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AN ARCHITECTURE GUIDE
to the UN 17 Sustainable Development Goals

Hvilke verdensmål relaterer sig til det byggede miljø?

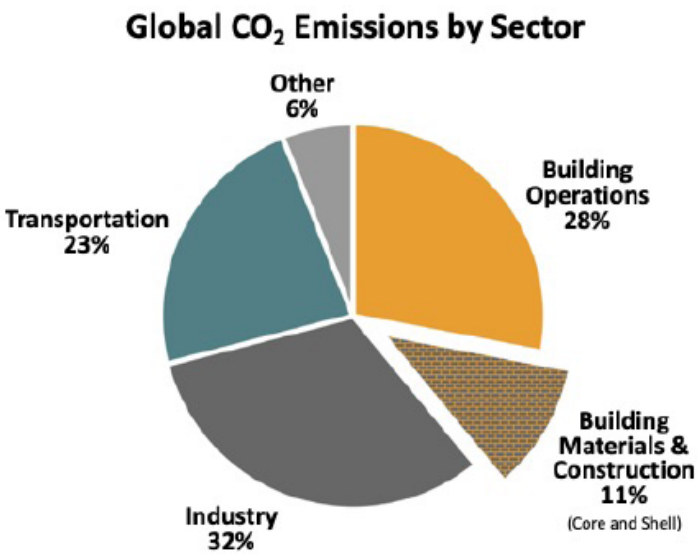
Da FNs 17 Verdensmål blev vedtaget i New York i september 2015, afgav regeringscheferne samtidig et løfte om ikke at lade nogen i stikken: ”Leave No One Behind”.

Sammen med løftet blev der vedtaget en strategi: ”Reach the furthest behind first”.

FNs 17 Verdensmål gælder alle lande og favner både humane og miljømæssige bæredygtighedsaspekter.

De er unikke fordi de ser på 17 centrale udfordringer i sammenhæng. Hvert mål er vigtigt i sig selv, men hvert mål er også forbundet med de andre.

AN ARCHITECTURE GUIDE
to the UN 17 Sustainable Development Goals



Source: Global Alliance for Buildings and Construction, 2018 GLOBAL STATUS REPORT

Air pollution kills an estimated seven million people worldwide every year.

Worldwide, ambient (outdoor) air pollution contributes to 7.6% of all deaths in 2016

In 2016, household air pollution was responsible for 3.8 million deaths, and 7.7% of the global mortality

Source: WHO

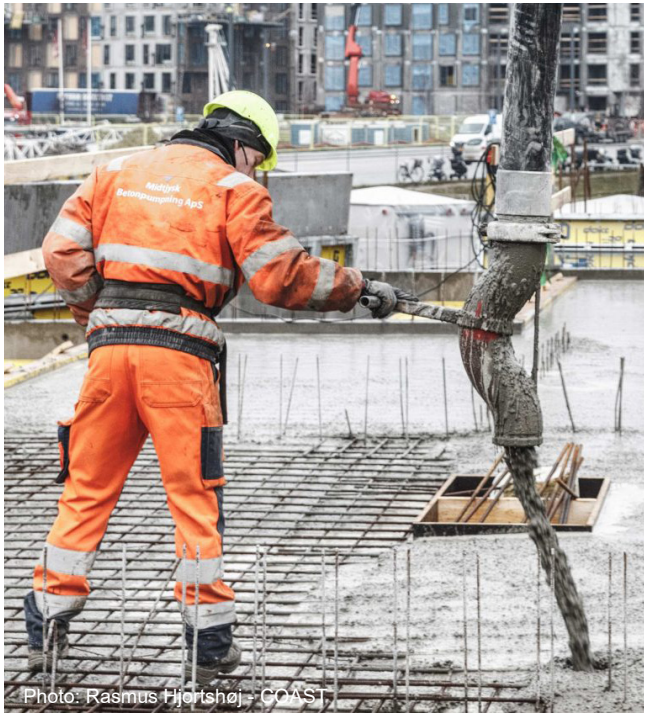


Photo: Rasmus Hjortshøj - COAST


Photo: Sofie Stilling


1
Contribution:
Pondicherry, India
Volontariat Home for
Homeless Children
2
Contribution
Detroit, USA
The Michigan Urban
Farming Initiative
3
Contribution
Manchester, UK
Maggie's at the Robert
4
Contribution
Zaatari Village, Jordan
The Community Dome
5
Contribution
Kachumbala, Uganda
Kachumbala Maternity Unit
6
Contribution
San Francisco, USA
The Living Machine
7
Contribution
Sandvika, Norge
Powerhouse Kjørbo
8
Contribution
Gando, Burkina Faso
Atelier Gando
9
Contribution
London, UK
Smile Plastics
10
Contribution
Helsinki, Finland
Kamppi Chapel of Silence
11
Contribution
Copenhagen, Denmark
Superkilen
12
Contribution:
Rudrapur, Bangladesh
DEG Training Center
13
Contribution:
Haerbin City, China
Qunli Stormwater Park
14
Contribution
Ribe, Denmark
The Wadden Sea Centre
15
Contribution:
Qinhuangdao City,
China
Red Ribbon Park
16
Contribution
Bogota, Colombia
17
Contribution
Latin America &
the Caribbean
TECHO

1 NO POVERTY

Architecture cannot lift people out of poverty, but the built environment can affect the impact of poverty on people's life through access to housing and institutions that are affordable.

Through building design and planning architects can develop buildings and settlements that are cheap, safe and healthy. Examples of this can be found in social housing schemes, co-ops and projects for urban upgrading.

The overarching principle is that buildings and services must secure the highest possible value from available funds and resources. This demands the development of new architectural solutions. As part of this, buildings must be designed using products and materials that do not compromise the environment, while maintaining the affordability of current, environmentally problematic solutions, such as the metal sheet roof. Furthermore, architecture, landscape design and planning must adapt the built environment to climatic, geographical and cultural contexts, working with the surrounding environment and not against it, to increase quality of life while helping inhabitants save on electricity and other services. As part of this, architects working on development projects must engage the local communities and help weak and poor citizens gain ownership to the built environment of which they are a part. Finally, the building process itself must take place under conditions that protect the environment as well as poor and marginalized stakeholders.

Photos: Rasmus Hjortshoj – COAST

Origin/team
BIG – Bjarke Ingels Group,
Lejerbo,
MOE

Photos: Micelle and Chris Gerard

Origin/team
The Michigan
Urban Farming Initiative

2 ZERO HUNGER

The built environment contributes to the securing of food supplies through planning, landscape design and building complexes that protect existing ecosystems and prioritize the preservation and expansion of areas for food production.

Creating conditions to support sustainable farming must be an integral part of development, also where fertile land is scarce, whether due to urban density, harsh climatic conditions or restricted access. Planning, landscape design and building design can contribute by developing designs that favour land use for food production in many scales. Examples of this can be found in urban farming projects, production cooperatives and regenerative landscape design. Furthermore, the built environment can help the maintenance and rebuilding of species diversity in landscape, settlements and urban areas. This requires working with local geography, climatic conditions and locally adapted crops in the design of areas for food production.

Design in areas for food production must be robust and geared to cope with climate change, such as extreme weather, drought and floods. Often, the production of building materials such as timber or bricks co-exists with food production, making it important to consider how farming interacts with the production of building materials on a local level. Finally, building and landscape design must involve end-users in a co-creation of areas for food production.

Hvordan relaterer Verdensmål 3 sig til det byggede miljø, og hvad kan vi konkret gøre for at løse nogle af de udfordringer, som skitseres i målet?

At sikre et sund liv for alle og fremme trivsel for alle aldersgrupper

Udpluk af delmål og indikatorer:

3.3 Inden 2030 skal der sættes en stopper for epidemier af AIDS, tuberkulose, malaria og negligerede tropiske sygdomme, og sygdomme som hepatitis, vandbårne sygdomme og andre smitsomme sygdomme skal bekæmpes.

3.5 Forebyggelse og behandling af stofmisbrug, herunder narkotikamisbrug og skadelig brug af alkohol, skal styrkes

3.6 Inden 2020 skal antallet af globale dødsfald og tilskadekomster som følge af trafikulykker halveres

3.9 Inden 2030 skal antallet af dødsfald og sygdomme som følge af udsættelse for farlige kemikalier samt luft-, vand- og jordforurening og kontaminering, væsentligt reduceres.

3 GOOD HEALTH AND WELL-BEING

Most people spend the majority of their life indoors, making indoor climate an influential factor of health.

Building design must enable a healthy in-door climate concerning light, acoustics, air quality and exposure to radiation and degassing. This is important in all buildings, but especially so in buildings with vulnerable users, such as hospitals. Building design must further avoid the use of environmentally hazardous materials and substances. Furthermore, transmission of diseases and illnesses often happens within the built environment and building-design as well as the layout of settlements and urban areas are crucial to curb the spreading of diseases and exposure to bacteria.

Infrastructure, health institutions and urban areas affect citizens' access to exercise. Buildings, settlements and urban areas must therefore be planned so that they allow and encourage physical activity. Urban layout also influences the risk of accidents, for example in traffic, and this can be addressed through design.

Architecture, simply put, plays a crucial part in creating a built environment that supports good health and well-being. Examples of this span greatly and can be found in housing that reduces the risk of infection with malaria, in patient-community buildings and in the design of workout equipment for public parks.

Photo: Konstantin Ikonomidis

Origin/team
Architects: Ingvartsen Arkitekter.
Project Team: Jakob Knudsen, Lorenz von Seidlein,William N. Kisinza, Konstantin Ikonomidis, Emi Bryan, Salum Mshamu and Kiondo Mgumi

Photo: Rasmus Hjortshøj - COAST

Photo: Rasmus Hjortshøj - COAST

Origin/team:
Architects: JAJA Architects,
Contributors: Totalentreprenør 5e Byg,
Søren Jensen Ingeniører, LOA, DGI, Rama Studio, By og Havn

4 QUALITY EDUCATION

Schools and educational spaces are a crucial part of our investment in the future.

Whether in a refugee camp, in the slums or in Silicon Valley, access to schools and to education is defining the future of our children. Schools, universities and other educational institutions all require an architecture that enables a productive learning environment, but architecture also has a role to play in creating affordable, accessible and inclusive educational solutions for communities with limited resources for conventional buildings or limited access to an existing school system. Examples of this can be found in designs that enable study at night, such as solar-powered reading lamps for off-grid rural areas, in movable classrooms for the children of migrant workers and in school facilities for minorities.

Furthermore, the built environment can provide training opportunities regarding the sustainable performance of buildings, settlements and urban areas for both users and craftsmen. In development, as well as in use, buildings and communal facilities can interact with and promote a sustainable culture of usage.

On the level of primary education, an increased focus on knowledge regarding sustainable design and crafts will be key in building the future sustainable development.

Photos: Hufton+Crow

Origin/team:
Henning Larsen Architects, Hoffmann, GPP Architects, Niras Møller og Grønborg, City of Aarhus

5 GENDER EQUALITY

To support a movement towards gender equality, the design of buildings, settlements and urban areas must be inclusive to all citizens regardless of gender.

The organization of public spaces, institutions and services must prioritize the security of girls, women and LGBT+ citizens and help minimize the risk of abuse. The ability to move safely in public spaces, in public institutions and at the workplace is key to the inclusion of women and girls in civil society and to women being able to hold a job outside of their home, which is key to being self-supporting. Also needed are affordable and secure buildings to provide health services, basic sanitary services and meeting places for women and LGBT+ citizens. Examples of this can be maternity clinics, safe houses or secure public bathrooms.

Design of playgrounds, public parks and sports facilities must offer girls and women equal access to leisure and physical activities and create conditions that encourage use by all.

The building industry itself must work towards equal pay, promote diversity and work to oppose sexual harassment. As part of this, the industry must support women's ability to handle heavy construction processes that are otherwise reserved for men, for example by the introduction of lifting technologies. From design through construction, the industry must avoid a narrowly gendered work culture in order to promote diversity and co-ownership so that more women will be able to join the industry at all levels.

Photos: HKS Architects

Origin/team:
HKS Architects,
Engineers for Overseas Development,
Clyfe Building Skills,
Welsh Government

6 CLEAN WATER AND SANITATION

To take advantage of rainfall where clean water is scarce, buildings and urban areas must be designed so that rainwater can be collected, purified and used as drinking water.

In areas where rainwater needs not be collected for drinking water, buildings and urban areas must be designed so that rainwater can enter the groundwater without being mixed with wastewater or being polluted in other ways. As for sanitation, buildings, services, sewage systems and infrastructure must be planned and designed to keep bacteria and contaminated water separate from clean water and out-of-contact with citizens. A key part of this is to ensure access to toilet facilities that are designed to handle the waste produced. Building materials that do not contribute to groundwater contamination should be chosen, whether during extraction, construction or in use.

Furthermore, urban areas, settlements and buildings must be designed to withstand climate change related to water, such as more extreme precipitation, drought and floods. Landscape architecture and urban planning must protect freshwater resources through conservation projects and the design of recreational areas that protect, collect and handle water.

Examples of this are found in water-handling features at building level, in climate adaptation projects on an urban scale and communal toilets for slum areas.

Photo: Warka Water Inc

Origin/team:
Architecture and Vision
(Arturo Vittori), Warka Water Inc.

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Photos: Carsten Ingemann

Origin/team:
The Municipality of Viborg,
Energi Viborg, Møller & Grønborg,
Orbicon, Svend E. Madsen,
the Danish Foundation for Culture
and Sports Facilities,
Realdania, Vandplus
The Danish Nature Agency

The built environment is a major source of energy consumption and a potentially crucial energy producer.

Buildings must be designed both to limit energy consumption, for example by using materials and layouts that minimize overheating, and to produce and recycle energy, for example by storing excess heat during the day and employing it at night. This means designing and constructing buildings, settlements and urban areas that employ appropriate energy technology under given geographical, climatic and cultural conditions. Examples of this can be the use of daylight, natural ventilation or a choice of materials that support heating or cooling, such as heavy exterior walls in a hot and dry climate. The built environment can also contribute through the development of solutions that employ innovative sources of renewable energy.

Furthermore, the building industry must put a focus on total energy consumption from the extraction of materials, through the construction phase to the use and disassembly of buildings and structures. As part of this, energy intensive materials and materials produced with non-clean energy, such as coal-fired bricks, must be phased out or find new forms. Buildings must also be adapted to local climatic conditions so that solutions that would consume a high level of energy in use in a given context are avoided, such as exposed all-glass facades in a hot climate.

Photos: HKS Architects

Origin/team:
Snöhetta, Skanska,
The Environmental Organization ZERO,
Sapa and Hydro, Asplan Viak,
Entra Eiendom

8 DECENT WORK AND ECONOMIC GROWTH

The built environment interacts with decent work and economic growth on both a planning level and on a building level.

Safe public spaces and affordable transit routes to the workplace are crucial for finding employment. The ability to move from home to a workplace, and the time spent in transit, determine what jobs are available, making public space and transportation systems key to citizens' access to work. Cities and settlements must also be planned and designed so that poor and marginalized citizens have access to a business outlet, such as a marketplace, where local produce, handicrafts and other services can be bought and sold. Workplaces must be designed so that they support healthy and productive work environments for employees. Investing in good working conditions back a company's economic growth through higher productivity and fewer sick days.

In the building industry, focus is needed on decent working conditions and safety for workers. This entails the use of materials extracted and produced in safe and clean working environments as well as secure and controlled working conditions on building sites and in demolition processes. Furthermore, by emphasizing investment in human resources, the industry can develop towards more sustainable economic growth by using raised skills and knowledge to reduce the amount of raw materials and energy needed while raising productivity.

Examples of this can be found in planning projects for informal settlements, in state-of-the-art office-buildings and in better cover on buildings sites.

Photo: Mette Lange

Origin/team:
Mette Lange Architects,
Anders Linnet

Kan i komme i tanke om cases fra byggeriet, som relaterer sig til anstændige jobs og økonomisk vækst?

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

The building industry is producing massive amounts of waste and is consuming large amounts of natural resources and energy.

Advancing sustainability in the built environment requires a development of industry and industrial infrastructure away from current practice towards new ways of producing and assembling. We must develop our industry, its services, products and transportation systems, to pollute less, tie up less energy, produce less waste, and provide solutions that are safer and healthier than current standards.

The building industry is by nature site-specific, and we must aim at utilizing local industries and advance the development of sustainable products locally, in all countries. This requires the development of both physical and digital infrastructures to promote more sustainable trade and coexistence, including much more focus on the industry's use of local materials and resources. Where advanced industry is available, the focus is on the development of products that improve existing standards and raise the level on sustainability, for example by moving from a focus on no waste in production to a focus on no waste in a lifecycle perspective. This requires training and the development of new competences at all levels in the building industry, as well as research and prototypes to test the potential of new tools, processes and solutions. The resulting innovations in industry must continuously be measured against a culturally and climatically site-specific impact on sustainability.

Photo: Ed Reeve

Origin/team:
Kvadrat Soft Cells

10 REDUCED INEQUALITIES

The built environment can act as an amplifier and enforcer of inequalities.

Disabled citizens risk being confined in their homes or unable to hold a job because stairs, steps and other design features can make streets, transportation systems and institutions inaccessible. Religious and ethnic minorities, LGBT+ citizens and women experience being confined to designated areas or secluded from educational institutions and leisure facilities. Landscape qualities like a beach or a view can be closed to the public through design and planning that make them accessible only to owners or customers.

To reduce inequalities, architecture must be designed and executed so that it is socially responsible, inclusive and take into consideration the needs of all members of society, leaving no one behind. Buildings, settlements and urban areas must be designed with accessibility as a core functionality, from ensuring even surfaces, lifts and ramps and way-finding features to giving attention to doorways and the height of utilities. It also means that social responsibility and inclusiveness must guide programming, planning and design of buildings and urban areas so that they support and allow use by all, with respect to local culture and needs. Examples span from state-of-the art office buildings adhering to universal design, over places of worship open to all religions to services and institutions open to all, like public parks.

Photo: Martin Schubert

Origin/team:
Danske Handicaporganisationer,
Cubo, Force4, Niras A/S

Photo: Gehl Architects

Origin/team:
Gehl Architects,Energy Foundation, CSTC (China Sustainable Transportation Center), Chongqing Planning and Design Institute

11 SUSTAINABLE CITIES AND COMMUNITIES

The built environment is crucial to the development of sustainable cities and communities.

Architecture, design and planning contribute in multiple ways to make cities and settlements inclusive, safe, robust, resilient and environmentally sustainable. Among key contributions are design and planning that secure affordable, accessible and healthy housing, as well as infrastructure which through design help reduce pollution from transportation, by enabling walking, biking and commuting by public transport. Furthermore, infrastructure can enhance mobility and accessibility between parts of a city, as well as between city, suburbia and rural areas.

Urban design can contribute to include all citizens and reduce the risk of exclusion and assault. As part of this, consideration of the needs of marginalized and disenfranchised citizens should be included from the early stages of planning, and all levels of stakeholders should be involved in the process. Urban design should also help reduce and counteract the environmental impacts of overuse, traffic, waste, noise and light pollution in urban areas. Individual buildings as well as building complexes and settlements must be developed to increase resilience and robustness in the face of climate change and include vegetation and green areas to help counteract the loss of vegetation and biodiversity caused by urban growth. Examples of this span broadly and can be found in housing renewal projects, in climate adaptation plans, in collective reuse stations, in pocket parks and in bike path expansions.

Photos: Steven Achiam, GHBLandskabsarkitekter

Origin/team:
GHB Landskabsarkitekter,
Malmos Anlægsgartnere, Orbicon,
Feld, studio for digital crafts & ViaTrafik.
Klimakvarter,
Teknik- og Miljøforvaltningen;
Byens Fysik

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

The building industry is a major contributor to waste.

When buildings are demolished most of the value of the existing materials and components is lost. The same applies to renovations, which transform vast amounts of materials to waste. Even the process of constructing new buildings is producing waste, from cut-off bits of gypsum board over discarded formwork and the wrapping, components are delivered in, to materials damaged by weather or mistreatment.

Designing for long lifetime, steady maintenance and careful adaptation of existing buildings are keys to sustainable consumption in the built environment. Design considerations for durability and life cycles can reduce the value loss and waste production in the building industry, in individual components, buildings and structures. Ideally, the design of buildings allows them to transform into different uses over time, so that the materials and other resources invested in the structure retain their value also when a given use changes or becomes obsolete. Additionally, individual components and materials should be designed and employed so that they can be recycled and upcycled.

Design and construction of new buildings must give priority to reducing the amount of material resources employed and waste produced. Finally, we need new components and solutions that reduce the use of non-renewable natural resources and emphasize local materials.

Photo: Øystein Elgsaas

Origin/team
AB invest AS, Hent AS,Voll Arkitekter AS,
Moelven Limtre AS, SWECO

13 CLIMATE ACTION

The CO_2 footprint of the built environment must be reduced, and buildings and settlements must be adapted to the changing climate.

The CO_2 impact of buildings, settlements and cities must be reduced fast. We can achieve reductions through energy renovations, by integrating renewable energy production in buildings, by expanding sustainable transportation infrastructures, by reducing transport of building materials, and by emphasizing the use of local and renewable materials. Furthermore, the design of new buildings can optimize climatic comfort with a minimum of energy consumption for heating, cooling and lighting. This requires consideration of the local climate, and design with natural light, natural ventilation and the thermal properties of building structures.

At the same time, climate change is already happening, and existing buildings and settlements must be adapted to the changing conditions, including more extreme rainfalls, floods, hurricanes, drought and heatwaves. This requires new design solutions that are resilient to the changing conditions. Solutions that are sensitive to local culture as well as local topographic and climatic conditions. The amount of adaptations and new infrastructure needed is huge and costly and will affect settlements and cities significantly over the coming years. Architecture, planning and design have a special responsibility in developing climate adaptation solutions with co-benefits, such as overflow basins for extreme rainfall doubling as a recreational area between rainfalls.

Photo: Turenscape

Origin/team
Kongjian Yu, Turenscape,
The Municipal Government
of Harbin City

Most of the built environment is situated on land, but its activities affect the oceans

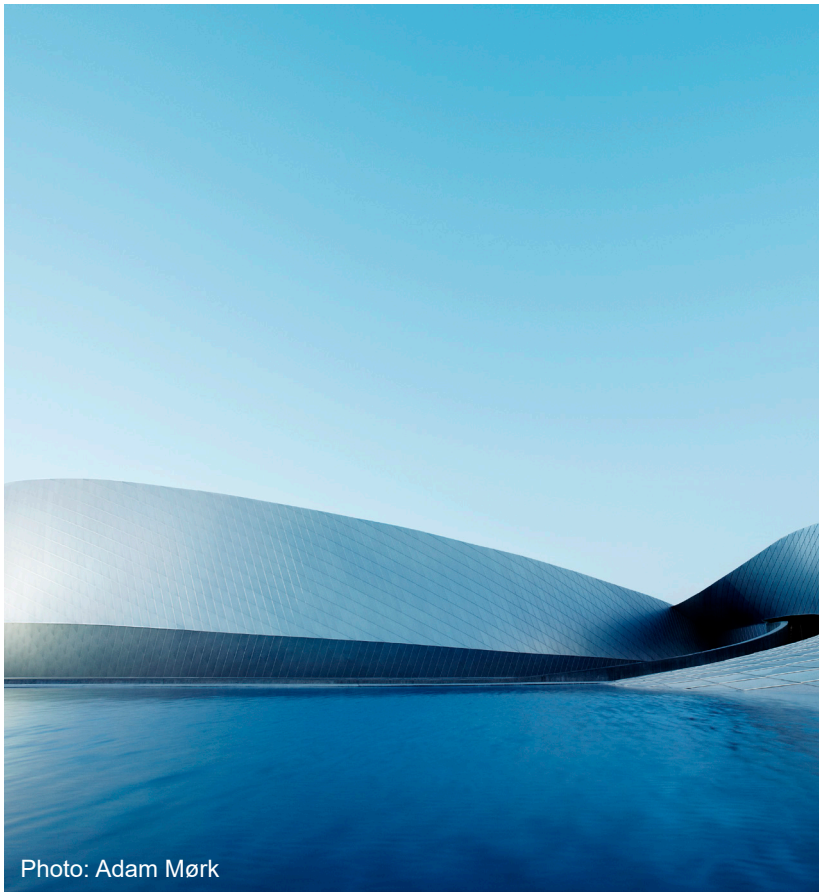
The building industry affects the oceans through transport of building materials at sea, while existing settlements and cities discharge wastewater and other waste to the oceans. To help preserve life under water, we must reduce transport of building materials and components over long distances by sea through the development of local industries and production facilities. Furthermore, we must abolish plastic wrapping of materials and components to reduce the sources of non-degradable waste that ends up in the oceans.

Landscape design and urban planning must ensure that pollutants like pesticides, nitrogen and human waste are handled on site and do not reach the groundwater or the oceans. This means that sewer systems, overflow basins and wastewater treatment facilities are central parts of the built environment's relationship to the oceans. Through architecture, planning and design, we can develop solutions that reduce cost and add co-benefits to water-managing infrastructure. Furthermore, landscape design can ensure regenerative processes on polluted land close to the sea.

Caution must be exercised when buildings or settlements are placed on the coast or in fragile coastal ecosystems; on the other hand, architecturally significant and carefully placed research and learning facilities in fragile coastal ecosystems can generate new knowledge and help increase public awareness.

Photo: Adam Mørk

Origin/team
Dorte Mandrup Architects,
Steensen & Varming,
Anders Christensen,
Marianne Levinsen Landskab,
JAC studios + Jason Bruges & No Parking



Origin/team
Fisher Lighting
3XN / GXN
Plastix

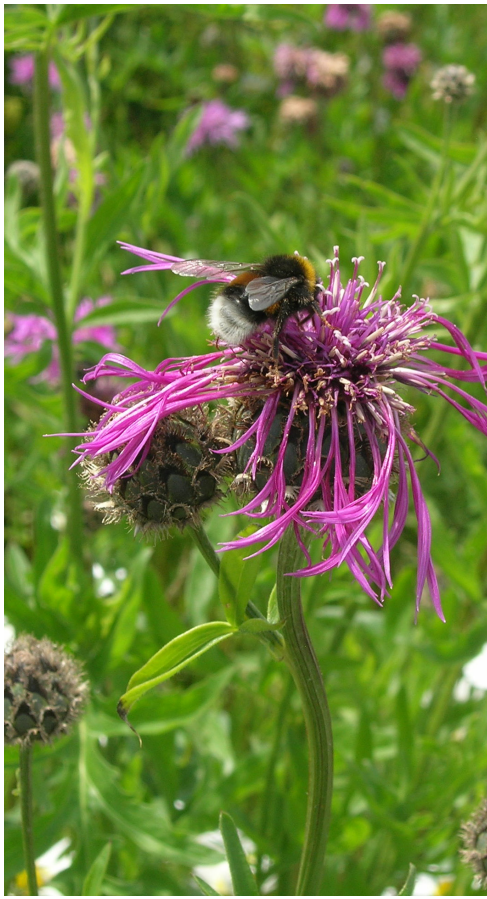
15 LIFE ON LAND

The amount of buildings, settlements and cities taking up land is rapidly growing.

Ecosystems and biodiversity are under intense pressure due to growing cities and settlements, farming, mining and the changing climate. To protect, restore and support ecosystems and biodiversity, buildings and settlements must include habitats for plants, insects and animals. This means that green-field developments should be kept to a minimum and that planning and development of all new settlements must ensure sustainable conditions for local ecosystems, flora and fauna. Nature networks that allow plant life should be developed in existing settlements and urban areas, so that insects and animals can co-exist with the built environment. Examples are found at all scales, from pocket parks and insect hotels to large-scale planning projects to establish nature networks in big cities.

Furthermore, the building industry can help promote sustainable forestry and combat deforestation by using wood only from sustainable sources and by generally using materials that are renewable and sustainably produced and which do not compromise biodiversity and natural habitats for flora and fauna. Local flora and fauna must form the basis of landscape design in buildings and settlements, including lawns and interior greenery, so that the plants will interact with and support local ecosystems. Finally, buildings placed carefully in vulnerable ecosystems or in wildlife-parks can add to their preservation through sustainable tourism and raised public awareness.

Photos: Torben Petersen & SLA Architects



Origin/team
SLA Architects,
Henning Larsen Architects,
Orbicon, Alectia,
Skælskør Anlægsgartnere, Urban Green

Parliaments, courthouses and public libraries are cornerstones in a just and peaceful society, while local community centers, places of worship and safehouses can represent citizens' commitment to an inclusive and compassionate society.

Architecture does not make an institution just, but the effort and values put into a building can represent society's commitment to justice, democracy and inclusiveness. Examples of this span from prestigious buildings for ministries or town halls to the establishment of UN emergency architecture in disaster zones.

To support society's expression of its values through buildings and public space, architecture and planning must ensure that public spaces and institutions are inclusive, welcoming, secure and non-discriminatory. As part of this, terror protection measures should be developed that are inclusive and inviting to citizens and users. The design of libraries, community centers, safehouses and places of worship must ensure safety, inclusiveness and affordability.

The building industry itself must pay close attention to procurement and construction processes in order to discourage theft, corruption, bribery and all other forms of organized crime. The building industry must also ensure that the extraction, production and handling of building materials do not rely on abuse, exploitation, human trafficking or child labour.


Photo: Adam Mørk

Origin/team
COBE, Rune Fjord Studio,
Kragh & Berglund,
Søren Jensen,
C.C. Bruun Enterprise,
Kemp & Lauritzen,
Juul & Nielsen,
Rambøll Arkitektur

17 PARTNERSHIPS FOR THE GOALS

Every city is built by many hands, and similarly we need to work together to reach the 17 sustainable development goals, as no single stakeholder can reach them alone.

The challenge of achieving the goals requires the involvement of all; from governments and institutional actors to researchers, businesses and citizens. Architects, designers and planners can contribute by sharing knowledge, promoting sustainable solutions and engage in collaboration with research and institutional partners, to develop and implement sustainable solutions. Examples span from non-profit partnerships to provide homes for the homeless to commercial partnerships to develop new sustainable products and services to the building industry. Key to the partnerships is a willingness to include new knowledge, test new practices, engage with local climate, culture and resources and work with end-users to ensure commitment and ownership in a life-cycle perspective.

Partnerships for the goals also include associations and networks of professionals who have committed to working for the goals. From the International Union of Architects (UIA) which brings together architectural associations from all over the world and represent architects in 124 countries to local study groups sharing know-how of green roofing systems. The challenges addressed by the goals are global; to achieve them we must work together across professional fields and national borders.

Photo: THIRD NATURE

Origin/team
THIRD NATURE, IBF and ACO Nordic,City of Copenhagen, Malmos A/S, Technological Institute, Orbicon, Kollision, Smith Innovation,Realdania,The Market Development Fund

MANI
FEST
STAF
ET

COPENHAGEN ARCHITECTURE FESTIVAL CAFE

UIA SDG Dhaka Declaration

Saturday April 13th 2019

Over the last few decades, tremendous progress has been made in improving the health, education, and well-being of people around the world. However, this development has been accompanied by environmental damage, climate change, and resource depletion, as well as social and cultural challenges. In 2015, the nations of the world came together and laid out the United Nations 17 Sustainable Development Goals to be achieved by 2030.

Architecture has an impact on each of the 17 Sustainable Development Goals, and architects can help the goals to be achieved. As architects, we have the responsibility to contribute to the built environment and make choices that change the world for the better—through better buildings, settlements, landscape architecture and urban planning.

We call on architects worldwide to take action in their own practice, and as civic leaders, to shape their work and their words to help achieve these goals:

1. **End poverty:** Architects can seek to build in ways that help to eradicate poverty, by designing low-cost housing and institutional spaces that are safe, healthy, and resilient.
2. **End hunger:** Architects can, through planning, landscape, and building design, protect ecosystems and preserve areas for food production.
3. **Good health and well-being:** Architects can design to reduce exposure to communicable diseases and pollution, provide daylight, good acoustics and air quality, and promote healthy levels of activity.
4. **Quality education:** Architects can design educational facilities that are affordable and inclusive.
5. **Gender equality:** Architects can help shape buildings, settlements and urban areas to include all persons, regardless of gender, and can work to promote gender equality in the design and construction industry.
6. **Clean water and sanitation:** Architects can design in ways to avoid water waste or excessive runoff, and to reduce the encroachment of saltwater on freshwater aquifers and bodies.
7. **Affordable and clean energy:** Architects can incorporate renewable energy production in buildings and settlements designed for low energy use by adapting to local geographic, climatic and cultural conditions.
8. **Decent work and economic growth:** Architects can specify building materials produced in safe and clean environments, and work to ensure fair and safe conditions in construction and demolition processes.
9. **Industry, innovation and infrastructure:** Architects can seek to use services, products and systems that pollute less, use less energy, produce less waste, and provide solutions that are safe, healthy and affordable.
10. **Reduced inequalities:** Architects can promote design and planning approaches that are socially responsible, inclusive, and accommodate the needs of all people.
11. **Sustainable cities and communities:** Architects can promote measures that help to make cities more inclusive, safer and more resilient, and adaptive to anticipated climate change, with special attention to vulnerable segments of society.
12. **Responsible consumption and production:** Architects can seek to design for durability and for sustainable life cycles in building components and materials, favoring renovation and the use of recycled materials.
13. **Climate change:** Architects can reduce climate-changing emissions associated with the construction and operation of the buildings, and make their designs adaptable to anticipated changes in climate.
14. **Life below water:** Architects can exercise special care for buildings and settlements in coastal regions and in fragile aquatic ecosystems, and ensure that runoff and construction waste does not lead to water pollution.
15. **Life on land:** Architects can promote urban development that minimizes sprawl, reduces threats to biodiverse habitats, and can integrate landscapes that provide habitat and connect with larger ecosystems.
16. **Peace, justice and strong institutions:** Architects can design in ways that embodies our higher values, can involve the public, promote inclusion, and advocate for honest governance in practice.
17. **Partnerships for the goals:** Architects can join with other professions, with civic institutions, and with fellow citizens, to advance the goals. Working together we can achieve a prosperous and sustainable future.

Ar. Ishtiaque Zahir Titas & Ar. Natalie Mossin
Co-chairs UIA Commission on the UN Sustainable Development Goals

Ar. Thomas Vonier
President,
International Union of Architects

Ar. Jalal Ahmed
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Ar. Rita Soh
President
Architects Regional Council Asia,
ARCASIA

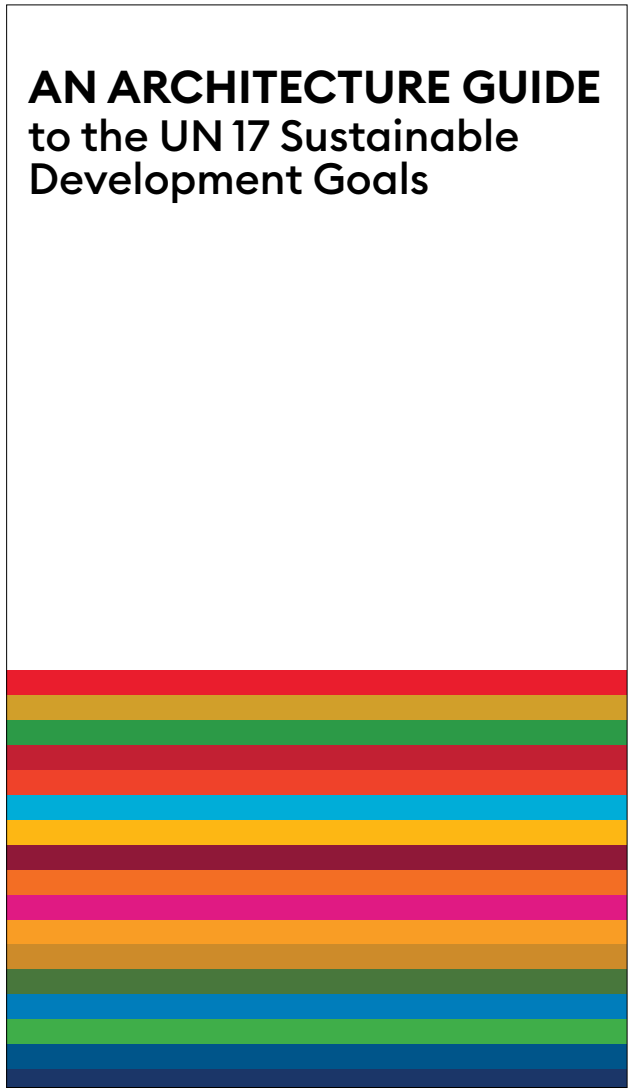
BYGGERIETS MATERIALEPYRAMIDE

Verdensmålsnetværket på KADK og NREP inviterer til i fyraftensarrangement
Dato: den 23. marts 2020
Tid: 15:00 - 17:00 hos NREP - Southamptongade 4, 2150 Nordhavn

Dagens samtale handler om behovet for en anden tilgang til byggeriets produktion, sammensætning og materialeanvendelse, hvis byggeriets CO2-udledning skal reduceres med 70% i 2030, som regeringen lægger op til.

Pelle Munch-Petersen (CINARK, KADK) og Gustaf Lilliehöök (NREP) kommer hver især med bud på hvordan fremtidens bæredygtige byggeri kommer til at tage sig ud.

Tilmelding: https://www.innobyg.dk/aktiviteter/events/fyraftensarrangement-i-netvaerksgruppen-fns-verdensmaal-i-byggeriet/



Thank you on behalf of the authors and editorial committee

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