Climathon

Climate-KIC

# Climathon - Idea/solution description

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| **City** | **Milano** |
| **Challenge** | Supporting citizens in improving energy efficiency |
| **Name of team** | Smith |
| **Team members** | Birant Altinel<br>Guillermo Hernàndez<br>Simone Prato<br>Francesco Sala<br>Andrea Semprebon<br>Cecilia Vicinanza |

## Description

### 1. General Summary – Please describe your solution to the challenge (max 200 words)

We want to help Milan citizens to improve their energy behaviour and reduce carbon footprint. Nowadays citizens do not have adequate incentives or, when motivated, do not know how to do that. Our main targets are buildings and transportation sector.

We developed an app, GreenMe, to monitor and compare houses C02 emissions and energy consumption using Smart Meter open data. The app gives owners a feedback on their behaviour and suggests how to improve it. It uses gamification techniques to engage users and gently push them towards sustainable consumption. The virtuous user gets rewarded advancing in the game and comparing his performance with other users. He also gets tangible benefits from our partners, such as free credit or discounts for sustainable mobility (bike/car-sharing, public transports), which in turn reduce his carbon footprint further.

Our app is free for the user and the aim is to create a community, which represents an attractive customer base for companies selling green products or services. These can be advertised on our app, providing a major source of revenues. Users with smart appliances can also purchase the Premium version which unlocks an algorithm (SMITh) to automatically schedule appliances consumption minimizing emissions and costs.

## 2. Climate Impact – Please describe the possible climate impact of your solution (max 100 words).

Our system allows the user to decrease CO2 emissions reducing the net amount of energy consumed and shifting the time of consumption towards moments with lower carbon intensity of the energy mix.

In addition to that, the reward system tries to incentivate the use of sustainable mobility and adoption of green technologies (such as LEDs, PV panels and smart appliances) through discounts, to further reduce carbon emissions as long as local pollution.

Simulations carried out using our advanced algorithm SMITh, show that CO2 savings related to the use of SMITh range are up to 17%. If the user installs a solar PV system he can further reduce up to 74%. This can be roughly quantified in CO2 savings from 0.3 to 1.3 tonnes/year per person.

## 3. Team – Please introduce your team members – their role within the team and their background (max 100 words)

- Cecilia Vicinanza: Energy engineer, climate activists and ideas developer
- Simone Prato: Energy engineer, energy market expert and member of SMITh
- Andrea Semprebon: Computer Science engineer, developer of the Smith algorithm and the user interface
- Francesco Sala: Electrical engineer, team controller of SMITh and ideas developer
- Guillermo Hernàndez: Physician and green entrepreneur, business plan developer
- Birant Haltinel: Computer Science and Management engineer, ideas deeveloper

## 4. Future plans (if any) – Please let us know whether what are your plans with the solution that you worked on during the CLimathon (max 100 words).

Our aim is to develop a community for the commercialization of our SMITh algorithm, which, based on an IoT system, automatically optimizes appliances schedule in a household. This system is not actually ready for commercialization due to the lack of smart controllable appliances in many houses. Therefore, we decided, while promoting smart appliancies diffusion, to commercialize the platform using a first free version which pushes the user to implement sustainable consumption strategies. First steps would be the finalization of the UI and the creation of partnerships with companies and transport service providers.