



Co-funded by the  
Erasmus+ Programme  
of the European Union



# The mitigating of climate change in the building sector

**Tetiana Kryvomaz**  
*ecol@i.ua*

Kyiv National University of Construction and Architecture

**ACCC Impact Week 8-12 Apr 2024**

# *The war has changed priorities in Ukraine*

- ✓ **Victory**
- ✓ **Recovering of Ukraine**

**What about climate change?**



# We are already recovering Ukraine!

«*Green Recovery Programme for Ukraine*»

«*The Ukraine Green Growth Initiative*»

«*Green reconstruction of Ukraine*»

«*Build Back Green Ukraine*»

All Ukraine recovery plans include the climate change mitigation

RECOVERY  
OF UKRAINE

Ukraine  
Recovery Plan

Ukraine Recovery Vision: "Strong European Ukraine is a magnet for international investments". Ukraine's Recovery is aimed to accelerate sustainable economic growth. The plan identifies a list of National programs to achieve key results.

A BLUEPRINT FOR THE  
RECONSTRUCTION  
OF UKRAINE

RAPID RESPONSE  
ECONOMICS  
1

CEPR PRESS

Torbjörn Becker  
Barry Eichengreen  
Yuriy Gorodnichenko  
Sergei Guriev  
Simon Johnson  
Tymofiy Mylovanov  
Kenneth Rogoff  
Beatrice Weder di Mauro

## *The Green Building Principles announced on World Economic Forum:*

1. Calculate a robust carbon footprint of your portfolio in the most recent representative year to inform targets.
2. Set a target year for achieving net-zero carbon by 2050 at the latest, and an interim target for reducing at least 50% of these emissions by 2030.
3. Measure and record embodied carbon of new developments and major refurbishments.
4. Maximize emissions reductions for all new developments and major refurbishments in the pipeline to ensure delivery of net-zero carbon (operational and embodied) by the selected final target year.
5. Drive energy optimization across both existing assets and new developments.
6. Maximize supply of on-site renewable energy.
7. Ensure 100% off-site energy is procured from renewable-backed sources, where available.
8. Engage with stakeholders with whom you have influence in your value chain to reduce Scope 3 emissions.
9. Procure high-quality carbon offsets to compensate for residual emissions.
10. Engage with stakeholders to identify joint endeavours and equitably share costs and benefits of interventions.

Source: Christian Ulbrich, Coen van Oostrom. Green Building Principles: The Action Plan for Net-Zero Carbon Buildings © 2021 World Economic Forum



# Kyiv National University of Construction and Architecture (KNUCA)



- 7 faculties, 27 specialties and almost 50 specializations
- 6 scientific and research institutes
- 13 scientific and research laboratories & centers
- 1123 professors, associate professors, doctors of sciences and candidates of sciences
- 35 professors were awarded with honorary titles of Ukraine
- 21 employees are awarded with State awards of Ukraine
- 20 employees have the Certificates on professional activity
- 22 scientific journals
- more than 80 thousand engineers and architects has prepared
- 4260 foreign students from 116 countries have received the diplomas

# ENVIRONMENTAL PROTECTION AND LABOR SAFETY TECHNOLOGIES DEPARTMENT

The department is preparing specialties in:

❖ **Ecology**

❖ **Technologies of environmental protection**

We developing courses and training about

❖ **Green Building**

❖ **Identify and assess the impact and risks of climate change**

❖ **International framework and national adaptation planning for climate change**





# Examples of our courses about climate change

- ❖ **Mitigating the carbon footprint as a mechanism of adaptation to climate change**
  - ❖ **Adaptation of the construction industry to climate change using green building technologies**
  - ❖ **Development of construction projects in accordance with the sustainability categories of green building**
  - ❖ **Green Building**
    - Aspects of planning and design of green and blue infrastructures and natural solutions to adapt to climate change
    - Climate change and the building sector adaptation
    - Climatology, foundation for climate services
    - Climate system. Basics of climate change.
    - Smart cities. Eco-villages.
- and others ...*

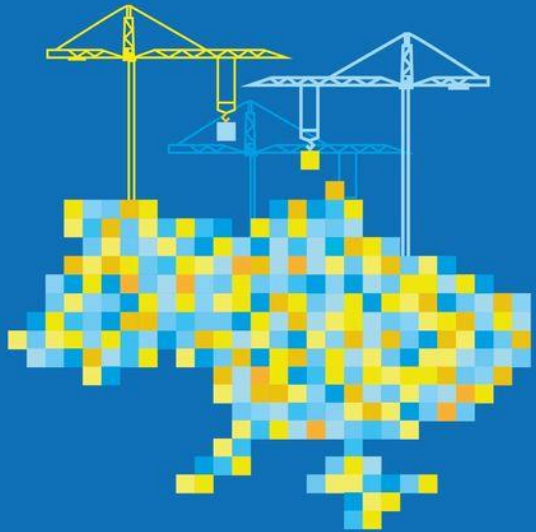
- ✓ All Ukraine recovery plans include the climate change mitigation
- ✓ We are already training specialists for climate change mitigating in the building sector
- ✓ Right now we need advices about
  - calculation methods of carbon emissions for the construction industry
  - more practical cases about climate change mitigation in construction industry

**We look forward for collaboration!**





Co-funded by the  
Erasmus+ Programme  
of the European Union



Ми все відвоюємо.  
Ми все відбудуємо.



Дякуємо за увагу!  
Thank you!