



# ETHERMA

*Team RALM*



TEAM



PROBLEM



ANALYSIS



IDEA



MISSION

# Meet Our Team



**Luisa Serpi**

- *Computer Eng*
- *Engineering & Management*



**Marzieh Mirzaei**

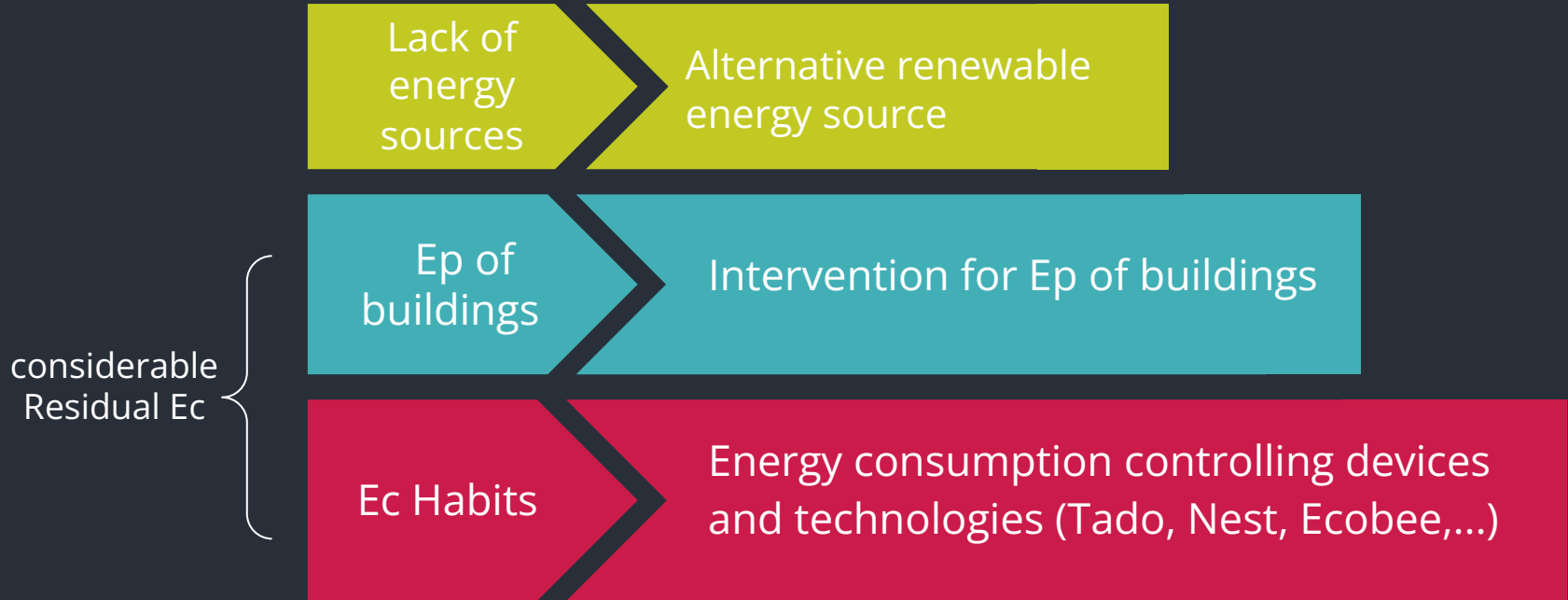
- *Civil and Environmental Eng*
- *Digital Skills for sustainable societal transition*



**Ang Li**

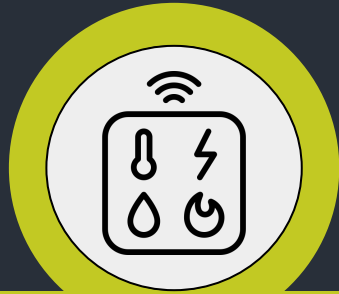
- *Architecture*
- *Architecture construction city*

# The Problem - Current solutions



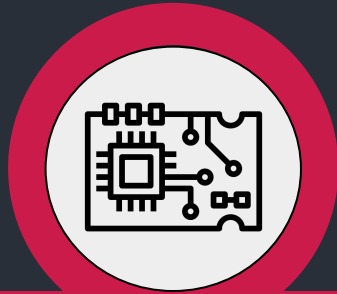
# ETHERMA components

## Smart HVAC system



### Sensors

Collect temperature, humidity and motion data in real-time



### ESP32 Thing board

Receive, process, and send data to an MQTT broker



### OpenHAB server

Monitoring sensor data and controlling the thermostat



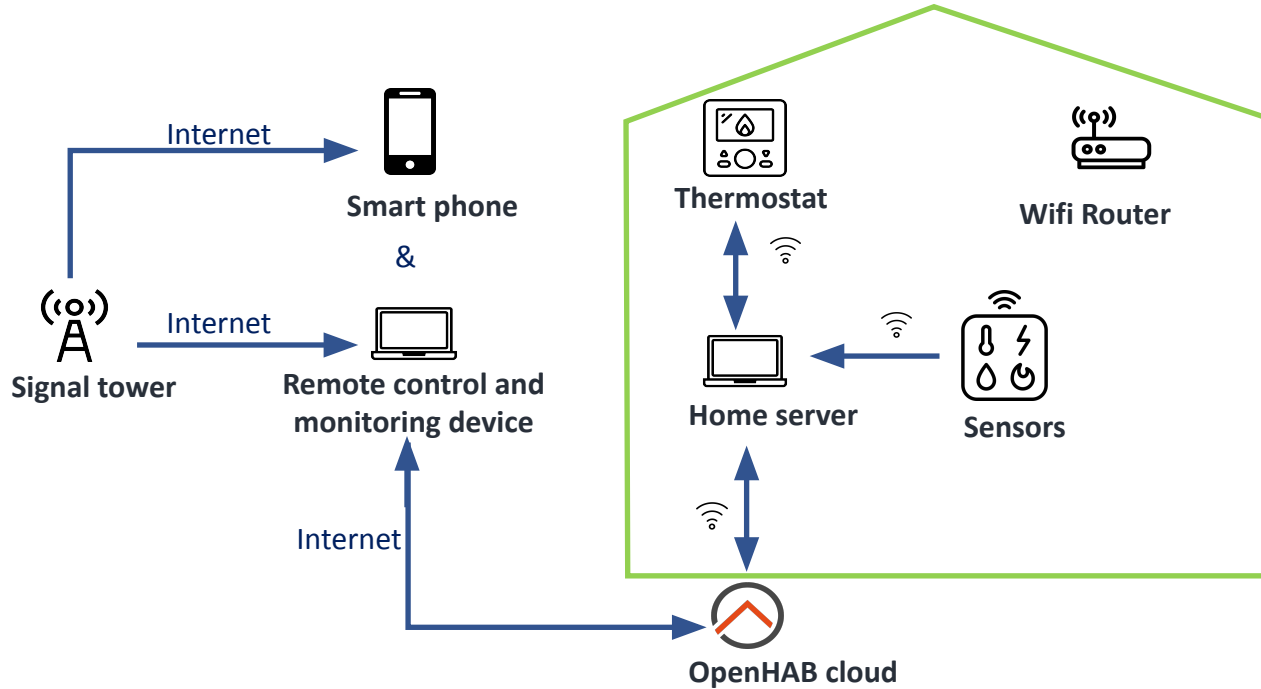
### Wi-Fi router

Create the communication channel



**MQTT broker**

# ETHERMA architecture



# ETHERMA features

**1** Remote control

**2** Multi-zone management

**3** People detection

**4** Air quality monitoring

**5** Integration with smart appliances

**6** Easy installation



# ETHERMA innovations



Improves **reporting**



Revolutionize **air exchange**



Better **integration** between **data**

# Business Model Canvas

## Key partners

- Smartwatch brands
- Suppliers of components
- Manufacturers
- Energy vendor

## Key activities

- Develop and maintain the system
- Customer's problem solving
- Collaboration with third company
- Marketing

## Key resources

- Precise personal data

## Value propositions

- Save energy consumption
- More accurate data, better user experience
- Connect to the smartwatch

## Customer relationships

- Agreements with energy vendor
- Online and offline support for user

## Channels

- Energy vendor

## Customer segments

- Energy vendor

## Cost structure

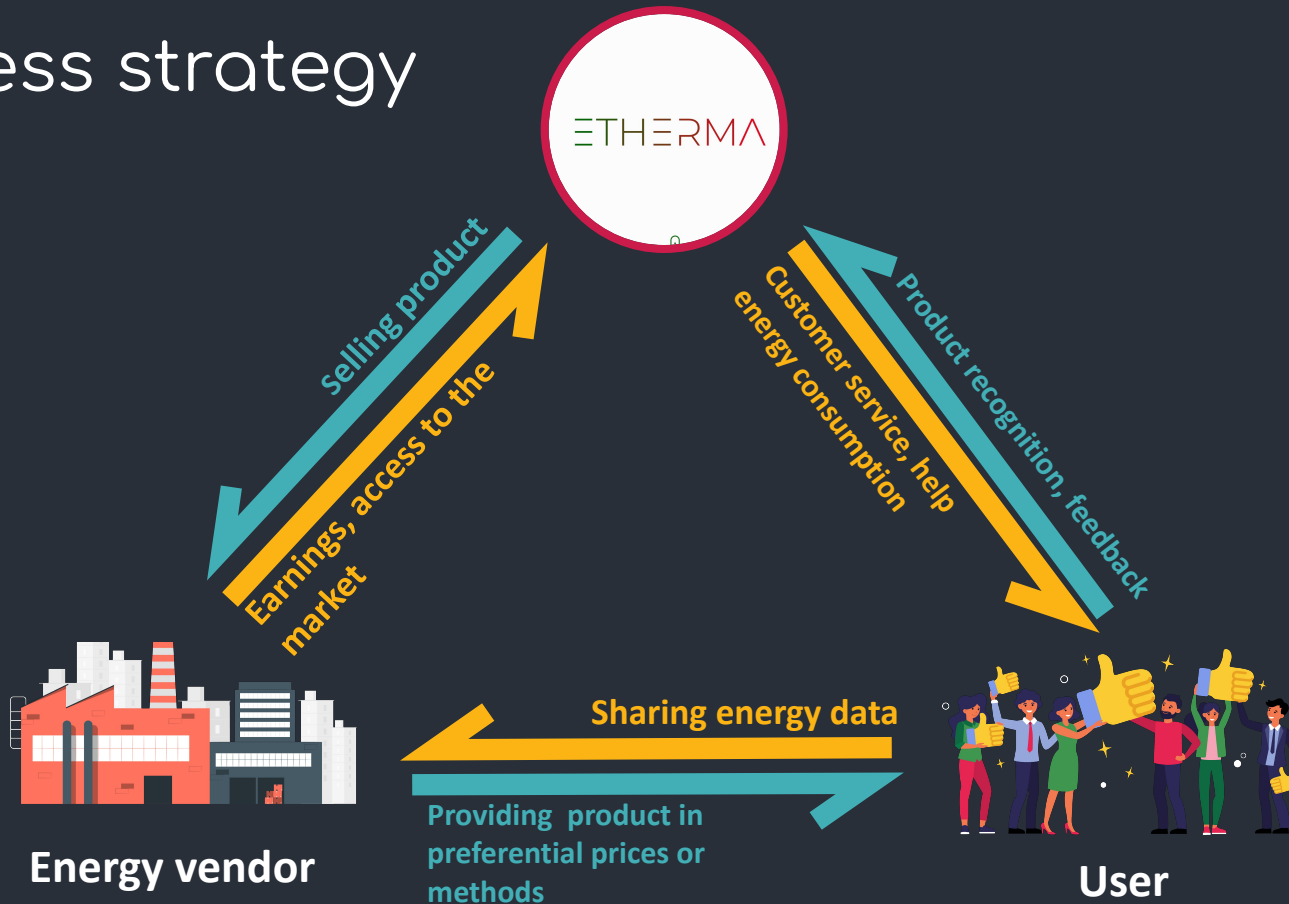
- Development and maintenance costs
- Production cost
- Marketing cost

## Revenue streams

- Selling product
- Commission fees to support third- parties devices



# Business strategy



# THANKS

*Team RALM*