

ANNUAL AND SUSTAINABILITY REPORT 2021

Architecture for a Sustainable Life

**Timber Construction
Scales New Heights**

**Buildings as
Urban Mines**

**A Sustainable Life through
the Art of Architecture**

**Sustainable Architecture
over 70 Years of White**

white

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Avinode Group's new offices in Gothenburg exude curiosity and a drive for discovery, while accentuating the important balance between work and private life. The interior concept is based on the contrasts between these aspects. The goal was to reuse as much of the existing furniture at Avinode Group as possible in the move. And this was achieved. With our help, as much as 90% of the furnishings from the old premises could be brought to the new one.

Welcome to White.

White was founded in 1951 in Gothenburg by Sidney White. The vision was to improve society through architecture. Since the very start, a sense of social engagement and consideration for people have been key features in our corporate culture. White today is one of Scandinavia's leading firms of architects. We are an employee-owned company with almost 800 employees and a presence in Sweden, Norway, Germany, the UK, Canada and East Africa. We work with sustainable architecture, design and city planning in an international context, for current and future generations. Our mission is to enable sustainable life through the art of architecture.

In Bergen, Norway, we are designing the city's new waterfront and the new Lungegårds Park. The concept, called True Blue, is based on water, which is the most tangible element in Bergen. It will be the city's new public lounge, offering a wide range of activities and recreation areas, as well as innovative solutions for environmental and climate adaptation. The project won gold in the Future projects – Leisure category at the WAN Awards 2021.



The child's perspective was our point of departure when transforming the old boiler plant at Nobelberget into a preschool – with a new design and all the colours of the rainbow. The architecture reflects children's curiosity and the sense of wonder that inspires play, imagination and learning. A transformation project emphasising the history of the building, and a playful additional storey that embraces the old.

A Sustainable Life through the Art of Architecture

By uniting design with sustainability in everything we do, we are helping to create places and buildings that enhance people's quality of life. Beauty boosts attractiveness, thus increasing property values and strengthening the location's brand. In this way, we build business value for our clients and make a difference to the communities where we work. We enable sustainable life, through the art of architecture.



2021 was the second year of the global pandemic. Despite restrictions, the countries where White is present saw economic recovery. Demand for homes and healthcare buildings remained strong, and we saw the green shoots of recovery in the commercial sector. The pandemic did affect supply chains, construction prices and access to building materials. At COP 26 in Glasgow, it was evident that the transition to a fossil-free society must happen faster if the goals of the Paris Agreement are to be met. EU taxonomy places demands on sustainability reporting, linking sustainability requirements to access to financing. Several factors contribute to a rising interest in sustainable building.

During 2021, we increased our turnover by SEK 30 million to SEK 769 million compared to 2020, and profitability also increased. The growth was a result of the recovery on the markets in Stockholm and Gothenburg. Our other Swedish offices were not as palpably affected by the pandemic in 2020, and saw a continued strong market in 2021. Thanks to increased interest in sustainable architecture, coupled with our international investment, our studios in Oslo, London and Stuttgart are growing.

During the year, several of our excellent timber building projects were officially opened. As one of the world's tallest timber buildings, Sara Cultural Centre has received a lot of attention. It is a true landmark, giving the people of Skellefteå a new meeting place and putting the city on the world map. An investment in architecture that strengthens the city's brand. Autumn 2021 saw the completion of Magasin X in Uppsala and Nodi in Nya Hovås, Gothenburg, both wooden office buildings. These are examples of how sustainable architecture also contributes to good business for the property owner.

In 2021, work on the Nya Sjukhuset hospital in Malmö continued, which is our largest ongoing pro-

ject at the moment. Healthcare architecture is an important specialist area for White. During 2021, we were part of a multidisciplinary team that won the contract to design a new children's hospital in Cambridge – our second major healthcare project on the British market.

Altogether we won 14 open and invited competitions and land bids. Following earlier competition wins in Germany, in 2021 we established a studio in Stuttgart in order to offer our clients a local presence. Other international successes in 2021 were the competition we won for the Kimmel Quarter in Riga and the Hippodrome project in Montreal, both in collaboration with local partners.

Our focus on digitalisation and innovation is growing. Our digitalisation service *Digital Matter* is helping to realise sustainable built environments through digitalisation, design and data. In autumn 2021, our White Re-capture innovation was named the winner in the Business Arena Tech Awards, in the category of Most Innovative Real Estate Operator.

We look ahead to 2022 confidently as a year of stable and increased demand for our services in sustainable urban development and architecture in Sweden. We can see opportunities for growth in Norway, the UK and Germany, and in areas of expertise such as digitalisation and project management. In 2022, we are continuing our journey towards our goal of becoming climate positive in all our projects from 2030, by helping our clients to complete sustainable, beautiful and profitable projects.

We will continue to support the ten principles of the UN Global Compact and conduct our work in accordance with them.

Alexandra Hagen
Alexandra Hagen, CEO

The new park Nya Brunnsparken is a safe, usable oasis in central Gothenburg, Sweden. The people of the city have played a key role during the course of the project, indicating how they want the well-known, historic park to look, feel and be used. Discussions have resulted for example in preserving historic thoroughfares, more vegetation, and lighting for safety and peace of mind, as well as straight, clearly defined footpaths that make the park more easily accessible.

For a Sustainable Future

2021 was White’s 70th year in business. There has always been a strong sense of social engagement at White, and looking back on these 70 years it is clear that whatever the decade, people have always been the focus of our projects and our architecture. It is also very clear how environmental issues have gone in cycles. By looking back, we can learn how to create a more sustainable society moving forward. It is time to recreate our relationship with nature, and everything we do has to be part of a larger ecocycle.

“Bringing nature back into our lives.” This is the title of the EU 2030 Biodiversity Strategy. Without a living planet, we cannot achieve a socially sustainable society. Protecting and strengthening the ecosystem is crucial to our health and the climate. The global economy is dependent on nature, but we are losing nature at an increasing rate due to unsustainable human activities.

The terrible war in Ukraine has starkly revealed how energy and the climate are security issues, and that countries increasingly need to become self-sufficient in energy, food and raw materials. This in turn highlights another key issue: the role of consumption in the planet’s continued survival.

A report from the World Global Forum shows that consumption needs to go back down to 1980s levels if we are to achieve the climate goals of the Paris Agreement. The construction sector has huge opportunities to help reduce climate impact. Above all, we need to ask ourselves whether new-build is even necessary. The pandemic has brought into question whether we need fixed office spaces, or whether shared use is the way forward. Not building at all is best for the environment, but we can also make far more use of existing materials. Reuse will not cover the entire need for new homes and premises, but there is every potential to focus on materials made from recycled or renewable matter. Essentially, we need to go back to old-fashioned ecocycle thinking and save the planet’s resources.

We can see a distinct transition towards large-scale timber construction. To make sure this is sustainable, we must also ensure the forestry is sustainable. Understanding how the built environment affects biodiversity will be a crucial issue moving forward.

The National Expert Council on Climate Adaption recently highlighted Sweden’s urgent need to tackle climate adaptation. This very much applies to the built environment. As well as the damage and consequences that higher water levels and stronger downpours can cause, the council particularly highlights the major risks to health when temperatures rise and heat-waves increase in frequency and intensity.

So sustainability is about the whole. Climate change is a public health issue. Consumption affects biodiversity. Climate-neutral construction contributes to more secure investment. Well-designed environments for people contribute to increased safety and security. And creating homes for many different people is a matter of equality that contributes to attractive towns and cities.

It is my hope that this report can provide inspiration for how we can create the sustainable society of the future. Architecture for people, with a living planet for many generations to come. Architecture for a sustainable life.

Anna Graaf, Director of Sustainability

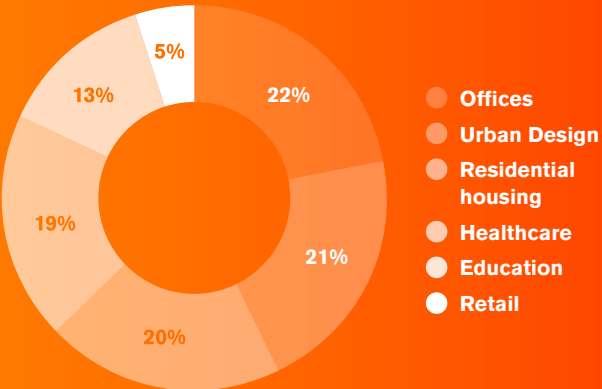


White 2021 in Brief

776 employees



Market areas 2021: (% of incoming orders)



46

MSEK to training, research, development and innovation

19 projects have goals for climate neutrality or better
(9% of projects)

771 MSEK turnover

46% projects with climate goals

34 Research projects through White Research Lab

94%

of our trips within Sweden are made by train



33% of projects have a bearing solid wood frame
(21% last year)

51%

projects conducted under a certification system

392 tonnes CO₂e emissions
(364 tonnes 2020)

0.69 tonnes CO₂e emissions per FTE
(0.73 t/FTE 2020)

We worked in 11 different countries in 2021

Sweden, Norway, Denmark, Finland, UK, Germany, Latvia, Canada, Kenya, Ethiopia and DR Congo.



Sustainable Architecture over 70 Years at White

White has always had a strong sense of social engagement. As we look back on White's first 70 years, it is clear that we have been using the power of architecture to bring about more sustainable society ever since the start in 1951. Follow our sustainable journey here:

1951 Young architects Sidney White and Per-Axel Ekholm win the competition for the Baronbackarna housing area in Örebro. Ekholm & White Architects starts up in Gothenburg.



1951 Baronbackarna starts from the needs of children and is created in harmony with nature. The motto: You can play in our garden.

1959 P-A Ekholm leaves Ekholm & White Architects and we become White Arkitekter.

1960s The age of the 'Million Programmes' with industrial building. White is involved in several projects including Rannebergen and Gårdsten in Gothenburg. The ideal in those days was to separate cars from homes, so that children could play in the courtyards. Kitchens and balconies faced the courtyard so the children could be supervised.

1970 Through Swedish aid agency SIDA, we complete several hospitals, health centres and schools in Angola, Kenya, Nigeria, Zambia and Tanzania. This marks the start of internationalisation for White. 1970–1990 we had projects in about 50 countries, and international projects accounted for 15–20% of turnover.

1970s The energy crisis increases the focus on creating energy-efficient buildings.

1972 The first UN Conference on the Environment is held in Stockholm.

1985 The healthy house. At the first Swedish home expo, Bo85 in Upplands Väsby, energy efficiency and healthy materials were put to the test. This marks the start of White's more strategic sustainability work.

1987 The Brundtland Commission established the most prevalent definition of sustainable development: "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

1991 White merges with Coordinator, the beginnings of the Stockholm office.

1991 "The healthy school" is the start of a series of projects focusing on health (the Gunnesbo, Riseberg, Östratorn and Viking schools). At the time, problems were being noticed with allergies and illnesses caused by "sick buildings". Daylight, non-toxic materials and good ventilation became important factors in creating healthy buildings.



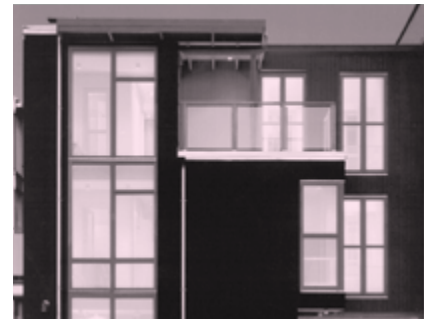
1994–2006 Hammarby Sjöstad in Stockholm is a pioneer in sustainable urban planning, still today. White was involved in the planning phase, environmental programme and several housing projects.

1996 Ekotopia in Aneby is a knowledge and research centre that was a model for building the robust, long-lasting ecocycle society. Also an area with eco-homes.

1996 White launches The Little Green Book, a manual on healthy, sustainable architecture.

1998 White Environment is formed, with specialists in healthy, energy-efficient, eco-friendly architecture. We develop methods for environmental management in the design and construction process.

2000 White creates a database of 3,000 environmentally inspected building products. It later forms the basis of eco-assessment body Byggsvarubedomningen.



2001 The Bo01 housing expo in Malmö has a strong environmental focus. White contributes several projects, including the Solid Wood building, which has dismantable modules and natural ventilation.



2003 White builds a new office in Stockholm, under its own management. It has high environmental goals, low energy requirements and innovative energy solutions. It wins the Kasper Salin Prize 2003.



2004 White completes Vävskedsgatan in Gothenburg under its own management. The aim is to challenge the housing market and show that it is possible to build good, inexpensive rental properties of high quality.

2006 White is environmentally certified to ISO 14001.

2007 Former US Vice President Al Gore and the UN IPCC win the Nobel Peace Prize for their work highlighting and fighting global climate change and its consequences.



2008 Hamnhuset in Gothenburg is Sweden's first apartment block to meet Passive House criteria.

2008 White recruits expertise in social sustainability.



2009 Östra Hospital Psychiatry ward, Gothenburg, is designed with open care environments and proximity to greenery. It marks the start of our research into architecture as medicine, and establishes White as a leader in psychiatric care.

2009 White is one of 13 founders of the Sweden Green Building Council.



2003–2013 White completes eight exhibition centres for national parks across Sweden in 2003–2013; the EPA refers to them as "architecture with nature as the client".

2012 We establish an office in Oslo.

2012 Our own self-initiated project, Koggens Gränd in Malmö, is completed. As an alternative to tenancy-ownership in apartment blocks, we wanted to offer a new approach with owner apartments. The project was one of the first to be completed in line with Miljöbyggnad Gold.



2013 White and Ghilardi+Hellsten Arkitekter win the competition to relocate Kiruna. A 100-year development plan focusing on identity, cultural heritage, reuse, and creating a sustainable prototype city is initiated.

2013 White signs the UN Global Compact with its 10 principles for corporate sustainability.

2014 White and Snøhetta win the Kasper Salin Prize for Väven Cultural Centre, Umeå

2015 UN Sustainable Development Goals launched.

2015 Paris Agreement signed by the UN member states, who agree to limit greenhouse gas emissions to limit the global temperature increase to 2°C. Fossil Free Sweden is formed, with White as one of the first participants.

2015 Our London office is established.



2009–2018 Sweden's biggest hospital project, Nya Karolinska in Solna, area 300,000 m². White Tengbom Team is formed to lead the project. The buildings are certified Miljöbyggnad Gold and LEED Gold.

2017 The Flickrum – places for girls project explores how cities can be designed so that teenage girls also feel safe and included. The project garners widespread attention, also internationally.



2017 Development of the Panzi children's hospital in DR Congo, run by Dr. Mukwege (Nobel Peace Prize Laureate 2018).



2017 White's first climate-positive project, the Ekoladan eco-barn at Lindeborgs Eco Retreat in Nyköping, is completed.

2018 White is involved in the launch of Fossil Free Sweden's roadmap for a climate-neutral construction and civil engineering sector by 2045.

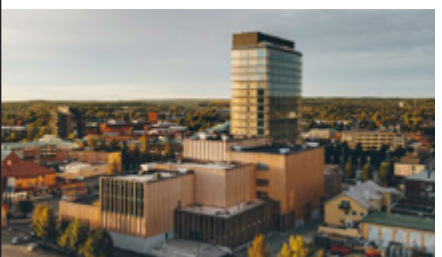


2020 At the Selma Lagerlöf Centre, Gothenburg, we show that large-scale reuse is possible: 92% of the furnishings are reused. Awarded Design S.



2020 House of Choice in Solna is Scandinavia's first zero-energy hotel and has the highest density of solar cells in the world.

2020 White launches its Roadmap Climate 2030, which charts our course for contributing to the global SDGs and achieving our vision of climate-positive architecture.



2021 Timber construction scales whole new heights as Sara Cultural Centre Skellefteå, one of the world's tallest wooden buildings, is opened. Magasin X and Nodi show the way forward for wooden office construction.



Together with ARHIS Arhitekti we have been named winners of Eastnine's international design competition to transform the former Kimmel Riga brewery into a new central meeting point. The proposal "Revitalizing Kimmel Quarter" suggests a holistic and circular transformation of the site into a vibrant public destination, paving the way for a more sustainable future.

International Efforts

Right now there is a positive movement for sustainable architecture in Europe. The message of *The New European Bauhaus* is that architecture plays a crucial role in facilitating the green transition. With our strong focus on sustainability, we continue to establish ourselves on new markets, and in 2021 our projects truly began making waves internationally.

The New European Bauhaus initiative from the EU drives both politics and enterprise by highlighting the importance of architecture in the green transition. The three core values of sustainability, aesthetics and inclusion encourage the interdisciplinary approach which we at White believe is fundamental to architecture and construction in the future.

Internationally, our main focus is on health, sustainable city planning and climate. We can also see how these matters are pivotal globally. It was clear at COP 26 that climate and the environment go hand in hand with social challenges and fairness issues.

During 2021, we began to see the results of several years' growth and establishment on new markets. In London, the Barking neighbourhoods are underway and the first tenants will soon be moving in, while the projects along the River Thames at Blackwall Yard have been granted planning permission. Moorfields Eye Hospital at Kings Cross has been given the go-ahead, and we are designing the unique Cambridge Children's Hospital alongside Hawkins Brown.

Our new office in Stuttgart already had seven employees at the end of the year. We have received planning permission for the complex Heinzelmänn Areal project, which will transform an old factory quarter into a blend of co-working spaces, homes, services and a brand new public space. Outside of Frankfurt we have developed care homes made entirely of wood, and planning is under way in Stuttgart of the Feuerbach

school campus, where the focus is on energy, timber construction and biodiversity.

In Norway, we are designing Bergen's new waterfront park for a pioneering project. The design will help to develop and bolster sustainable flora and fauna both above and beneath the water's surface. In Riga, we won the competition to transform the old Kimmel Riga brewery into a new central meeting place.

In Montreal we are working with Rayside Laboussiere to design the new Hippodrome district. In discussion with a great many stakeholders, we have drawn up a proposal for how to plan and design new parks, public spaces and premises such as schools and libraries.

In Nairobi we are contributing our expertise in several regional healthcare architecture projects, while we are also evolving The GoDown Arts Centre into a pilot project for sustainable timber architecture in East Africa.

Sara Cultural Centre in Skellefteå has garnered a lot of attention internationally, especially through the A Heart of Wood exhibition in Berlin, where we initiated a dialogue about the future of sustainable construction. The exhibition and the conversation are now continuing their tour of Europe and out into the world.

We see great things ahead for White in the international arena, and we want our projects to contribute to sustainable growth that improves the quality of human life and the natural environment. ■

*“Ecosystem Services – A Toolbox”,
is a comprehensive manual for getting
started on integrating ecosystem
services into planning and construction.*



Exploration and Innovation

White has an explorative culture, and we have a long and solid background in practice-based research and development. Our White Research Lab is an important part of our operation, with low thresholds for all employees who wish to delve deeper into research and innovation. Over the past 10 years, more than 300 employees have been involved across the whole spectrum, from curious beginners to fully fledged researchers.

PRACTICE-BASED RESEARCH
Knowledge, research and innovation are vital in reaching farther and faster in the transition to a sustainable future. Every year at White, we invest a considerable amount in our White Research Lab and White Innovation Lab, as well as in our independent research foundation ARQ. Our current R&D programme highlights two particularly urgent challenges – the transition to circular architecture, and contributing to health-promoting living environments – but we also carry out development in several other areas.

In circular architecture, we have a leading position for reuse of furnishings, and we are developing methods for reusing buildings, often alongside our clients. We are part of the Vinnova project *ReCirculate* and are drivers in CCBUILD, the Centre for Circular

Building. In an effort to further highlight the importance of ecosystem services in planning, we have contributed to updated editions of two Swedish manuals: *The Green Roof Handbook* and *Ecosystem Services – A Toolbox 1.0*. The latter was developed in partnership with the National Board of Housing, Building and Planning, and has been distributed to all local authorities in Sweden. Our hope is to encourage planning for ecosystem services.

Our long-term focus on timber construction has had a huge impact, with several large-scale projects, particularly Sara Cultural Centre. White is a partner in the new innovation node Wood+, alongside Next Step Group, Chalmers and others, where the potential of timber construction is tested in real-life projects. A special report from

Chalmers’ Centre for Housing Architecture, on well-being in wooden buildings, looks at White’s Frostaliden project in Skövde as a case study.

Huge sums are being invested in the EU to accelerate the climate transition. Alongside Uppsala Business Park, we are now driving development to create a Positive Energy District. We can see great opportunities for this to become the norm for urban development in the future.

As part of the Vinnova-funded project SIGURD, we have looked into the effects and value of urban development investments. The process revealed a need for new incentives for long-term value creation. In addition to purely financial real estate value, ecological and social values also need to be considered.



At Sara Cultural Centre in Skellefteå, Sweden, timber construction is being pushed to brand new heights, both in terms of norms and perceptions of what is possible.

In Malmö, White’s District Atlas for Sofielund (from 2020) has now contributed to a unique political decision to introduce a ‘noise environment zone’ in the area. The zone aims to protect noisy activities so that they can remain in place, and thereby contribute to diversified culture, trade and industry in the city.

We also have five industrial doctoral candidates in such diverse areas as lighting design, Urban meeting places and fair environments, The city’s attractiveness, Building energy modelling, and Design as an agent for change.

INNOVATION
To translate our research into practice and bring innovative solutions to the market, we have also set up the White Innovation

Lab. Previously developed services include WHEAT for early-stage sustainability simulations, as well as the award-winning ReCapture based on 3D scanning, which enables more efficient reuse management in design and ongoing usage. During 2021 we developed Squarmeter, a tool that can simply map local needs when transforming different types of businesses and activities. This has become especially important since the pandemic, as the design and needs for premises has completely changed.

NETWORKING
Our 13 in-house knowledge networks are an integral part of White Research Lab. They lay the foundation for our explorative culture, and are the catalyst for sharing skills, and challenging each other and the wider world.

The year’s highlight is White Day, which brings together all our employees to build our culture. Due to the pandemic the 2021 White Day was held online, and we were unable to carry out the inspiring annual study trips.

White also takes part in the development of the sector through board and committee posts in organisations such as Smart Built Environment, the Swedish Health Care Facilities Network, the Swedish Centre for Innovation and Quality in the Built Environment, FFS (a non-profit organisation for planning future homes and work), Sweden Green Building Council, the Federation of Swedish Innovation Companies, Innovation Pioneers, CCBUILD Centre for Circular Building and others. ■

At Nya Sjukhuset hospital in Malmö, we have used advanced simulations to optimise incoming daylight, reducing costs as well as climate impact. In addition to saving energy, daylight promotes patient recovery and increases staff efficiency.

Digitalisation for a Sustainable Society

According to the *World Economic Forum*, 70% of the global Sustainable Development Goals can be achieved with the help of increased digitalisation. Digital analyses and models can help to reduce energy requirements and climate emissions, and enable circular material flows. Digitalisation also allows more efficient design and construction processes, as well as lower construction and management costs. It presents brand new opportunities to create unique, well-designed, sustainable architecture that is timeless and evolves over time.

One of the keys of digitalisation in creating a more efficient and sustainable construction and real estate industry is the ability to integrate design and data into the process. On average, companies that succeed in this increase their earnings by 10–30%.¹ The integration of design and data is in full swing across almost all industries and concerns the marriage of two development dimensions: *the availability and utilisation of quantitative data*, and the application of *new design perspectives*.

White's digitalisation scheme, *Digital Matter*, offers digitalisation services that create new opportunities and values for the customer and project alike. This could be realising unique project ideas through Computational Design, or streamlining processes with BIM and smarter information management. Using data and digital sustainability analyses, we can optimise structural engineering in terms of materials, increase energy efficiency, reduce the climate footprint and assess the need for climate adaptation. Digital tools make it possible to overcome complex sustainability and design challenges, from early stages to ongoing usage – faster and with less risk.

At the Celsius office and lab building in Uppsala, which has been voted the world's leading BIM project, White played a key role in the digital processes and realisation of the BIM model being the project's only

construction document. The resulting gains were far fewer construction errors, lower costs and the ability to create a digital twin for sustainable management.

In the Frostaliden housing project, our Revit-integrated climate calculation method resulted in a design alternative that reduced CO₂ emissions by 25%. At Nya Sjukhuset hospital in Malmö, digital analysis and simulations have helped to optimise window sizes and sun protection with cost savings in the millions of Swedish kronor, an energy saving of 24,000 kWh/year and more than 30,000 kg lower CO₂ emissions.

Our proprietary tool, ReCapture, is an example of how digitalisation can speed up developments for more circular building. In reuse projects, taking inventory of existing materials is a time-consuming process. ReCapture enables buildings to be scanned so the building materials can be documented, and then assessed for reuse potential.

We are still in the early stages of the digital revolution, but it is already evident that it can contribute to more efficient processes, lower costs, and above all innovative, well-designed, sustainable architecture. ■

1. *Fusing data and design to supercharge innovation – in products and processes*, McKinsey, April 2019



Sustainability in Everything we do

Our main opportunity to influence society in a more sustainable direction lies in our projects. The entire industry has a huge responsibility to take sustainability challenges seriously, since what we create today will remain for a long time to come and impact many future generations. But we also challenge ourselves, to strive for as low an environmental and climate impact from our operation as possible. With sustainability as a driving force, we create long-term value for our clients, for ourselves, for society, and above all for the planet.

SUSTAINABILITY FOR WHITE

For us, sustainable architecture is about a holistic approach. The aim is to create buildings and communities that contribute to good health and equal, safe, inclusive environments. But the condition is that the development must fall within the planetary boundaries and not be at the expense of Earth's resources, ecosystems or climate. When financial investments consider social and environmental values, that is when, together, we can bring about sustainable development – for real.

SUSTAINABLE DEVELOPMENT GOALS

The UN's climate goals, Agenda 2030, and our commitment in accordance with the Global Compact serve as the basis for our business objectives, strategic investments and priority sustainability issues. We run projects on different scales: from planning towns and cities through to designing buildings and interiors and creating the conditions for sustainable living environments. Most of the SDGs are therefore relevant to us to a greater or lesser extent, whether directly or indirectly. Seven of the goals are particularly important, as it is these that we have the opportunity to pursue in our projects on a day-to-day basis. See table p. 21.

SUSTAINABILITY IN OUR PROJECTS

All projects are unique and entail different challenges. To identify risks, prioritise aspects and formulate goals, it is important to carry out a sustainability analysis at an early stage, alongside the client. Our analysis links to the SDGs, but it also identifies more specific sustainability aspects for the project in question.

We have been monitoring the environmental performance of our projects for many years, e.g. as regards energy targets, climate goals, certifications, timber construction,

Torn's new parish hall in Stångby outside Lund, a building with room for important ceremonies.



and which of the global goals have been most in focus during the year. This monitoring helps us to see where investment and development are needed. We can discern a positive trend year on year. See charts p. 21.

OUR SUSTAINABILITY EXPERTISE

To meet the many sustainability challenges facing society and us as a company, we have built up our sustainability expertise over more than 20 years. Our 40 specialists offer coordination, process management, strategic definition and analyses in the areas of environmental consultancy, climate, social challenges and economic value analyses. Our strength lies in being able to put together interdisciplinary teams, and jointly maintaining a holistic approach to the entire process. This means we can drive sustainability issues from vision, through project planning, to finished project and in-use management.

ENVIRONMENTAL AND CLIMATE ACCOUNTS

Every year we monitor the operation's impact on the environment and climate. Our climate accounts are prepared according to the Green House Gas Protocol, and we are encompassed by Scope 2 and 3. Scope 3 includes energy, travel, hotels, purchases, cloud services and waste (see chart p. 21).

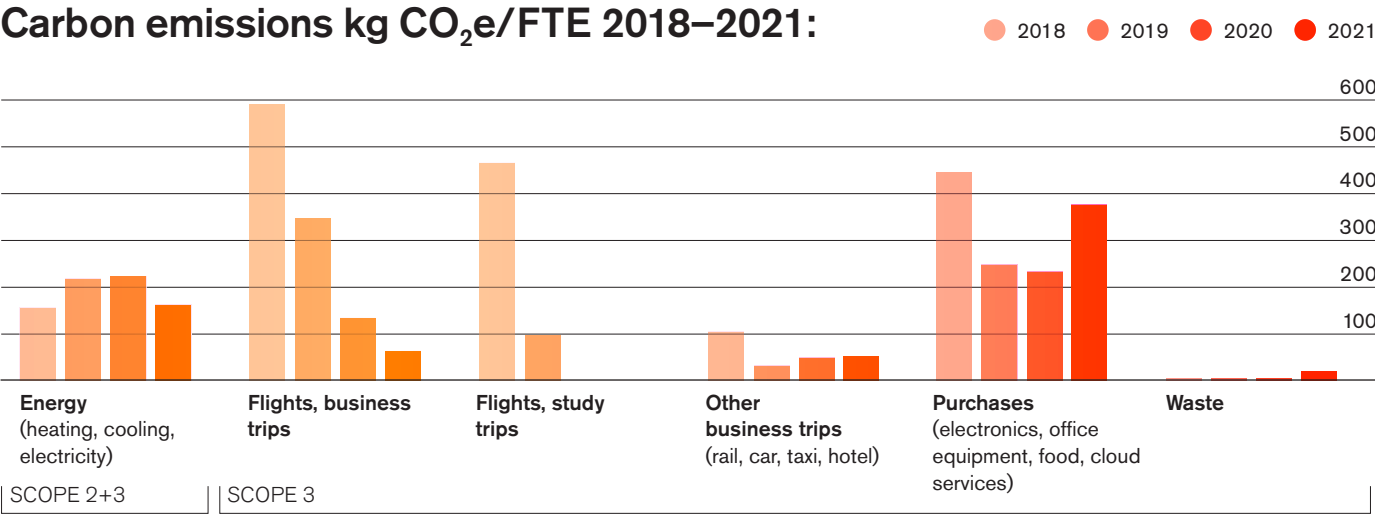
Total emissions in 2021 amounted to 392 tonnes of CO₂e, which is equivalent to 690 kg of CO₂e per FTE.

This is 72% lower carbon emissions compared to 2018 (the target is 30% lower by 2023). During the year the coronavirus pandemic continued to affect our operation, resulting in more working from home and far less travel than in a normal year, and this contributed to the lower environmental and climate impact.

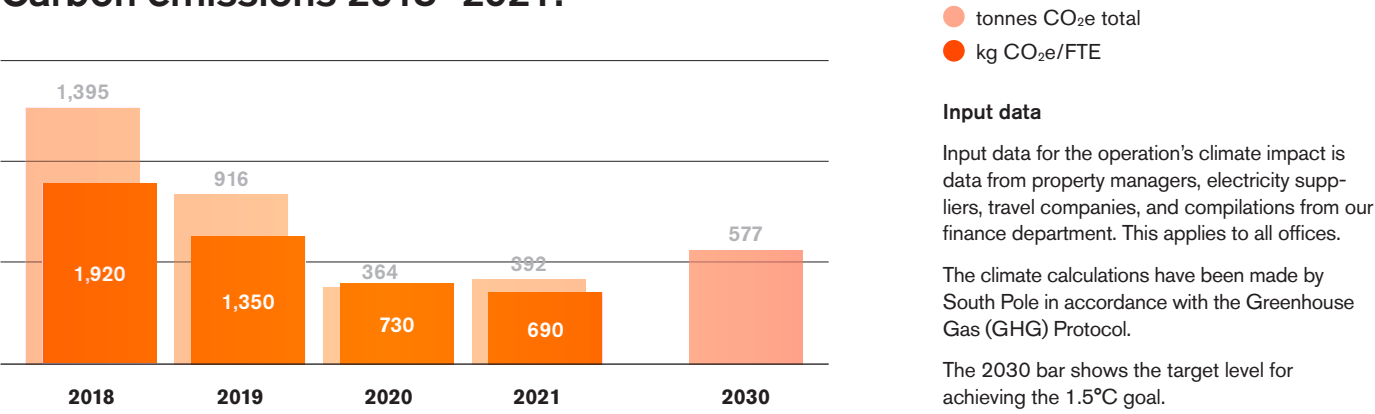
OUR SERVICES

- Sustainability Management and Certification
- Circular Architecture
- Climate Neutrality and Energy Efficiency
- Digital Sustainability: Daylight, Energy and Climate
- Ecosystem Services
- Social Sustainability and Process Management
- Dialogue Process and Co-design
- Value Creation and Economic Sustainability

Carbon emissions kg CO₂e/FTE 2018–2021:



Carbon emissions 2018–2021:



tonnes CO₂e total
kg CO₂e/FTE

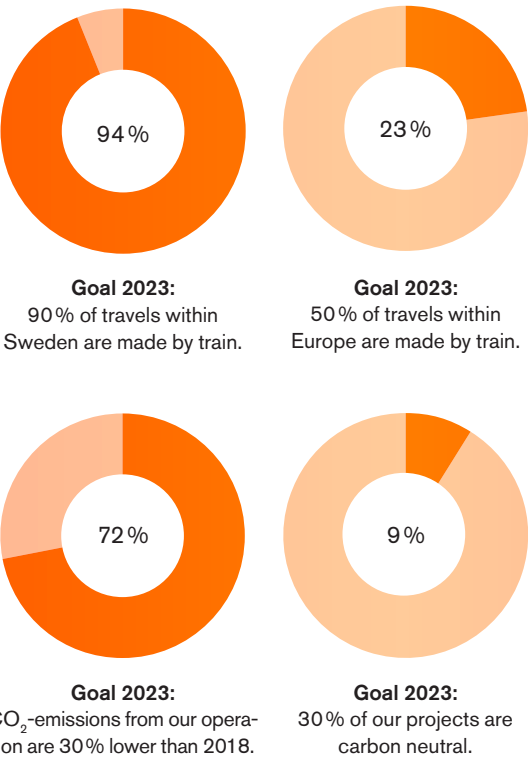
Input data

Input data for the operation's climate impact is data from property managers, electricity suppliers, travel companies, and compilations from our finance department. This applies to all offices.

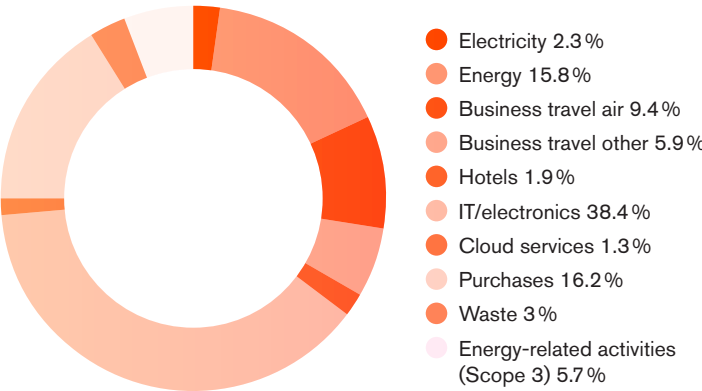
The climate calculations have been made by South Pole in accordance with the Greenhouse Gas (GHG) Protocol.

The 2030 bar shows the target level for achieving the 1.5°C goal.

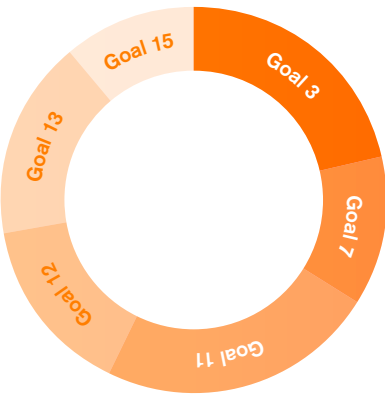
Goal achievement 2021:



Distribution of CO₂ emissions 2021:



Focus for the SDGs in our projects:



- **Goal 3: Good Health and Well-Being**
Daylight, Stimulate physical activity, Indoor environment
- **Goal 7: Affordable and Clean Energy**
Energy-efficient building, Renewable energy (e.g. solar cells)
- **Goal 11: Sustainable Cities and Communities**
Safe and secure environments, Equal and accessible environments, Involvement of users, Sustainable mobility, Preserve cultural values, Economic values
- **Goal 12: Responsible Consumption and Production**
Material choices, Health and environment, Reuse and recycling, Sustainable lifestyle, Timber construction, Circular architecture
- **Goal 13: Climate Action**
Climate neutrality, Low embodied carbon of materials, Climate adaptation of outdoor environments
- **Goal 15: Life on Land**
Ecosystem services and Biological diversity

Energy: Energy-related emissions represent 24 % of total emissions, equating to 93 tonnes of CO₂e. All electricity in our operation is renewable, and our offices are connected to district heating and in some cases also district cooling.

Travel: During 2021, travel and hotels accounted for 17 % of total emissions, equating to 68 tonnes of CO₂e. We have a clear travel policy of choosing rail as the first option. The goal is for rail travel within Sweden to represent at least 90 %, and within Europe at least 50 % by 2023. In 2021 we achieved 94 % rail travel within Sweden and 23 % within Europe.

There were no study trips in 2021; these normally have a high climate impact. From 2022, study trips will only be conducted by train or coach.

Hire cars and taxis should primarily be electric or green vehicles, and the hotels we stay in must have a clearly defined sustainability system in place. To encourage employees to cycle more, we have bicycles available to borrow, and we offer bicycle servicing at our offices during the spring and autumn.

Purchases: We place demands on our suppliers to meet the criteria of our Code of Conduct for Corporate Sustainability. We also place specific demands on different products. Criteria for electronics encompass energy efficiency, environmental and social requirements on materials and production, as well as health aspects and ergonomics. Office supplies must be ecolabelled and ideally be refillable. Food represents a large proportion of emissions. We therefore serve only vegetarian food at lunches and events, and our ambition is that all food should be organic.

In 2021, purchases accounted for the majority (56 %) of our emissions, equivalent to 219 tonnes of CO₂e. Purchases of computers and electronics represent the largest single cause of all emissions in 2021, at 38 %. This is due to a pent-up need and many new recruitments.

Waste: The first priority is to minimise our waste. We are therefore investing in return systems for e.g. toner cartridges, as well as leasing and reuse of computers and other technical equipment. We also avoid disposable items, and primarily order food in serving dishes

rather than individual portions. Waste represents quite a small proportion of our climate emissions, at 3 % equating to 12 tonnes of CO₂e.

SCIENCE BASED TARGETS
Based on calculations in accordance with Science Based Targets, by 2030 we will not exceed 577 tonnes of CO₂e for Scope 3, in order to keep global warming below 1.5°C. We have already achieved this level, primarily due to less travel during the pandemic, but we must now maintain this in the years to come.

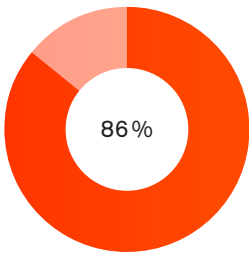
CLIMATE-NEUTRAL COMPANY
We offset all our emissions and meet the criteria for a climate-neutral company. Through our climate compensation, we contribute to Paradigm Healthy Cookstove and the Water Treatment Project in Kenya.

ENGAGEMENT AND ADVOCACY
Our employees are strongly committed to reducing our environmental and climate impact. Our different offices have various initiatives in place to stimulate a more sustainable lifestyle, and the ideas and initiatives usually come from our employees.

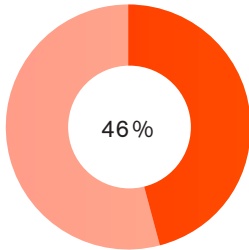
We are also involved in various forums at the national level. We are part of Fossil-Free Sweden and support the roadmap for a climate-neutral construction and civil engineering sector by 2045. We are also involved in Architects Declare in Sweden, Norway and the UK, and are on the steering committee in all three countries. It is a commitment in the architecture sector to drive the climate transition and improve biodiversity. We are also active members of several sustainability networks, including Circular Sweden, Global Utmaning, the Sweden Green Building Council, NMC The Swedish Association for Sustainable Business, C/O City (for ecosystem services) and eco-assessment body Bygghvarubedomningen.

We also support various other community organisations, such as BRIS Children's Rights in Society, The Swedish Childhood Cancer Fund, anti-bullying organisation *Noll tolerans mot mobbning*, an Active School project and Architects Without Frontiers. Our Christmas gift in 2021 was a donation to Save the Children Sweden for their work on safety. ■

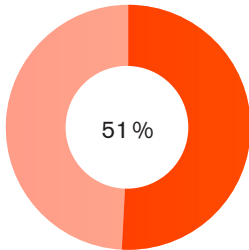
Monitoring of sustainability in our projects:



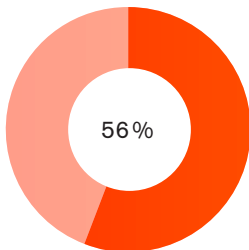
Goal 2023:
100 % of projects perform according to the SDGs.



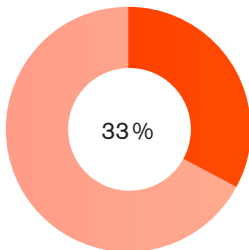
46 % of projects have climate goals for materials and/or energy (2020: 42 %).



51 % of projects are conducted under a certification system (2020: 53 %).



56 % have higher energy goals than Swedish Building Regulations (2020: 47 %).



33 % of projects are executed with a load-bearing solid wood frame (2020: 21 %).

The SDGs for White:



GOOD HEALTH AND WELL-BEING
Ensure that buildings and environments are good for people's health and well-being.
Target 3.9 and indicators daylight, air quality, thermal climate, noise, damp, and encouraging movement or rest.

Through simulations we can ensure good daylight and a pleasant temperature and microclimate in both indoor and outdoor environments. We have cutting-edge expertise for enhancing social well-being, and expertise in the importance of architecture to health, and healthcare architecture. *Read more on pages 25 and 28–45.*



AFFORDABLE AND CLEAN ENERGY
Reduce energy requirements, create energy-efficient buildings and increase the use of renewable energy.
Targets 7.2 and 7.3

We have expertise in creating energy-efficient buildings with low climate impact and renewable energy, e.g. solar cells. *Read more on pages 18 and 25–28.*



SUSTAINABLE CITIES AND COMMUNITIES
Create equal, inclusive communities with safe environments, homes for all and sustainable mobility. Create access to green spaces and public spaces, particularly for women, children, the elderly and those with disabilities. Promote social and environmental links between urban and rural areas. Work for participant-based planning.
Targets 11.1, 11.2, 11.3, 11.4, 11.6 and 11.7

Our approach is always to start from people's needs. We involve different groups in the design process to ensure norm-creative and more equal planning. We can take a holistic approach to the social environment and consequence analyses in strategic development plans, and challenge with new forms of housing. We work systematically with ecosystem services in urban development. *Read more on pages 25 and 36–44.*



RESPONSIBLE CONSUMPTION AND PRODUCTION
Contribute to the efficient use of natural resources, reduce emissions of hazardous substances and waste.
Targets 12.2, 12.4, 12.5, 12.8 and 11.6

Our goal is for circular architecture to be the starting point for our design. We offer reuse coordination, and managing the process from inventory to design. *Read more on pages 25, 33 and 35.*



CLIMATE ACTION
Reduce emissions of greenhouse gases through energy-efficient buildings and renewable energy, choosing materials with low climate impact and stimulating sustainable mobility. Introduce climate measures and climate adaptation in planning, and increase the ability for recovery.
Targets 13.1 and 13.2

Our Roadmap Climate 2030 shows the way to achieve the climate goals.
We conduct energy and climate calculations, and have services for climate adaptation and ecosystem services. *Read more on pages 25 and 27–39.*
CO₂e emissions for our operation shall fall by 30 % by 2023 compared to 2018. *Read more on pages 21–22.*



LIFE ON LAND
Enhance ecosystem and biodiversity values in planning.
Targets 15.1 and 15.9

We work systematically to implement ecosystem services in planning, based on health, climate, environmental and social aspects. *Read more on pages 25, 36, 39 and 43.*



PARTNERSHIPS FOR THE GOALS
Create partnerships that exchange knowledge, expertise, technology and financial resources to contribute to the Sustainable Development Goals being achieved in all countries.

The main development can take place in our projects, in collaboration with clients and stakeholders. White Research Lab runs practical research and innovation, in collaboration with academia and the business community. In international engagements and projects, we share and access competence and experience. *Read more on pages 15, 16–17 and 18.*

Sustainable Architecture

Architecture is about creating healthy environments where people live, work, play and learn. But the built environment will always have an impact on the climate, the resources and the biological diversity. Modern architecture and construction need to be created from a holistic perspective to ensure a living planet for future generations. There is always an opportunity to drive development in a more sustainable direction in all projects. To help solve society's challenges, here at White we have chosen to focus our efforts on five areas:

CLIMATE-NEUTRAL DESIGN

20% of Sweden's greenhouse gas emissions come from the construction industry. And the production of building materials abroad contributes almost as many emissions. White's goal is that all projects should be climate-neutral by 2030. This is a huge challenge. Our definition is that emissions from materials, transport, production and energy in operation should be balanced out by renewable energy and carbon sequestration for 50 years. Building in wood is an effective way of reducing climate impact and we can see a clear transition to more large-scale wooden architecture, such as our projects Sara Cultural Centre, Magasin X and Nodi.

CIRCULAR ARCHITECTURE

Consumption must be halved in global terms if the climate goals are to be achieved by 2050, and by even more in Sweden. Therefore, the best thing for the environment is that which is not consumed or built at all. Reuse and the use of more recycled materials not only saves the planet's resources, it is also one of the most effective measures in reducing greenhouse gas emissions. We must therefore drive the development towards a more circular architecture. This requires a brand new approach, and instead of starting with the assumption that we will create new environments and use new materials, we always need to ask ourselves the question: how can we create something new from what already exists?

Resources can also be saved by creating timeless architecture that evolves over time, using spaces efficiently and using recyclable materials. Circular architecture also helps to preserve and develop social and cultural values. In Corem's offices and the Kromet neighbourhood, we have brought circularity to the fore in various ways.

NATURE-PROMOTING ARCHITECTURE

Cities must be equal, safe, and inclusive. Their design is crucial for human health and quality of life. As cities grow, consumption increases and climate change accelerates, so the burden on ecosystems becomes heavier. The consequences of climate change are palpable in many places. Consequently, the design of urban environments is of crucial importance for how sustainable a city can actually be, environmentally, socially and economically. Greenery in cities supports many vital functions such as biodiversity, air purification, increased well-being, and managing climate change. Elevated water levels, heavier

rainfall, and warmer climates now pose a huge risk to the buildings and inhabitants of urban areas. Fostering, strengthening and integrating ecosystem services to an ever greater extent is necessary if we are to maintain a sustainable way of life. Årstafältet, Moorfield Hospital and the Brännaren neighbourhood are examples of projects that harness the opportunities of nature in different ways.

HEALTH-PROMOTING ARCHITECTURE

Health-promoting architecture is a broad concept. It covers everything from using healthy materials and creating environments with good light, sound and air quality, to stimulating or creating the conditions for both rest and physical activity. We spend a lot of our everyday lives indoors, and lead increasingly sedentary lifestyles. Both physical and mental illness are on the rise in society, so it's important to improve people's sense of belonging and get people moving more. In 2020, a WHO study showed that just 12% of girls and 17% of boys in middle and high school are getting the recommended minimum of 60 minutes' physical activity every day. Of the 45 countries studied, Sweden was at the bottom. So contributing to health-promoting environments is a crucial public health issue, and is therefore the point of departure in all our projects.

EQUAL, SAFE AND INCLUSIVE ENVIRONMENTS

The core aim of the global Sustainable Development Goals is to reduce inequalities in society. An equal society is based on the principle of equal rights and opportunities for everyone, regardless of their gender, ethnicity, functional ability or age. The UN Convention on the Rights of the Child is law in Sweden, which means that all public architecture and construction must be underpinned by its principles. Cities and buildings are for everyone, so they need to be designed to cater for many different needs.

Equal urban development should contribute to security and well-being. To having access to activities, recreation, nature and greenery. To a sense of inclusion. By involving people with different needs at the planning stage, we create better conditions for creating environments where people feel at home and in which they get involved. Safety and security have been in focus at Järntorget square in Örebro, and in the Brännaren neighbourhood and Haus Hynsparg we have created new types of residential housing for a variety of different needs. ■

House of Choice in Solna, Sweden, is an eleven-storey building that uses solar cells, passive house technology and geo-energy to make the first zero-energy hotel in Scandinavia, and the one with the highest density of solar cells in the world. It won the Sweden Green Building Award for Best BREEAM Building 2021.



Wood in the Offices of the Future

Magasin X in Uppsala is Sweden's largest office building with a frame built entirely of solid wood. The seven-storey, 16,600 square metre building is in central Uppsala and is home to White's Uppsala office.

The building has had ambitious sustainability goals throughout the process, the result being innovative energy systems, materials with low climate impact, and a high quality of indoor environment and daylight, along with measures for climate adaptation. It is also certified to the highest LEED level, Platinum.

The solid wood frame itself has a low climate impact and offers several benefits such as improved indoor air quality and a more even air humidity. The structural engineering is distinct, with pillars, X-shaped cross bracing and sturdy glulam beams. One particularly striking feature is the suspended wooden staircase in the middle of the building, which creates a shared path between the floors and encourages tenants to use the stairs rather than the lift. The wood came from sustainable forestry in northern Sweden, and all transportation used biofuels.

The facade is comprised of glass, slate and solar cells. Only the first floor is clad in timber, which was a conscious choice. The Norwegian

slate has a low climate impact on extraction, but it is also low maintenance and has a long life. It also produces beautiful colour variations in different light and weather conditions.

Green roofs combined with advanced surface water plant beds at ground level help to slow and filter rain water when it rains. It also creates a cooler microclimate on hot days.

The building is expected to have an extremely low energy requirement; it has been estimated at 15.2 kWh/m² (primary energy values), which is 80% lower than Swedish building regulations. The building's roof and south-facing facade have solar cells which more than meet the building's electricity requirement for operations. The building will be cooled using a geothermal energy storage system, which also supplies the building's heat pumps with even-temperature water all year round.

"The building has extremely high sustainability performance with a solid wood frame, low energy requirements, a good indoor environment, green roofs and renewable energy. From a sustainability point of view, however, it's also important that we've created premises that are beautiful and flexible, and can handle varying needs for many years to come," says Anders Tvååna, Lead Architect at White.

What: Magasin X office building, Uppsala, Sweden

Who: Vasakronan

When: 2018–2021

Sustainability: Certified LEED Platinum, Solid wood frame, Energy-efficient building, 900 m² solar cells, Geothermal energy, Surface water management, Daylight optimisation.

Timber Construction Scales New Heights

Sara Cultural Centre has been globally acclaimed as a guiding light in sustainable design. At 20 storeys it is not only a new landmark in Skellefteå – it's also one of the world's tallest wooden buildings.

Sara Cultural Centre was designed to be a cultural hub for the whole city – a public arena where everyone should feel welcome. It houses a library, four stages, a museum and an art gallery. The tall building is a hotel with 205 rooms, a spa centre, conference rooms and a restaurant. With a central location in the city, large transparent glass facades and entrances on each side, the building is an open and inviting meeting place.

In Sara Cultural Centre, timber construction has scaled new heights – quite literally. Constructing a complex building with different volumes and 75 metres high has required all kinds of innovative solutions to manage spans, flexibility and acoustics. The big challenge has been that a wooden building of this size has never been built before, challenging not only construction norms but also perceptions of what is possible. The hotel rooms are made of pre-fabricated 3D modules in cross laminated timber (CLT), which have been stacked onto one another over 20 floors between two CLT elevator shafts. The lower

buildings comprise a prefab solid wood frame with glulam columns and beams and CLT partitions. The foundation is concrete, as is the top joist system to prevent the hotel swaying in high winds.

Sara Cultural Centre clearly shows that it is possible to build with a low climate impact. The wooden construction binds more than twice as much carbon dioxide as produced by the building materials, transport, construction and operating energy. Calculated over 50 years, Sara Culture Centre is a climate-positive building. The high percentage of wood has a low climate impact and almost all the wood is produced locally, with short transport routes. Solar cells on the roof and facade provide renewable energy. Heating and cooling for the building are produced by a heat pump that harnesses and recovers waste energy from the rest of the city. There is a smart control system that 'reads' the building using AI, optimising aspects such as power, heating and cooling depending on activities.

"All the attention the building receives can be used to spread the word about sustainable building around the world. We hope the project will inspire and help others in our common transition to a climate-neutral society," say Robert Schmitz and Oskar Norelius, Lead Architects at White.

What: Sara Cultural Centre and The Wood Hotel, Skellefteå, Sweden

Who: Skellefteå Municipality

When: 2015–2021

Sustainability: Carbon negative over 50 years.

Emissions from building materials, transport, construction and operating energy: 202 CO₂e/m².

Carbon sequestration and renewable energy: 366 CO₂e/m².

Certified Miljöbyggnad Gold.



When Wood Takes Centre Stage

The spectacular wooden building, Nodi, towers up over the entrance to Nya Hovås. This is one of Gothenburg's newest districts, with a mixture of homes, shops and restaurants. The architectural landmark is not just a hub in the area, but also Gothenburg's first wooden office building. The building has also been recognised internationally and won a Dezeen Award in 2021 for Business Building of the Year.

The tradition of building in wood is undergoing a renaissance, and with new regulations and research it is possible to create modern wooden buildings that meet modern needs. The benefits of wood are not just about low climate impact; it is very much an aesthetic choice. In Nodi, the simple yet expressive aesthetic of wood has been fully harnessed by exposing as much of the timber frame as possible.

Nodi is comprised of four floors of offices, above an entrance level and shops that contribute to an active city life. At the top, tenants can enjoy a shared roof terrace with a kitchenette. The internally visible frame and the Linax-treated glulam and panels in the facade add a warm touch throughout. The five storeys widen the higher they go, especially towards the south and west. In this way they shield against the sun's sweltering rays, without shutting out light.

Many studies have shown wood

to have a positive effect on our health and stress levels, and this contributes to a calm, pleasant indoor environment with even temperature and air humidity – making wood ideal for working environments. The premises in Nodi were rented out very quickly, which clearly shows that tenants find these values highly attractive as well.

Nodi also has a low climate impact. The climate calculation (according to definitions in the National Board of Housing, Building and Planning's climate declaration) shows emissions from materials, transport and building production of 1,171 tonnes of CO₂e or 251 kg of CO₂e/m² (gross area). This is lower than both the LFM30 target value for business premises, and the Board of Housing, Building and Planning's reference value for offices. Moreover the timber frame sequesters carbon equating to 352 tonnes of CO₂e. Including biogenic carbon sequestration, emissions from Nodi are 175 kg of CO₂e/m² (gross area).

"Thanks to the ambitious collaboration between everyone involved, we have been able to develop a ground-breaking project. By harnessing the qualities of wood, we're creating a modern, attractive working environment of high-quality wooden architecture, with a low climate impact," says Joakim Hansson, Lead Architect at White.

What: Nodi, Gothenburg, Sweden

Who: Next Step Group

When: 2019–2021

Sustainability: Solid wood frame, Low climate impact, Optimised daylight, Climate calculations.



Circularity for Attractive Offices

In interior design, reuse has long been the point of departure in all of White's projects, but it has been harder to scale up for buildings.

When Corem's offices in Kista needed renovating, the company wanted them to be a role model for the offices of the future. The aim was that everything should be made from reused material. From initial concept sketch to finished project, we have focused on preserving and reusing, always with a keen aesthetic vision.

White's team was the architect and reuse coordinator with responsibility for project management, inventory, design concept and handling of the materials being reused, recycled and upcycled. One important step when adapting premises for tenants is to see what opportunities there are both with the premises and its interior. Could the premises be used in a more efficient way, or be better suited to different types of business over time? Based on an assessment of the materials and a reuse plan, we were able to create a strong design concept from the existing furniture and interior building materials. The success of the project was recognised with the offices being nominated as Sweden's most attractive in 2021.

95% of the furniture and interior has been reused, upcycled or renovated. Some of the furniture has

been re-upholstered or repainted, but the aim is to make as few and as minor adjustments as possible. 55% of the existing walls (plaster and glass) have been taken down and moved, and 70% of this material has been reused for new walls. Almost all the technical installations have been reused. Where reuse was not possible, materials made from recycled raw materials or with a low environmental impact were used. All the curtains are made from recycled PET bottles, and the rugs are reused or made of plastic from fishing nets. The overall rate of reuse is 90% (building materials, loose furnishings and technical installations). According to Corem's estimates, greenhouse gas emissions are 55 tonnes of CO₂e lower compared to buying new products.

"This is how we'll be working moving forward. We want to show that it is possible to use spaces and materials in a more efficient way, and that solutions for circularity can also be of a high design quality," says Laura Conradi, Architect at White.

"Seeing reuse as a second choice is a thing of the past. Neither the concept nor the end results are compromised in any way. Clients appreciate the environmental benefits, while it also strengthens the client's brand," says Annie Leonsson, Interior Architect at White.

What: Corem's offices, Kista, Stockholm, Sweden

Who: Corem

When: 2021

Sustainability: Reuse, Circular Architecture





Buildings as Urban Mines

All buildings are essentially temporary houses for materials, which then move on to the next part of their ecocycle and are used again. Seen from this perspective, demolition jobs are pure goldmines.

When White was asked by Vasakronan to coordinate recycling and reuse for the demolition of the Kromet office building in Gothenburg, the aim couldn't be more ambitious – to reuse, recycle and upcycle 100 % of all the materials.

Kromet was built in the 1980s, on the quayside beside the new Hisingen Bridge. The site will soon be home to a brand new building, Kaj (or 'Quay') 16. The original hope was to retain and extend parts of Kromet, but with higher water levels anticipated due to climate change, demolition was considered a better option from a climate and resource perspective.

White's project began with inventories to investigate the reuse potential for each building material. Using a specially developed assessment model, a reuse plan was drawn up evaluating circular material flows, climate benefit and dismantlability. White was also responsible for planning and coordinating the dismantling, logistics and storage. A lot of material could be used in other refurbishment and new construction projects within Vasakronan, while some could be sold to other property owners or reuse companies. The material from Kromet has been

used in several other projects across Sweden. The stainless steel sheets will be reused in Kaj 16. The idea is to reuse the concrete as ballast and filler for the Kaj 16 foundations.

Other extensively reused materials include stainless steel sheeting on the facade, almost all interior glass sections and doors, about 300 windows and 25 different product groups for installations. Steel, sheet metal, insulation, textile rugs, glass, plastic and plaster have also been sent for recycling.

Overall, 106 tonnes of material have been reused, saving 203 tonnes of CO₂e compared to buying new materials.

While the vision was 100% reuse, this could not quite be achieved, partly because there is no real infrastructure in place for reuse and recycling when it comes to wood. It was also difficult to separate some attached materials from each other, and some products are destroyed during demolition. Reusing the steel frame on the top floor would have required a highly complicated dismantling process.

"It will be key to full reuse in the future that dismantling is considered already in the original design process. At Kromet, we have amassed all kinds of expertise about how we can scale up the reuse of buildings. We also learnt that it's possible to reuse a lot more than we thought," says Karin Hedén, Reuse Coordinator at White.

What: Kromet, Gothenburg, Sweden

Who: Vasakronan

When: 2019–2021

Sustainability: Reuse, Recycling, Upcycling, Circular Architecture

Design for a Changing Climate

We all know that having more greenery in urban spaces can contribute important ecosystem services like better health, cleaner air and greater biodiversity. But planning with nature-based solutions can also bring aesthetic opportunities for dealing with the consequences of climate change with heavier rainfall, stronger winds and high temperatures.

Årstafältet in Stockholm is currently being developed with more than 6,000 new homes. One important aspect of the district's design lies in adapting the area to cope with climate change and extreme weather in the future. In this case, the main issue is to deal with the high volumes of water. In the borderland between the city quarters and the large, open field, a series of large surface water ponds are being built to secure water management in the future.

From the streets and the public spaces, rainwater is led via the streets' green plant beds and a rainwater gully, over the new city plaza and city park to the surface water ponds. We have

chosen to turn the technical challenge into an attraction for visitors and local residents by making the ponds an important element of the landscape. With an austere side facing the city in the shape of a generous wooden jetty, and a more free-form side facing the field, the ponds form a connecting border between the city and nature.

The ponds also retain and purify large volumes of water from the existing, surrounding city districts. The water is cleansed as it filters through plant beds of stone chips and biochar, but also through sedimentation in the ponds, which is then cleared from the pond bed. Oxygenation and circulation of the water is guaranteed using liquid aggregate.

Pedestrians and cyclists can cross the water using four bridges. Generous wooden jetties with plenty of room for meetings and relaxation connect the ponds, and allow everyone to get close to the water. On the field side is a green slope with rich wetland and waterside vegetation, which also provides a good habitat for birds.

What: Surface water ponds, Årstafältet, Stockholm, Sweden

Who: City of Stockholm, City Development Administration

When: Entire Årstafältet district planned for completion 2030

Sustainability: Climate adaptation, Ecosystem services, Surface water, Reuse



Health-promoting Architecture in Several Dimensions

In London's growing Knowledge Quarter, on the site that was previously home to St. Pancras Hospital, we are now creating The Oriel. At 39,500 square metres, it will be a new, world-leading centre of excellence for eye health, with staff, doctors, researchers, students, patients and the public all housed under one roof.

We have developed a design strategy for both the interior and exterior, including the atmosphere and lighting in the public spaces. The design aims to boost patient and staff well-being through using good acoustics and health-promoting materials.

The choice of materials and colour schemes is inspired by nature, and aims to create a calm, appealing atmosphere. Light, both natural and artificial, is absolutely crucial in creating environments that promote people's health and well-being. The Oriel's lighting integrates daylight and electric lighting, and considers the individual, the task and the context as far as possible. The heart of the building is an atrium designed as an attractive meeting place where everybody feels welcome.

In this project, however, the building's roof also plays an important part. A roof terrace is being established which offers opportunities for work and teaching, relaxation, urban gar-

dening and social gatherings. A wide variety of plants have been selected to enhance the site's biodiversity and recreation value.

As climate change progresses, it will be increasingly important to integrate greenery in towns and cities to the greatest extent possible. Varied vegetation contributes various crucial ecosystem services such as shade, rainwater retention and filtration, and above all a cooling effect in the city. There can be as much as a 20°C difference between a paved surface and a vegetated one. Greenery is therefore vital to inhabitants' health and to their ability to live in the city as average temperatures rise and heatwaves occur more frequently. It also helps to increase biodiversity, and to create the necessary green corridors to enable pollinating insects to survive in the urban landscape. So the positive effects of the roof terrace will not stop at hospital users. It will be a vital asset for the surrounding city.

"The aim is to enhance the sense of nature by using natural materials and creating more green spaces. Several studies show a clear link between nature and positive physical and psychological effects, such as lower stress levels," says Caroline Varnauskas, Lead Architect at White.

What: The Oriel, Moorfields Eye Hospital, Camden, London, UK

Who: Moorfields Eye Hospital NHS Foundation Trust, UCL Institute of Ophthalmology, Moorfields Eye Charity

Architect: White (Design Architect for public spaces, including interior and landscaping), AECOM (Lead Designer), Penoyre & Prasad (Lead Architect)

When: To be completed 2025/2026

Sustainability: LEED Platinum, Health-promoting architecture, Ecosystem services, Natural materials, Daylight



Together for a Safer Örebro

Järntorget square in Örebro has long been a place perceived as being unsafe, and one fraught with problems of criminality. Örebro Municipality and other players have taken various localised measures, which have often been successful in that the criminal activity has moved elsewhere. But the sense of insecurity has remained, and the area's negative identity is deeply rooted. People enjoy being there in the daytime and during the summer, but in the evenings and at night it is a dark, deserted, unsafe place, and many people avoid it.

To really find ways forward and make the square safe for all residents of Örebro, White was commissioned to conduct a comprehensive analysis of Järntorget. The analysis was to be done over a full year to ensure that any future measures would have the maximum effect whatever the season. And not only the built environment would be measured, but also everything from the social environment to traffic – a truly holistic analysis.

“It was bold of the municipality to take such a holistic approach to the work on Järntorget. This is exactly the

kind of project you dream of, to be able to look closely at all the complexities of the situation. Only then do we really have an opportunity to make a difference,” says Lisa Wistrand, Cultural Geographer at White and Process Manager for the project.

To get to know the place and its visitors, locals were asked to share their views about the square, and almost 1,300 residents got involved. Through evening walks with residents, security guards and others, we were able to see the square from their perspectives and could build up a clearer picture of how people perceive the square.

Due to the scope and breadth of the project, several areas of competence at White needed to be involved. Experts in social sustainability, urban planners, landscape architects and lighting designers worked in close collaboration to ensure that all the values and challenges of the square are analysed. This has ensured a complete holistic analysis and generated a raft of suggested measures to enable Järntorget to develop into the safe, inviting place that all of Örebro's residents deserve.

What: Järntorget square, Örebro, Sweden

Who: Örebro Municipality

When: 2021

Sustainability: Economic sustainability, Social sustainability, Value creation, Inclusion and safety/security, Community planning





Small Space Living in a Big Community

The Brännaren quarter in the northern Sorgenfri neighbourhood in Malmö is taking on a different shape, from industrial plots, to the homes, pre-schools, offices, parks and plazas of tomorrow. Malmö has a great need for smaller rental properties, and also furnished apartments for short-term accommodation. In the Brännaren quarter, we have had an opportunity to address this need and create a neighbourhood with social context for the people who live there, but also one that gives back to the city's inhabitants.

Brännaren encompasses just under 120 rental properties. They are studio apartments between 18 and 35 square metres, intended for young adults looking for their first home. Roughly two-thirds of the property comprises an aparthotel. Living in a small apartment, one often needs access to places for socialising. Residents share the building's social spaces and facilities. On the ground floor is a staffed reception, a lounge, laundry room, reading places, a games room, a gym, a deli and a café. Several rooms can be booked for parties and meetings.

The patio courtyard is home to a 200 square metre glasshouse called Smaragden, literally 'The Emerald'. It is a winter-proof general conservatory, and a greenhouse with a service kitchen where one can be all year

round. Smaragden contributes valuable greenery to the neighbourhood, and is becoming a green oasis.

The architecture is inspired by the locality's industrial background, which is expressed by facades in zinc, aluminium and corten steel, along with recycled brick in the courtyard. Varying the construction height, roof angles, materials and colours lends the modular apartments different characters and identities.

Passers-by have visual contact with the patio courtyard via alleyways. Large window panes on the ground floor create a link between the building interior and public life out on the street, and increase the amount of daylight entering the property. The café and deli on the ground floor are open to everybody.

The vision for the neighbourhood is that walking, cycling and public transport should be the preferred options. Residents therefore have access to covered bicycle parking, and bicycle and car sharing.

"The special aspects of Brännaren are the social ambition and the fact that people share facilities. You get your own small home, as well as access to places you can socialise. I am convinced that we'll be seeing a lot of concepts like this in the future," says James Reader, Lead Architect at White.

What: Brännaren quarter, Malmö, Sweden

Who: Ailon

When: 2018–2022

Sustainability: Homes for different needs, Social value creation, Greenery, Reuse, Sustainable mobility

Thoughtful Architecture Focusing on Care

Worldwide the population is ageing, and this increases the need for different kinds of residence for the older demographic: care and nursing homes, community living, generational housing, niche accommodation, as well as the ability to stay in standard housing. There is also a need for more environments and social contexts where elderly people can continue being an active part of society.

In Liederbach outside Frankfurt, we are currently designing Haus Hynsperg, a new sheltered housing block for

elderly people and those in need of opportunities to socialise. The project originated in a competition organised by a non-profit foundation called *Cronstett- und Hynspergische evangelische Stiftung* – which White won.

Haus Hynsperg will comprise 42 spacious apartments of different sizes, as well as a wide range of common areas such as a foyer, a shared kitchen and a large meeting room. It has been important to create plenty of space for both socialising and physical activities. The block is unique in that there will

also be apartments for young people, primarily with disabilities, as well as single parents with children.

Our proposal links the town centre with Oberliederbacher Park. The two four-storey buildings focus on the human scale, and the design is based on contributing with health-promoting architecture. With bright apartments, wood as a building material and proximity to greenery, residents have an optimum foundation for high quality of life. All the apartments have large windows in at least two

aspects, providing nice views and good access to health-promoting daylight. On the top level are large terraces with greenery. The proximity to Oberliederbacher Park is a valuable asset, and great emphasis has been placed on the visual link to the park.

The buildings will be built using a visible CLT frame with cedar-wood facade material. The garage beneath the building will have space for different types of sustainable mobility solutions, such as electric bikes and electric cars, as well as car sharing.

The building's entrance is located at the intersection between the city and park, and leads residents and visitors to all the different functions of the building.

"We are particularly delighted about the opportunity to create high-quality architecture out of wood. We are convinced that together with our international team of consultants and experts, we can create a building that makes a relevant contribution to the objectives of the New European Bauhaus: *beautiful, sustainable, together*," says Max Zinnecker, Lead Architect at White.

What: Haus Hynsperg, Liederbach, Germany

Who: Cronstett- und Hynspergische Ev. Stiftung.

When: 2020–2024

Sustainability: Homes for people in need of opportunities to socialise, Health-promoting architecture, Wooden building

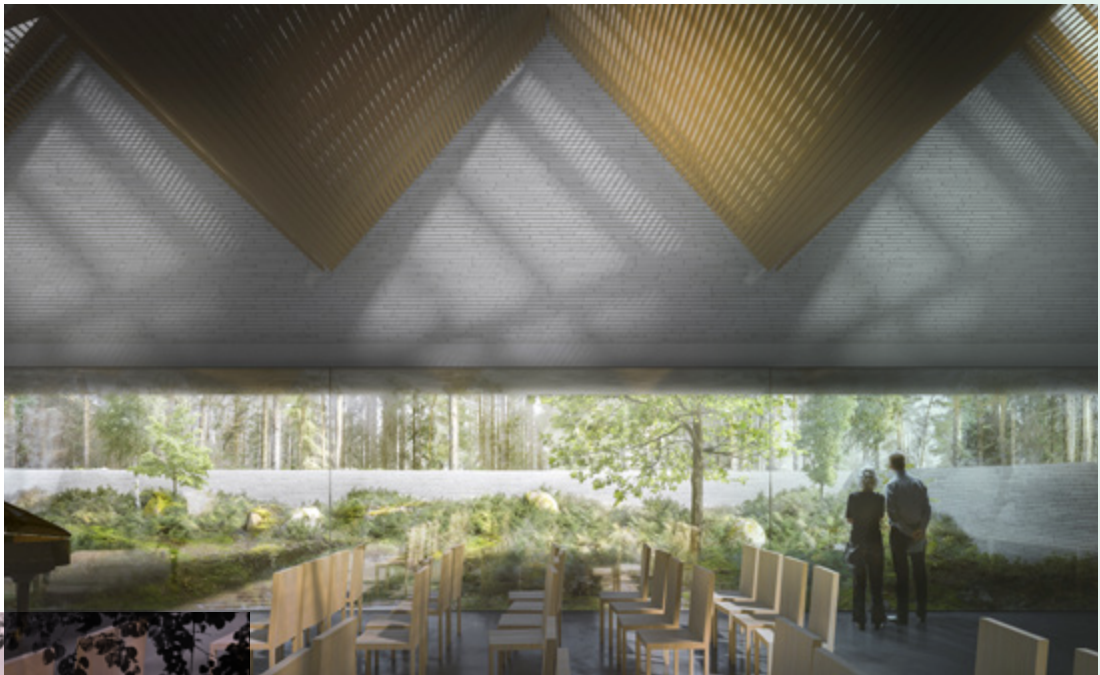




Nodi,
Gothenburg,
Sweden.
Dezeen
Awards
winner.

Skövde New
Crematorium, Sweden,
competition winner.

True Blue, Lungegårds
Park, Bergen, Norway.
WAN Awards winner.



Awards and Competitions

AWARDS
Being nominated for and winning awards for our projects is a mark of recognition, and something that makes us very proud. Some of the highlights are Nodi winning the Dezeen Award for Office Building of the Year, House of Choice being voted BREEAM Building of the Year and O-huset winning the Healthcare Building Award. Also, White was the first firm of architects ever to be nominated for the Government's Export Prize.

COMPETITIONS
Competitions give us an opportunity to carry out interesting, prestigious commissions, but also to test new ideas and innovations. Winning a competition is evidence that we understand the challenge, and can translate it into an attractive solution and create powerful

architecture. Two of the international competitions we won in 2021 were the Kimmel Office Quarter in Riga, Latvia, and Hippodrome in Montreal, Canada. In Sweden we have had wins nationwide, from the Tomtebo Gård housing project in Umeå and the Korean Embassy in Stockholm, to Skövde's New Crematorium, the Hovås entrance in Gothenburg and the Woodland Cemetery in Falkenberg. ■

Distinction	Project
2021 New London Awards, Unbuilt	Blackwall Yard, London
Sweden Green Building Award 2021, BREEAM Building of the Year	House of Choice, Solna
'Beauty Council' Grand Prix Malmö	Konsthallstorget, Malmö
Halmstad Architecture Prize	Enslöv Cemetery, Enslöv
Gröna Larsen, Malmö	Priorn, Malmö
Monocle Design Awards, Best Public Furniture	Långbordet, Stockholm
Dezeen Awards, Business Building	Nodi, Gothenburg
Swedish Sign Award 2020, Individual Sign of the Year	Återbruket, Skärholmen
Kristianstad Architecture Award	Absolut Home, Åhus
WAN Awards, Future Projects – Leisure	True Blue, Lungegårds Park, Bergen
Sound Environment Award 2021	O-huset, Karolinska University Hospital, Huddinge
The Pineapples Award, Place in Progress	Climate Innovation District, Leeds
Healthcare Building Award 2021, Major Project	O-huset, Karolinska University Hospital, Huddinge
BA Tech Awards, Most Innovative Real Estate Operator	White ReCapture
International Urban Project Award, Special Prize	Sara Cultural Centre, Skellefteå

During the year we organised several well-attended webinars. One of which addressed how we use light to create healthy environments for everyone, moderated by Isabel Villar, lighting designer and Viktor Sjöberg, sustainability strategist (pictured). You can find this and many more on our website – search for White Play and click away!

800 Stars – Our Employees

White’s strength is its employees. Our knowledge, creativity, and commitment are at the heart of the business. As our employees develop, so too does the company. We are at our strongest when we’re working together and contributing our various areas of expertise. Since we own the company together, we have the opportunity to invest in what we believe in, both now and over the longer term. And we have a lot of fun along the way.

STRONG TOGETHER

2021 was the second year of the pandemic, and we worked remotely for much of the year. Thanks to well-developed digital tools this went very well, and we have all found new ways of working in creative processes, with each other and with clients. We are taking this with us also beyond the pandemic.

White is owned by its employees, 66% of whom are joint owners in the company. We are convinced that joint ownership creates a strong sense of commitment that contributes to the company’s success.

We also believe that our success hinges on our diversity. This is why we build teams of employees with different skills and experiences, such as architects, building services engineers, urban planners, behavioural scientists, environmental experts and digital specialists.

White has a strong culture that has developed since the company started in 1951. Over the past two years, we have been actively focusing on our conduct with each other and in our everyday dealings. We call this our ‘Cultural Journey’. We want this journey to develop our culture, so that we remain strong also in the future.

A DEVELOPMENTAL ENVIRONMENT

At White, every employee should have the conditions to develop. The collective knowledge of our employees is our most valuable asset. We offer a very wide range of internal training in White Academy. Almost every week there are courses in different areas such as project execution, digital tools, leadership and sustainability. Through White Research Lab, all our employees have an opportunity to apply for funds for R&D that is related to our projects or develops our operations in some other way. At the annual White Day and on our study trips,

we build networks between offices and a strong corporate culture.

AN ATTRACTIVE WORKPLACE

We strive to provide our employees with safe and secure employment with good benefits and opportunities for influence by maintaining continuous dialogue and monitoring our working environment. Our personnel policy and work environment policy provide the framework. We follow the sector’s collective agreements and have union representatives at all our offices. All employees have an annual performance appraisal, where personal goals for training, development and work are set.

White aims to be a workplace where everybody is treated equally. There is an even gender balance, which extends to senior positions and the board. We follow up on our work on equal treatment annually, with central and local action plans and employee surveys.

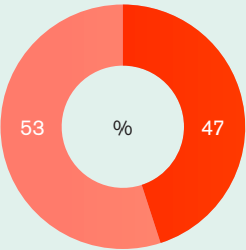
The surveys also monitor the working environment, development opportunities, leadership and corporate culture. The results are then discussed and evaluated in groups at the offices. To ensure a good working environment, we have health and safety representatives at all our offices.

We also have guidelines on alcohol and drugs, accessibility at work, rehabilitation and the work environment beyond White’s premises.

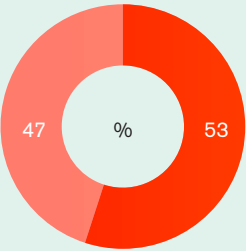
HEALTH AND WELL-BEING

In addition to occupational healthcare, all employees are also offered wellness and study subsidies for exercise, courses and personal development. The offices organise a range of different activities such as running sessions, padel, yoga and massage. During the pandemic we also arranged digital mindfulness, exercise breaks and courses in ergonomics. ■

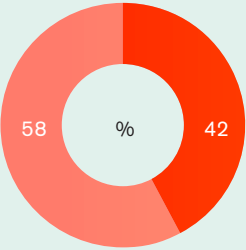
PROPORTION OF WOMEN & MEN



Employees



Senior management



Board of Directors

● women ● men





Lindesberg Health Centre is both a clinic and an attractive residential option with opportunities for additional support. Sustainability has been a driver in its design, from the landscape to the larch-wood building and the green roof.

The 10 principles of the UN Global Compact:

HUMAN RIGHTS	LABOUR	ENVIRONMENT	ANTI-CORRUPTION
<p>PRINCIPLE 1 Businesses should support and respect the protection of internationally proclaimed human rights; and</p> <p>PRINCIPLE 2 make sure that they are not complicit in human rights abuses.</p>	<p>PRINCIPLE 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; and</p> <p>PRINCIPLE 4 the elimination of all forms of forced and compulsory labour;</p> <p>PRINCIPLE 5 the effective abolition of child labour; and</p> <p>PRINCIPLE 6 the elimination of discrimination in respect of employment and occupation.</p>	<p>PRINCIPLE 7 Businesses should support a precautionary approach to environmental challenges;</p> <p>PRINCIPLE 8 undertake initiatives to promote greater environmental responsibility; and</p> <p>PRINCIPLE 9 encourage the development and diffusion of environmentally friendly technologies.</p>	<p>PRINCIPLE 10 Businesses should work against corruption in all its forms, including extortion and bribery.</p>

Responsible Business

White’s business concept is to develop long-term value for clients and stakeholders, through a built environment that enriches and engages people. A strong commitment to society with an ethical and democratic foundation are guiding principles for White. It is a huge risk today not to take responsibility for the company’s impact on people or the environment, and recent years have shown how events in the wider world can quickly become unexpected risks and threats.

CODE OF CONDUCT FOR CORPORATE SUSTAINABILITY, ETHICS AND ANTI-CORRUPTION

White is a company with strong values which permeate our operation and our actions. They are based on being *explorative* and *responsible*, and acting with *respect* and *participation*.

White’s Code of Conduct for Corporate Sustainability sets the framework for the expectations we have of ourselves and those we work with. The Code is based on the ten principles of the UN Global Compact as regards human rights, labour, environment and anti-corruption. Our employees must also adhere to the ethical rules of both the public construction sector and Architects Sweden. These rules mean that we oppose all forms of corruption, strive for competition on equal terms and promote social responsibility in the value chain.

We follow and act in accordance with both international and national laws, norms and directives. We have the greatest opportunity to focus on human

rights issues in our projects, for example by creating safe, equal, healthy environments for the needs of many different people. Read more on page 25. We report on how we work to enhance working conditions for our employees on page 48. Preventing negative environmental impact is pivotal to our operation, see pages 20–25.

Our work is also based on three policies: *personnel policy*, *quality policy* and *sustainability policy*.

The Code of Conduct for Corporate Sustainability and the policies can be found on our website. We also have a whistleblower service that can be used by both external parties and our own employees. During 2021, we have not had any reports of deviations from the Code of Conduct for Corporate Sustainability.

WHITE WORK

To ensure our operation is managed in an efficient, professional manner, and with high quality, we have an operations system in place called White Work. It is certified to ISO 9001 for quality management and

Risk analysis:

RISK ASPECT	CONSEQUENCE	RISK MANAGEMENT
CLIMATE AND ENVIRONMENTAL IMPACT We work actively to prevent negative environmental impact, both in our operation and in our projects.	The risk that the company contributes directly to environmental impact is deemed low. Our strength in sustainability contributes to a high level of trust and a strong brand. In our projects, we have good opportunities to make a difference.	Requirements on travel, purchases, suppliers and sub-consultants; sustainability analyses in all projects; competence development via White Academy and White Research Lab; specialists in climate and the environment.
SOCIAL RESPONSIBILITY Our operation should not cause, contribute to or be linked to the violation of human rights or corruption.	The risk is deemed to be low, but the consequences for the company could be serious, e.g. damage to trust/the brand, financial or legal consequences.	The Code of Conduct for Corporate Sustainability and ethical rules for employees; Code of Conduct for Clients and Suppliers; country risk analyses for projects outside of the domestic market.
BUSINESS PARTNERS Our suppliers and business partners should not, in the areas they work in, cause or contribute to the violation of human rights, corruption or negative environmental impact.	The consequences could be serious not just for White, but also for them and the areas in which they operate.	Procedures for tender, project and sustainability analyses; Code of Conduct for Clients and Suppliers, also purchasing procedures and supplier evaluations; sub-consultant assessments.
EQUAL TREATMENT All employees shall be treated equally and with respect. This also applies to business partners and in projects.	The consequences could be serious not just for them, but also for the company's brand and attractiveness.	Code of Conduct for Corporate Sustainability; Code of Conduct for Clients and Suppliers; personnel policy; plan for equal rights and opportunities with ongoing monitoring.
COMPETENCE DEVELOPMENT Having the best employees who can continuously develop is crucial to the company's success and to project quality.	Good opportunities for development make the company attractive. Shortcomings in projects and damage could lead to losses and reduced trust.	White Research Lab; Grow at White, White Academy; performance appraisals and employee surveys.
WORKING ENVIRONMENT Our workplace should be sustainable from a health, safety and working environment perspective. Employees should strike a balance between work and leisure time.	A good working environment, satisfaction and leadership are crucial to the company's attractiveness. The consequences of a poor environment and balance could be serious for the individual employee, but also for the company generally.	We offer occupational healthcare and wellness activities. Courses in leadership. Performance appraisals for all and employee surveys.
PANDEMIC AND OTHER ILLNESSES Contagious disease being spread locally or worldwide.	The consequences are major for employees' health and the company's finances. Major risks associated with absence, project losses, earnings and capacity.	Enable remote working and have a good infrastructure in place for digital tools and assistance. Ensure good communication, leadership and different kinds of support for employees as required. Have a broad base of clients and projects to spread the risks.



Magasin X in central Uppsala is Sweden's largest wooden office building – and the new home of our Uppsala office.



The Alfabetet block in central Linköping, Sweden, has undergone extensive revitalisation, where we and Elding Oscarson have created one of the city's most exciting office buildings. The existing frame was reused, resulting in a successful transformation project that was nominated for the Östergötland Architecture Prize 2021.

ISO 14001 for environmental management. We have a far-reaching organisation for maintaining White Work, for instance with quality leaders in all groups at our offices, ongoing training, and external and internal audits with action plans twice a year. We measure quality and environmental performance for both our operation and our projects, and follow this up annually in our management review.

RISK ASSESSMENT

Our risk policy dictates that all employees have a responsibility to ensure that the company is not exposed to unnecessary risk. The biggest risks for White's operation are associated with our employees, the economy, financial development and the execution of assignments. To minimise the risks, we regularly follow up on areas such as our employees' work situation, the market and sector's development, various financial indicators and project results. We have a comprehensive risk analysis which is reviewed annually and followed up by the board.

To mitigate the risks in executing projects, we always conduct a risk analysis in connection with tendering and contracts. The risks are evaluated based on business goals, the Code of Conduct for Corporate Sustainability and financial conditions. Country risk assessments are also carried out for projects outside of the Nordic region, linked to democracy, human rights, corruption and business risks. The analyses are based on evaluations by Freedom House, EKN The

Swedish Export Credit Agency SE and Transparency International. To minimise the risk of contributing to a negative impact in terms of sustainability, a sustainability analysis must always be conducted in our projects.

We also have a *Code of Conduct for Clients and Suppliers*, which is based on our Code of Conduct for Corporate Sustainability. When signing an agreement, the other party must confirm that they have understood the content of and undertake to act in accordance with the Code. An initial evaluation takes place by way of the project qualification analysis, project risk analysis, procurement criteria or sub-consultant assessment. Follow-ups take place by way of interviews with our major suppliers or spot checks for sub-consultants.

STAKEHOLDERS

To ensure that we make the right investments, develop as a company and take responsibility for our operation, we need to understand our business environment – from laws and regulations, to our stakeholders' interests. Since we work and operate in a wide range of areas, we also have many different stakeholders: users, clients, business partners, the academic world, and our employees and owners. We regularly assess our stakeholder relations through client surveys, employee surveys, market research and dialogue processes. Through our social media, we receive rapid feedback on what we do. ■



At Masthuggskajen in Gothenburg, Sweden, we have designed the characterful Brick Studios, the city's tallest building with a brick façade that was laid on site. The building's 15,000 square metres spread over 15 floors house offices and co-working spaces. It is certified to BREEAM Excellent, and the entire area is certified to Citylab.

A Strong Year

2021 was the second year of the global pandemic. Restrictions and working from home had become the new norm. Despite all this, the economy recovered, both on our main markets in Sweden and in the other countries where White operates. We can look back on a successful year with expansion of our international operations, several acclaimed projects and competition wins, and financial results above budget.

2021 saw a relatively even distribution of projects in our different market areas, which ensures good stability over time. Demand for homes and healthcare buildings was good, and we also saw a recovery in the commercial sector, even though the effects of the pandemic on supply chains, availability of building materials and construction prices were palpable.

Earnings for 2021 were more than double compared to 2020. Contributing factors were higher turnover combined with ongoing cost control, along with a good recovery on the Stockholm and Gothenburg markets. Our other Swedish offices were not as affected by the pandemic in 2020, and saw a continued strong market in 2021. We are now also seeing the results of several years' growth and establishment on new markets, primarily in Oslo and London. We also established a

new studio in Stuttgart in order to offer our clients a local presence. In addition we have continued to invest in digitalisation, as well as research, development and innovation.

The group's operating profit before and after foundation provisions amounted to SEK 43.6 million and SEK 32.6 million respectively. This corresponds to an operating margin of 6 % and 4 % respectively. The group's equity-to-assets ratio was 44 % and liquidity remained very good throughout 2021, with cash liquidity of 213 %.

According to Architects Sweden's 2021 industry report, economic conditions for the sector look set to improve moving forward.

We look ahead to 2022 with confidence as a year of increased demand for our services in sustainable urban development and architecture, both in Sweden and internationally. ■

Financial summary, White Intressenter AB

	2021	2020	2019	2018	2017
FROM THE INCOME STATEMENT (KSEK)					
Operating revenues	770,988	746,452	812,779	870,675	964,010
Operating profit	32,606	26,150	10,262	27,868	38,909
Profit after financial items	33,331	26,111	9,837	27,641	40,003
Tax on profit for the year	-7,481	-14,153	-4,206	-15,176	-8,075
Profit for the year	25,850	11,958	5,631	12,465	31,928
Minority share of profit for the year	-70	0	0	1	8
Profit for the year	25,920	11,958	5,631	12,466	31,936
FROM THE BALANCE SHEET (KSEK)					
Intangible assets	0	0	0	0	29
Property, plant and equipment	783	1,334	2,382	3,881	5,473
Financial assets	411	457	484	161	728
Current receivables	261,715	248,612	291,574	284,204	402,295
Cash and bank balances incl. short-term investments	77,702	65,151	38,059	49,915	36,586
Total assets	340,611	315,554	332,499	338,161	445,111
SHAREHOLDER’S EQUITY					
Minority share of equity	1,701	1,771	6,771	6,978	6,979
Provisions	29,075	31,631	29,948	25,941	25,154
Current liabilities	159,497	141,694	169,271	172,369	261,968
Total shareholder's equity and liabilities	340,611	315,554	332,499	338,161	445,111
KEY METRICS					
Return on equity (%)	17.8	8.9	4.3	8.8	20.6
Profit margin (%)	4.3	3.5	1.2	3.2	4.1
Earnings per employee (KSEK)	1,357	1,355	1,303	1,294	1,322
Equity/assets ratio (%)	44.1	44.5	38.3	39.3	33.9
Average no. of employees (FTE)	568	551	624	673	729

Definitions	
Return on equity (%)	Profit for the year excl. minority share as a percentage of average shareholder’s equity excl. minority share.
Profit margin (%)	Profit after financial items as a percentage of operating revenues.
Equity/assets ratio (%)	Shareholder's equity excl. minority share as a percentage of total assets.

WHITE INTRESSETER AB
registered no. 556598-8499

Yours Sincerely

Josef Abrahamsson, Tarek Adhami, Ivan Agoes, Ivan Jimmie Ahlgren, Oskar Airijoki, Mahmoud al-Shihabi, Malin Alenius, Elin Allbäck, Joakim Allerth, Kelly Alvarez Doran, Aksel Alvarez Jurgueson, Hans Alving, Ioannis Anagnostopoulos, Frans Andersen, Jonathan Anderson, Alex Andersson, Alice Andersson, Annika Andersson, Jens Rasmus Andersson, Johan Andersson, Niclas Andersson, Per-Anders Andersson, Pär Andréasson, Alan Andrews, Rodrigo Angeles, Fredrik Angner, Pål Annerström, Ulla Antonsson, Fredrik Arbell, Anders Arvidsson, Anna Arias, Hedda Arlid, Gry Arvidsson, Martin Arvidsson, Joyce Asante-Crompton, Daniel Asp, Edvin Asteberg, Johanna Augustsson, Jens Axelsson, Josefin Axén, Arya Azadrad, André Backlund, Hanna Backmann, Pontus Bahrtine, Nicholas Baker, Gunvor Bakke Kvinlog, Kristjan Baldvinsson, Angeliki Baltoyianni, Gabriela Banic Hjärvar, Helda Bara, Adolfo Barbeito Ulloa, Luis Barri, Sara Barton, Gina Bast Mossige, Sara Bauer, Petter Beckne, la Belfrage, Malin Belfrage, Michelle Bengtsson, Sofie Bentzen, Jerome Beresford, Adam Bergendal, Vera Berggren, Josefine Berglund, Marlene Bergqvist, Lisa Bergstrand, Anna Bernmark, Francesca Bianchi, Helen Biddle, Raymonde Bieler, Angelica Bierfeldt Liptak, Nicola Bigmore, Åsa Bjernndell, Johan Björkholm, Amilia Björklund, Katharina Björlin Wiklund, Jørund Bjørlykke, Karin Björning-Engström, Bo Blixt, Elena Bloch, Paula Block Philipsen, Egil Blom, Giovanni Bonavia Pelà, Carl Borglund, Magnus Borglund, Keith Boxer, Lena Brand, Sara Brask, Yaël Bratel, Patrik Buchinger, Magnus Bunner, Philemon Bühler, Louise Bårdén, Carl Bäckstrand, Cristiana Caira, Arthur Campling, Gisela Carlén, Regina Carlén, Åsa Carlestam, Gustav Carlson, Birgitta Carlsson, Emma Carr, Miguel Carvalho, Lucas Cedergren, Caroline Cederström, Nicklas Centring, Ayoub Chkairi, Navid Christensen, Solvejg Christensen, Gabriel Ciardi, David Clark, Susanne Clase, Annette Clavier, Laura Noline Conradi, Brendan Cooney, Nadine Cornu, Filiz Coskun, Rafel Crespo Solana, Magnus Croon, Anna-Carin Dahlberg, Johan Dahlberg, Helena Dahlgren, Jessica Dahllöf, Isabelle Damerji Karam, Jakob Danckwardt-Lillieström, Cristina Danielsson, Eva Datta, Charlotta Davidsson, Andrew Davies, Laura Davies, Niels de Bruin, Jasper de Mink, Andrei Deacu, Tara Dehghanpour, Emma Deines, Ola Dellson, Geoff Denton, Adalaura Diaz Garcia, Louise Didriksson, Pål Dixon Sandberg, Carl Dolk, Marie-Claude Dubois, Pia Eckerstein, Anna Edblom, Sofia Edholm, John Philip Edstrand, August Edwards, Mats Egelius, Andreas Eggertsen Teder, Martin Ehn Hillberg, Katrin Ehnberg-Gunnarsson, Ingrid Ehrnebo, Albin Eidner, Frida Ejdemyr, Ann-Sofie Ek, Jonas Ekberg, Linda Ekblom, Charlotta Ekelund Ingvar, Rebecca Ekenberg, Anna Ekholm, Anna Eklund, Claes Eklund, Fredrik Eklöf, Linda Ekman, Hossam Elbrrashi, Susanna Elewi, Anna-Lena Elfving, Mirwais Elham, Martina Eliasson, Torbjörn Eliasson, Thérèse Elmquist, Malin Elvestad, Karl Elvsnö, Miriam Emilianovich Zacharczuk, Matilda Emricson, Dan Engberg, Johanna Engberg, Mads Engh Juel, Maryam Erfani, Malin Ericson, Linda Ericsson, Helene Eriksson, Martin Eriksson, Mattias Eriksson, Niklas Eriksson, Päivi Eriksson, Sanna Eriksson, Therese Eriksson, Mia Erlandsson, Amanda Ersson, Eva Fabricius, Mia Falk, Erik Falkenström, Eirini Farantatou, Mike Fedak, Fredrik Fernek, Amparo Ferrando, Thiago Ferreira, Hanne Finseth, Erik Fjaervoll, Maria Flårbäck, Jake Ford, Gustav Fornwall, Malin Forsberg, Stefan Forsberg, Hans Forsmark, Rasmus Forster, Clara Fraenkel, Elin Framme, Valerie Franck, Hugo Franklin, Linus Fransson von Essen, Lisa Fransson, Maria Fredriksson, Niclas Frenning, Andreas Fridh, Léo Friedmann, Klara Frosterud, János Fuchs, Mohamed Ossama Gabrallah, Felipe Garcia, Maria Gertell, Jonathan Gertson, Ali Ghorbanamraji, Maria Glädt, Ebba Gordon Hultsjö, Anna Graaf, Sara Grahm, Fanny Gralhien, Sofie Granberg, Robert Granstam, Mikaela Grassl, Petter Green, Matteo Grometto, Daniel Groop, Annika Grottell, Gunilla Grönbeck, Elin Grönberg, Louise Grönberg, Petra Grönqvist, Sven Gunnarson, Josefin Gustafsson, Olle Gustafsson, Sven Gustafsson, Malin Gyll, Olov Gynt, Gusten Göthe, Viktor Göthe, Jonna Göthlin, Elin Haettner, Alexandra Hagen, Johanna Hallgren, David Hammarsten, Elin Hammarsten, Felix Hansson, Gunilla Hansson, Jens Hansson, Joakim Hansson, Hugo Hardell, Sofie Hardmark, Åsa Haremsst, Lena Harries, Daniel Hasselvind, Sardar Hasso, Karin Hedén, Anna Hedlund, Karin Hedlund, Olof Hedner, Fredrik Hedvall, Silje Heggdal, Joel Heinevik, Monika Hellekant, Anna Hellsing, Charlotta Hellström, Alexander Henriksson, John Hermansson, Victor Hugo Hernandez Talavera, Tobias Hesselgren, Marcus Heverius, Axel Heyman, Anna Hidemark, Gunnar Hidemark, Carina Hillerström, Stina Hillinge, Edda Hjärvar, Bo Hofsten, Niklas Holmberg, Sanna Holmberg, Britta Holmblad, Richard Holmes, Johan Holmgren, Yara Hormazábal Cortés, Marty Hughes, August Hugoson, Hampus Hugoson, Per Hultcrantz, Jonas Hultgren, Daniel Hultman, Elin 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In the expanded new neighbourhood of Masthuggskajen, Gothenburg, Sweden, for NCC we have designed the 13-storey Våghuset ('Wave Building') with influences from the heart of Gothenburg – the Göta River. The building is certified to BREEAM Excellent, and the Masthuggskajen area is the first project to be certified for sustainable city planning by Citylab.



Just outside Linköping is Tinnerö Eklandskap – Sweden's most species-rich nature reserve. We have now completed what is probably Scandinavia's biggest bug hotel. The building is inspired by the landscape's rich cultural and natural environment, and is the natural starting point in the reserve. It displays the diverse wildlife of the reserve, and serves as an outdoor classroom, meeting place and information centre, while also providing shelter for humans and animals alike. Each section of the building is adapted to provide a habitat for the many rare species that currently call Tinnerö home.

Falkenberg's parish announced an architecture competition to design a new faith-neutral ceremony and funeral building at the Woodland Cemetery in Falkenberg, Sweden. With the climate-neutral proposal Andrum ('Breathing Space'), White was voted the winner, with the comment that it best met the needs of the brief and made the most of the beautiful environment in the Woodland Cemetery.

This Sustainability Report encompasses White Intressenter AB and its subsidiaries, with the exception of the subsidiaries Koggensgrand AB, White Tengbom Team (50% ownership) and dormant companies. Where indicators, metrics or procedures do not tally with this delimitation, this has been duly noted. The report has been prepared in line with the Swedish Annual Accounts Act, which means it contains the sustainability disclosures required to understand the company's development, position and results, as well as consequences resulting from the operation. The report covers aspects related to the environment, social conditions, personnel, respect for human rights and anti-corruption. The report refers to the financial year 1 January – 31 December 2021.

The report relates to our commitment according to the UN Global Compact and its ten principles. It also comprises our annual Communication on Progress and will be published on the UN Global Compact website, www.unglobalcompact.com. The report will also be published on the White website, www.whitearkitekter.com.

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This is our Communication on Progress in implementing the principles of the United Nations Global Compact and supporting broader UN goals.

We welcome feedback on its contents.

White Arkitekter is one of Scandinavia's leading firms of architects. We work with sustainable architecture, design and city planning in an international context, for current and future generations. Our mission is to enable sustainable life through the art of architecture. Our vision is for all our projects to be climate neutral by 2030, through design excellence. We are an employee-owned architect collective with almost 800 employees and a presence in Sweden, Norway, the UK, Germany, Canada and East Africa.

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