



SUSTAINABLE PROJECTS

TEMUULEN Purevdorj
Vice President of Business Development

Mongolia-Japan Business Forum 2023

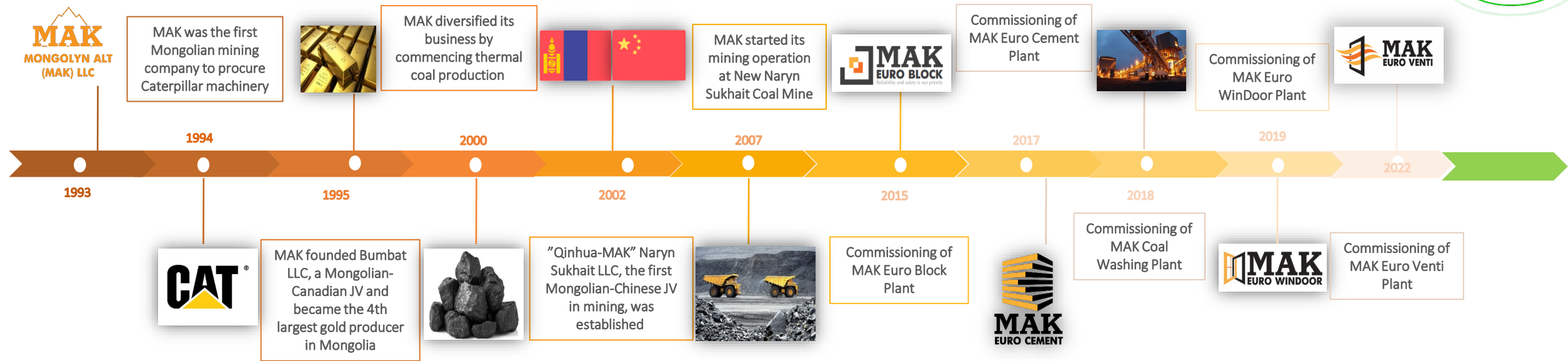
18 August 2023



KEY DEVELOPMENT MILESTONES

1993-2023

30 years of
striving towards a
GREEN FUTURE



On the eve of its 30th anniversary, "Mongolian Gold (MAK) LLC" defines its mission and vision for the next 30 years of the company as "30 years of striving towards a green future".

Naryn Sukhait mine

- ✓ Export of semi-soft coking coal and thermal coal to China
- ✓ Core business segment of the Group
- ✓ 2nd largest coal exporter in Mongolia
- ✓ Highly profitable coal mine with extensive reserves



MAK Euro Block

- ✓ Production of high-quality EURO standard Autoclaved Aerated Concrete (AAC) blocks
- ✓ Leader in the concrete block market
- ✓ High demand from increasing number of construction projects in Mongolia
- ✓ Plant started commercial operation in 2015



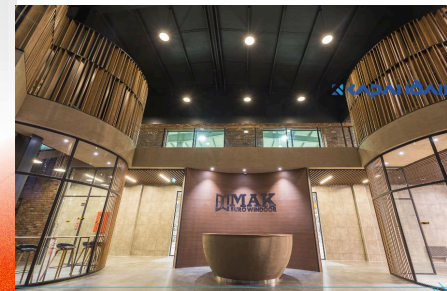
MAK Euro Cement

- ✓ Production of high-quality EURO standard cement
- ✓ One of the largest cement plants in Mongolia
- ✓ All raw material deposits owned by MAK
- ✓ Plant started commercial operation in 2017



MAK Euro WinDoor & Venti

- ✓ Production of high-quality EURO standard aluminium, wooden, PVC windows, glass facades, doors, air ventilation ducts using Schueco, Weinig, Lise and Spiro equipment and machinery.
- ✓ Largest window, door and ventilation duct plant in Mongolia
- ✓ Plant started commercial operation in 2019



Tsagaan Suvarga Copper – Molybdenum project

- ✓ Third largest copper deposit in Mongolia
- ✓ Planned export of copper and molybdenum concentrate
- ✓ Project completion 46%
- ✓ Production expected to commission in 2025



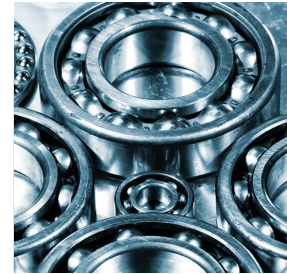
MAK Green Projects in cooperation with Japan



**HYDROGEN PRODUCTION
& ITS DERIVATIVES
PROJECT**



SOLAR PV PROJECT



**HIGH-PERFORMANCE
LOGISTIC SYSTEM
BEARINGS**



**AIZAWA GROUP –
PRECAST CONCRETE**

Hydrogen Production & Its Derivatives Project

To establish a demonstration plant in Mongolia, which would manufacture export-oriented value-added products (first dimethyl ether, then hydrogen) from the country's inexhaustible raw material resources (coal).

Demo plant. Eastern region
DME - 189,000 tpa
H2 - 39,000 tpa

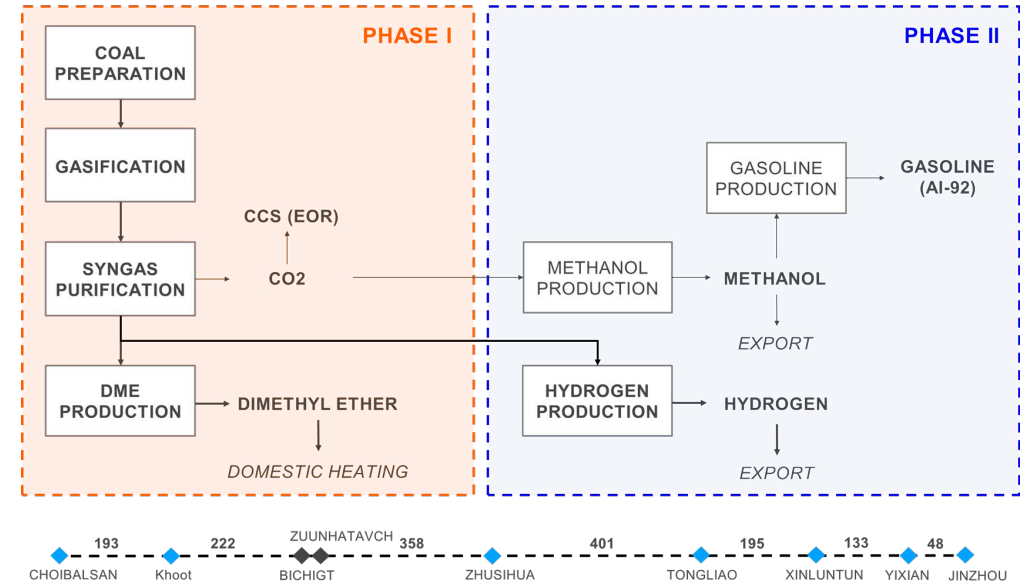


Plant 2. Central & Southern region



Advantages of establishing demo plant in the eastern region:

- Sufficient water supply from Kherlen river (10 km).
- Expandable electricity supply from Choibalsan power plant (36 + 50 MW).
- Short product export route to South-East Asia and Japan via 1,550 km Choibalsan-Bichigt-Jin Zhou railway.
- Plant workforce can be prepared at the Professional Training Center in Choibalsan.



Government Support For Project Implementation

- Currently, 36 countries of the world have developed and approved their hydrogen strategies by their legislative bodies. Such actions are internationally recognized as a major contribution to the global green development.
- Creating a favorable legal and tax environment to support the development of hydrogen production and its derivatives project,
- In order to become a hydrogen exporting country in the future, other infrastructural aspects shall be solved including logistic routes, railways gauges, hydrogen strategy/roadmap





MAK Renewable energy Solar PV project

1. Project aim

In accordance with the global trend of **reducing global warming** and **greenhouse gas emissions**, the project aims to contribute to the reduction of greenhouse gases by providing a certain amount of the internal energy consumption of all factories and mines with renewable energy sources /especially solar energy/.

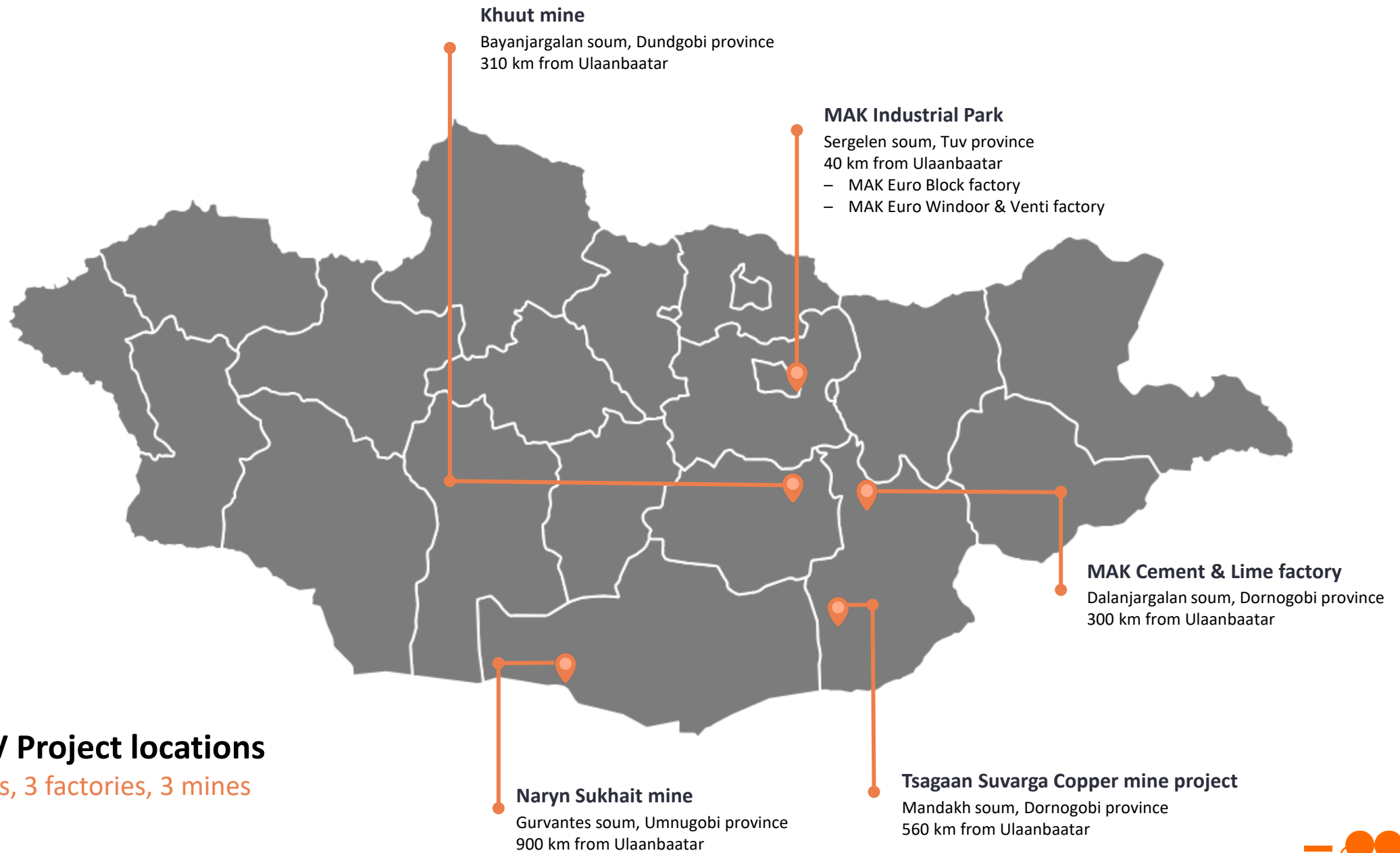
2. Project objectives

Establish a renewable energy power plants at 5 locations, including construction material factories, mines and major projects currently under implementation, to provide a certain percentage of energy consumption and start the **transition from coal to renewable energy**.

3. Project implementation

First **4.9 MW solar PV project** is under implementation at MAK Industrial park.

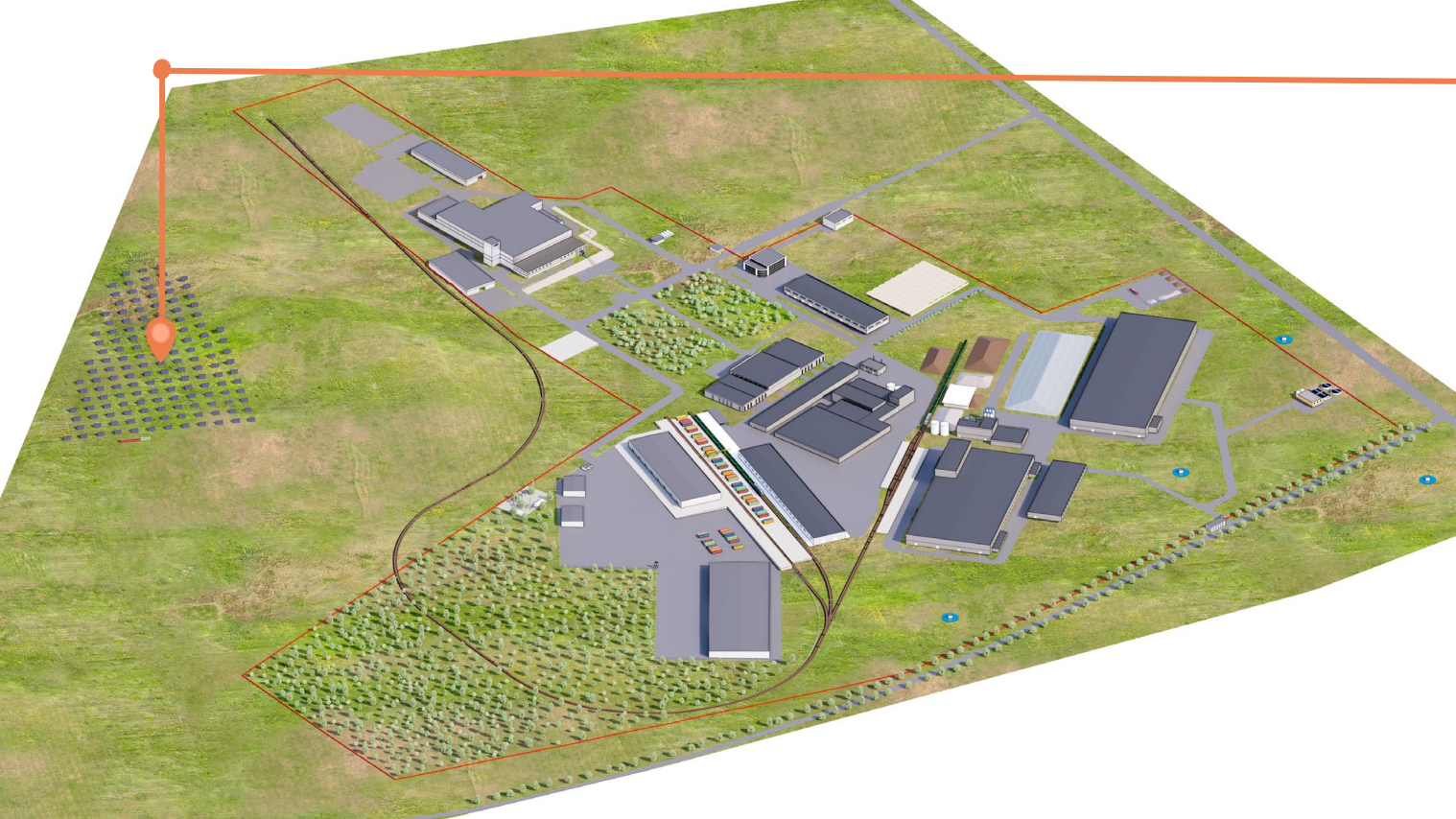




Solar PV Project locations

5 locations, 3 factories, 3 mines





Solar PV project MAK Industrial Park

Total installed power capacity: 23.4 MW
Solar PV plant: 4.9 MW



CO2 reduction: 6,023 tons/year

Existing factories

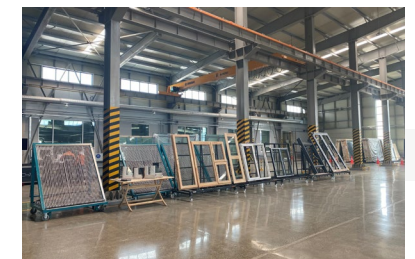
- MAK Euro Block factory
- MAK Euro WinDoor & Venti factory

Further developments

Building materials factories – 8
3 of them will be commissioned in 2024-2025

Other facilities
Warehouses for raw materials & finished products, offices,
water treatment plant etc.

Customs area
Warehouses and other facilities





In cooperation with **MITSUI STEEL**

BEARINGS

High-performance logistic system

Bearings are incorporated into the critical parts of all kinds of machines. They receive and support shafts that rotate at high speed and “bear” the fierce friction as the origin of the word “bearing” indicates. Bearings are used in all kinds of machines from automobiles to home appliances to artificial satellites and constitute integral part of industrial development.

Features

- Increased endurance and durability
- Smart damage control
- Reduced CO2 footprint – prolonged life





In cooperation with **AIZAWA GROUP**

I. Concrete Plant Project

- Zero emission technology
- CO₂ recycling “Carbon cure”
- “Basilisk” self-healing concrete
- 3D printing
- AI-based production
- Concrete mark compliance with international standards

II. Precast Concrete Plant Project

About the plant

- Total required area: 10 hectares
- Plant area: 25,000 sqm
- Width, height: 111m x 330m
- Number of workers: 150
- Total annual capacity: 120,000 tons

Technology

- Cutting-edge technology
- CO₂ reduced
- Water efficient
- Water recycling
- Concrete mark compliance with international standards



MAK AGRO

On-going projects in Agriculture



01 | **Cattle and sheep farming complex**



02 | **Hydroponic greenhouse**



03 | **Vegetables farm**



MAK TOWER

- Project location: Ulaanbaatar, Khan Uul district, 15th khoroo.
- 43-story, the tallest office and commercial building in Ulaanbaatar.
- 80.4 million square meters of floor area, cover a land of 1.5 hectares.



AYAN HOTELS & RESORT

- 6 km from the city center

Total site area	113,870 sq.m
Structure	Reinforced concrete
Clubhouse area	11,661 sq.m
Residential house areas	1,800 – 2,300 sq.m

On-going projects in Tourism

TURTLE ROCK RESORT

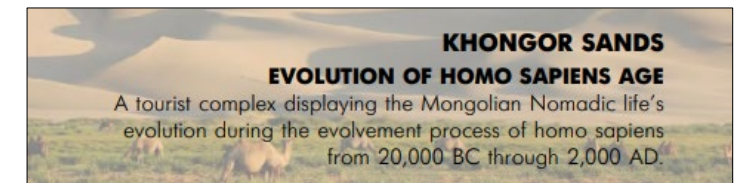
- Project location: Gorkhi Terej National Park
- Consists of 3 main sections, a hotel, a Buddha park and a temple.
- The hotel has 2 basement floors and 4 main floors and will include amongst others 101 guest rooms, function halls, a swimming pool, sports hall, and restaurant franchises.



On-going projects in Tourism



- Location: Khalkhgol soum, Dornod province
- Sports and tourism complex city with a skiing resort, golf course, racecourse, hotel, entertainment center, historical monument complex of Khalkhgol, a planetarium, Amar amgalan monastery and etc.



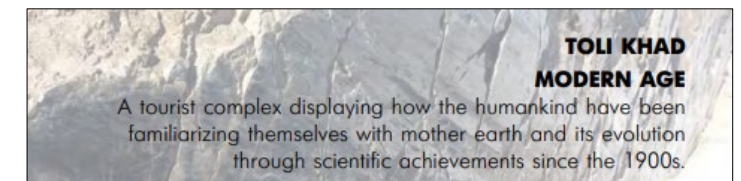
KHONGOR SANDS **EVOLUTION OF HOMO SAPIENS AGE**

A tourist complex displaying the Mongolian Nomadic life's evolution during the evolution process of homo sapiens from 20,000 BC through 2,000 AD.



KHERMEN TSAV **ANCIENT AGE**

A tourist complex displaying the dinosaur age from approximately 70 million years BC.



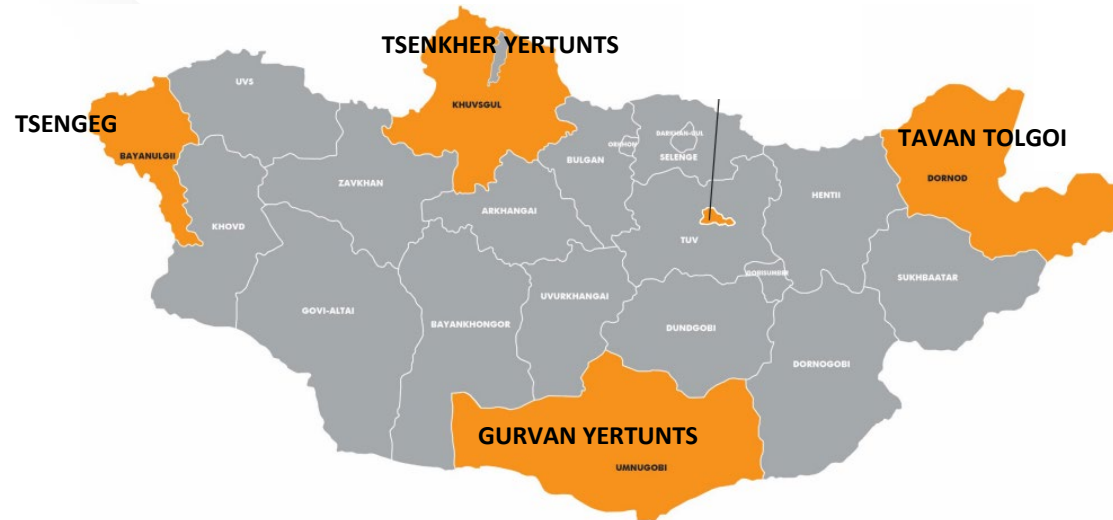
TOLI KHAD **MODERN AGE**

A tourist complex displaying how the humankind have been familiarizing themselves with mother earth and its evolution through scientific achievements since the 1900s.



TSENKHER YERTUNTS PROJECT

- Location: Khankh soum, Khuvsgul province
- Increased domestic and international tourism in the Khuvsgul lake region.



TSENGEG PROJECT

- Location: Tselgel soum, Bayan-Ulgii province
- In cooperation with Hunnu Air LLC
- The travel complex will occupy 53.8 hectares of land, the airport will occupy 9 hectares of land.

GURVAN YERTUNTS PROJECT

- Location: Umnugovi province
- MAK plans to build travel complexes on three of the most unique landscapes of Umnugovi province namely "Khongor sands", "Khermen tsav", and "Toli khad".
- These complexes are expected to exhibit Mongolian nomadic lifestyle evolution from 20,000 BC.



Affiliated companies

BANKING AND FINANCE

The largest shareholder of Xac Bank, 4th largest commercial bank of Mongolia

www.xacbank.mn



XACBANK



PREMIUM Concrete

CONSTRUCTION MATERIALS PRODUCTION

Shareholder of one of the leading concrete producers in Mongolia.

<http://premiumconcrete.mn/>



HUNNU AIR Wings of Mongolia

AVIATION

Hunnu air is a dominant player in the domestic and short-haul international flights

<https://www.hunnuair.com>

SOCIAL RESPONSIBILITY

**Environmental
Social & Cultural**



Environmental

Technical and biological rehabilitation

Conducted technical rehabilitation on 90.1% and biological rehabilitation on 84.4% of the total affected area.

Planted over 130 thousand trees and shrubs



Social and Cultural

28.2b MNT in social responsibility initiatives

Education

Youth and cultural center
Schools and kindergartens
Internship Program
Awarded 2.3b MNT scholarship to students and staff

Health

Committed participation in the annual national arbor day
Supplement donations to child protection centers
Blocks and cement donations to “Id Shidiin Oron” initiative

Sport

Sponsorship for Mongolia’s Junior Curling team
Sponsorship for “Turiad Students” community walking contest

Local cooperation

Annual fodder and coal assistance to provinces
Power line and substation projects
Assistance to disaster recovery in rural areas



Thank you for your attention

TEMUULEN Purevdorj
Vice President of Business Development
Temuulen.p@mak.mn
+(976) 75759707

Mongolyn Alt (MAK) Headquarter
#44, Chinggis Avenue, Khan Uul district,
1 khoroo, 19th microdistrict, PO Box 66, Ulaanbaatar 17030, Mongolia
Website: www.mak.mn

MAK
MONGOLYN ALT
(MAK) LLC

