



IN PARTNERSHIP WITH NATURE



**ECONIKO®** - was created in 2023 in Kyiv, Ukraine, after 10 years of R&D in wooden prefab constructions with straw & clay and 15 years experience in traditional construction by NIKO Group. We combines innovations and traditional technologies, the effectiveness of which has been time-tested.





**NIKO** is an international group of companies with 30 years of experience. In Ukraine, the investment-construction division of NIKO Group has been operating since 2009.

During this time, the company has implemented numerous unique projects of various complexity and purposes in different regions of the country. The total area of construction work completed in the private and commercial sectors exceeds 185,000 square meters.



# The Mission of Econiko

**We create a healthy and efficient production construction system, combining unique Ukrainian experience of the past and technologies of the future**

We work with materials that safely return to the natural environment after use. We also offer conditions and solutions with which you will have no reason to build otherwise than "Econiko" does.

# WHY US

**30** years of experience

**10** years of innovation (R&D)

**\$** \$5 million in investments



ECONIKO aims to develop and spread healthy construction practices in Ukraine, incorporating a high level of eco-technologies that provide ecological, economic, and social benefits.

### Bioclimatic structures feature

#### Optimal Microclimate

Providing a comfortable microclimate with controlled air quality and lighting for better well-being.

#### Ecological Responsibility

Minimizing resource use and reducing environmental impact through clean technologies.

#### Economic Efficiency

Reducing construction and operational costs through the use of efficient materials and technologies.



Environmentally friendly materials



Various types of construction



Certified production





# OUR PRINCIPLES





## Full cycle

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The foundation of Econiko's philosophy is a balanced approach to social, environmental, and financial aspects of business. We work with local partners and suppliers, use our profits for good causes, and care about the environment



## Correct Actions

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We want future generations to live in a healthy world, so we start acting today. The use of plant materials that accumulate carbon and have excellent insulation indicators allows us to do this



## Innovation is Natural

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We are constantly improving construction solutions to make them as accessible, efficient, environmentally, and climatically neutral as possible



## Open Partnership

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Being honest is important for building any meaningful relationships. We always treat our clients, partners, and employees with respect



# Technology

The construction technology of real estate objects from Econiko has been recognized by the UN and became a nominee of the global sustainable development program Acceleration 2018 and 2022.

Our production is based on the concept of bioclimatic architecture—this is how they build today in developed countries.

The concept of bioclimatic architecture involves the use of design solutions and designs capable of providing comfort for humans while using energy sparingly, obtained from clean sources.



## ZERO EMISSIONS

We implement projects with “Net Zero” level emissions, emphasizing the importance of fully balancing carbon impact.



## CARBON-NEGATIVE PRODUCT

Carbon from straw material accumulates in wall constructions and provides energy-efficient housing during the operation of the house.



Interest in green building is constantly growing in Ukraine, and ECONIKO, with access to the production capabilities of NIKO Holding, is able to assist in the implementation of projects of any purpose.

**ECONIKO is a green industry enterprise that creates products for industrial-scale CO<sub>2</sub> absorption!**



**CO<sub>2</sub>  
NEUTRAL**

## CARBON-NEUTRAL CONSTRUCTION

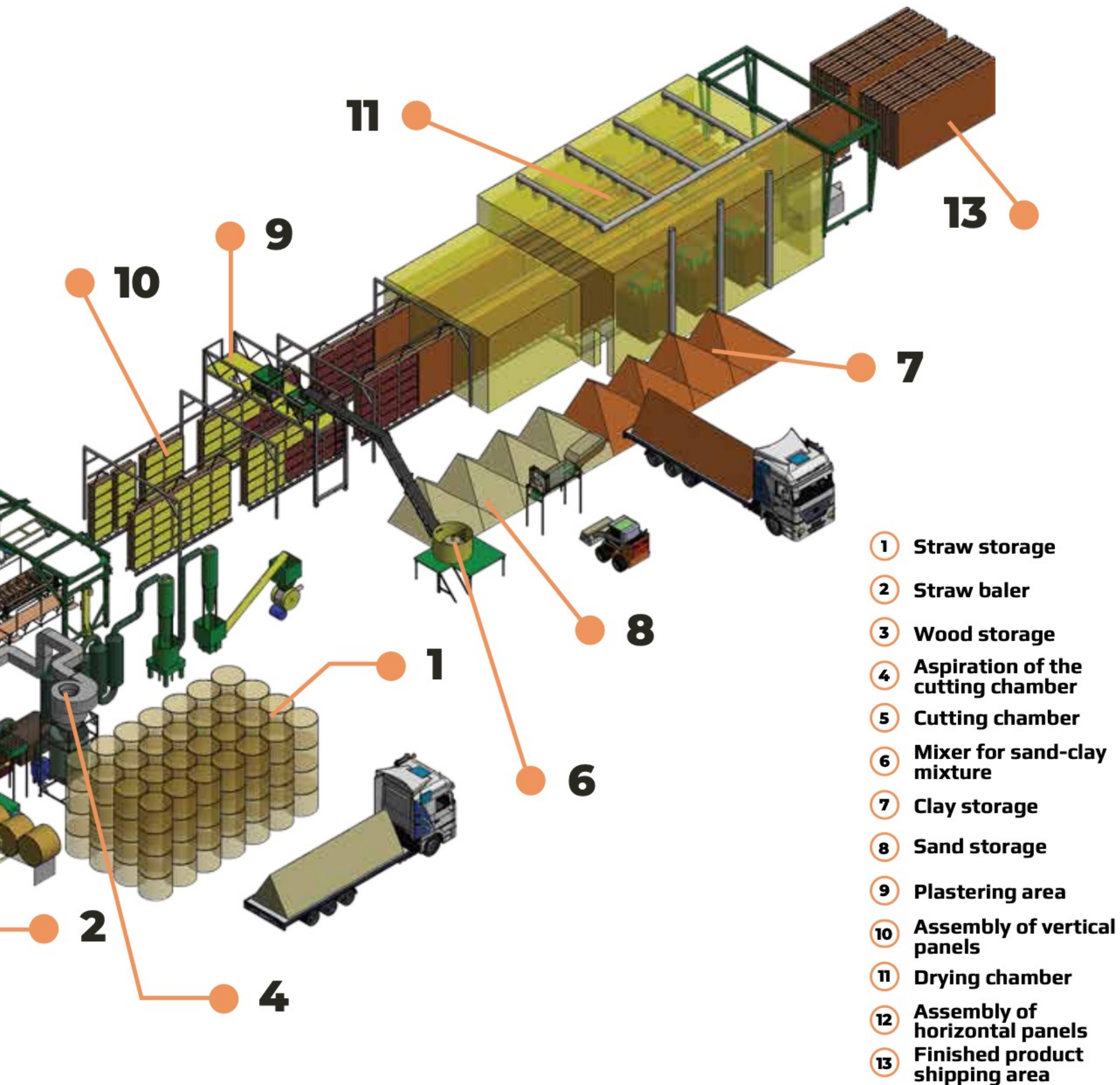
We implement projects that do not increase the level of carbon in the atmosphere overall, thanks to the use of renewable materials and energy.

# Production

## Econiko is:

- The largest bioclimatic construction plant in Europe: annually, the enterprise is capable of manufacturing 25,000 sq. m of panels for private construction or 100,000 sq. m for standard multi-storey construction.
- A team of qualified specialists (architectural + production departments)
- Certified products and production







### Economical Business

We save natural resources, reduce toxic emissions, and lower client expenses



### Ecological Reconstruction of the Country

«Econiko's» modular solutions are an opportunity to quickly and economically build quality comfortable housing with the highest level of energy efficiency. One of the best solutions for people who have lost homes during the war



### Healthy Solutions

«Econiko's» bioclimatic panels are 98% made from natural renewable materials that provide an optimal indoor microclimate all year round



### Consistent Certified Quality

Our homes are durable due to controlled and precise manufacturing, with a maximum variance of 2 mm per 3 m wall

# Advantages of our production

The foundation of Econiko's construction projects are unique bioclimatic panels (Prefabricated production), made in controlled factory conditions, ensuring high precision of each panel and the finished structure as a whole.

## Prefabricated production technology:

- Reduces water usage by ten times compared to concrete constructions. Saving 22,500 liters of potable water for every 100 sq. m of constructed area.
- 75 times less embodied energy than for concrete or metal structures.
- On average, a 100 sq. m house retains 30 tons of CO<sub>2</sub>.
- Less than 15 kW/m<sup>2</sup> per year for heating and air conditioning of buildings.



## Energy Efficiency

We have enhanced the insulation properties of natural materials with modern technologies and provided a simple construction process following the Passivhaus standard without thermal bridges and with high levels of airtightness



## Construction Easy to Restore

The main raw materials of "Econiko" are wood and straw, which can be continuously produced and safely returned to nature after use



## Modularity

Thanks to the ability to manufacture panels in custom sizes, we provide almost unlimited creative freedom for your projects



## Affordable Price

A simple construction method and quick panel assembly provide our buildings with lower costs and better operational characteristics compared to standard construction

# New Production capacity

As part of our ongoing R&D process, we have launched a new production line for prefabricated timber-frame modules insulated with hemp wool.

This upgrade enables faster and more precise assembly, the use of breathable natural board materials (WFB - wood fibre insulation boards, hemp or straw panels) for both interior and exterior cladding, and results in structures that are up to 30% lighter while maintaining excellent thermal and ecological performance.





**Wood structure**

**+**

**Straw & Clay**

*or*

**Hemp wool & WFB**

*or*

**Hempcrete**

**=**

**The only way to build nowadays**



# PRODUCTS

Bioclimatic production is suitable for any objects - residential, commercial, public, sports. Econiko uses prefab and modular technologies and is ready to manufacture panels of various types and sizes for any design.



# CHARACTERISTICS OF EKONIKO PANELS



## Speed

From the moment of project approval of a prefab/modular house to moving in, it usually takes 3 months. For other types of real estate, the timeline depends on the project



## Energy Efficiency

Energy costs are 2-4 times lower than in a house built with traditional technology



## Sound Insulation

Walls do not transmit sound waves above 56 dB, which is the standard



## Resistance to Open Fire

Complies with residential construction norms G1 (REI 60) - fire-resistant



## No Rodents

Panel density 120-140 kg/m<sup>3</sup> (поставиш символ 3 ступеня), eliminating the risk of rodent infestation



## Architectural Possibilities

Freedom of planning and architectural decisions



## Health

Optimal indoor air humidity ~60% - ideal for healthy living



# How a Prefab Panel is Created



We press straw into a wooden frame



Combine the panels into a wall block

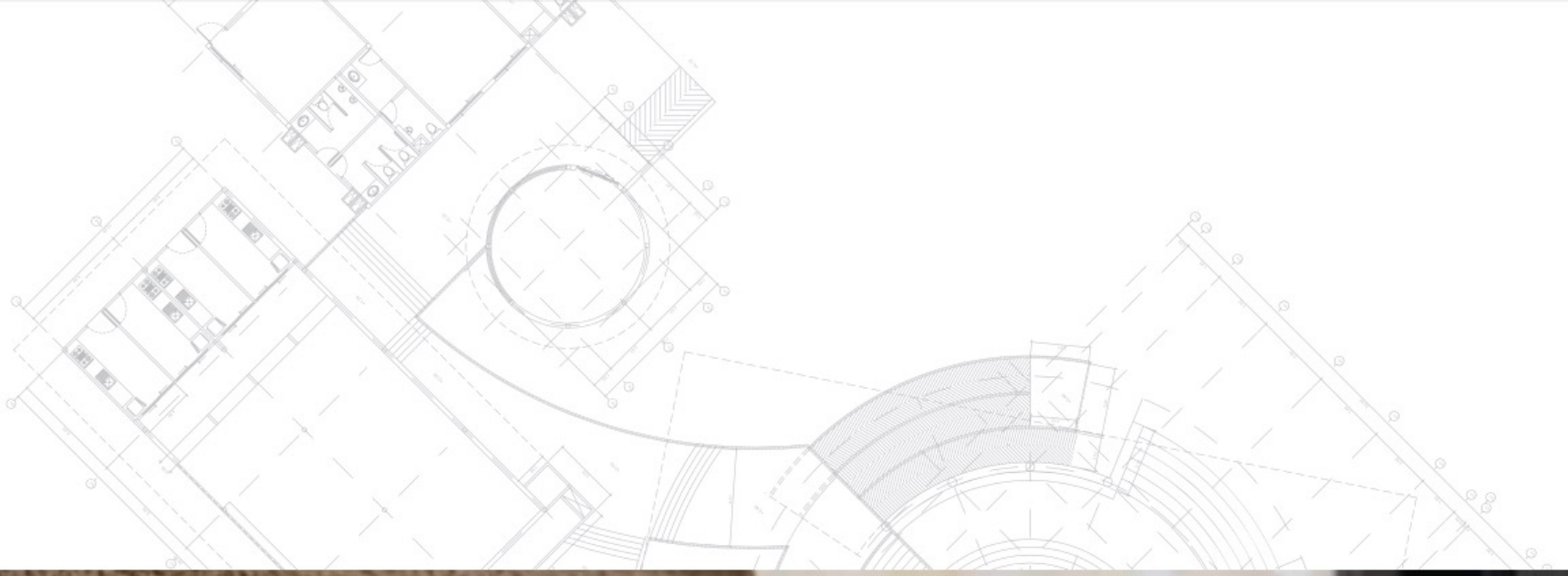


Apply a pouring layer of plaster.  
Install engineering communications

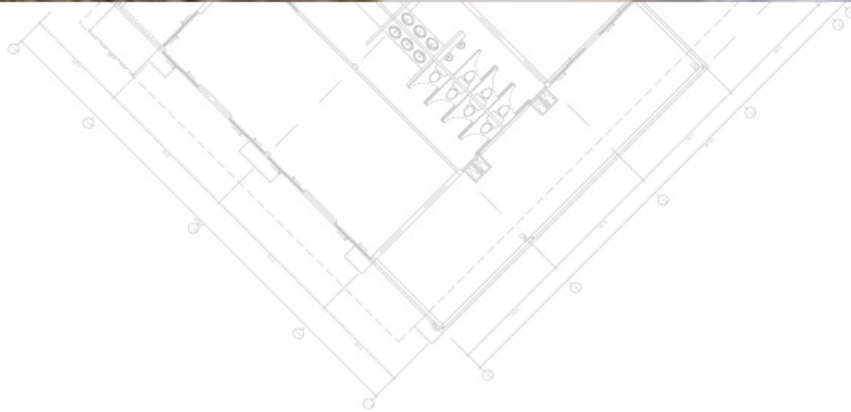


Apply the main layer of plaster





# Structures of Various Types of Overlaps



## Internal/Facade Wall

- 1 – Finish plaster layer 5 mm
- 2 – Plaster layer 15 mm
- 3 – Pouring liquid layer 5 mm
- 4 – Bioclimatic panel 200-500 mm
- 5 – Finish plaster layer with linseed oil paint 5 mm



## Internal/Facade Wall

- 1 – Finish plaster layer 5 mm
- 2 – Plaster layer 15 mm
- 3 – Pouring liquid layer 5 mm
- 4 – Bioclimatic panel 200-500 mm



## Facade Wall

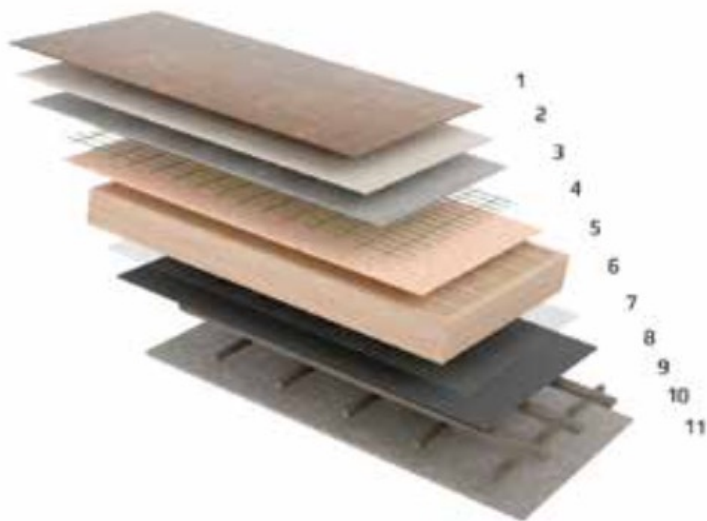
- 1 – final plaster layer 5 mm
- 2 – plaster layer 15 mm
- 3 – poured liquid layer
- 4 – bioclimatic panel 200-500 mm
- 5 – wind-moisture barrier
- 6 – battens wood 40\*20 mm
- 7 – counter battens wood 80\*20 mm
- 8 – ventilated facade with porcelain stoneware



## Facade Wall

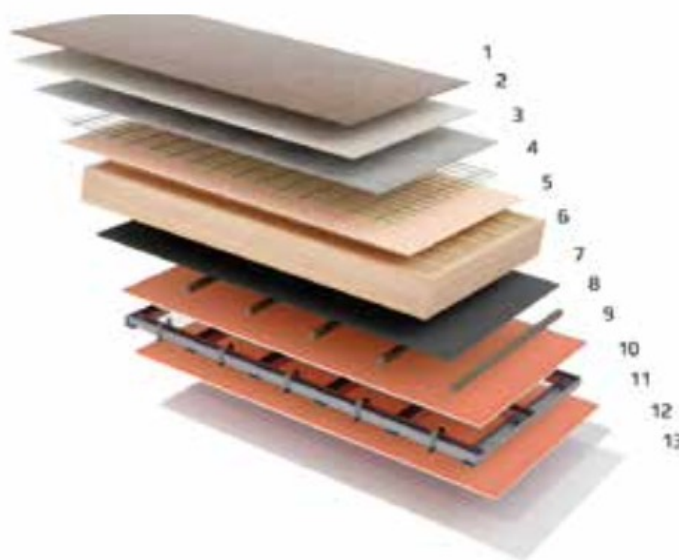
- 1 – final plaster layer 5 mm
- 2 – plaster layer 15 mm
- 3 – poured liquid layer
- 4 – bioclimatic panel 200-500 mm
- 5 – wind-moisture barrier
- 6 – battens wood 40\*20 mm
- 7 – counter battens wood 80\*20 mm
- 8 – ventilated facade made of aluminum sheet





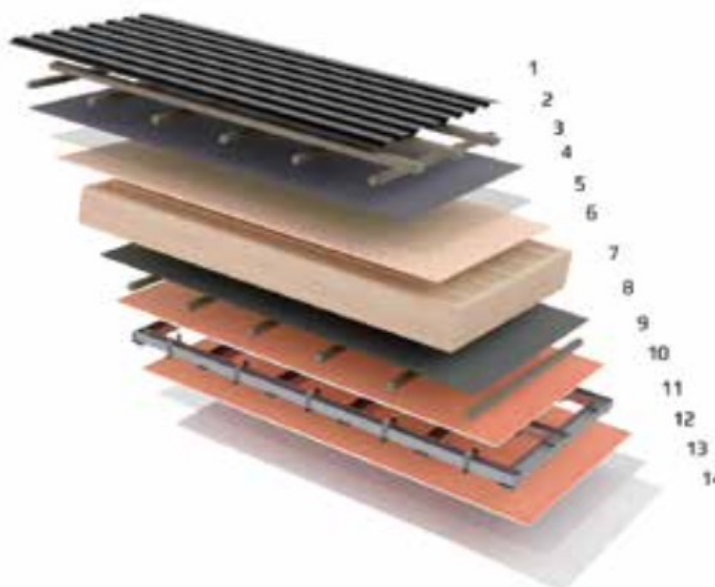
## Flooring

- 1 – finish flooring
- 2 – finish cement-sand screed 20-50mm
- 3 – rough cement-sand screed 20-50 mm
- 4 – reinforcing composite mesh
- 5 – OSB 22 mm
- 6 – bioclimatic panel 200-500 mm
- 7 – galvanized bio-protective mesh
- 8 – vapor barrier
- 9 – counter battens wood 80x20 mm
- 10 – battens wood 40x20 mm
- 11 – Cement Bonded Particleboard (CBPB) 16-20 mm



## Overlap

- 1 – finish flooring
- 2 – finish cement-sand screed 20-50mm
- 3 – rough cement-sand screed 20-50 mm
- 4 – Reinforcing composite mesh
- 5 – OSB 22 mm
- 6 – bioclimatic panel 200-500 mm
- 7 – vapor barrier
- 8 – battens wood 40x20 mm
- 9 – fire-resistant gypsum board GKL 16 mm
- 10 – Metal frame for GKL
- 11 – fire-resistant gypsum board GKL 16 mm
- 12 – fiberglass plaster mesh
- 13 – final plaster layer 5 mm

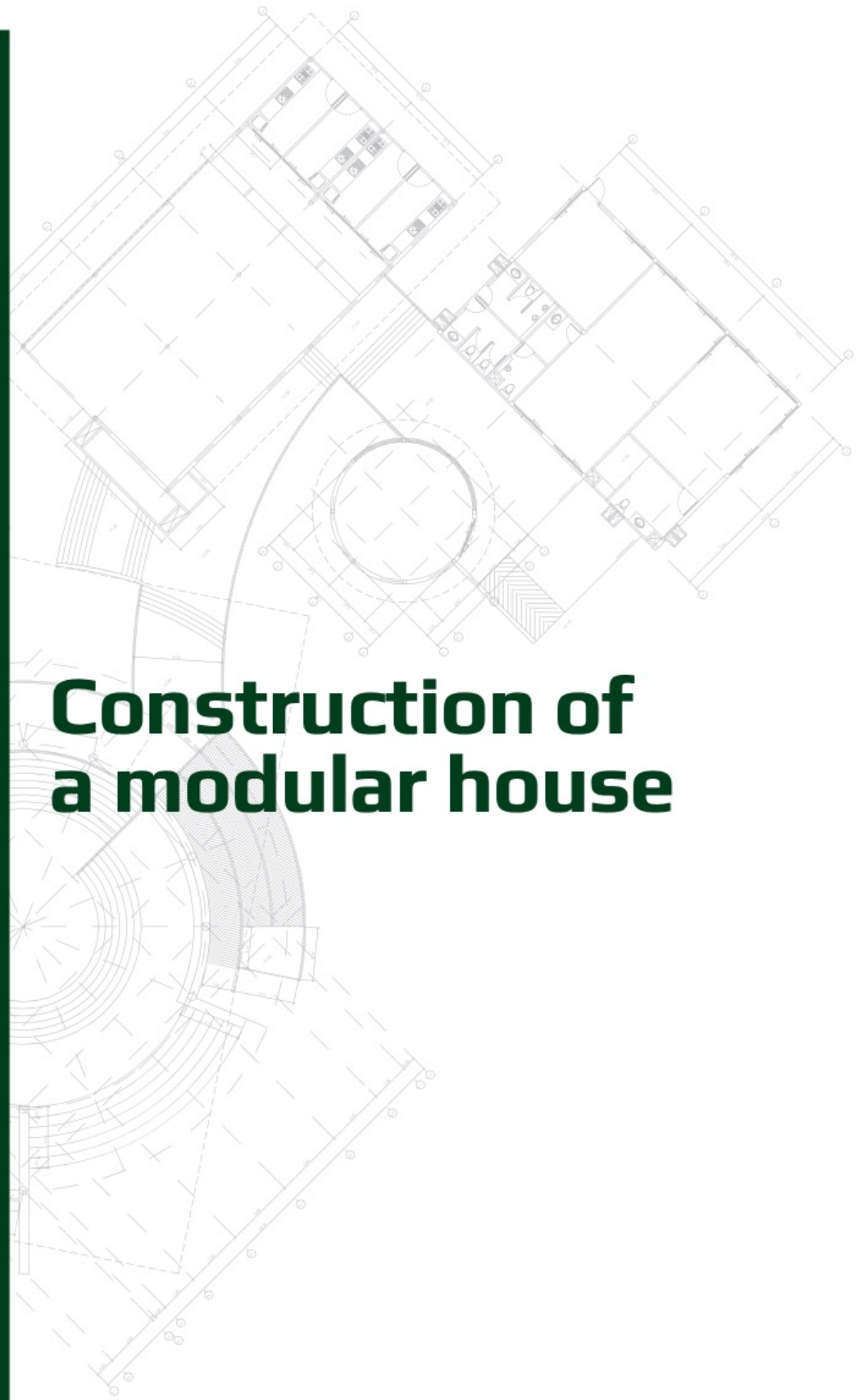


## Roofing

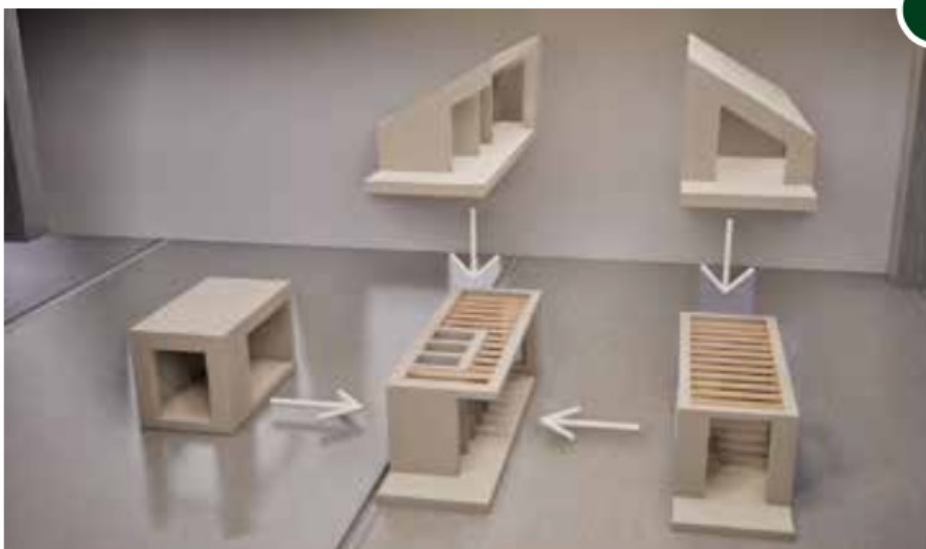
- 1 – roofing material
- 2 – counter battens wood 80x20 mm
- 3 – battens wood 40x20 mm
- 4 – hydro barrier
- 5 – galvanized bio-protective mesh
- 6 – OSB 10 mm
- 7 - bioclimatic panel 200-500 mm
- 8 – vapor barrier
- 9 – battens wood 40x40 mm
- 10 v fire-resistant gypsum board GKL 16 mm
- 11 – fiberglass plaster mesh
- 12 – final plaster layer 5 mm
- 13 – fiberglass plaster mesh
- 14 – final plaster layer 5 mm

● – made at the factory

● – made on the construction site



# Construction of a modular house



# Solutions for Social and Commercial Projects

Modular panel technologies are used in the construction of residential buildings, as well as hospitals, gyms, warehouses, and industrial facilities.

The technological and physical-technical characteristics of Econiko's bioclimatic panels (thermal insulation, non-flammability, durability, ability to regulate air humidity, and absorb sound waves and vibrations) enable the realization of any project, ensuring optimal operational and ecological parameters of the structures.

The use of Econiko's modular technology in reconstruction projects in Ukraine will provide comfortable living conditions and significantly save on construction materials, reduce resource usage (water and electricity expenses), and lessen the negative impact on the environment.

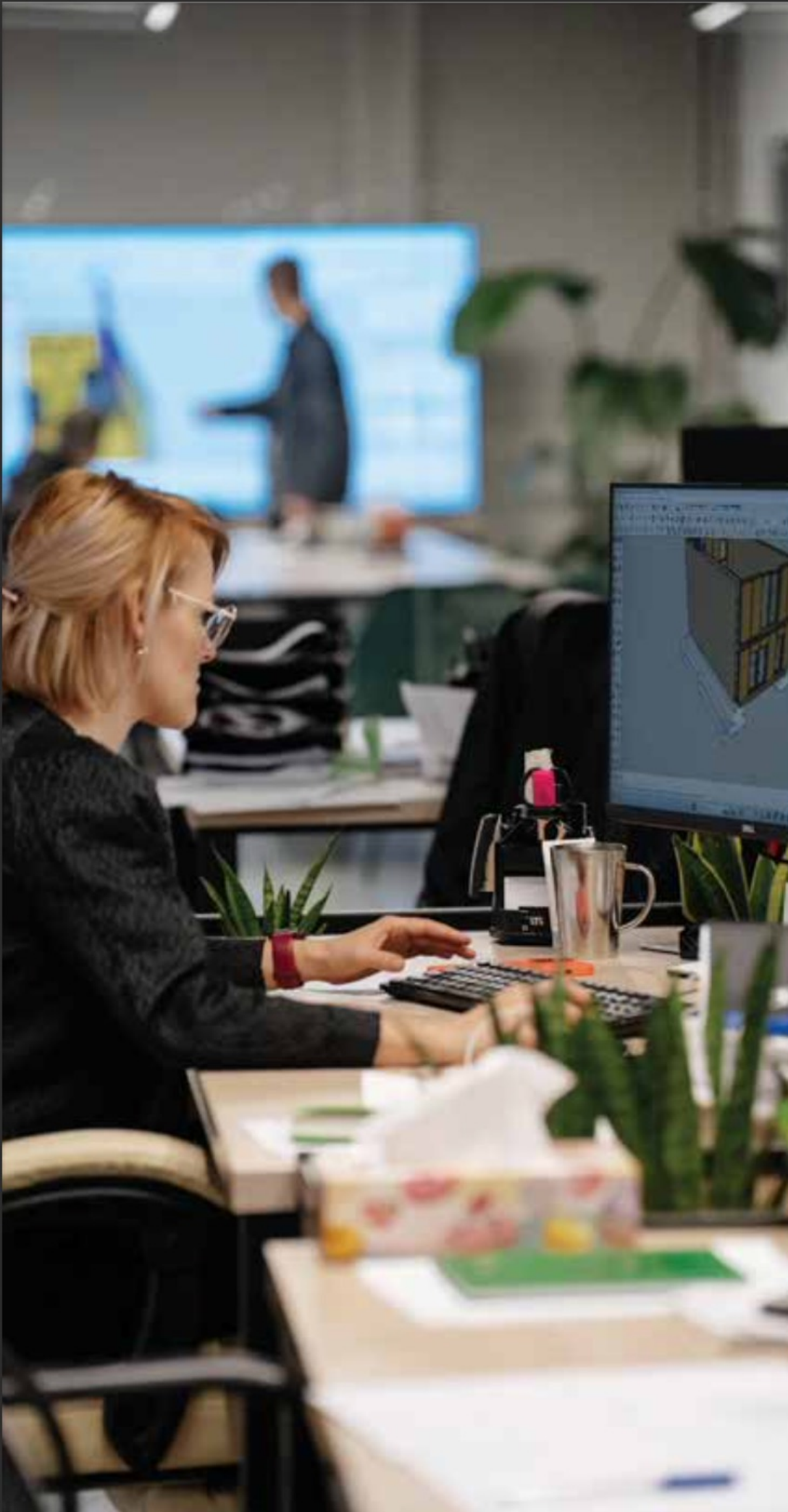


# Solutions for Private Construction and Cottage Real Estate Business

Econiko buildings are a combination of the beauty and perfection of natural materials with the advantages of the Passivhaus standard, which focuses on optimizing energy consumption. This approach makes bioclimatic houses safe, comfortable, and economically beneficial.

98% of the composition of Econiko's bioclimatic panels are natural renewable materials capable of creating a healthy microclimate indoors all year round. The panels have high vapor permeability, which ensures the removal of excess moisture without thermal bridges, loss of airtightness, drafts, and mold.







# OUR PROJECTS

## "The Hermit" | 54 m<sup>2</sup>

A functional house without unnecessary bulky structures. A comfortable, budget-friendly, and energy-efficient solution for those who appreciate rational projects.

 Living room: 1

 Floor: 1

 Kitchen-living room: 1

 Bathroom: 1



## "Classic" | 70 m<sup>2</sup>

This option is perfect for those dreaming of a cozy suburban place or compact living for commercial purposes (guest house, guest complex, or rental apartments).

 Living room: 2

 Floor: 2

 Kitchen-living room: 1

 Bathroom: 2

## "Country" | 90 m<sup>2</sup>

The house has a universal and optimal layout, a single-story building - a popular solution for private housing in cities, suburban construction, and the hotel business.

 Living room: 3

 Floor: 1

 Kitchen-living room: 1

 Bathroom: 2



## “Urban” | 114 m<sup>2</sup>

A house for those who prefer concise solutions, both in design and in the planning of their living space.

 Living room: 3

 Floor: 1

 Kitchen-living room: 1

 Bathroom: 2



## “Scandi” | 143 m<sup>2</sup>

A classic spacious family home with an attic for those who cherish home coziness. A popular choice among families with children and developers of cottage towns.

 Living room: 4

 Floor: 2

 Kitchen-living room: 1

 Bathroom: 3

## “Estate” | 192 m<sup>2</sup>

A spacious, comfortable, functional home for a large family. The house with maximum autonomy, with terraces, covered parking, and a temporary underground shelter.

 Living room: 4

 Floor: 2

 Kitchen-living room: 1

 Bathroom: 3



## **Econiko Manufacturing Company**

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Econiko.  
Experience of the past,  
technology of the future

