## HEMPCRETE

# **Circles for a healthier Planet**

hempcreteyurt.com

István Nyárády, founder. August 2023

Hempcrete photo credit: greenbuildingcanada.ca

MURI

## Mission

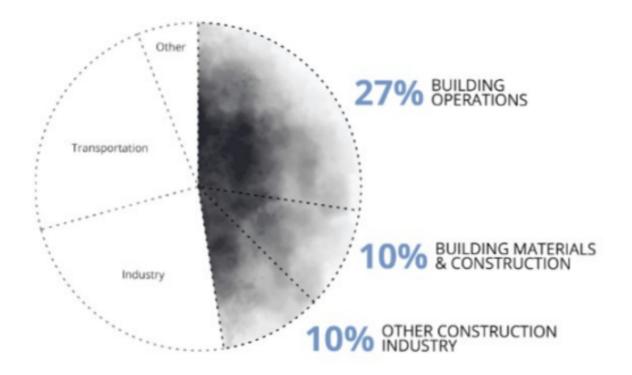


# Unite to build more sustainable buildings



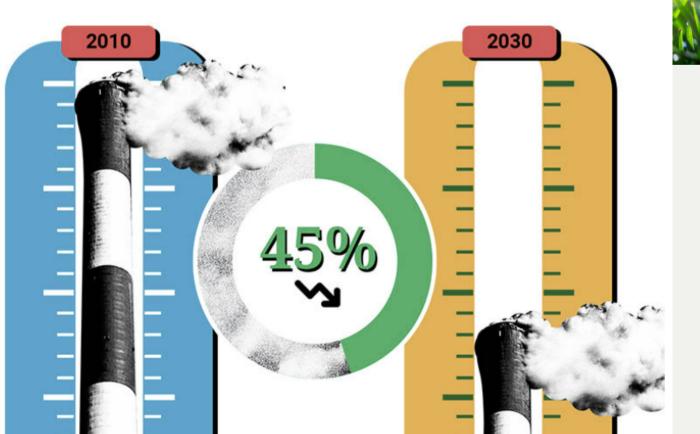
## **Climate & energy crisis**

### **Built environment CO2 emissions**



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Data sources: UN Global ABC - 2021 U.S. Energy Information Adminis<sup>-</sup> UN - The road to NetZero





### Why IMMEDIATE action?

Home » Record floods ravage Slovenia, large parts of Europe under water

### Record floods ravage Slovenia, large parts of Europe under water

Monday, August 7, 2023 🛉 📩 Favorite



Slovenia has faced "the biggest natural disaster" history after devastating floods caused damage estimated at 500 million euros (\$550m), killed t people and destroyed roads, bridges and houses

Speaking after a meeting of the country's Nation Security Council on Saturday, Prime Minister of Robert Golob said, that luckily, the earlier night easier than the one before.

He also added that two-thirds of the small Alpin territory had been affected.

### Record rainfall

The floods were caused by torrential rains on Friday, which caused rivers to swell swiftly and burst into hous

### **UN Facts About Climate Emergency:** http://bit.ly/UN-FACE





## What will be our legacy?

Industrial hemp captures **more CO2 than adult trees.** 

### **UN: climate emergency**

Hempcrete stores CO2 in walls.

Symbols - like circles - drive change. Collaboration multiplies impact.

Carbon negative, excellent insulating, fire resistant, humidity balancing, mold and pest deterring

We - literally - build our future and ultimately Earth: our biggest circle!

### Industrial hemp is the building material of our future!



## European Green Deal (excerpts)



Move towards Net-Zero Energy **Buildings** 

**Circular economy** in building

**Monitoring and Reporting** progress



# construction and renovation



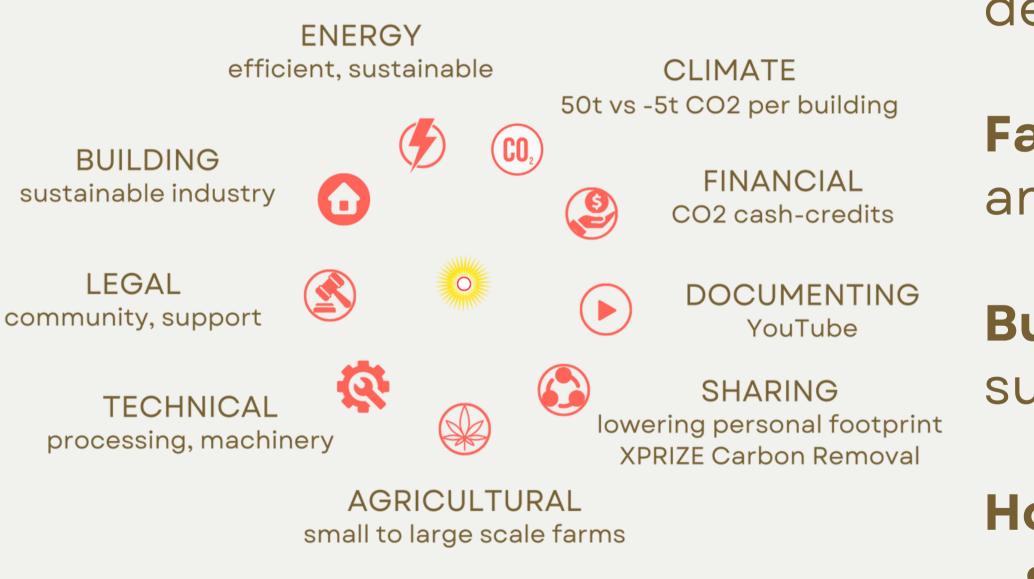
## Who's interest?

Governments: Net-Zero delivery. Widest impact base!

**Farmers**: support farming and processing

**Builders**: embrace and support change

House owners: building environmental footprint certificates carbon cash-credits!



EU: new buildings zeroemission from 2030



## **United commitments**

1. Crowdfunding (and building) the Hempcreteyurt prototype 2. Submitting a winning concept to **XPRIZE Carbon Removal** (largest global CO2) competition. A globally relevant option to unite and build more sustainable buildings 3. Promoting our mission, including industrial hemp building workshops 4. Establishing industrial hemp pilot farms and scalable processing machinery to provide locally sourced, carbon-negative circular building materials (ongoing collaboration with <u>https://tokeportal.com/kenderhaz/</u>) 5. Developing building environmental footprint certificates (Hempcreteyurt must provide for the XPRIZE competition), similar to existing energy certificates 6. Facilitating the rapid replication of natural building ecosystems worldwide, collectively capable of sequestering Gigatons of CO2 within building walls 7. Recognizing carbon-negative buildings through carbon cash-credits 8. Assisting governments and bodies in achieving NetZero building targets by 2030

## **200k EUR crowdfunding**

### FundRazr fundrazr.com/hempcreteyurt

### From Little Seeds, Mighty Homes Grow!

### Unite to build more sustainable buildings.

**Seed the Change: Build Healthier with Industrial Hemp!** 



## Thank you!



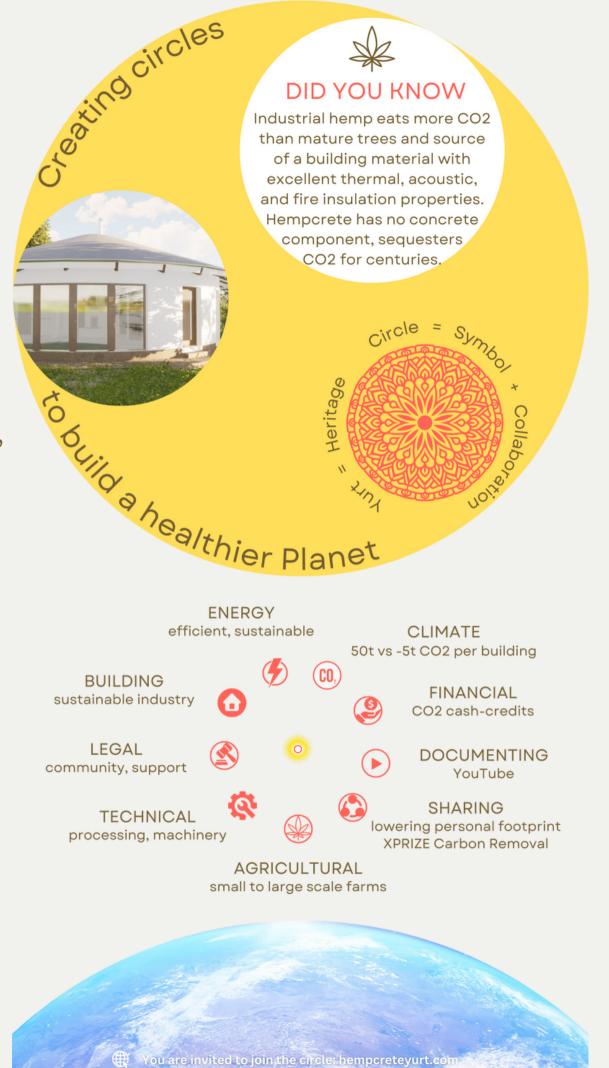
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\*Both granddads lost first wife and a baby. Committed to building our loving family home. hempcreteyurt.com kenderbetonjurta.hu

## Appx. 1 - EU, Government

The Paris Agreement was adopted on December 12, 2015, at the 21st Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC) held in Paris, France.

The EU and 194 states, totalling over 98% of anthropogenic emissions, have ratified or acceded to the agreement.



### Our proposal:

### Extend building energy certificates with environmental footprint (CO2 life cycle assessments, LCA):

- material production
- building
- operation
- end of life

### Carbon cash-credits for CO2 negative buildings!



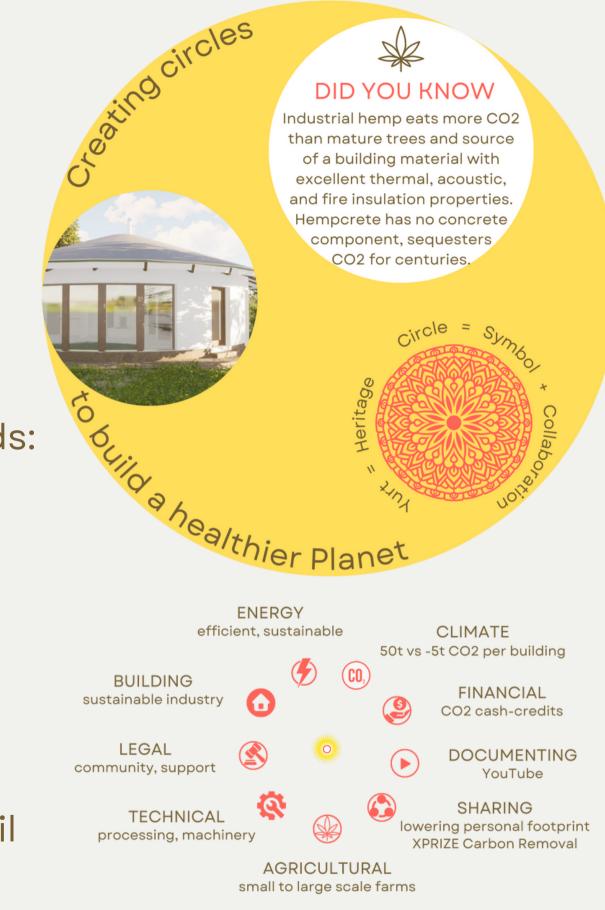
## Appx. 2 -Farmers

Climate change impacts yields: heat, drought, severe rain and wind

Soil overuse

Plowpan - excessive plowing results in the formation of a compacted layer between soil horizons.

Sustainability



🕀 You are invited to join the circle: hempcreteyurt.c

### Industrial hemp:

Regenerative farming helps improve soil health, sequester carbon, and promote sustainable agriculture

### Fast growing option to diversify single crop reliance

Generally requires less water and fewer pesticides.

Market demand for regenerative materials

Source of **construction materials**, textiles, food products, cosmetics...



## Appx. 3 - Owners, builders

### High building and operational costs

High energy dependence

Environmental footprint currently focused on energy consumption, less on material production and material+building footprint, including end-of-life



3+M homes/year (EU+US+AU)

Hemp building 25% less (HU)

Simple to build and cheap to CO2 footprint\*: a 100 sqm produce compared to many hemp building saves 500 traditional building materials trees yearly equivalent.

10% target for new hemp homes by 2027 will have an impact of -6Mt\* CO2/year!

### Hemp buildings:

Healthy, energy efficient

Higher valued, reflected in building LCA and CO2 footprint (to be introduced)

\* - pending audit