

COMMUNICATION ON PROGRESS
2019-2021



UN GLOBAL COMPACT SUSTAINABILITY REPORT 2022



INDEX

Introduction

Statement of continued support	3
Global Compact at a glance	4
We are Nordic	6

Communication on progress

Our value framework and the ten principles	14
Progress on our 2020 goals	16
Strategic work on sustainability	20
examples from Health, Infrastructure & Urbanism	

Project examples	29
------------------	----

Our goals towards the next COP	46
--------------------------------	----



Nordic — Office of Architecture joined the UN Global Compact on the 9th of november 2016. This is our communication on progress on the implementation of the ten principles and the broader UN goals. It covers the two year period since our last report, with a grace period due to the Covid pandemic.

Our COP can be downloaded from the United Nations Global Compact website and our website:

www.unglobalcompact.org

www.nordicarch.com

We welcome feedback on its contents.

STATEMENT OF CONTINUED SUPPORT

To our stakeholders:

I am pleased to confirm that Nordic - Office of Architecture reaffirms its support of the Ten Principles of the United Nations Global Compact in the areas of Human Rights, Labour, Environment and Anti-Corruption.

In this annual Communication on Progress, we describe our actions to continually improve the integration of the Global Compact and its principles into our business strategy, culture and daily operations. We also commit to sharing this information with our stakeholders using our primary channels of communication.

As one of Norway's largest architectural practices and with international departments and projects, we feel a big responsibility in setting a standard for our business and in delivering on our ethical and sustainable ambitions in our project, towards our staff, our clients and society.

Our policy "We are committed." is founded in our office culture and includes our commitment to the UN Global Compact principles and our strive to always improve through a culture of transparency, democracy and quality management.

The global construction industry has a huge impact on people's lives, the environment and the shaping of our future communities. We welcome the opportunity to contribute to a more sustainable tomorrow and to share our ongoing progress.


Our business portfolio has a large proportion of complex projects like airports and hospitals - facilities that have large numbers of users and huge impacts both in their lifespan as buildings, as functions in a local and global community, and as physical frames for individuals in potentially pressed life situations.

The potential for disseminating best practice through such projects is substantial and of our highest priorities, and we are proud of our achievements and the feedback we receive.

Nordic - Office of Architecture wishes to express our continued support for the UN Global Compact and hereby renew our ongoing commitment to the initiative.

Oslo, 07.04.2022

Yours sincerely,



CEO of Nordic - Office of Architecture

Global Compact at a glance

The United Nations Global Compact is a call to companies everywhere to align their operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anticorruption, and to take action in support of UN goals and issues embodied in the Sustainable Development Goals.

The UN Global Compact is a leadership platform for the development, implementation and disclosure of responsible corporate practices. Launched in the year 2000, it is the largest corporate sustainability initiative in the world, with currently more than 19,500 companies based in over 160 countries, and more than 70 Local Networks. In Norway there are currently 360 member companies.

The foundation of the work is built up of 4 main areas with ten principles. Since 2015 and the Paris agreement, 17 Sustainable Development Goals have provided a framework for addressing the challenges that humanity faces. A total of 169 specific targets and corresponding indicators behind the goals allow some progress quantification and predictions about delivering results by 2030.

Every year the UN GC publishes a report on issues of special concern, highlighting associated business opportunities. In addition, several tools, reports on individual goals and published COPs from participants offer a framework on which companies can further improve their efforts.

THE 17 SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY 	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL-BEING 	4 QUALITY EDUCATION 	5 GENDER EQUALITY 	6 CLEAN WATER AND SANITATION 
End poverty in all its forms everywhere	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	Ensure healthy lives and promote well-being for all at all ages	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Achieve gender equality and empower all women and girls	Ensure availability and sustainable management of water and sanitation for all
7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	10 REDUCED INEQUALITIES 	11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 
Ensure access to affordable, reliable, sustainable and modern energy for all	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Reduce inequality within and among countries	Make cities and human settlements inclusive, safe, resilient and sustainable	Ensure sustainable consumption and production patterns
13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND 	16 PEACE, JUSTICE AND STRONG INSTITUTIONS 	17 PARTNERSHIPS FOR THE GOALS 	
Take urgent action to combat climate change and its impacts*	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	Strengthen the means of implementation and revitalize the global partnership for sustainable development	

The ten principles:



ANTI-CORRUPTION

1: Businesses should work against corruption in all its forms, including extortion and bribery.



LABOUR

2: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.

3: The elimination of all forms of forced and compulsory labour.

4: The effective abolition of child labour.

5: The elimination of discrimination in respect of employment and occupation.



HUMAN RIGHTS

6: Businesses should support and respect the protection of internationally proclaimed human rights.

7: Make sure that they are not complicit in human rights abuses



ENVIRONMENT

8: Businesses should support a precautionary approach to environmental challenges.

9: Undertake initiatives to promote greater environmental responsibility.

10: Encourage the development and diffusion of environmentally friendly technologies.

We are Nordic

We shapes cities, spaces and buildings, taking complete responsibility for projects with extreme complexity and high demands on logistics and efficiency.

Nordic is a growing practice based in Oslo, with offices in Copenhagen and Reykjavik. We employ more than 250 individuals from over 30 different countries, and all of us are united by a desire to create exceptional architecture, answering and anticipating both the needs of the client and those of society of today and the future. It is rational, functional and beautiful.

COMPANY HISTORY

Nordic — Office of Architecture was established in 1979 under the name of Narud Stokke Wiig (NSW). Nordic emerged in 1992, when NSW was split into two separate companies, and was renamed in 2012. Our Copenhagen and London offices opened in 2013 and 2015.

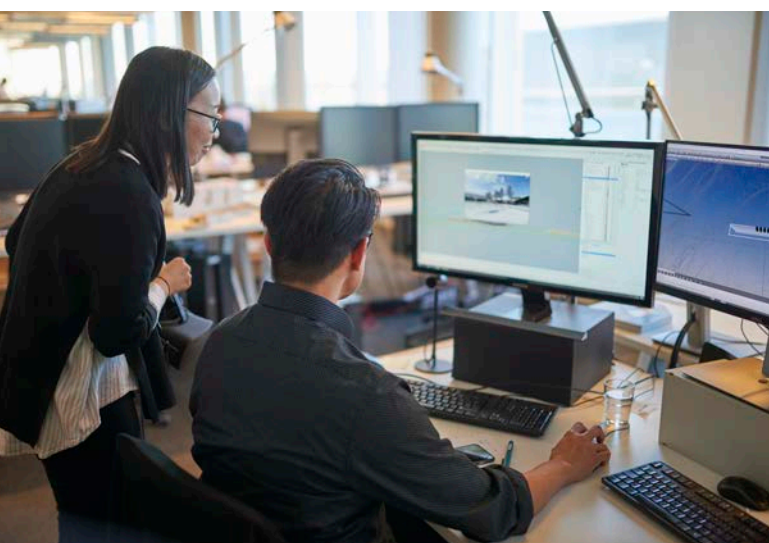
In 2018, Norconsult became Nordic's majority shareholder. Norconsult is Norway's largest and one of the leading multidisciplinary consultancy firms in the Nordic region. In 2022 Nordic merged with Kristin Jarmund Arkitekter.



Our method

Nordic believes in an integrated and highly collaborative approach to all projects. This involves early input from clients, all involved disciplines and stakeholders.

The Nordic Method has been developed in-house and is based on 30 years of project delivery experience. It is implemented on every project and is a framework that allows team members to share ideas, be innovative and deliver new solutions. Every project is diverse in character and each has its specific demands and constraints. Site conditions, budget, program, culture and politics may seem to represent insurmountable restrictions, but for Nordic these challenges are catalysts for new and innovative solutions.



250+ EMPLOYEES

OFFICES IN 3 COUNTRIES

30+ NATIONALITIES

Our vision

POWERED BY COMMITMENT

We are Nordic, a community that have created a culture for beautiful and outstanding architecture – a culture Powered by Commitment.

> COMMITTED TO SOCIETY

We are committed to creating the society of tomorrow through architecture that makes a difference. From the grandest airport to a humble cabin; with the end user in focus, we design buildings & structures that are lasting and beautiful.

> COMMITTED TO OUR CLIENTS

We are committed to our clients; to always give our best advice, to provide the best solutions, in short – total dedication.

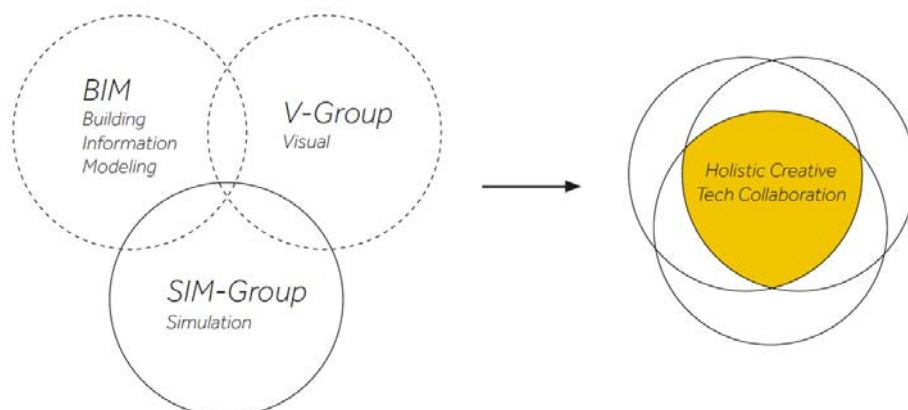
> COMMITTED TO OUR EMPLOYEES

We are committed to give all our employees the best possible opportunities to develop as creative and skillful individuals.



Great projects start with a great concept. And great concepts need to be implemented with comprehensive knowledge and technical precision. Nordic — Office of Architecture established the Simulation Group (SIM Group) to examine all relevant technology aspects related to urban design and architectural development.

The SIM Group consists of a highly dedicated team of architects with expertise in simulation, coding, sustainability and technology. Together with our well-established BIM and Visualisation Groups, they bring a new layer of expertise and precision to our projects that contribute to improved design processes and better cities and buildings for the benefit of the environment, society, and our clients.



Our field of work

HEALTH



INFRASTRUCTURE



HOUSING



LEARNING



CULTURE



AREA PLANNING



WORKING



LEISURE



Aiming to improve

SECURING QUALITY THROUGHOUT NORDIC

Nordic is one of the largest architectural practices in Norway, with several branches and subdivisions. With a wide range of projects, from small scale to extra large, and with a big variety in complexity, it is crucial to have a common quality control system that is robust and flexible enough to cover the whole range of our work. In the reporting period we have started to align our quality systems with our main share holder Norconsult, benefiting from the systematic work of one of Scandinavia's largest consulting companies. We believe this prepares us for the challenges we want to take on in the future and for securing best practice quality throughout our organisation and our work.

KEEPING ON TOP OF OUR GAME

We depend on our expertise and supplying the knowledge and solutions of tomorrow to our projects and clients. Keeping at the forefront of architectural practice and promoting innovation is key to delivering provident solutions in long term, complex projects. To continue to achieve this, we work on all levels of our organisation to both increase our knowledge, share experience and best practice, and to promote creativity and innovation. Setting aside time to discuss important topics face to face across the organisation has proven a success. Using our online portal for everyday updates on what is going on in projects and across the company is an important information channel. Securing each individual a career plan and allocated time to pursue new knowledge is vital. We host the Nordic talks, where we regularly have lectures on relevant topics.



1PM – 4PM followed by networking & drinks
Nordic – Office of Architecture / Kongens gate 21, 0153 Oslo

REGISTER FOR THIS FREE EVENT



Topi Paananen /
Peikko
New challenges require
new solutions



Joe Lashett / Nordic
The evolution and growth of
Alpskamen Metro Station



Kåre Stokholm
Poulsen & GUN
First steps towards an adaptive
reuse playbook: Lessons from
Sjølmyr and London



Kristoffer Moe Bakke
/ KIMA Arkitektur
Redesign and Reuse



Thor-Oskar
Røed / Norconsult
Re-use of existing facilities



Erlend Selvik /
FutureBuilt
Circular Buildings – KAZ,
KAZ2 and beyond



Hilde Haugen Kalløvig
/ Hydro
Use of recycled aluminium
in buildings



Werner Jäger / Hydro
Design Building Skin
Challenges

Sponsored by



SHARING TO IMPROVE

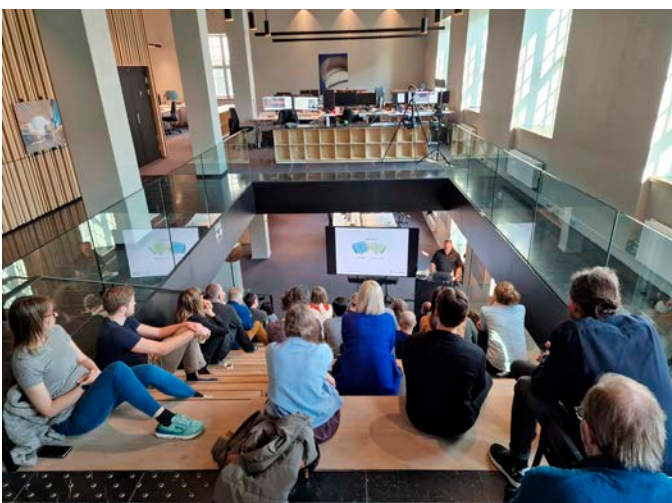
We are proud of sharing the achievements in our projects with the public and with the building sector. We only improve by continuously raising the bar, and opening up for discussion and critique is a means towards innovation. Our work is part of the public realm, and we owe it to society to aim for the best we can achieve. We present our projects and our work in a wide range of media and forums, both professional arenas and of general public interest.

CHALLENGING AMBITIONS

Our experience and expertise form a fundament for advising our clients and partners on their possibilities and emerging trends. We are keen on taking on tasks that bring the architecture business further towards a more sustainable society.

TEAMING UP TO EXPAND OUR SCOPE

Architecture is a profession that increasingly overlaps with a range of adjacent disciplines and with growing complexity. We continue to partner up with companies and persons that expand our understanding, knowledge and methodology, fuelling the creativity and innovation necessary for delivering cutting edge solutions in our projects.



Moving house and a pandemic

A short while after our last communication on progress, Nordic moved house from our offices in Majorstuen to the listed building Telegrafren in the middle of the city centre. The building has been carefully refurbished in collaboration with the heritage authorities. It has also achieved a BREEAM Very Good certificate for its sustainable qualities. From an urban aspect the refurbishment has opened the introvert facades on street level to offer a range of restaurants, bars and shops to the public, activating a part of the city that was in need of more street level functions and users of the area.

Located on the third and fourth floors of the historical Telegrafren (The Telegraph building), Nordic's new head office in Oslo is a flexible and future-proof work environment that creates enthusiasm amongst employees.



The move has enabled us to sit closer together on two well connected floors and given us modern and well suited accommodation for our creative work, with a carefully designed interior to offer us the facilities needed for our different work operations.

Combining modern details with the original character of the building has not only enhanced the structure, but also elevated the ways of working.





The design scheme was inspired by the local and contextual history as well as the duality between old and new. Marble tiles are extensively used throughout the project, integrating with the material palette of the original building. The lighting, colour palette and furnishings have all been chosen to accentuate the original space in a respectful and sustainable manner.

Throughout our office, much of the area was dedicated to common spaces. Our two storeys are connected by a multipurpose internal staircase, used as an amphitheatre for large meetings and events or for informal get-togethers. At the top of the stair is our public zone, equipped with a variety of seating options and direct adjacency to the kitchen. The zone is designed to encourage spontaneous encounters, impromptu meetings and informal collaboration. To compensate for all these wonderful ways of connecting, the space also offers multiple solutions for privacy, which enables for focused work and rest.

For an architect's office, the integrity and detailing are highly valued and with this space, Nordic has both a good working environment for employees and a clear sense of quality for its visitors.

Just after moving, the pandemic hit hard and almost all staff was confined to home offices. This had of course a lot of negative sides, but also some positive learning points. One was the impact of online meetings and widespread learning of new software that enabled collaboration across large distances. We already see that this has affected the volume of work-related travel significantly. The other is the flexibility that home office has offered, where a majority of staff now has the option to do tasks from home where this is preferable.

The focus after restrictions have been lifted has been on facilitating a good return for staff to the office, with professional and social events in our office common spaces and outside the office.



COMMUNICATION ON PROGRESS

Our value framework and the ten principles

ANTI-CORRUPTION

- 1** Businesses should work against corruption in all its forms, including extortion and bribery.



OUR FRAMEWORK AND STATUS

Nordic has zero tolerance for corruption. We always advise our clients without self-interest or third party advantage. We are open about everything we do, both in our work and in relation to our clients and partners. After an initiative from staff, we have started a more transparent line with reports to staff on office finances.

LABOUR

- 2** Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.



Nordic supports the right to association. Rights and benefits are the same for all staff, and openly available on our intranet. Staff appoints a union representative that is freely available to staff as support and mediator in issues or conflicts with the management. Staff is represented on our office board. In the report period the salary system changed from a 15 year ladder to individual salary adjustments based on salary development figures from Arkitektbedriftene and the union Afag. This is meant to address discrepancies that had developed over time and to address the office need to attract particular skills.

- 3** The elimination of all forms of forced and compulsory labour.



Nordic fulfils all its responsibilities on health and safety according to national legislation in our office locations. Specified work hours and corresponding regulations are according to The Norwegian Labour Inspection Authority. The office promotes regular work hours and avoiding overtime.

- 4** The effective abolition of child labour.



Nordic has zero tolerance for child labour. Through increasing use of building certification systems like BREEAM, we gain knowledge of how to specify building materials with certification on origin, ensuring ethical and sustainable production, including abolition of child labour.

- 5** The elimination of discrimination in respect of employment and occupation.



Nordic has zero tolerance for discrimination. The well-being and prosperity of our staff is a core value, and our staff diversity greatly contributes to inspiring our office culture and our projects. We actively work to support the careers of minorities and women to disseminate diversity to all levels of our organisation. We measure salary levels to ensure we offer equal salaries regardless of gender.

HUMAN RIGHTS

- 6** Businesses should support and respect the protection of internationally proclaimed human rights.
- 7** Make sure that they are not complicit in human rights abuses



OUR FRAMEWORK AND STATUS

Nordic is committed to the protection of human rights. We strive to improve our policies, procedures and project development to strengthen the position of human rights within our sphere of influence.



Nordic fulfils all its responsibilities on health and safety according to national legislation in our office locations. Through our work we shall contribute to building a better society in every country where we are engaged, including promoting human rights. In the reporting period we have undertaken our first quick check Human Rights Impact Assessment to target areas of improvement.

ENVIRONMENT

- 8** Businesses should support a precautionary approach to environmental challenges.
- 9** Undertake initiatives to promote greater environmental responsibility.
- 10** Encourage the development and diffusion of environmentally friendly technologies.



Nordic recognizes the threat posed by climate change to our planet, and supports the targets of the Paris agreement on reducing climate gas emissions. We are in progress of setting out office emission targets and the supporting systems to reach these goals. We continue to pursue prudent solutions for our business and our projects.



We have implemented a sustainability framework as part of our office project methodology. We have an expert group on sustainability issues available to all projects. They are involved in the continuous improvement of our practice and in disseminating knowledge across our organisation.



Nordic counsel projects and clients on the design- and business opportunities of sustainable solutions in their projects. We work on disseminating knowledge on sustainable design throughout the organisation. We are open to the opportunities offered by new environmentally friendly technology and encourage innovation and implementation in our projects and organisation where possible.

Progress on our 2020 goals

Our goals for the coming COP-period evolves from the 2017 office-wide process of establishing a clear vision and value framework for the years to come. Through analysing our current standing and our potential within all the ten principles, we have established eight main goals. In addition, we have elaborated these goals with secondary goals, to give a clearer scope of the tasks we hope to complete within the coming report period. The goals have been reviewed by the office management, and our staff has been invited to contribute. We renewed the goals in 2020 and find that they so far stand the test of time.

ANTI-CORRUPTION

We want to strengthen our efforts against corruption and bribery in every form.

INHOUSE

- Improve our contractual framework to include values on zero tolerance on corruption in all our line of business.
 - Establish guidelines for staff suspecting irregularities, to make it easier to take action.
- We have established a routine for third party background check of subcontractors from countries with high corruption risk.

IN OUR PROJECTS AND SPHERE OF INFLUENCE

- Promote the GC principles and our ethical standards. Clearly communicate our line of no tolerance for corruption.
- Establish efficient means of corruption risk assessment in our projects, including corresponding measures, and make generally available and present to relevant staff.

LABOUR

We want our HSE-systems to represent best practice in our line of business.

INHOUSE

- Further develop our work on HSE, including clarifying and expanding our documentation routines, ensuring optimal working conditions for staff and establishing grievance guidelines in cases regarding HSE-matters.
- We appoint our employees' representatives and safety representative at any change / alterations in our working environment. The representatives are freely available for staff in cases of grievances.

- Look into supporting further aspects of diversity, for instance evaluating our integration of staff with health challenges or recruiting trainees with a challenged background.

IN OUR PROJECTS AND SPHERE OF INFLUENCE

- Ensure that national legislative standards are being met by our partners and subcontractors.
- Develop guidelines on responsible specification in design. Educate more, both inhouse and in our projects.

HUMAN RIGHTS

We want our office routines to reflect that the rights, safety and well-being of our staff is a core value.

INHOUSE

- Establish guidelines for staff suspecting irregularities, to make it easier to take action.

We have established grievance routines on our common information platform in accordance with recommended guidelines.

- Continue our Human Rights Impact Assessment work with annual revisions of our standings, looking into ways to improve our framework and our concrete impact.

Several of our actions regarding human rights stem from potential for improvement from the last impact assessment.

- Closer collaboration with workers' representatives on verification of office policies and routines.

We have intensified communication between employees' representatives and management, through regular meetings, continuously following up issues on office routines and policies.

- Complete work on procedures for personal information, according to the EU GDPR directive.

We have secured personal information according to GDPR directive, by several means:

- Restricted access to IT-server and folder structures
- Encrypting mail containing personal information
- Deleting all personal information at end of employments

- Clarify and expand policies on anti-discrimination, harassment and cultural sensitivity. Appoint responsible staff where relevant and identify need for training. Establish grievance guidelines to make it easier to take action.

We have established grievance routines on our common information platform in accordance with recommended guidelines.

We want to promote and secure the human rights in our line of work and sphere of influence, and support human rights-initiatives both through donations and active participation.

INHOUSE

- Develop guidelines on promoting the human rights to partner companies and clients, particularly in the international projects. Involve project teams from our international projects on experiences and potential learning from former and current tasks.

- Establish long term support and engagement in charitable organizations or -initiatives that offer humanitarian aid beyond our direct line of work.

IN OUR PROJECTS AND SPHERE OF INFLUENCE

- Establish procedures and contractual framework for securing human rights in our supply chains, both in our direct project development and through our associated suppliers.

- Establish routines for early identification of local and indigenous land use-interests, and facilitate consulting processes that seek to safeguard their needs.

ENVIRONMENT

We want to continuously strengthen and disseminate state of the art knowledge and methodology in our organization and our area of influence.

INHOUSE

- Continue to train staff in best practice sustainable project development for different phases and programs. Further disseminate inhouse knowledge and hands-on methodology to staff through the departments, the office sustainability group and our internal web. Increase presence and availability of inhouse expertise, and promote more discussion and reflection on both inhouse and project quality improvement.

During the reporting period a number of staff across Nordic received training in the BREEAM and DGNB sustainability certification systems through the individually allocated training funds.

- Strengthen the effort to implement high environmental standards through improving methodology, access to knowledge and support in the projects.

The SIM-group was developed in 2021 as support to the projects on different simulation topics like energy, daylight, wind, LCA. The board has decided that all new projects from 2022 shall undergo LCA-simulation to monitor emission impacts.

- Monitor and improve our office environmental profile, and seek to further reduce waste, energy use, unnecessary travel and other resource consumption. Improve indoor climate, sustainable mobility options and choose sustainable options where possible.

We have reduced our travel activity thorough increased use of Teams meeting interaction.

We have introduced waste sorting in our office, contributing to waste recycling. We have moved into a BREEAM Very Good office building. The board has decided to certify the premises as a Sustainable Lighthouse.

Our new office is located with high access to public transport, with safe bicycle parking and associated facilities. There is no available parking in the building.

IN OUR PROJECTS AND SPHERE OF INFLUENCE

- Contribute with our knowledge on sustainability externally by actively engaging in the public debate, and sharing data and experience through events like public lectures, exhibitions and conferences.

We have hosted a number of events inhouse and publicly covering different aspects of sustainability. Most have also been live-stream and recorded to further disseminate to people that couldn't be physically present.

- Update our website project section with more comprehensive information on sustainable features.

We have introduced a field on sustainable issues in our project database, starting to collect project info across all departments.



We want to raise the bar in the building industry, by challenging ambitions, multi-disciplinary collaboration, and pursuing innovative solutions.

INHOUSE

- Improve our contractual framework to always include optional services for securing best practice environmental standards. This can include BREEAM certification, plushouse design or other relevant frameworks or services.

- Pursue an innovative and sustainable approach to tasks at hand, for example through initiating early multi-disciplinary collaborations and research initiatives, or joining research programmes.

We have engaged in several research initiatives like Dare2c, the Building knot 2.0, Green platform and more.

- Spark the commitment of our staff and increase possibilities to engage and influence the office sustainable agenda.

IN OUR PROJECTS AND SPHERE OF INFLUENCE

- Support project leaders in the client dialogue on establishing the sustainable profile, and securing it through all project phases.

The office has trained staff that offer project support on early stage development of sustainability profile.

- Promote principles for enabling communities and challenged individuals reach both social and economical prosperity. Influence our clients to take greater responsibility in these respects in the construction phase of building projects. Promoting trainee or internship programmes for challenged groups or communities can be one response.



Strategic work on sustainability

MAIN GOAL:

ZERO EMISSIONS BY 2040

Shortly after our previous COP-report, the covid pandemic shook the world. In our company about ten percent of staff had to be temporarily laid off. In light of this, all non-billable work was put on hold to enable as quick a return of all staff as possible. This included the work on implementing our global compact goals in our line of work and our organisation. When we were able to resume our work, the first task was to revise our strategy and review it together with our board.

The main change in our strategy was to lift the need to cut climate emissions on top of the agenda for environmental sustainability, as this is the main challenge for humanity today.

The board decided to go forward with certifying Nordic as an Eco Lighthouse, in line with the policy of our major shareholder. This requires systematic work and reporting on the running of our office and our projects and is planned for the first half of 2022.

IDENTIFIED DESIGN PRINCIPLES:

circular principles and transformation

context related design

tracking climate gas emission

ACTION:

- Always consider and design reuse of buildings and materials
- Include information on re-use in BIM/modelling
- Create lasting buildings and communities by designing for flexibility
- Early mapping and analysis of local resources, qualities and challenges
- Integrate relevant knowledge in concept- and project development
- Include information on resource use and certified products in BIM/modelling
- Early definition of project sustainability goals, particularly relating to emissions
- Use emission simulation software actively from concept phase to finished building. Measure progress vs goals at every project milestone.

REPORTING FRAMEWORK:

- Share emission figures from our project portfolio
- Report emission figures and relevant indicators emerging from the running of our office



GC Communication On Progress



Eco Lighthouse reporting

We have also identified three corporate projects to adress the main issues and targets we have identified. This helps to make the work ahead concrete, with clear objectives to deliver on.

Another important board decision was to appoint the head of technology development as head of sustainability, representing the issue on the board.

CORPORATE PROJECTS TOWARDS MAIN GOAL:



1. Revising the Nordic design method

2. Available knowledge and tools

3. Marketing, contracts and templates

Our office is organized in groups based on different fields of work - like housing, planning, health facilities etc. Some of the groups have frameworks that benefit from narrowing and adapting our goals to their context of project development.

On the following pages, we present three of our groups - HEALTH, INFRASTRUCTURE and URBANISM - and how they work with sustainability within their group to improve their knowledge and projects and disseminate their work.

The Health projects group

OUR GOALS

DESIGN FOR FLEXIBILITY AND SYSTEM EFFICIENCY

1. Allowing for space optimization (flexible solutions)
2. Aiming for prefabrication of components and off-site construction
3. Optimizing the design for buildability and system efficiency

IMPORTANCE

1. Flexible solutions help create buildings that last by minimizing waste and facilitating reuse
2. Off/site fabrication allows for faster, safer and more environmentally friendly building construction
3. Designing for buildability from the outset of the project can minimise the need for re/design at later stages

CREATE STATE OF THE ART HEALING ARCHITECTURE

1. Design for excellent indoor daylight and climate
2. Design for mentally and physically challenged users

IMPORTANCE

1. Designing from the inside out puts the needs of patients, staff and users over mere aesthetics.
2. Inclusive design bears in mind that we all might be vulnerable at some points in our life

AIM FOR THE HIGHEST ENVIRONMENTAL STANDARDS

1. BREEAM, PLUSS/HUS, CARBON ZERO, Passivhus
2. Material re-use
3. LCC and LCA

IMPORTANCE

1. Reduce emissions and securing high quality buildings and environments for the end users of the projects
2. To minimise waste and facilitate reuse
3. Looking at lifecycle versus building costs and emissions can help to show that the more sustainable solutions often also are the most cost efficient choices in the long run and secure the project ambitions

AMBITIONS FOR THE NEXT PERIOD

Closer collaboration with the SIM group and internally in the group on simulation of qualities such as daylight

Focus on team education on sustainability relevant to the group, including project management for BREEAM.

Actively recommend BREEAM, DGNB or other appropriate systems for systematic documentation of sustainable features to the clients.

Work with LCC and LCA in the new projects from early phase and in studies of major individual elements.

Location discussions of large hospitals are very relevant, and we hope to engage in this where we can.

We hope to implement high standards on the new project Midtbygda nursing home, where the client has big ambitions.

ACHIEVEMENTS IN THE REPORTING PERIOD

FOCUS IN OUR PROJECTS

For projects like **Øya mental health unit**, **Stavanger University Hospital stage 2** and **Ahus cancer unit**, the focus was on early phase area reduction, including reducing unnecessary area, making flexible and shared spaces where feasible. For Øya the team looks into connect uni- and clinic-functions for sharing solutions and reducing square meters. Another important aspect for health facilities is to differentiate areas according to complexity and weight, meaning that rooms with light constructions and low ceiling height are organized together to reduce material use and built volume to service. Areas are also organized based on operational hours, reducing the servicing hours and need for staffing in day function-areas.

Both psychiatric centers Øya and Carpe Diem has focus on green qualities as a health-promoting factor. They both sport generous garden and outdoor space with high biodiversity. For the hospital in Førde, daylight design throughout the building has been in focus

Open House Worldwide is a festival of live tours exploring extraordinary housing across the globe and our project **Carpe Diem dementia village** has been selected at Norway's contribution to the programme. The project is designed with Passivehouse standard, is BREEAM certified and has proven a 35 % climate gas emission reduction compared to the reference level.

Stavanger University Hospital started out using BREEAM as a guide for developing the environmental profile, but chose not to certify due to phasing complexity. The focus on sustainability has nevertheless given many important lessons. As a very large hospital building, the volume of concrete is high, but all is of low-emission quality. The facades are constructed with passive house standard, giving a significant reduction in energy use. The project uses a high amount of locally sourced geothermal energy in addition to extensive heat recovery from ventilation and water. Large surface parking areas is prohibited, and cars are referred to above ground parking houses. It also hosts Stavangers largest bicycle parking lot. The roof is sedum-covered to delay rainwater. Two innovative features have been developed. The first is the element bathrooms that have been developed in stead of module bathrooms. The use of elements enable changes to design during the operation period, and can be reused element by element in this or other projects, as an important element for circular hospital design and area flexibility. The bathrooms as always are delivered at the start of the construction. With flat packed element units in stead of complete modules, this avoids unnecessary clearing large greenfield building site areas. The second innovative feature is the on site production of concrete elements like square columns and escape stairways. This reduces transport emissions equalling the weight share of water in the concrete, giving significant CO₂-reductions. All masses are locally handled during construction to avoid unnecessary transport.

The **Åsane nursing home** will be certified BREEAM NOR Very good as a minimum, and possibly Excellent. It comprises solid wood constructions and wooden facades.



Stavanger University Hospital



Sensory space St.Olavs mental health unit



Ahus mental health unit

The Infrastructure projects group

Summary of the report period

The years between 2020-2022 has been dominated by a major setback for the aviation industry. The pandemic has brought global restrictions for air traffic. The majority of airlines were disabled, airports got closed down, or kept open with the absolute minimum of service, with drastic rounds of cost saving routines and subsidizing aids to be able to survive.

Measures are adopted, not only in ensuring that the sector survives, but also in determining the direction towards more sustainability. The pandemic break has been offering the opportunity to combine measures which support the sector, with measures which can reduce its climate impact in line with the EU's objectives of net zero emissions by 2050. A recovery has begun this year and the demand for global air traffic is projected to improve over the course of 2022.

Credible growth assumptions are important criteria for a more sustainable aviation sector. Efforts towards decarbonizing the aviation industry need to be continued and accelerated.

Knowledge sharing and training

Aviation and Infrastructure sector holds monthly inhouse gatherings for project presentations and information sharing called Infra talks.

Out of house, our projects are represented in media, lectures, and public arrangements, like the recent ADAPTIVE REUSE event, presenting the Majorstuen Underground Station.

Courses and certifications of team members:

BREEAM NOR AP: Yang Zhang (2022)

BREEAM International Assessor: Lavinia Andreea Marcu (2020)

DGNB Consultant: Imola Kinga (2021)

Healthy Materials Lab / Parsons School of Design NYC: Lavinia Andreea Marcu (2021)

Nordic Office of Architecture has been commissioned for substantial national and international aviation and infrastructure projects in the past two years. We believe that sustainability must be integrated holistically and in all levels of our design. Documentation of the achievements are registered in our inhouse database, Open Asset. The Paris Agreement aim to limit global temperature rise to max. 1,5 degree Celsius. Our office is committed to this and acting accordingly.

We integrate sustainable practices and measures in our aviation and infrastructure projects, aligned with the clients' wishes and the project's scopes. International standards and local building regulations are being followed and challenged if possible, with further improvements.



1PM - 4PM followed by networking & drinks
Nordic — Office of Architecture / Kongens gate 21, 0153 Oslo

REGISTER FOR THIS FREE EVENT



Topi Paananen /
Peikko
New challenges require
new solutions



Joe Lashett / Nordic
The evolution and growth of
Majorstuen Metro Station



Kåre Stokholm
Poulsen / GXN
First steps towards an adaptive
reuse playbook: Lessons from
Sydney and London



Kristoffer Moe Bakula
/ KMA Arkitektur
Rediscover and Recuse



Thor-Oskar
Retander / Norconsult
Renovit of existing facilities



Erlend Seliskjær /
FutureBuilt
Circular Buildings - K&L
K&L3 and beyond



Hilde Haugen Kallevig
/ Hydro
Use of recycled aluminium
in buildings



Werner Jäger / Hydro
Design Building Gain
Challenged

Sponsored by



Goals of the Infrastructure project group

The following UN Sustainable Development goals are especially relevant for aviation / infrastructure:

GOAL 7: AFFORDABLE AND CLEAN ENERGY

GOAL 9: INDUSTRY, INNOVATION, INFRASTRUCTURE



Infrastructure project examples, in response to the previously set Global Compact targets:

Keflavik Airport SLN21 extension

Geothermal energy, environmental studies / simulations. BREEAM Excellent, aim to score 70%+ with a total embodied carbon emissions below 350-400kg CO2/m2.

Majorstuen Underground Station

Ceequal rating. Adaptive reuse. Public transport improvement in the heart of Oslo, Norway.

Noida International Airport

The first net-zero energy rated airport in India, IGBC Platinum, IGBC Green New Building, IGBC Health & Well-being.

We believe to be able to make a difference in architecture and wish to have a positive influence on the environment and for society in general. Therefore, the continuity of our efforts can be categorized as:

- Implementing policies related to the environment,
- Tracking environmental impacts,
- Resource efficiency,
- Environmentally friendly technologies,
- LCA- and LCC-assessments,
- Reporting CO2 emissions and strategic data

Architecturally, we focus on the following key elements:

- Flexibility & adaptability,
- Functional efficiency,
- Compactness – minimizing the building`s footprint,
- Technological integration – interdisciplinary design,
- The intelligent building envelope - active systems,
- Fresh air supply, natural ventilation, climate control,
- Materiality

Airport Carbon Accreditation:

The following airports designed by Nordic Office of Architecture have achieved an Airport carbon Accreditation and are listed in the ACC annual report 2019-2021:

Level 2 Keflavik International Airport (renewal)

Level 3 Bergen Airport (renewal)

Level 3+ Oslo International Airport (renewal)

Level 3+ Stockholm International Airport Arlanda (renewal)

Level 3+ Trondheim Airport (renewal)



Delhi Noida International Airport



Majorstuen station (III. MDH architects)

The Urbanism group

Our field of work

The urbanism group does work in the field ranging from feasibility studies, masterplans and area zoning plans.

A range of our feasibility studies have been parallel commissions regarding transformations of smaller communities to tackle changes in demography, resilience to climate change, mobility adaptation, part of developing a sustainability strategy for a community and/or how to develop community centres in a context sensitive way. They are mainly ordered by municipalities and involve a relatively high level of consulting with the public and target groups.

We also work on masterplans for larger urban developments to form visions and strategies for developments prior to area zoning processes with the communities.

The latter are long term projects where all aspects of a site and its implications locally and in the larger picture needs to be documented, legal frameworks for development need to be drawn up and described, and consulting with different authorities, municipalities, neighbours and the public must be undertaken.



Training of team members and knowledge sharing

The whole group undertook BREEAM Communities Assessor training in the fall of 2021. This is the certification scheme for sustainable area planning. Two team members also undertook basic training in LCA-calculations during 2020-2021.

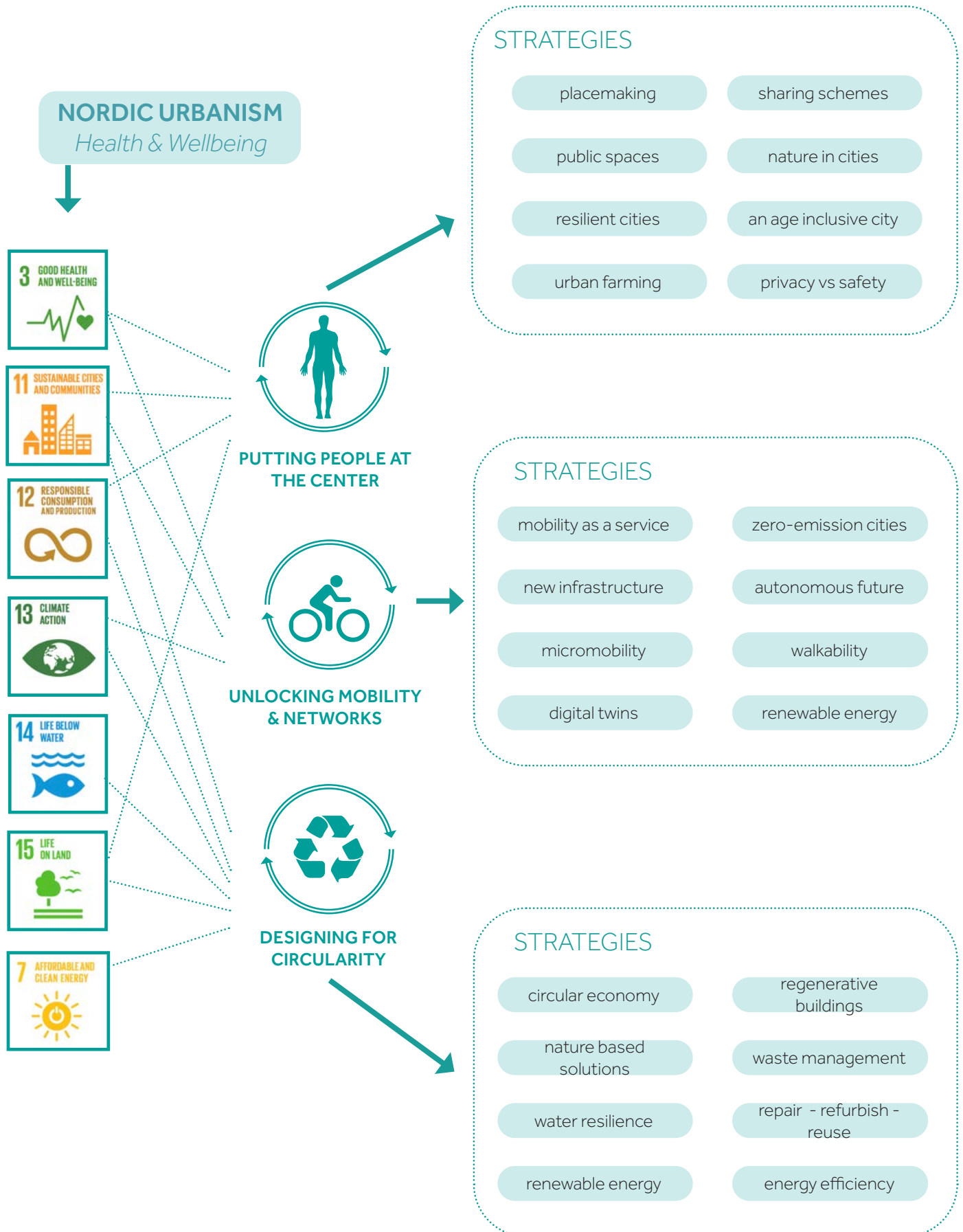
Members of the group has given lectures both inhouse and in open events.

Summary of the report period

During the report period, we have worked on a wide range of schemes primarily within Norway, but also on occasion internationally. We have been able to create proposals that we think reflect our three main strategies well and that have been well received by the clients and the public. We have undertaken training in systematic work on sustainability in planning, followed relevant online lectures and given lectures ourselves. But we hope the period after the pandemic will enable even more engagement in the public debate on urban development.

OUR APPROACH

To mitigate urban challenges we have to develop resilient solutions that approach every design with the health of both the user and the planet at the forefront of our minds. We have developed strategies to adress our main focus areas, and adapt them to each new context.



PROJECT EXAMPLES



»» *At Carpe Diem dementia village people with dementia are treated as residents rather than patients - the village is inviting and inclusive to staff, relatives and the local neighbourhood.*

Carpe Diem Dementia Village

SCOPE

Nursing home for persons suffering from dementia

ROLE

Architect

TIME

2016 - 2020

LOCATION

Dønski, Bærum, Norway

AREA

ca 18.000 m²

COST

735 mill NOK

CLIENT

Bærum kommune

VALUE

1,4 mill NOK

PARTNERS

HENT AS
Norconsult AS
Bjørbeek og Lindheim AS
Cadi AS

PROJECT DESCRIPTION

Carpe Diem Dementia Village was designed to feel like a recognisable home rather than an institution. Designed as a unified village, the residences, treatment center, and community center, have a natural border and an open dialogue with the surrounding area. The common house and administration area, together with the main entrance, form a square with an urban expression. The residences were designed to create a homely atmosphere in a typical small house environment, enhanced with gardens and squares. The two-to-three story buildings are broken up into smaller units for a pleasant village feel. Varied building heights and roof typologies adds to the friendly neighbourhood feeling. The overall design concept distinguishes between city and country. The square is surrounded by buildings of urban character and homes in green surroundings. This is emphasised externally in the choice of materials. The main material in all the facades is brick, which varies with two colour shades that give a bright and consistent impression. As a secondary material, untreated wood cladding and wooden arrows of ore pine

are used to create variety and give a homely character.

SUSTAINABILITY

Ecological sustainability:

Throughout the facility, there is extensive use of long-lasting, maintenance-free and robust materials in the facade and permanent fixtures, meeting the environmental requirements for the Nordic Ecolabel. The complex is certified as Passivhouse and after the project was completed, climate savings of more than 35% were documented.

Economic sustainability:

The project is build within a tight financial framework so that both investment, operating and maintenance costs are financially sustainable for the municipality. All buildings are connected with supply culverts that ensure the supply of goods to all housing units in an operational and cost-effective manner.



The new university hospital in Stavanger will contain all hospital functions. The design team put the patient and the staff at the center of all decisions along the way

Stavanger University Hospital

SCOPE

New regional hospital

ROLE

Architect, management

TIME

2015 - ongoing

LOCATION

Stavanger, Norway

AREA

227.000 m²

COST

10 mrd NOK BT1, 9,5 mrd BT2

CLIENT

Helse Stavanger

VALUE

300 mill NOK

PARTNERS

AART

COWI

SLA

PROJECT DESCRIPTION

The first stage of the development integrating services for all categories of patients covers approx. 100.000 m². Emergency ward, operation theatres, medical diagnostics, intensive care, maternity, support facilities and general wards are lining a central plaza on the main thoroughfare. The following stages will eventually cover all medical services. The infrastructure and support facilities will be designed with the complete development in mind.

SUSTAINABILITY

Stavanger University Hospital started out using BREEAM as a guide for developing the environmental profile, but chose not to certify due to phasing complexity. The focus on sustainability has nevertheless given many important lessons. As a very large hospital building, the volume of concrete is high, but all is of low-emission quality. The facades are constructed with passive house standard, giving a significant reduction in energy use. The project uses a high amount of locally sourced geothermal energy in addition to extensive heat

recovery from ventilation and water. Large surface parking areas is prohibited, and cars are referred to above ground parking houses. It also hosts Stavangers largest bicycle parking lot. The roof is sedum-covered to delay rainwater.

Two innovative features have been developed. The first is the element bathrooms that have been developed in stead of module bathrooms. The use of elements enable changes to design during the operation period, and can be reused element by element in this or other projects, as an important element for circular hospital design and area flexibility. The bathrooms as always are delivered at the start of the construction. With flat packed element units in stead of complete modules, this avoids unnecessary clearing large greenfield building site areas. The second innovative feature is the on site production of concrete elements like square columns and escape stairways. This reduces transport emissions equalling the weight share of water in the concrete, giving significant CO₂-reductions. All masses are locally handled during construction to avoid unnecessary transport.



» *The building consists of four volumes that are connected in a central building with optimal sun and view conditions. The volumes create sheltered outdoor spaces and become a natural part of the landscape and surroundings.*

Åsane Nursing Home

SCOPE

Nursing home for the elderly

ROLE

Architect

TIME

2018 - 2022

LOCATION

Bergen, Norway

AREA

10 600 m²

COST

370 MNOK

CLIENT

Bergen kommune

PARTNERS

Skanska
Norconsult
COWI and Skanska teknik

PROJECT DESCRIPTION

The design has been based on Bergen Municipality's ambitions to create a good nursing home with architectural qualities, which meet the requirements of the building program and the Housing Bank. Åsane nursing home consists of four volumes that are connected in a central building, the "heart zone".

Each volume contains a housing unit with ten residents per floor. Each accommodation unit is designed with optimal sun and view conditions in mind. This compact solution and conscious placement of volumes creates good and sheltered outdoor spaces with different functions and responds to the nursing home's need for short distances.

By giving the volumes different heights, we formed a project that steps down in accordance with the landscape. Our ambition is that the project from far will appear as many houses that rise and step down with the terrain.

The different colors of the volumes enhances this effect and contributes to the integration of the project as a natural part of the surroundings.

We want to give the facades a friendly look and a very low need for

maintenance. To emphasize that this is a wood project, we have chosen to have areas with wood cladding in the facade. Elements of wood are also used in connection with external ceilings and at entrances. The profiling in the façade and the variation in the window placement should give the building mass a light and playful feel.

SUSTAINABILITY

The project has high sustainability ambitions and must be certified in accordance with the minimum BREEAM-NOR level "Very Good", but efforts will be made to reach level "Excellent".

The nursing home is being built as a wooden project. This means that both load-bearing walls and floor dividers will largely be built using elements in solid wood.



The state-of-the-art new headquarters for Motek and Ahlsell will be a showcase for the brands, a sustainable workplace and a warehouse building that is flexible enough to meet future growth.

Alf Bjerckesvei 22

SCOPE

New office and storage building

ROLE

Architect

TIME

2022

LOCATION

Oslo, Norway

AREA

29.000 m²

CLIENT

Aspelin Ramm

PROJECT DESCRIPTION

Located in the heart of the logistics district, just outside the city limits of Oslo, Motek and Ahlsell are looking forward to moving into their new headquarters in the fall of 2022. They are deeply involved in the project, not only as enthusiastic future tenants, but also tenants of the former building that was demolished on the same plot as well as construction suppliers for the project. The collaborative vision for the 29.000 m² state-of-the-art headquarters and logistics building is a showcase for the Motek and Ahlsell brands and a sustainable workplace and warehouse that will accommodate future growth and set a new benchmark for the industry.

SUSTAINABILITY

The building is designed in accordance with the latest standards in sustainability with the aim of BREEAM Excellent certification. It was important for project owners and tenants to set high sustainability goals that their employees and customers will be proud of. The reduced energy consumption and climate footprint is not only beneficial for

the environment, but also supports the user's well-being. The gem of the project is the 16,000 m² large green roof with solar panels, local vegetation, beehives, hiking trails, training zones and areas for socializing. The project also prioritises the reuse of materials, including crushed concrete as part of the superstructure of roads and squares, the reuse of concrete for asphaltting at the entrance, as well as the reuse of concrete columns and girders for rain beds.

The new building will provide tenants with the facilities they need to develop and offer their services to the building and construction market now and in the future. Both tenants will have their head office in the building. Motek also gets a state-of-the-art warehouse with robot solutions and automated logistics, as well as a new workshop. The automated storage system gives the building greater flexibility and capacity. It is also more compact so deliveries are optimized to save time and produce less waste. With the help of prefabricated facade elements, the building can easily be rebuilt to meet future needs.



➤ *Keflavik is an important hub in air traffic between Europe and America and will now undergo a major expansion to triple capacity and ensure high flexibility for future development.*

Keflavik Airport Masterplan

SCOPE

Airport expansion

ROLE

Architect and planner

TIME

2014 - 2018

LOCATION

Keflavik, Iceland

AREA

151.000 m²

CLIENT

Isavia

VALUE

400.000 EUR

PROJECT DESCRIPTION

Keflavik International Airport is the main airport in Iceland. Traffic is growing rapidly and the airport will undergo a major expansion to increase its current capacity of 4.5 million passengers per year in 2015 to 24 million by 2040. The airport is a key transfer hub for air traffic between Europe and North America. Six International firms were invited to participate in the competition to create a masterplan for the expansion of Keflavik International Airport where Nordic was the selected winner by a unanimous decision.

The masterplan includes:

A land use plan including: a new rail link to Reykjavik, development area for airport related commercial activities, development of an airport city and east apron area.

A terminal plan including: an expansion of the airport terminal and pier, airport related road systems and new parking.

A runway and taxiway plan including: apron layout, optimizing the runway capacity and future planning of a 3rd runway.

SUSTAINABILITY

The Environmental Plan provides a strategy for the airport's operations based on its location and environmental conditions. Noise-related issues, air quality, waste management, water resources and climate change are the main focus areas concerning the airport's environmental sustainability. In summary the masterplan is a:

- Vision for the airport's longterm development
- Plan for resources to meet current and future needs
- Development guide for decisionmakers regarding airport improvements
- Source for consultation with stakeholders
- Development guide for neighbouring communities and stakeholders
- Environmental plan for the operation and development of Keflavik Airport



ILLUSTRATION: MDH ARKITEKTER



The station must have a long-lasting good architecture

Majorstuen traffic hub

SCOPE

Renovation and extension of an existing metro station

ROLE

Architect

TIME

2021 - 2030

LOCATION

Oslo

AREA

20.000 m²

CLIENT

Oslo Sporveier

PARTNERS

Norconsult, Aas Jakobsen, MDH Arkitekter, Grindaker landskap, Vianova, Geovita, NGI, Ingenia, Safetec, Electronova, Brekke&Strand

PROJECT DESCRIPTION

Majorstuen Metro station is part of one of Oslo's most busy transport hubs. The project opens up for developing Majorstuen as an attractive urban area while improving the public transport system of Oslo.

The new metro station doubles the number of tracks from two to four as part of meeting future capacity demands for the metro through the city centre and connecting the new metro line to Fornebu in 2027. The station will be built in two construction stages and will be completed in 2030.

New tunnels will also be built eastwards to the city center, track branches will be made to the west and a new station will be established at the nearby Diakonhjemmet hospital.

The project utilizes the previous track area for urban development, freeing up approx. 100,000 m² for buildings, new urban spaces, green and urban connections. A public park will be established in the west and the creek Frognerbekken will be opened up as part of the recreation area.

The new Majorstuen station will have a far better connection between tram, bus and rail both in Kirkeveien, Valkyriegata and Bogstadveien. This is also being facilitated during the construction period.

The project seeks to include the entire ground floor of the existing Majorstuhuset as part of the station. The northern part of the building is adapted so that the entrance portal is lowered to street level and returned to its original width. This will be the subway's main entrance.

The station will have a durable and beautiful design with solid materials, good readability for the public, safe and bright rooms with good integration of technology. The entrances must be clear in the cityscape, but well integrated with adjacent development projects and existing buildings. Safety, buildability and operability are also central to planning.

The project is aiming to achieve a CEEQUAL rating on sustainability.



The winning design for this new greenfield airport responded to the brief, merging Swiss efficiency and Indian hospitality

Noida International Airport

SCOPE

Greenfield Terminal with contact stands, forecourt, including landside and airport city development

ROLE

Architect, Planner

TIME

2020 - 2022

LOCATION

Noida, New-Delhi, Uttar Pradesh India

AREA

110.700 m² (phase 1). 240.000 (phase 2)

CLIENT

Yamuna International Airport Private

VALUE

14 378 693 USD (Entire project group)

PARTNERS

Haptic, Grimshaw, Assystem-STUP, NACO, COWI, AKT-II, SLA, USD, Sudio Fractal, AEON, T2 Consulting, Hazel Earth.

PROJECT DESCRIPTION

The winning design for this new greenfield airport responded to the brief, merging Swiss efficiency and Indian hospitality to create a modern and seamless passenger experience, setting new benchmarks in sustainability for airport terminal buildings in India. The concept includes a future airport city envisioning green spaces inside and around the building and flexible expansion options with capacity to serve 30 million passengers per year. Once complete, Delhi Noida International Airport will serve the fast-developing industrial region between Delhi and Agra.

Design proposals includes a landscaped courtyard delivering ventilation, daylight and an enhanced passenger experience. Externally, a new landscaped forecourt will create a regional destination for the public, staff and passengers with an unforgettable sense of place.

SUSTAINABILITY

In a country that is already pushing the boundaries for sustainable aviation infrastructure, the project aspires to achieve LEED Gold standard and to operate at Carbon Net Zero. The proposed design for NIA aims to become the first net-zero energy rated airport in India along with other high sustainability targets. The environmental certification route proposed for the airport is IGBC 'Platinum'. NIA will be the first airport in India to deliver a unique combination of three sustainability targets – IGBC Green New Building - 'Platinum', IGBC Health & Well-being, IGBC Net Zero Energy Building.



Baiyun T3 is an exemplar performant environmental design, with the architectural informed through a climatic responsive and human centered design

Guangzhou Baiyun Int. Airport

SCOPE

Competition - new airport

ROLE

Architect

TIME

2020

LOCATION

Guangzhou, China

AREA

727.000 m²

CLIENT

Engineering Construction Headquarters of Guangdong Airport Management Group Co. Ltd

PARTNERS

NACO
Eckersley O'Callaghan
SLA
Urban systems design
Portland

PROJECT DESCRIPTION

Guangzhou Baiyun International Airport is one of the three major aviation hub of China. It growing from 20 million annual passengers (MAP) to more than 70 MAP in 2019. It is one of the busiest airports in the world.

Using the local vegetation, the airport green areas reduce noise, improve air quality, optimize indoor and outdoor microclimate and make of Guangzhou Airport a true "airport of nature".

The airport landscape design allows different ways of moving through the airport. In a hurry, green fast tracks lead the passengers directly to their gate. With hours in-between flights, they can wander along biodiverse paths, linger in airside courtyards, eat, drink and shop under the canopies, and experience the unique vegetation and culture of Guangdong.

Baiyun T3 is based on three conceptual pillars.

- Future proof:

The airport has a highly efficient and safe design with built in provisions for future expansions and technology.

- Sustainable:

It is designed to be the greenest, most

sustainable and energy efficient airport in the world

- A sense of place:

The living terminal is an integral part of Guangzhou's culture and identity.

SUSTAINABILITY

The environmental design strategy considers the climate, culture and context holistically.

Baiyun T3 is an exemplar performant environmental design, with the architectural informed through a climatic responsive and human centered design. Low carbon, water and energy consumption, and reduced waste production forms an integral part of the technical design.

The project focuses on the user experience, but is also designed to be adaptable, and address future challenges such as the exponential technological growth or the forthcoming environmental challenges.



» *Laksevåg, a new urban district in Bergen, will offer its inhabitants a range of different building typologies and public spaces in close proximity to the water.*

Laksevåg District Masterplan

SCOPE

Urban district masterplan

ROLE

Architect, planner

TIME

2014 - ongoing

LOCATION

Bergen, Norway

AREA

113 000 m² residential
50 000 m² commercial

COST

7-8 mrd NOK

CLIENT

Marin Eiendomsutvikling

VALUE

2 mill NOK

PARTNERS

Opus Bergen AS
SLA
COWI
Sweco

PROJECT DESCRIPTION

The former Laksevåg shipyard is developed from a closed industrial area to form the next lag of the emerging urban development along Bergen's waterfront. The area will consist of land fills in the ocean and the old shipyard area.

SUSTAINABILITY

The repair of the marine biology after the shipyard activity and the coming land fills is important for the health of the fjord and for the recreational value of the area. On the land fill there will be mainly dwellings and public recreational areas.

The former shipyard areas are planned for urban mixed use with housing, offices and shops. Many of the old buildings will be preserved and contain public functions, telling the story of the history and cultural heritage of the place.

The development has a strong focus on sustainability through energy solutions, resilience to climate change, creating good local climate conditions, a varied population mix and measures that

can address challenges in the district, such as work training, facilities for children and youth, sensitive housing mix etc.

The area will be car-free, with a public parking house on the perimeter. The development focuses on local energy production. Heat pumps in the sea and photovoltaics will be major contributors. A research project in collaboration with COWI and supported by Enova looked into possibilities for large scale urban energy storage on site.

Zones for urban farming have also been established, and the project looked into the potential for aquaponics.

On the seafront the weather at times can be rough, and the plan has focused on creating a range of sheltered outdoor spaces and pedestrian routes. Resilience against a rougher climate has been in focus in the layout of the different development zones.



We suggested economical drivers which will help to kick-start the development by attracting jobs, new inhabitants and visitors.

Bodø Circular City

SCOPE

District transformation

ROLE

Masterplanning, management

TIME

2020

LOCATION

Bodø, Norway

AREA

ca 3.4 km²

CLIENT

Bodø municipality
www.bodo.kommune.no

VALUE

800.000 NOK

PARTNERS

Buro Happold
Felixx Landscape
KOHT

PROJECT DESCRIPTION

The goal for the Circular City Bodø has been to uncover and build on Bodø's advantages and qualities, not only locally, but also in a regional context so that the forthcoming development will be sustainable and have realization potential.

The project shows i.a. proposals for cross-area strategies for circularity, energy, mobility, surface water management and street structure.

SUSTAINABILITY

Bodø circular city 2.0 proposes three spatial loop structures connecting the city center with the new district and its landscape. The loops fulfill different functions: a smart mobility loop; a recreation loop; and a culture and knowledge loop. All three complement the green qualities of Bodø, the river and the mountains.

Creating circular environment in an arctic climate poses certain challenges. At first glance, most resources are scarce and hard to manage. To help identify, source and optimize the use of cultural, technical, and natural

resources in particular, we developed a circular strategy organized as a toolbox. Its objective is to provide actionable circular and sustainable principles for the enhancement of living conditions in the city; strengthening of environmental awareness; better integration of landscape; and the overall improvement of human wellbeing.

The toolbox consists of design typologies that can be gradually implemented as the city develops. Every typology can be realized individually or in conjunction with others, increasing their synergy and cumulative impact. Implementation of typologies will promote greater understanding of the environment and better management of scarce resources in the extreme Arctic conditions. This methodology will facilitate environmental resilience, adaptability and self-sufficiency of the local communities in the developing town.



»» *"Timber City Steinkjer - When Steinkjer center is transformed on the premises of pedestrians and cyclists, it can become an attractive urban space for everyone"*

Steinkjer Wood City

SCOPE

Development of urban area

ROLE

Urbanist

LOCATION

Steinkjer, Norway

AREA

294 000 m² (BTA)

CLIENT

Steinkjer kommune

VALUE

500 000 NOK

PARTNERS

Civitas

PROJECT DESCRIPTION

In order to achieve the goal of a green and sustainable mobility development in Steinkjer and in the entire Innherredsbyen, the facilitation of an efficient, attractive and well-functioning public transport hub in Steinkjer is an important element. Efforts must be made to develop public transport (trains / buses and special shuttle services, especially for young people and the elderly) and to facilitate cycling and walking in connection with this. The goal is that the public transport hub works well for all road user groups and becomes an attractive meeting place.

SUSTAINABILITY

The feasibility study for Steinkjer is highly focused on addressing climate change and urban health through an overall framework of mobility loops. Nordic suggested a long-term development plan for the landscape initiatives, focusing on innovation as a tool in urban regeneration and transformation, and to use climate change measures to create urban spaces that the citizens can explore and enjoy. As a part of the Innovation and activity

loop we suggested a great linear park. The idea was to open the seafront to the city centre, creating a lush green space with diversion pools for storm water and natural local species. The park also functions as a buffer to the industrial area to the North, and as a snow depot in wintertime. The park is to be productive park and a place where the citizens can be educated on climate friendly development. Within the park we suggested an urban research farm, an attraction for kids and where competences on agriculture could meet to collaborate and focus on new technologies. The park also includes urban farming and systems for cleansing the water collected in the city centre, to be reused for housing and irrigation purposes.



A new model for a sustainable airport city that focus on creating a place that uses technology and innovation to foster activity and recreation.

Oslo Airport City - Central Area

SCOPE

Detailed zoning plan for large area of business park

ROLE

Architect, planning consultant

TIME

2019 - 2020

LOCATION

Jessheim, Norway

AREA

308 daa / 350.000 m² BRA

CLIENT

Oslo Airport city AS

VALUE

2,6 mill NOK

PARTNERS

Haptic Architects
SLA

PROJECT DESCRIPTION

The Central area in Oslo Airport City is comprised of approximately 350,000 m² net area. It will house all workplace-intensive and service-providing functions that serve the larger Gardermoen business park that it is part of. The area will be an engine in the development of the business park and in the promotion of the area as a business portal to Norway. The area development has therefore had a strong focus on very high quality, both regarding sustainability, its urban structure, qualities and density, range of leisure activities. It will be developed with smart city principles and good mobility solutions. Establishing design principles for the hierarchy of public spaces and adjacent buildings has paved the way for a very flexible zoning plan. This enables a wide range of programs and functions to be established as the area develops, without compromising on quality. A key challenge of the process have been clarifications with the airport authorities regarding future new runways bordering the business park, distribution of costs for infrastructure with other stakeholders in the business park and

working on the masterplan together with the municipalities and the other stakeholders.

The plan was approved June 2020. The first project is under construction, with project two under planning. Several other projects are underway

SUSTAINABILITY

Oslo Airport City has the goal of developing a high-quality zero-emission area. To achieve this, a broad sustainability strategy and clear targets are needed. To keep track, all projects must produce LCA-calculations. A local energy distribution network connected to a local district heating system is being developed. Smart local mobility solutions are being developed that are linked to public transport. Local energy sources such as geothermal heating and cooling and solar power will be used, as well as local surplus heat. It is planned for extensive use of smart city technology and joint use of facilities and services. All masses and surface water will be handled locally.



» *Baneveien 16 will be transformed into a new signal building in Bergen with modern and exclusive office space, apartments and a restaurant.*

Baneveien 16

SCOPE

Rehabilitation of existing office building

ROLE

Architect

TIME

2021 - ongoing

LOCATION

Bergen, Norway

AREA

5.000 m²

CLIENT

EGD & Lab Eiendom

PARTNERS

Norconsult
Multiconsult
Kontek
A-stab
Brekke Strand

PROJECT DESCRIPTION

The office building in Baneveien 16 is a quite typical building from the mid-50s, with load-bearing and space-built concrete facades and low floor heights. The building has been empty for over 10 years and is a building that a few years ago would probably have been demolished instead of rehabilitated and transformed.

Why transformation?

Through data collection from more than 130 projects, Sintef Community has documented how material choices affect greenhouse gas emissions.

The current rules in technical regulations show that a building, through its expected life, will emit 6.3 kg CO₂/m²/year.

The new buildings in the survey had 22% lower emissions, 4.9 kg CO₂ equivalents. The biggest reduction comes when choosing to rehabilitate a building instead of demolishing it to build a new one.

Then the greenhouse gas emissions are further reduced, to 2.3 kg CO₂/m²/year. This means a 63% cut vs a new building according to the current TEK, regulations.

In Baneveien 16, we keep almost

everything of structural concrete, ie facades, roofs and internal load-bearing walls.

To create a good indoor climate with low energy consumption at the same time as we preserve and renew the façade expression, we choose to build a new, curtain-wall façade with a similar cross-section and depth of today's one.

By "wrapping" the existing construction, we secure it for many years to come.

The new façade will also contain an external sun protection solution which also reduces the energy needs of the building.

Our preliminary analysis show that Baneveien 16 will have a greenhouse gas emission of 2.9 kg CO₂/m²/year with a reduction of over 50% compared to a TEK17 reference building.



The factory is an international for state of the art project on sustainability, taretng a BREEAM Outstanding certificate.

The Plus

SCOPE

Support through all project phases on implementing a top BREEAM profile

ROLE

BREEAM AP consultant

TIME

2019 - 2022

LOCATION

Magnor, Norway

AREA

5.000 m² BRA

CLIENT

Vestre AS

VALUE

1 mill NOK

PARTNERS

BIG

PROJECT DESCRIPTION

The furniture manufacturer Vestre is expanding production with the factory in Magnor. The building is designed by BIG and a large advisory group. The ambition is BREEAM Outstanding - the world's most environmentally friendly furniture factory, as well as creating a destination that creates enthusiasm for Norwegian industry and local culture and experiences. The project contributes to much-needed jobs and new life for the town of Magnor.

The factory is about 5,000 m² and contains four factory wings plus an office and visiting floor above this. The architecture is unique, with the forest close to large glass surfaces for all departments. With a concept where the factory opens the inside out to show the production, there are many challenges with such high environmental requirements.

The main focus is on reduced greenhouse emissions (55%) to show that it is possible to achieve the Norwegian emission targets with current knowledge and products. This

has influenced that the building is mainly made of wood, has reduced thickness of concrete in the sole where statically possible, window profiles in 75% recycled aluminum, minimized purchased energy (energy wells, solar cells, optimizing joint service systems for construction and process, high performing external walls and slabs), conservation and development of ecology (agreement on conservation rather than planned development as industry area, diversification of species / habitats, green roof) and high qualities of daylight, view out, acoustics, indoor climate etc.

The building has innovative solutions for both the production phase and the operational phase, like using unrecyclable wood waste for construction site heating, introducing shuttle cars for employees for reduced private car use, electric trailers for goods transport.

The building will be completed in April 2022.

GOALS FOR THE NEXT PERIOD

Our Global Compact goals 2022>

ANTI-CORRUPTION

We want to strengthen our efforts against corruption and bribery in every form.

LABOUR

We want our HSE-systems to represent best practice in our line of business.

HUMAN RIGHTS

We want our office routines to reflect that the rights, safety and well-being of our staff is a core value.

We want to promote and secure the human rights in our line of work and sphere of influence, and support human rights-initiatives both through donations and active participation.

ENVIRONMENT

We want to continuously strengthen and disseminate state of the art knowledge and methodology in our organization and our area of influence.

We want to raise the bar in the building industry, by challenging ambitions, multi-disciplinary collaboration, and pursuing innovative solutions.

REPORTING FRAMEWORK:

Planned work for the coming report period

For the next report period, Nordic upholds its goals within the UN GC framework of the four issues Labour, Human rights, Anti-corruption and Environment. This also includes the targets from the current reporting period.

Following our strategic plan to particularly target emission reductions, we will focus on certifying as an Eco Lighthouse. Together with the Communication on Progress, this forms a robust reporting system on our impact. This might influence the targets we want to report on for the next period, enabling us to compare quantifiable factors in the future regarding our running of the office and our projects.

We will continue to work towards systematic implementation of LCA-simulation of CO₂-emissions in our projects to keep track of our progress on cutting emissions in accordance with the Paris Agreement.

We will also work on our three identified projects on revising our Nordic design method regarding environmental aspects, developing our knowledge and tools and to secure our administrative framework to allow us to pursue a high level of sustainability in our projects.



CORPORATE PROJECTS - MAIN GOAL:

1. Revising the Nordic design method

2. Available knowledge and tools

3. Marketing, contracts and templates

