

# SolarVlinder catches first sunbeams

 Energy. Anytime. Anywhere.



Tilburg, The Netherlands: on Monday the 21st of March 2011 the very first SolarVlinder was taken into use. SolarVlinder is Dutch for SolarButterfly. The SolarVlinder, developed by Connex Cablemanagement, is a free recharge point for electrical bicycles and scooters. The wings of the butterfly catch solar energy and convert this into electrical current. On a daily basis this current can be used to charge six bicycles or scooters with a range of 10 to 20 kilometers. The SolarVlinder is located in the centre of Tilburg where it can supply urban traffic.



## Mobility growth

The inventor of the SolarVlinder, Dirk van der Ven, says that he came up with the idea of a free charge point by looking at the developments of the past century. He discovered that more and more people are migrating to cities. "Cities offer opportunities, but they are also the cause of many problems", says Dirk. "While cities are increasingly becoming the motor of the economy, we must make sure that the damaging effects of the economic activity are assessed and controlled properly." According to Dirk one of these aspects is the way we transport ourselves. Because of the fact that most mobility takes place near cities these are the places where most exhaust gases from cars, scooters and motor bikes can be found.

## Electrical transport as an alternative

A solution for reducing these exhaust gases are electrically driven ways of transport such as electrical bicycles and scooters. However, this way of transport has a large disadvantage: a limited operating range\*. For example, when someone goes to work on his bicycle, it's possible that the battery is almost empty when he arrives at work.

*\*The operating range is the distance that a vehicle can travel without adding energy such as refueling or recharging.*

## Solution short operating range

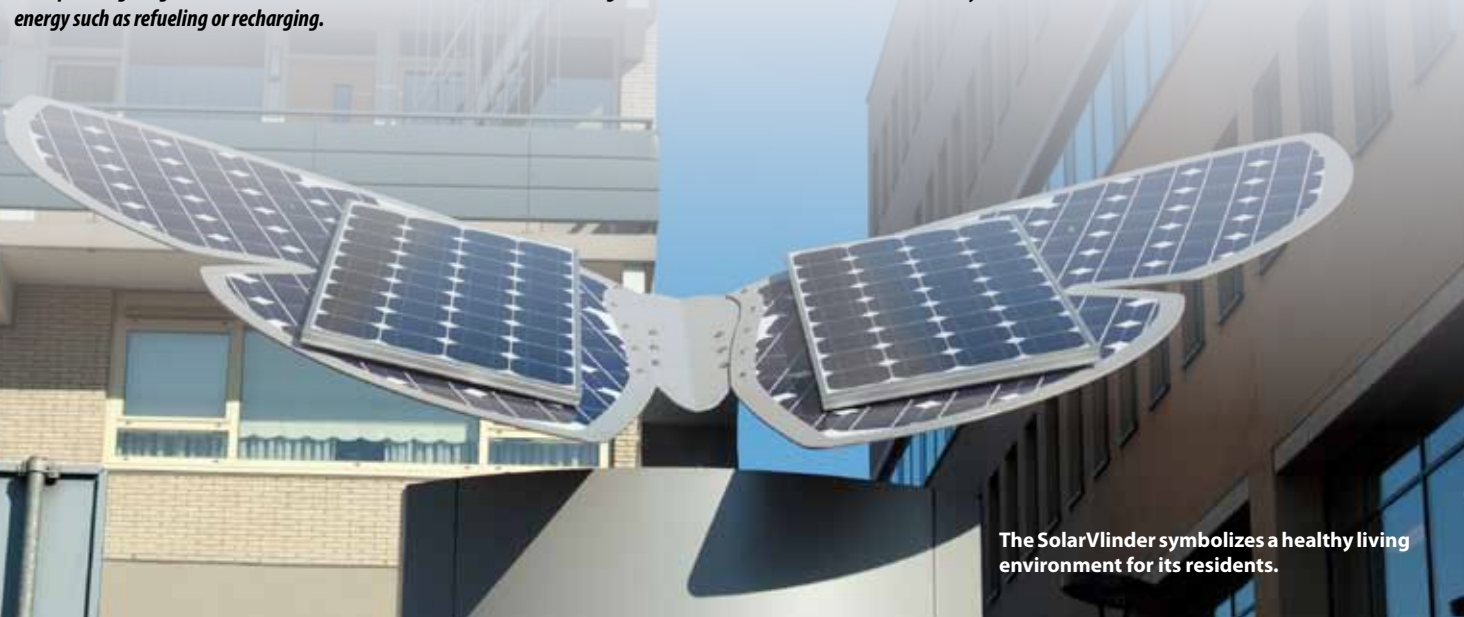
The short operating range of an electrical bicycle or scooter is history thanks to the SolarVlinder. The SolarVlinder is a parking place as well as a recharging point for electrical bicycles and scooters. This enables people to take their electrical bicycle to work, let the SolarVlinder recharge their bike while they are working, and travel back home with a fully recharged battery.

## Why a butterfly

During the design phase the team was looking for a model from nature. There are butterflies that convert solar energy into body heat. Moreover, butterflies only exist in places where nature is balanced. The latter symbolizes the balanced environment for urban citizens.

## Victron in the SolarVlinder

Two solar panels are mounted on the wings of the SolarVlinder. The energy which is produced by these solar panels is stored in several Victron Gel (12V 200Ah) batteries. These batteries are connected to a Victron MultiPlus, which enables the SolarVlinder to supply 220 Volt. This system is able to supply seven hours of current per day, which is equal to an operating range of 70 kilometers for electrical bicycles and scooters.



The SolarVlinder symbolizes a healthy living environment for its residents.



**victron energy**  
BLUE POWER

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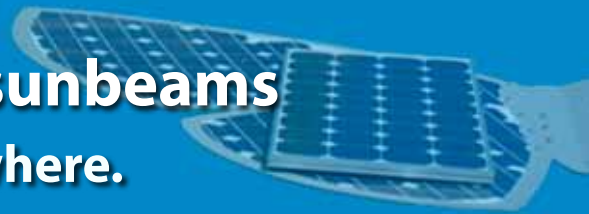


Photo 1 & 2: Dirk van der Ven and Alderman Roel Lauwerier revealing the SolarVlinder.



Photo 3: Dirk van der Ven receiving flowers for the SolarVlinder.





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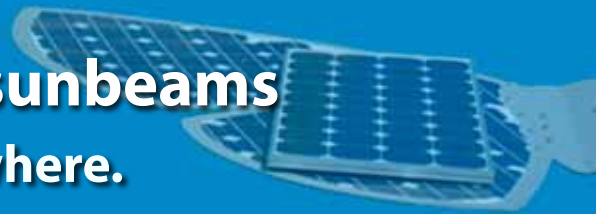


Photo 4: Electrical scooters parked at one of the charging points.



Photo 5: After the electrical scooter is connected, the battery can be charged.

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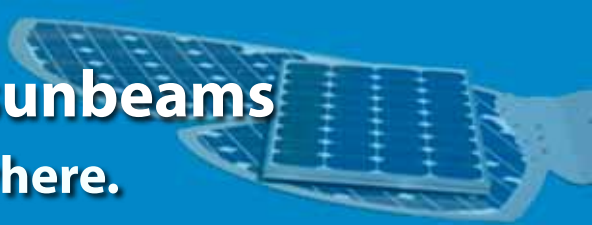


Photo 6 & 7: The Victron batteries and the MultiPlus are fitted in the pillar.



Photo 8 & 9: The charge point is surrounded by a waterproof enclosure, which can be shoved upwards.