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GLOBAL COMPACT COP 2013/

COMMUNICATION ON PROGRESS

CONTINUED SUPPORT FOR THE UN GLOBAL COMPACT

PLH Arkitekter A/S is a multi-disciplinary architectural practice focused on stimulating an interactive and productive working environment for our talented and creative people, partly architects, but also interior designers and industrial designers, together with specialists within construction, process planning and communication.

PLH works with a broad spectrum of commissions from architecture, urban planning and workplace design to client advisory and industrial design. The company is often involved in complex, large-scale multi-disciplinary projects that evolve over long timeframes and are often associated with a high degree of confidentiality and proper due process. Regardless of the project type, PLH's commitment to responsible business practices and highest standards of professional integrity are the foundation of all interactions with clients, collaborators and fellow colleagues.

PLH's business ethics and code of conduct is grounded in around 30 years of professional industry experience and the commitment of the leadership team to follow responsible business practices in an ever changing global marketplace. Since 2009 PLH has been a member of the UN Global Compact initiative as part of maintaining and developing our social and environmental responsibility.

PLH embraces, supports and enacts, within its sphere of influence, the Global Compact set of core values in the areas of human rights, labour standards, the environment, and anti-corruption. PLH wishes to continue participation in Global Compact and seeks to support the principles as an integral part of our day-to-day operation and organizational culture, and where possible align leadership strategies to the ten principles. The principles covering the environment are a focus area for PLH and where we can have a measurable, positive impact.

Steen Enrico Andersen, Director, Architect MAA, Intl. Assoc. AIA

July 2013



THE 10 PRINCIPLES

Human Rights

Principle 1 Businesses should support and respect the protection of internationally proclaimed human rights; and

Principle 2 make sure that they are not complicit in human rights abuses.

Labour

Principle 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

Principle 4 the elimination of all forms of forced and compulsory labour;

Principle 5 the effective abolition of child labour; and

Principle 6 the elimination of discrimination in respect of employment and occupation.

Environment

Principle 7 Businesses should support a precautionary approach to environmental challenges;

Principle 8 undertake initiatives to promote greater environmental responsibility; and

Principle 9 encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption

Principle 10 Businesses should work against corruption in all its forms, including extortion and bribery.



BUSINESS INTEGRITY AND RESPONSIBILITY

As a member of the Danish Association of Architectural Firms (DANSKE ARK), PLH's operational procedures are based on Danish Legislation and DANSKE ARK'S instructions, guidelines and contractual standards, aimed at strengthening the quality level and professionalism of practicing architectural firms, and covering -

Level of professional liability insurance and standard contracting agreements - General Conditions for Consultancy and Assistance 1989 (ABR 89).

Collective bargaining process whereby DANSKE ARK negotiates the general agreements on pay and working conditions etc. of the technical staff that are in the employment of the member firms.

Fees and standards for architectural work with individual clients, private client organizations and public authorities.

DANSKE ARK also participates in negotiations with public authorities on tax aspects, prices and profit legislation, regulations on competitive tendering, liability and insurance matters as well as building assignment procedures, quality assurance and other terms relating to the professional activities of the member firms.

Based on national and international legislation on human rights, the Danish Consolidation Act no. 68, of January 2005, and our membership of the Danish Association of Architectural

Firms, PLH is obliged to respect the basic conventions.

Engagement in business associations

Several of PLH's 10 partners are leading representatives at DANSKE ARK, acting as members or heads of committees such as the Board, the Contracts Committee, the Committee for Professional Indemnity Insurance, and the Committee for Professional Agreements and the International Committee.

Several partners are also active members of the Architect's Association of Denmark (Akademisk Arkitektforening), represented in the Legal Committee and as the organisation's appointed jury members in architectural competitions.

Leadership responsibility

The PLH leadership team members are individually and collectively responsible for ensuring the firm's adherence to responsible business practices and our Code of Ethics. To that end, the following nominated partners, directors and professional staff have been assigned specific areas of responsibility -

BIMS & UN Global Compact
Steen Enrico Andersen - Partner and
Paulette Christophersen - Partner

Financial accountability
Torben Hjortsø - Partner

Financial reporting
Kristian Hollmann - account manager
and Susanne Knudsen - Head of
accounts, supported by PWC consulting
auditors

Legal accountability and risk
management
Jan Sander Fredriksen - Partner
supported by Philip & Partners Lawyers

Quality Assurance
Holger Bak - Partner

Digital knowledge management
Jan Sander Fredriksen - Partner and
Claus Johannessen - Senior Architect

Sustainability (PLH Green Team)
Søren Mølbak - Partner, Paulette
Christophersen - Partner, Steen Enrico
Andersen - Partner and Rie Rosenkrans
Gjedsted - Architect Cand.polyt.arch

Staff representatives
Henning Solfeldt - Industrial Design
Leader, Rikke Haugaard - Architect,
Kim Ringvei - Architect and Mikkel
Boysen Meikle - Constructing Architect.
Occupational Health & Safety
Supervisor Helle Maria Christensen,
Architect.

“Our business responsibility is based on high standards of Danish legislation and our active engagement in associations, committees and conferences”

we design for people



WORK ENVIRONMENT AND POLICY

PLH has a clear and balanced gender policy where some of our key values are to embrace diversity of competencies, experiences and viewpoints and to support a humanistic and collegial work style to add real value to our business.

Actions

We recruit solely on proven competencies and experiences not sex, nationality, religion nor age. Staff members are selected for project teams on the basis of relevant qualifications and experience corresponding with the project demands and our overall strategies and goals for meeting the clients' needs.

In order to promote well being at work, PLH has in recent years focused on prevention of stress. Two of our employees have undergone specialised training through the

Psychiatry Fund to be able to advice and guide colleagues on issues of stress. The PLH leadership, together with the stress counsellors have prepared an anti-stress policy guideline that covers both preventative actions (behaviours and organisation of work), detection of early warning signs and management of stress effected staff. Any stress affected employees will be offered psychological consultation as needed.

Benefits

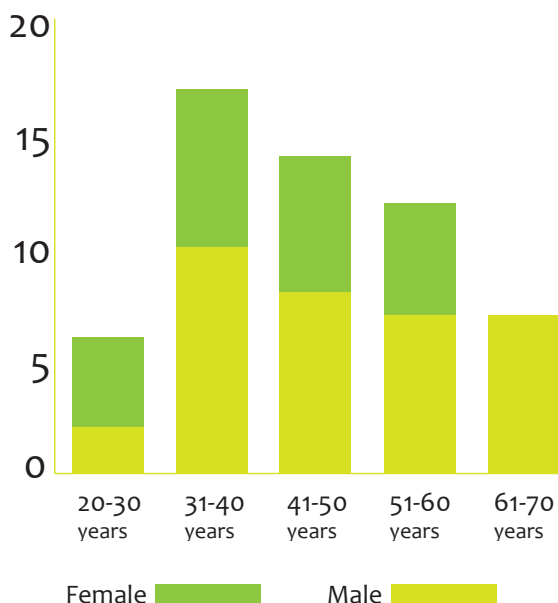
PLH is recognized as a stable and attractive workplace, with many employees being a part of the practice for 10-25 years.

We follow the Danish Working Environment Act and according to our latest annual Work Assessment carried out in 2012 our staff is very satisfied with the working environ-

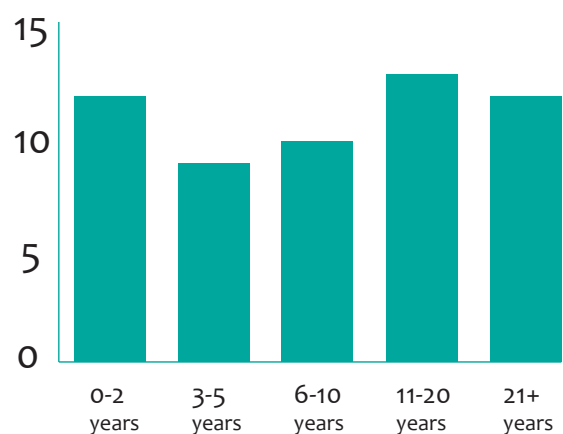
ment also in relation to the split of sex, nationality and age. We foster an open and inclusive culture where racism or bullying is not tolerated.

Our procedures have proven effective and PLH wishes to continue this engagement and investment in the working environment in order to remain an attractive, healthy and productive office - retaining and attracting the best. The priority of a responsible work environment and recognition of human diversity is a significant value for the office's capability to evolve in tune with the changing demands, challenges and tendencies of our industry.

Number of employees split on age and sex



Number of employees split on seniority at PLH





WE DESIGN FOR PEOPLE

PLH's main focus in connection to the principles of UN Global Compact is directed towards environmental challenges and possibilities. PLH has a responsibility to create holistic sustainable and humanistic solutions to the greatest extent that it can influence project outcomes.

We are committed to reviewing how our activities can contribute to the reduction of CO₂ emissions and minimize the planet's consumption of fossil resources. However, sustainability is not only a question of energy – social well being and cultural behaviour are aspects that we consider as a central part of designing sustainable buildings.

PLH supports a considered approach to environmental challenges by promoting our own and others awareness of our impacts on the environment and surroundings. We expect our staff to be conscious of the consequences of their actions

concerning the environment, whether it is “locally” at the office or “globally” with a client.

Sustainability is an integrated element in our projects from the initial thoughts about form and function. We strive to inform our clients throughout the decision making process to optimize the outcomes within the parameters of each project. We see workshops and exchange of knowledge with the project's stakeholders as the optimal foundation for the development of sustainable projects that are also aesthetically, functionally and economically successful.

Promotion and goals

Buildings are more than “passive” users of energy. They are also “active” environments, where human needs are an integral part of the creation of environmentally sustainable solutions where people

can thrive.

Our office is focusing on a holistic approach across disciplines to create informed, inventive and sustainable solutions. PLH is taking several initiatives to promote our responsibility towards the environment and is including environmental aspects in all phases of our project and construction processes.

By focusing attention and knowledge sharing on environmentally sustainable design (ESD) parameters, the practice has been able to inform clients of possibilities and advantages, and advise them about ESD options and systems, that can become an investment in operational savings.

Our significant competencies within the area have also enabled the office to respond to and challenge the expectations of our increasingly environmentally conscious investors and clients.

CASE VERMUNDSGADE





The transformation and interpretation of a former factory building in the city of Copenhagen has created a workspace for PLH based on new synergies from inside to outside.



To improve daylight and indoor climate, window openings were reverted back to their original fullheight and fitted with an extra insulating glass panel and sun screening. To further reduce heat gain, insulation has been added to the inner facades making the building comply with current codes, and the ground floor slab has been insulated with a bed of sand before constructing a new timber floor above.

The transformation and interpretation of a former factory building in the city of Copenhagen has created a workspace based on new synergies from inside to outside. The vast hall, which is proportionally long and narrow, was originally a part of the Lauritz Knudsens Factories, and used to manufacture electrical parts in the 1920's.

The conversion project involved refurbishment of the existing building, adding a mezzanine along one side, as a huge 'piece of furniture' providing 40 extra workspaces upstairs and diverse 'laboratory spaces' below for meeting, model-making, brainstorming and product research. The interior is defined by its spaciousness, with a ceiling height of 6.5 meters, and the tall, narrow industrial windows. The verticality of the space

is underlined through the rhythmic repetition of columns and windows, and the inserted mezzanine level creates a dynamic effect, and exciting new vantage points.

The original crane structures and elements such as steel trusses and beams are exposed as a dramatic reminiscence of the buildings industrial past. The cranes are now parked in each end of the studio where they create a 'roof' that defines the café at one end and team space at the other.

New open steel staircases and wire mesh balustrades provide a robust yet transparent connection between the two levels of workspace. In combination with the accent-coloured walls, warm oak flooring and super graphics, the

environment has an appealing balance between the rough and delicate, the old and new.

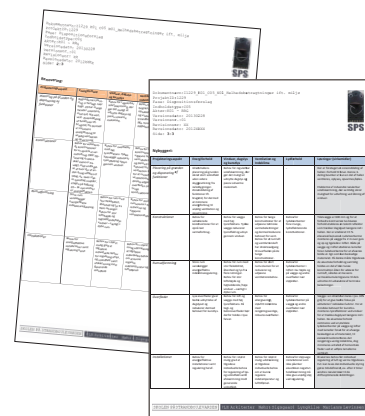
The design brief and concept has evolved through extensive workshops with the entire organisation. The vision for a 'visibly creative space, reflecting the way we work' has been realised through a diverse variety of work settings and collaboration areas. The transformation dramatically showcases the architectural practice to staff and visitors alike, and strengthens the firm's brand - we design for people.



“Besides my DGNB consultant training, I have been educated in using the LCA methods (Life Cycle Assessment) and LLC (Life Cycle Costs) on projects with the focus on environment and sustainability.”

RIE ROSENKRANS GJEDSTED, DGNB INTERNATIONAL CONSULTANT, PLH

“LCA is a tool to perform life cycle analysis of materials contained in construction. The analysis provides an overview of the materials' environmental impact eg in relation to global warming and different issues, and focuses on the consumption of energy for exploration and production, transportation, disposal and recovery. I have produced a supplementary tool to evaluate the materials further on parameters such as scarce resources, cleaning and maintenance.”



LOCAL INITIATIVES - GLOBAL IMPACT

Central to sustainable design is using local resources and adapting the building complex to the local climate conditions, inspired by the local tradition.

Local resources must be explored - wind for electricity, sun for energy, sea water for cooling, rainwater for recycling and underground geothermal potential. Sun screening, lighting control, natural ventilation as well as local and natural materials are important factors in obtaining a comfortable indoor climate and optimized energy sufficiency.

The selection or exclusion of green initiatives needs to be seen from a lifecycle perspective. Many solutions will have an appealing pay-back time when considered over a 5, 10 or 15 year horizon for running costs.

The office has established an internal task-force working with initiatives and approaches for internal development, training, debate and knowledge sharing, study trips, lectures, workshops etc. This Green Team consists of Søren Mølbak, Paulette Christophersen and Steen Enrico

Andersen - all partners together with architects Rie Rosenkrans Gjedsted, Line Marie Nisted and Gitte S. Lorentzen. An extensive seminar on energy was held in 2011 in order to upgrade our design methodologies in optimizing the passive characteristics in buildings.

We have hired new employees with certification training from the newly established Green Building Council Denmark. DGNB Denmark is a Danish certification system for sustainability in buildings which match the international high standards. Other sustainability and calculation tools are continuously implemented and several employees have participated in the course 'Innovation & Certification' held by Architectural Association in 2012.

An essential approach in all our work is the integration of hard factors such as geometries, orientation, location of windows, choice of materials, engineering systems and lighting, with soft factors related to user comfort and welfare.

PLH is working on a targeted effort

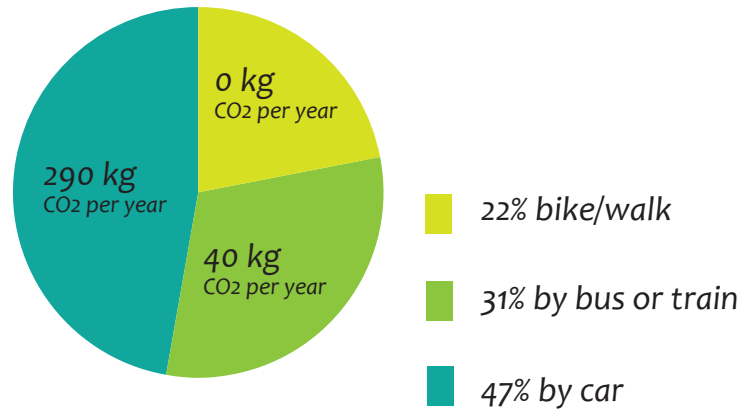
to minimize the environmental load of the daily running of our own office and to create a healthy and safe workplace. Energy consumption (power, HVAC, water) as well as the waste of office supplies and paper is continually being reduced.

We are conscious of the environment impact of transportation to/from meetings, and use office bikes for meetings held within a 5 km radius of the office. Our other initiatives in this area include widespread use of tele conferences and tele meetings, together with purchasing carbon quotas on air travel.

It is our aim to be considered as an environmentally conscious office with expertise in the planning and execution of high quality sustainable buildings.

Sustainable design at PLH

PLH's knowledge about sustainable solutions and initiatives, seen in a broader perspective, is developed significantly by implementing specific projects with defined goals from the client's viewpoint, and by participa-



Employees transport to and from work at PLH

ting in competitions. All projects play an important role as "case studies" which reinforce the practice's competencies, skills and profile.

In 2011 PLH won the competition for a new Hospice in Svendborg, which is planned for completion in autumn 2012. The recurring theme in the design is to create a homely place where the sense of life is ever-present and nature an integral part of the experience at the hospice. The architectural main idea is to merge form, function and landscape into a coherent whole, with fine experiences for the senses.

The brief demanded an increased requirement for environmentally sustainable design, such that the project meets the criteria of the future Building Code 2015. The hospice is designed and developed in a genuine sustainable matter using new building materials, certificated as "cradle to cradle" products in combination with high standards in insulation and indoor environment. Key energy features in the complete energy programme, is the extensive use of solar cells on the roof, approx 15 % of the buildings area, and underground geothermal.

Over the past years, PLH qualified to participate in many competitions, most of which included sustainability as criteria in the weighted scoring system.

In 2012 PLH won the competition for a new headquarters for the transportation and logistics company DSV with a compact atrium for around 750 employees. The building supports DSV's core values of equality and openness, and the competition proposal suggested a series of sustainable initiatives, such as natural ventilation and CTS-controlled external blinds. A large solar power plant on the adjacent terminal could be integrated on the roof, in order to produce electricity used for forklifts and other local equipment.

In collaboration with landscape architects PLH also won a competition for transformation and revitalization of an urban park in Husum, near Copenhagen. The proposal incorporates local drainage of rainwater (LAR), which also can contribute to changing experiences in the green compound.

In the spring of 2010, PLH received an award for the Aller Building, a multimedia office in Copenhagen. The award acknowledged the building's energy saving planning and sound indoor environment, amongst other aspects. This building is one of PLH's "flagships" in demonstrating a holistic sustainable building, where the workplace design is integrated in a compelling architectural form.

The practice also undertakes a wide range of client advisory commisi-

ons, where sustainability goals are a focus for our clients, and an integral component of our approach. Of note is our commission as Tenant Advisor to the Ministry of Foreign Affairs for the implementation of UN City in Copenhagen. PLH has a key role in the development of what will be a new benchmark Energy Class 1 office campus for Denmark. PLH has focussed on ensuring a holistic vision incorporating sustainable workplace thinking, such that UN City will not only be an energy efficient building, but also a healthy and productive workplace.

Apart from specific project examples, it is important to note that on a daily basis, the staff at PLH is making informed and conscious decisions impacting on the environment when they select and specify materials, finishes, furniture and fixtures. Through one-on-one or group activities, our staff is continually updated on new and emerging products, techniques or manufacturers that can strengthen our ESD approach.



DEVELOPING PROJECTS AND DESIGNS

What kind of sustainable aspects do you integrate in a project?

JESPER FRIIS, CONSTRUCTION ARCHITECT, PLH

"I usually enter the process after the most significant sustainable initiatives have been decided. In the Clearance and Maintenance Center the Client – Metroselskabet – required that cradle to cradle materials were used and in any case PVC-free materials. It was a very clear and tangible request. It gave some challenges f.e when we planned the flooring, which required different standards in relation to the loads and wear and tear."

"Ryparken's Ice Skating Rink in Copenhagen is the project which carried most sustainability forward. We had 11 spearheads in all, which made it a 'tour de force' project on that front. It was quite exceptional and additional actions that are beyond the law are usually difficult to convince the developer about."





Which sustainable aspects do you have in focus whilst developing design objects?

**HENNING SOLFELDT,
PRODUCT DESIGN MANAGER, PLH**

“There are three main aspects I consider in the product development. Firstly, the product should be able to get dismantled into individual components when its lifetime has come to an end. Secondly, the materials or the components should be reusable. Thirdly concerns the operation and maintenance, where the product during its lifetime has a sensible energy consumption as possible.

It is the type of product that determines which factor that gets the biggest importance, if not all.

I develop products with ‘common sense’ in mind and on the basis of the dialogues I have with other professional experts in the team. Years ago we developed a sign series, DanSign, before ‘sustainability’ was a widespread notion, and now the series has been ‘cradle to cradle’ certified. It could only be done on the basis of ideas about simplicity of design components and materials, and it confirms that ‘common sense’ can bring you far. “

**CMC CLEARANCE AND MAINTENANCE CENTER FOR
THE NEW CIRCULAR LINE, METRO CITYRINGEN -
COPENHAGEN**

NEW TECHNOLOGIES AND DESIGNS

PLH will put effort into the specification, use and development of new products and techniques that reduce impact on the environment. As stated earlier it is a question of using local resources and adapt the construction methods and technologies to the local climate conditions, inspired by local traditions. PLH integrates this in developing projects with the central aim - to improve the environment, generating energy and add value to the human everyday life (!).

As a result of one of PLH's industrial design group's "green" initiatives, PLH established the company EdgeFlow ApS on July 1st. 2009. The long term goal of EdgeFlow is to commercialize a new, environmentally and economically feasible wind turbine. EdgeFlow won the innovation award "Climate Cup 2010"

at the international climate conference, World Climate Solutions, held in Copenhagen. The award acknowledges innovative initiatives for cleaner energy production.

There is a need to produce far greater wind energy in response to both climatic considerations and the future security of energy supply. It is with this viewpoint that EdgeFlow wants to explore the potential of wind energy production in built environment. EdgeFlow's first project involves the development of a windmill for application to primarily larger buildings in the industrial areas.

Besides this great initiative on urban wind energy, PLH's industrial design team has designed and developed a new series of light fittings for energy

saving lighting. These innovative light fixtures are produced in collaboration with and for major international light manufacturing companies. In april 2012 Philips Lighting launched LumiStone - a new LED fixture designed by PLH (Henning Solfeldt design manager) as the first suspended LED fixture that meets current requirements for office lighting. LumiStone gives a luminous efficacy exceeding 100 lm / W, which is 30-40% higher than T5 luminaires often used for offices. The fixture is elegant, evocative and energy efficient, and is specifically developed to bring at homely atmosphere into the work spaces. It has a unique LED-shielding so the light does not dazzle or distract the user.

LumiStone is designed for long life cycling and has a lifespan of approx



17 years by usage of 8 hours a day - and all materials can be reused by a simple separation of the fixtures parts.

The existing building stock represents a tremendous energy consumption and there is a great potential to reduce the total energy consumption in refurbishments of older buildings. PLH develops a ventilation unit that can recycle 4/5 of the energy in the otherwise lost heat, which makes the unit an obvious technical device to use in connection with the renovation of older buildings. The project is sponsored by the Innovation Fund (Fornyelsesfonden) and is expected to be ready for production in the summer of 2014.

PLH Global Compact Ambition 2013/2014

PLH is proud to be a member of Global Compact. In the year ahead, the practice will continue to seek opportunities to support and enact the principles. In particular, we aim to show built works that demonstrate more extensive and measurable outcomes in the area of environment.



**PLH ARKITEKTER A/S
VERMUNDSGADE 38K
2100 KØBENHAVN Ø**

**+45 3543 0055
WWW.PLH.DK**

