edge Canopy
Prelude 24 XL²

Photographer:
© U1

ARCHITECT

Raumundfunktion GmbH

CLIENT

CLW – Chiemgau-Lebenshilfe-Werkstätten GmbH

CEILING CONTRACTOR

Eigen Regie

COUNTRY

Germany

—Ambition

Chiemgau-Lebenshilfe-Werkstätten is an organisation with a vital mission: giving people with mental and physical disabilities the opportunity for vocational education, personal development, employment and a head-start in the jobs market. So, its facilities have very specialised needs – extending to a ceiling that promotes comfort and wellbeing.

—Achieved

Over a four-month period, the project team worked together to create a ceiling with both aesthetic appeal and acoustic performance, creating a friendly, welcoming visual environment while reducing sound levels for the comfort and needs of the building's users.

Optima L Canopies (22 pieces at 1200mm and 25 pieces at 900mm) in a variety of shades of green and in circular shapes of different diameters gave the ceiling a softer feel, akin to reconnecting with nature – ideal for an environment in which people can learn, grow and flourish.

01



01, 02 & 03.
Optima L Canopy 1200mm
and 900mm in various
shades of green
Hanging Kit

Photographer:
© Raumundfunktion GmbH



02



03

BASF

ARCHITECT
AK Jancina

CLIENT
BASF

CEILING CONTRACTOR
Prosard s.r.o.

COUNTRY
Slovakia

—Ambition

BASF has a self-driven mission to build a chemistry for a sustainable future – economically, socially and environmentally. As a science and innovation giant, its ambition for its Slovakian facility was to reflect its cutting-edge abilities while staying true to its mission of harnessing chemistry for a better world.

—Achieved

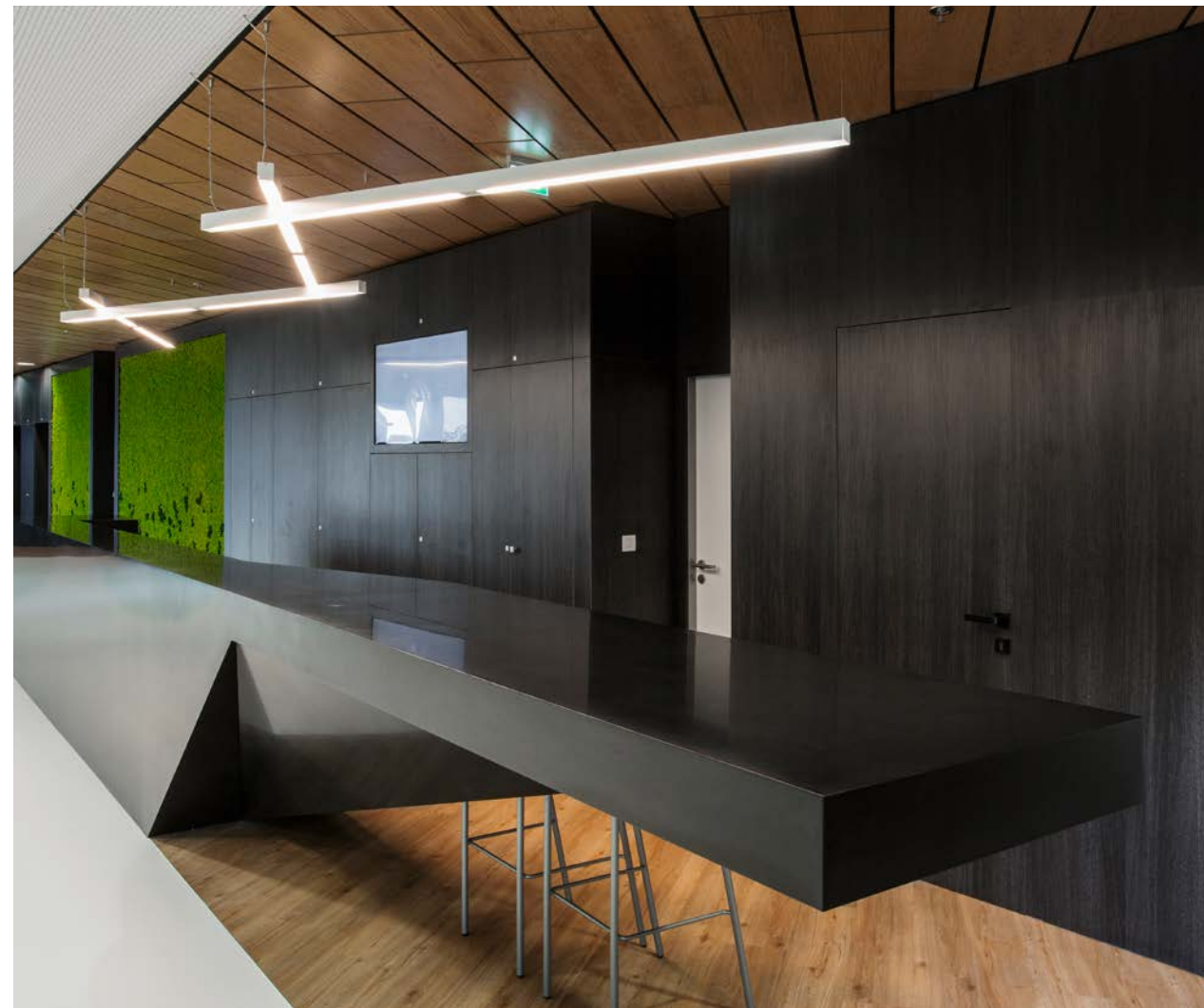
Throughout the corridors and the feature-piece lobby of the building, 300m² of Wood MicroLook 8, Oak Veneer, Rg 3003 perforation provided the ideal sustainable solution. By using a sustainable, renewable resource, the team successfully drew attention to the client's continued ecological commitments, as well as creating a warm, friendly and approachable environment for both workers and visitors.

Another advantage of this approach was the inherent acoustic performance of the wood solution. By possessing high sound absorption and attenuation properties, building users could work and meet with greater acoustic comfort – making the building a landmark in both sustainability and wellbeing.

02



03



01, 02 & 03.
Wood MicroLook 8,
Oak Veneer, Rg 3003
Black Prelude 15 XL²

Photographer:
© Jiří Pařízek

01

HELPING PEOPLE LIVE, WORK, LEARN,
Heal And Play — Better

IF CONSTRUCTION IS TO BUILD A BETTER WORLD, WHAT
ROLE DOES WELLBEING PLAY? HEALTH AND HAPPINESS,
PRODUCTIVITY AND LOYALTY, FOCUS AND SUCCESS: ALL
ARE PRODUCTS OF WELLBEING — BUT WHAT CREATES IT?



Wellbeing is a key part of green buildings, a part of BREEAM, LEED, SKA, HQE and DGNB, and integral to aesthetics, sustainability, sound and thermal performance — and its benefits are widespread.

CREATING BETTER SPACES

If the spaces we work in promote wellbeing, people are more productive and loyal, with higher staff retention, lower absenteeism and lower employment costs. When 91% of building owners list productivity as the return on investment in wellbeing, it's clear that it's vital. In schools, wellbeing helps students focus and improves teachers' morale. It aids rest and recuperation in hospitals and hotels, and improves leisure experiences. So, how exactly do we create it?

FOUR WAYS TO WELLBEING

There are four components of good indoor environments: noise and acoustics, indoor air quality (IAQ), thermal comfort, and lighting and daylighting. Where space is needed to focus, the ability of a ceiling to attenuate, absorb and redirect sound is crucial to comfort. IAQ is a key factor — something that ceilings can safeguard, delivering clean performance by minimising emissions of volatile organic compounds (VOCs).

Thermal comfort has a distinct impact: surveys recorded a 6% reduction in productivity in offices at warmer temperatures, and 4% at cooler temperatures. So, a comfortable temperature is vital.

Meanwhile, studies reveal that students in classrooms with the highest levels of daylight achieve 7% to 18% higher test scores. Retail stores with skylights have recorded 40% higher sales than those without. Workers who sit near windows receive, on average, 46 minutes of more sleep per night than those without.



There is a clear case to increase daylight availability — perhaps by 'cutting into' structures to create higher ceilings and larger atria, or by using bright, white, light-reflective tiles to reduce reliance on lighting; securing lower energy requirements and greater productivity.

DESIGNED WITH WELLBEING IN MIND

Building for wellbeing requires a user-centred design approach. Iterative, inclusive and integrated, it brings users and scenarios into the design process, staying focused on user needs to build around wellbeing — and secure up to six BREEAM credits, seven SKA credits and five LEED credits.

This has been shown across a wide range of projects throughout the last year — some of which you'll find in this A Book. For example, CLW in Germany, an organisation helping those with mental and physical disabilities — has very specific wellbeing needs. Through a four-month project, the team balanced aesthetics and acoustic comfort to create a friendly, welcoming space to enhance the lives of all occupants. Covered in this A Book, this is a perfect illustration of how leading projects with a focus on wellbeing can help people live, work, learn, heal and play — better.



INTERNATIONAL TECHNOLOGY Company

ARCHITECT
DEGW Arch. Adamo/Boienti

CEILING CONTRACTOR
Contec

COUNTRY
Italy



—Ambition

When an international technology giant seeks to create a regional headquarters, the challenge is always how to differentiate it. How do you avoid the pitfalls of creating just another faceless, multinational office, and instead create a workspace that encapsulates both the personality of the business and all the great things about the region?

01



02



—Achieved

The key to the design of the new headquarters lay in the company's own values: openness, flexibility, energy, dynamism and innovation. By translating these into physical form, the team could create a space reflective of the brand while, at the same time, being built around the core concept of 'Made in Italy'.

Combining 1,100m² of Metal V-P 500 Baffles, 30 Optima L Canopy Circles, and Ultima[®] MicroLook 90 and Bioguard Mineral tiles, alongside the unusual use of U-Profile grid system, the team created a space that was at once homely and creative. Maintaining a rugged concrete aesthetic and hiding suspension points to avoid distracting from the design, while creating a warm and welcoming atmosphere conducive to productive, comfortable working, this building became an iconic headquarters celebrating everything great about Italy, through the lens of one of the world's leading companies.

03



PREVIOUS PAGE
Metal V-P 500 Baffles
U-Profile

01.
Metal V-P 500 Baffles
U-Profile

02.
Optima L Canopy Circle
Hanging Kit

03.
Metal V-P 500 Baffles
U-Profile

Photographer:
© FUD

ROYAL HOLLOWAY UNIVERSITY OF London

ARCHITECT
Associated Architects

CLIENT
University of London

MAIN CONTRACTOR
Osborne

CEILING CONTRACTOR
Rosguill Developments

COUNTRY
United Kingdom



01

—Ambition

A 10,000m² expansion to a prestigious university library, the Emily Wilding Davison Building saw Associated Architects design a state-of-the-art library and student support hub. Key to this ambition was to reflect the history in which the site is steeped – avoiding overshadowing the 1881 Grade I Listed Founders Building, while creating an innovative and inspiring study environment for one of the top 30 universities in the UK.

—Achieved

This project required an approach that was as respectful as it was striking – a contemporary contrast and complement to its surroundings. It also required a huge commitment to sustainability, with Passivhaus levels of air tightness and thermal performance securing an “Excellent” BREEAM rating.

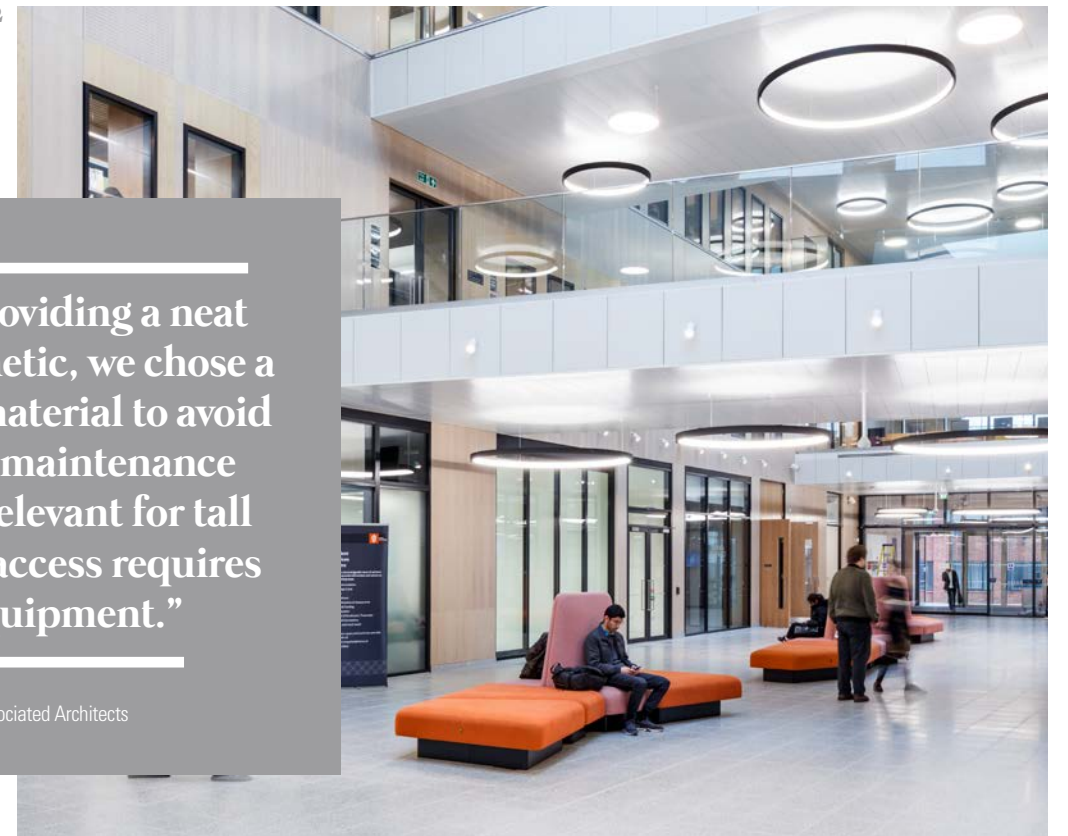
1,000m² of custom Metal B-H 300, Rg 2516 and Plain linear planks on a 300mm C-Profile, Metal R-H 200 ceiling tiles and custom Metal W-H 1100 wall panels formed the core of the solution, alongside Cradle to Cradle Certified™ Perla OP 0.95 Mineral tiles in white. Combined, this performed to sound absorption Class A while being 85% light-reflectant, creating a brighter, better and more open indoor environment – all while safeguarding sustainability and easing maintenance requirements for the future.

From the architects’ vision to a fully installed reality, the solution shows how eye-catching design can shape the perfect space for quiet study and inspiring discovery.

02

“As well as providing a neat and crisp aesthetic, we chose a self-finished material to avoid unnecessary maintenance – especially relevant for tall spaces where access requires special equipment.”

Joe Belcher, Associated Architects



03

01, 02 & 03.
Custom Metal B-H 300
Plain & Perforated Rg 2516
U-Profile + 300mm C-Profile
Custom Metal W-H 1100
perforated wall panels
U-Wall Profile with
wall anchors

Photographer:
© Philip Durrant

L'Exception

ARCHITECT

PRA | Philippe Rizzotti Architecte

CLIENT

L'Exception

COUNTRY

France



01

—Ambition

Set within Les Halles, once a food market made famous by Émile Zola and now a shopping mall facing major reconstruction, L'Exception is a concept boutique gathering together the work of the finest French fashion designers in the heart of Paris. As a flagship store, its own design and décor needed to reflect this high-end, creative offering.

—Achieved

The idea at the core of L'Exception's physical store was a continuation and expansion of the brand's digital experience. A contemporary, creative space; a living place where people can discover – and rediscover – exclusive fashion pieces, and gather for special events, shows and exhibitions.

The choice of 300m² of Mesh R-H 200 enabled the project team to create a bright, fresh and open environment. The modern-look tiles provide a sense of lightness and openness, with excellent air circulation and quality, as well as soft, natural light diffusion – the perfect space in which to showcase the best that the Parisian fashion scene can offer.



02

03



01, 02 & 03.
Mesh R-H 200
U-Profile + J-Bar

Photographer:
© StudioVu



01

Hines

ARCHITECT

Rolfe Judd Polska sp.z o.o.

CLIENT

Hines Polska sp. z o.o.

COUNTRY

Poland

—Ambition

A worldwide property development giant, and a leader in sustainable real estate, Hines sought a new Polish headquarters for its regional team, working with the architects to create a space reflective of its expertise and sustainable commitments, as well as its values: flexibility, creativity and openness.

—Achieved

Together, the team looked to Armstrong as a partner in sustainable construction that could build these values into spaces that perfectly reflected the client's ethos.

In the corridors and reception area, the Mesh R-H 215, RB35 ceiling was used as part of a creative, iconic RAL 9005 black ceiling that was fully functional and demountable for flexibility in maintenance.

To ensure acoustic comfort, Sierra OP MicroLook 90 Mineral ceilings enabled offices to look clean and elegant while giving staff in the open-plan layout the peace and quiet to focus on their work and serving customers.



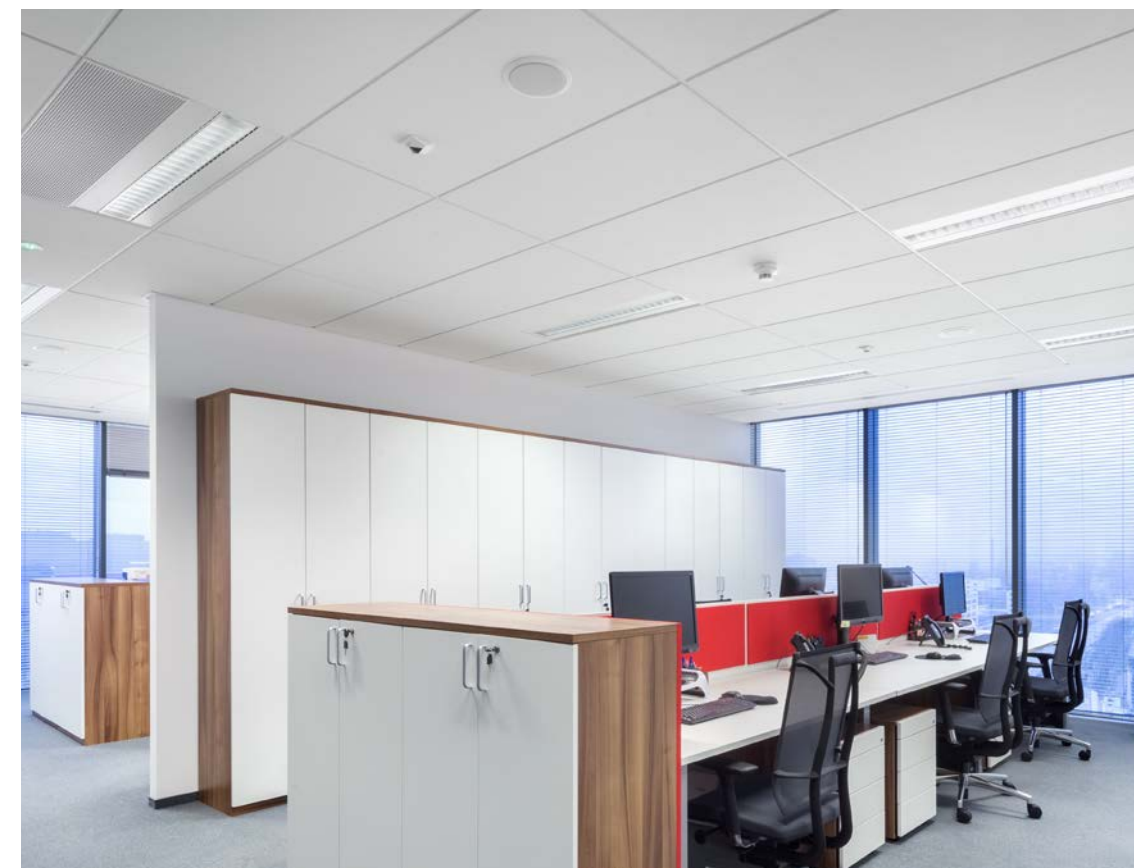
02

01.
Mesh R-H 215,
RB35, RAL 9005
U-Profile + H-Profile 35

02.
Sierra OP MicroLook 90
Prelude 15 XL²

03.
Mesh R-H 215,
RB35, RAL 9005
U-Profile + H-Profile 35

Photographer:
© Szymon Polański



03

Aurubis

CLIENT
Aurubis Belgium SA/NV

CEILING CONTRACTOR
Renobo bvba

COUNTRY
Belgium

01



—Ambition

Aurubis is the world's largest copper recycler, working in every industry from chemicals, electrical engineering and electronics to renewable energy, construction and the automotive industry. In expanding its flagship plant in Olen, Belgium, the company sought to create a new office building – an open, clean and elegant space providing a contrast with the heavy industry of its plant.

—Achieved

Using 1,465m² of Metal Tegalur 2, Microperforated with a Premium OP 19 acoustic infill, the team took advantage of the office building's large windows, with high-reflectance tiles making greater use of natural light levels throughout the facility.

Another advantage of this choice of system was its exceptional sound absorption. In an area where people needed space, peace and quiet to focus on their work, the ceiling solution provided great acoustic comfort to match the high levels of daylight – helping Aurubis achieve its vision of a clean, open space for greater wellbeing and productivity.

02



03

01, 02 & 03.
Metal Tegalur 2,
Microperforated Rd 1522,
Premium OP19 acoustic infill,
Prelude 15 TL

Photographer:
© Michael van Oosten

Harman House

ARCHITECT / CEILING CONTRACTOR

Area

CLIENT

Armstrong Ceiling Solutions

COUNTRY

United Kingdom

—Ambition

Every project is a showcase of the quality, versatility and impact of an Armstrong ceiling – so it was only right that Armstrong’s own European headquarters was the same. Moving to a contemporary, 840m² office in Uxbridge, UK, the project team were faced with the dual ambition of creating both a showpiece environment of aesthetic excellence, and a workplace that enhanced the wellbeing of employees.

—Achieved

Combining open-plan workspace, breakout areas, formal meeting areas and a stunning reception area, Armstrong’s new headquarters used a combination of solutions to subtly differentiate each zone.

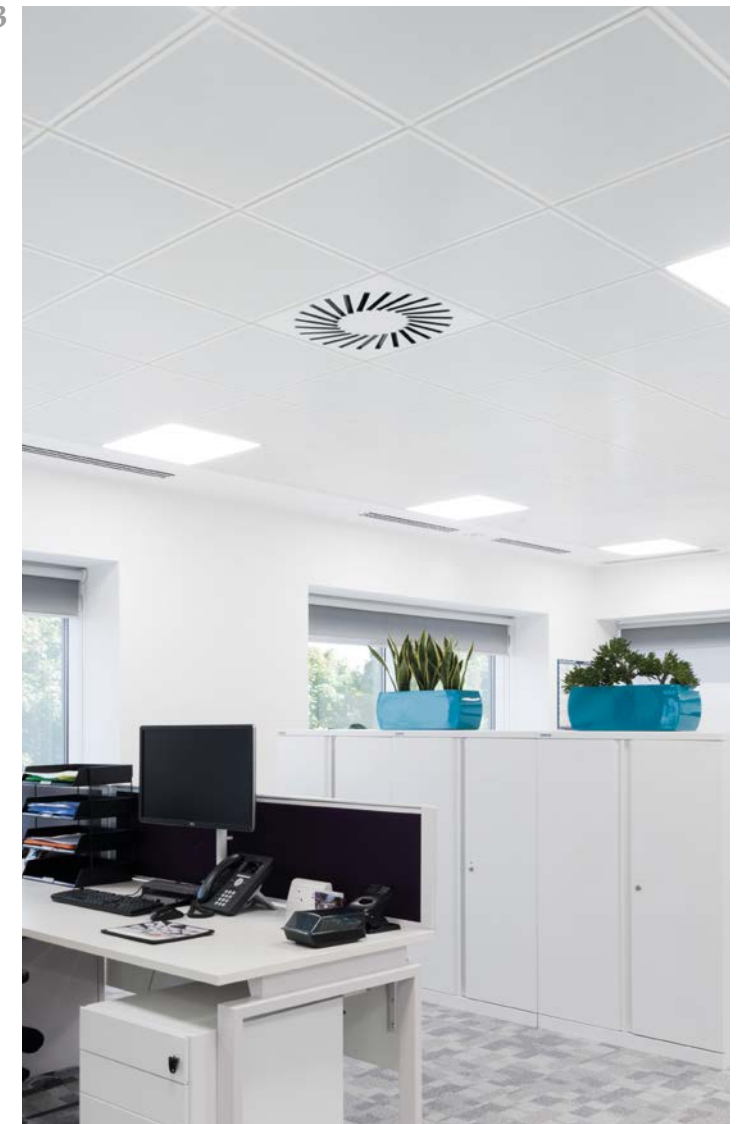
In reception, Metal B-H 300 tiles featuring Armstrong’s patented Trioguard dirt-resistant coating were used on a 200mm wide C-Profile, while Metal MicroLook 8 tiles on a Prelude 15 TL grid in black featured in breakout areas, and boardrooms used TechZone (integrating multiple building services) and Ultima⁺.

The ultimate effect of this configuration of versatile solutions was a bright, clean workspace designed to optimise both acoustics and light availability – ensuring that Armstrong’s own people could enjoy working in a place that improved wellbeing and productivity, and staying true to the company’s mantra of ‘Inspiring Great Spaces’.

01



03



02



“Our new European head office truly reflects the scope and versatility of our solutions, and more importantly, is a comfortable but inspiring place to work for our people.”

Wilfred Middel
VP and Managing Director EMEA
Armstrong World Industries

01.
Metal MicroLook 8,
Prelude 15 TL

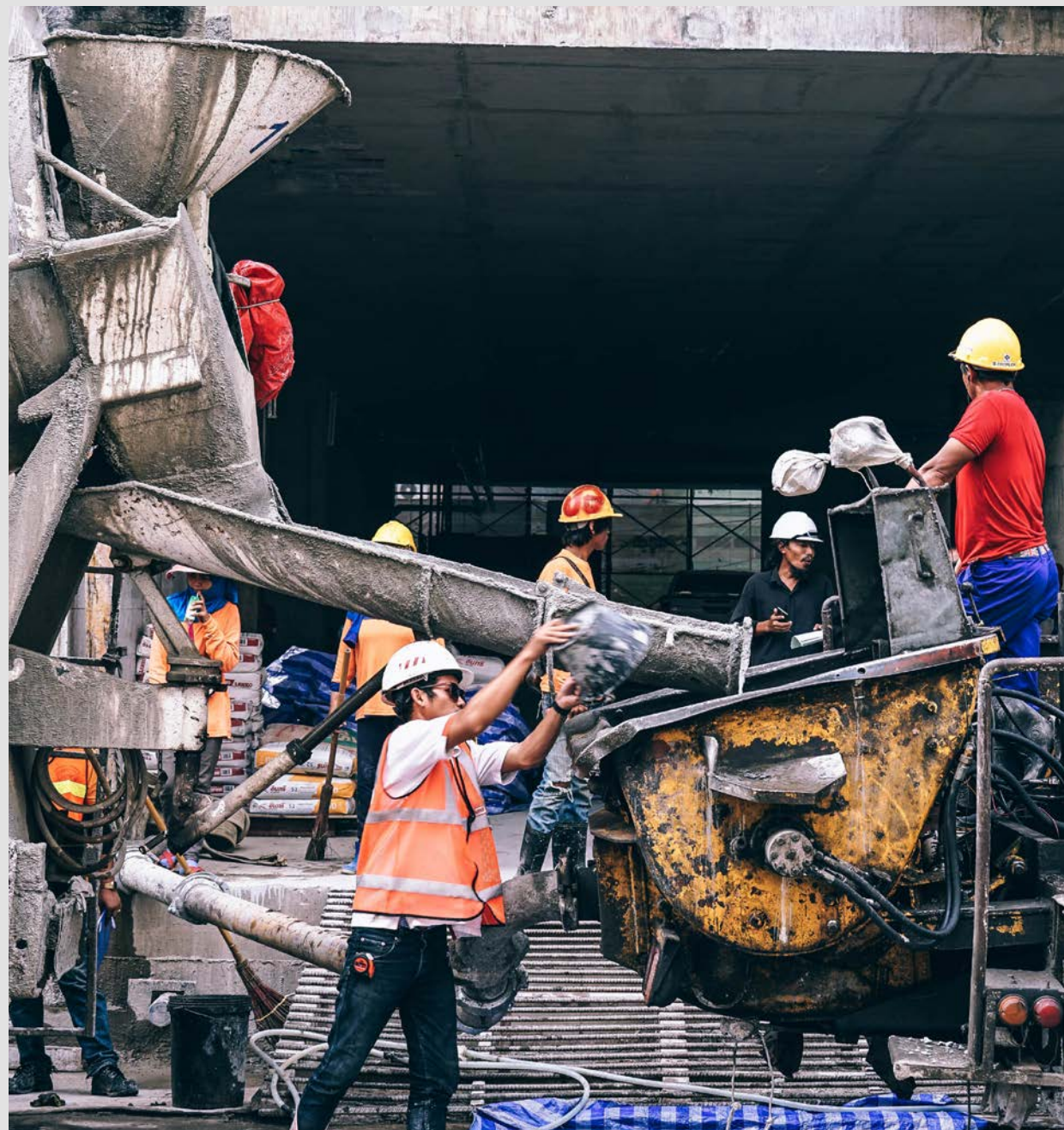
02.
Metal B-H 300 with Trioguard
dirt-resistant coating
U-Profile + 200mm C-Profile

03.
Metal MicroLook 8
Prelude 15 TL

Photographer:
© Philip Durrant

FIT FOR The Project

OF ALL THE CONSIDERATIONS IN THE CONSTRUCTION PROCESS, ONE STANDS APART IN IMPORTANCE: INSTALLATION. IT'S THE LAST STEP FROM VISION TO REALITY – ONE WHERE EVERYTHING NEEDS TO BE JUST RIGHT...



Practicality, pragmatism and problem-solving are essential to tackling any challenges – but they're never more crucial than during installation. Here, we can identify two categories of challenge: logistical and physical.

The first is all about the demands of the client and the supply chain – always more complex during refurbishment or renovation around working buildings. The second surrounds the environment and conditions the project faces. Again, this is more evident in renovations, as old and new materials must be integrated, performance improved, and non-standard elements tackled. Let's look a little deeper at these.

EFFICIENCY IN PLANNING

Look at many of the projects in this A Book, and you'll see a common challenge: disruption. School life continues regardless of the construction team. Hospitals need to keep operating around the clock. Productivity waits for no one. Faced with rigid timescales and working hours, flexibility is crucial. Teams must work together to agree timings and activities, setting out a clear logistical plan – including contingencies. It's also important to bring in the installation team early to survey, prepare and work through potential issues in advance.

Finally, the most important rule for dealing with logistics and disruption: collaboration. All members of the supply chain should be continually talking, ensuring that solutions are where they need to be, when they need to be. Bringing suppliers and partners into the planning process, including site visits, leads to a leaner way of working, cutting downtime and disruption – all driven by efficiency in planning.

EFFICIENCY IN INSTALLATION

This isn't the place to list the physical challenges ceiling installers face – we offer detailed, practical advice elsewhere. Instead, one point needs making: every installation is unique. Integrating old wood ceilings and new systems with higher sound performance. Compensating for problematic structural elements. Reconciling different heights, levels, planes and curvatures to adhere to the architect's vision. The team's ability to creatively work around these issues is vital. Armstrong's ceiling and suspension system solutions are engineered for ease of installation, but our own team are also here to advise on the best ways to tackle these challenges.

It is only by solving these physical challenges that logistical challenges can be solved – both need to be accounted for. It's also vital to understand legislative demands: health and safety, building regulations and beyond. Again, comprehensive guidance is available.



Ultimately, while products must be fit for the project, it's just as important that people must be too. To answer the challenges of any ceiling installation, planning, practicality, creativity and problem-solving are crucial. It's these qualities that make stunning architectural visions a reality. When the team's fit for the project, they get the job done.



AUSTRIA CENTER Vienna

ARCHITECT

Albert Wimmer ZT-GmbH / RRP Architekten ZT-GmbH

CLIENT

Internationales Amtssitz und Konferenzzentrum Wien, AG

CEILING CONTRACTOR

Trockenbauunternehmen Pichler Gesellschaft mbH, Passail

COUNTRY

Austria



—Ambition

The Austria Center Vienna is the world’s only conference venue directly connected to a UN headquarters. With 24 halls, 180 meeting rooms, 22,000m² of exhibition space and seating for 20,000 people, it’s an impressive building. So, when its business lounge and café were to be opened amidst widespread structural changes within a tight timeframe, the team saw the potential for specialist ceiling systems to match the venue’s world-leading aesthetic.

—Achieved

Central to the project was the creation of 300 Metal D-H 700 triangular shaped ceilings, held together with a black substructure and special suspension, creating the illusion of a floating ceiling.

Complementing this feature piece was 1,600m² of Metal Q-Clip F and R-Clip ceilings, together with Mineral Optima L Canopy and Baffles, which helped the team face the challenge of reconciling old and new elements of the building.

Crucial to the whole project, however, was the ability of all team members to plan and execute the work with minimal disruption to the vital meetings and conferences that happen at the venue.

01



02



03

- PREVIOUS PAGE
Metal D-H 700
triangular shaped,
Rg 0701, RAL 9010
Special black coated
substructure
01.
Custom Metal Q-Clip F,
Rg 3013, RAL 1013
U-Profile + DP12 A-Bar
02.
Optima L Canopy Circle
Hanging Kit
03.
Metal D-H 700
triangular shaped,
Rg 0701, RAL 9010
Special black coated
substructure
- Photographer:
© IAKW-AG, Andreas Hofer
© Ludwig Schedl

UNIVERSITÉ TOULOUSE 1

CAPITOLE

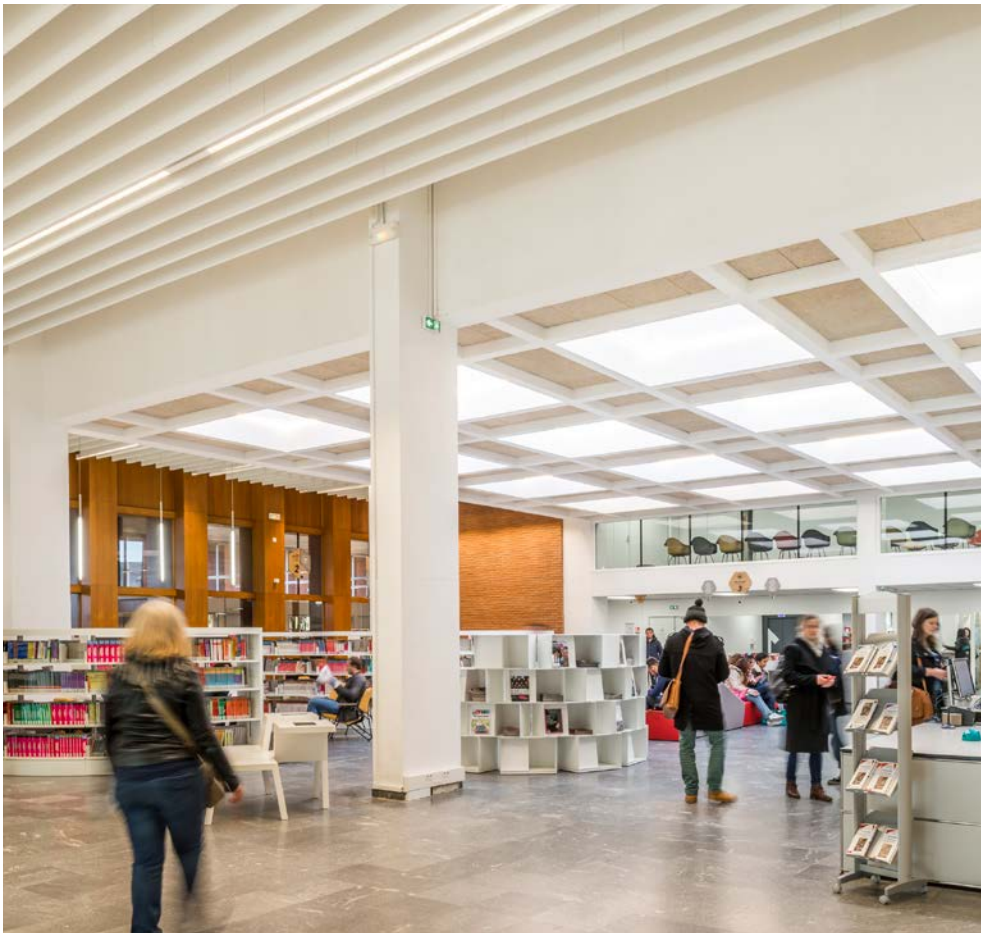
Learning Center

ARCHITECT
V2S Architectes

CLIENT
Université Toulouse 1 Capitole

CEILING CONTRACTOR
Massoutier Jacky et Fils

COUNTRY
France



01



02

- 01. Optima Baffles Hanging Kit
 - 02. Optima L Canopy Rectangle Hanging Kit
 - 03. Optima Baffles Hanging Kit
- Photographer:
© Philippe Ruault

—Ambition

A demanding project to thoroughly transform the 1960s-era library and amphitheatre of the University of Toulouse had a core ambition of retaining the building's existing structure while totally renovating the interior rooms – without altering room size or roof height – and all to a tight budget.

—Achieved

Optima L Canopies and Baffles were specified to enhance the high ceiling design as well as improve the acoustic performance while creating an appealing, high-quality aesthetic.

The improved acoustic comfort created by the reduction of reverberation transformed the experience of occupants. Meanwhile, the close collaboration between the architect and Armstrong throughout the project meant that this cost-effective solution could be delivered and installed within exceptionally short lead times, enabling the team to achieve their ambition and transform the building quickly, with the minimum of disruption.



03

SPANNRAHMEN AUDITORIUM In der Wirke

ARCHITECT

Früh Architekturbüro ZT GmbH

CLIENT

Marktgemeinde Hard an Bodensee
Dr. Martin Vergeinerm Amtsleiter

CEILING CONTRACTOR

Fehr Metaldecken GmbH

COUNTRY

Austria

01



01 & 02.
Metal R-H 215,
Qg 10565, RAL 7047
U-Profile + H-Profile 35

03.
Wall cladding solution
with custom made bulkheads,
Qg 10565, RAL 9016

Photographer:
© Foto Lautenschlager
© Darko Todorovic Photography

—Ambition

The 'Spannrahmen' Auditorium was an ambitious project for the Austrian town of Hard. As part of a complete redevelopment of its quarter 'In der Wirke', which saw many buildings demolished and others preserved, the team were tasked with transforming a former textile factory into a landmark events centre; a hub of art, culture and social life that reflected its industrial heritage while giving people a place to express themselves and create new spectacles.



02

—Achieved

The 550-person 'Spannrahmen' auditorium at the heart of the 'In der Wirke' area in Hard was the central showpiece of this project. The team's approach was to revitalise the building fabric, maintaining the quarter's industrial character while making it fit for purpose and for the comfort of a modern audience.

270m² of Metal R-H 215, square perforation Qg 10565 in RAL 7047 were suspended from a custom system to create a curved ceiling aesthetic in the main theatre, while the entrance and cloakroom featured a custom Metal Wall Cladding solution.

Combined, this created a great sense of spaciousness that reflected the theatre's industrial and textile foundations while transforming it into the perfect venue for performance. Meanwhile, acoustic curtains, curvature and light reflectance ensured that the theatre also performs in terms of sound and light.



03

MAIRIE de Tosse

ARCHITECT
Architecte Lamaison

CLIENT
Mairie de Tosse

CEILING CONTRACTOR
Lesca Plâtrerie

COUNTRY
France

—Ambition

Nestled in a quiet French commune, Mairie de Tosse is a bright and welcoming town hall reflective of its surroundings. The challenge was to echo this within, creating interior spaces with excellent acoustic qualities and a warm, welcoming aesthetic – integrating the latest technologies with the natural beauty of wood ceilings.



01



02



03

01 & 02.
Wood Vector,
Oak Veneer, Plain
Optima Vector
Prelude 24 XL²

03.
Wood Vector,
Oak Veneer, Rg 3003
with acoustic fleece
Prelude 24 XL²

Photographer:
© Philippe Ruault

—Achieved

To reach this balance of old and new, the team combined Optima Vector with Wood Vector Plain ceilings in Oak veneer. By installing both semi-concealed ceiling systems on black grid and at different heights, the team achieved curved effects and playful light placement to create a more welcoming and friendly interior.

As well as a bright, clean and understated look, the Optima Vector solution provided exceptional sound performance and light reflectivity. This ensures that, while occupants can enjoy the warm wood effect of the ceilings, they can also benefit from the acoustic and visual comfort of the Optima Vector, whether they're at work or simply visiting the municipal heart of Tosse.

STANLEY Black & Decker

ARCHITECT

Trzop Architekci

CEILING CONTRACTOR

Tetris Poland sp.z o.o.

CLIENT

Stanley Black & Decker

COUNTRY

Poland

—Ambition

As befits a household name in industrial and hand tools, the plan to transform Stanley Black & Decker's Warsaw-based financial and accounting centre needed to balance interesting and varied aesthetics with acoustic performance and functionality – all while minimising installation time and disruption to a busy and bustling corporate hub.

—Achieved

Speed of logistics and ease of installation were critical. From design and build modelling to implementation, the team worked seamlessly together to select and supply the right mix of ceilings to balance effect and effectiveness.

Trapezoidal Optima L Canopies were combined with lighting to give conference rooms an attractive aesthetic, while Optima Baffles provided a linear look for smaller meeting rooms while granting greater sound absorption.

Corridors featured a black, industrial-type Mesh F-L 601, RB35 ceiling that provides functional maintenance access, whilst Sierra OP in the open-plan offices significantly reduced noise to positively affect occupant health, wellbeing and productivity. Combined, these solutions created a custom ceiling to perfectly suit the Stanley Black & Decker brand.

01



01.
Mesh F-L 601,
RB35, RAL 9005
Sierra OP Board
Prelude 24 XL²

02.
Optima L Canopy
Trapezoidal
Hanging Kit

03.
Optima Baffles
Hanging Kit

04.
Optima L Canopy
Trapezoidal
Hanging Kit

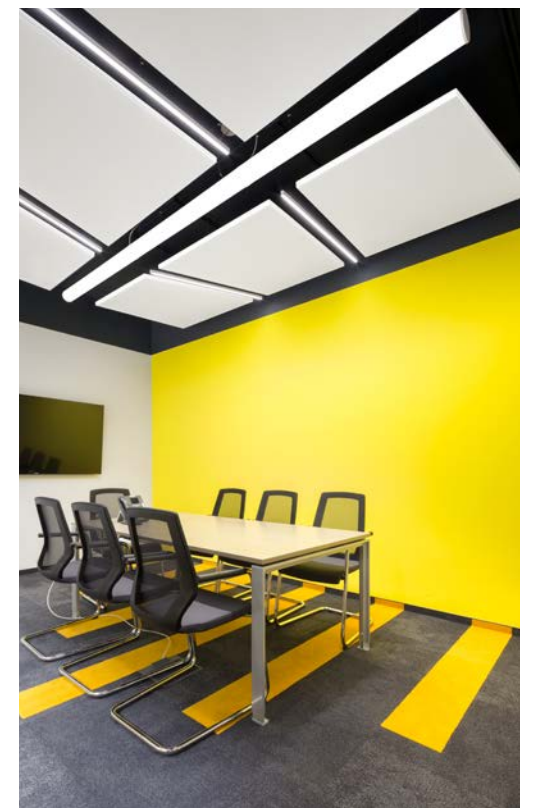
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02



03



04

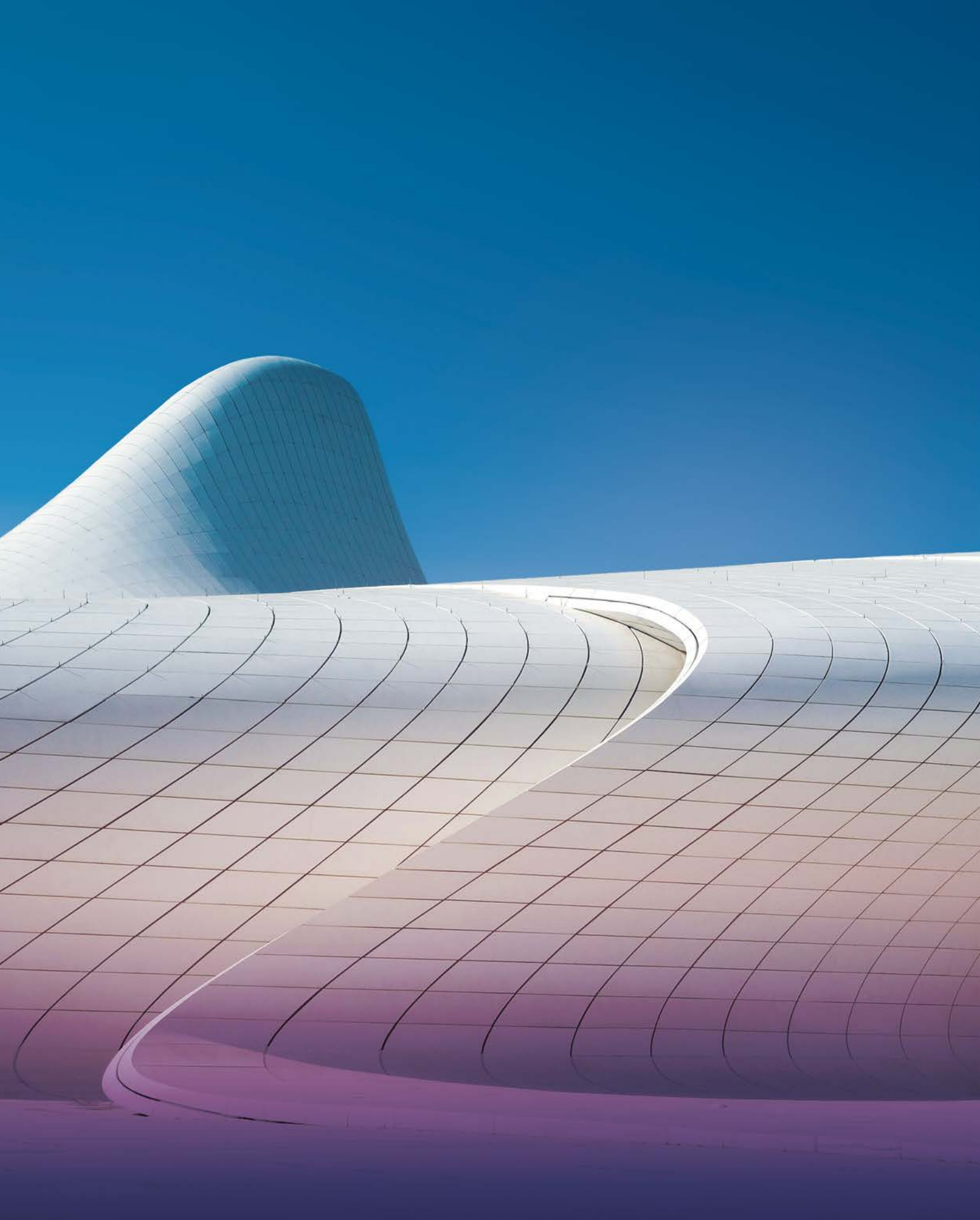
Ambition. Achieved.

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