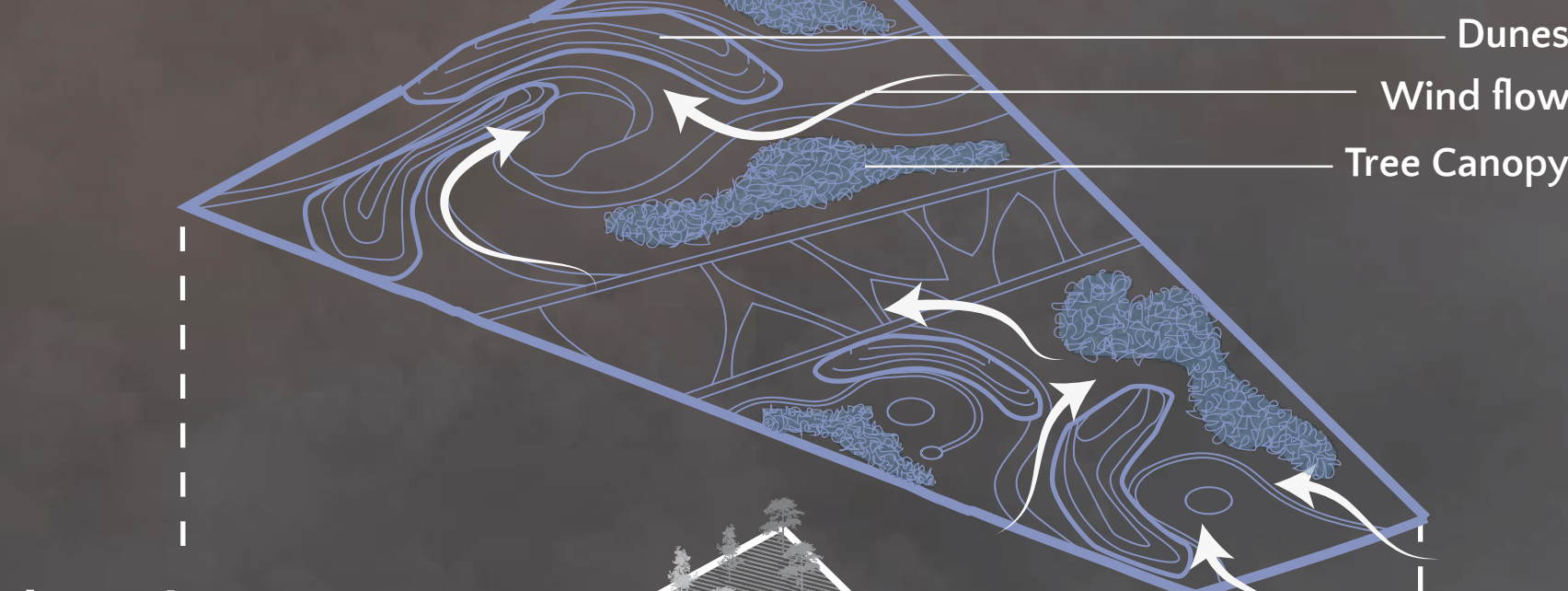
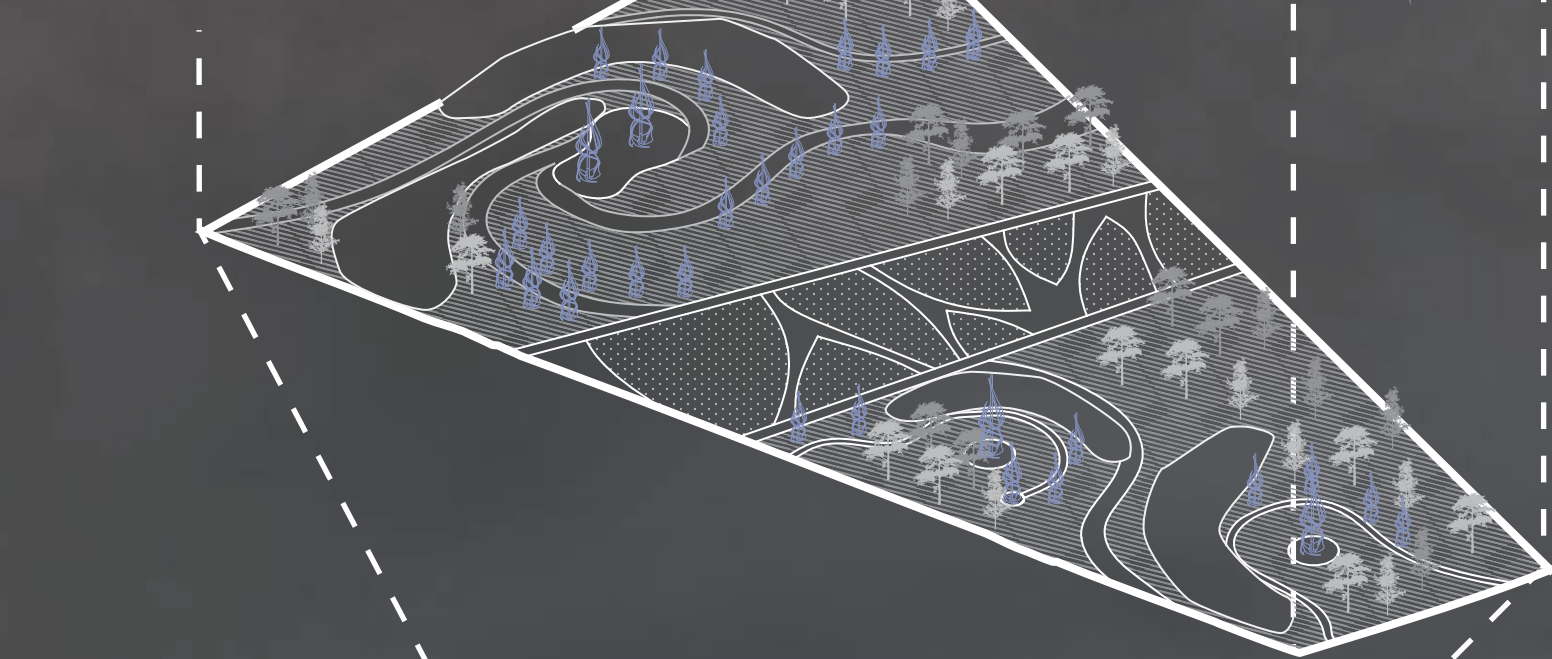


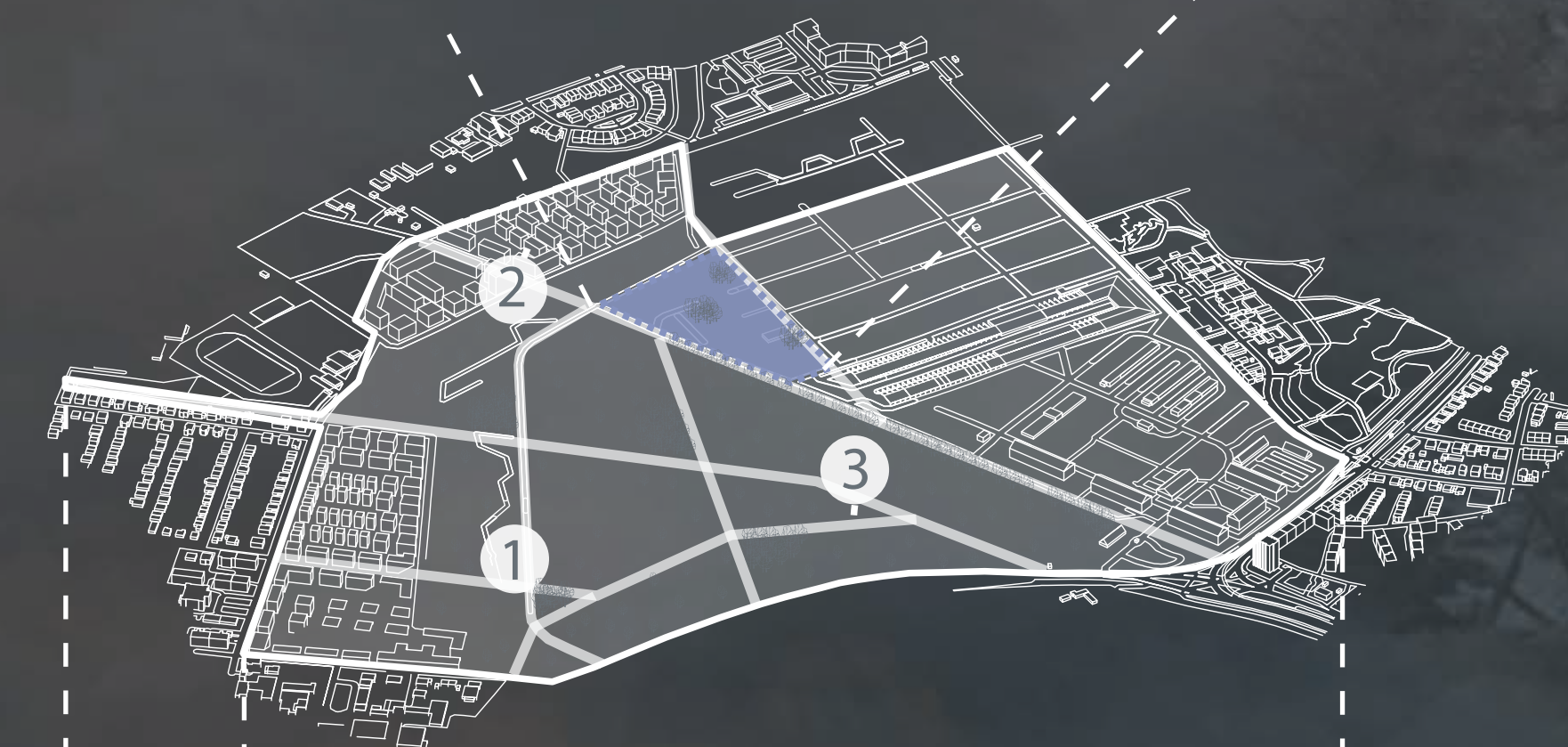
Wind direction strategies



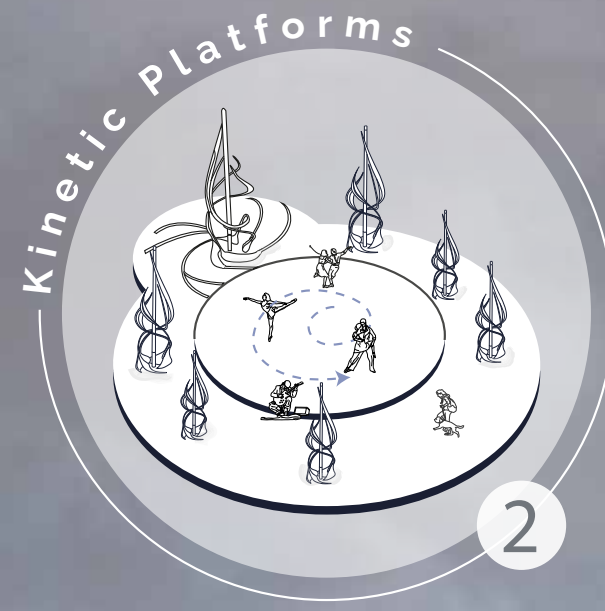
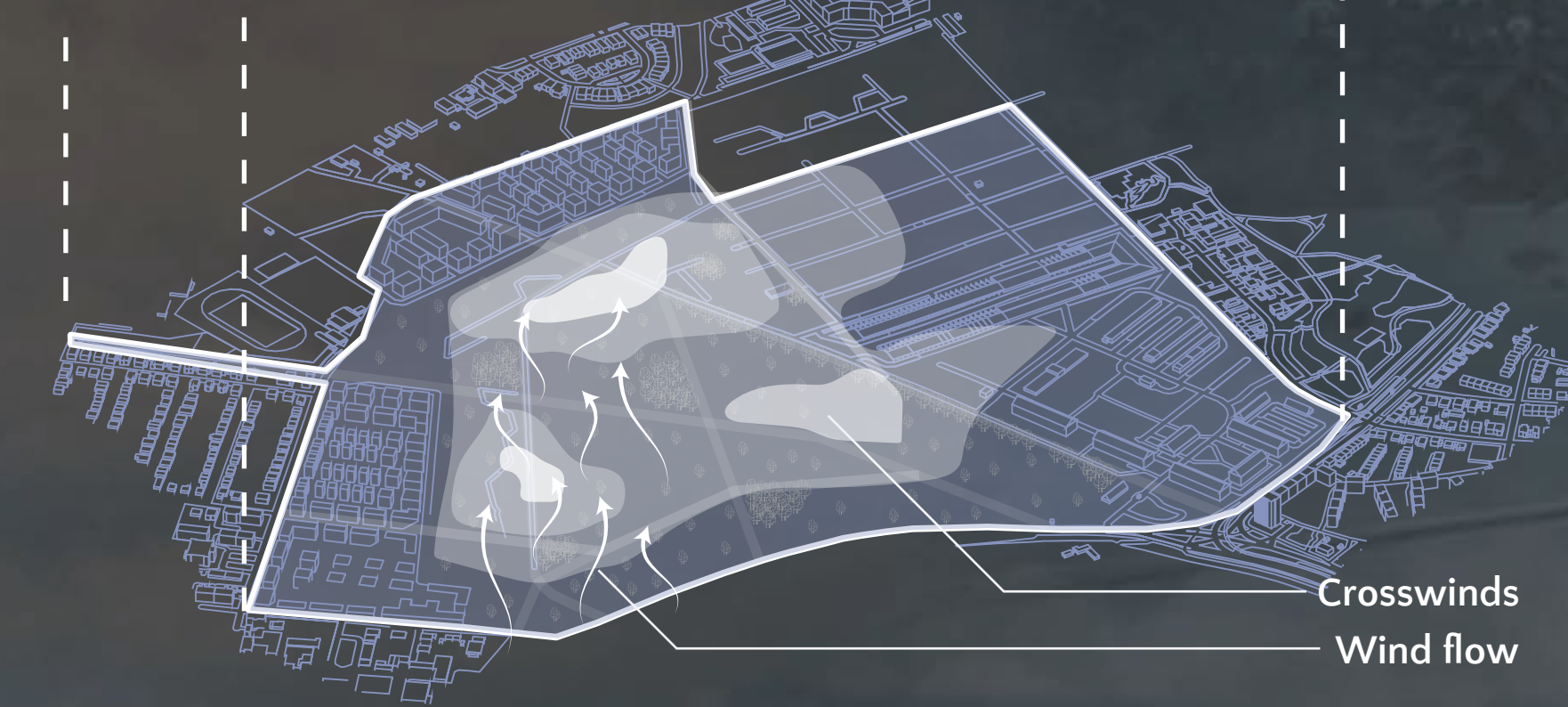
Layout



General plan and intervention



Airflow analysis



Operating Mechanism

1 Hollow core section
Allows wind flow through the structure to produce sound- *carbon fiber*

2 Self-cleaning coating
Maximize wind resistance - *carbon fiber*

3 Openings
Cavities to produce sound

4 Magnetic mechanism
System vibration increases by repulsion between the core mast and the fins

5 Bladeless wind generator mast
Lightweight vibrating mast responsive to airflow to harvest kinetic energy

6 Waterproof membrane
Increase wind resistance area - *Efte*

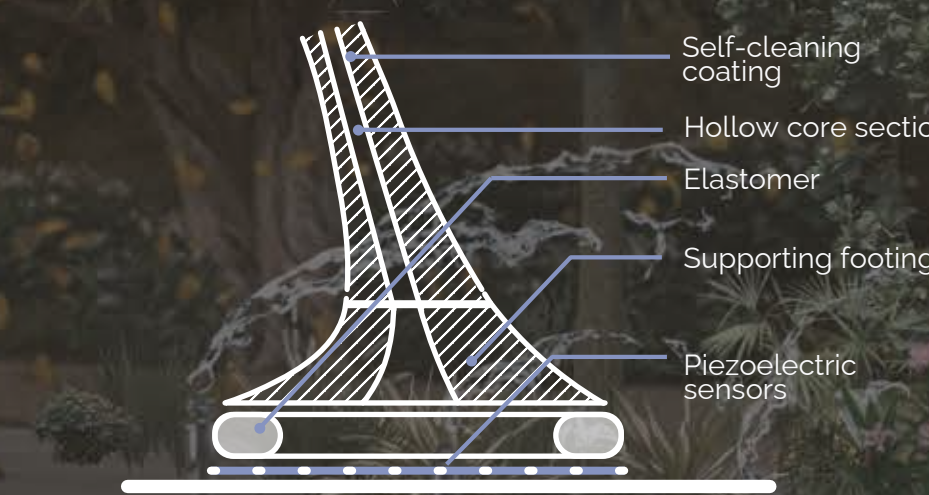
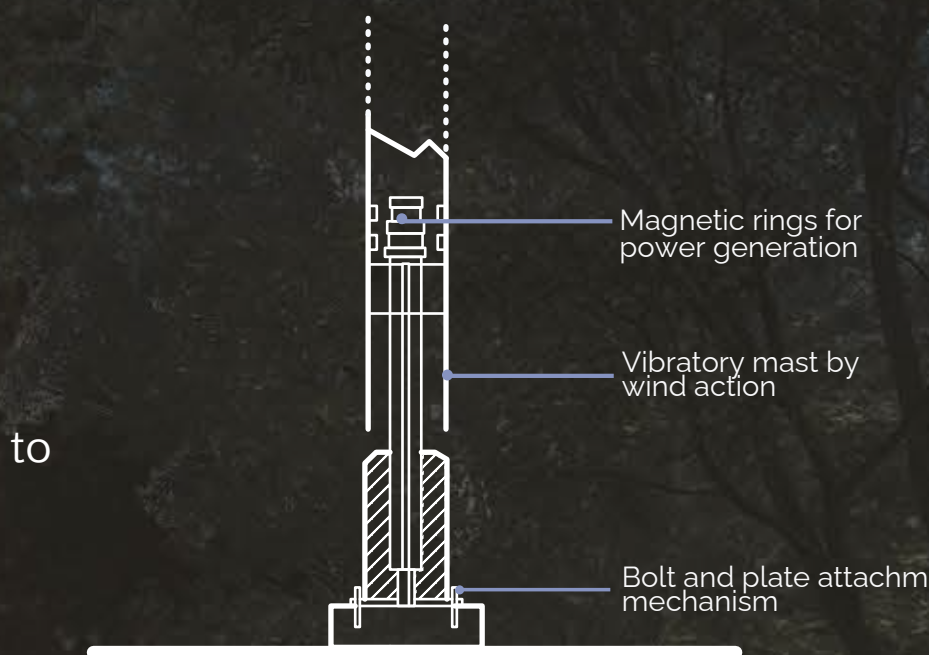
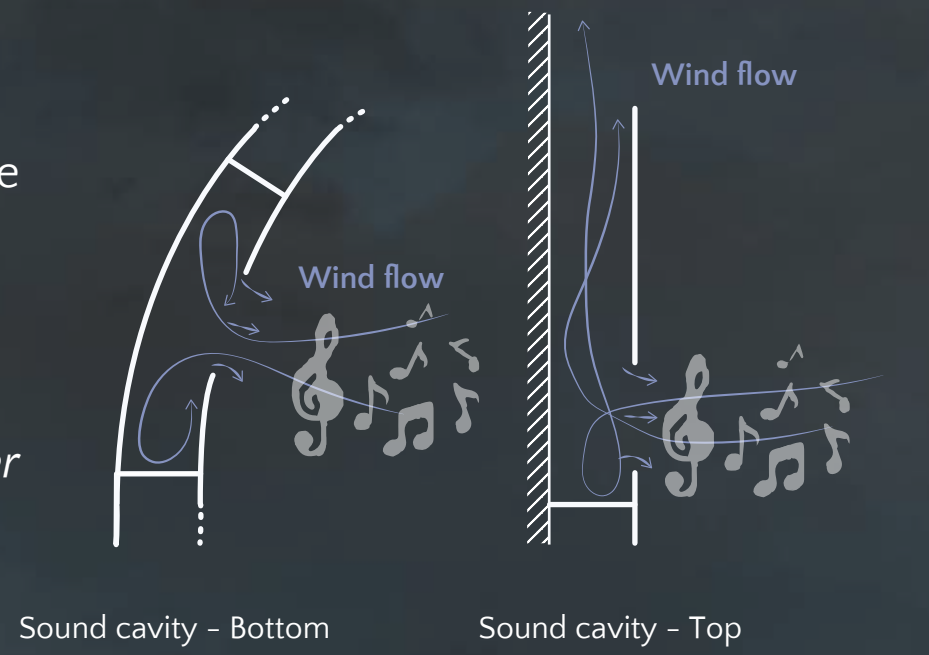
7 Bladeless wind generator mechanism
Replaces blades with magnetic systems to generate electricity

8 Supporting footing
Enlarges section area for better load-bearing capacity

9 Vibration booster
Elastomeric materials for elastic behavior enhancement - *Elastomers*

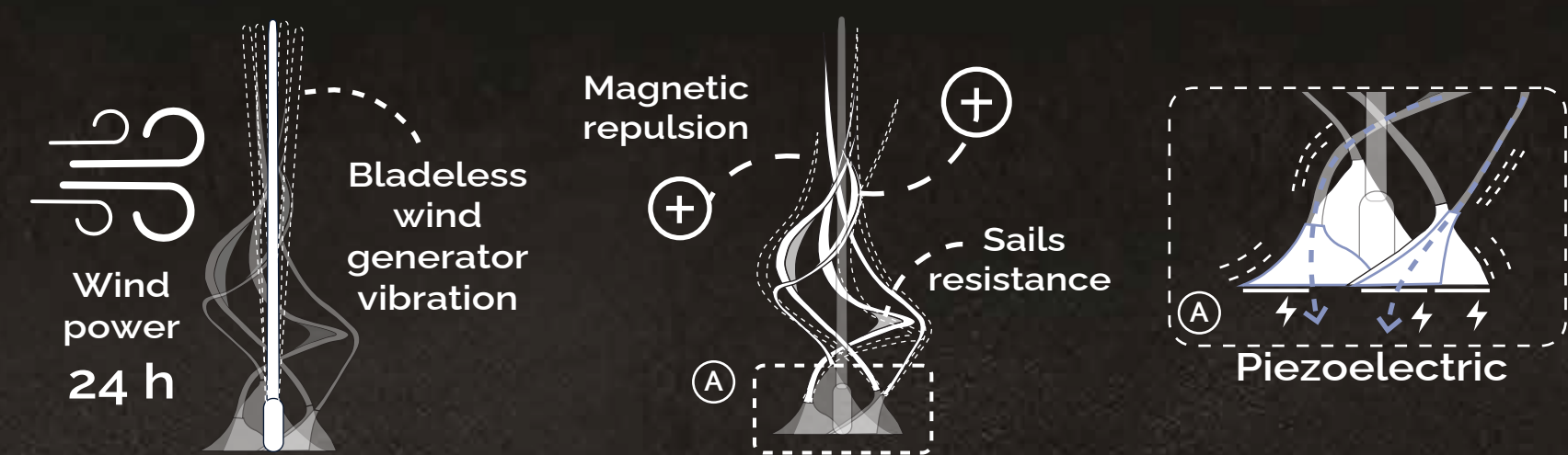
10 Piezoelectric system
Energy harvested from vibration and pressure

11 Lighting System
Public space lighting - *LED lights*



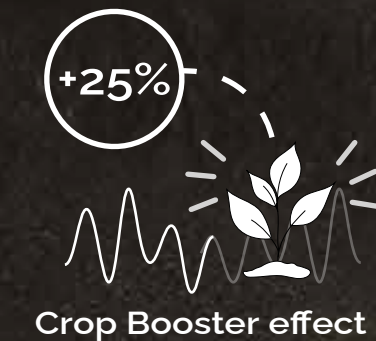
BUGA 23 proposed crops

Functionality



- 1 The wind shakes the main bladeless wind generator 24 hour operation**
- 2 Electromagnetic pieces increase vibration**
- 3 Piezoelectric sensors transform vibration into power**
- 4 The vibration is transmitted to the plants to stimulate their growth**

Interactive sound system
It's a sound generation system that creates an immersive experience so that people feel part of an orchestra. It Works by adding pressure over a platform to inject air into underground pipes to produce sound, applying the Pascal's principle



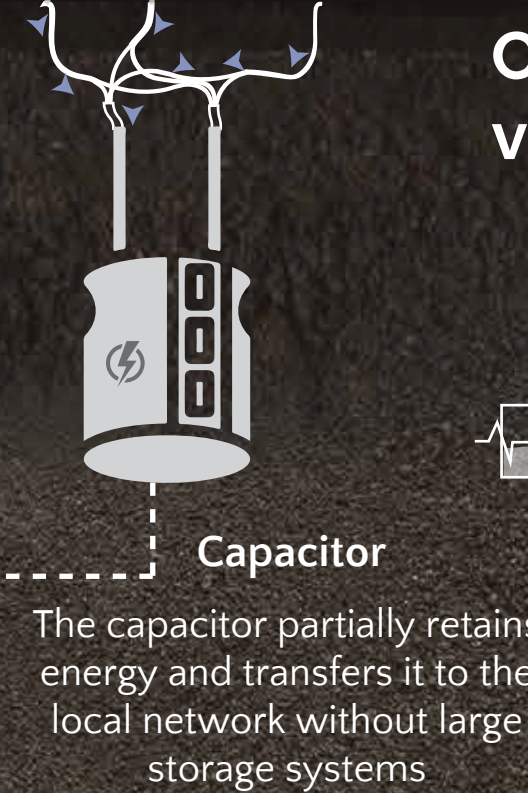
Home Electricity



Outdoor Lights



Electric Network



Crop Booster by vibration waves

