

INVESTMENT FACT SHEET

I1 Pilot investment for an e-bike sharing system

Version 2

Project index number and acronym	CE1100 LOW-CARB
Responsible partner (PP name and number)	Zarząd Transportu Publicznego w Krakowie (ZTP Krakow, PP12)
Linked to pilot action (number and title)	Pilot implementation of innovative multimodal PT services for low-carbon mobility
Project website	https://www.interreg-central.eu/Content.Node/LOW-CARB.html
Delivery date	30.11.2020

Description and technical characteristics of the investment

Krakow Transport Authority developed a hub for reloading goods from delivery vans to cargo bikes, based on a traffic re-arrangement plan for the introduction of the loading node at Ogrodowa St. Furthermore, an e-bike sharing system was implemented at a FUA location where two communes meet - Skawina commune (typically satellite) and Kraków commune (typically metropolitan).

Prior to the pilot activities, an external expert study was commissioned to conduct a feasibility study on the pilot implementation. incl. implementation timeline, and a business plan for sustainable operation, incl. a detailed scheme planning and technical requirements for the 5 multi-modal stations, types of bikes and the renting system, an analysis of the best locations to extend the bike-sharing system. Stage II - with the scope incl. project evaluation and monitoring model.

The hub or hubs for reloading goods from a delivery van to a cargo bike

A result of a contract sign after the public procurement procedure (execution of adequate market research) 5 cargo e-bikes were delivered by 5 December 2019.

Basic parameters of cargo e- bicycles:

- adapted for year-round use,

- construction type: long john,
- load capacity: 80 kg,
- equipped with electronic locks of the o-lock type opened with application running on platforms android and ios

ZTP has developed a plan of traffic re-arrangement for the introduction of the loading node at Ogrodowa St. The project was approved by the department responsible for traffic management on December 3rd 2019. The project was implemented on December 6th 2019. The hub created at. Ogrodowa Street consist of parking spaces for vans of 10m x 2.5m (2m) designed exclusively for the system users and parking spaces for cargo bikes of 2m x 2.5m secured by flexible posts.

The e-bike sharing system

The pilot e-bike system called the Park-e-Bike system consists of one station for renting and returning a fleet of 43 bikes with electric assistance was launched on 26 October 2020. Park-e-Bike service at the beginning was available from Monday to Friday from 6:00 to 22:00 (bike rental until 21:00, bike return until 21:45). From November 9th, the station service is available from 8:00 am to 8:00 pm. Before renting a bike, you need to download the application and register (phone number verification). System users can use the bicycle free of charge throughout the day in Krakow and Skawina. Information about the system is available on the website <https://park-e-bike.ztp.krakow.pl/>.

Basic parameters of e- bicycles:

- 120 km range
- regenerative braking
- swappable battery unlocked by service app
- Expected 6 years of life
- Battery
 - cell system : Li-lon
 - number of cells 60
 - accumulator protection rating:IP45
 - rated voltage: 36 V
 - rated capacity:17.4 Ah, 626 Wh

Investment costs (EUR) including a break-down of main cost items

Total investment cost: 178 064,09 EUR
 Total eligible investment cost: 148 663,52 EUR
 Cost for 5 cargo e-bikes (total eligible): 25 728,03 EUR
 Total cost of implementation of public bicycle system consisting of 43 electric bicycles: 152 336,06 EUR
 Including eligible cost: 122 935,49 EUR

Investment location

NUTS 3	Address (Street, house number, postal code, city, country)	GPS coordinates
PL213	Ogrodowa Street, 31-155, Kraków, Poland (location of the node for cargo e-bike)	50.068662, 19.944152
PL213	P&R Czerwone Maki , 30-392, Kraków, Poland (location of the e-bike station)	50.018599, 19.890509

Duration and process of investment implementation

Start date	End date
<ul style="list-style-type: none"> ○ The e-bike sharing system 2020-03-10 – announcement of first tender ○ The hub or hubs for reloading goods from a delivery van to a cargo bike 2019-11-06– announcement of the public procurement for delivery of 5 cargo e-bikes 	<ul style="list-style-type: none"> ○ The e-bike sharing system 2020-10-26 - launch of e-bike sharing system ○ The hub or hubs for reloading goods from a delivery van to a cargo bike 2019-12-06 - launch of the hub

Major milestones of investment implementation

The hub or hubs for reloading goods from a delivery van to a cargo bike

- November 6, 2019- public contract announcement,
- November 15, 2019- contract signed for delivery of 5 cargo e-bikes,
- December 6, 2019 - launch of the hub,

The e-bike sharing system

- March 10, 2019- announcement of first tender,
- June 22, 2020 - announcement of second tender,
- July 14, 2020- announcement of third tender,
- September 14, 2020 - signing of the contract for delivery of electric bicycles,
- October 14, 2020 - delivery of the e-bikes,
- October 26, 2020 - launching the e-bike system,
- Between 26th October - 3rd November 2020 - evaluation of the implemented project of e-bike sharing system.

Ownership and durability of the investment (e.g. maintenance, financing)

E-bikes and cargo e-bikes are owned by ZTP.

Maintenance of the system will be financed from ZTP's current funds.

It is reserved (among other expenses) in the Budget and in the long-term financial forecast of the Municipality of Krakow in task Realization of cycling policy.

References to related pilot action (output fact sheet) and relevant deliverables (e.g. pilot action report, studies) and web-links.

If applicable, additional documentation, pictures or images to be provided as annex

Pilot Action - Pilot implementation of innovative multimodal PT services for low-carbon mobility.

Also refer to combined PT & e-bike sharing service in Krakow's FUA preparation, implementation and evaluation reports D.T3.3.1-3

[LOW-CARB Pilot handbook](#) in all central European languages





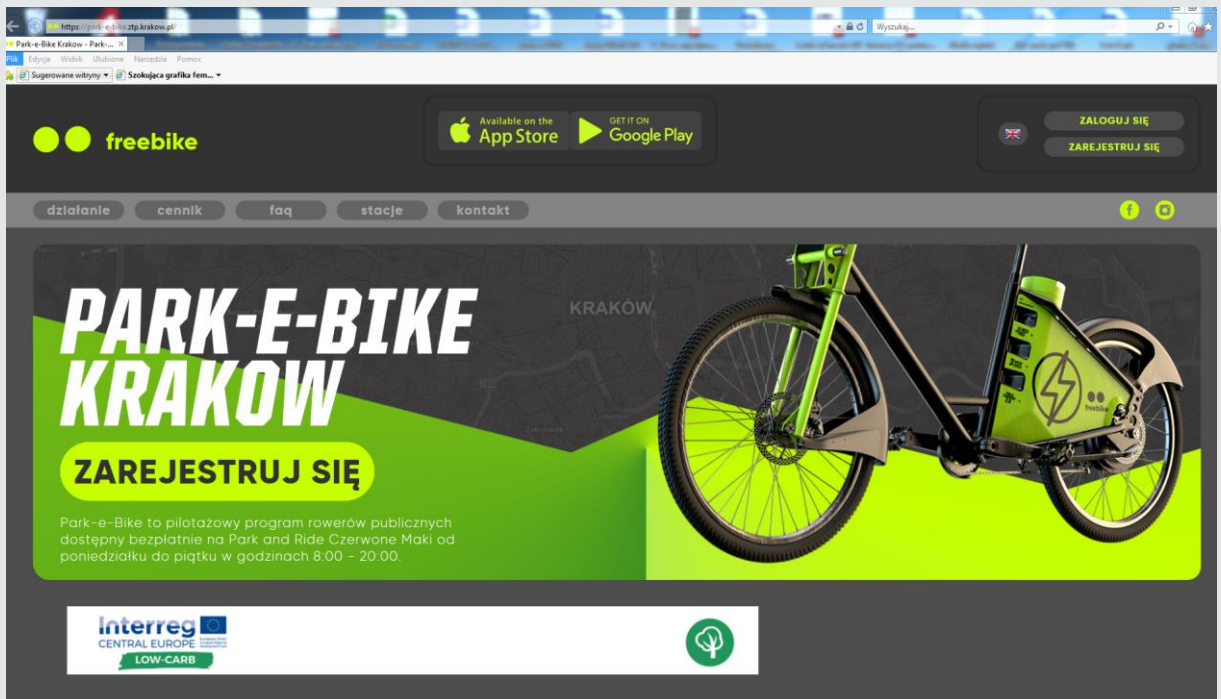
Pictures of e-bikes



Pictures of station of e-bike sharing system - Park -e-Bike



Pictures of implementation of traffic re-arrangement for the hub at Ogrodowa Street



- <https://park-e-bike.ztp.krakow.pl/> - website of e-bikes sharing system
- <http://ztp.krakow.pl/cargovelo/> - website of cargo e-bikes sharing system
- https://www.bip.krakow.pl/?sub_dok_id=135947 - link to the budget of Municipality of Krakow
- https://www.bip.krakow.pl/?dok_id=167&sub_dok_id=167&sub=uchwala&query=id%3D25337%26typ%3Du
the long-term financial forecast of the Municipality of Krakow