

SDGs架構下 重新想像圖書館

REDESIGN LIBRARY UNDER THE FRAMEWORK OF SDGS





THE STORY OF A VERY SMALL LIBRARY 2009

How can we turn heart-breaking disaster into life-changing opportunities?

Namasha Ming Chuan Elementary School 2009







A photograph of a woman with dark hair tied back, wearing a black t-shirt, speaking into a microphone. She is standing in front of a group of people who are seated and listening. The background shows a room with a white wall and some furniture. The text on the right side of the image is overlaid on this photograph.

Community leader Abuwu:
We are not to rebuild
what was lost,
we shall rebuild the future

A Kanakanavu elder And the Cakuru



Kanakanavu Cakuru







Datura Roof



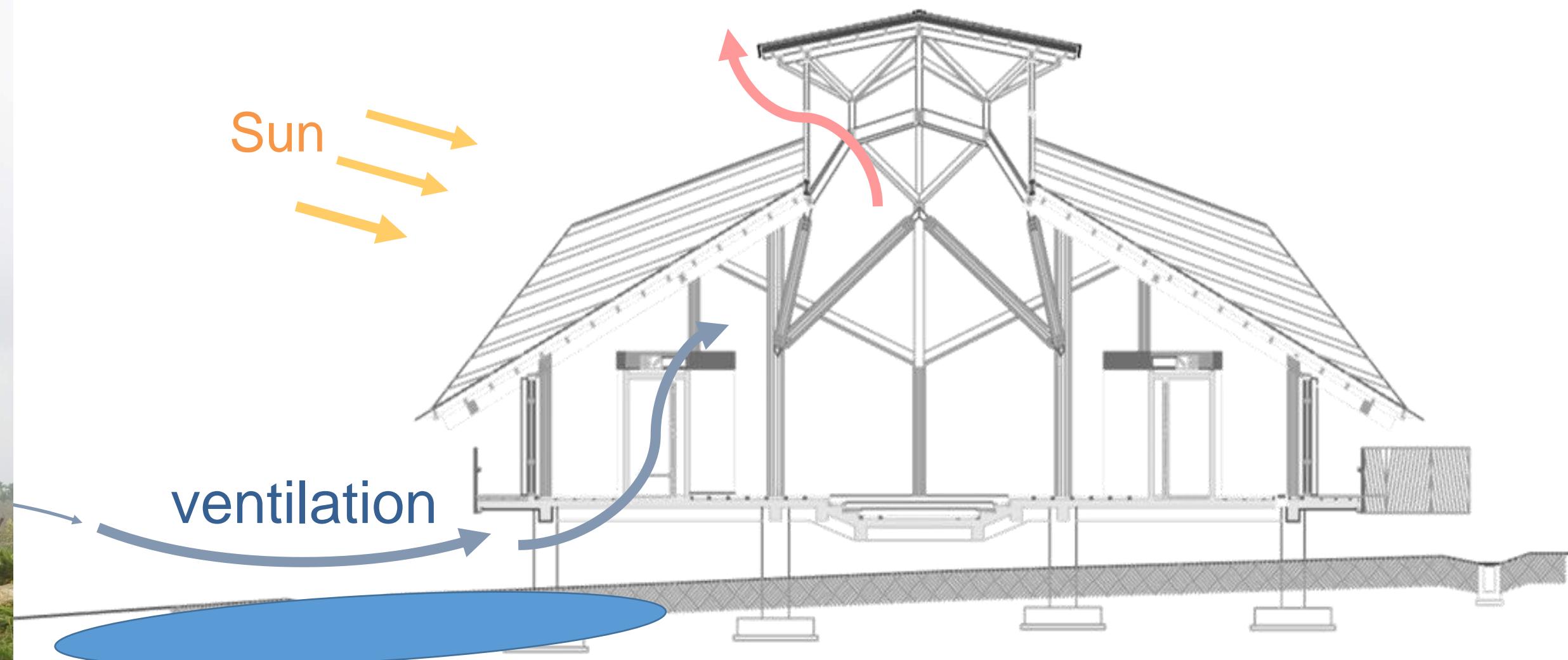
Datura











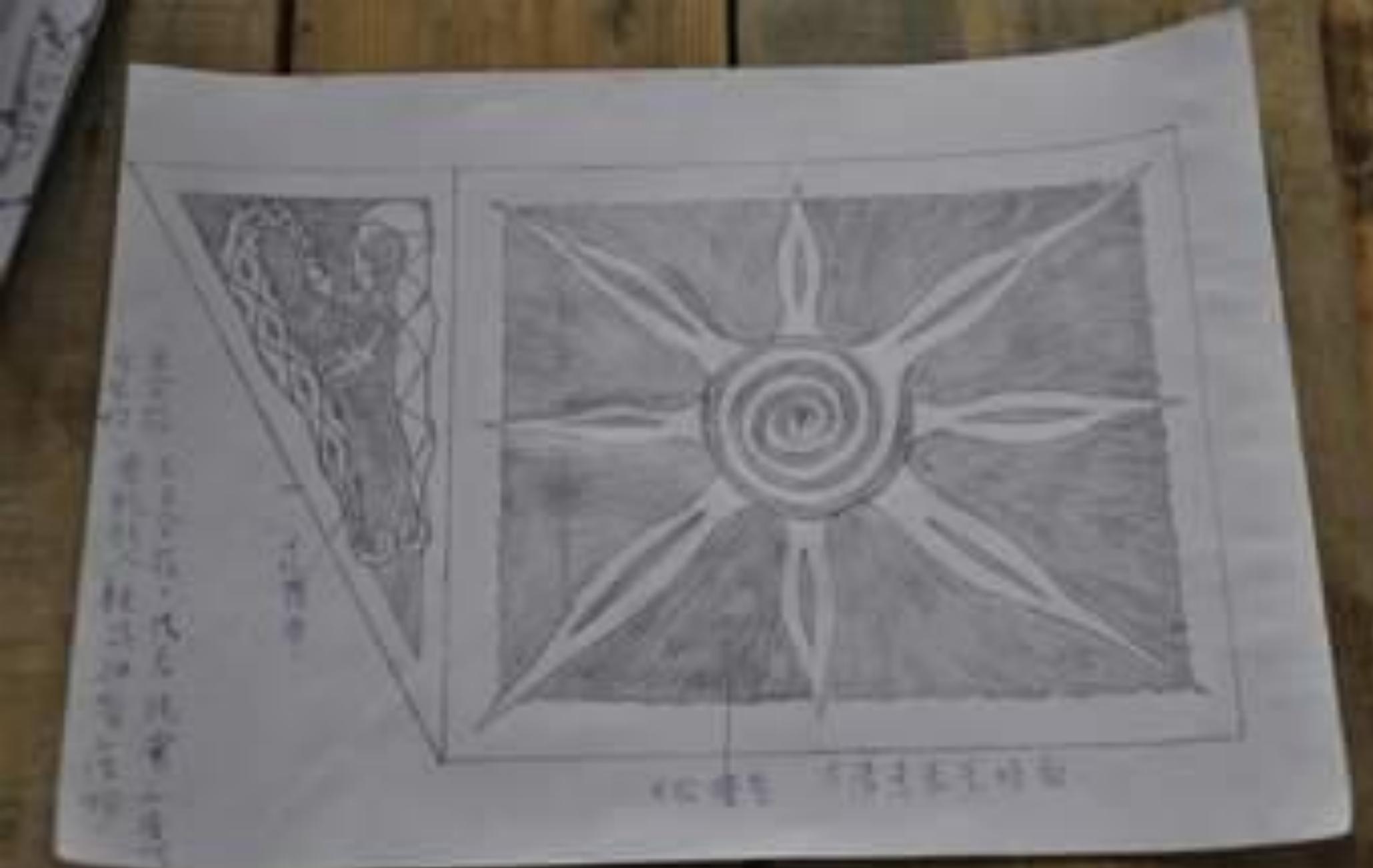
N

Residents

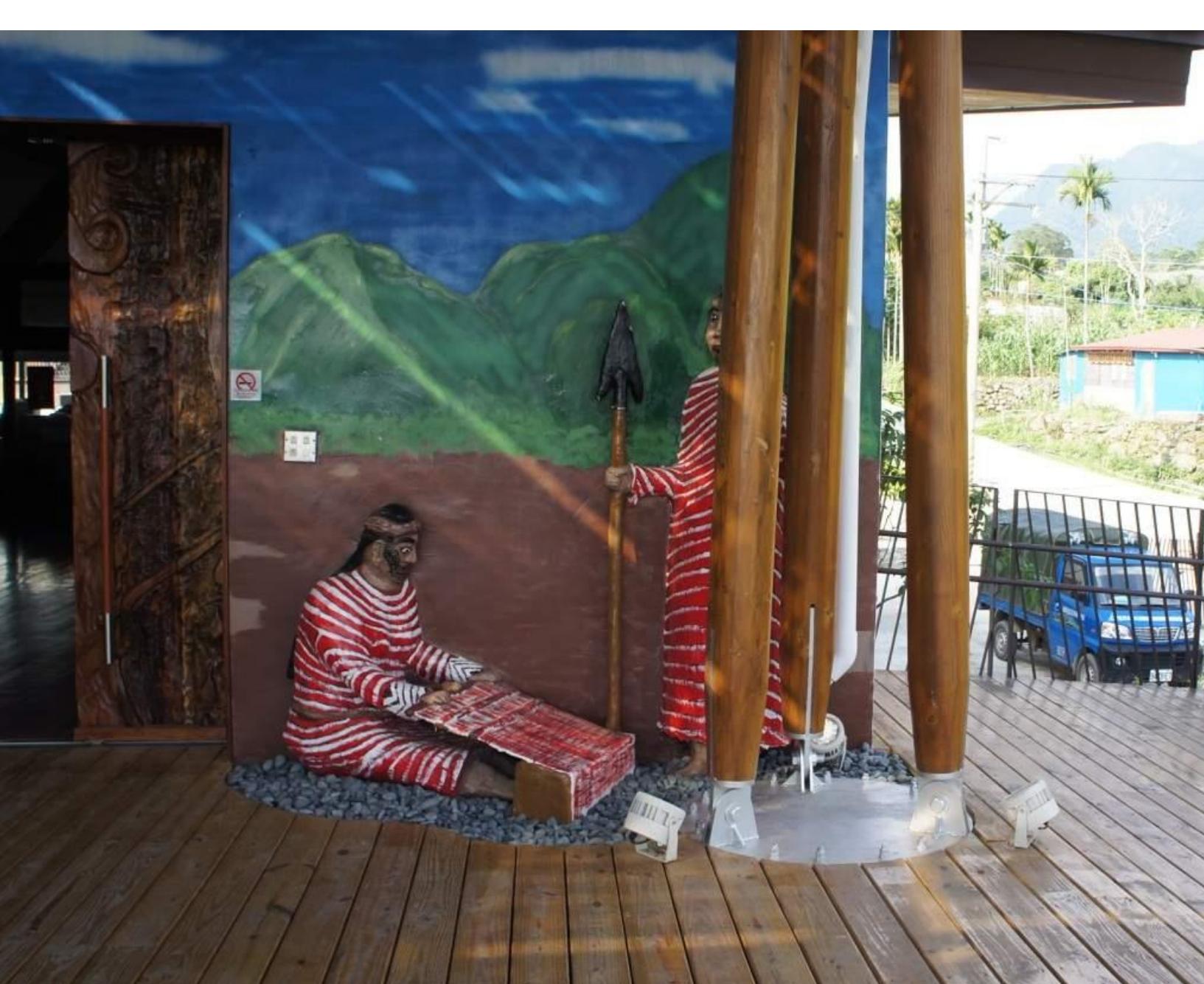


Wubu the artist

















“THE FUTURE”
is our children

All the Right Things We Have Done Together In Namasha

Many dialogs with the community

Respect and manifest the indigenous culture

To know the characteristic of the land

Redefine school as a shelter for natural disaster

Use renewable energy

Use local timber

Maximize natural ventilation and light

Enrich local ecology

Work with local artist to create art works of indigenous mythology in the campus

Design extra curriculum of indigenous culture with local group

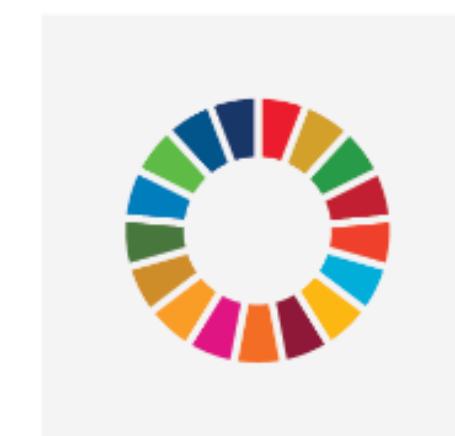
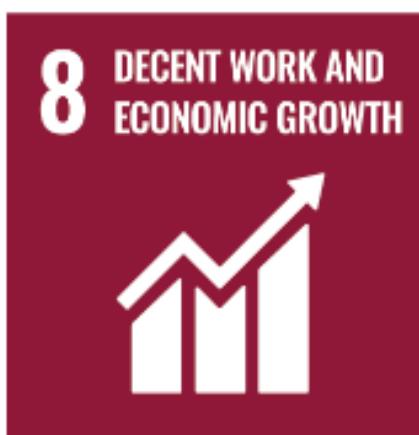
Provide budget for post occupancy survey and facility management

Monitor the building performance

Achieve net zero energy and LEED PLATINUM certified

Bring hope that encourage more people back to the village and vitalize the local economy

SUSTAINABLE DEVELOPMENT GOALS



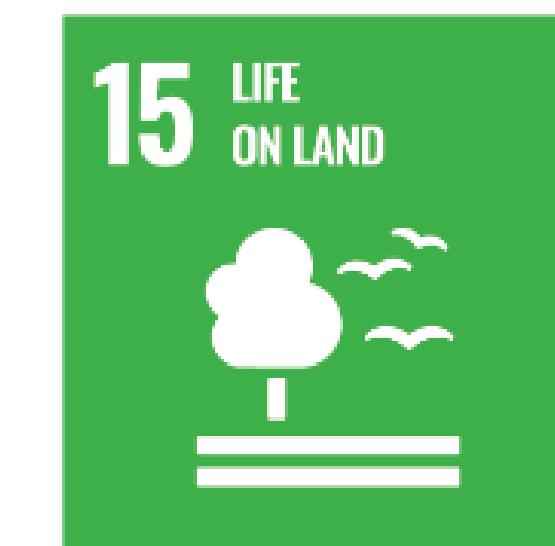
Officially Came Into Force On 1 January 2016

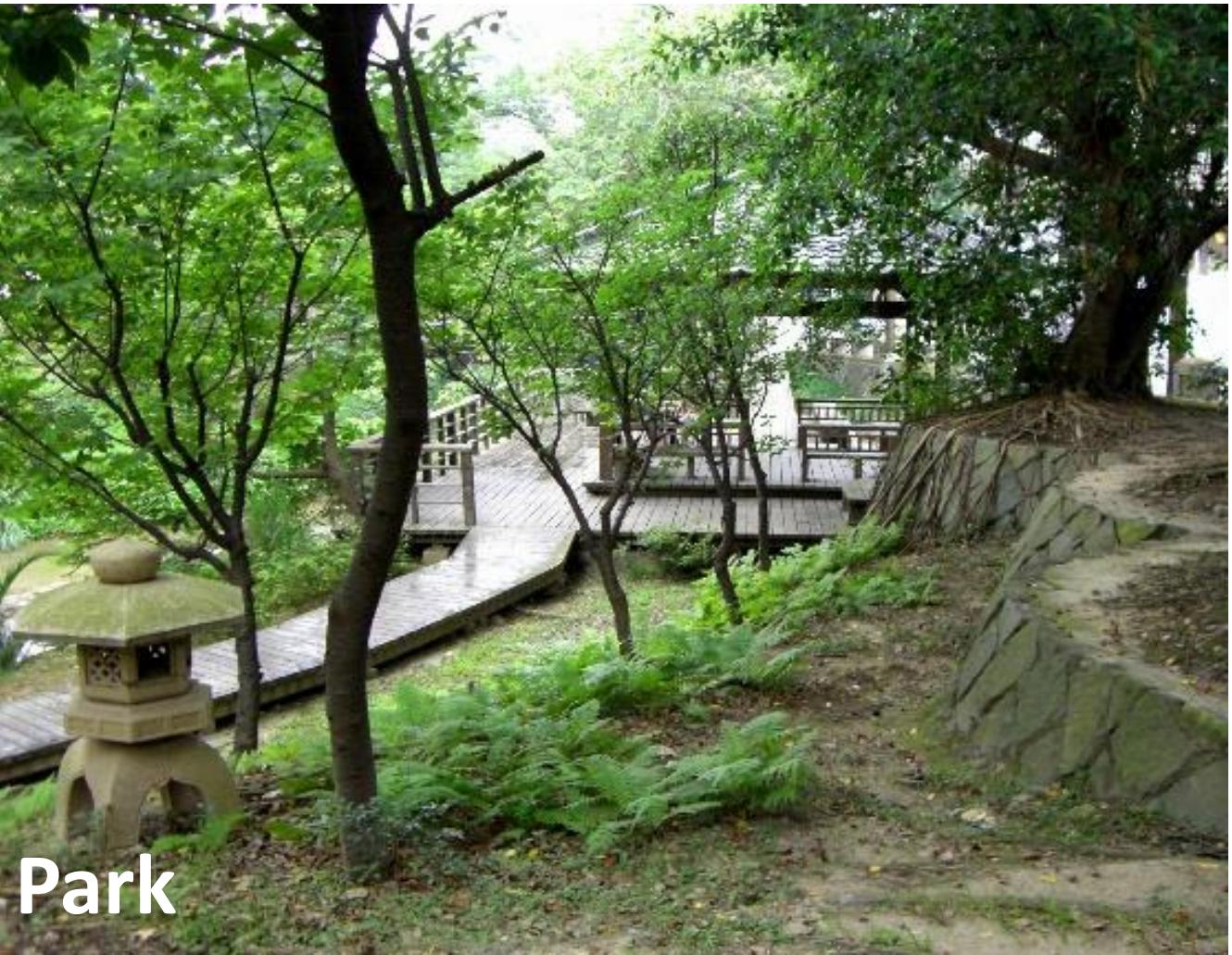
All the Right Things We Should Be Doing

How Could A Library Be SDGs Relevant



In Harmony With Its Surrounding





Park



Bei-Tou hot spring museum

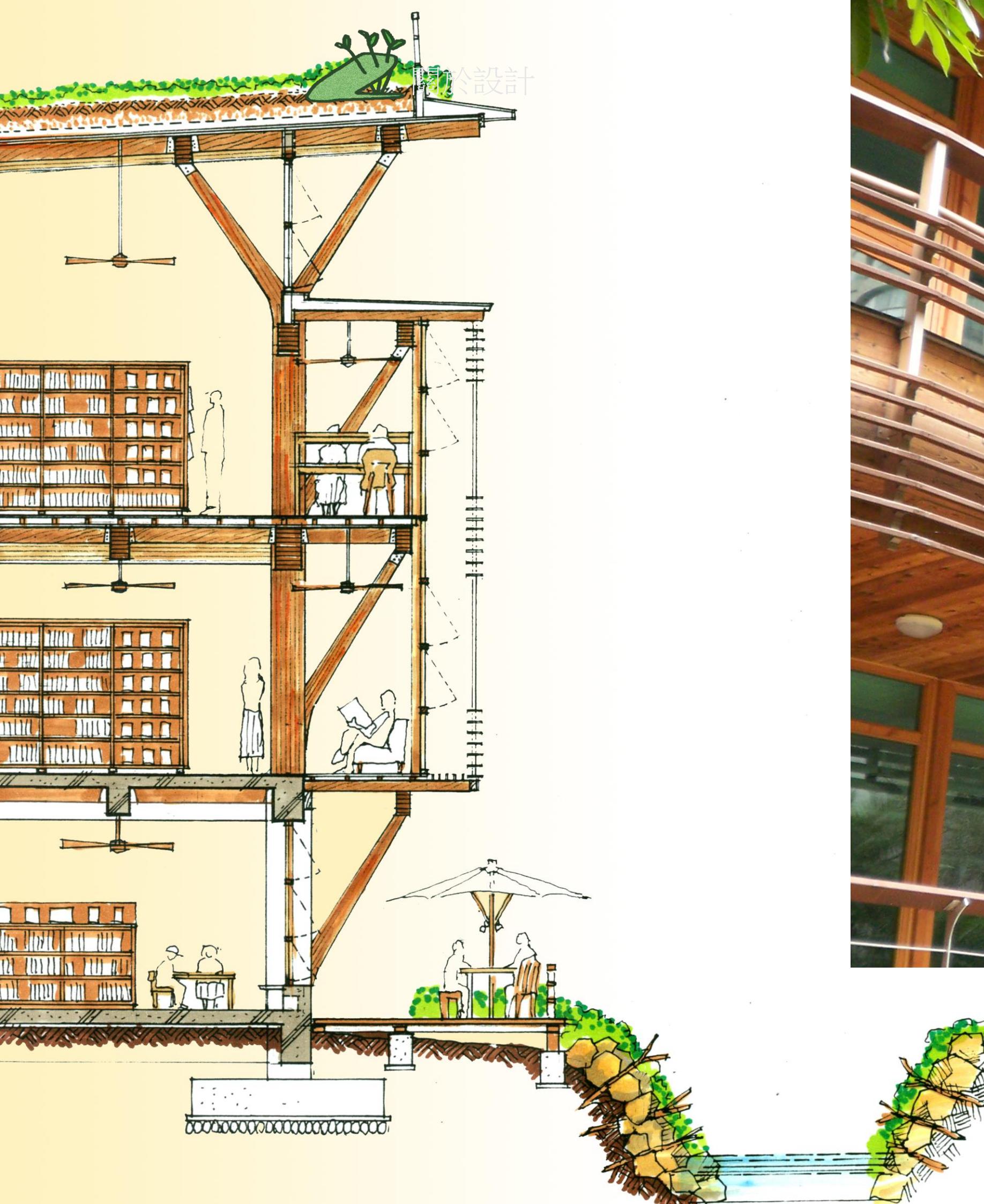


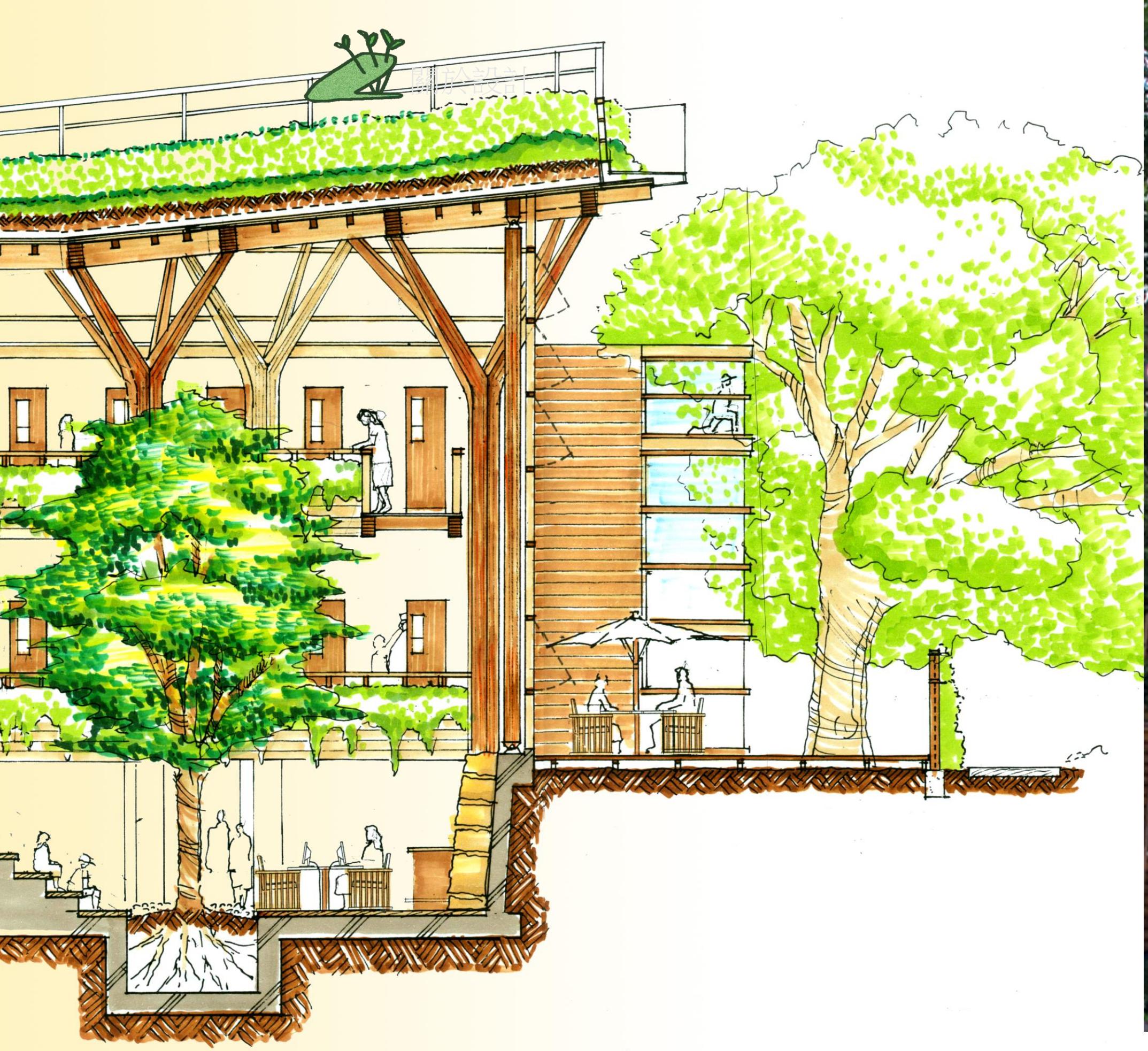
Waterfall



Bei-Tou River









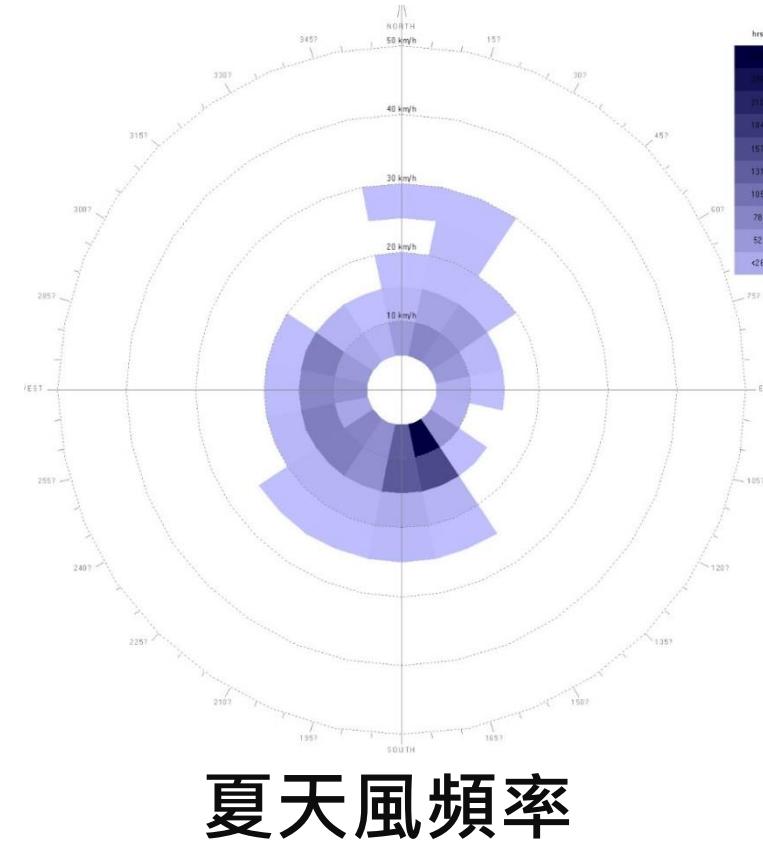


我們保留了
we KEEP
 $\approx 90\%$
of the TREES!
基地裏的樹

- 生態多樣性
Ecological Diversity
- 樹木狀況
Trees Evaluation
- 現有資源整合
Integration with Environment

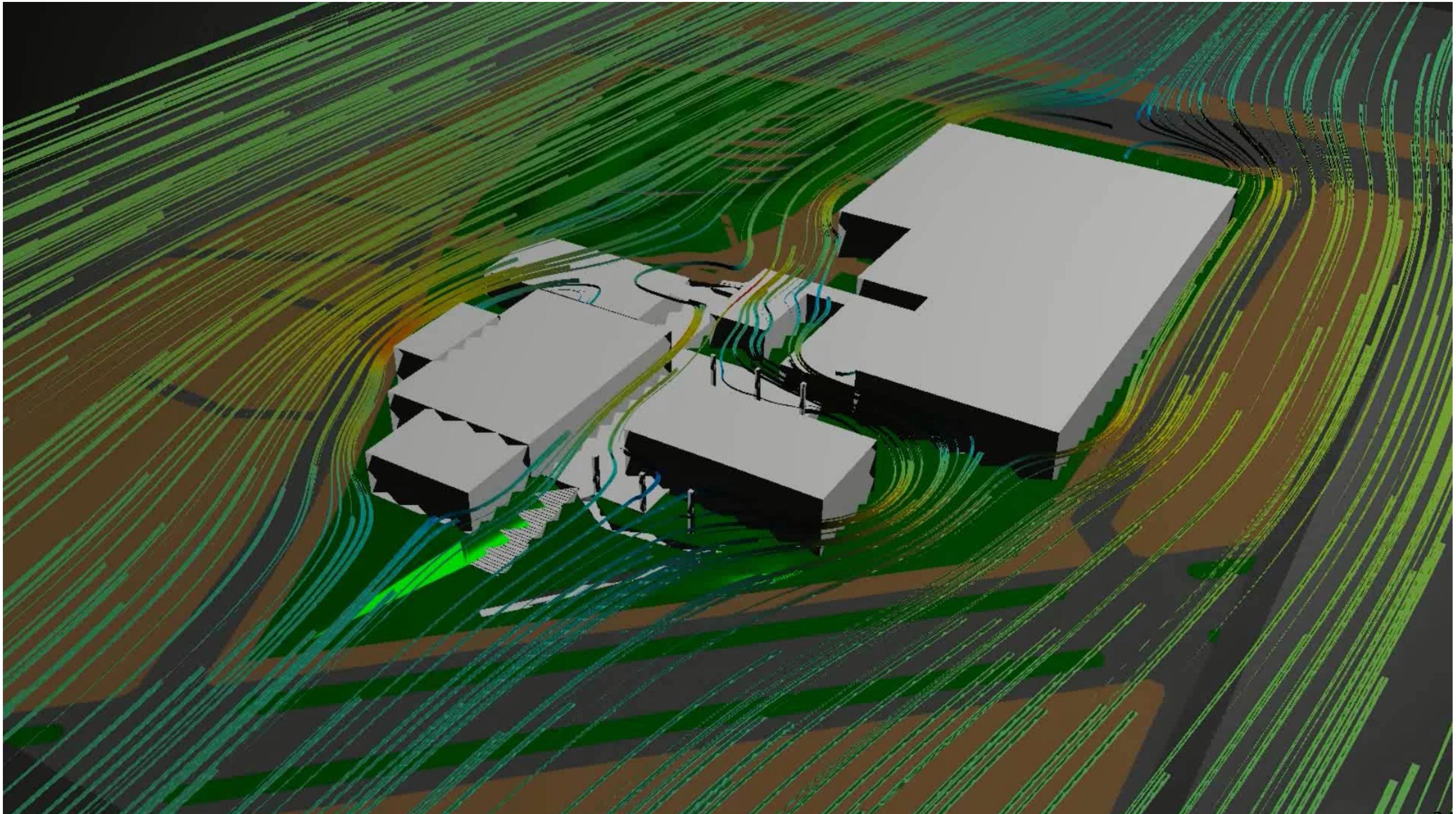
風環境模擬

Wind Simulation



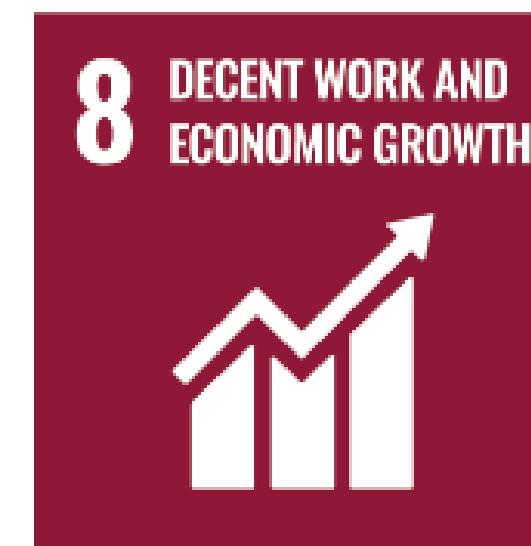
夏天風頻率

Summer Wind
Frequency





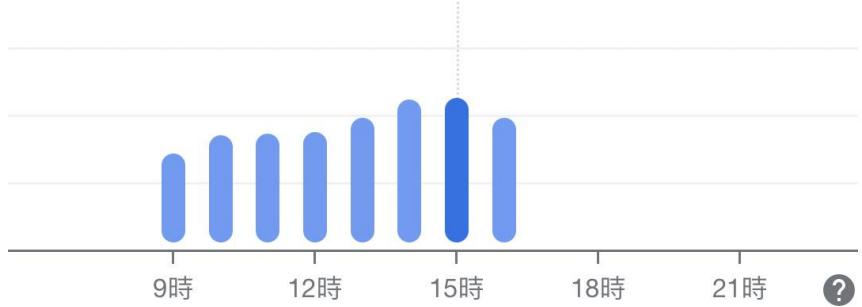
Renewable Energy and Material



Number of users during library hours

週一 週二 週三 週四 週五 週六 週日

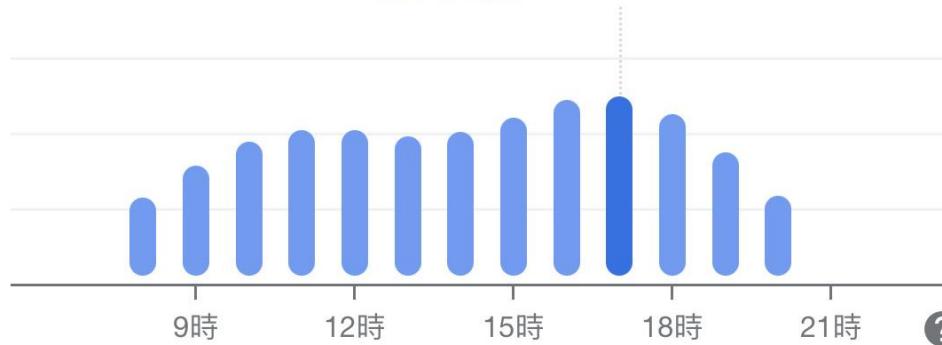
👤 15時：通常極為繁忙



Monday

週一 週二 週三 週四 週五 週六 週日

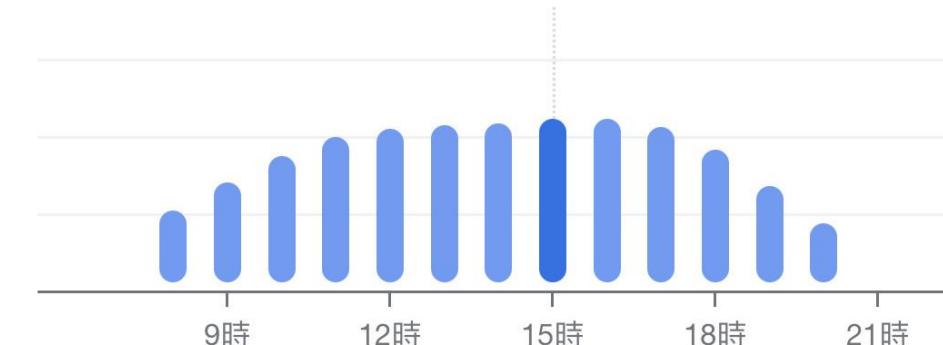
👤 17時：通常極為繁忙



Tuesday

週一 週二 週三 週四 週五 週六 週日

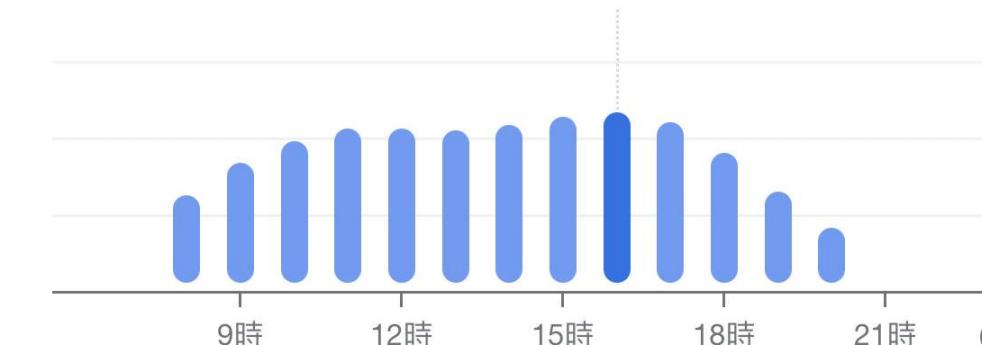
👤 15時：通常極為繁忙



Wednesday

週一 週二 週三 週四 週五 週六 週日

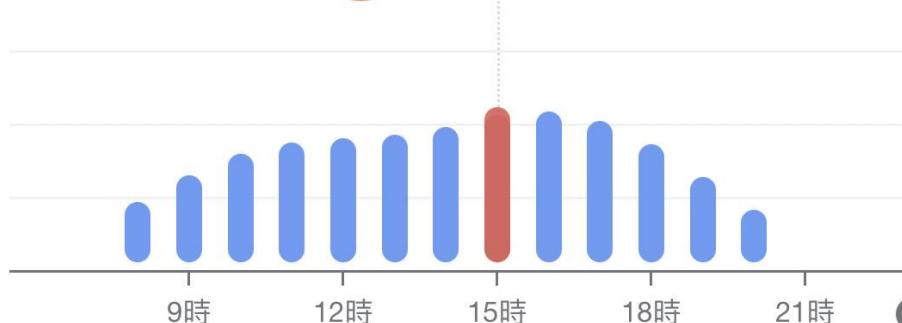
👤 16時：通常極為繁忙



Thursday

週一 週二 週三 週四 週五 週六 週日

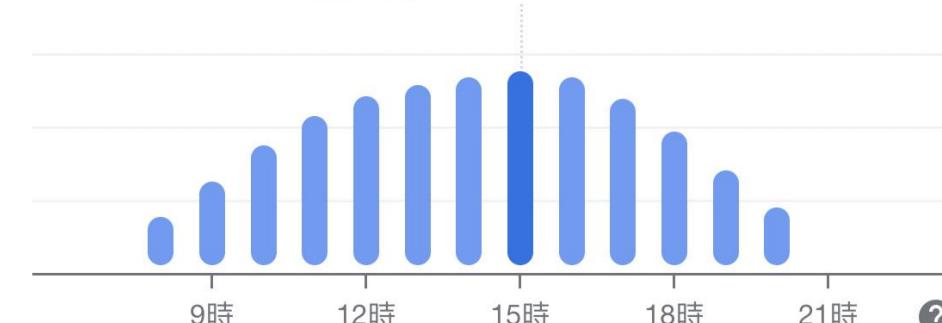
🔴 即時：極為繁忙



Friday

週一 週二 週三 週四 週五 週六 週日

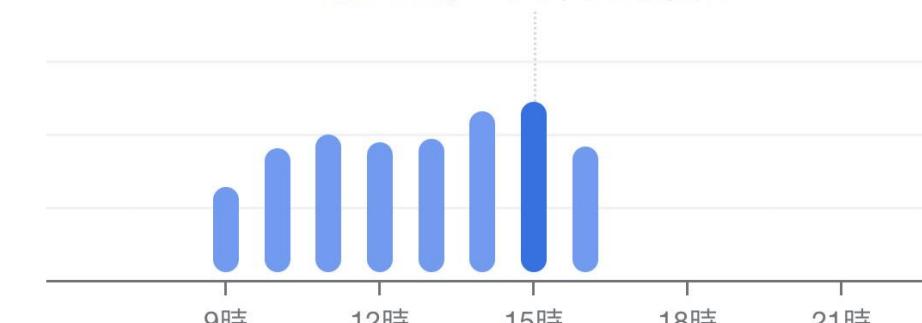
👤 15時：通常極為繁忙



Saturday

週一 週二 週三 週四 週五 週六 週日

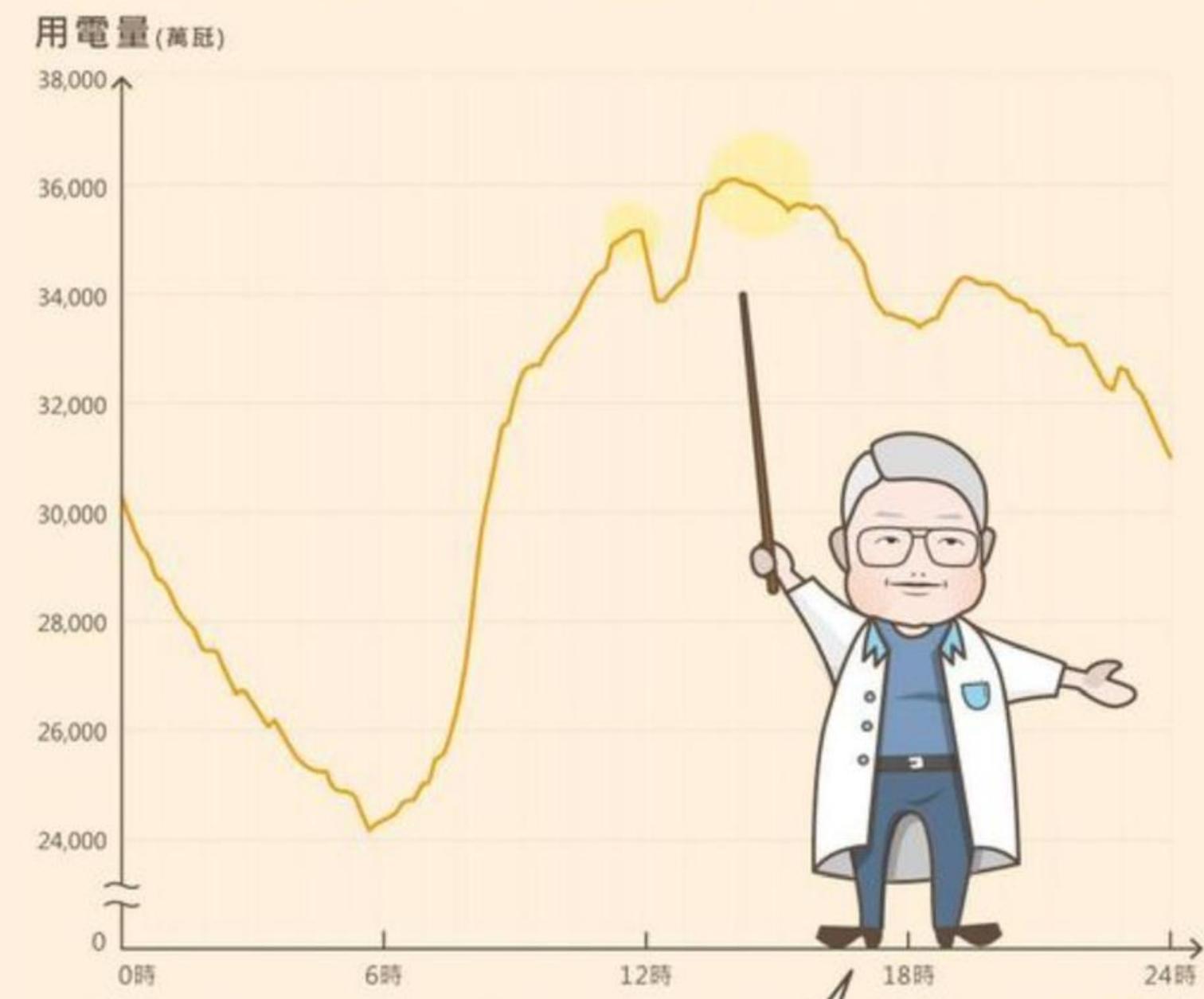
👤 15時：通常極為繁忙



Sunday

Peak Hour Management

猜猜什麼時候用電需求最高？





關於施工

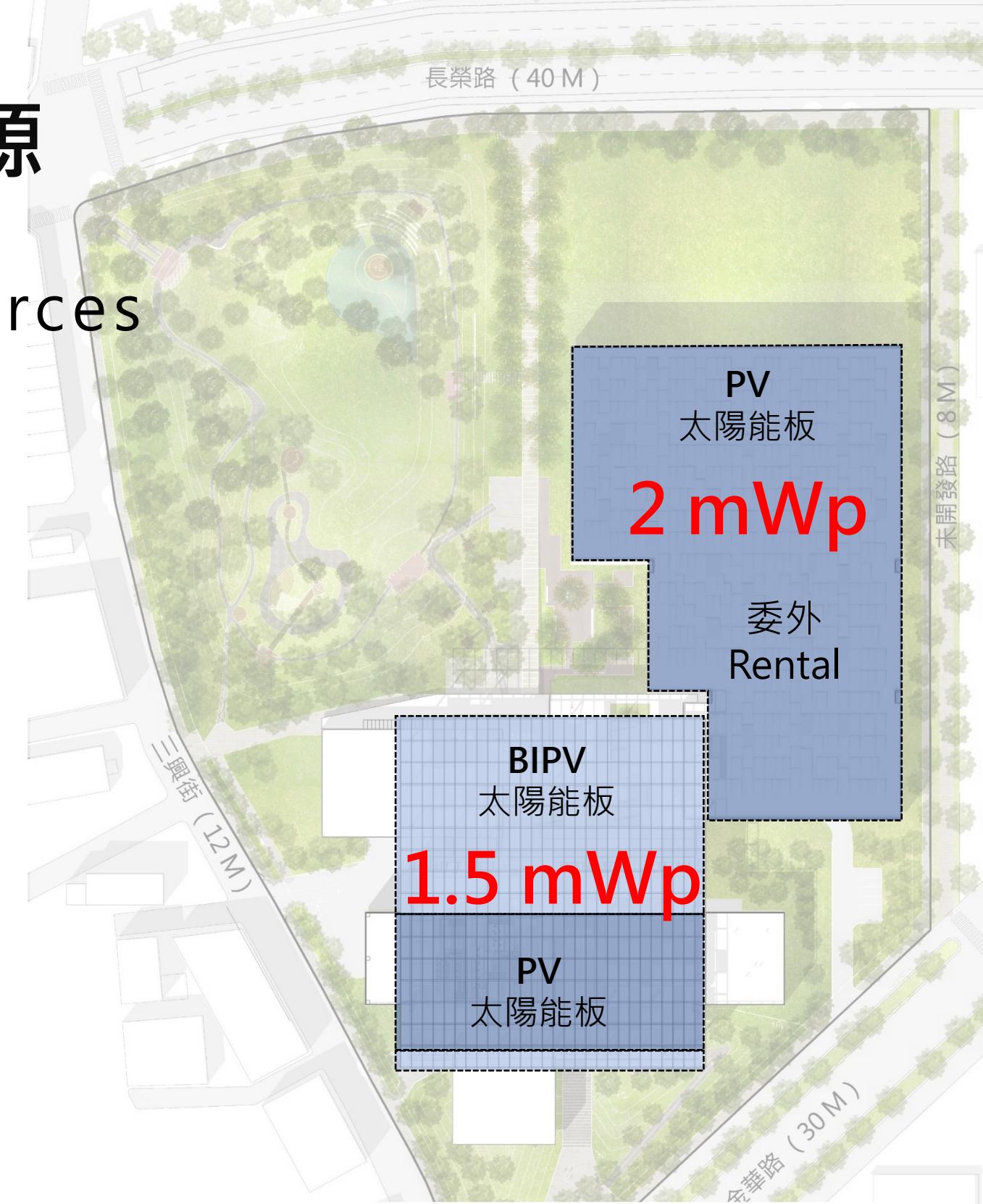






善用天然資源

Best use of
natural resources



全年產生能源 (平均日照約3.6 h/天)

Energy Generated (3.6 hrs/day)

1,971,000 kWp

預估用電量

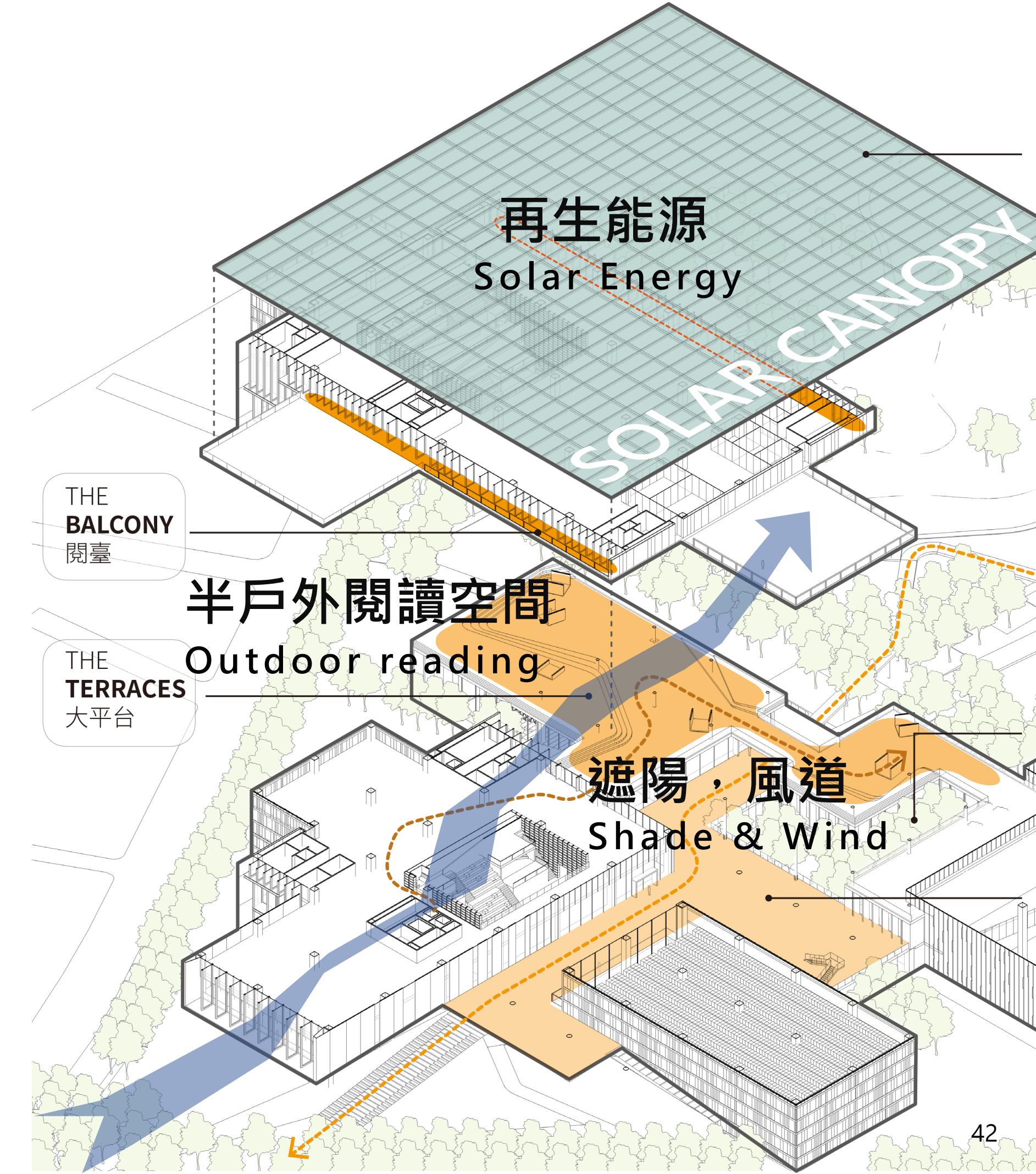
Estimated Energy Usage

3,750,000 kWp

能源替代率初評

Energy Substitution pre-evaluation

$\approx 35 - 48.7 \%$







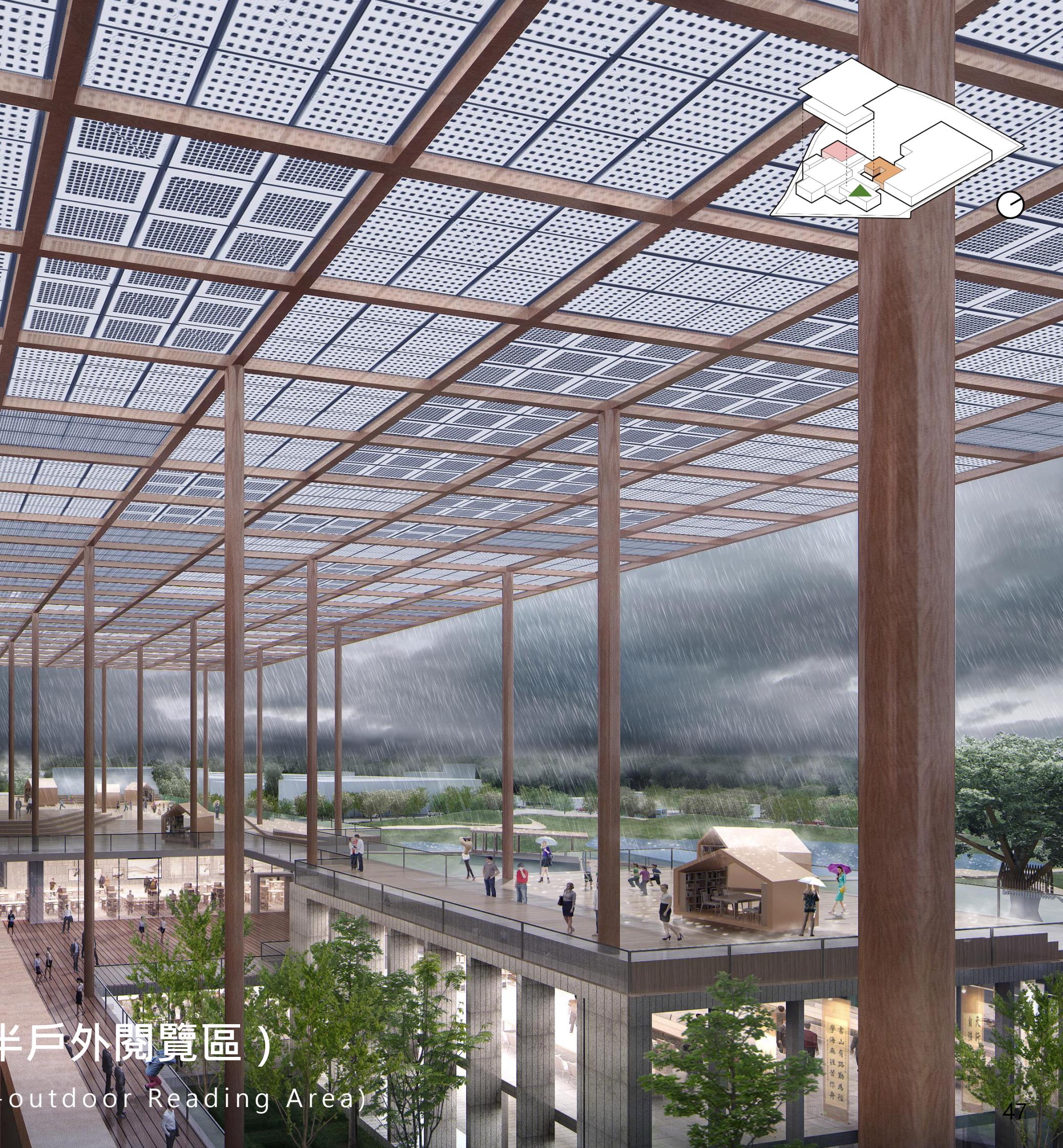
市民廣場
the Agora

Encourage Outdoor Reading



(花旗松膠合材)





閱臺（半戶外閱覽區）
Book-ony (Semi-outdoor Reading Area)



Maximize Natural Light and Optimize Artificial Lighting





藝文沙龍（圖書館大廳）

Salon (Lobby + Exhibition)



音樂圖書館：音樂之路



0935-120-909

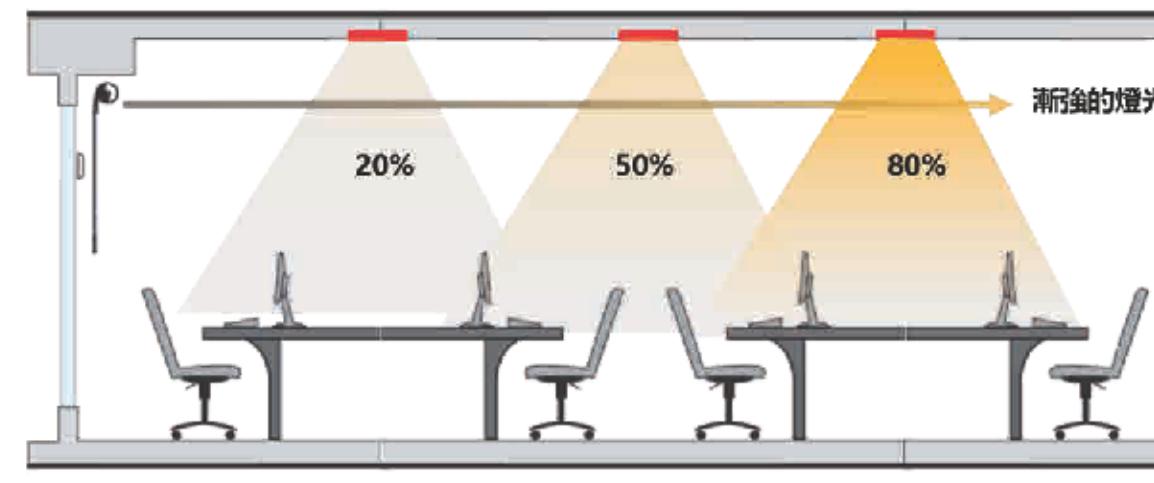
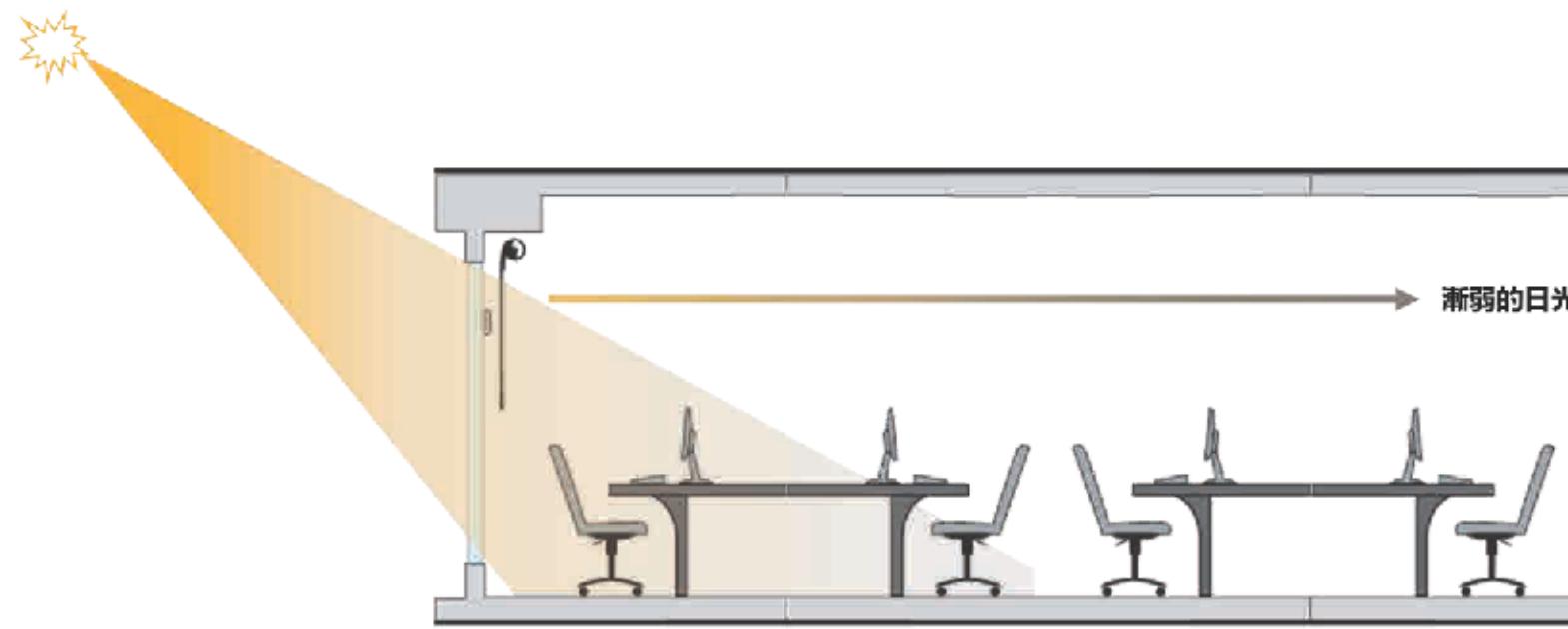
893

0935-120-909

894

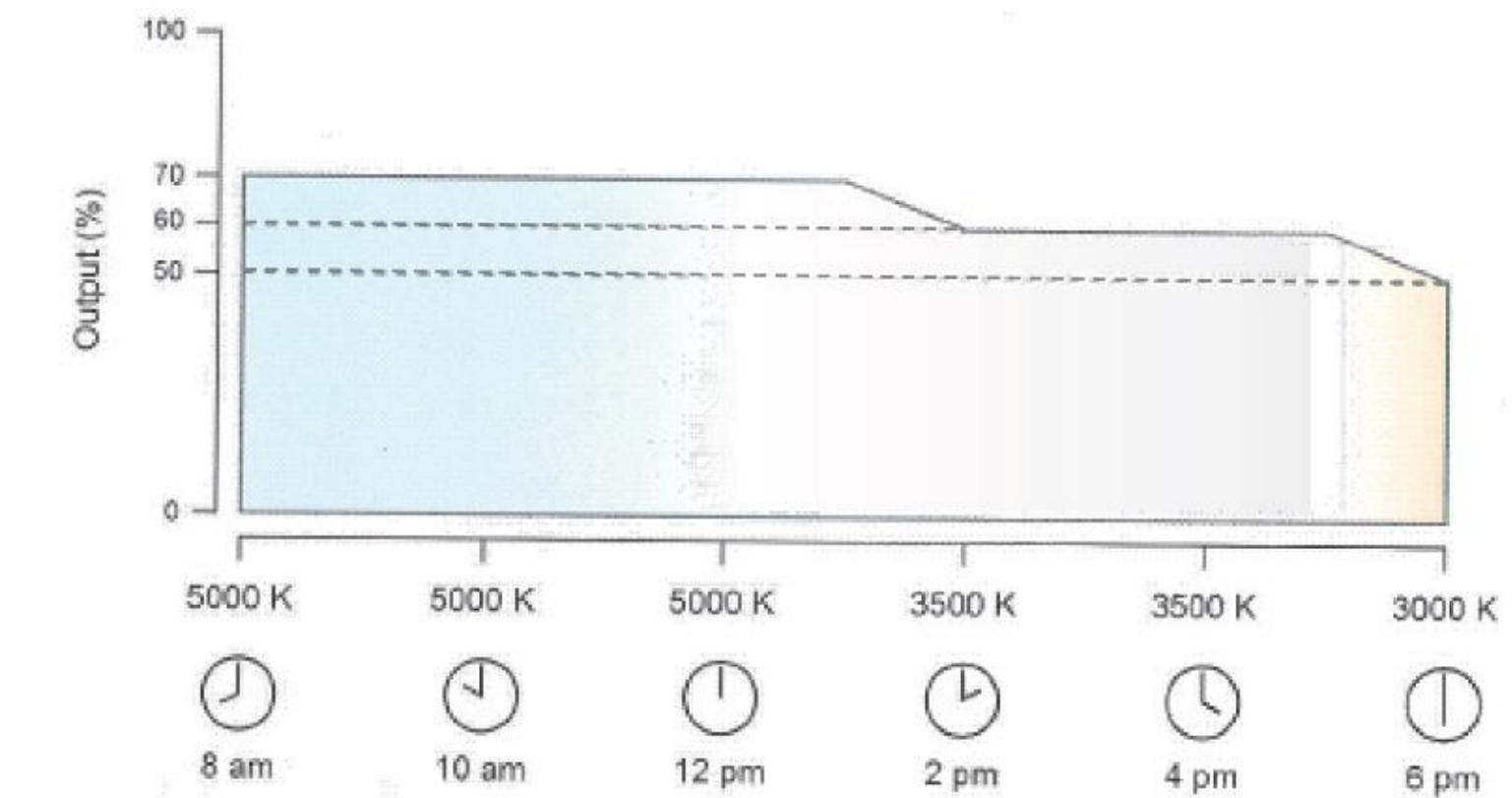
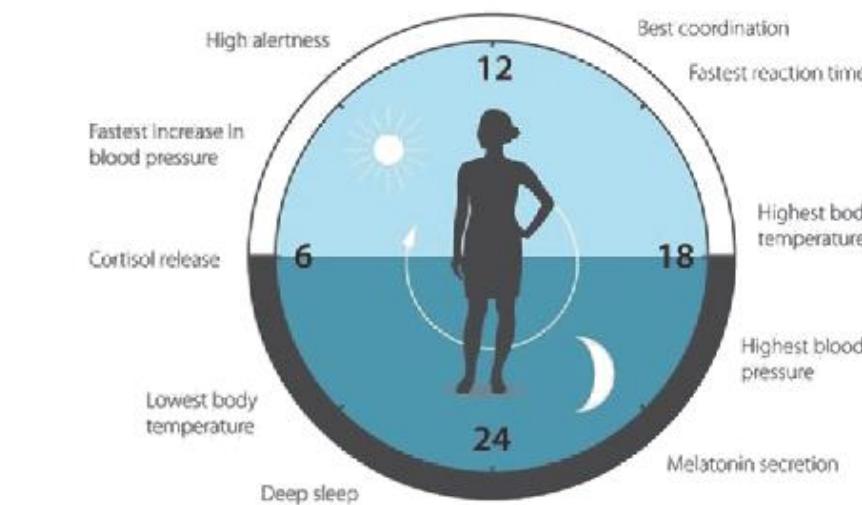
Artificial lighting aids Natural Light

- 使用人工照明對空間進行補光。
- 通過控制系統調節，使不同採光能力的空間維持相同的亮度。



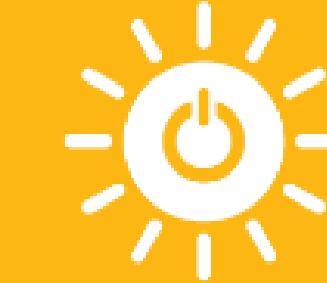
Circadian Lighting System

- 為用戶提供適當的光照，以維持晝夜節律健康並且讓晝夜節律與自然晝夜迴圈保持一致。



Employ Smart Technology Monitor Building Performance

7 AFFORDABLE AND
CLEAN ENERGY



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



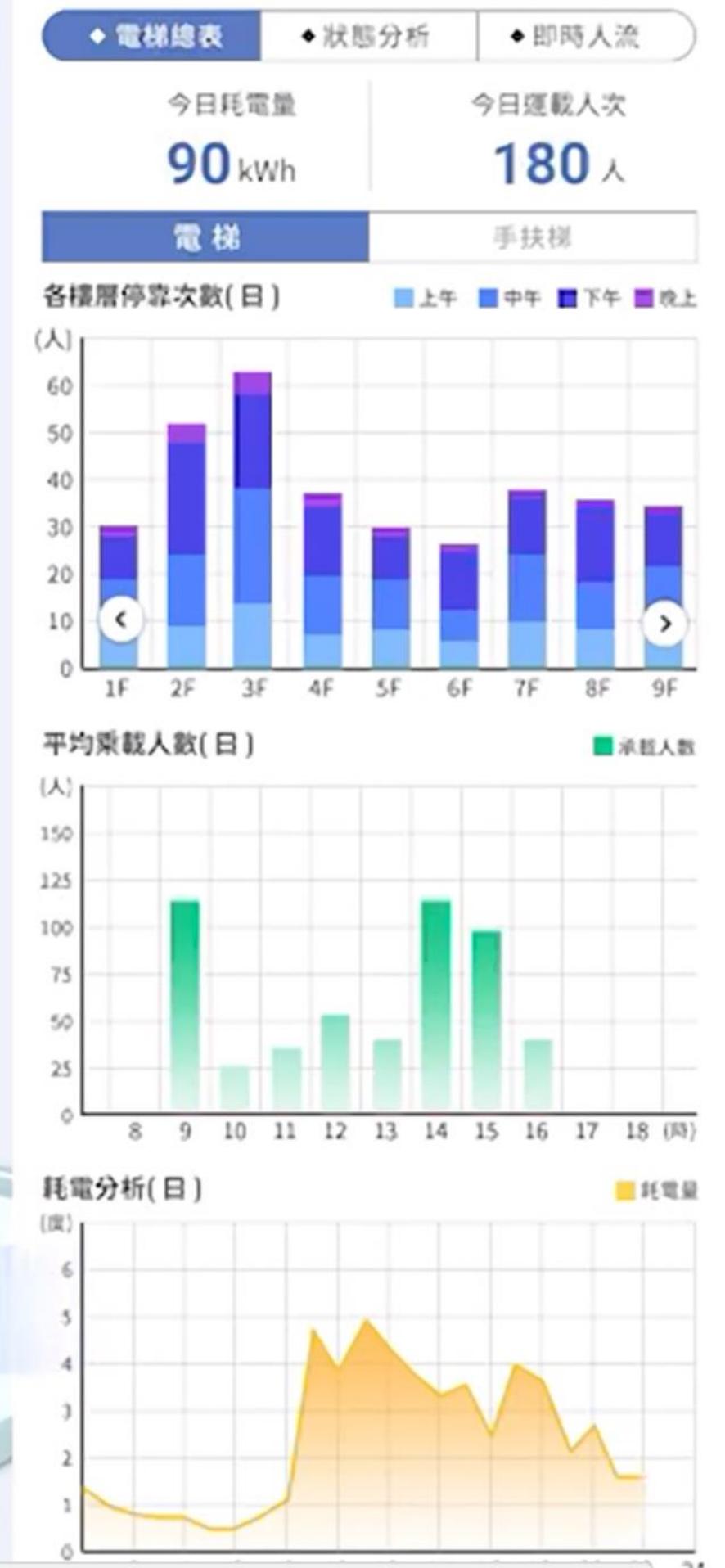
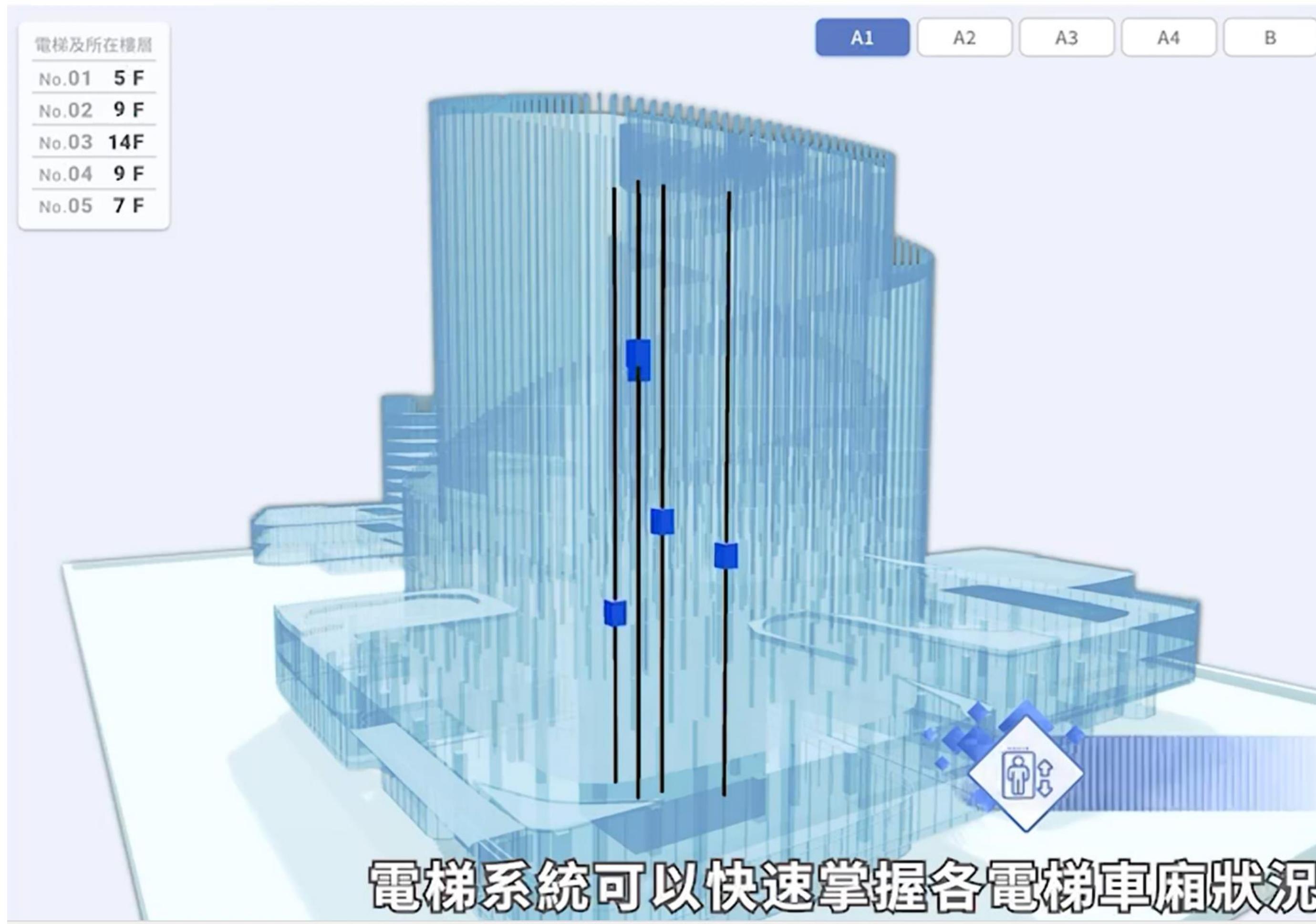
11 SUSTAINABLE CITIES
AND COMMUNITIES



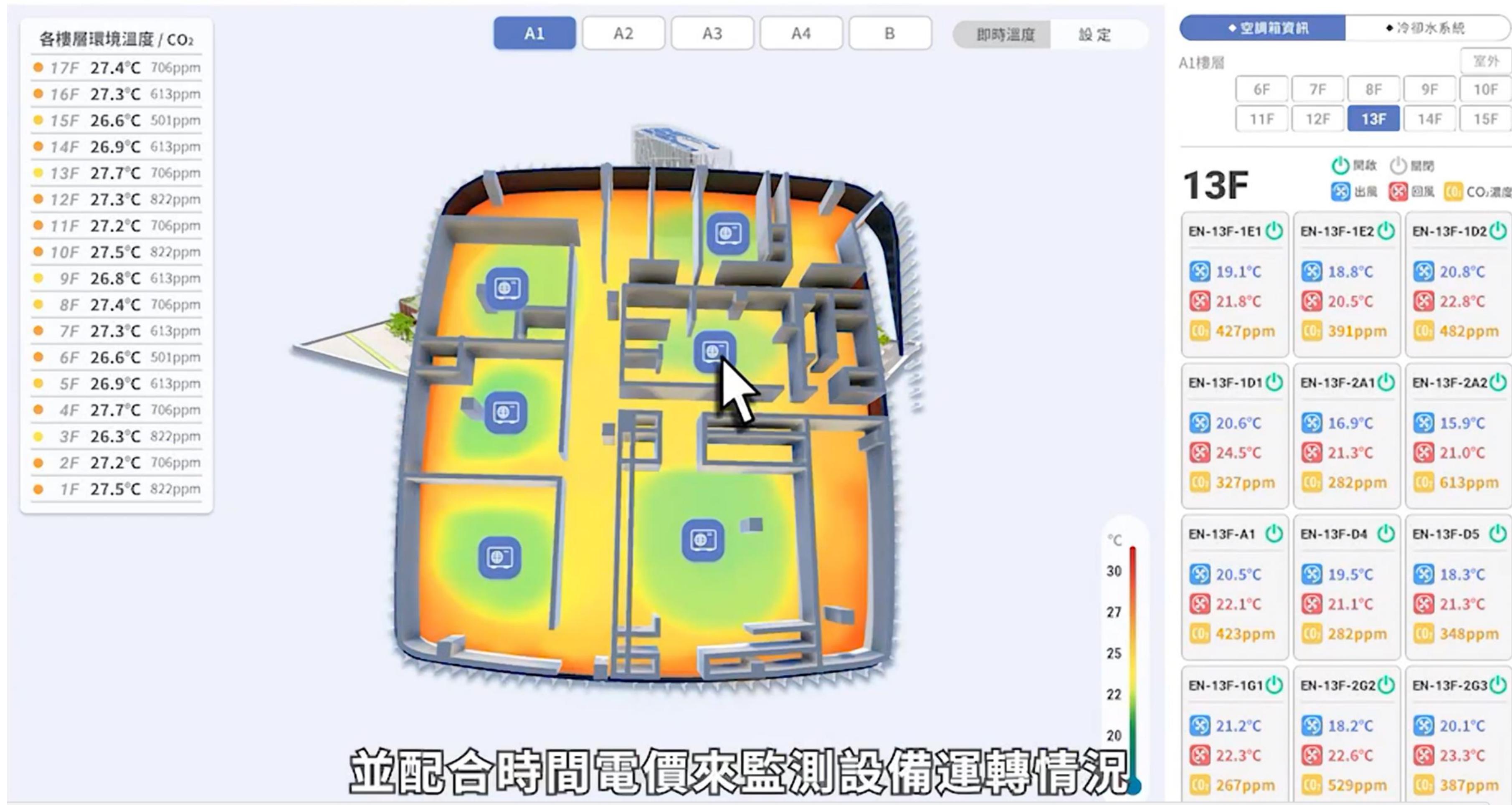
13 CLIMATE
ACTION



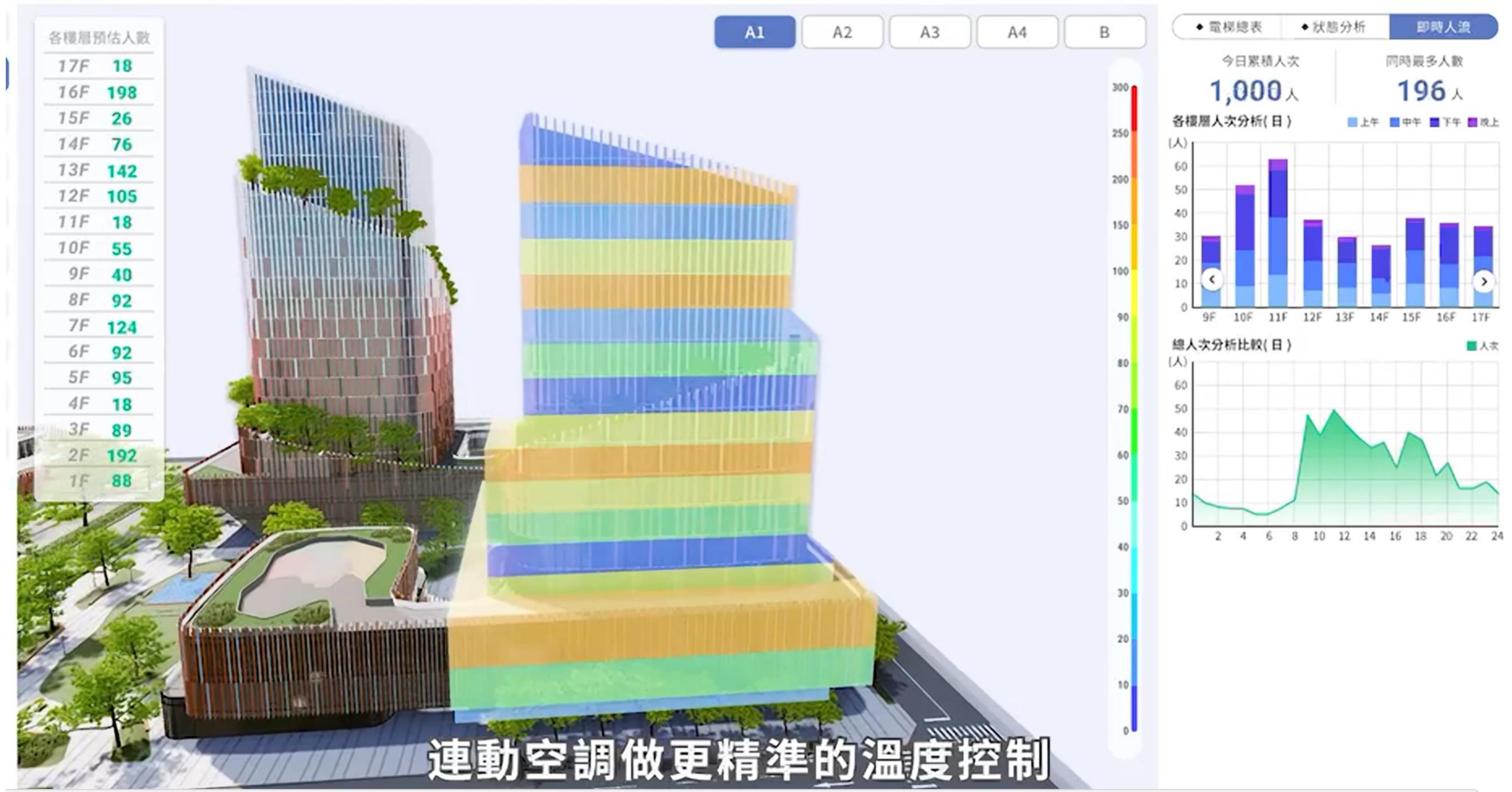
Monitoring Passengers Capacity



Monitoring Heat Load By Zone



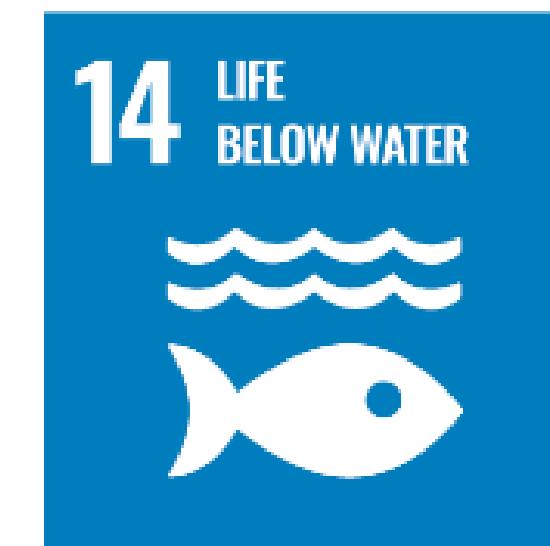
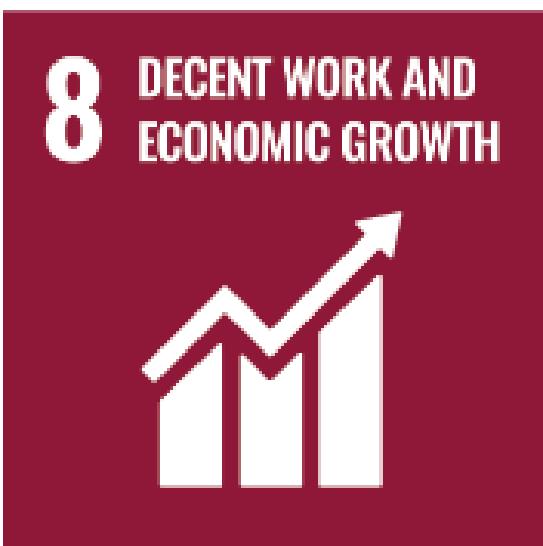
Monitoring HVAC Capacity

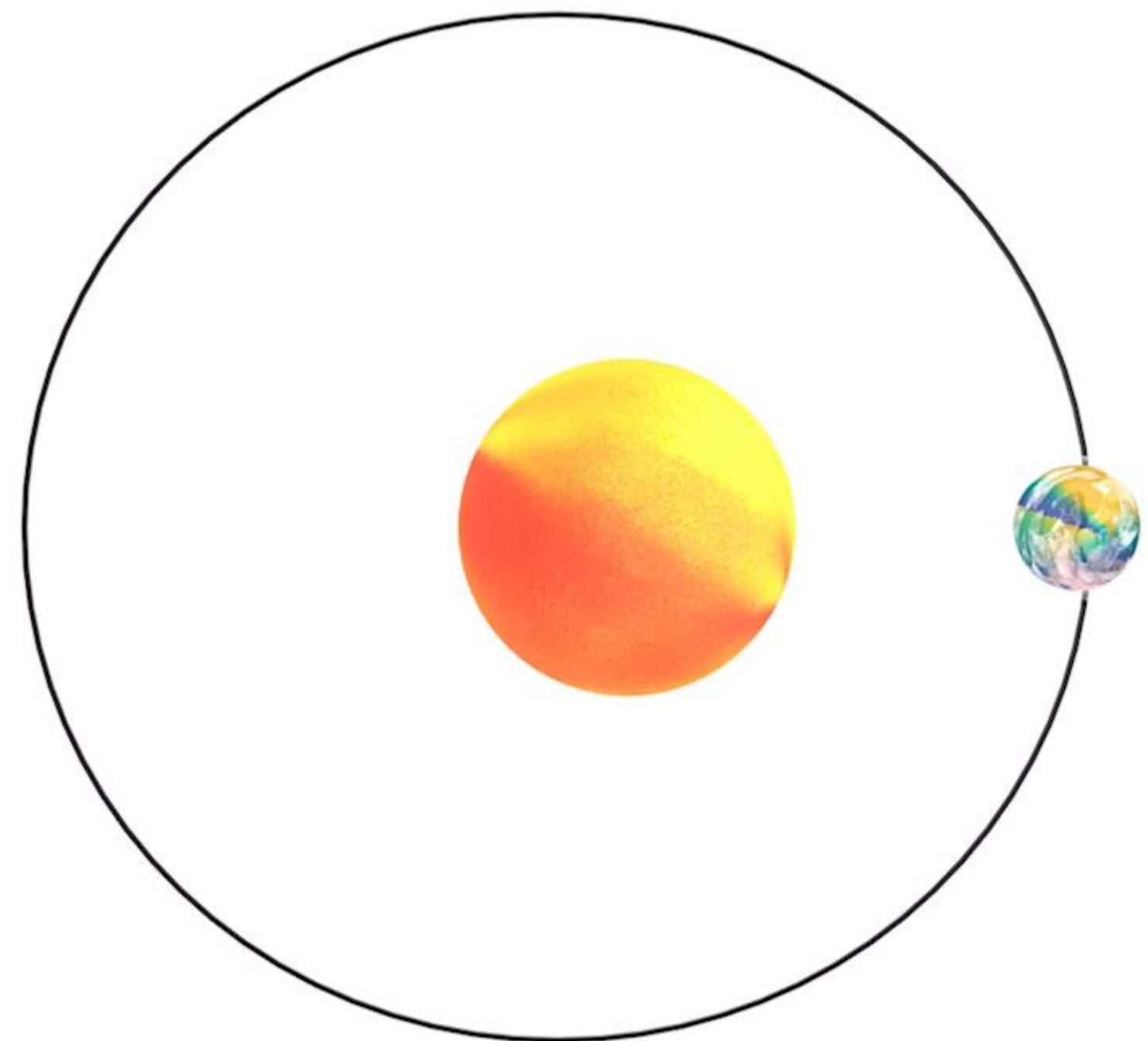


Monitoring Energy Consumption By Hour



Be Circular





九典 BaF

Why Circular Economy

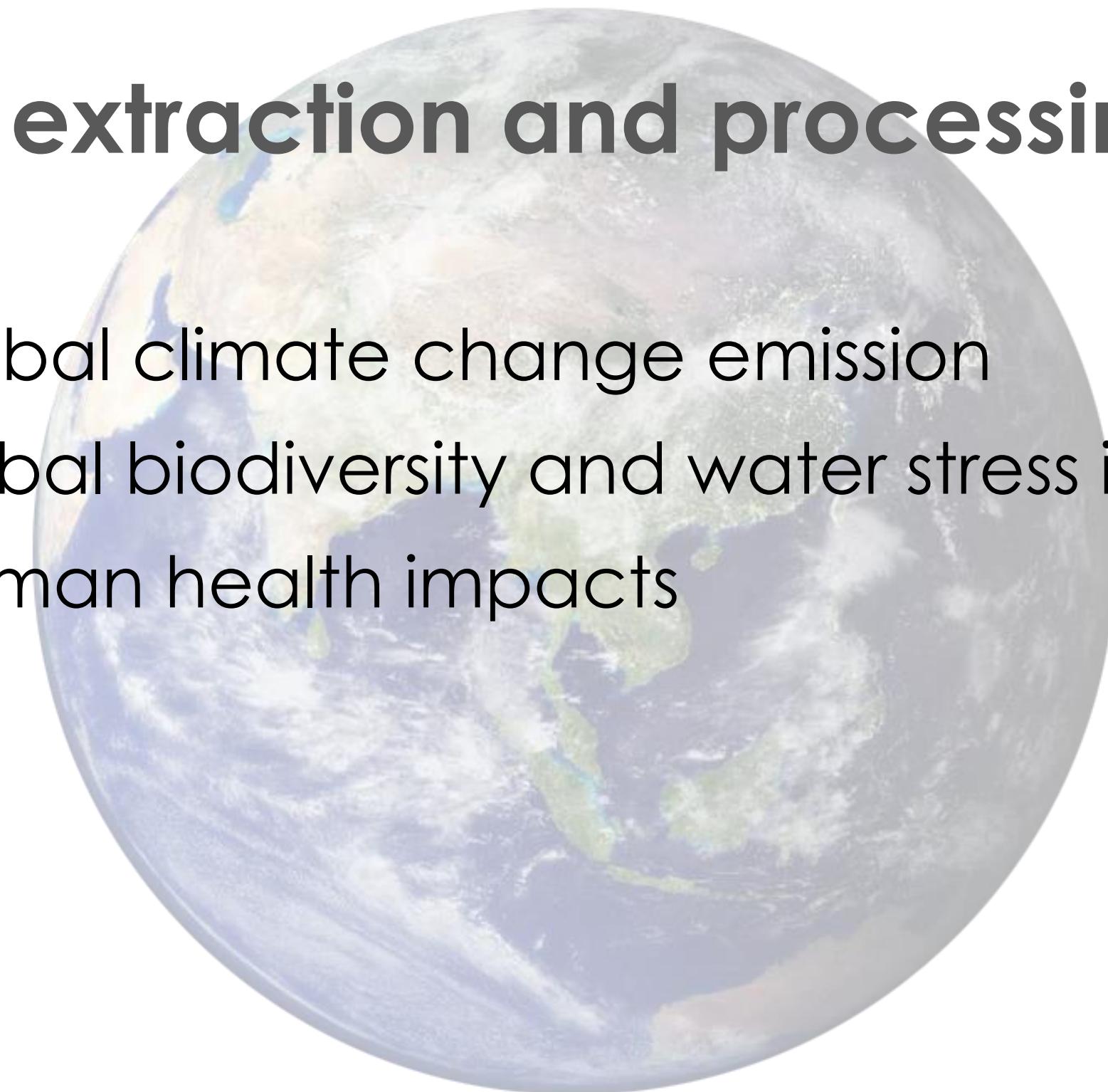
Resource extraction and processing account for :

half of global climate change emission

90% of global biodiversity and water stress impacts

1/3 of human health impacts

One planet network

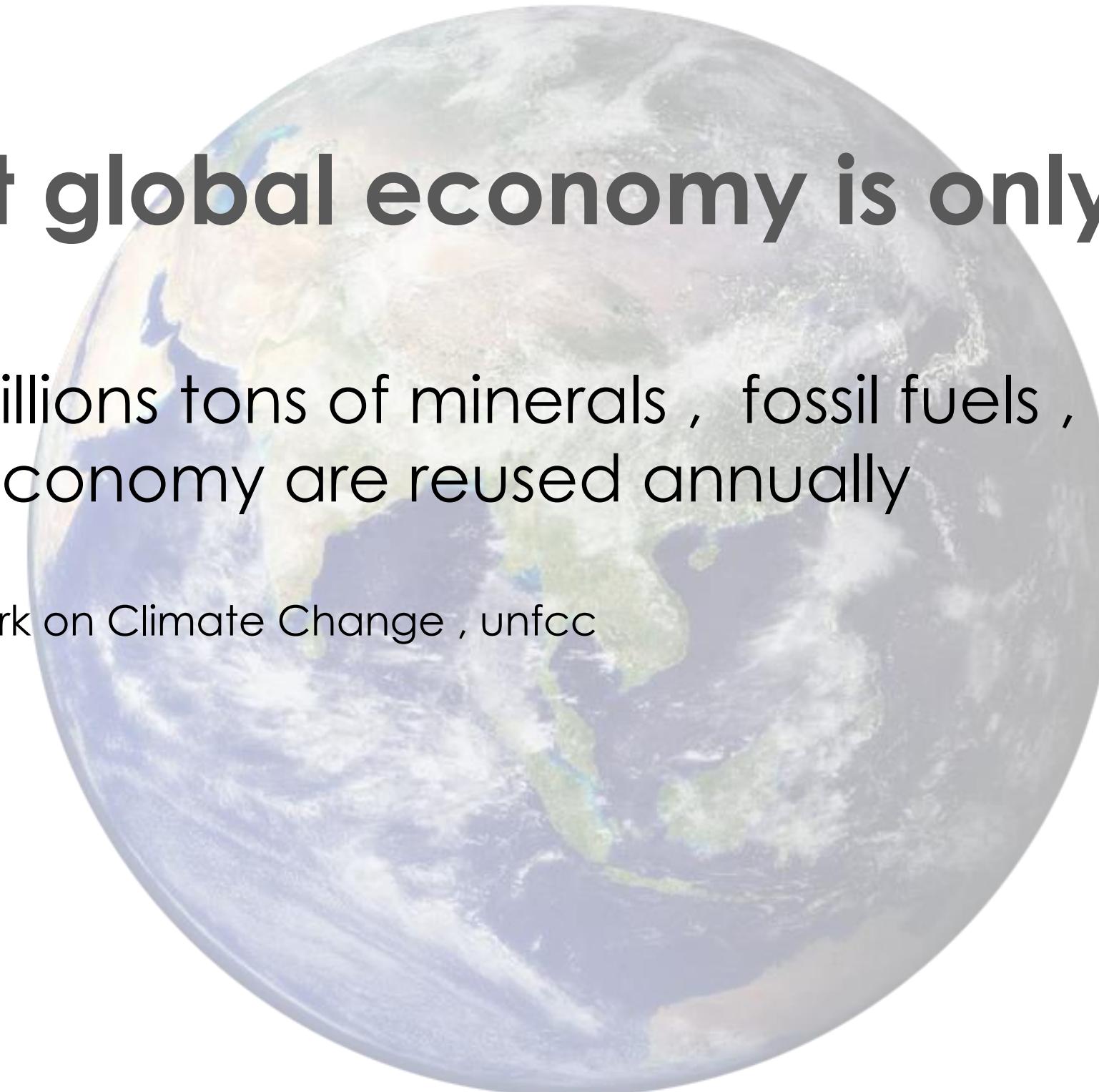


Why Circular Economy

The current global economy is only 9% circular

just 9% of 92.8 billions tons of minerals , fossil fuels , metals and biomass that enter the economy are reused annually

United Nations Framework on Climate Change , unfcc



linear economy

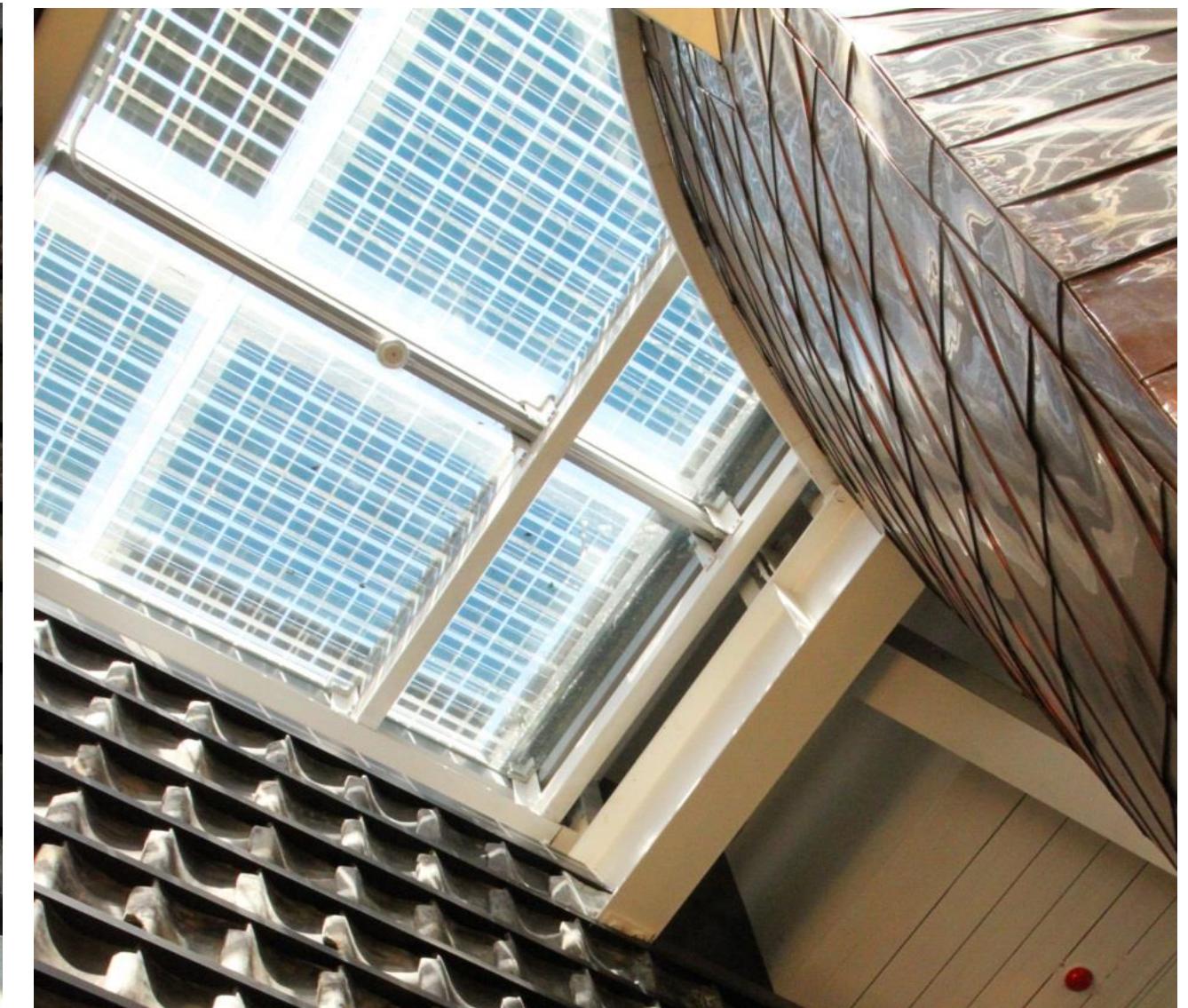


淡水藝術公房

Tamsui Art Gallery



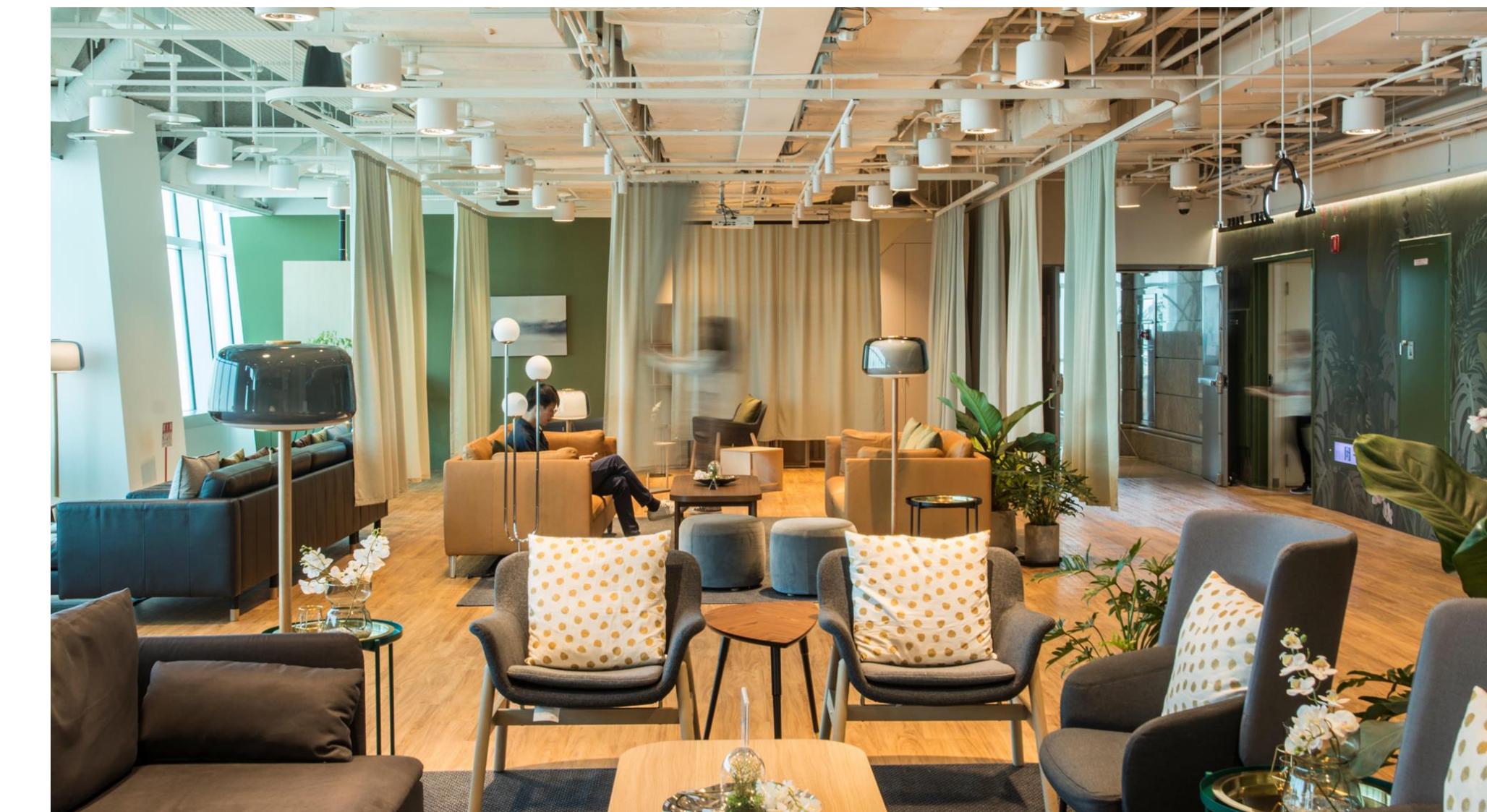
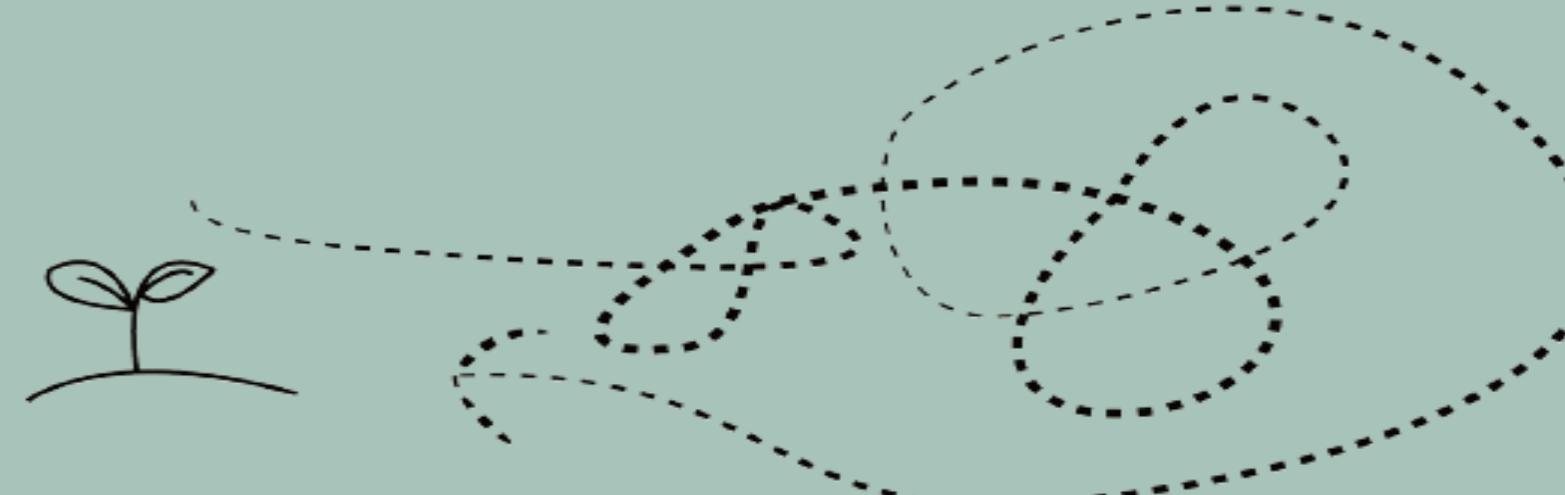
Material repurpose



Material re-use



circular economy



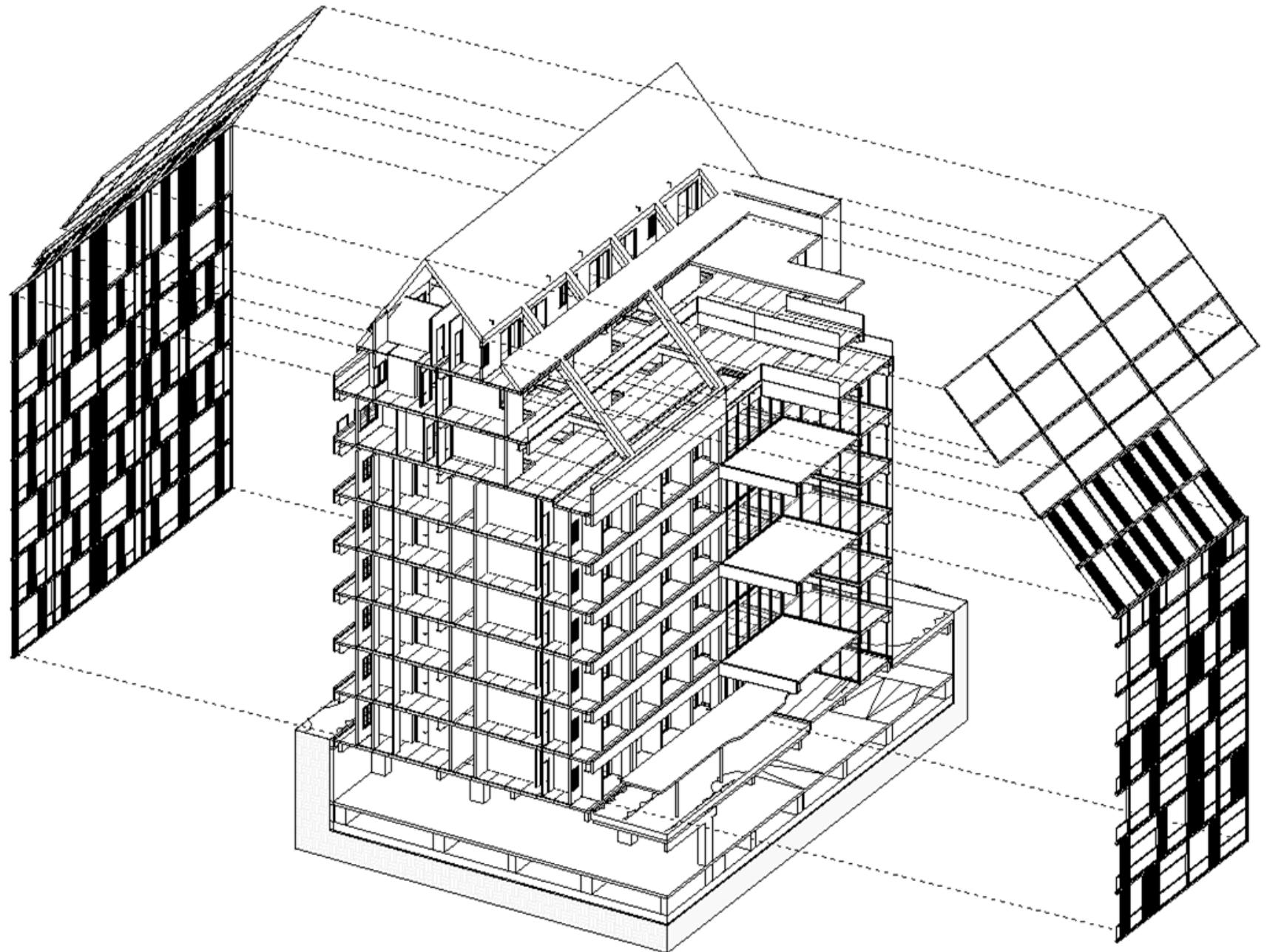


建築循環經濟
architecture
Circular Economy



室內循環經濟
interior
Circular Economy

Circular Village



Fairphone

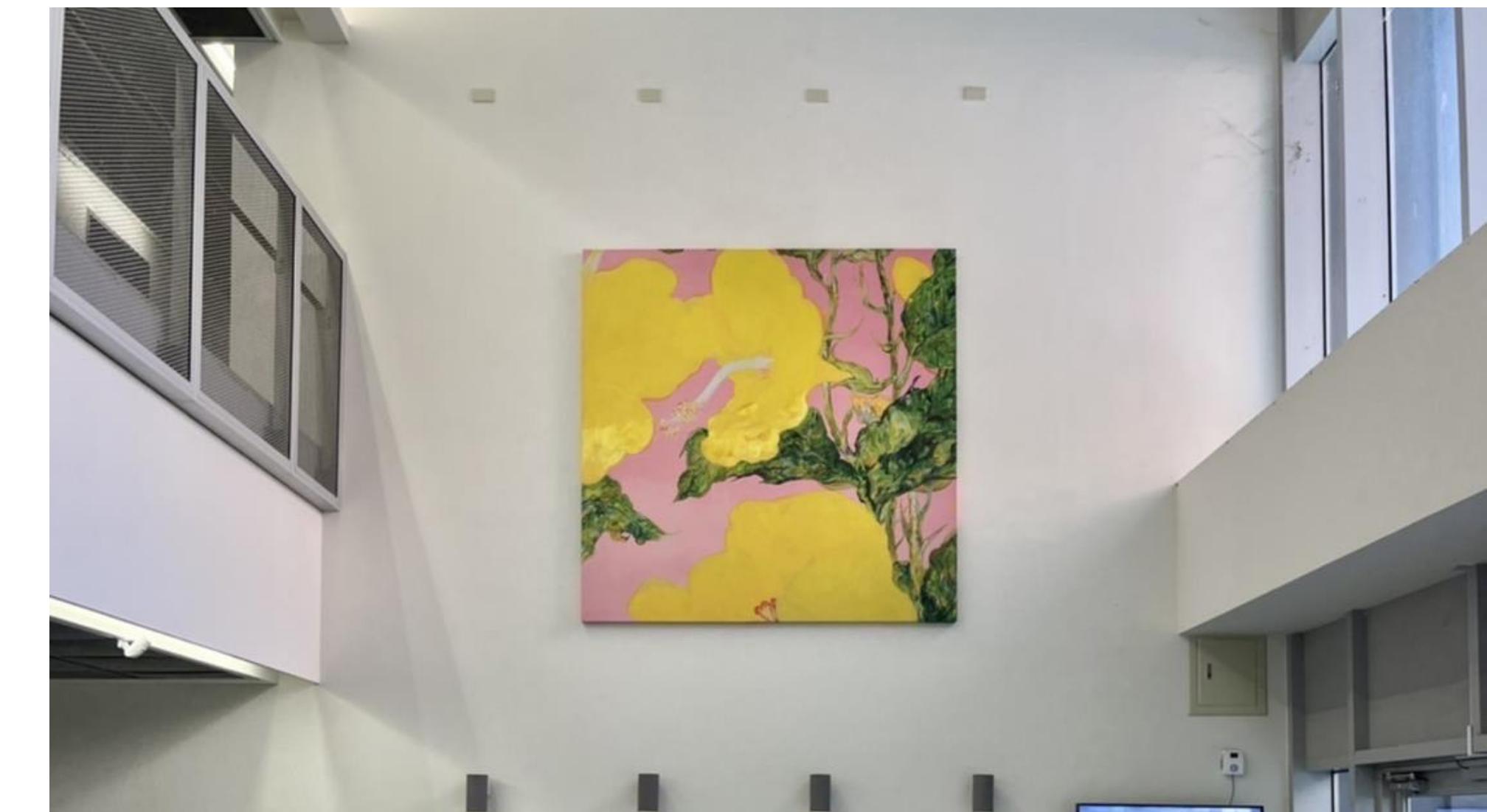


Project 1.

TAISUGAR CIRCULAR VILLAGE

台糖沙崙智慧綠能循環聚落

Rental Artworks From Art Bank



臺北101SkyPark一/二期

Taipei 101 Sky Park



Flexibility & Multi-use

Sky Cafe
餐飲區

114p

Sky Service
服務區

29p

Sky Office
辦公區

12p

Sky Lounge
生活區

65p

Storage
倉庫
6p

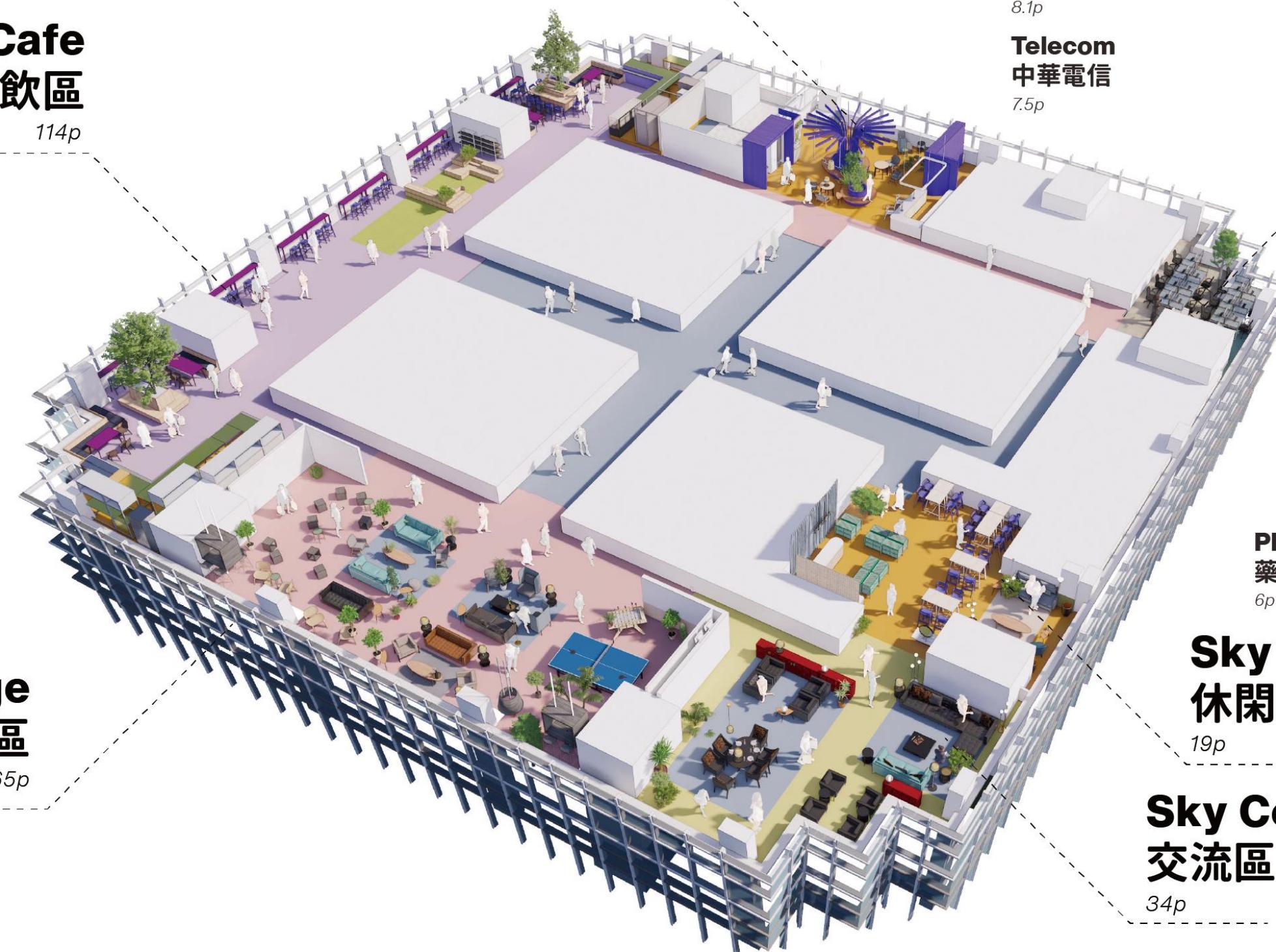
Dry-clean
加州乾洗
8.1p

Telecom
中華電信
7.5p

Pharmacy
藥局
6p

Sky Room
休閒區
19p

Sky Corner
交流區
34p



Modular loose furniture & wall and ceiling system



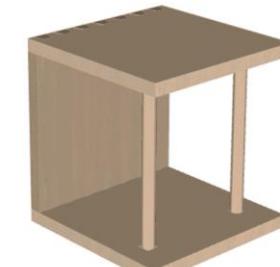
Movable Table

Modular & Flexibility



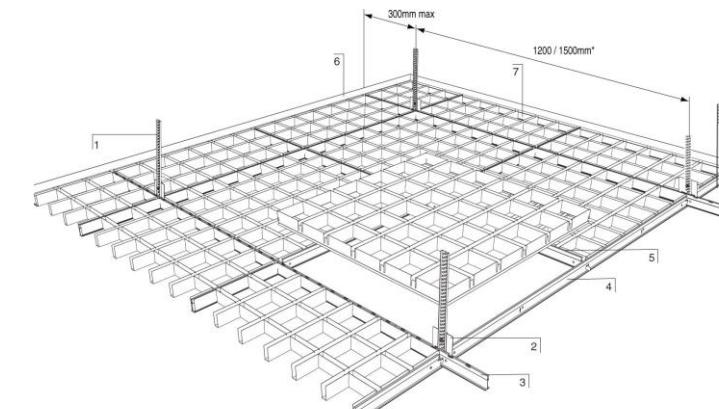
Wood Stool

Multipurpose Furniture



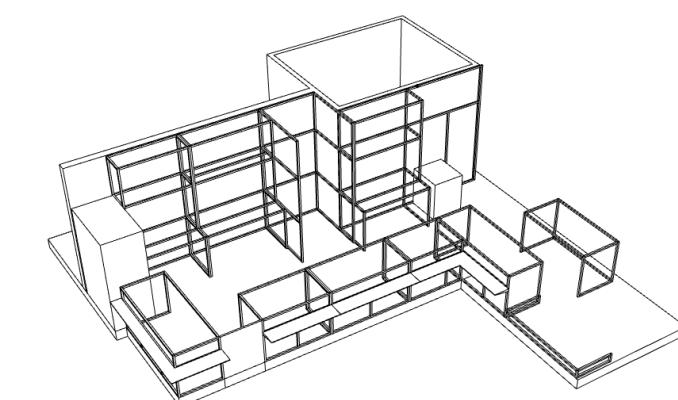
Hanging Grilles

hanging grilles with plants



Modular Screen

Modular & Flexibility

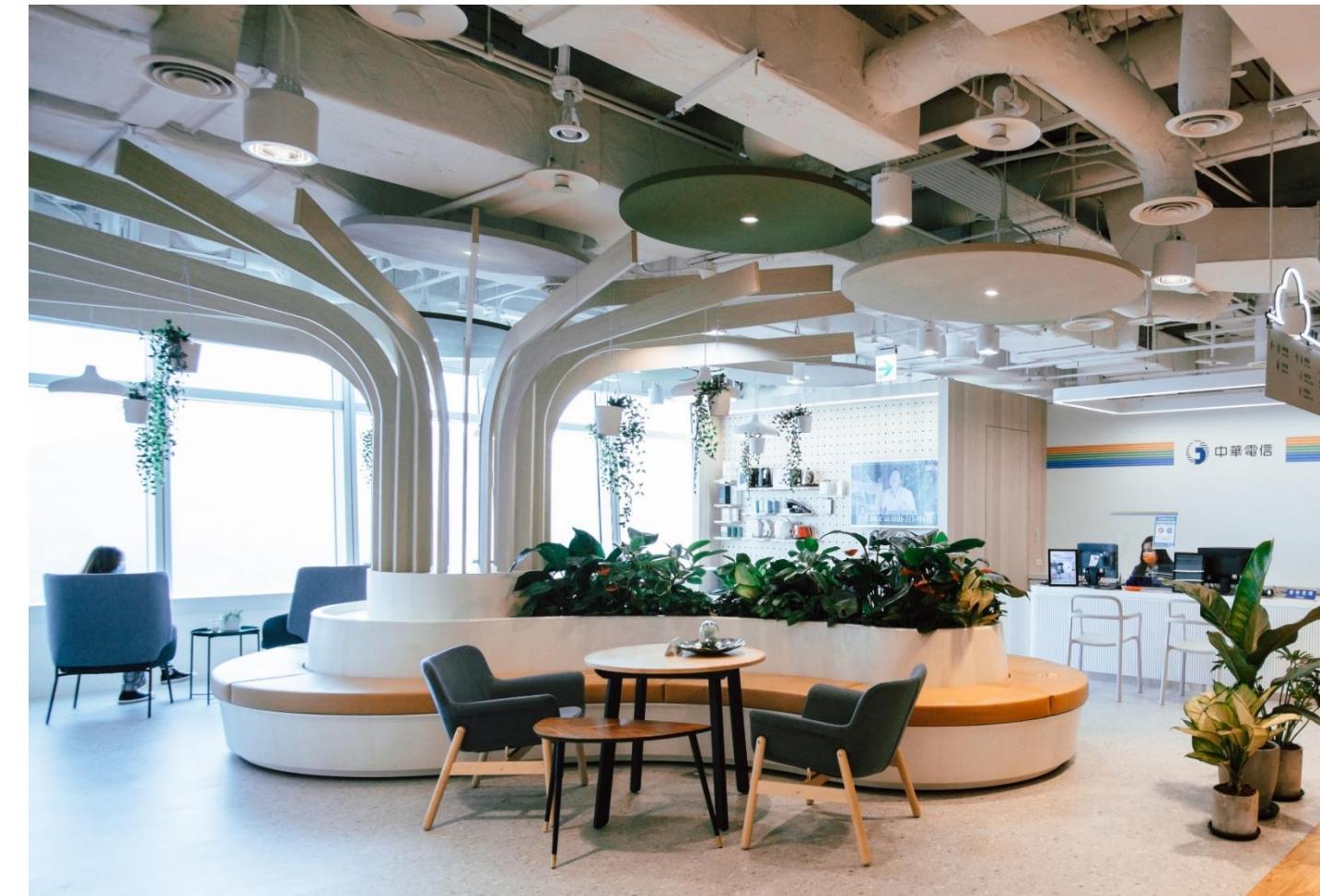


臺北101SkyPark—/二期

Taipei 101 Sky Park



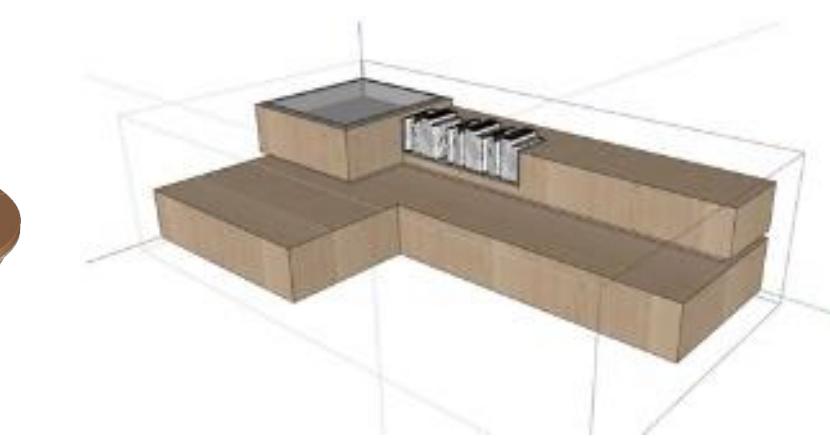
Mobile



Bar Counter
Wood / Aluminum / Wheels



Sky Tree
Planter bench



Chillout Bench
Wood / Aluminum



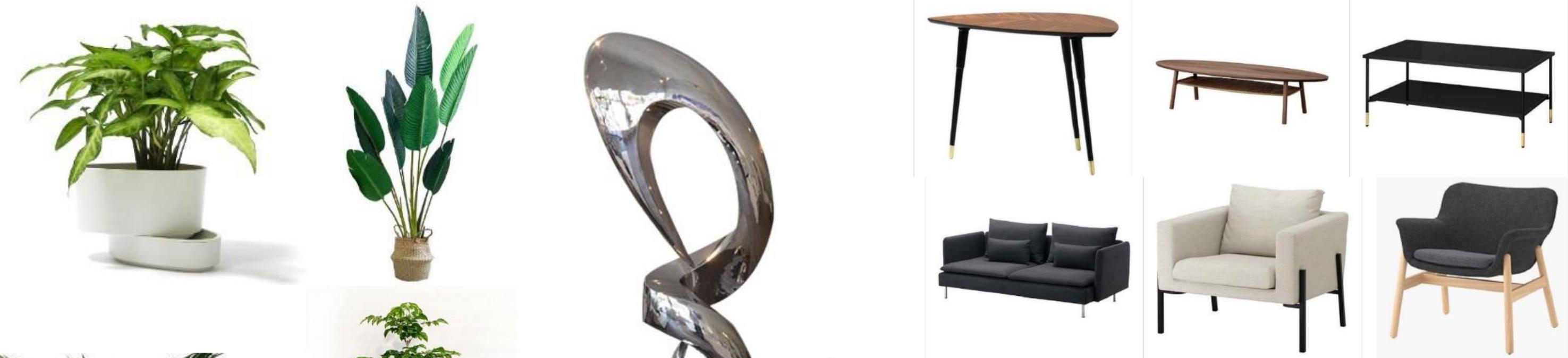
Mobile planter & seat
Wood / Aluminum / Wheels

臺北101SkyPark—/二期

Taipei 101 Sky Park



Rental : Furniture \ Lighting \ Plants \ Artwork



Develop Your Own Environmental Action Plan

BaF ESG?



SUPPORT NGO GROUPS

鄭豐喜基金會
財團法人成大建築文教基金會
崔媽媽基金會
OURs 專業者都市改革組織
台灣各建築系畢業展

BaF female

GENDER EQUALITY
HUMAN RIGHTS POLICY

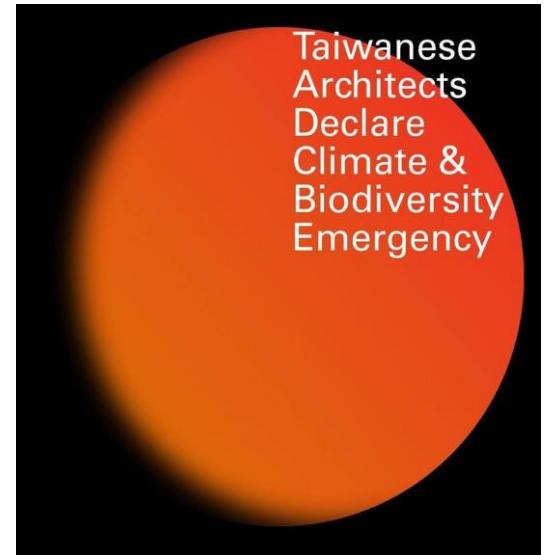


WELL BEING & HEALTHY WORKPLACE

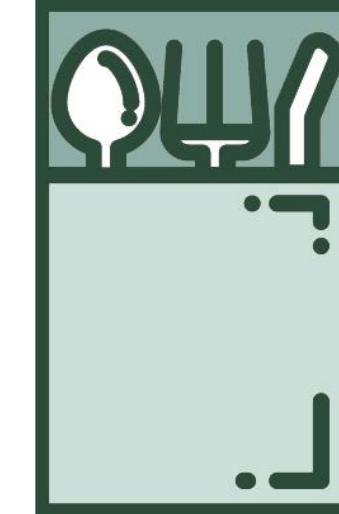
CLIMATE POLICY
CIRCULARITY 低碳循環
ENERGY SAVING 自然通風
LED

九典 建築文化藝術基金會
FOUNDATION FOR ARCHITECTURE, CULTURE & ART

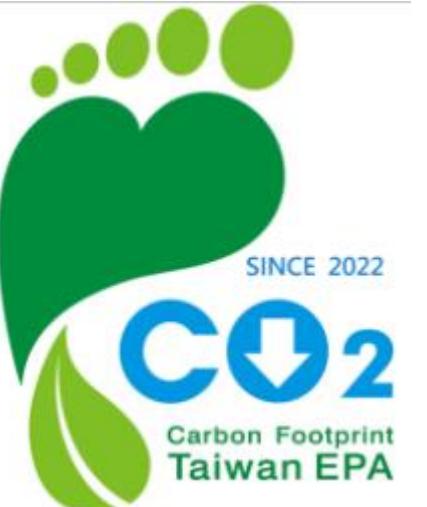
BaF FOUNDATION



ARCHITECTS DECLARE



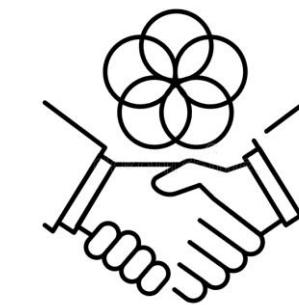
NO TO SINGLE USE PLASTIC
POLICY



CARBON FOOTPRINT
VERIFICATION



ADVOCACY
EXHIBITIONS, SPEECH, TEACHING,
PUBLICATION, INTERNSHIPS



PARTNERSHIP FOR SDG
供應商管理：材料商，營造廠
(SUPPLIER, CONTRACTOR)



Encourage energy-
efficient and public
transportation

Doing the Right Things
is Not Enough

To Inspire and Strengthen
All Stakeholders