



A European urban transition project towards more sustainable cities through innovative solutions, in the fields of mobility, energy and digitality.

## Smart City

### Global Project

**Coordination:** CARTIF  
**European grant:** 18M €  
30 partners, 6 countries

**Period:** Dec. 2016 - Nov. 2021  
**Demonstrators:**  
Hamburg, Helsinki, Nantes

@mysmartlife\_EU  
<https://mysmartlife.eu/>

### Helsinki Demonstrator Site

**Coordination:**  
The City of Helsinki  
**European grant:** 5,6M €  
7 partners

**Coordinator**  
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[helsinginilmastoteot.fi/my-smart-life](https://helsinginilmastoteot.fi/my-smart-life)

## Infrastructure

Urban RES, Innovative Businesses

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[helen.fi/en/solar-panels/solar-power-plants/messukeskus-solar-power-plant](https://helen.fi/en/solar-panels/solar-power-plants/messukeskus-solar-power-plant)

## ACTION OVERVIEW

Helsinki

### Solar Power Production As A Service

This action was implemented by Helen Oy. A full reports (D 1.9. and D 4.6), written in English, November 2019, are available on <https://mysmartlife.eu/publications-media/public-deliverables/>

#### ▶ OBJECTIVES

- › To promote the increase of solar energy production
- › To introduce an alternative way of funding a solar power plant
- › To activate citizens to participate in climate change related actions

#### ▶ IMPLEMENTATION



#### CHALLENGE

Solar energy is one way to a more sustainable and cleaner future. It is a renewable way to produce electricity and it can replace a part of fossil production. Solar panels transform the continuous flow of energy from the sun to electricity.

The business model used in this action is based on the existing Suvilahti and Kivikko photovoltaics (PV) plants: designated solar panels where customers can rent a panel or several panels from the PV plant. A demand for a third designated solar power plant in Helsinki was high since the existing designated solar plants were sold out in early spring 2019.

#### PROGRESS

**The original plan: Solar power plant implementation in Korkeasaari Zoo**

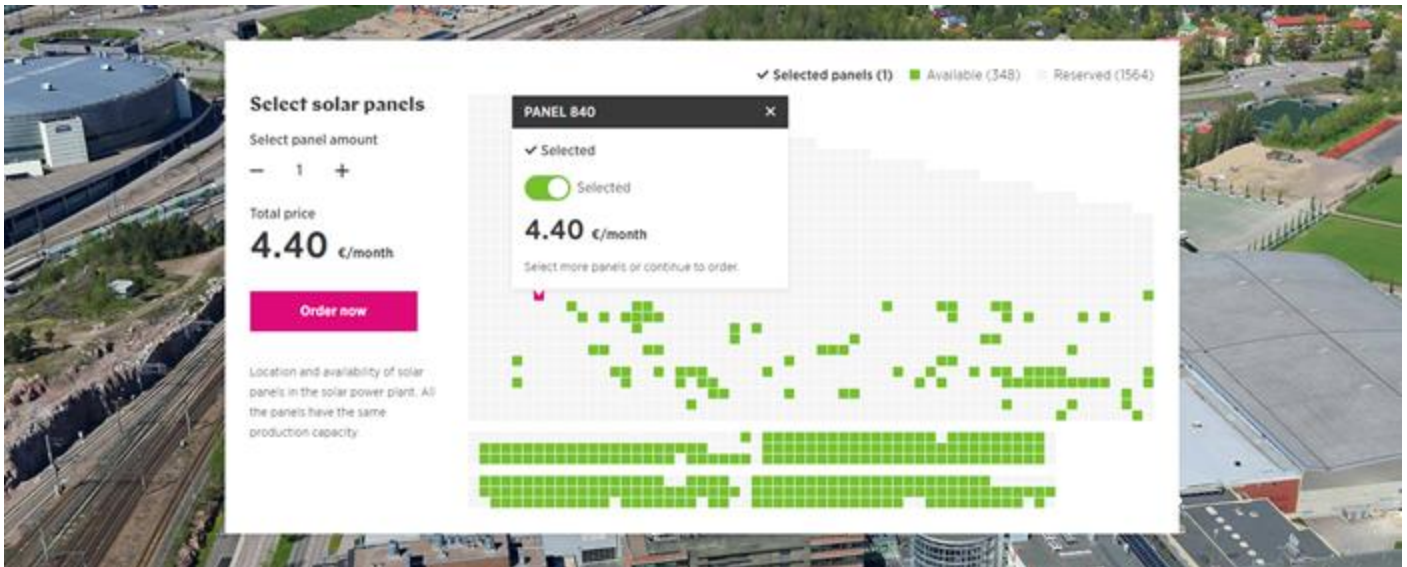
The original plan was to extend the existing solar power plant at Korkeasaari Zoo by developing a crowd-funding and integration of the crowd-funding into Zoo ticket prices. Based on the previous evidence from environmental protection related tickets, Helen and Korkeasaari decided that the so-called solar ticket would turn out to be a marginal product. Co-creation workshops were held to find a new approach, but they did not lead to a successful concept.

Finally, there were two other reasons for the change of plans. Firstly, the implementation of the actions became uncertain due to organizational change in the City of Helsinki.

Secondly, several changes to the electricity systems of the zoo would have been required to increase the area for PV production in Korkeasaari.

### New approach: Solar Power Plant implementation in Helsinki

The plans in Korkeasaari Zoo were cancelled in spring 2018 and replaced by a new solar power plant which was installed on the roof of Messukeskus, Helsinki Expo and Convention Centre in Pasila, Helsinki. Installations were done at the same time as the renovation of the roof of the building. Circa 1900 panels were installed at the end of 2019. The estimated annual output of solar power is about 600 kWh. Currently, customers can rent a panel from Messukeskus PV plant at a price of 4.40 €/month. The production of the PV panel is credited to the electricity bill of the customer. An average credit for a panel is about one euro per month, leaving approx. EUR 3.40/month to pay on the panel. In March 2021, over 1500 panels were already reserved.



Availability for panels in March 2021 ([Helen Oy](#))

## LESSONS LEARNT

### The original plan in Korkeasaari

During the co-creation workshops, it was discovered that citizen engagement is difficult, and even though there are active zoo visitors, it is hard to motivate people to spend their free time participating in such activity. It was also noted that regarding the citizen engagement events, it may be a good idea to use a specialized company to recruit the volunteers in order to increase the turn-up. The lessons learned from this experience should be noted when replicating such a workshop series.

### The new implemented approach in Messukeskus

A designated panel is an effortless way to becoming a solar energy producer. By renting a solar panel, anyone can use renewable solar energy without having to install panels on their own roof. The output of the rented panel is deducted from the customer's electricity bill although economic savings do not drive the purchase.

The business model of designated solar panels is targeted to environmentally conscious people willing to also invest some money to participate in local solar energy production. The business model of designated solar power plants is especially replicable in cities with a growing interest in solar energy production and environmental friendliness.

The business model has been a success in Finland, but this does not necessarily guarantee that the same kind of success could be reached in other regions or in other countries. Therefore, the successful implementation of the business model of designated panels needs local knowledge on the customer segments and their needs as well as successful marketing.



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