

COMMUNICATION ON PROGRESS

2017



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*UN Global Compact
Communication on progress 2017*



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Holmestrand Station, Norway

A new station has been built in the coastal town of Holmestrand some 80 km south of Oslo as part of major track improvement works along the west coast of the Oslo Fjord. The railway tracks were moved 150 metres inland, placing the new station deep inside the mountain.

Front page
Värtaverket Power Plant, Stockholm

The façade is wrapped in curved brick slats, which may be regarded as a subtle nod to the fine, old industrial buildings on the site – many of which have major architectural value – and provide the technical facility with a warm, burgundy glow.

Statement of continued support

Infrastructure is key in the development of sustainable cities and landscapes. Forming physical spaces and infrastructural frameworks for cities is an opportunity to shape life, and influence the size of our environmental footprint. Thus, considering every design aspect in these basic functions of society is crucial as we look ahead.

Gottlieb Paludan Architects continues to focus on shaping better cities and societies with architecture of the highest technical and aesthetic quality, designing solutions for green and public transportation and for utility companies, providing water and energy. We take a special interest in creating simple and long-lasting architectural solutions that help improve peoples' daily lives and we engage ourselves from the early planning activities, and maintain the dialogue with clients, politicians and financial partners, in order to develop the solutions that will create the most value for society and the client.

Gottlieb Paludan Architects strives to integrate sustainability, social responsibility and environmentally conscious solutions in all projects. We proudly give our continued support to advance the 10 principles of the UN Global Compact in the areas of human rights, labour, environment and anti-corruption.

Copenhagen, July 2017



Kristian Hagemann
CEO, Architect MAA
Gottlieb Paludan Architects



Table of content

1. Introduction
2. How we advance sustainability
3. Projects
4. Professional and organisational development
5. The four Global Compact Core Values
6. Measuring outcomes 2017
7. Our focus in 2017/2018

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Orientkaj 4

Gottlieb Paludan Architects' Head Office



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Solrødgård Climate and Environmental Park, Hillerød

The overall vision for this unusual park project is to highlight and demonstrate the energy cycles that keep our modern day society running in the context of a wetland landscape, offering a sanctuary for birds and other wildlife. Visitors are invited to explore the park as well as the various utility functions and processes at close range.

Introduction

In November 2016, Gottlieb Paludan Architects moved into a new domicile located in Nordhavn – Copenhagen’s new sustainable neighbourhood. Our new headquarters are situated in a disused warehouse which has undergone total renovation. This is a circumstance that has influenced most of our activities during the last year and has provided us with new opportunities to develop and strengthen our organisation. The renovation has transformed the warehouse into a large, shared working environment for our employees who benefit hugely from the improved facilities and stimulating space.

During the last year, Gottlieb Paludan Architects completed a number of significant infrastructure projects, mainly within the sectors of green energy and public transportation. Furthermore, we have been working on projects focusing on adaptation to climate change.

The issue of sustainability runs through our strategy and informs our choice of projects. In our day-to-day work, we tap into a number of the UN’s Sustainable Development Goals. For example;

- Goal #3 *Ensure healthy lives and promote well-being for all at all ages*
- Goal #9 *Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation*
- Goal #11 *Make cities and human settlements inclusive, safe, resilient and sustainable*
- Goal #13 *Take urgent action to combat climate change and its impacts.*

In this report, we will describe how our initiatives inspire our ambitions to become a more sustainable company and contribute to the goals and principles behind the UN Global Compact. We will describe how we advance sustainability through our professional and organizational development, and will report on the outcomes of our efforts.



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01 → København
09 → København

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Spør...

CARLSBERG
JACOBSEN HUS
MERE KØBENHAVN



How we advance sustainability

Central to our strategy is understanding how we can contribute to the advancement of sustainability in our own projects, in collaborations and in our daily, professional life at the office. We contribute to all three aspects of sustainability (social, environmental and economic), but our activities affect more directly the social and environmental aspects of sustainability. In the following, we will describe how we believe that we contribute to advancing sustainability through our work with urban planning and architecture:

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Carlsberg Station, Copenhagen

Carlsberg Station plays an important part in the development of the entire Carlsberg City and the station will ensure good and sustainable infrastructure in the new district. The new station, which replaced the smaller Enghave Station, is expected to serve 24,000 passengers daily and will be the central transport hub for outer Vesterbro and the new Carlsberg City.

ENVIRONMENTAL SUSTAINABILITY

- We contribute to promoting and strengthening public transport, cycling solutions and bicycle culture, thereby reducing transport-related CO₂ emissions.
- We contribute to lowering the environmental impact of building constructions by proposing building materials that require fewer resources in production, recycling and disposal, and which last longer. In this way, each construction leaves a smaller carbon footprint throughout its service life.
- The least harmful construction is often the recycled construction, and we specialize in renovation, transformation and refurbishment. With a combination of architectural design, understanding of materials and respect for the construction and its history, we raise renovation and adaptive reuse to a level where it can easily compete with new construction. The focus is not only on improving energy performance but also on rethinking the purpose of the construction to suit current and future use.
- We integrate climate adaptation measures and rainwater management in all relevant projects.



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Copenhagen Light Rail

The Copenhagen Light Rail will run from Ishøj in the South, to Lundtofte in the North, creating closer connections between Copenhagen's surrounding municipalities and the existing S-train lines.

SOCIAL SUSTAINABILITY

- We contribute to enhancing the public transport travel experience through improving traffic hub design with regards to accessibility, intermodality and integration with the urban realm.
- We contribute to increasing liveability through the improvement of connectivity and public space in cities and towns.
- We contribute to improving living conditions in peripheral regions through the development of provincial towns.
- We contribute to creating social cohesion through infrastructure projects which link city and countryside, suburb and town centre, giving more people the opportunity to be employed, get an education and participate in society.
- We focus on creating safe environments – urban areas with good lighting and infrastructure that appeal to vulnerable road users.
- We support public transport and public utilities. This has an impact on all three aspects of sustainability.

ECONOMIC SUSTAINABILITY

- Gottlieb Paludan Architects prioritizes projects that have socio-economic impact. This may mean designing urban spaces that encourage physical activity and exercise, developing public transport which decreases the use of private cars, in turn decreasing carbon emissions, or making it easier to commute by bicycle. The outcome of these solutions is a healthier population and lower healthcare costs as well as lower CO₂ emissions.
- We focus on the overall financial viability of constructions as we pay special attention to their entire life cycle and the use and reuse of materials.
- We focus on designing with high quality materials and assembly details resulting in low maintenance requirements.



Projects

During the year that has passed since our latest COP report, we have worked on numerous projects, which have the potential to advance sustainability. Many projects deal with more than one of the three aspects of sustainability. Below, we have listed a selection of significant projects that have taken shape since last year's report.

Designing infrastructure

We have extensive expertise in shaping the basic functions of modern society, as we specialize in designing for reliable supplies of power, heating and water, as well as for efficient mobility infrastructure.

Carlsberg Station: In 2016 Carlsberg Station in Copenhagen, Denmark, was completed and replaced Enghave Station as the main station servicing the new neighbourhood of 'Carlsberg City'. The design holds social dimensions as a legible public space affording positive experience to every user. Focus is on accessibility and legibility.

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Värtaverket Power Plant, Stockholm

Värtaverket is surrounded by industrial, commercial and recreational areas. The extension was required to show consideration for its neighbours and respect the presence of a number of protected oak trees as well as the function of the area as a fauna path between the northern and southern parts of Djurgården, an area of natural beauty that blends into Stockholm proper.

Holmestrand Station: In December 2016, the new Holmestrand Station was inaugurated. Gottlieb Paludan Architects designed the new station in the coastal town of Holmestrand, some 80 km south of the Norwegian capital, Oslo. The new station is part of an initiative to strengthen the connection between Oslo and the surrounding rural areas. Thus it was decided to establish a high-speed connection between Oslo and Holmestrand; a huge undertaking as tracks had to be moved and a new 12-kilometre tunnel needed to be blasted through a mountain. It was a technically challenging project in terms of design, building technology, acoustics, ventilation and fire safety, as the station itself was built inside a mountain.

Värtaverket: Gottlieb Paludan Architects has designed Sweden's largest biomass-fuelled combined heat and power plant (CHP), which is an extension of the existing Värtaverket. The plant is unique in its environmental ambitions and architectural expression. The expanding city had surrounded the plant, which is why the plant needed to reintegrate with its surroundings. As it is situated in an area where it is particularly important to consider the neighbours and the function of the locality as a fauna path, the design blends naturally into the environment. The plant has a curved noise-absorbing façade clad with terracotta slats, selected to reduce the visual impact of the very large facility. The purpose of building the power plant was to reduce Stockholm's ecological footprint significantly, while providing safe, reliable power and heating for the growing city.



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Holmestrand Station, Norway

The new station is situated inside a mountain and the project required blasting a new, twelve-kilometre tunnel. The location of the station provided a number of special challenges in terms of building technology, accessibility and wayfinding, acoustics, ventilation and fire safety.





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Amager Power Station, BIO4 unit, Copenhagen

To emphasize the changeover from fossil fuels to renewable energy, the CHP unit will be enclosed by a deep façade made up by suspended tree trunks.

BIO4: The construction of the new biomass-fuelled CHP unit, BIO4, at the Amager Power Plant in Copenhagen has started. The plant is an important element of Copenhagen's efforts to become the world's first carbon neutral capital by 2025. The forest is a recurrent architectural theme, as the CHP unit is enclosed by a deep façade made up by suspended tree trunks. This exemplifies the visions of Greater Copenhagen Utility (HOFOR) and the City of Copenhagen for green energy supplies through powerful architecture.

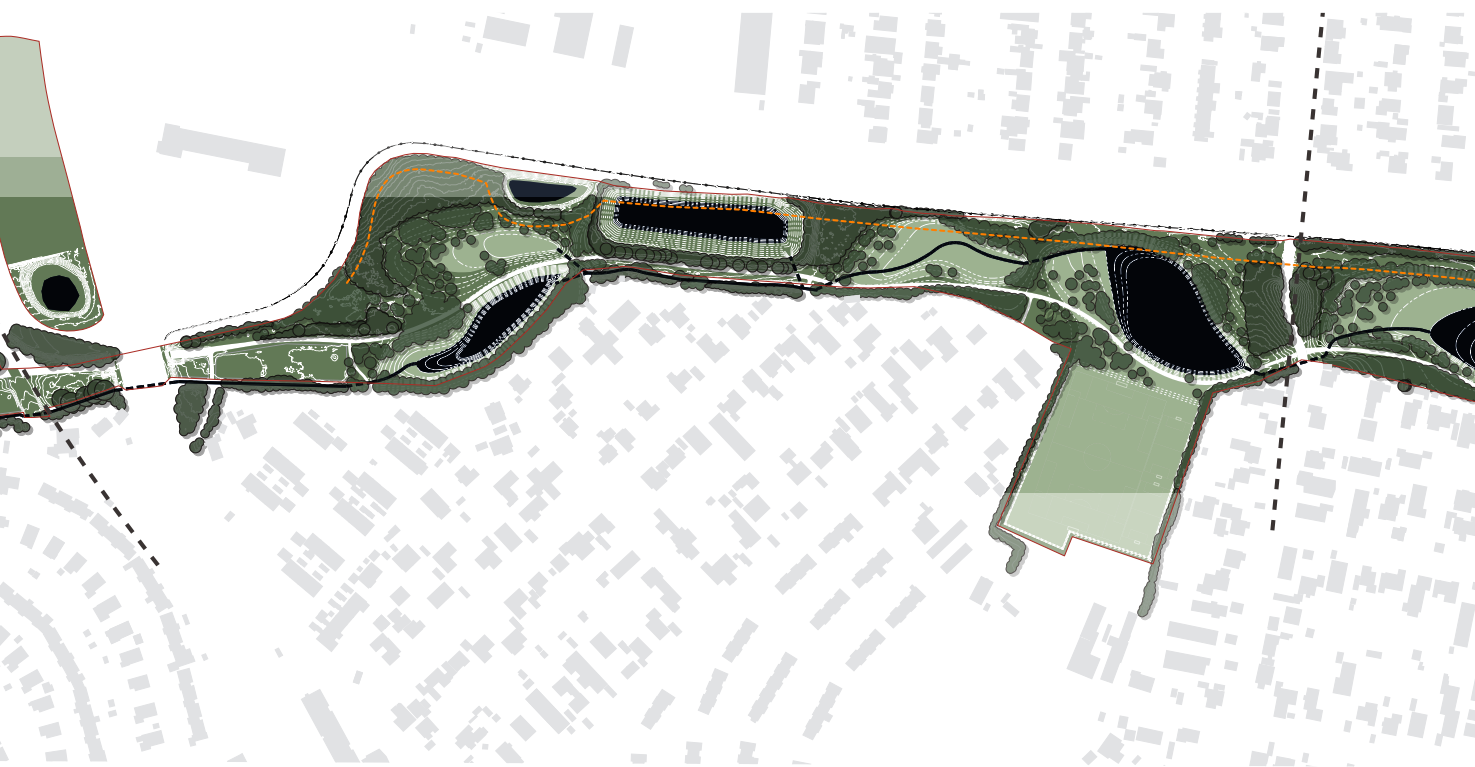
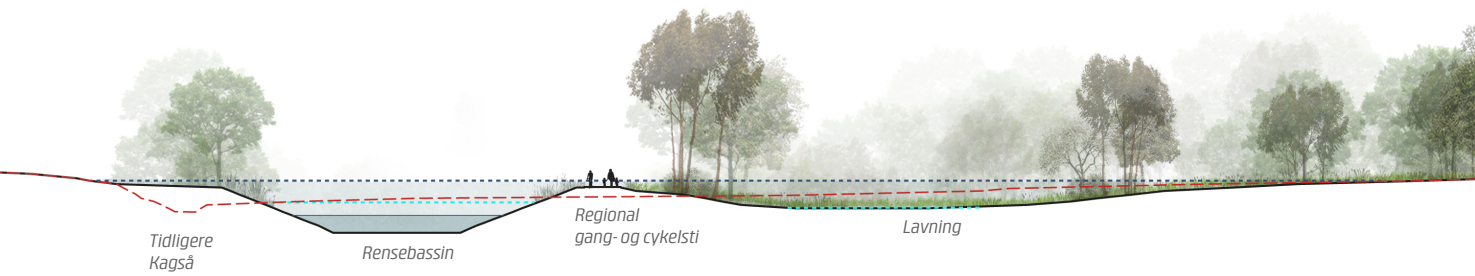
Adaptation to climate change

As a consequence of the changing climate, numerous areas of Denmark suffer from floods during severe weather. Gottlieb Paludan Architects works on strategic climate change adaptation. During the last year, we have consulted and developed plans for projects such as:

Kagså Park: Gottlieb Paludan Architects is developing a plan combining landscape architecture, climate adaptation, biodiversity and urban liveability for the area around the creek Kagså. Kagså Park and the neighbouring areas suffer from floods during heavy rain due to the flat terrain and the limited capacity of the stream, causing huge financial loss, damaging private households and commercial enterprises alike. The aim of the project is to delay the water in order to prevent flooding. We have designed a solution that combines the use of landscaping and grey infrastructure, involving the integration of flood management into the existing local infrastructure.

Solrødgård Climate and Environmental Park: Gottlieb Paludan Architects has developed the combined energy, climate and environmental park in the southwestern part of Hillerød north of Copenhagen. The overall vision for this unusual park project is to highlight and demonstrate the energy cycles that keep our modern day society running in the context of a wetland landscape, offering a sanctuary for birds and other wildlife. Visitors are invited to explore the park as well as the various utility functions and processes at close range.

Rainwater management in Glostrup: Rainwater solutions in urban spaces and in green areas may be utilised to provide new recreational value for a city. Thus it is relevant to combine the management of excess rainwater with an improvement of the physical and visual environment. Gottlieb Paludan Architects has developed a catalogue of solutions for Glostrup Local Authority. The purpose of the catalogue is to inspire future climate adaptation projects in the different neighbourhoods of Glostrup. The toolkit is a selection of landscape drainage methods, such as delay, storage, transportation, cleaning, sewage and evaporation of rainwater.



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Kagså Park

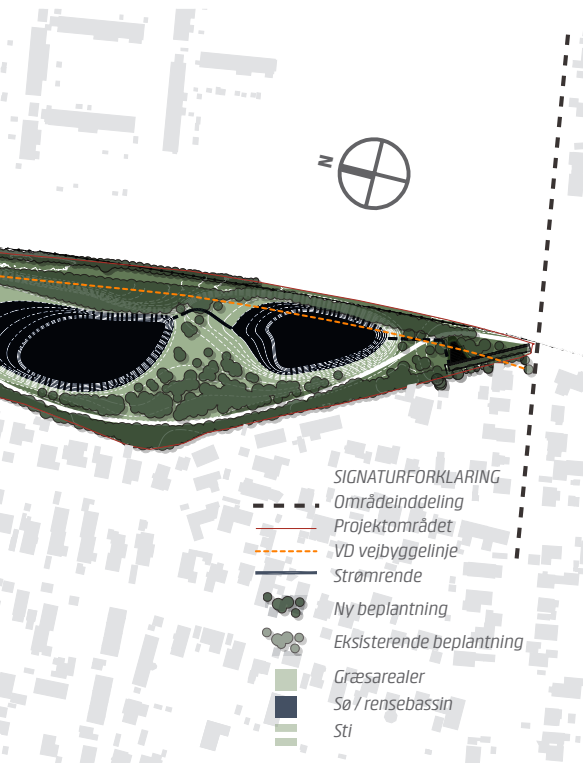
The solution for rainwater management in Kagså Park combines landscape- and planting strategies with blue and grey water infrastructure, to create a recreational park with open water surfaces and high levels of biological diversity.



Professional and organizational development

In line with Gottlieb Paludan Architects' business strategy, we are constantly improving our professional capabilities in order to strengthen the ability to solve the increasingly complex challenges that face our societies. Our employees are offered further training in relevant disciplines, for example DGNB certification, the Green Building Council's LCA tool for life cycle analysis, project management and process management courses and seminars.

Gottlieb Paludan Architects is organized into six teams: three teams focusing on energy and utilities and three teams focusing on mobility and transport. Each team is headed by a team leader. The team leaders support the project managers and undertake the quality assurance process and secure coordination of competences and staff across the office. This has resulted in a better working environment for our employees and created a more direct line to the nearest day-to-day managers. We will continue to improve the organizational development within the company, ensuring optimal working conditions for all employees.





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Litauens Plads, Copenhagen

The vision for the redesign of Litauens Plads was to create a square with close links to the nearby institutions and local urban life. The square supports both formal and informal activities, including community activities in the local neighbourhood.



The Global Compact Core Values

Human Rights

Gottlieb Paludan Architects conducts its business in accordance with Danish law, including the Danish Salaried Employees Act (Danish: *Funktionærloven*) which secures human rights and employment rights. We take care to uphold the general principles of basic human rights for everybody through all our work.

Labour

Gottlieb Paludan Architects conducts its business in accordance with Danish law, including the Danish Salaried Employees Act (Danish: *Funktionærloven*) which secures human rights and employment rights, including the prevention of child labour, forced labour and employment discrimination. All employees have the freedom of association and collective bargaining.

Environment

Anthropogenic climate changes and their impacts on our world require the inclusion of new methods and new ways of thinking in the field of architecture. Our work is driven by our belief in the sound business sense of increased focus on ethics, sustainability and holistic thinking, and our goal is to continue to promote greater environmental responsibility through our work.

Anti-corruption

Gottlieb Paludan Architects' main activities are concentrated in Denmark and Scandinavia, which traditionally top Transparency International's list of least corrupt countries. We never encounter corruption in our daily work and will continue to oppose any signs of it.



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Rainwater management in Glostrup:

The solutions-catalogue for Glostrup includes a selection of landscape drainage methods, such as delay, storage, transportation, cleaning, sewage and evaporation of rainwater as well as examples of how to utilise rainwater solutions in urban spaces and in green areas to provide new recreational value for the city.

Measuring outcomes 2017

Our own environmental impact

In November 2016, Gottlieb Paludan Architects moved to new facilities which have undergone total renovation. The renovation of the facilities was required to meet the Danish building regulations (BR15), which means that the building is now of the same standard as a new building. Therefore, our new facilities are far more energy efficient than our previous premises. The building has been re-insulated, enhancing the acoustics and indoor climate to meet the demands of the Danish Working Environment Authority.

In connection with moving, ranges of initiatives to diminish our environmental impact have been made. A new automated lighting system has been installed in the building to ensure that no lights are switched on when not needed. The new lighting consists of LED illuminators instead of the existing fluorescent tubes which contained mercury and would therefore have substantial environmental impact at the end of their service lives.

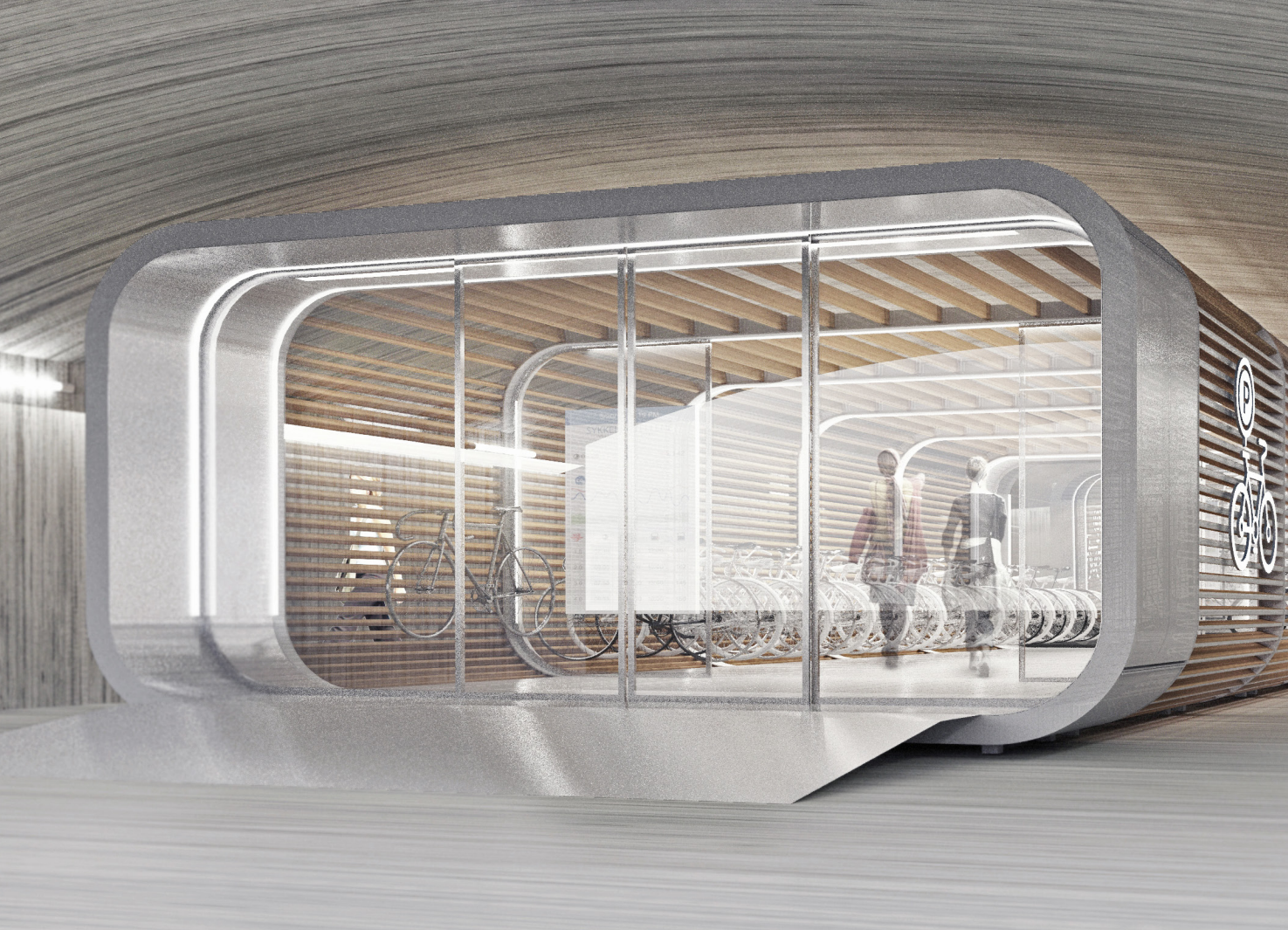
In addition, we have a large kitchen in our new office building and we have been able to employ a chef to prepare lunch for our employees. Our chef plans meals on a weekly basis, which means that some of the same food products may be used in various ways on multiple days, and with careful planning, our chef is able to keep food waste to an absolute minimum.

As an architectural company, we are reliant on well-functioning IT equipment that can run the most up-to-date drawing software. For financial and environmental reasons, we strive to keep our equipment for as long as possible. We have installed new powerful servers in the new office building with lower power consumption. Furthermore, we have introduced a new printing standard which saves nearly a third of our consumption of paper.

It is our ambition to inspire all our employees to cycle to and from the office and business engagements; if this is not possible, we urge them to use public transport - and only if absolutely necessary the company's low-emission petrol cars. Every year, during the month of May, all our employees are encouraged to participate in the national campaign *Vi cykler til arbejde* (We cycle to work). This year, half of our employees participated, which resulted in a saving of 1394 kg CO₂.

Investment in professionalism and research

A central objective in Gottlieb Paludan Architects' strategy is to create new knowledge. In addition to our two existing internal networks, we have launched seven new office networks. The aim is to support and expand the knowledge inside the company within the themes of sustainability, technology, landscape architecture, transport, etc. The role of the networks is to stimulate knowledge sharing, innovation and new inspiration for our employees.



We continue to support a business PhD project that has sustainability implications. The project “Room for Rain” is driven by our PhD fellow Anna Aslaug Lund and evaluates existing solutions within rainwater handling and SUDS (sustainable urban drainage systems) with particular focus on the architectural quality of these technical solutions.

As a PhD fellow at Gottlieb Paludan Architects, Anna shares her knowledge through articles and talks at seminars. During the last year, she has presented her studies in various fora,

such as Columbia University, New York, The Association of Danish Landscape Architects (DL) and the WEFTEC, New Orleans. Her PhD supports our efforts to increase our business focus on the climate change adaptation market. As part of her role as PhD fellow at Gottlieb Paludan Architects, Anna is our in-house expert within the field of rainwater handling and her knowledge is put to immediate use in a number of our projects.

Social responsibility

Every third year, we are required by law to



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Bicycle Hotel, Norway

Bike-Inn is GPA's response to a Norwegian design competition, with local municipalities in and around Oslo seeking new bike parking designs to help move traffic from cars to bikes. Bike-Inn is a modular, industrial design concept that may be adapted to fit different urban spaces and traffic hubs. Our design goal is the creation of a construction that will be perceived as a positive addition to the urban space and attract people to the concept of cycling.

The Danish Ministry of Immigration and Integration runs a programme called 'integration basic education' scheme (Danish: *integrationsgrunduddannelse* – IGU). To assist with this scheme, Gottlieb Paludan Architects has employed Mohammad Fadel Freha, a refugee from Syria. It is a two-year programme which aims to enhance integration by placing refugees in jobs and offering them skills development and education courses. Mohammed is trained within the field of finance, and he works as an assistant in the accountancy department.

Being an architectural company with many international collaborations, we find there are times when our partners and employees need to travel often. Therefore we have partnered with Goodwings, a booking company which collaborates with NGOs in order to support the UN 17 Sustainable Development Goals. For every hotel booked through their website, the company donates money to a good course. We have chosen to support the WWF programme "Renewable energy helps people out of poverty". By providing renewable energy to citizens in low and middle-income countries, the programme ensures higher standards of living, while saving large quantities of CO₂ emissions.

conduct a workplace assessment (Danish: *Arbejdspilsvurdering, APV*); it is a survey examining the physical and mental health of our employees, and the requirement is in place to secure optimal working conditions for all employees. Organizing the company into teams is one example of an initiative which came about on account of our last survey.

Since January 2017, all employees have been invited to participate in a weekly workout; the object is to help them improve their health and decrease absenteeism due to illness at the office.



ΛV
Orientkaj 4
Gottlieb Paludan Architects' Head Office



Our focus in 2017/2018

During the coming year, we will focus on the following ambitions:

- We aim to obtain the certification as a “Bicycle friendly company” (Danish: Cykelvenlig virksomhed) issued by the Danish Cyclists’ Federation. To reach the certification requirements we plan to improve the bicycle parking facilities for employees, and provide tools and facilities for minor repairs.
- We are also investigating the possibility of replacing our petrol cars with more sustainable electric cars.
- We will continue our focus on further improving our work environment.
- As our PhD fellow Anna Aslaug Lund will complete her PhD in August 2017, we are looking for collaborators to invest in a new PhD fellow.
- We will continue to invest in professionalising our employees with the newest knowledge within the field of sustainable buildings, in order to enhance sustainability in our projects in an even greater extend.



Formen

Vi søger tidløst

Vi er
— og per kler

Skønheden

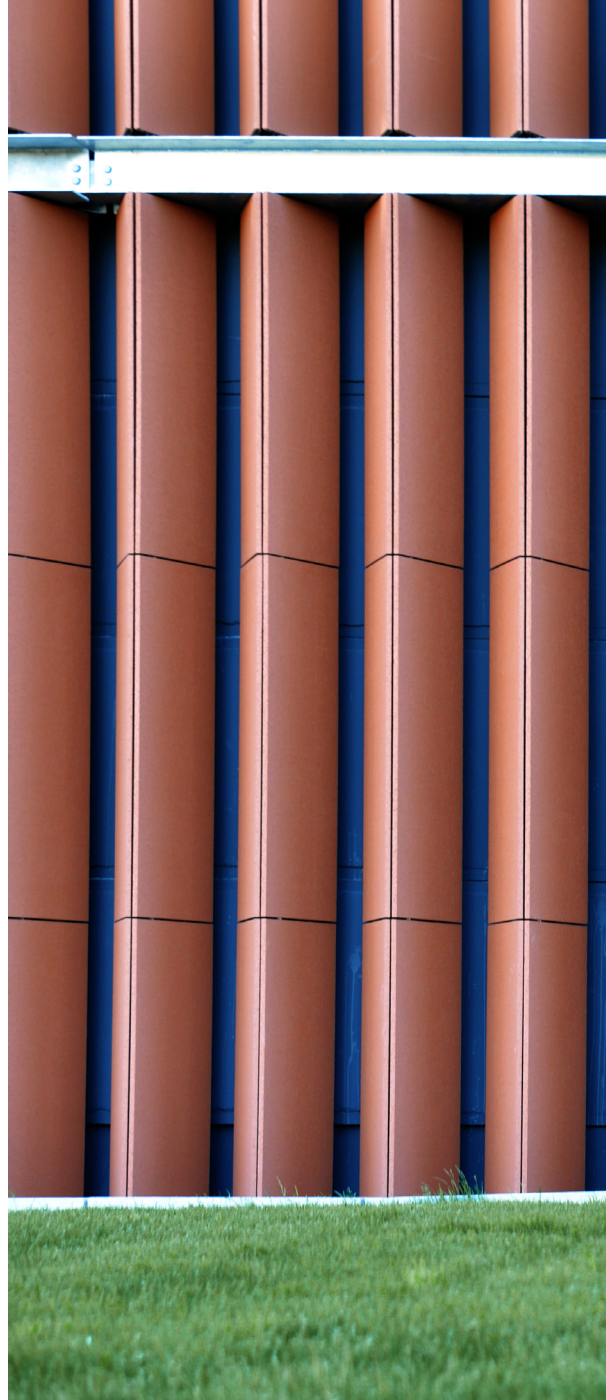
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Vi tænker helheden først

— kontekst og funktion

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**GOTTLIEB
PALUDAN**
ARCHITECTS