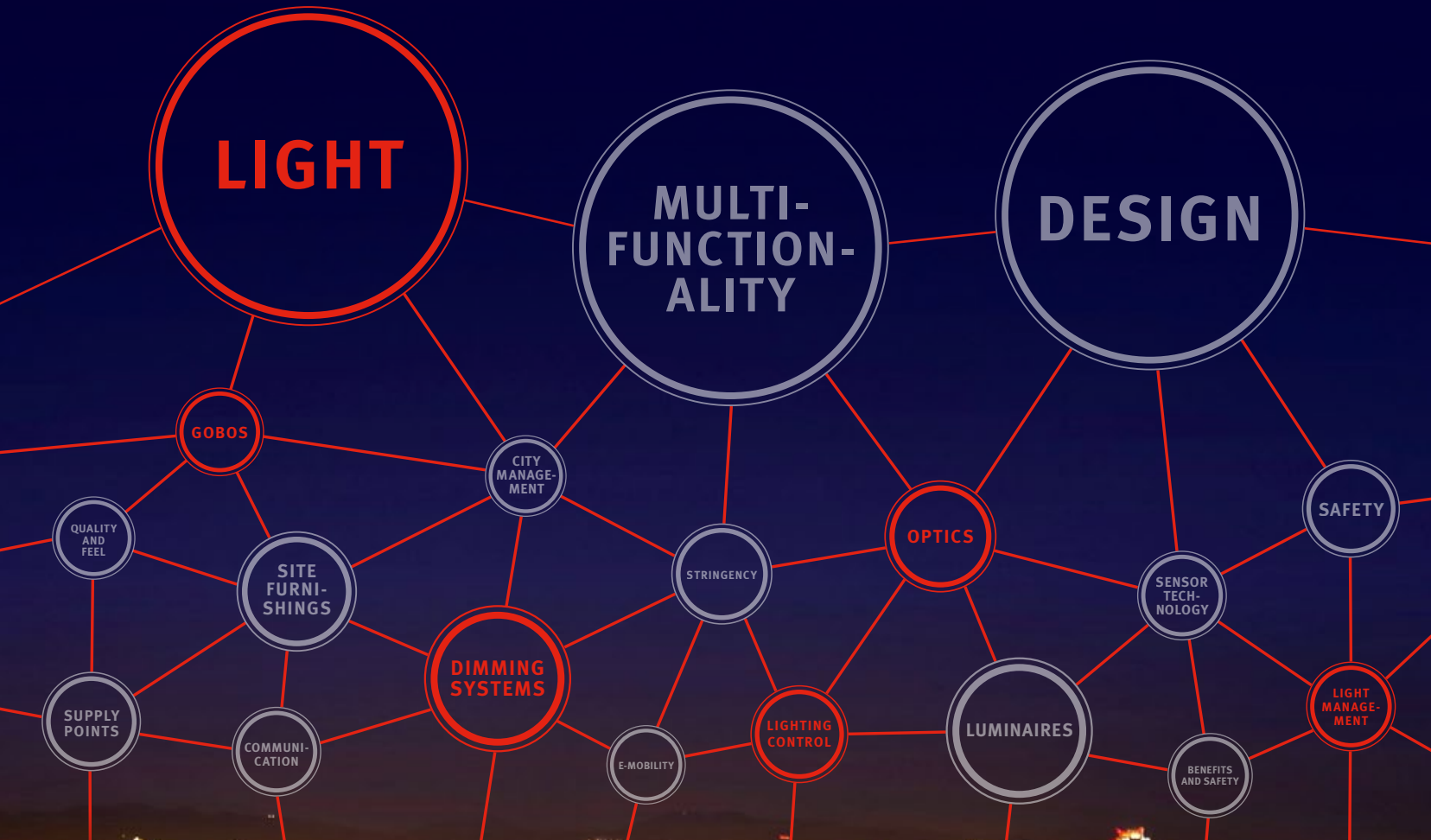


LIGHTLETTER by Hess

SMART CITY

EXPERT INTERVIEW
Peter Andres Consulting
Engineers for Lighting Design





Dear Sir or Madam,

The “Smart City” concept is an intensively discussed topic in cities and municipalities. The term stands for the increased use of interlinked information and communication technology in almost all urban areas – from energy supply through mobility to town planning, administration and communication – and aims to simplify people’s daily life as well as making processes and procedures more efficient.

For existing urban structures this development is accompanied by far-reaching transformation processes. A smart city builds on intelligent digital solutions to resolve urban challenges – and at the same time achieves the conditions required for a liveable, safe and healthy living environment.

Our new title series “The Smart City of Today and Tomorrow” deals with this dynamic change. It is structured as a three-part series and focuses on the topics of “light”, “multifunctionality” and “design”. As a central element, we conduct high-profile interviews with experts on the respective topics.

The first issue of our Lightletter is dedicated to the topic of “light”. For this we spoke with Prof Peter Andres and Katja Schiebler from the planning office of Peter Andres Consulting Engineers for Lighting Design in Hamburg, Germany.

Smart lighting and design solutions were also the focus of our trade fair presentation at Light + Building 2018 in Frankfurt. We presented a large number of newly developed products for smart cities and attractive urban spaces that allow you to create real highlights. We would like to introduce you to these innovations.

A successful combination of functional and decorative light characterises the lighting solution for the newly designed Willy-Brandt-Square in Lünen, Germany. They stage the marketplace attractively, giving it a unique as well as colour-accentuated appearance – depending on mood, occasion and season.

These and other topics await you!

We hope you enjoy reading our Lightletter!

With best regards,

Hess GmbH Licht + Form



Dr Ernst Smolka
Managing Director



Marco Walz
Head of Communications and Marketing

A photograph of a modern park at night. In the foreground, a paved walkway leads to a large, illuminated tree. To the right, a fountain with several jets of water is lit up. In the background, there are more trees and a fence. A tall, slender light pole stands on the left side of the image. The sky is dark blue with some clouds.

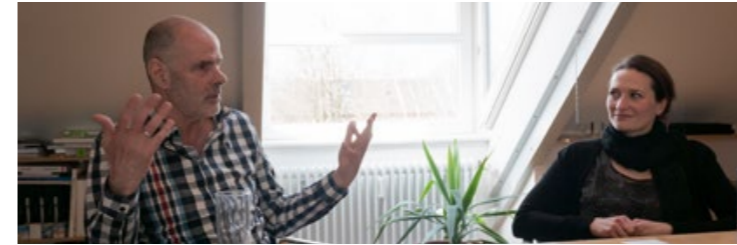
ONLY IN A SELECTED LIGHT,
THE WHOLE MAGIC OF
A PLACE APPEARS.

Oliver W. Schwarzmann, Economic poet

THE SMART CITY OF TODAY AND TOMORROW

Edition 1: – Light in urban spaces
– Expert Interview with Peter Andres Consulting Engineers for Lighting Design

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Expert interview with Prof Peter Andres and Katja Schiebler from Peter Andres Consulting Engineers for Lighting Design



Reference Project Willy-Brandt-Square, Lünen (GER)

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Willy-Brandt-Square, Lünen (GER) | Vivacious centre of urban life



Products, News and Events

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Reference: Roundabout in Villingen



Reference: Historic city wall in Villingen



Light + Building 2018, Frankfurt (GER)



Events: Architects, not Architecture

GRIVEN – the specialist for architectural lighting solutions

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The Architectural Dimension: New GRIVEN Catalogue 2018



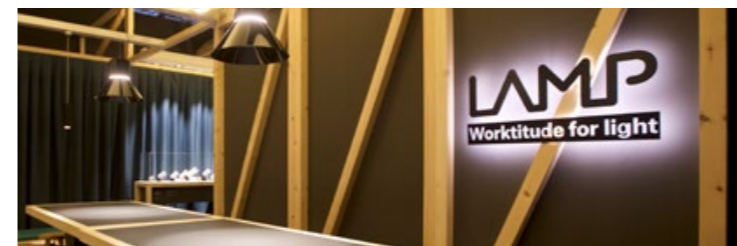
Latvia: White all over for Riga Fire Fighting Museum



Dijon, France: Renovation through water and light

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GaLaBau 2018, Nuremberg (GER)



Licht 2018, Davos (CH)



Botanical Night in Berlin (GER)

SMART CITY OF TODAY AND TOMORROW

Edition 1: Light in urban spaces



The city of tomorrow: Secure, networked, efficient and liveable.

Challenge and opportunity for sustainable urban development

Secure, networked, efficient and liveable – the idea of the “smart city” as a development strategy for a sustainable and intelligent city is increasingly gaining traction.

The Internet of Things has caught hold of many areas of our society at a rapid pace and has an impact on aspects such as communication, the working environment and, last but not least, personal lifestyle.

This is especially noticeable in cities, where more and more people are working, living together and therefore also spending their free time.

The continuing population growth in urban areas is already today demonstrating the urban necessities of tomorrow: climate and environmental protection, and thus a resource-conserving energy supply, growing demand for housing and new demands on mobility, infrastructure systems and public administration, just to name a few.

These dynamic developments require far-sighted, interdisciplinary solution strategies that make cities more adaptable so that they can maintain their quality of life in the sense of a “smart city”, and preferably even raise it.

Supported by digital information and communication technologies, intelligent solutions can now be developed for almost all areas of urban life that connect people, things and processes with data and thus make everyday life easier.

Lighting as a trailblazer for the smart city

Outdoor lighting, with its ubiquitous locations on streets, paths, parking lots and public areas in cities and municipalities, is the only above-ground and nearly comprehensive network that can initiate, accompany and promote the transformation to a smart city. That’s because luminaires are already ideally positioned and located exactly where public life takes place.

The existing and well-developed infrastructure of lighting thus provides high utility value and proves to be an excellent basis for integrating further applications for the benefit of the city as well as its inhabitants and tourists. Cities and municipalities can use this infrastructure to build a digital smart system that can be equipped with features and services in addition to lighting.

LED-based street lights offer versatile options for a smart city. With their excellent light yield and high quality with low energy consumption, they prove that they can make a significant contribution to greater safety, efficiency, a comfortable atmosphere and quality of life through the inclusion and integration of sensors, public Wi-Fi, emergency call functions and intelligent lighting management as well as dimming systems. Street lights are developing into the data and information hubs of the networked urban infrastructure.

In addition, the digitalisation of light opens up new possibilities for lighting design and presentation of urban features, an important aspect in the competition of cities and municipalities in terms of their attractiveness.



Streets, paths, parking lots, public areas. The exterior lighting is omnipresent – and therefore provides an ideal infrastructure for further applications.

New cover series: Smart City

In our new cover series “The Smart City of Today and Tomorrow”, we will be taking a closer look at this sustainable development using the example of public outdoor space. As a meeting place and venue for strolling and relaxing, public space is the living centrepiece of a smart city or municipality and not least the expression of a liveable environment.

In this year’s three editions of our Lightletter, we are focusing on the themes of light, multifunction and design. For each key area, high-profile experts will be sharing their opinions in interviews. In the first issue, “light” is the central theme.

What are the challenges for light in smart urban environments? What contribution do multifunctional lighting systems make to the quality of life in a city or municipality? And what significance does the design of outdoor luminaires have in the urban environment?

We discussed these and other questions with Prof Peter Andres and Katja Schiebler from the planning office of Peter Andres Consulting Engineers for Lighting Design in Hamburg.



In the next two editions of our Lightletter, we will focus on the topics of “multifunctionality” and “design” as part of our title series “Smart City”.

“Street lighting of the future will be part of an information network that is built and supported by modular street luminaires.”

Bernhard Kempen, Managing Director B2M Software GmbH, a [ui] Company



Prof Peter Andres and Katja Schiebler:
Light in urban spaces – for today and tomorrow!

Prof Peter Andres and Katja Schiebler talking about the importance, effect and perception of light.

What does “good light” mean for you?

Prof Andres: Good light means perceiving where we are going. We are veritably addicted to perceiving the spaces we live in. In addition to purely functional criteria such as good orientation and sufficient brightness, lighting must be tailored to our perceptions in order for this to be possible.

For example, it can be very uncomfortable if only the horizontal areas of a square are lit, making it impossible to discern the boundaries of the space.

We as observers always want to be able to recognise spacial boundaries. If we don't know where the space ends, where the borders are, it is unsettling for us. The perception of a room is significantly influenced by light and its distribution.

How does light need to be created and what kind of light do people need?

Prof Andres: For cultural reasons, we want to see warm light in the evening hours. By that I mean a quality of light that reminds us of incandescent light and firelight, because those are the qualities of light that have accompanied us throughout our entire evolution. This is a very important point for us – it involves the very substance of light, the light that we feel.

Then the light situation also plays a role. Eyestrain must be kept to a minimum. If we are blinded by a bright spot in the evening, even the highest quality light wouldn't make a difference, because we only perceive the glare.

“We always work with less brightness and lower luminance.”

This is a particular challenge outdoors, because our eyes are especially sensitive in the evenings. We always work with less brightness and lower luminance.

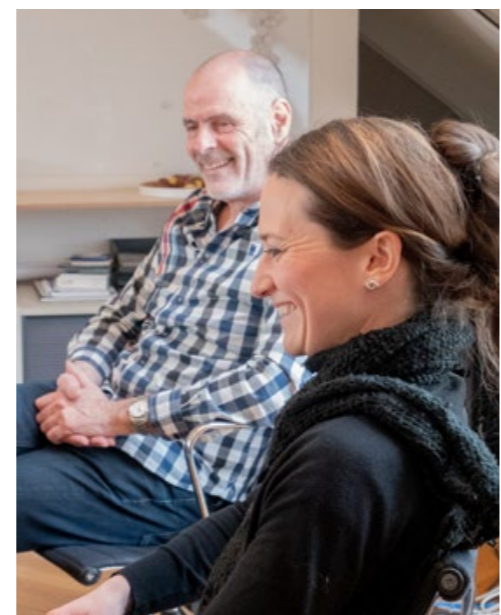
When do people feel comfortable with light?

Schiebler: When they don't even notice it. Light only becomes visible in combination with materials. In professional circles the conversation revolves around luminance, the measure for the impression of brightness. In principle, we try to discreetly blend all the luminosities that affect the eye so that we can perceive our surroundings optimally and not be blinded by glare.

Of course, knowledge about materials and their degree of reflection is a prerequisite for planning. For us, successful lighting design results mainly from the visibility of the surrounding space and its materials and less from the uncontrolled view of the light source.

Decisive on the one hand is people's natural perception, and, on the other hand, the architecture and the surrounding area, which should appear attractive at night.

Another important aspect is the environment. We want to achieve the goals we have defined for light in the most resource-efficient way, that is, with the lowest possible energy consumption and the least possible disturbance of the nocturnal sky. We also try to take into account the entire recycling process of a luminaire, from production to reclamation.



Speaking of luminance. What do you mean by that?

Prof Andres: There is a lot of talk about lux. Lux is the best-known unit for illumination intensity and can be easily measured with a luxmeter. We cannot see illumination intensity but instead only the so-called luminance in candelas per square meter (cd/m²).

The majority of the universe looks dark because although there is a high level of illumination intensity, there is hardly any material that can reflect the light to our eyes and thus produce luminance.

“Without knowing about the materials, we can't make plans, because we can only see reflected light, and the measure for this is luminance.”

Ms Schiebler was just talking about it: Without knowing about the materials, we can't make plans, because we can only see reflected light, and the measure for this is luminance. For example, if the luxmeter displays 800 lux at one point and 800 lux at a different point, it would be quite possible to measure a luminance of 120 in the first position and a luminance of only 20 cd/m² in the second position – it is about perception of light.

That is why we think and work in luminance, because only it is really identifiable. And a feeling of harmony in a public space only occurs when we bring luminance into proper proportions. Everything that enters the eye should be in the right proportion. That's the most important point.

We want to set accents with light and illuminate a tree, a bench or a wall as a boundary. Here you can play with luminance splendidly and use the fact that in the evening hours in particular, we perceive things or objects which have only low luminance.

We determined this in our so-called “impact sampling”. For example, some time ago on Hamburg's Elbe island “Kaltehofe”, a quiet, enchanted place.

Peter Andres, Consulting Engineers for Lighting Design

The renowned and multiple award-winning Peter Andres lighting design consultancy was founded on January 1, 1986, by Prof Peter Andres in Hamburg. Since January 2000 there has been an additional branch office in Tyrol, where Peter Andres has his roots. The Hamburg office comprises a team of 10 specialists from the areas of lighting design, electrical engineering, model construction, design of lighting and architectural lighting, architecture and interior design.

The focus of the firm's work is on demanding daylight and artificial lighting planning for public and private projects in the areas of culture, administration, industry, retail, sports and outdoor facilities, as well as development of lighting systems to meet project-specific requirements.

A special feature of the firm's planning is its model-supported working method under what is known as an “artificial sky” – a translucent dome illuminated by more than 1000 fluorescent lamps, representing the diffuse light of the vaulted sky. An artificial sun and a revolving platform integrated into the floor enable automatically controlled simulation of the path of the sun at any location on earth. As a result, the planned lighting effect for a project can be illustrated and perceived far in advance of the actual implementation.

Website:
www.andres-lichtplanung.de

Awards

- 2018: German Lighting Design Award 2018, Award Winner Category “Outdoor Lighting / Lighting”
- 2016: German Lighting Design Award 2016, “Lighting Designer of the Year” Laureate, Category “Private Projects” Laureate “Balthasar Neumann Prize” Laureate for the Project “Propsteikirche in Leipzig, Germany”
- 2013: German Lighting Design Award 2013, “Education” Category Laureate
- 2012: German Lighting Design Award 2012, “Lighting Designer of the Year”, “Jury Prize Daylight” Laureate, “Education” Category Laureate
- 2003: hamburgerdesignpreis 2003 (with ON-Industriedesign)
- 2002: Winner of the European Design Competition “Lights of the Future” (with ON-Industriedesign)
- 1994: “Balthasar Neumann Prize” Laureate for the Project “Hamburg Airport – Terminal 4”

Peter Andres

In addition to his work as a lighting designer, Peter Andres has been a sought-after expert in teaching and research since the mid-1990s. From 1994 to 2002, he was a lecturer for lighting design at the Faculty of Architecture of the University of Applied Sciences Hamburg, and from 2003 to 2006, he served as Deputy Professor for Lighting Design at the PBSA Peter Behrens School of Architecture in Düsseldorf. Since 2006, Peter Andres has been an honorary professor for lighting design at the PBSA Peter Behrens School of Architecture in Düsseldorf and spokesman for the Light Advisory Council of the Free and Hanseatic City of Hamburg. The committee advises the Senate for Construction, Urban Development and the Environment with the aim of further developing the nighttime cityscape.

Katja Schiebler

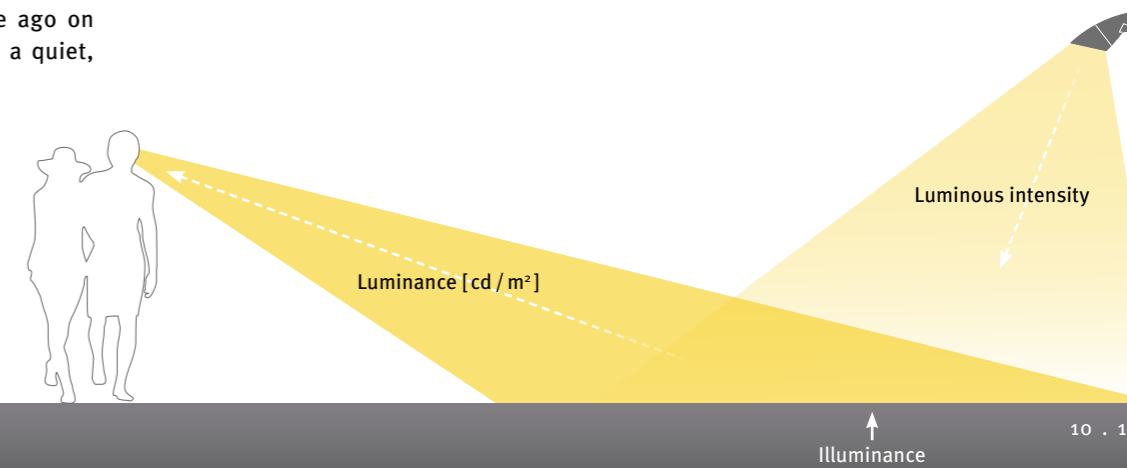
The graduate designer of architectural lighting has been a member of staff since 2008 and an associate of the Hamburg firm since 2014. From 2005 to 2008, immediately after completing her studies in the USA, Ms. Schiebler gained extensive experience as a product designer at a large car manufacturer in Germany. She is in charge of designing new lighting systems that are developed to meet specific requirements.



The results surprised us: For the perception of a dark brick wall, 0.6 cd/m² luminance was sufficient, although at this value, colour perception would actually be clearly limited.

We were amazed at how much you can reduce the luminance when the eye is “left alone” and the luminances are in the right proportion to each other.

“That is why we think and work in luminance, because only it is really identifiable. And a feeling of harmony in a public space only occurs when we bring luminance into proper proportions.”



In regard to the catchphrase of “feeling comfortable”: “We make sure that people feel comfortable through light,” is your maxim. How do you approach that?

Prof Andres: As we’ve already mentioned: the benchmark for us is human beings and their perceptions. That is at the core of all our considerations and the underlying tenet of what we do. Nature took about 500 million years to start evolution on land.

The sense of light itself is much older. Natural types of light – skylight, sunlight and firelight – have shaped our sense of light and therefore form the basis of a sense of well-being from light in their substance.

“Functionality” and “harmony” are other important elements of your philosophy. How do you accommodate these considerations in your projects?

Schiebler: For us it is important that light evolves from the task. We look at what functions must be fulfilled before we define a lighting system. These are the requirements for which suitable lighting systems are already available – or not. If this is the case, we develop our own luminaires. In doing so, we make sure that the luminaire corresponds to our light criteria and is also easy to maintain and user-friendly.

The term “harmony” stands for our endeavour to harmonise the luminance, as already mentioned, so that a harmonious interplay is created between lighting and the environment.



Do developers approach you with specific suggestions or are you quite free in regard to your ideas?

Schiebler: Both. There are clients who know exactly how they would like their property to be illuminated. Here, the challenge mostly lies in implementation as desired and the corresponding lighting technology to be used, which in such cases is quite often a development on our part.

However, many more clients come to us with a specific project over which we are given free rein. In such cases we can rethink and redefine the representation of nocturnal space. Together with the architect, we develop a look and feel that either correlates with the daytime view or reverses it completely.

Both are exciting tasks.

You put “architecture in the right light”. From our perspective it is a thoroughly emotional topic. How can you ensure “emotion”?

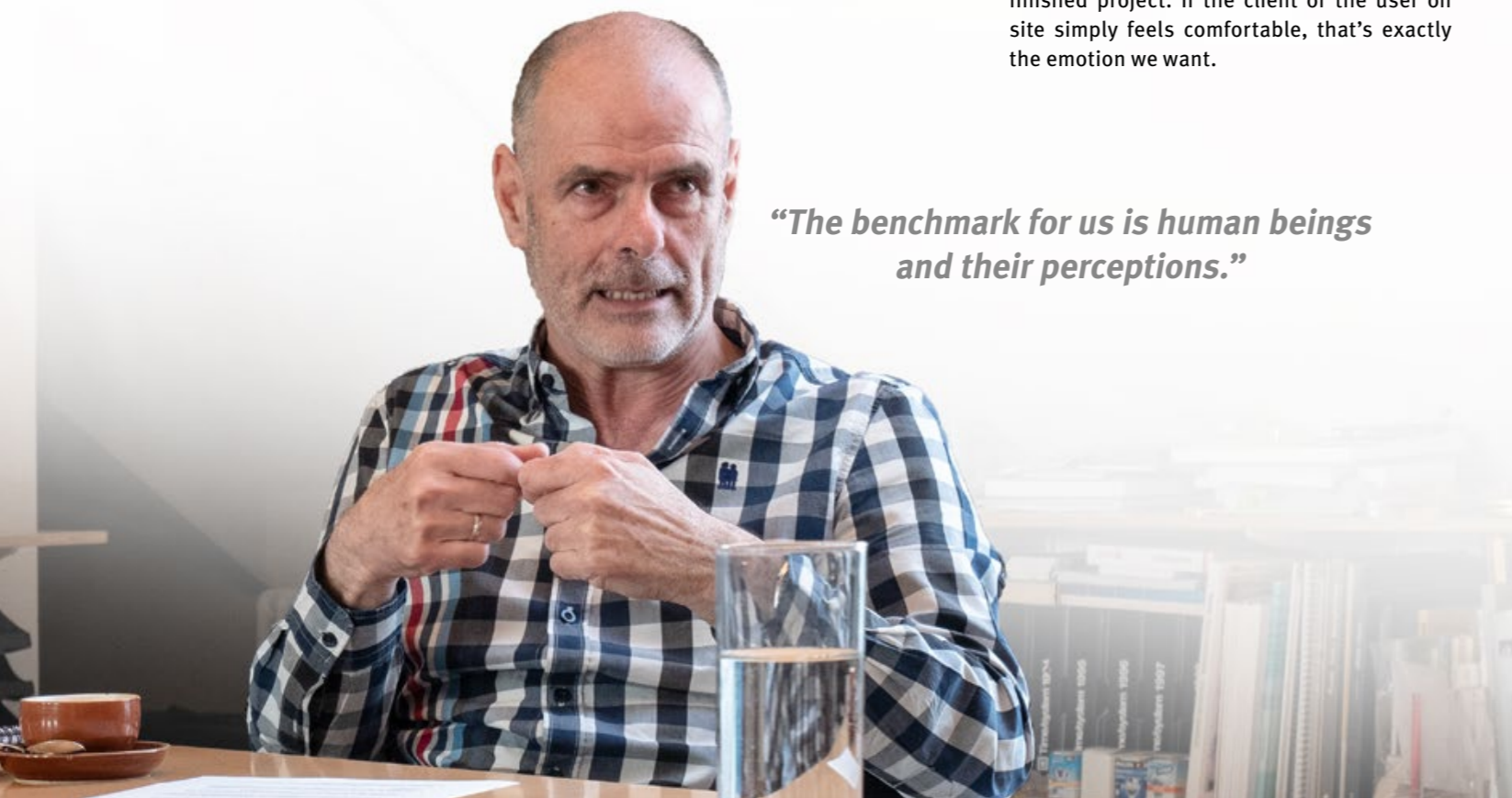
Schiebler: We put emphasis on a different kind of “wow-effect”. Less on colour or a lot of light, and more on elegance and harmony.

We can clarify many details in advance with detailed discussions with customers. With light samples, we can see whether the elaborated lighting concept appeals to people. That’s where we notice the initial reactions.

In addition, we work with models to illustrate the proportions of the street lights in concrete terms. For example, this shows the ratio of the luminaire to space and people, where spotlights should be positioned and in which order, and what the luminaire looks like during the day.

The best moment, however, is seeing the finished project. If the client or the user on site simply feels comfortable, that’s exactly the emotion we want.

“The benchmark for us is human beings and their perceptions.”



Prof Andres: Recently, we were together with the architect and the representative of the client at the acceptance of the “Triple” project in Heilbronn, Germany. His feedback: “That turned out beautifully”, and that’s the only outcome that matters. If the final result is good, everyone is satisfied.

The forecourt of the “Triple” building ensemble is illuminated by CITY ELEMENTS illuminating columns by Hess. Our goal was to create a harmonious overall picture – and we managed to do that. It was a difficult journey to get that far. Now, upon completion, everyone is satisfied with the lighting concept, and that makes it all worthwhile.

Schiebler: This is a good example of where the building’s elegance is highlighted. At night it’s possible to look at the building without the interference of glare. The building stands out from its surroundings due to its high-quality lighting.

Prof Andres: The building contrasts pleasantly with the surrounding buildings with its appropriate overall effect. There is only one (warm) light colour. The interior lighting of the tenant-independent areas has a controlled outward appearance and is coordinated with all components of the exterior lighting. Everything fits together



“Triple” in Heilbronn: The colour of the CITY ELEMENTS by Hess was modeled exactly on the colour of the building – for a harmonious appearance.

here. You don’t have to be “noisy” to create quality and recognise quality.

Schiebler: This customer was not expecting the pleasant appearance of his building at night. Lights are often installed to perform a specific function. Thought is rarely given to what else happens with these luminaires within the environment.

How much persuasion is necessary to win over customers for a calm and restrained lighting concept?

Prof Andres: They have to be convinced over and over again that sometimes considerably more effort must be expended to achieve an appropriate, often restrained effect.

The art lies in the ability to convey a material that we can’t initially see. It certainly helps that we are virtually “infected” by good light. Light is simply inside us. That’s why we usually succeed in arousing this enthusiasm for light among our customers.

The beauty of our profession is that we can make a difference with light. If people are sensitised to certain details and effects, they also appreciate them – just like the adage, “we only see what we know”. That will always drive us and concern us.



“Lights are often installed to perform a specific function. Thought is rarely given to what else happens with these luminaires within the environment.”



The mounting heights are always the same – regardless of the terrain. The interior and exterior lighting has been harmoniously matched and form a perfect unit.

The “smart city” trend and the resulting development concepts are becoming more and more popular. What is your opinion on this development?

Prof Andres: Mixed. Overall, this is a good approach with all the possibilities opened up by the Internet of Things. And humans have a tendency to do everything that is within their abilities. The positive thing is that citizens are involved in decision-making processes.

In the area of outdoor lighting, there is already a way to control light according to demand. This is a very sustainable and meaningful effect. Furthermore, I see potential in increasing light intensity, especially when older people want to make use of this option.

This is then followed by the next idea – we need to be networked in such a way that people are identifiable as such. To capture all this data, we need a wealth of sensors and information about the people who want to interact with the system.

But what happens to the data we collect? Do we really want to pass on every detail, such as our location and length of stay, to third parties?

“Managing these options responsibly, carefully and critically will be crucial to their use.”



The smart city trend has created a great many new technical possibilities. Does this also increase our responsibility to handle them properly?

Although I’m a fan of technology, I have reservations here. Managing these options responsibly, carefully and critically will be crucial to their use.

We do everything for people, not just for Industry 4.0, the IoT, and so on. Our standard is and remains the human being. Reasonably and appropriately handling all these new opportunities is a huge challenge that we have the utmost respect for, one that we couldn’t escape from even if we wanted to.

Our job is to educate our customers about all of these possibilities, especially technical ones, and to develop our recommendations so conscientiously and comprehensively that they are able to make sound decisions.

What are the particular challenges for lighting and lighting design in smart urban environments?

Prof Andres: Light is generally used much more efficiently. It makes sense not to fully illuminate a road between two localities unless it is being used. Lighting systems can be put in place to provide this quality and intensity of light when it is needed and to minimise output when it isn’t needed.

We are currently working on the Allerpark project in Wolfsburg, a nature reserve. In this area there are walking and skating trails that are to be illuminated. At the same time, animals that are very sensitive to light are living there. In order to meet all requirements, a balance must be found between nature conservation and sufficient spatial perception.

Smart technologies offer great options for this. When no one is out in the evening, a low level of basic illumination is sufficient, but the intensity will temporarily increase when movement is detected.

When designing lighting systems, we are almost radical in terms of their efficiency. If we can find a way to increase the efficiency of a luminaire from 80 per cent to 82 per cent, then we stop at nothing to do this so that resources can be conserved.

What is your position on glare suppression?

Schiebler: This is an elementary topic for us. We are frustrated every time we fly back to Hamburg and see how much light is being emitted into the night sky.

Regardless of the possibilities of lighting control in smart cities, it is important to consider first of all what can be saved with glare suppression. The energy that goes upwards wouldn’t have to be invested in the first place.



Prof Andres: Every quantity of light that shines into the sky, often as scattered light, disturbs the bird and insect world and ultimately us as well. And we know that since the development of the LED, more energy than ever before has gone into lighting, no matter how economical this source of light is.

This is partly due to the fact that today there are more options for illuminating outdoor areas.

“People don’t like walking through dark cities at night. The night design also influences quality of life, and working rhythms are also changing.”

In addition, the night design of a city is playing an increasingly important role. People don’t like walking through dark cities at night. The night design also influences quality of life, and working rhythms are also changing.

Those leaving the office at 10 pm don’t want to walk along dark streets. In this case, the right outdoor illumination concepts provide a wonderful opportunity to make nocturnal spaces appealing.

For us, good design does not mean placing light sources in a space point by point but instead making everything blend discreetly. That makes it fun to stroll through the city in the evening and experience a properly illuminated Wilhelminian façade alongside a modern, “glowing” façade, for example.

Schiebler: We should see nocturnal lighting much more in context. If every building, where there is the option to do so, is trying to outdo the next when it comes to light intensity, the bar just gets higher and higher. Added to the mix is general street lighting.

“The eye is sensitive enough to perceive low levels of brightness if it is not disturbed by excessive levels.”

If everything was turned down and synchronised in a defined manner instead, that would be a great benefit for the environment and for every observer. The eye is sensitive enough to perceive low levels of brightness if it is not disturbed by excessive levels.

How would you describe a smart luminaire from your point of view?

Prof Andres: A system that is intelligent but does not interfere with personal rights. For example, I am thinking of a luminaire that automatically raises the intensity of illumination on a staircase when there is a higher frequency of visitors and dims it back down for one individual, who requires less light. This also has something to do with safety aspects. And if no one is present, the light could be reduced to what is necessary for pure perception of space.

To our knowledge, the DIN recommendations don’t even touch on this. A level of lighting is required for a particular location, regardless of whether one or a hundred people are at that location.

Also interesting are systems that combine functional lighting and building illumination, in which one component is to react with a different level of “intelligence” than the other.



It would make sense to assign individual intelligences to the individual functions. In this way you could use different options wisely.

Do you also advise your customers regarding the integration of additional functions into a luminaire?

Prof Andres: Yes. We are currently working on a project in Southern Germany where the integration of additional functions in the lighting structure is required to create a “tidy” outdoor space. It is important that everything gives the impression of a uniform whole in the end. The customer can expect us to also look beyond our field of expertise.

What role does the design and thus the daylight effect of a luminaire play for you?

Schiebler: The design is a very high priority. Initially, of course, it is important to define the lighting task. Then the lighting technology, together with the design, moves forward into a development process with various experiments and models.

“The design is a very high priority.”

This is where my industrial designer juices start flowing, because function, form and technology have to be brought into harmony. Irrespective of the light, we have a very high standard of design. Building the bridge between design, good lighting and lighting technology as a prerequisite for good light is the real challenge.

You sometimes design outdoor luminaires yourself when existing models are less suitable for a project. How do you tackle this task?

Prof Andres: With us, the customer gets the perk of a tailor-made and optimal lighting solution for their building or exterior space.

The important thing is the effect and the goal. Either there is already an existing system, or we are in a position to develop one. We design on the basis of the function, meaning that we think about where the light should reach. At the same time, we consider the light substance, which is crucial to a sense of well-being. Then we condense all the criteria into a so-called “net luminaire”. The next step is to create a design that includes all the essential components and functions.

In principle, every construction assignment is different. Even an identical plaza in another environment looks like another plaza. It also makes a difference whether we are overseeing a project in Cairo, Egypt, in Addis Ababa, Ethiopia, or in Heilbronn, Germany. That’s why we’ve never encountered a case of repeating the same task.

In the end the goal is ultimately making people feel comfortable and discreetly blending the overall picture.

Thanks for the Interview, Ms. Schiebler and Mr. Prof Andres.

Willy-Brandt-Square, Lünen (Germany)

Vivacious centre of urban life

The city of Lünen, north of Dortmund on the border of the cultural and recreational landscape of the Münsterland region, combines the advantages of the nearby city with the amenities of rural tranquillity. The cityscape is characterised in particular by the river that runs through the city centre, the Lippe, which has brought forth a lush green urban structure with great value as a destination for recreation.

In addition to the attractive scenery, the city owes its unmistakable look and feel to the comprehensively modernised inner city. The attractive revamping of the southern entrance to the city centre, the newly designed pedestrian zone and the carefully renovated historic building façades are elements of the cityscape that now shine in new splendour, showing the city from its very best side.





The Willy-Brandt-Square today: A lively, urban place.

The holistic design concept envisaged qualitatively upgrading Willy-Brandt-Square as the centre of the city while at the same time creating a versatile and barrier-free location for events, markets, festivals and other activities.

In order to improve the attractiveness and functionality of the square, it was necessary to add structure to the area with its clearly defined spatial edges.

This was achieved by a “functional strip” made of natural stone paving and a row of gleditsias (honey locust trees). The functional strip divides the area with concrete paving stones and is designed to dovetail with the adjacent entrance area of the Technical City Hall. In addition, it serves as an orientation aid for the visually impaired.

With the opening of a café and a restaurant, each with an outdoor area, as well as additional seating, the square was made even more inviting. “Today, Willy-Brandt-Square presents itself to the citizens of the city as a lively, urban location and a destination to enjoy and linger in”, says Jürgen Arendes, summing up.



Clearly defined spatial borders – a functional strip provides attractiveness and functionality.

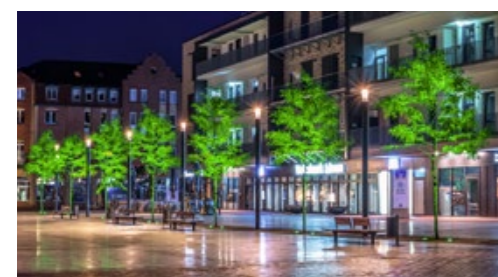
“Today, Willy-Brandt-Square presents itself to the citizens of the city as a lively, urban location and a destination to enjoy and linger in.”

For several months now, the redesigned Willy-Brandt-Square in the immediate vicinity of the former Hertie building has become an important centre of attraction – today an attractive commercial and gastronomic focal point with private residential space.

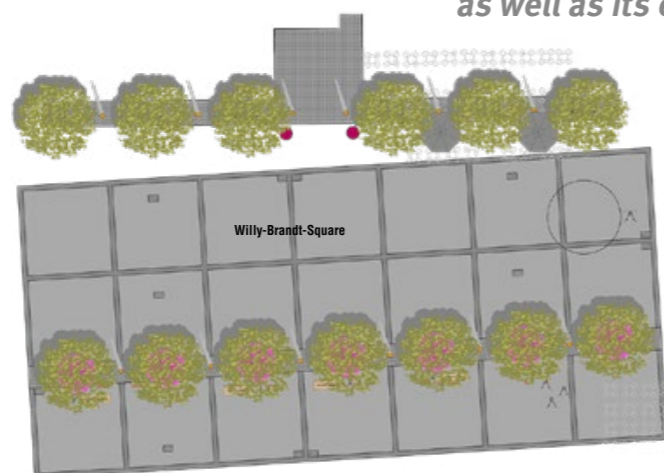
Design of square focuses on attractiveness and functionality

The renovation of the Hertie building with Willy-Brandt-Square took place within the framework of the enhancement measures implemented since 2007 of the grant program “Urban Redevelopment West – Lünen Town Centre 2012 – Impulses for a Strong Core”. Their implementation is based on close cooperation between the public sector and private investors.

The successful design of the marketplace is rounded out by atmospheric space, effect and ambient lighting: CITY ELEMENTS 230 illuminating columns and JADE 16 spotlights attractively showcase the roughly 3000-square-meter square in the evening, giving it a unique look that is accentuated by colour if desired – depending on mood, occasion and season.



Thanks to the new lighting concept: Inviting and attractive – also at night.



“The functionally and architecturally significant new property as well as its environment must be perceived as an overall concept”, emphasises Jürgen Arendes, creator of the plan for the newly designed Willy-Brandt-Square and Deputy Head of the Urban Green department of the city of Lünen, who was in charge of the redesign of the area.

“The functionally and architecturally significant new property as well as its environment must be perceived as an overall concept.”



A place where you can happily linger.

Lighting concept

Lighting design: Successful interaction of functional and decorative light

Another distinctive feature of the design of the square is the premium lighting solution, which combines Hess's CITY ELEMENTS 230 illuminating columns with the "JADE 16" spotlights from GRIVEN embedded in the Hess tree grates of type "Octa".

The technically and qualitatively high-quality luminaires replace the old lighting of the square and discreetly blend into the design of the open space with their clear expression of design and chosen colour.

"In accordance with the planning approach, the lighting was to be modernised beyond the mere task of illumination in terms of its aesthetics and energy efficiency", says the open-space designer, explaining the basic idea of the lighting concept.

Basic lighting and lighting effects with automatic dimming

A total of 14 CITY ELEMENTS 230 illuminating columns with a height of 6 meters provide the basic illumination of the square from the outside. For this they were placed at intervals of about 10 meters on the square's functional strip between the freshly planted honey locusts, at the edge of the square in front of the Technical City Hall and in front of City Hall.

A CITY ELEMENTS 230 luminaire is equipped with an additional spotlight module to accentuate the bronze sculptures in the marketplace. The designers thus used the potential of the variable luminaire system CITY ELEMENTS, whose terminating and intermediate elements can be equipped entirely according to the lighting requirements.

"The crucial factor in choosing the luminaires was the design and functionality of CITY ELEMENTS. In particular, the intermediate modules for additional illumination of objects was seen as innovative", says Jürgen Arendes.

"The crucial factor in choosing the luminaires was the design and functionality of CITY ELEMENTS."

In addition, the illuminating columns are equipped with the integrated dimming system AstroDIM. This allows the lighting level to be automatically lowered during the night from 10 pm to 3 am to 70 %. At 3 am the lighting level is raised back up to 100 %. The city of Lünen thus benefits from requirements-based lighting and a significant increase in efficiency.





The honey locust trees are illuminated in various colours entirely according to mood, occasion and season.

Ambient lighting that changes according to the seasons

In addition to the basic illumination, the JADE 16 LED spotlights embedded in tree grates and thus in the ground provide extremely pleasant ambient lighting on the square.

To accomplish this, a total of 14 spotlights were embedded along the functional strip in Hess's OCTA tree grates, which withstand a wheel load of up to five tonnes.

The tree grates protect the root system of the new population of trees and are specially equipped for this project with two recesses to accommodate two 38-watt LED spotlights in each case. In the evening and early morning hours, their light accentuates the treetops of the honey locust trees in a particularly impressive manner.

For ambient lighting, the designers developed automatically available programming of light scenarios in RGB and warm white, colour-coordinated with the seasons.

In the spring months, a high proportion of green dominates, while in summer it is yellow shades and in autumn orange nuances that determine the play of colours. In winter, blue and magenta tones are in the foreground.

The control technology of the LED spotlights is inconspicuously housed in a TOLEDO power and water bollard from Hess.

Other high-quality equipment elements of the square include four PUNTO 700 waste receptacles from Hess, in which the round

shape of the CITY ELEMENTS illuminating columns is discreetly repeated, ensuring a uniform overall picture, the planters developed according to the specifications of the designers and the park furniture expressly provided with fittings to aid the elderly in standing up.



Perfectly integrated in the OCTA tree grate from Hess: The JADE 16 spotlights.

Marketplace extremely well received by the city's population

After a one-year break during the refurbishment, the weekly market days on Tuesday and Friday, as well as varied events, make for a lively atmosphere on the square.

"Immediately after the removal of the construction fences and release of the square for use, the new marketplace was filled with life. The square is an extremely popular destination, not only on market days. Thanks to the redesign, Willy-Brandt-Square looks more structured, more contemporary, friendlier and livelier than before", says Jürgen Arendes.

The city of Lünen is currently preparing for the "Lünsche Mess" from 6 to 9 September 2018: then Willy-Brandt-Square will become a crowd puller and the backdrop for fun events for young and old alike.

"The square is an extremely popular destination, not only on market days. Thanks to the redesign, Willy-Brandt-Square looks more structured, more contemporary, friendlier and livelier than before."



Designers and participants

Client: City of Lünen
 Plan creator Jürgen Arendes, Deputy Head of Urban Green, City of Lünen (Willy-Brandt-Square, south Marktstrasse and Mauerstrasse)
 Other project partners: Bauverein zu Lünen (renovation of the Hertie property), Andrzej Irzykowski, repositioning of his art object "Marktfrauen"
 Lighting design: tecnoPlan Oliver Marschke, Herne, Hess
 Luminaires: CITY ELEMENTS 230 illuminating columns from Hess in combination with JADE 16 LED spotlights from the Hess sister company GRIVEN
 Furniture/equipment: OCTA tree grates, PUNTO waste receptacles, TOLEDO power and water bollards (all Hess), Langmatz GmbH, Garmisch-Partenkirchen, underground electricity and fresh water supply, and others.
 Photos: City of Lünen and Dariusz Bera, Lünen

The Willy-Brandt-Square in Lünen:
Attractively designed with luminaires
and site furnishings by Hess



Not shown in this picture

Power and water bollard TOLEDO

The supply of outdoor spaces with water and electricity is becoming more and more important. Especially on marketplaces, in parks or in green open spaces – everywhere life takes place, be it in leisure time or at work – being supplied with electricity, for example is immensely important. The power and water bollard TOLEDO is an elegant solution. It is specially designed to meet the needs of urban environments and blends perfectly into any environment thanks to its unobtrusive design.

In Lünen, the entire control technology of the 14 JADE 16 spotlights has been integrated – completely inconspicuous but always easily accessible.

www.hess.eu/0792

CITY ELEMENTS 230

CITY ELEMENTS is a complete lighting system suitable for all requirements in urban space. Three different diameters – 180mm, 200mm and 230mm – heights of up to 9 meters and above, and a variety of lighting technology variants and multifunctionalities make for an almost unrivalled range of application.

For Lünen, a CITY ELEMENTS 230 has been equipped with an additional spotlight module for accentuating sculptures.

CITY ELEMENTS from Hess – more than just a luminaire. Multifunctionality at its best.

www.hess.eu/3400



Waste receptacle PUNTO

Elegant, practical, simply good: In classic expression of design, the simple yet elegant PUNTO waste receptacle fits perfectly into any design ambience. In addition to the design, the PUNTO is highly practical, something you will appreciate at the latest when emptying them. The carefully painted galvanised steel waste receptacle stands for value and longevity, just as you would expect from Hess.

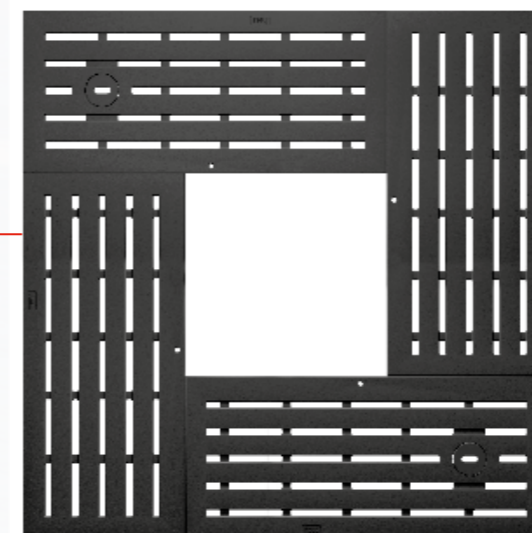
www.hess.eu/0301

Spotlight JADE 16

A must for the finest outdoor accent lighting, JADE 16 houses sixteen high power RGBW LEDs. JADE 16 is capable of creating visual interest to specific architectural features or details, boosting their peculiarity with differently shaped optics outputs.

In Lünen, the JADE 16 spotlights were embedded project-specifically in the Hess tree grate OCTA and thus perfectly integrated – for an atmospheric lighting solution.

www.hess.eu/jade16



Tree grate OCTA

The tree grates OCTA by Hess features attractive protection of the root system of trees. Made of solid cast iron, they consist of four segments to be bolted together. In addition to its high functionality and resilience (wheel load of up to 5 tons), the tree grate painted in elegant graphite black also plays a role in design and discreetly blends in with every paving and surface.

www.hess.eu/0188

Hess – ENHANCING URBAN SPACES!

VS-Villingen, Germany CANTO-luminaires for new roundabout

The industrial area Vorderer Eckweg, in the municipality of Villingen (Germany), is a much sought after location for businesses – and is becoming more and more attractive. In the fall of 2017 for example the furniture store XXXLutz opened a new branch – with 27,000 square metres of sales floor spread over four floors, which guarantees a particularly special shopping experience.

An increase in traffic was predicted with the new greenfield development. In order to cope with the congestion, the city built a new access road plus a new roundabout at the junction between Milanstrasse and Vorderer Eckweg, before the new furniture store opened its doors.



CANTO G luminaires by Hess ensure an attractive appearance during the day ...



CANTO G



... and an excellent illumination at night.

The lighting of the new roundabout was to be connected to the existent lighting structure, which is characterised by premium quality CANTO pole-mounted luminaires. To ensure a uniform appearance, 19 more CANTO G 6000 luminaires with curved poles in colour DB 701 were installed in the area surrounding the roundabout.

Each equipped with three powerful LED modules in the light colour 4000 K, the 6 metre tall CANTOs guarantee a high quality of lighting. In addition, the integrated dimming system AstroDIM guarantees particularly efficient operation, as two factory programmed power settings trigger automatic reduction of the lighting power during the night.



The new roundabout at the junction Milanstraße / Vorderer Eckweg ensures a smooth traffic flow into the industrial area.



CANTO G
www.hess.eu/1033

VS-Villingen, Germany
Historic city wall staged

Due to its unique character, the preservation and upgrading of the listed site on the ring road, with its mature stock of trees and historical town wall, are highly significant for recreation and the quality of life in the municipality of Villingen (Germany).



Since 2013, according to a decision by the local council, the area has been modernised step by step in separate construction phases, by the department for green spaces of the municipal building authority.

Within the framework of the fourth construction phase, the desired illumination of the 13th century city wall was installed. Since the end of 2017, the wall has been illuminated in an atmospheric manner with the most modern lighting technology: by five metre high CITY ELEMENTS 180 illuminating columns from Hess.



The targeted illumination of the historic wall is effected by two intermediate elements, while the top element of the CITY ELEMENTS ensures the homogeneous illumination of the footpath and cycle way.

Path and accent lighting from a single lighting system

The new lighting along the footpath and cycle path on the ring road site was realised together with the Stadtwerke Villingen-Schwenningen. Thanks to the individually configurable elements of the multifunctional columns, the path and building lighting could be perfectly combined with one another – therefore both functions are used on each of the eleven lights installed along the paths.

Dimming for maximum efficiency

The path lighting is connected to the dimming system AstroDIM in the top element, which ensures particularly efficient operation. Two fixed defined night-time dimming levels ensure that the lighting level of 100% is dimmed, at first down to 70% and then down to 30%, before full power is called for again in the early hours of the morning.

The lighting of the city wall begins automatically with the regular street lighting and is in operation daily until 1 am. From 24th December to 6th January, the lighting stays on the whole night because of the festive days and to allow the city wall to glow in as much brilliance as possible during this special time.

Correspondingly, the CITY ELEMENTS 180 have a top element with an asymmetrical wide beam light distribution, for lighting the footpath, as well as two intermediate elements, with light outlets on the side, for illuminating the wall.

These are equipped with special 14° reflectors and powerful LED modules in the light colour 3000 K, to achieve the optimal effect lighting for the city wall from a distance of around 22 metres.



Thanks to the successful lighting solution, the park-like area around the city wall gains in quality of stay.

Light + Building 2018

“We design (smart) cities” – that was the motto of our appearance at the Light + Building, the world’s leading trade fair for lighting and building technology from 18 to 23 March 2018 in Frankfurt, Germany.

On our booth A50 in hall 5.0 we presented a multitude of innovative new developments for smart cities and attractive urban spaces – and thus set real highlights.



VILLAGE 300

CITY ELEMENTS

LINEA

GENUA

RENO ELEMENTS

REGOR

CORVIUS

ARINI TREE

ARINI

CITY ELEMENTS 200

PUNTO

CITY ELEMENTS 200

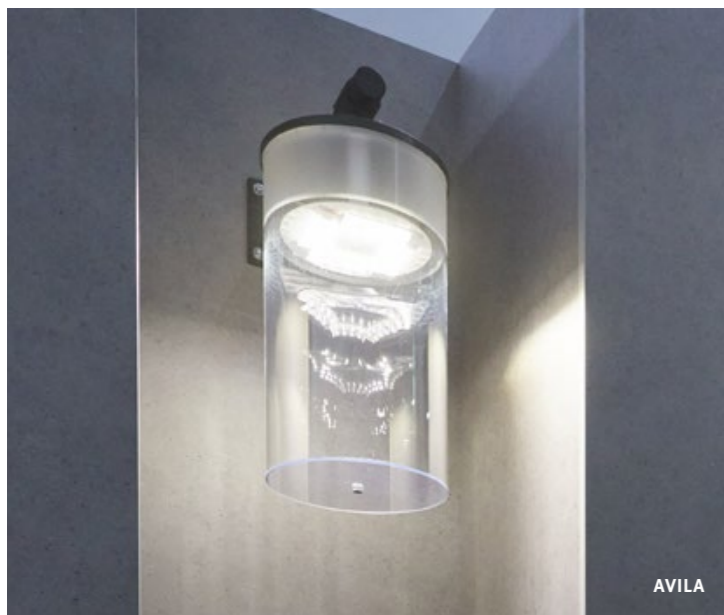
POSITANO

AVILA and VILLAGE 300

New highlights for urban environments

AVILA and VILLAGE 300 are two new design luminaire families, that make an impressive showing in their own, unique way. The AVILA, unpretentious and puristic, the VILLAGE 300, elegant and extremely decorative, stands out in urban spaces with delicate aluminium rings encircling the luminaire body.

With mounting heights of up to 6 metres, both luminaires offer a wide range of uses for integrated design solutions – and are furthermore individually customizable.



AVILA

www.hess.eu/avila



VILLAGE 300

www.hess.eu/village300



RENO ELEMENTS

RENO ELEMENTS

Light and multifunctionality in a completely new design

The new smart lighting system RENO ELEMENTS impresses with the best light and real added value through multifunctionality – in a completely new expression of design. An expression of design, that is minimalist and striking at the same time!

Equipped with the latest LED technology and useful options such as loudspeakers, cameras, info displays, Wi-Fi, e-mobility, and an external power supply, it creates communicative, informative and networked living environments.

www.hess.eu/renoelements

ARINI TREE

Integration of inductive charging options in a bench that encircles the tree – for smart outdoor spaces

ARINI is a lighting system that combines light and multifunctionality with an extraordinary design inspired by nature. The ARINI TREE occupies a very special place within the ARINI family. Inspired by a stylised tree, it has become a sensational eye-catcher.

At the Light + Building, we have presented for the first time a bench with inductive charging capabilities (Qi charging) that encircles the ARINI TREE – ideal for outdoor spaces.



ARINI TREE

www.hess.eu/arini



CITY ELEMENTS

CITY ELEMENTS 200

The new cutting edge in the area of multifunctional illuminating columns

The new multifunctional illuminating columns, CITY ELEMENTS 200, epitomise an evolution in light and multifunctionality. With a diameter of 200 mm and many innovative new features, the CITY ELEMENTS 200 is destined for attractive design and solution concepts in urban environments.

At the same time, the CITY ELEMENTS 200 is exceptionally easy to use, i.e. simple to set up and to install – and that regardless of the weather!

www.hess.eu/3400

Architects, not Architecture.

Top architects, new dates,
some completely new
cities – all in all, many
exciting evenings.

The successful series of events “Architects,
not Architecture” is starting the second
half of 2018 at full speed.

Hess actively supports and promotes
the series of events, which includes with
Barcelona and Copenhagen stations
outside of Germany for the first time.



Jórunn Ragnarsdóttir, Fritz Auer and Tobias Wallisser after the discussion round.

Stuttgart 02

More than 400 architects were
present in Stuttgart on June 6th –
and were enthusiastic about the
lectures of Tobias Wallisser, Jórunn
Ragnarsdóttir and Fritz Auer!



We support the following events:

Frankfurt, National Library
18th September

Barcelona, Auditori Conservatori Liceu
27th September

Copenhagen, Royal Library
11th October

Munich, Carl-Orff-Hall
17th October

Dusseldorf, Tanzhaus NRW
30th October

Berlin, ATZE Theater
27th November

Further information

www.hess.eu/en/Unternehmen/Aktuell/Rueckblick_Architects__not_Architecture/



Hess Smart City – Immerse yourself in the smart world of Hess

Using light, multifunction and design to turn cities into smart cities and urban spaces into smart urban spaces. We'll be glad to assist you!

With our new online-tool "Hess Smart City" you can experience light, multifunction and design in the simplest way. Our "Hess Smart City" is available 24 hours a day, 7 days a week.

And the nice thing is: We are developing our Smart City and gradually enriching it with new products, solutions and ideas. You'll see, regular visits of our "smart city" are worthwhile – and you always receive new ideas on how to turn your urban space into a smart urban space.

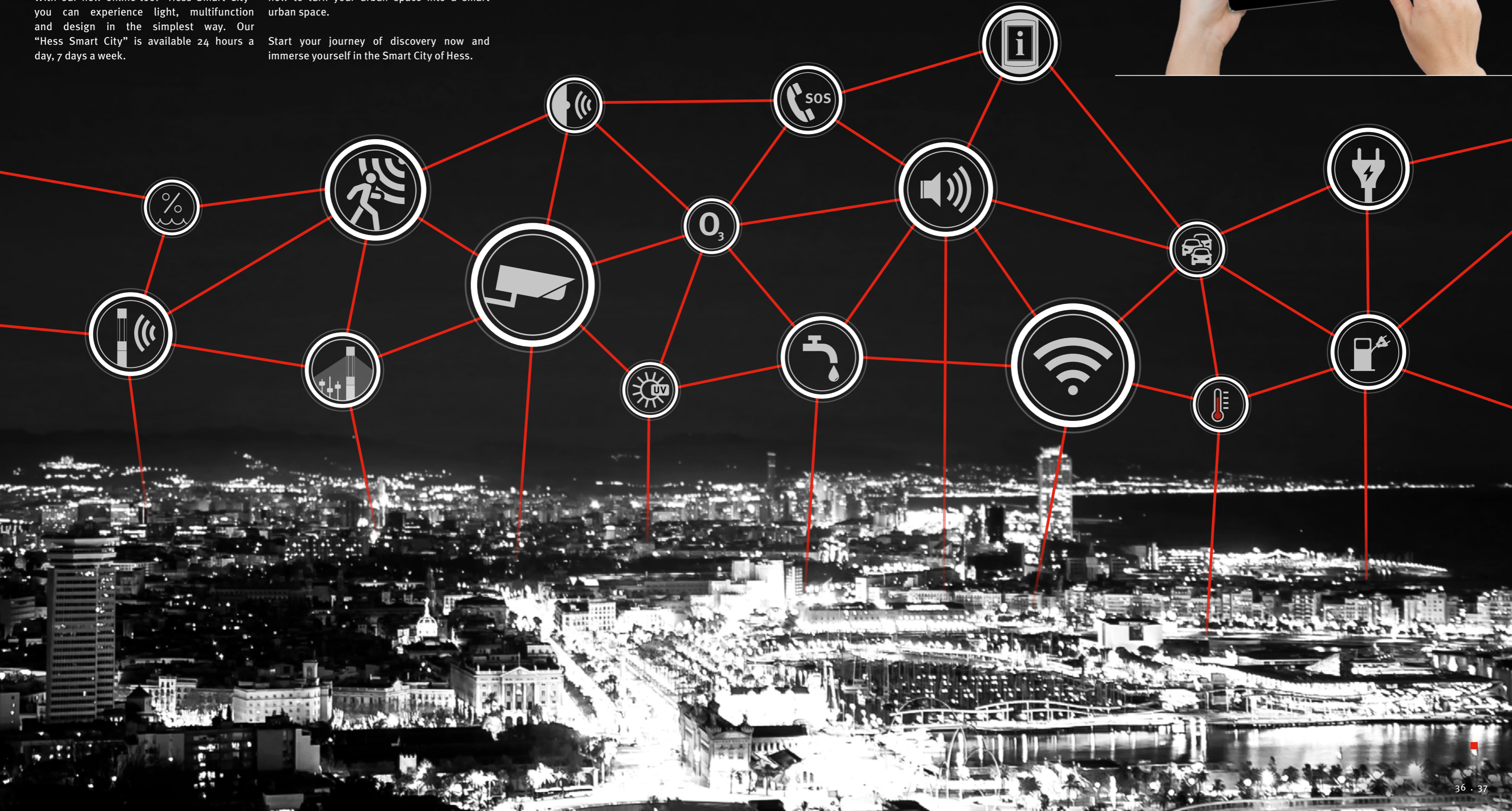
Start your journey of discovery now and immerse yourself in the Smart City of Hess.



smartcity.hess.eu

Now also as an app

Ideal for your tablet: The "Hess Smart City" is now also available as an app for iOS and Android.



GRIVEN – the specialist for architectural lighting solutions

Our Italian affiliated company GRIVEN has established itself as one of the leading development and manufacturing companies in the architectural lighting market worldwide – especially in the high-power segment. Distribution of the GRIVEN portfolio is handled by Hess within the German market.

The range of spectacular lighting effects that GRIVEN's innovative product and solution portfolio makes possible, as well as the know-how of GRIVEN are demonstrated by these selected project examples.

NEW CATALOGUE



www.hess.eu/griven



DOWNLOAD CATALOGUE PDF
www.hess.eu/en/Service/Download/GRIVEN_KATALOG_2018_EN.pdf

Riga, Latvia

White all over for Riga Fire Fighting Museum

Set up in 1978 on the premises of a former fire station built in 1912, Riga Fire Fighting museum displays the history of fire fighting in Latvia from the second half of the 19th century until the present days.

Following a major renovation, an LED lighting system has been recently installed on the façade of the building in order to enhance its beautiful architectural style also at night.

An array of PARADE D-W-6, 9 and 12 linear modules in warm white configuration were mounted on the walls of the building methodically following the main architectural features of the façades in order to deliver a well distributed white light.

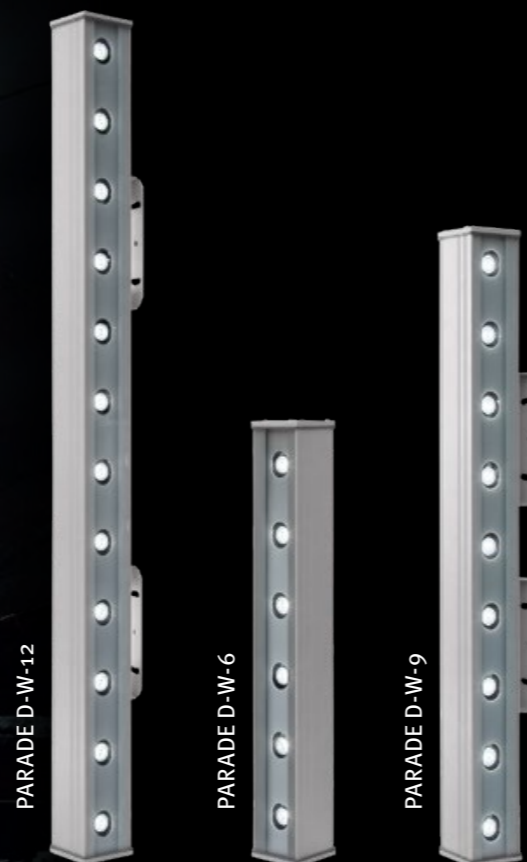
located within a historic Art Nouveau, this construction was built in 1912 when this architectural style was in full swing in Riga, making the Latvian capital the city with the highest concentration of Art Nouveau architecture in the world.



The longer bars were installed downwards in a line on the lower edge of the steep roof to enlighten the walls of the museum with an even light output.



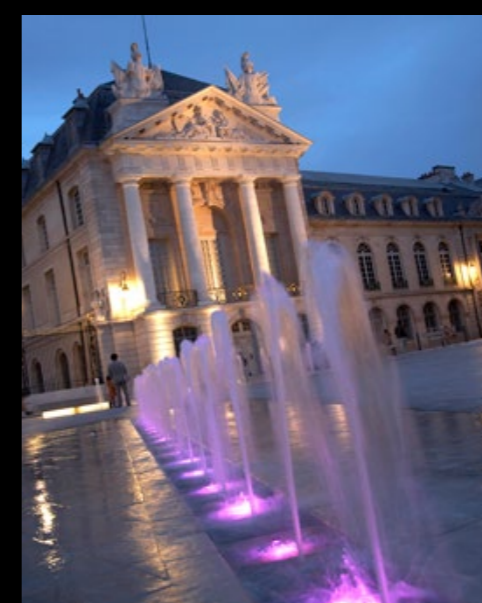
The shorter modules were fixed on the upper parts of turrets and main tower to deliver a focused spot lighting to the main architectural features of these outstanding parts of the building.



Dijon, France

Renovation through water and light

Located in the heart of the historic centre of Dijon, Place de la Libération offers a perfect setting for the Palais des Ducs de Bourgogne, which architecturally dominates in an elegant and imposing way the main square of the lovely French city. In the middle of the square a lively animation is provided by three luminous fountains, whose design is based on the layout of the adjacent streets.



On the occasion of a lighting renovation of the square, it was decided to highlight the three fountains that are usually animated by sparkling jets of water.

According to the selected lighting scheme, 54 Griven Mini WaterLED in RGB colour changing configuration with an IP68 protection degree specific for submerged installation were therefore mounted in the square. The installed fixtures definitely have been

Mini WaterLED



installed in shallow basins with the help of height-adjustable stainless steel supports and are controlled via DMX. These compact units produce smooth lighting effects, which perfectly match with the prestigious illumination of the square. Moreover, they offer a total reliability, that is always a must for these kind of submerged installations.



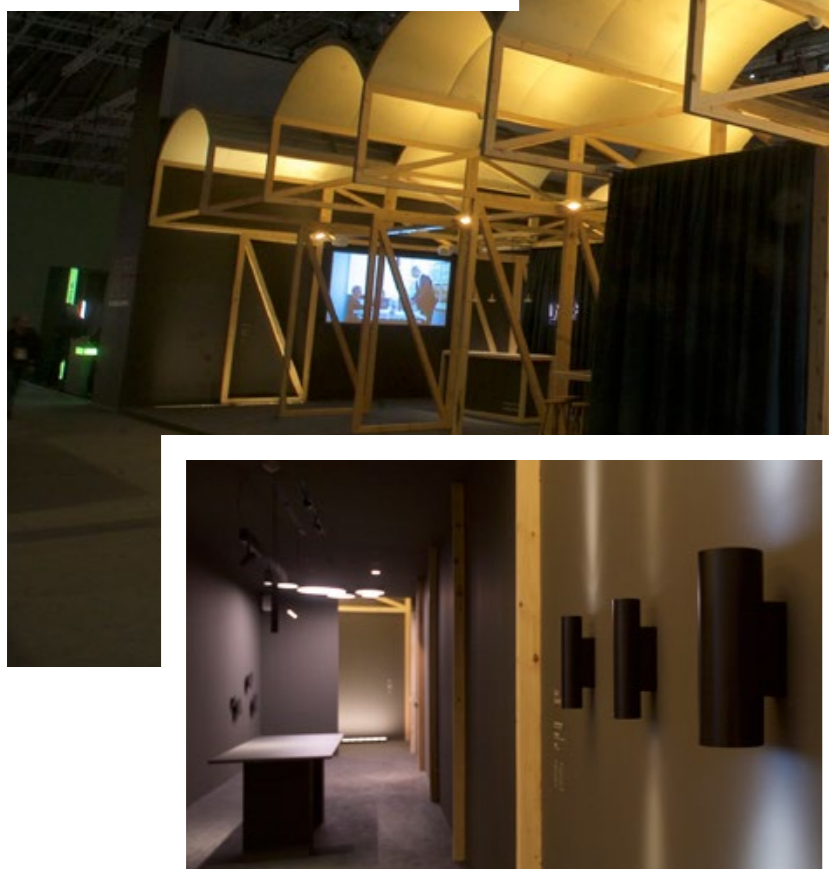
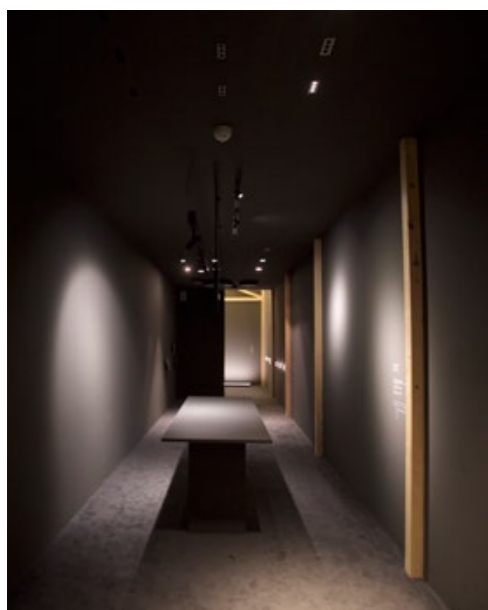
NORDEON GROUP Light + Building 2018

In addition to the stand in Hall 5.0 with Hess, GRIVEN and Vulkan, the Nordeon Group was also present at the Light + Building with all other brands – including Nordeon, WILA, Schmitz and Lamp.

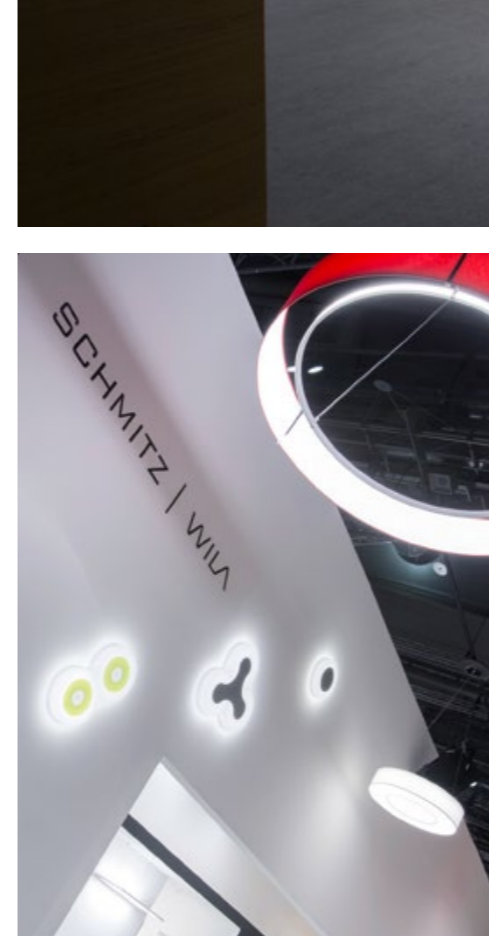
In Hall 3.1, WILA, Schmitz and Nordeon presented themselves at a joint stand (stand D70), while the Spanish sister company Lamp was present in the immediate vicinity (stand C61).



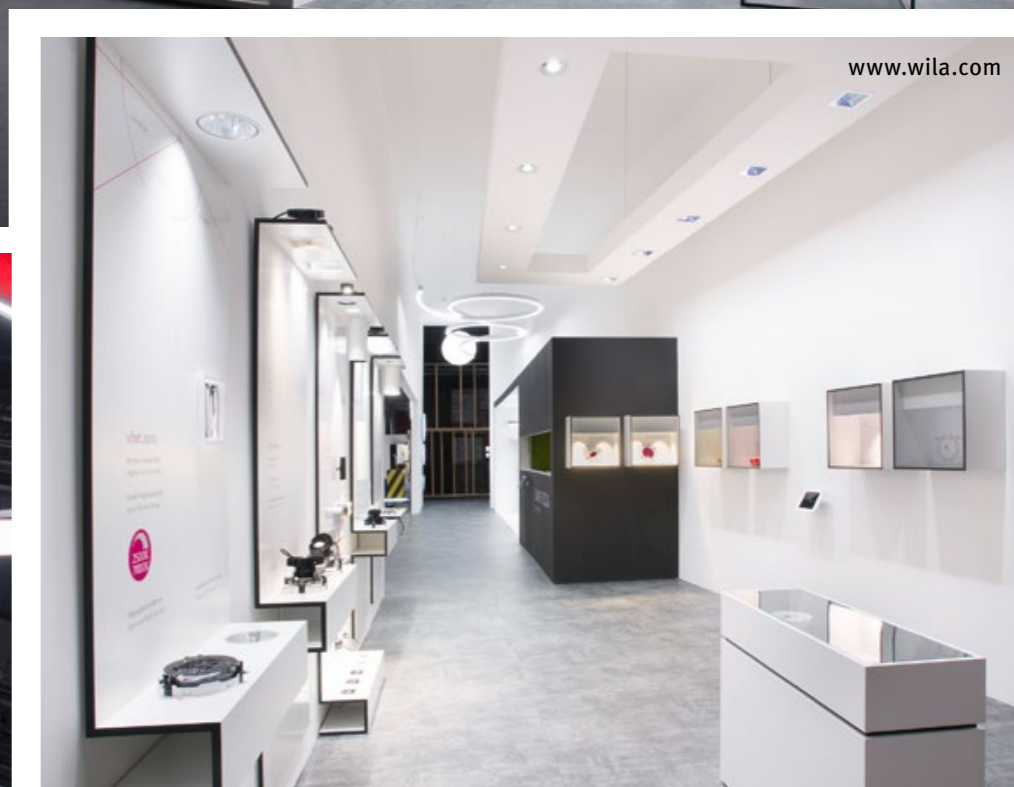
www.lamp.es



www.nordeon.com



www.schmitz-leuchten.de



www.wila.com

The Nordeon Group presented new products and highlights of its brands and their subsidiaries on a total of more than 850 square meters of exhibition space.

More information about the lighting solutions presented can be found on the websites of the respective subsidiaries.



www.nordeon-group.com



GaLaBau 2018: Meeting place of the green industry

Decision-makers from municipalities, specialist planners and landscape architects who are looking for practical information, new impulses and best-practice examples for their daily work should plan a visit to GaLaBau from 12 to 15 September 2018 at Exhibition Centre Nuremberg (Messezentrum Nürnberg).

The biennial international trade fair for planning, construction and maintenance of urban and green spaces puts numerous innovations in the areas of plants, materials and design on display.

The extensive product range complements a diverse supporting program, including the lecture forum "GaLaBau Landscape Talks". Well-known speakers will be present here, giving short talks on challenges and new ideas for urban green spaces.



www.galabau-messe.com



European Lighting Congress "Licht 2018"

"Licht 2018" is the most comprehensive European lighting congress for indoor and outdoor lighting.

It is organised every two years on an alternating basis by lighting associations from Germany, Austria, the Netherlands and Switzerland. This year the Swiss Light Association (SLG) is organising the conference from 9 to 12 September 2018 under the catchphrase "Creative Lighting Solutions" at the Congress Centre of the famous Swiss Alpine destination Davos.

During the four-day conference, architects, interior designers, urban planners, lighting designers and lighting researchers will be able to attend lectures on "Interior Lighting", "Outdoor Lighting" and "Research and Development" on innovative lighting systems, specific use of new technologies and the latest scientific findings. They will also be able to obtain information about trends in the industry at an accompanying exhibition.

In addition, the lecture series "Light & Architecture" will be held for the first time, during which renowned speakers will discuss the complex interplay between lighting design and architecture. After conclusion of the daily program, various activities such as a guided city tour, guided hikes and an excursion to the Engadine Valley will provide plenty of opportunities for sharing experiences and networking.



www.licht2018.ch



#BONA2018

David Marschalsky

On July 21, 2018, the Botanical Garden in Berlin will be transformed into an impressive fantasy world of light, sound and attractions.

Botanical Night in Berlin (GER)

The Botanical Garden in Berlin, with its 43 hectares and more than 20,000 species of plants, is one of the most significant botanical sites in the world. On the occasion of the Botanical Night on 20 and 21st July 2018, the garden will provide the backdrop for the dreamland „Botania“ with ten magically themed worlds, which will be attractively staged with enthralling light shows, accompanying music and mythical creatures.

Completely new insights into the gardens and their greenhouses will be given, making a visit there a unique, unforgettable experience. Further information and tickets are available at:



www.botanische-nacht.de

The traditional event, on the topic „Light's Nature“ celebrates its 10th anniversary this year and is preparing a particularly spectacular staging of the Botanical Garden.



David Marschalsky

IMPRESSUM

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SMART LIGHT AND SMART MULTIFUNCTIONALITY – IN THREE DIFFERENT SMART DESIGNS!

