

# SPONGE BUILDING

## The skin that absorbs rainwater

An **innovative absorbent skin** that surrounds the building and retains rainwater, **saving water and energy**. It cools outdoors and helps prevent rainwater from being wasted and polluted within cities, improving the environment, our resilience and health.

### THE PROBLEM: IMPERVIOUS CITIES

- ✓ **Rainwater runoff** causes **flooding, pollution and erosion**. In cities, up to **80%** of rainwater cannot penetrate the ground.
- ✓ **Heat Island Effect**, it increases urban temperatures and puts your health at risk during heat waves.

### THE APPROACH

- ✓ **Absorbs rain**: up to 18 litres/m<sup>2</sup> on facades. Great for dense cities.
- ✓ **Promotes green covering**: plants can grow climbing from the base or naturally in the substrate without the need for irrigation.
- ✓ **Innovative and sustainable technology**: cell panels with absorbent substrate and mini-chambers for water retention.
- ✓ **Manufacturing efficiency**: 3D printing, projects are versatile and custom-made. Material can be recycled.

### BENEFITS

- ✓ **Saves energy** (reduces the use of air conditioning and heating)
- ✓ **Saves water** (excess water can be reused)
- ✓ **Increases indoor comfort** (acting as thermal and acoustic insulation)
- ✓ **Cools outdoors** (reduces the heat island effect)
- ✓ **Attracts biodiversity** (promotes plant growth)
- ✓ **Filters rainwater** (through the substrate, improving water quality)
- ✓ **Reduces environmental pollution** (air and noise)



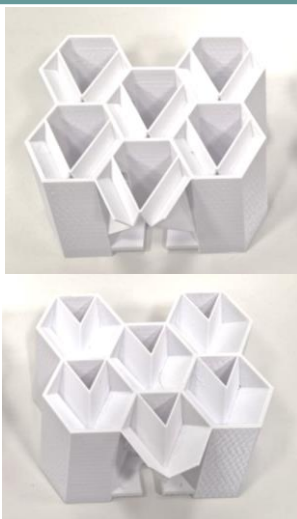
#### PRODUCT VALUES

- ✓ Customizable
- ✓ Scalable
- ✓ Circular
- ✓ Affordable



#### TARGET AUDIENCE

Cities, developers and architects looking to adopt sustainable and innovative construction practices.



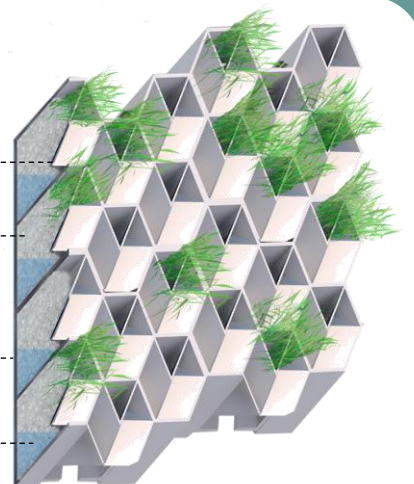
#### PANELS

Cell

Absorbent Substrate

Plant

Rainwater



Co-funded by  
the European Union

