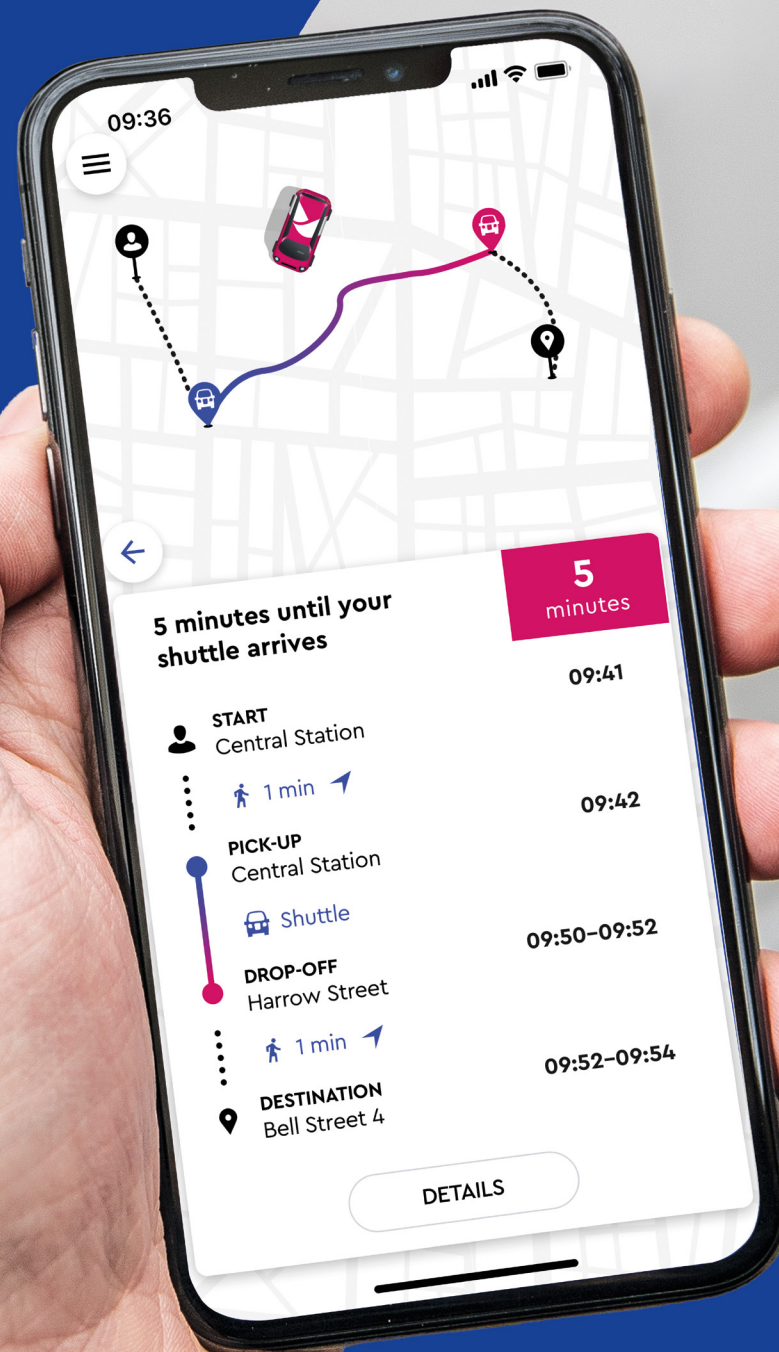# ioki
DIGITAL PUBLIC TRANSPORT

We shape
digital mobility.

www.ioki.com

Connecting places, moving people

Public transport in the 21st century is a digital, efficient, inclusive and climate-friendly mobility ecosystem. But for many people in Europe such kind of local transport is just wishful thinking. In 2021, this was shown and verified by our research on public mobility in Germany, according to which over 55 million people do not have access to attractive local transport services. The Corona pandemic, changing mobility behaviour and rising energy prices have unbalanced the ecosystem even further.

With our smart and climate-friendly mobility solutions, we lay the foundation for future-oriented and future-proofed mobility that already supports autonomous driving today and is able to address these challenges. Our holistic, data-driven Software-as-a-Service approach is the pivotal element of our work, which we implement in cooperation and co-creation with our customers.

This makes mobility and especially public transport accessible to everyone, anytime, anywhere – flexible, customer-centred and economically and ecologically sustainable.

Our vision:
"We connect people and shape the future of autonomous and digital public transport."

Michael Barillère-Scholz
CEO ioki

We are ioki

Your partner for digital public transport

ioki is one of the leading European companies for digital mobility and the European market leader for autonomous driving in public transport. Our on-demand platform is used in more than 70 projects across Europe as the key to succeed the mobility transition. Since 2017, companies, cities and municipalities have relied on ioki's expertise to optimise and digitalise transport systems. As technology provider, we develop solutions that are fully integrated into the existing public transport system, carry out detailed mobility analyses for a data-based planning of demand-driven services and develop user-friendly platforms. As a subsidiary of Deutsche Bahn, we focus on public transport as a whole – climate-friendly and comfortable mobility on rail and road.

Our Mission:

"Our approach to mobility is holistic and data-based. With our mobility analyses, traffic planning and our operating system for digital mobility we accompany mobility providers in the successful implementation of the mobility transition. Our ecological and economically efficient solutions for a strong public transport make us the market leader in Europe."

Why choose ioki?

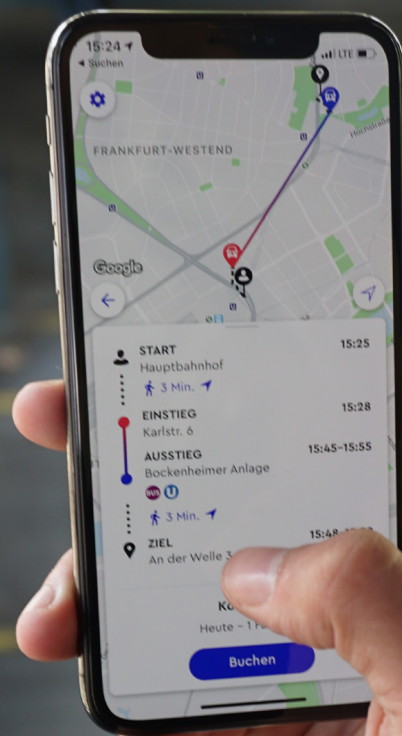Mobility solutions developed by the industry for the industry

Digital mobility solutions from Europe for Europe

Data-based approach thanks to agile transport planning

Demand-driven solutions that meet actual mobility needs

Efficient integration into existing systems

Short planning and implementation cycles and on the road in twelve weeks

We are ioki

Data-driven, efficient, on-demand

We design mobility from the perspective of its users: Local transport services must be flexible and have to cover the distance from door to door - from the village to the city, from the sofa to your gym or from the office to dinner with friends. On-demand services can provide an attractive, safe and flexible public transport, especially in off-peak hours and in the evening and during night, when public transport is scarcely available. Our entire product portfolio is developed and programmed in-house and can be individually and flexibly adapted to the various requirements of different transport services. With our white label approach, we provide the software, but you and your design will still be the face to your customers.

A holistic toolset for public transport authorities, transport companies and transport associations to optimise mobility.

With in-depth mobility analyses and simulations, we create a unique, data-based foundation.

We bring your individual mobility offer on the road within twelve weeks with our platform.

Together with you, we digitise your transport offer and expand it with innovative transport services.

Everything from a single source: from the identification of potential savings and gaps in services to the planning of new service concepts and the implementation of digital mobility solutions via the operating system.

"

From the big picture to detailed planning

Mobility Analytics & Consulting

Analyse, design, simulate – this is our contribution to the mobility transition. With the help of data-based studies, we create a well-founded map of the current mobility and supply situation in your region for you and derive a sensible target state based on this.

Who moves where and when? And with which form of mobility?

How can I optimise my service in economic terms?

How efficient is my current service and how well does it meet existing mobility needs?

Which area is best suited for integrating on-demand solutions?

How can I optimise my service in ecological terms?

Which measures encourage a modal split that benefits local public transport?

Mobility transition – digital and data-based

The result is a blueprint for the ideal mobility mix that is tailored to your region and takes into account all modes of transport – whether it is the optimisation of existing public transport services, the addition of car-sharing or micro-mobility services or the introduction of an integrated on-demand system. Jointly we will create an efficient transport system and strengthen the importance of public transport in this system in a targeted manner.

Mobility Analytics

Three steps to a new mobility offer

Mobility analysis

An initial mobility analysis sets the foundation for a successful optimisation of the operation, reveals the actual mobility needs of the population and provides information about possible deficits in the current public transport offer.

Offer conception

As part of the service concept, various options for the further development of the service are examined – from rail connections through on-demand shuttles and optimised scheduled services to bike and car sharing services.

Operational simulation

We digitally map your entire service in advance along your individually selected operating parametres: from fleet size to vehicle size and service area boundaries to expected customer behaviour.

Our experienced Mobility Analytics team will find the right answer to any of your questions

Our interdisciplinary Mobility Analytics team combines transport planning expertise with methodological and technical know-how from the disciplines of transport planning, engineering, mathematics, computer science and data analysis.

Scan QR code
and learn more

Mobility Analytics
References

Whether mobility simulation in your region or a potential analysis of new local transport services – the Mobility Analytics and Consulting team has so far analysed, designed and simulated over 80 projects at national and international level, for both line-based and on-demand services, in the city and in rural areas.
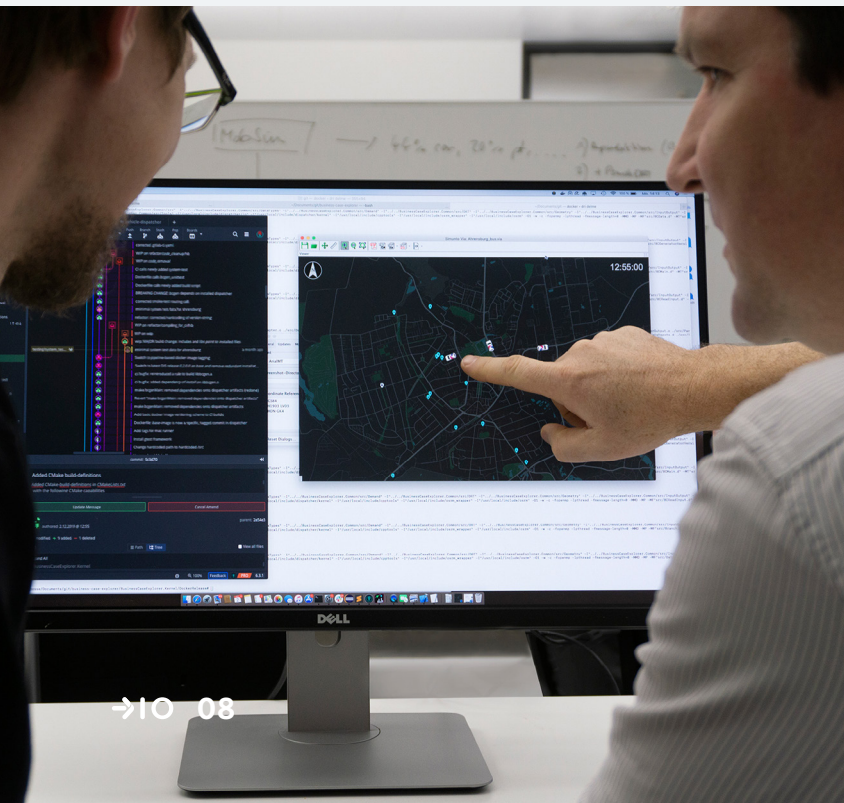
From mobility analysis to on-demand service on the outskirts of Hamburg
Since 2018, the multi-award-winning on-demand transport service ioki Hamburg has been one of the showcase projects for demand-responsive local transport. ioki's Mobility Analytics team simulated the transport demand in the study area and identified potential service areas, followed by an operational simulation of an on-demand service.
The areas with the highest potential (Osdorf and Lurup) are continuously analysed and optimised as a supplement to and improvement of the existing public transport service by on-demand transport.

Continuous optimisation of services in running operation for the district of Offenbach
Agile transport planning can help in the running on-demand operation to adapt the offer even better to the actual demand. Based on the historical booking data of the on-demand offer of the kvgOF hopper, attractive public transport alternatives to each trip were analysed and the service was continuously integrated more deeply in the existing public transport system.

Deutsche Bahn mobility hub in Stuttgart-Vaihingen
Mobility hubs are regarded as an important building block for the mobility transition. They enable a seamless link between traditional and public transport modes, such as Park+Ride, bike sharing or on-demand services. Based on a network analysis, Stuttgart-Vaihingen was identified as a suitable location for the environmentally friendly offer and the dimensioning was planned according to traffic demand. The Mobility Hub is a pilot project by Smart City | DB, DB BahnPark and the S-Bahn Stuttgart.

"The hvv supports all forms of mobility which make it easier to move without one's own car. On-demand transport plays an important role in this. ioki has done real pioneering work here in the hvv area and is was deservedly awarded with the German Transport Turnaround Award."

Dietrich Hartmann
Managing Director of the hvv
Hamburg Public Transport Association

Your platform for an optimal mobility solution
# Operating system for digital mobility

With ioki's operating system for digital mobility, all forms of transport can be optimised and digitalised across all modes of transport in a multimodal way. ioki provides a platform that enables the integration of need-based forms of mobility into existing public transport and new systems.

Overall, the operating system consists of three individual applications that interact smoothly with each other and together represent a complete mobility ecosystem – for both driver-based and autonomous transport.

Scan QR code and learn more

Control centre
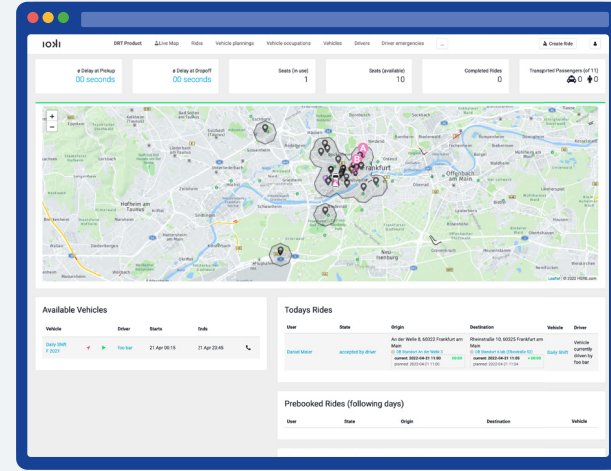
Via the control centre, the operator can control the entire disposition, monitor the ongoing operations and intervene at short notice if necessary.

Functions:

• Establishment and planning of the complete traffic
• Live observation of the operation
• Fleet management and customer communication
• Features especially adapted to public transport
• Flexible booking options

Passenger app
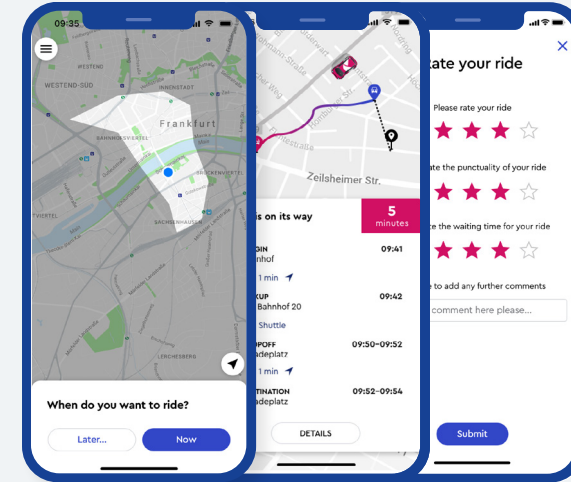
From booking, payment to trip evaluation, the passenger app bundles all communication with the passenger, barrier-free and as a white label solution in your design.

Functions:

• Travel information and public transport integration
• Accessible use of the app
• Individualisable configuration: pricing, payment systems, number of passengers, luggage
• The passenger app in your brand design
• Multimodal ride information
• Pre-booking function

Vehicle app
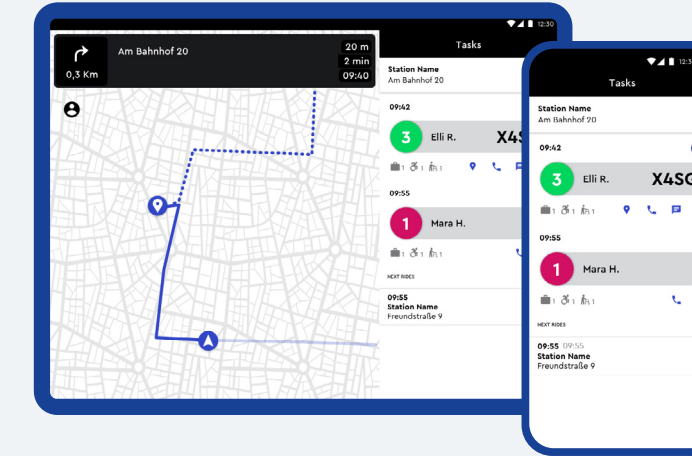
All information important for the journey can be transmitted directly to the driving personnel or the autonomous vehicle via the vehicle app.

Functions:

• Flexible hardware opportunities
• Customer orientated design
• Automation of processes
• Integrated navigation

Our operating system is ready for autonomous mobility

Whether with driving personnel, as hybrid service with mixed fleets or fully autonomous – our on-demand platform can connect all forms of transport for autonomous and on-demand driving in public transport. This allows, for example, transport companies with already running on-demand services to integrate autonomous vehicles into their existing service at any time.

In autonomous operation, some of the omitted responsibilities are carried out directly via the automated vehicle if required: for example, new bookings and travel orders are dynamically planned by the ioki platform and transmitted to the vehicle. The vehicle processes the ride requests independently and chronologically.

References

Demand-oriented, sustainable, efficient: With digital mobility offers, you can strengthen public transport in your region – from big cities to conurbations to rural areas. Whether for connecting the first and last mile, as a shuttle service in outlying areas and times or as a benefit for your employees: our versatile, future-proof mobility concept moves – for everyone, anytime and everywhere.

NAH.SHUTTLE
Integrated on-demand service offer for Schleswig-Holstein

Since 2021, citizens in Schleswig-Holstein have been able to travel flexibly with „remo" in the Rendsburg region and the „Smartes DorfSHUTT-LE" in the Süderbrarup district. NAH.SH thus offers an on-demand service integrated into public transport, which is also integrated into the tariff in terms of price.

PubliCar
Optimisation and digitalisation of existing dial-a-bus systems in Switzerland

The already heavily used dial-buses were fully digitised and optimised with the help of the ioki software. As a result, the now digitised dial-buses, which operate without a fixed timetable or route, are also bookable via app since mid-2020.
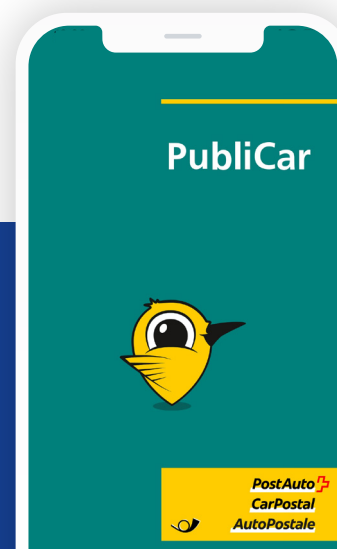
RMV On-Demand
Europe-wide unique on-demand project in the Rhine-Main public transport network

Since 2021, RMV has been gradually introducing shuttle services for the „first and last mile" to public transport stops throughout its network. The flexible and emission-free shuttles are integrated into the RMV-tariff. In the long term, up to 1.8 million people in the region will benefit from the new services.
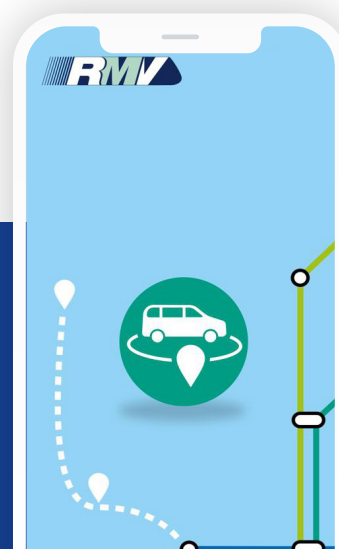
API

Programming interface ioki operating system

Do you already have a mobility app and want to extend it with an on-demand offering? We provide various APIs and webhooks to enable integrations of all kinds. As with our operating system, we are also pursuing the overarching goal of making mobility usable for all people with the specially developed ioki platform API.

API components and documentation

The new interface enables us and our partners to develop various use cases. Our journey offers should not only be displayed in other apps. The goal is to achieve deep integration and thus enable a holistic mobility offer. Through deep integration, end customers can immediately book all offers in the mobility app they are familiar with – with the ioki system running in the background.

Passenger API
For the development of fully functional DRT passenger clients.

Platform API
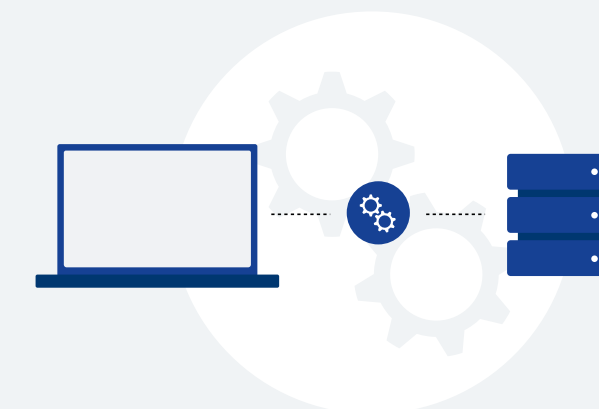Interface for full integration with third party backends.

Driver API
Provides all elements to write a driver client.

Webhooks
Information about events taking place in the ioki ecosystem.

Software integration in practice

In 2021, ioki set a milestone with the first deep integration of the ioki software into the Mobimeo MaaS app. Here, on-demand rides can be booked directly in the Mobimeo app.

Scan QR code and learn more

Autonomous
Pioneer for autonomous driving in public transport

ioki has established itself as a pioneer in the field of autonomous driving and has set milestones for the German market – from test operations on closed terrain to the first autonomous vehicle in road-bound public transport and the first linking of an on-demand booking system with autonomously driving vehicles. Together with strong partners, we continue to work on bringing autonomous public transport onto the road. For a networked, digital and above all modern public transport system – in Germany and in Europe.

2017 — **First self-driving public bus on German roads**
The project is considered a flagship project for the future of public transport in rural areas

2018 — **Trial to link autonomous shuttles and on-demand booking**
As part of a pilot project by BVG, a self-driving minibus can also be ordered individually via app for the first time on the EUREF campus

2019 — **First highly automated minibus on the public roads of a major German city**
In the Berlin research project „See-Meile", findings are collected regarding user acceptance of autonomous shuttles in public transport in the city

2020 — **Project extension and station connection of the first autonomous public transport bus**
From now on, driverless shuttle buses will connect the railway station with the centre of Bad Birnbach, about two kilometres away, via a country road

2021 — **First combination of autonomous shuttles and on-demand software**
As part of the EVA-Shuttle research project, autonomous, emission-free minibuses take passengers from A to B on demand – and in regular road traffic too

2022 — **Strategic partnership between DB and Mobileye**
The strategic partnership strengthens digital and sustainable mobility on the road – with ioki's operating system

"For end customers, autonomous ridepooling in public transport will be more attractive than an autonomous car."

Michael Barillère-Scholz
CEO ioki

ioki

DIGITAL PUBLIC TRANSPORT

Deutscher
Verkehrswendepreis

Winner
of German
Mobility Award
2019

ollio 2019

BEST OF 2021
mobility

ISO
27001:2017
certified

Design your digital public transport solution together with us.

We look forward to hearing from you!   ➡   E-mail: sales@ioki.com