



E-Bike Sharing Hungary Kft.

Since 2005

Plan

Installation

Operation



# ELECTRIC BICYCLE-SHARING SYSTEM concept



- Alternative solutions to complement public transportation
- Self-service
- Short-term
- One-way trips
- eBike rental in public places
- For several target groups
- With net-work characteristics (300-500m)

# eBSH electric bicycle sharing system advantages

- Environmental Impact Reduction
- Additional mobility option
- Smart pedelec power-assist electric bike
- Time and cost saving
- Social benefits
- For all target groups
- Health benefits
- Employment opportunities
- 24/7 availability
- Advertising opportunities
- Increase attractiveness for tourist



# How to rent an e-bike?

## 1. Registration/Payment



- Scan QR code
- Download Masterbike Application (IOS & Android)
- Sign up in 2 minutes
- Create your account

## 2. Grab an e-bike



- Scan QR code on the e-bike and ready to go
- RFID card solution for members

## 3. Usage

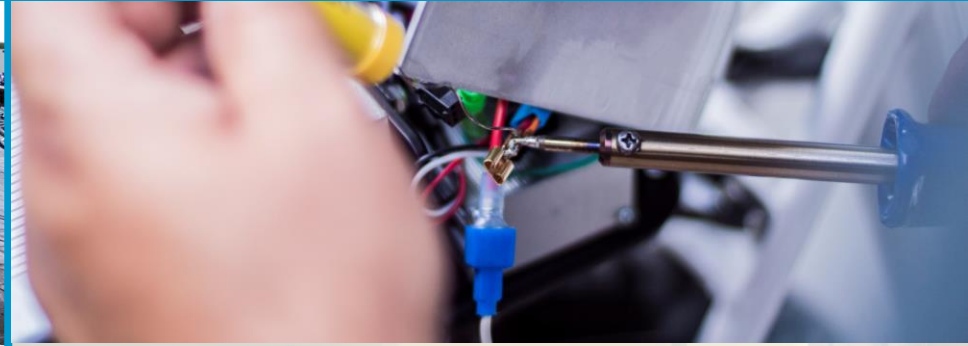


- Riding the ebike
- Pick up anywhere
- Drop off anywhere

# E-Bike Sharing Hungary Kft.



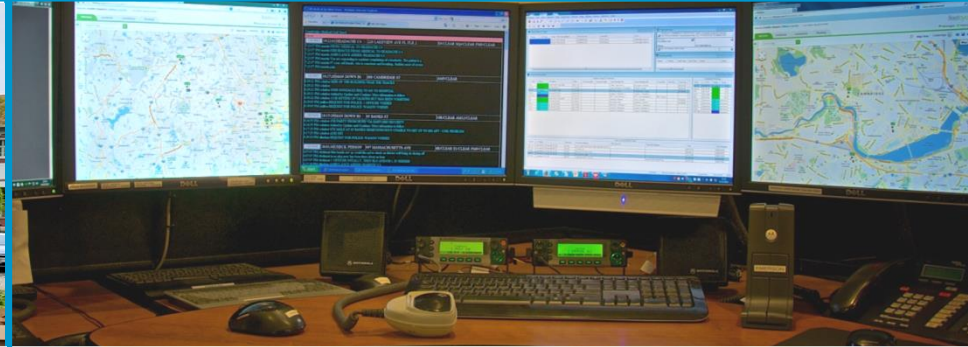
Production



Development



Installation



Operation



# Projects



Urban e-Mobility



Corporate „Go to work” e-Mobility



Campus Program



Tourism Project



# Urban Mobility

- Smart cities concept
- Intermodality
- **Integration:**
  - suburbs
  - villages
  - sights
  - attractions
  - banks



# City transportation "SMART City" concept- city card

Electric Bike Sharing perfectly fits into the „Smart City” concept, as a solution of multi-modal transport management. eBike sharing works with the usage of RFID card. This card can be function as a City Card also. With the usage of only one card you can enjoy many services!

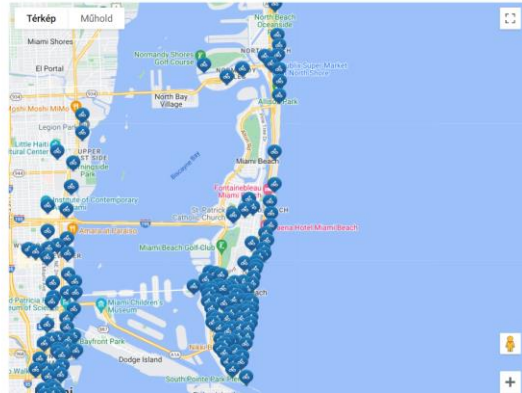




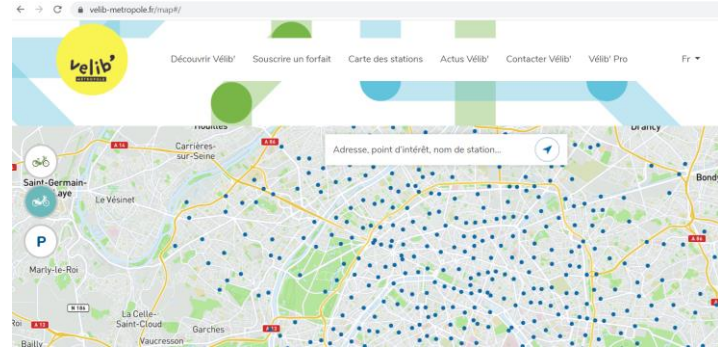
# Overview of the world's bike sharing



## Station Map



- Miami
- 2000 bike
- 160 station



Paris  
20.000 bike  
1300 station



# E-Bike Sharing Reference work: Cross Bike



# Production



# Development

- **Alternative energy (solar energy)**
- **GPS tracking**
- **Flexibility** > Docking station
  - High flexibility: easy to install, remove, individual units
- **Intermodality** > Smart solutions
  - Software engineering > closer to other public transport services
- **Integration** > Interoperability
- **Durability:** Energy management
  - Batteries, smarter/smaller electromotors, shaft-drive, replace the gears/derailleur
- **Control:** Dispatch room, tracking



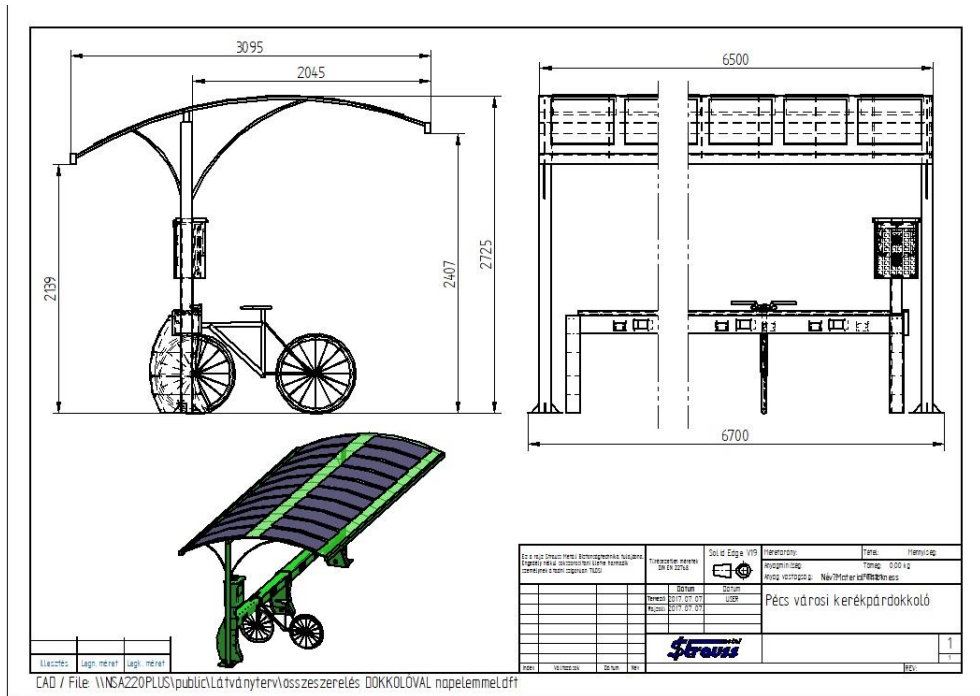
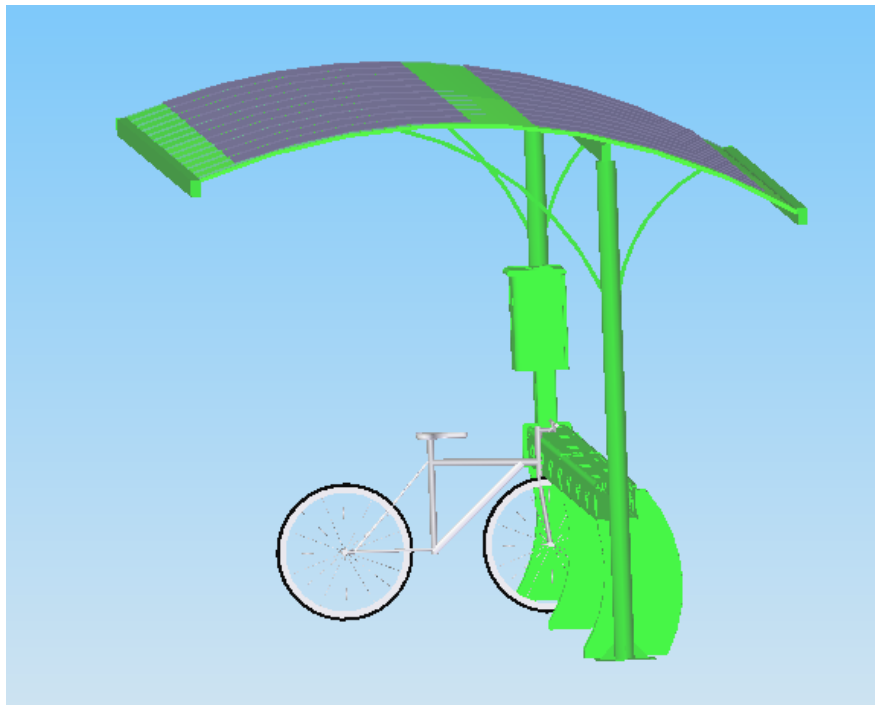
# Alternative energy (solar energy)



- renewable and free energy
- more beautiful and livable city
- environment-friendly solutions
  - 100% green city program
- the electric bike's batteries can be charged by solar energy



# Electric bike sharing with solar panel shelter



# Touch screen terminal



### Sign up!

1. Simply scan the QR code at one of the ebike station.
2. Download the Application!
3. Sign up! Create your user account, using the app. It takes a minute!
4. You can track all rental usage in your account!
5. Convenient online credit card payment!

Download Our New App

The screenshot shows the 'Sign up!' section of the website. It features a dark blue background with white text. On the right side, there is an illustration of several hands holding different mobile devices (smartphones and tablets) against a blue background with a city skyline. The text 'Download Our New App' is centered above the illustration.

Home

## Fast and easy way to rent a e-bike

- Touch screen
- Turistical map reading
- Online registration and payment
- Payment by smart phone



# Advantage of the Touch screen terminal

To our prospective partners

## *Map visualization and reading:*

- turistical destination can be indicated (natural, historical)
- Partner Points indication with description (services) Pl.: hotels, restaurants
- Alternative roads (built and designated routes) existing bicycle routes



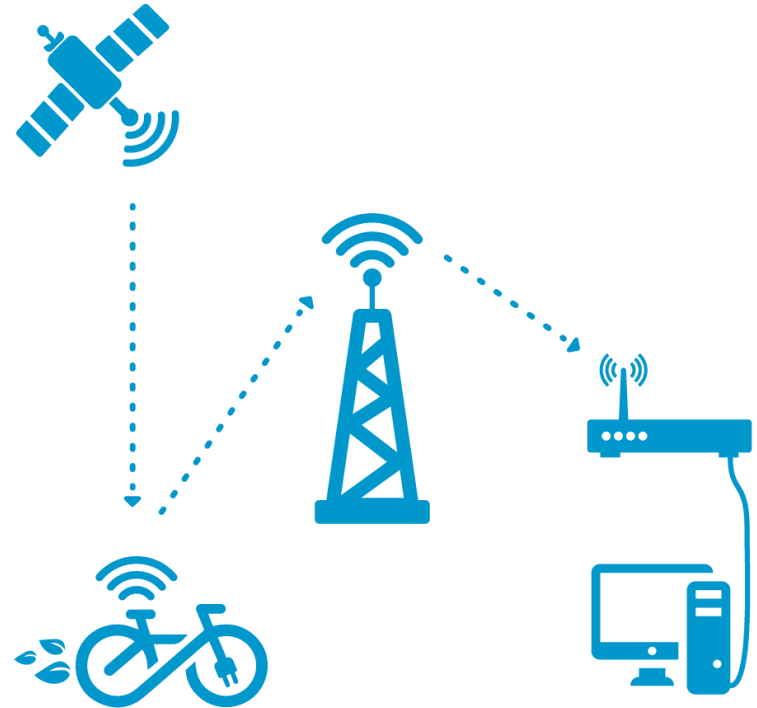
## *Surface of Information*

- Advertising
- Reviews
- showing actual nearby events



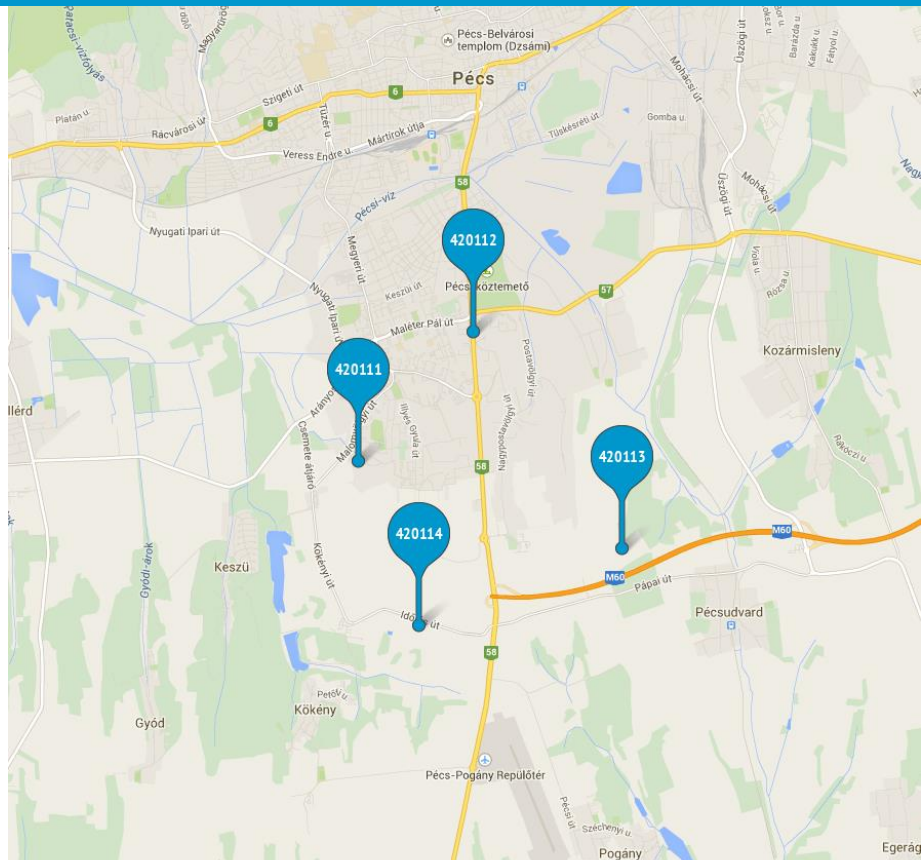
# GPS tracking

- Sends the e-bike's position periodically
- Heartbeat function in every 30 seconds
  - safety service, detects the device's problems and malfunctions
- Current location could be requested via Text message as well
- Notification of the battery's disconnection
- Very sensitive antenna (-164 dBW)
- Continuous uninterrupted operation from the e-bike's battery
  - It runs on the same voltage as the e-bike



# GPS tracking

- Unique GeoFence
  - polygon style, any shape
  - warning area before leaving the border
- Overview page
  - real time tracking of the e-bike's last position
- User friendly interface
  - It was designed for bike rental systems
- Logging, traceable paths
- Easy download for the data



# INSTALLATION



- Careful planning (consultation with road engineers)
- Installation is in public places
- Electrical power
- Internet connection (wired connection is recommended)
- Mobil stations



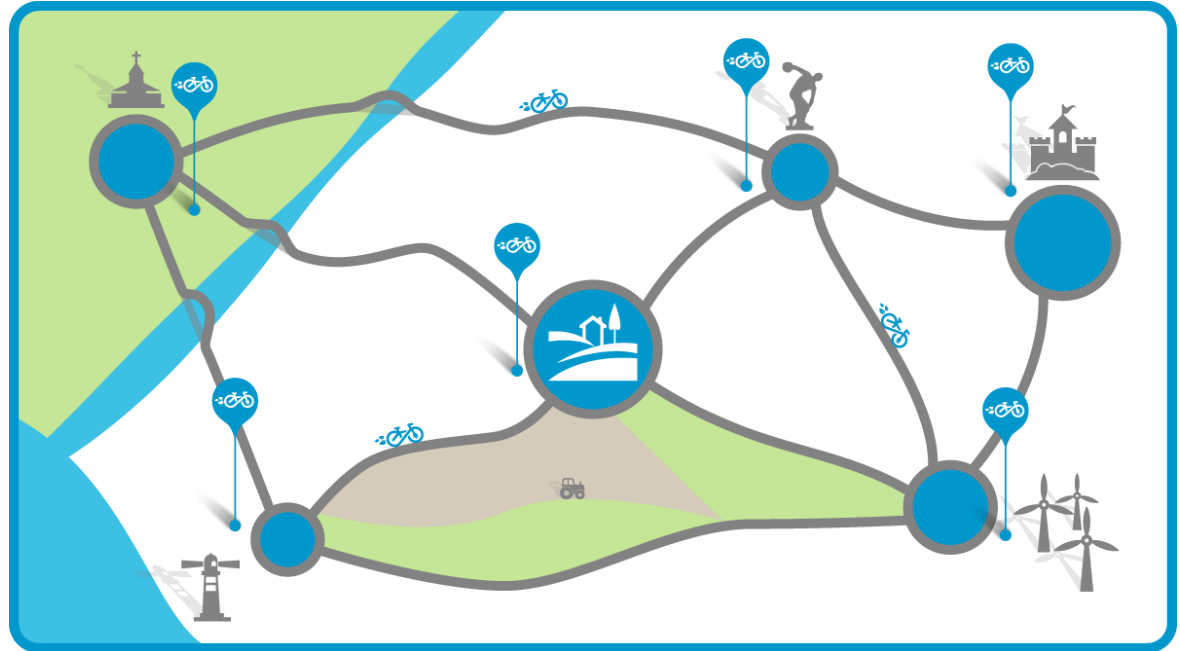
# Docking Station

- Easy to install
- Flexible
- Maintenance free
- Vandal-proof
- Well designed
- Rock solid



# Tourism Project

- Flexibility
- Discover
- Healthy lifestyle
- **Integration:**
  - EuroVelo network
  - Linking smaller areas
- Intermodality



# Tourism Project



## Ős-Dráva project

- 11 stations
- 110 docks, 70 ebikes
- <https://www.facebook.com/masterbikebaranya>



# Tourism Project - Ős- Dráva stations

**MASTERbike**  
the e-bike company

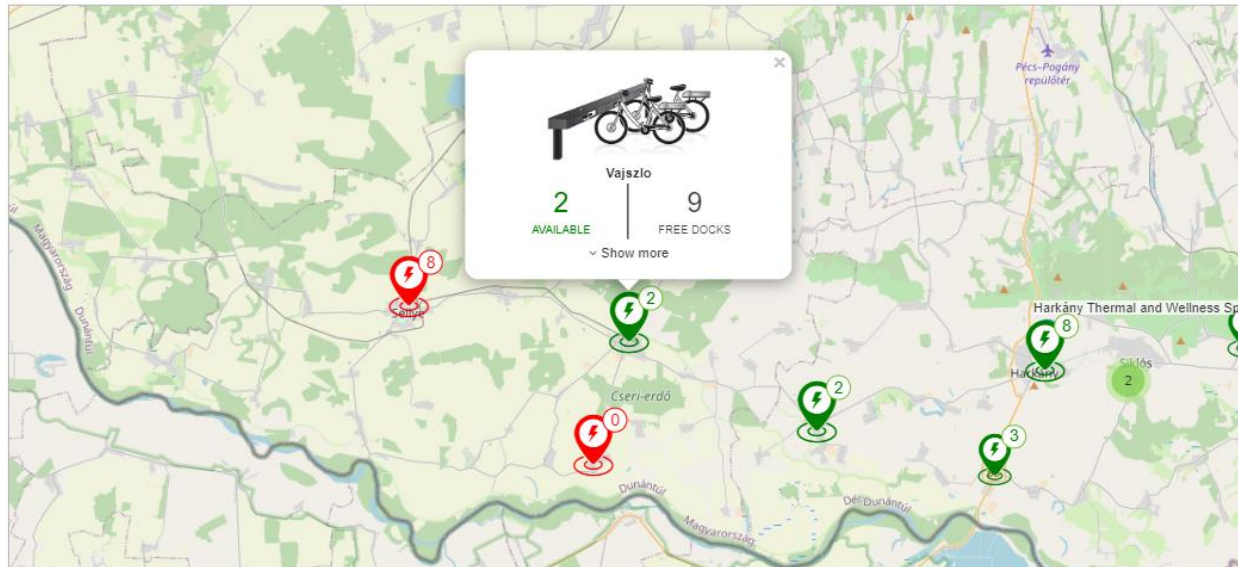
[Terms of use](#)

[How it works](#)

[Select your plan](#)

Select station to see bike availability

Vajszlo



# Tourism Project – Stations: Sellye, Vejtí





# Tourism Project - Reference - Ős- Dráva



# Electric custom made Bicycle

- Pedelec e-bike EN15194 EU standard
- Easy to use
- High comfort
- Durability
- Cost efficient maintenance
- Puncture- proof tires
- Telescopic front fork
- Automatic lock and charging
- Front & rear V-break
- GPS tracking (option)
- 250-300W motor
- Battery 36V / 13.5Ah
- 26"-28"



# 26" Electric bike

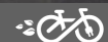


# Electric Scooter Sharing System

- Travel seated and standing position as well
- DC electric motor in 36 V system
- max 40 kms / full charge
- Automatic charging at the station
- Top speed: 25 km / h
- Spring suspension



# Green City eCab



# Reference



Public Bike System Hungary



My City · My Bike

# Possible cooperations, connections



# Business solutions

## The planning process includes:

- feasibility study
- demand modeling
- business plan
- design & licensing of the stations

## The business plan includes:

- capital and operating costs
- calculation of return
- investment, sales and marketing strategies

## We help to uncover:

- every possible source of income
- rental fees
- advertising options
- public or private investors, tender offers





# Thank you for your attention!



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[www.masterbike.hu](http://www.masterbike.hu)  
Reference work:

