



Austrian Technologies for Hong Kong's Construction Industry

Wednesday, 7th December 2022

The Webinar will start at 3 PM HKT





ELIF ISTANBULLUGLU

ARCHITECTURAL CONSULTANT
CREE BUILDINGS

CREE
BUILDINGS



 Federal Ministry
Republic of Austria
Climate Action, Environment,
Energy, Mobility,
Innovation and Technology



ATC
AUSTRIAN TECHNOLOGY CORPORATION







Edge Südkreuz, Berlin



Illwerke Zentrum Montafon



UBC Gateway, Vancouver



Eunoia Junior College, Singapore



Victoria Park, Toronto



Siemens, Erlangen



We are an international construction collective

*Utilizing local value chains
With globally shared know-how*



Notifications

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CAD Files: Start Modelling with CREE
CREE Buildings



Structural Analysis
CREE Buildings

Discover Qualified Partners

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CREE Buildings
AT • Architecture / Engineering



CDCL
LU • Construction Company



CREE Denmark
DK • Construction Company



Partisans Architects
CA • Architecture / Engineering



EFFEKT Architects
DK • Architecture / Engineering



Published by CREE Buildings

CREE System: How to Choose the Right Project

Architect

May 06, 2021 • 8 min read

Featured Projects

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Completed

Allégra

Leudelange, Esch-sur-Alzett...



CDCL



Design

CREE Timber Tower

Castellón de la Plana,...



CREE Buildings



Completed

EDGE Suedkreuz Berlin

Berlin, Germany



CREE Germany



Completed

Eunoia Junior College

Singapore, Singapore



Kimly Construction

Platform



Give back
Collective

Learn

Build

Connect
Collective

Elif Istanbuluoglu
elif.istanbulluoglu@creebuildings.com
+43 664 611-9800

THANK YOU.

**Let's shape the
future together.**





PHYLLIS CHONG

BUSINESS DEVELOPMENT MANAGER (ASIA)
RUBNER HOLZBAU

RUBNER





Better with wood

RUBNER

TIMBER ENGINEERING

**GROW. BUILD.
AMAZING.**

7 December 2022

**Presentation for Austrian Technology Days
Organised by Advantage Austria**



The RUBNER GROUP

PASSION FOR WOOD SINCE 1926



Our vision

**We build a greener
world – by building
with wood.**



Wood Structure Products



GLULAM

SUSTAINABLE MATERIAL FOR BUILDING

Glulam is an engineered wood product comprising of multiple layers of finger jointed lamellas.

Ideal material for strong building structures that combine utility and aesthetics, coupled with high fire resistance.

High industrial product with modern computer numerical control (CNC) machinery and in-house construction of finished components.



Production

Location – Ober-Grafendorf (AT)



Annual Production (all): 85,000m³ glulam, 250,000m² roof and wall elements

≈100,000 tonnes of reduced carbon out a year



Production

Finger Jointing Machine





Production

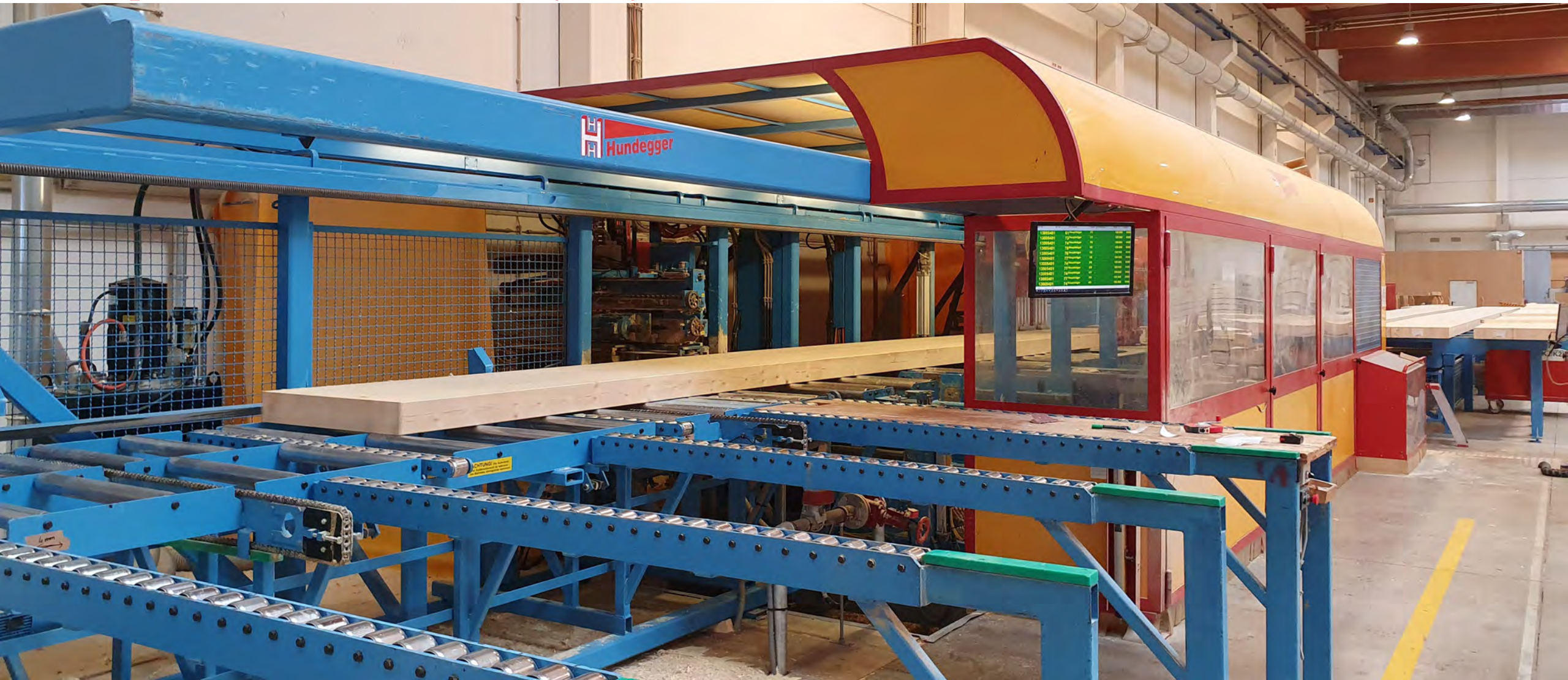
Hydraulic Press





Production

Computer Numeric Control (CNC) Machine





Rubner Iconic Construction Portfolio



Mactan Cebu International Airport Philippines

2018

ARCHITECT

IDA – Integrated Design Association Ltd, Hong Kong (HK)

CLIENT

Konsortium GMR MEGAWIDE Cebu Airport Corporation,
Philippines (PH)

SCOPE OF SERVICE

65,000 m² terminal area

4,500 m³ glulam

800/1,270 mm main column

15 m arch height above finished floor

30 m span



Mactan Cebu International Airport Philippines



Mactan Cebu International Airport Philippines



Mactan Cebu International Airport Philippines





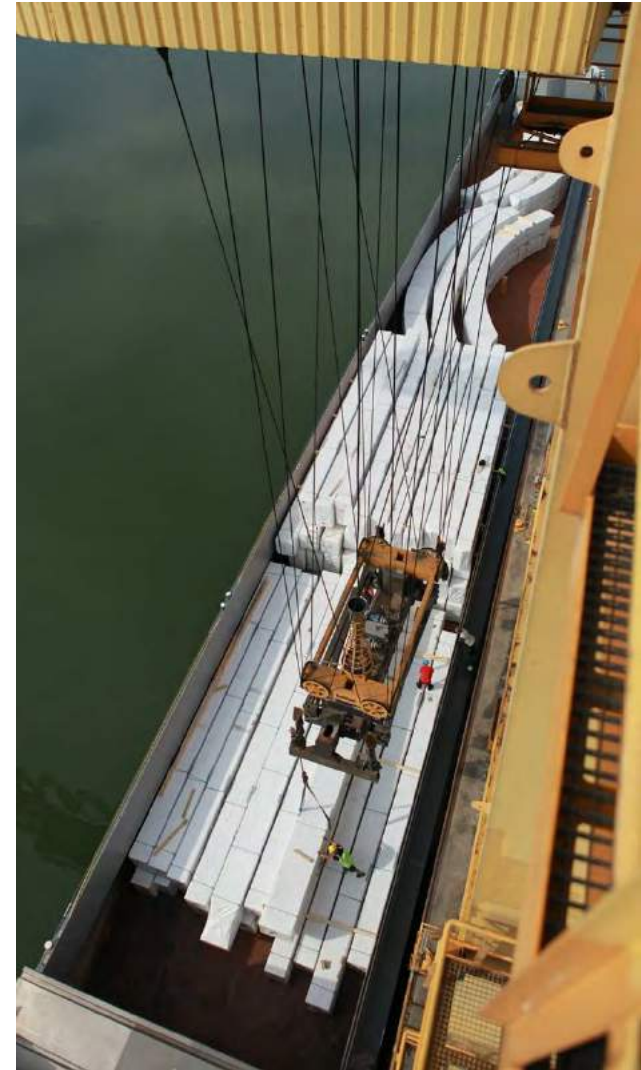
Mactan Cebu International Airport Philippines

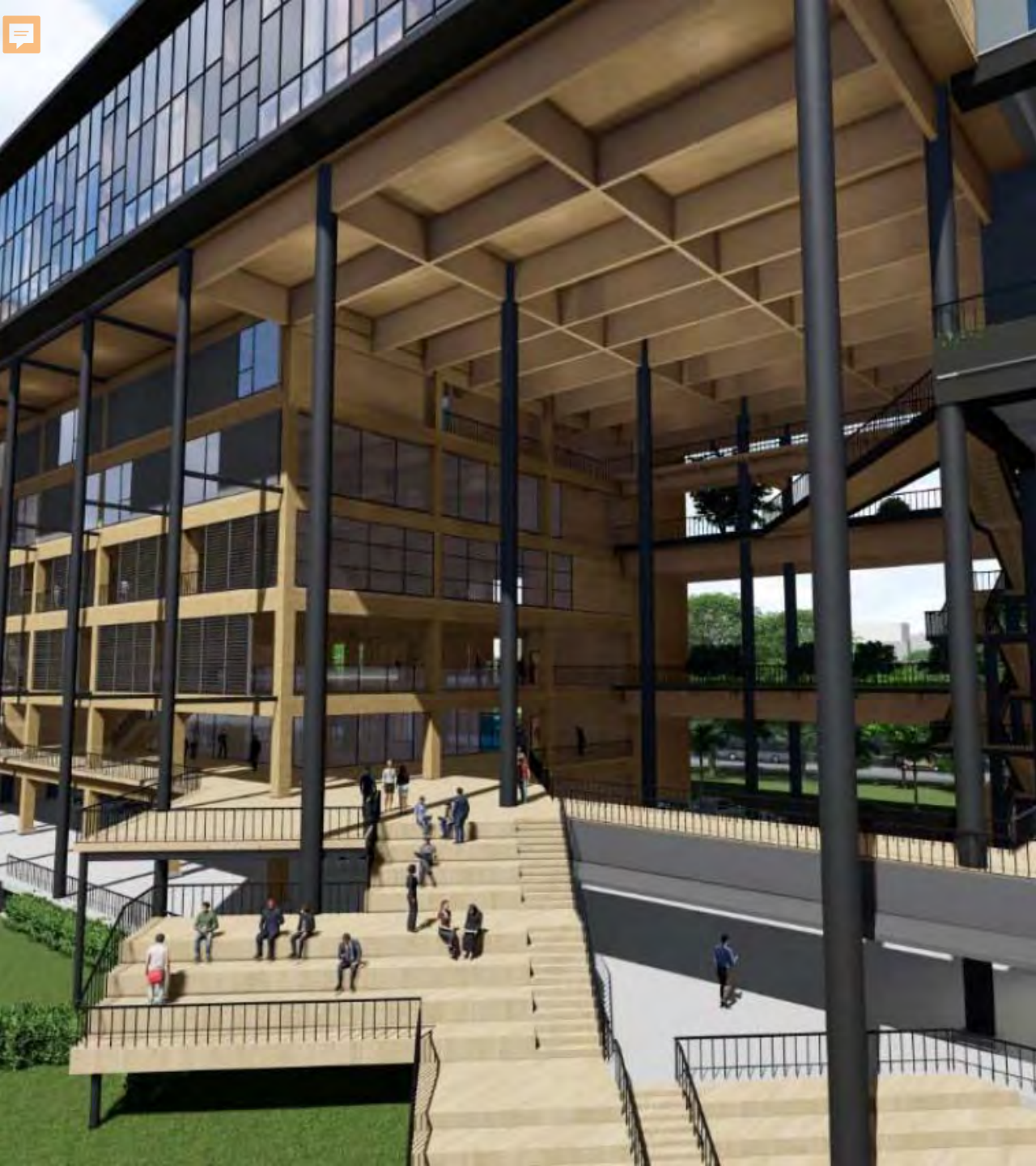




Mactan Cebu International Airport Philippines

Transport by water from Krems to Mactan Cebu





BCA Academy Singapore

Under Construction

ARCHITECT

ADDP Architects LLP (SG)

CLIENT

Building Construction Authority (SG)

SCOPE OF SERVICE

1,700 m³ glulam



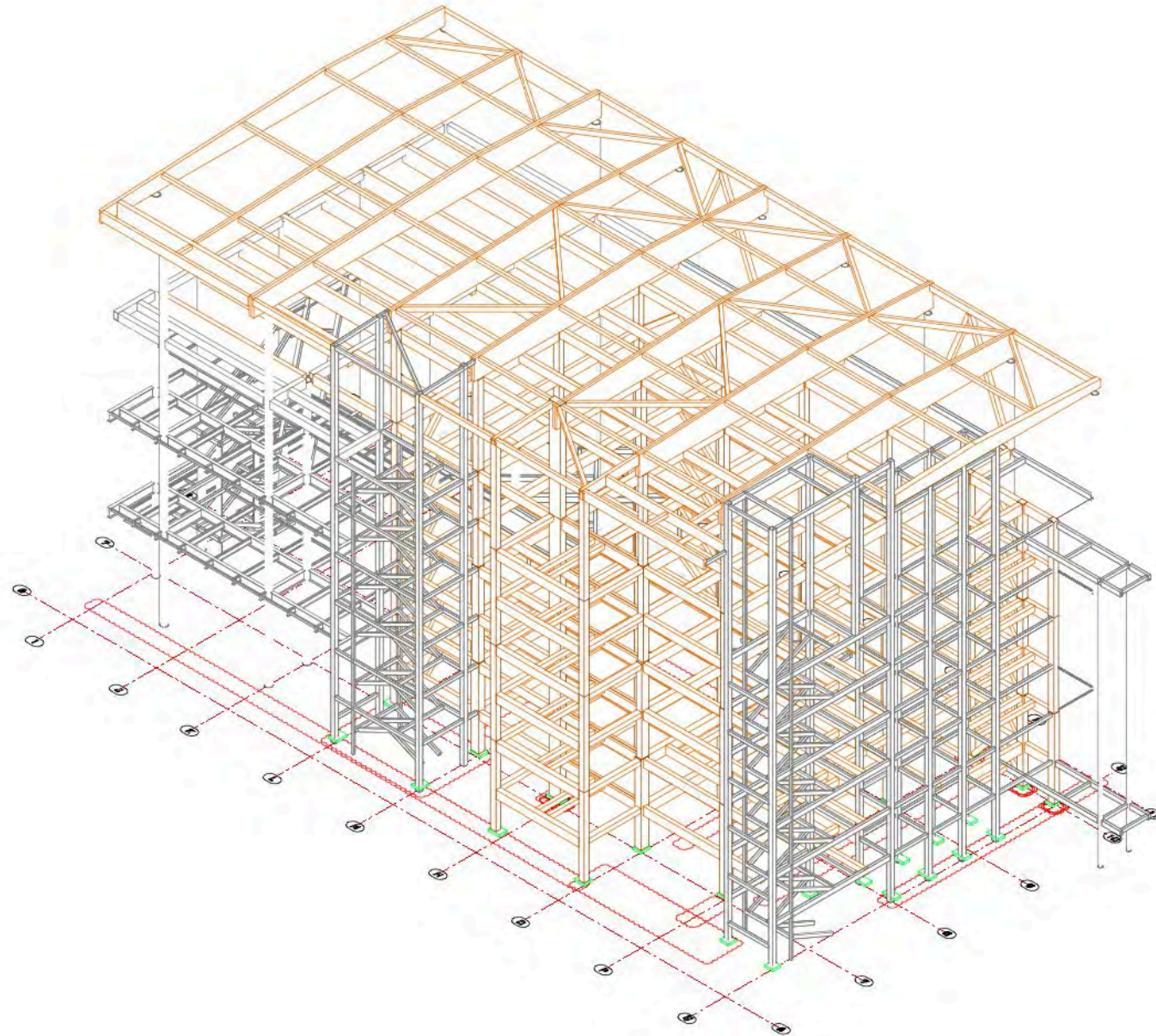
BCA Academy Singapore





BCA Academy Singapore







Chadstone Link Melbourne Australia

2019

ARCHITECT

Make Architecture, London und Sydney (AUS)

CLIENT

Hickory Chadstone PTY LTD, Richmond (AUS)

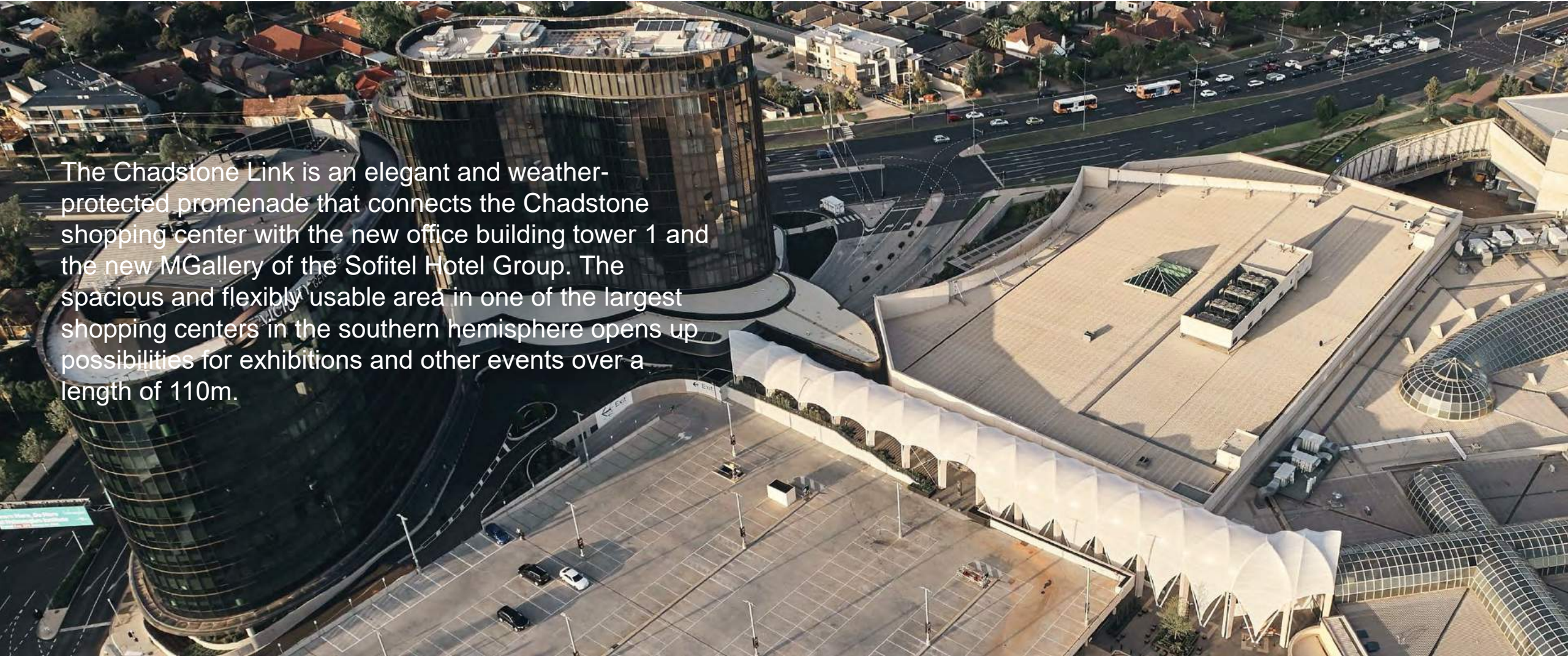
SCOPE OF SERVICE

200 m³ glulam

Chadstone Link Melbourne Australia



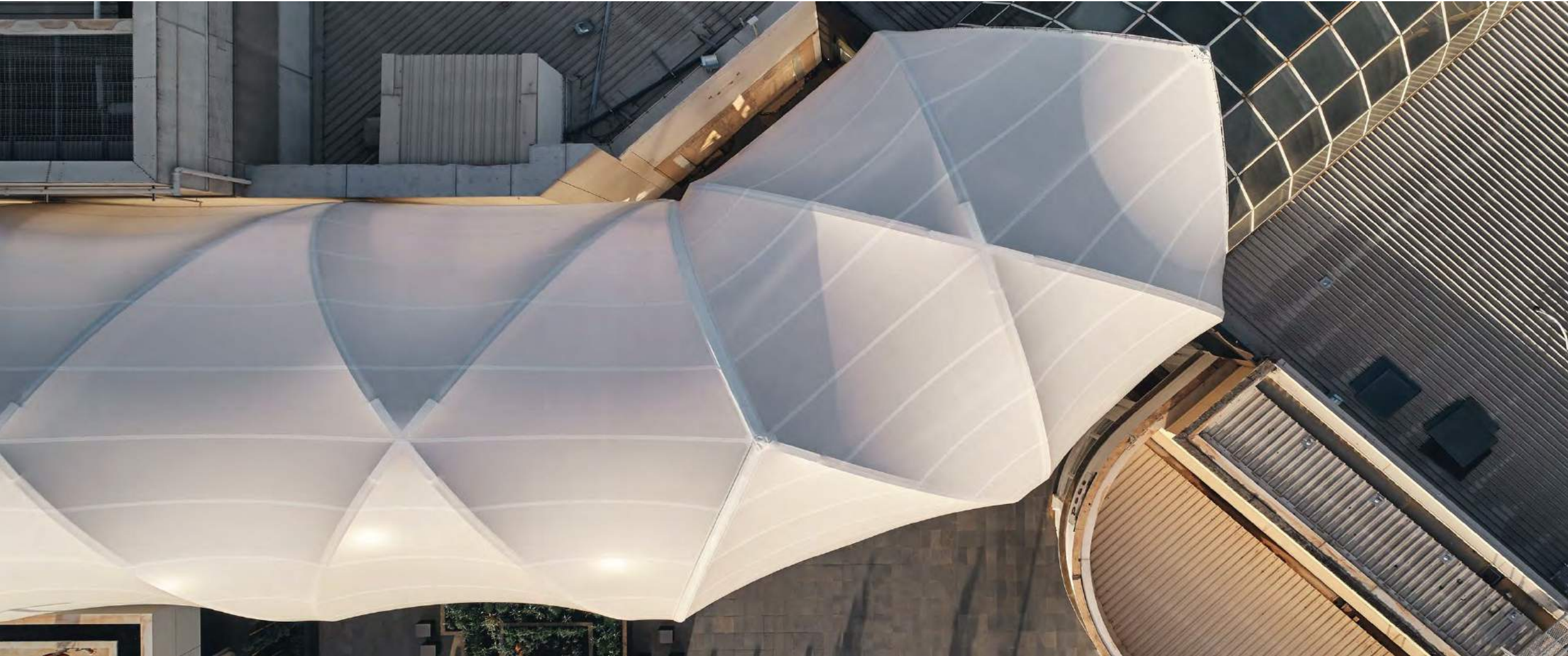
The Chadstone Link is an elegant and weather-protected promenade that connects the Chadstone shopping center with the new office building tower 1 and the new MGallery of the Sofitel Hotel Group. The spacious and flexibly usable area in one of the largest shopping centers in the southern hemisphere opens up possibilities for exhibitions and other events over a length of 110m.



Chadstone Link Melbourne Australia



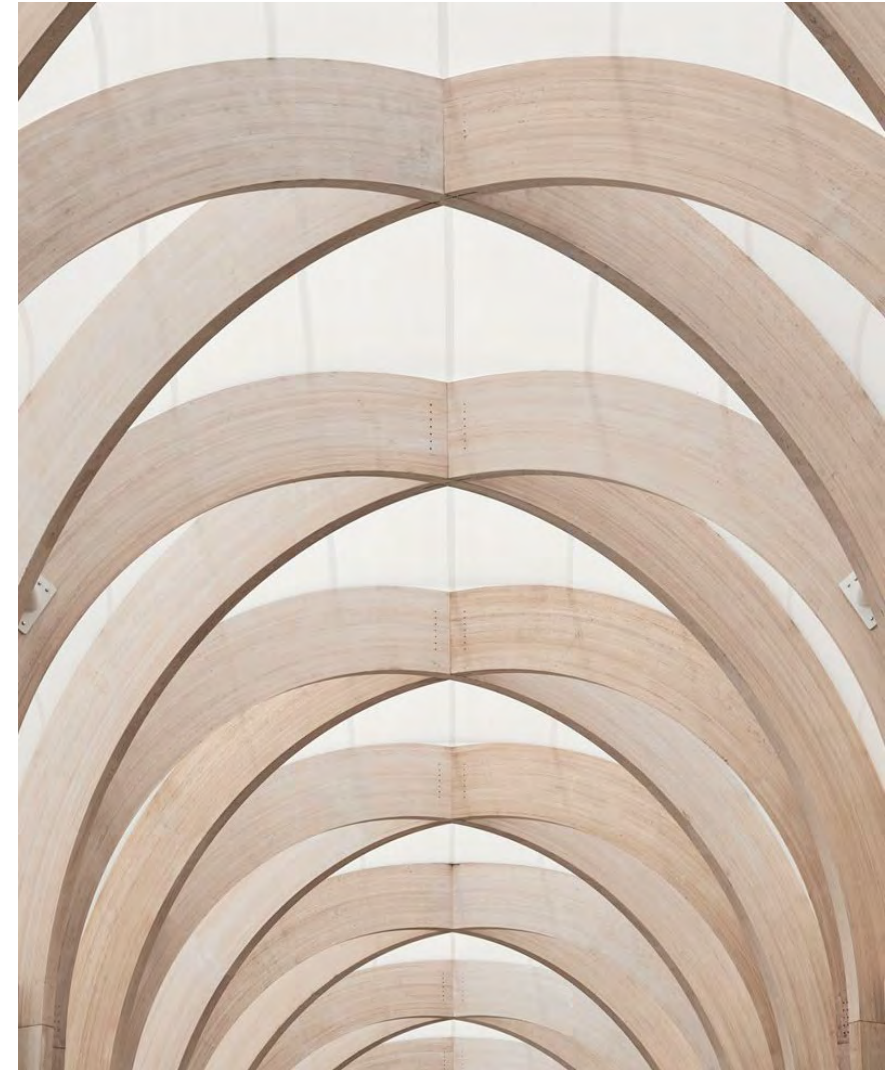
Chadstone Link Melbourne Australia



Chadstone Link Melbourne Australia



Chadstone Link Melbourne Australia



Chadstone Link Melbourne



Chadstone Link Melbourne Australia





Your Timber Construction Partner



Our Services

Consulting Services and Support

Professional and experienced engineers to assist you in concept design/workshop design.

Engineering and Design

Full detailed timber structure design (structural member and connection design).

Production and Prefabrication

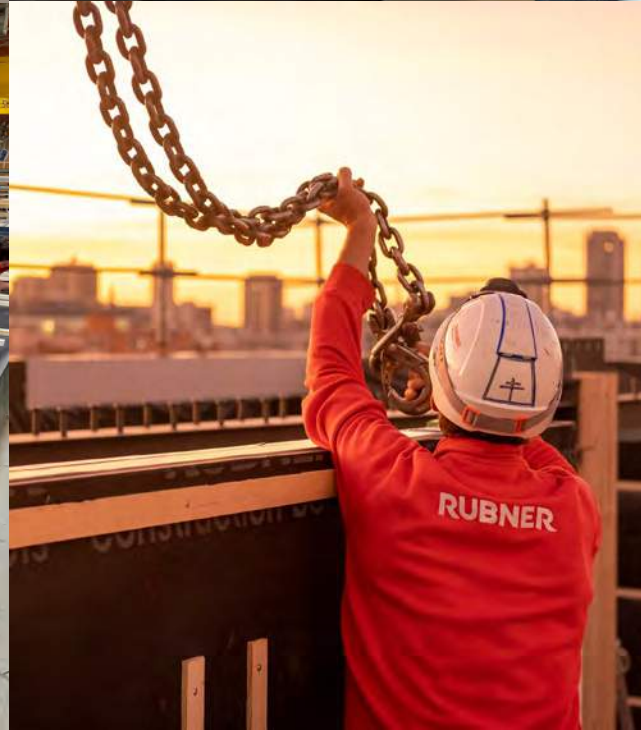
We deliver, manufacture and supply the products.

On-Site Assembly

Installation work by our skilled workers or by our Asia partner specialist contractor.

Site Construction Management

We ensure we will always secure professional project execution.





What's next?

Contact us.



PHYLLIS CHONG
BUSINESS DEVELOPMENT MANAGER (ASIA)
+852 6371 6880 (HONG KONG)
+65 8290 6790 (SINGAPORE)
phyllis.chong@rubner.com

Rennersdorf 62,
3200 Ober-Granfendorf, Austria.
www.holzbau.rubner.com



ANTON WANAS
AUTHORISED OFFICER, INTERNATIONAL SALES
+43 2747 22 51-57 (AUSTRIA OFFICE)
+43 664 90 18 996 (AUSTRIA)
anton.wanas@rubner.com



BEISI JIA

DIRECTOR
BAUMSCHLAGER EBERLE



baumschlager eberle
architekten



be

baumschlager eberle

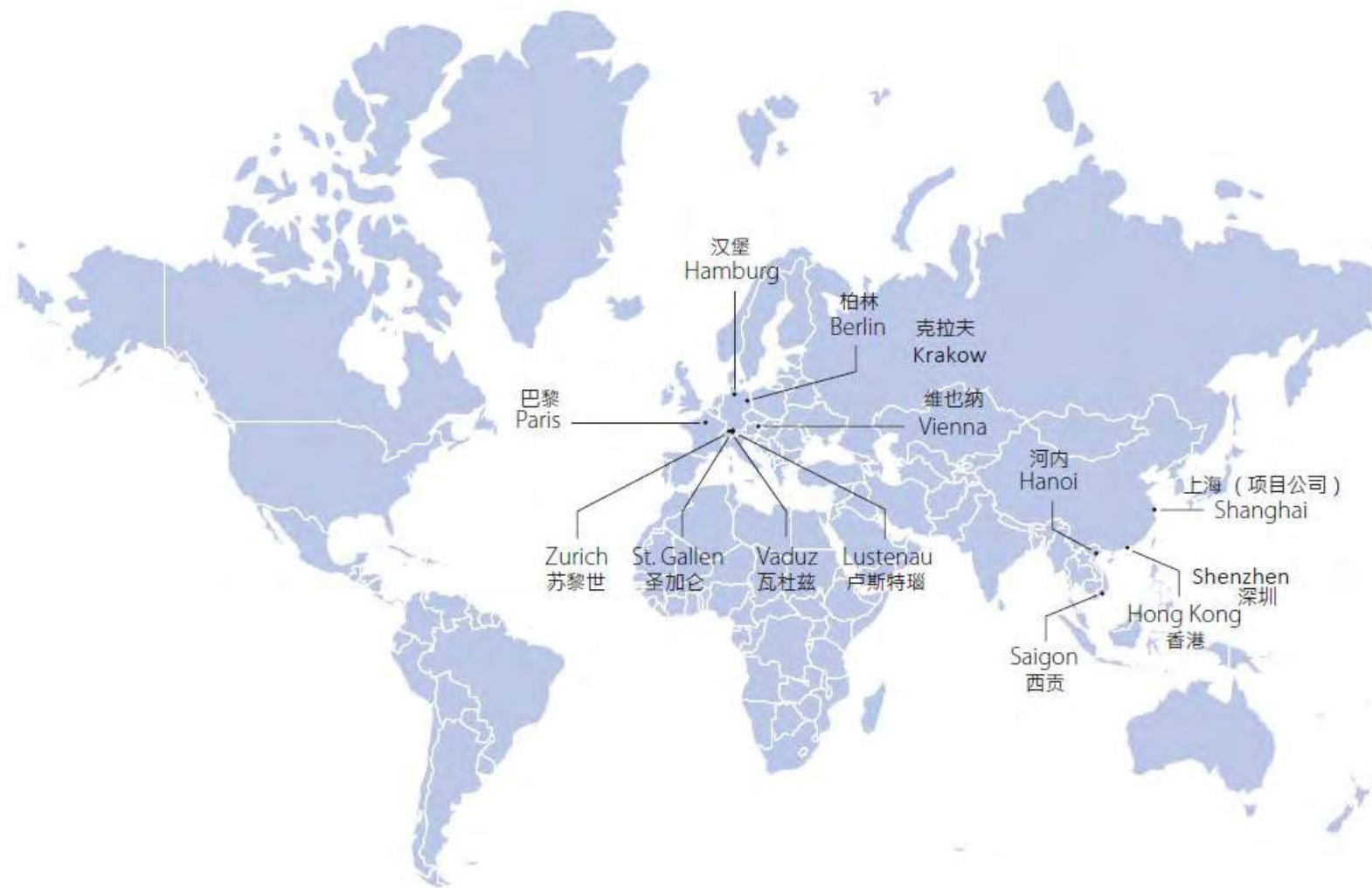


Beisi Jia

Director and Partner of Baumschlager Eberle Hong Kong Ltd
Associate Professor at the University of Hong Kong

We are doing architecture design for:

Comfort
Sustainable
Low Energy
Intelligent Buildings



建成项目	分公司	员工	国际大奖
400+	14	420	60

300+ PROJECTS



over 300 successfully completed projects



World Health Organization
UNAids Administrative Building, Geneva 1999

What is BE?

Firmly rooted in practice,

BE have demonstrated a particular skill in which flexibility, sustainable building, a high level of craftsmanship, and the beauty of architecture are expertly combined in reasonably priced, simple compact buildings.

Their experience and know-how are considerably significant for researchers and practitioners with respect to the implementation of the Sustainable Building approach, which aims to achieve the successful combination of research and practice.

We design High Comfort and Low Energy Buildings

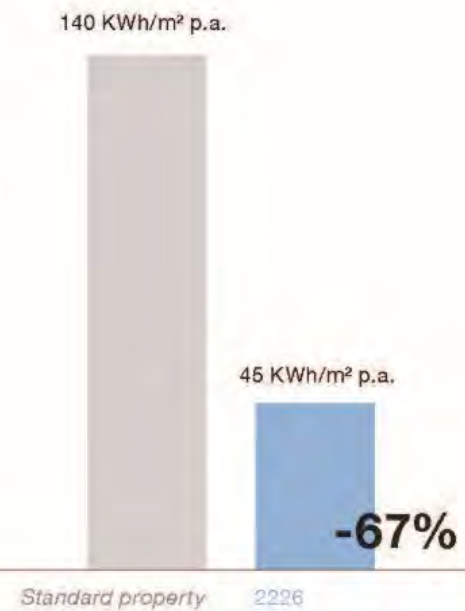
by

Intelligent with Knowledge, and
in Technology

ENERGY CONSUMPTION

Energy Consumption

Source/Benchmark: comparison SIA
2024 vs. measured values 2226



LIFE CYCLE COSTS

Life Cycle Costs (LCC)

Quelle:
DIN Lebenszyklus-Management, A. Pelzeter

Source/ Benchmark:
DIN Lebenszyklus-Management, A. Pelzeter

Zusammensetzung Lebenszykluskosten:

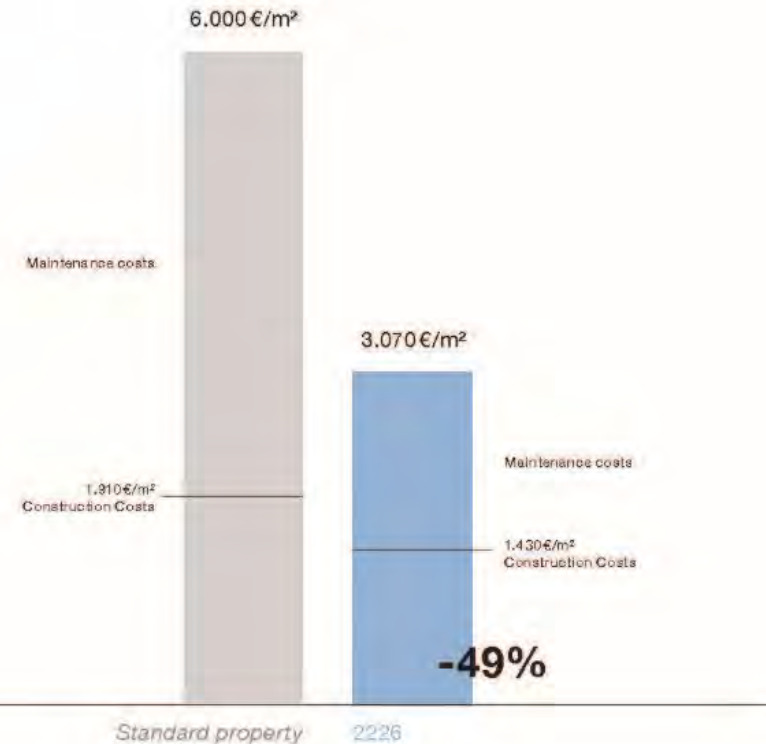
Composition of life-cycle costs:

Herstellung KG 300	924€
Herstellung KG 400	254€
Instandsetzungen KG 300	59€
Instandsetzungen KG 400	230€
Wartung Inspektion KG 300	52€
Wartung Inspektion KG 400	290€
Reinigung	205€
Energie	974€
Wasser/Abwasser	86€

Manufacture, type of cost 300	924€
Manufacture, type of cost 400	254€
Repairs, type of cost 300	59€
Repairs, type of cost 400	230€
Maintenance/Inspection, type of	52€
Maintenance/Inspection, type of	290€
Cleaning	205€
Power	974€
Water/Sewage	86€

Rechenmodell je m² auf 50 Jahre inkl.
1,5% Zinsen und 5% Energiepreisanstieg.
KG 300 Baugrube, Gründung, Außen-
wände, Innenwände, Decken, Dächer,
Konstruktive Einbauten
KG 400: Techn. Anlagen, Wärmeanlagen,
Lufttechn. Anlagen, Starkstrom, Fernmelde-
anlagen, Wasser, Abwasser, Gas,
Förderanlagen, Spezifische Anlagen,
Automation

Computational model per m² for 50 years
incl. 1.5% interest and 5% increase in
energy prices. Type of cost 300: building
excavation, foundation, exterior walls,
interior walls, floor slabs, roofs, structural
installations. Type of cost 400: technical
systems, heating systems, ventilation
systems, heavy current, telecommunication
systems, water, sewage, gas, conveyor
systems, specific installations, automation

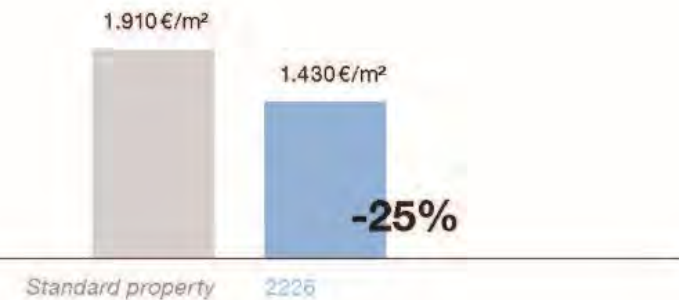


CONSTRUCTION COSTS

Construction Costs

Quelle:
Vergleich Baukostenindex zu real abgerechneten Kosten von 2226 Lustenau ohne Rabatte, abgerechnete Kosten für 2226 Lustenau inkl. Rabatte 1.240€/m² BGF, je m² BGF und ohne Planungskosten

Comparison of construction cost index for actually billed costs of 2226 Lustenau without deductibles, billed costs for 2226 incl. deductibles of 1,240€/m² of gross floor area, per m² of gross floor area, without planning costs





Solution 1:

Collecting data, processing of data, Feedback Information, Continually
adjust the service equipment

Solution 2:

Interactive between:

People and Architecture

Environment and Architecture

Building has a brain !



Outdoor sensor



Indoor sensor (Xiaomi)

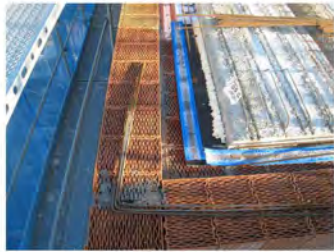


BE 2226 System No heating
 No cooling
 No mechanical
 ventilation

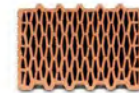
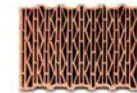
22°C -- 26 °C

- With conventional material and construction cost..

The Ceiling



The Brick



POROTHERM 38 H i N+F

POROTHERM 38 N+F

Looking for Market in Hong Kong and China



ICEG盐城鹰黑森林，江苏盐城 2021

Samples : our projects in China



Moma
Beijing, China



ANDREAS GANAHL & BENJAMIN ERTL

MANAGING DIRECTORS
LIEBHERR (HKG) LIMITED

LIEBHERR

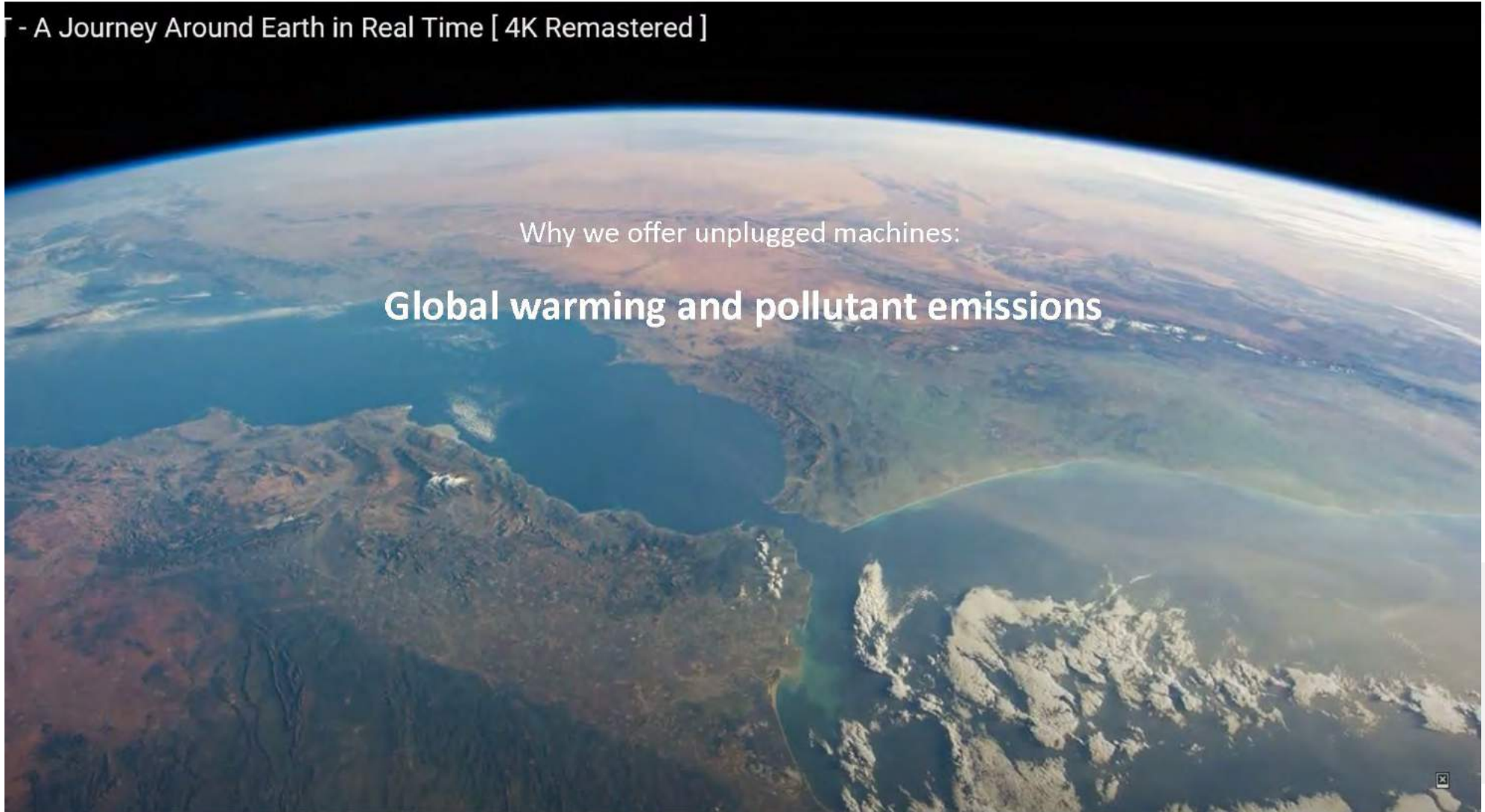


Technology/Product/Solution

- A Journey Around Earth in Real Time [4K Remastered]

Why we offer unplugged machines:

Global warming and pollutant emissions



Technology/Product/Solution

Zero emission

Lower energy cost

Lower noise level



Technology/Product/Solution

Average consumption of Diesel fuel per year

LR 1250.1



LR 1250.1 *unplugged*



1500 h/a; 7,38 l/h; 11070 l/a, 29,3 t CO₂; 1 l Diesel = 2,6 kg CO₂

Austrian Technology Day LIEBHERR (HKG) Limited

Reference and Pictures



Cooperation / Partner and Buyers



Eirik Kynningsrud
General Manager



Morten Helt-Hansen
General Manager



Why have you decided to buy an electric crawler crane?

Kynningsrud Nordic Crane is green in every sense. We are aware that we are part of society and therefore we are investing in a green future. When we invest, we think green and new machines meet the market environmental requirements, and therefore support our HSQ strategy. For this reason, the decision that we wanted to be the first company in the world with the first electrical crawler crane was easy.

How relevant is an electric crane to your market?

Our main market in Norway is Oslo. In 2019 the EU declared Oslo as the environmental capital which stands as a role model for green solutions. Oslo aims to be a fossil-free city by 2030.

How do you see the future for electric construction machines (Zero Emission)?

In Norway there will be huge infrastructure projects in the coming 20 years – both in road construction and railways. The government's goal is to reduce emissions and it is important that we can deliver electric construction machines for all type of projects.

<https://nckynningsrud.com/en/worlds-first-electric-crawler-crane/>

The world's first owner of a battery electric crawler crane: Kynningsrud