



Project: Development partnership with the Private Sector "Strategic Alliance in Construction Sector - Mongolia"

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"Strategic Alliance in Construction Sector - Mongolia"

Objective: Improvement of the offer and quality of education and training in the vocational field of construction in the Mongolian vocational training sector.

Partners:



Background: Mongolia

- It reaches - 40°C in the winter.
- The old inefficient soviet housing and mis-dimensioned heating systems are used, causing high energy losses, enormous emission and poor indoor climate
- The capital city Ulaanbaatar is one of the most polluted capitals in the world. The daily average of PM2.5 pollution — 27 times the level WHO recommends as safe.
- Construction industry to record an annual average growth of 6% between 2024 and 2027, supported by investment in the transport, electricity, housing, and mining sectors.
- The demand for thermal energy has increased continuously in recent years, but the supply has stagnated

Components:

Component 1: Development of further training modules for companies

Outcome 1:

short-term vocational training modules at training centers at companies

Component 2: Development of initial training modules

Outcome 2:

Selected training modules integrate in the training program/curricula in TVET Schools

Component 3: Development of online platform

Outcome 3

information and dissemination of products, services and construction materials will be shared to public

Component 4: Relevant Government institutions are informed and support the new training offers

Outcome 4:

Information exchange of public and private sector organizations, newly developed curriculum and career information materials have been developed

Component 1:

Development of further training modules for companies

Development of modules and handbooks for teacher and students

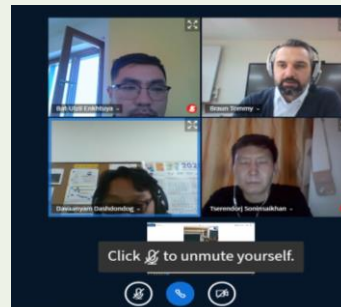
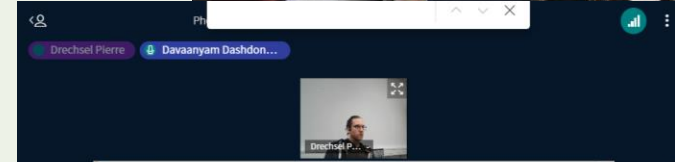
- ✓ 19 modules in the 6 fields are developed:
 1. Precast concrete construction - 3
 2. Construction machine - 3
 3. Window construction - 3
 4. Photovoltaic /automation - 2
 5. Heat insulation composite system-3
 6. Wooden construction elements - 5
- ✓ All modules approved by Assessment and Methodological centers
- ✓ Integrated in the national U-TVET moodle system ([Мэргэжлийн боловсрол сургалт: Бүх хичээл \(mergejil.edu.mn\)](https://mergejil.edu.mn))

Methodological training

- ✓ 14 Online training was organized by Magdeburg Construction Center:

Total 112 (60 female) – thereof 70 teachers, 42 engineers and technicians

15 engineers and technicians trained from cooperating companies as in-company instructors



Component 1: Development of further training modules for companies

Company contribution for organizing short term training

Sample wooden house at
Norbru LLC



Training and information center at
“Shilen Khiits” LLC



Component 1: Development of further training modules for companies

Training activities by GIZ technical experts at cooperating companies



Component 2: Development of initial training modules

Development of modules and handbooks for teacher and students

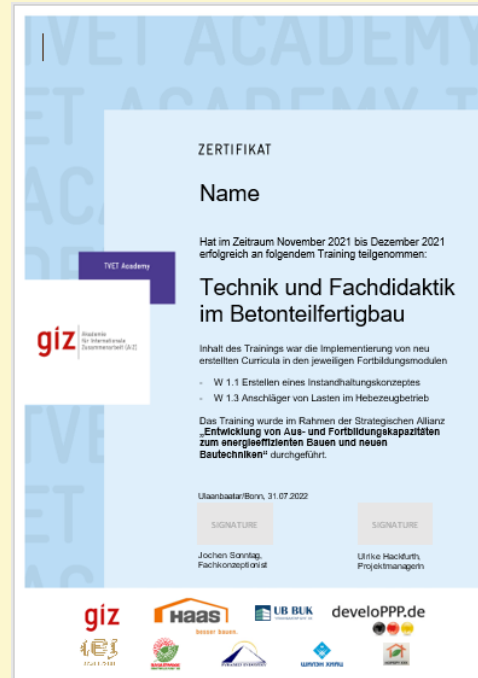
✓ 8 modules in the 4 fields are developed

- 1 Precast concrete construction (2)
- 2 Foundation construction machine (1)
- 3 Basics of photovoltaic / automation (2)
- 4 Heat insulation composite system (3)

✓ 14 Online training was organized by Magdeburg Construction Center:
Total 117 (duplicated number) teachers attended training

✓ Integrated in the national U-TVET moodle system ([Мэргэжлийн боловсрол сургалт: Бүх хичээл \(mergejil.edu.mn\)](http://mergejil.edu.mn))

✓ Official handing over seminar organized among officials



Component 2: Development of initial training modules

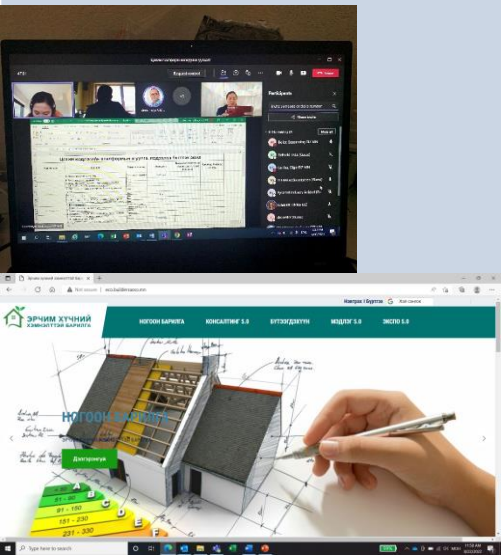
Practical training organized for teachers and students at the companies



Component 3: Development of online platform

Green construction online knowledge platform

"Green construction online knowledge platform established in cooperation with Mongolian Builders Association:
<http://eco.buildersasso.mn/>

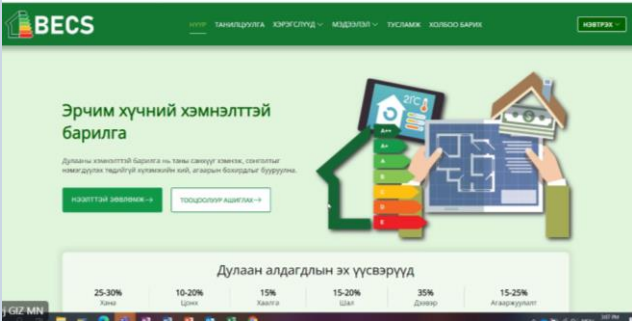


Building Energy Certificate (BECS) system

“BECS”: [BECS - Building Energy Certificate System \(e-nomads.com\)](http://e-nomads.com)

The following issues will be improved by providing auditors with an instrument that performs a unified national methodology. These include:

- Loss of calculation, loss of time
- Cost savings / billing period will save costs/
- Deliberately change the default value
- External evaluation or guarantee of the bank

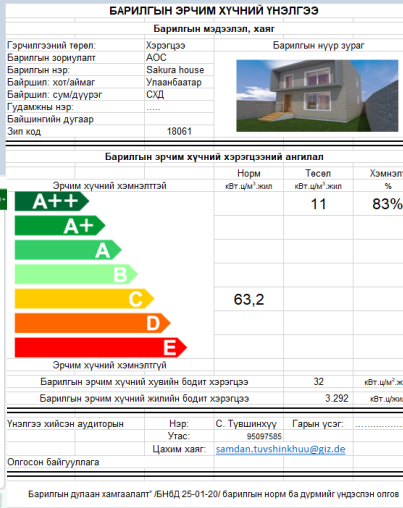
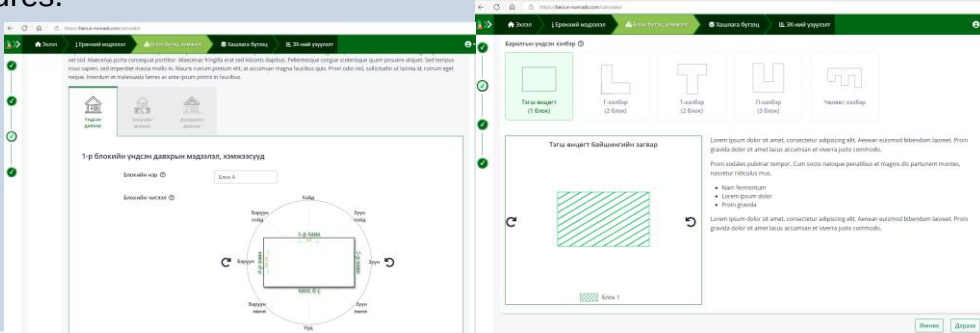


Component 3: Development of online platform

Building Energy Certificate (BECS) system

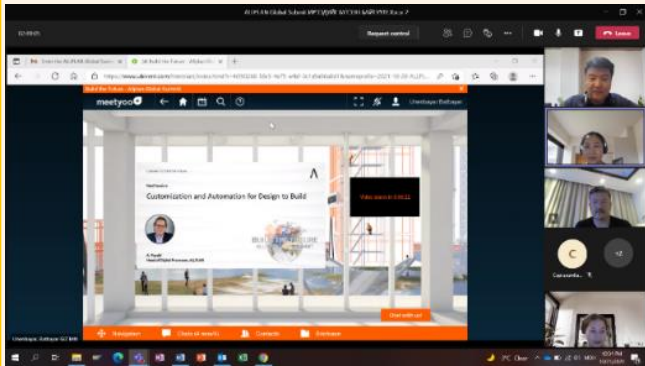
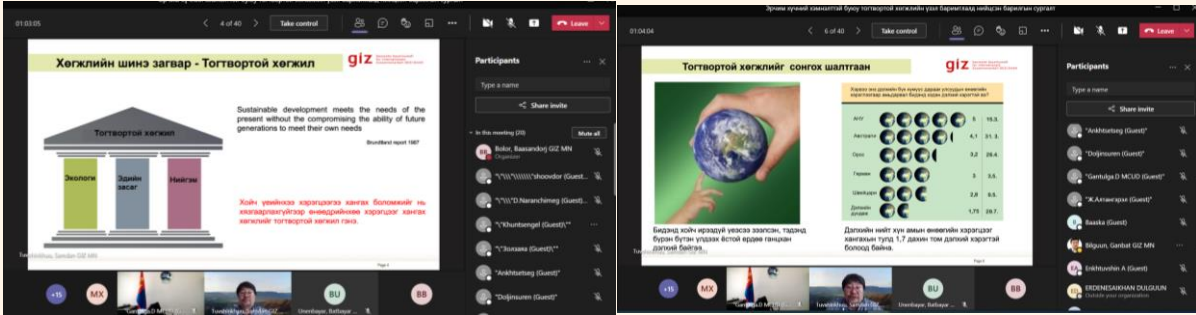
“BECS”: [BECS - Building Energy Certificate System \(e-nomads.com\)](http://e-nomads.com):

- ✓ Create a common understanding of energy-efficient construction between buyers (citizens), contractors (companies) and investors (banks) through the development of open source software.
 - For buyers of buildings and apartments: external evaluation and consumption costs will be clear
 - Executing agency: Improved understanding, correct application of norms and rules, reputation and quality assurance
 - Investor: external evaluation, risk mitigation, use of green resources
 - Public administration: It is a basic tool for monitoring the implementation of rules and regulations and planning policy measures against energy saving, air pollution and climate change.
- ✓ It can be a basic measurement, monitoring and evaluation tool in the implementation of mortgage or green loan procedures.



Information exchange of public and private sector organizations on green construction

- ✓ Cooperation with related ministries and professional:
 - discussions
 - seminars
 - attending international online workshops
 - Job Fair event



Thank you for your attention

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