



## Check-In/Be-Out with Smartphone

### Reducing Accessibility Barriers in Public Transport

Public transportation is an important pillar for sustainable mobility. However, its usage is associated with great challenges for those who are non-local and for passengers with disabilities. Trips should be fast, uncomplicated and flexible, while having a transparent and easy ticketing process.

### CiBo for Mobile Ticketing

The ivanto Check-In/Be-Out (CiBo) solution turns smartphone apps into tickets and enables easy and contactless payment of travel fees. CiBo increases comfort for passengers and optimizes the operation of public transport companies by simplifying ticket purchases.

- The check-in is carried out through the ivanto app when the user enters the vehicle. The passenger accepts hereby the trip's corresponding terms and conditions.
- A valid travel certificate is issued by the SAM server in the background system and displayed as a ticket in the smartphone app.
- The trip ends automatically when the user leaves the public transport system. Transfers are also taken into account.
- The travelled route is then determined and mapped to the underlying fees. Billing is carried out digitally.

### Benefits for Mobility Providers and their Customers

With CiBo, transport companies increase the attractiveness of their services. They make it easier for potential passengers to switch to low-emission mobility and they become enablers for the new age of transportation. They also save costs on ticket vending machines and expand their ability to offer custom-made pricing. For passengers, Check-In/Be-Out means an end to waiting at ticket machines, wondering what ticket to buy. They simply check in and ride.

## Selected References

GeoMobile has been working on the development, piloting and evaluation of innovative, smartphone-based CiBo operations for mobile ticketing in various projects since 2015 and it supports the standardization of a technical solution for a uniform CiBo process in public transport.

### *Smart4You: Trip Manager for South Westphalia (2019 – 2020)*

In the Smart4You project, ivanto CiBo is used in conjunction with ivantoBeacons and various ivanto vehicle routers at the Ruhr-Lippe transport company in the Soest and Hochsauerlandkreis districts. The goal is to determine the exact traveling routes on public transport taken for free by guests of different retreats in the region with a digital benefits card.

### *Big Bird Westfalen: CiBo with Best Price (2018-2020)*

Big Bird Westphalia is a step taken in the push for the digitalisation of public transport and will be the first project in Germany to introduce a special electronic fee into regular operations. The ivanto Bluetooth infrastructure available in the region provides the necessary CiBo travel data through an API. The aim of the project is to provide digital mobility chains and ensure national compatibility.



### *CiBo Pilot for Public Transport (2017-2019)*

For this large-scale CiBo lighthouse project at a large German public transport company, over 1,000 subways, suburban trains, regional trains, buses and stops have been equipped with ivantoBeacons. The ivanto CiBo system determines the precise path of the travelled route and provides documentation of passenger presence in the vehicles. Passengers receive a valid travel ticket and are promptly informed about the price.

### *Pilot project: Big Bird Soest - CiBo Field Test (2015-2016)*

In cooperation with the Regionalverkehr Ruhr-Lippe (RLG) transport company, the district of Soest and Cubic Transportation Systems, GeoMobile successfully implemented the first large-scale field test for a CiBo system based on ivanto Bluetooth technology for the Big Bird Soest project.



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