

10 years of Connected Biking at Bosch eBike Systems

July 2024

Connectivity makes eBiking more customised, convenient and secure

- ▶ Back in 2014, Bosch eBike Systems focussed on Connected Biking - which became the new standard for eBikes
- ▶ Development milestone: launch of the smart system
- ▶ Digital functions have been making eBiking more customised, convenient and secure ever since
- ▶ Ever new functions in the areas of theft protection, navigation, personalisation as well as updates and service improve the eBike experience

Stuttgart/Reutlingen – Over the past decade, eBiking has become an integral part of mobility. In some European countries such as Germany and the Netherlands, every second bike sold is already an eBike – and the trend is upwards. Since its introduction, the eBike has undergone numerous stages of development – and has evolved into a fully connected product over the past ten years.

Ten years ago, Bosch eBike Systems laid the foundations for the dawn of the eBike future. Since 2014, Connected Biking has stood for the further development of eBiking with a continuous stream of new features and complements the physical experience with the world of digital life. With Nyon, Bosch launched the first connected, all-in-one on-board computer in the bicycle industry onto the market. Together with an online portal and a phone app, it combined an eBike control unit, navigation system, fitness trainer and access to the online world in a single device. The next important step towards the digitalisation of eBikes soon followed. With the acquisition of COBI.Bike, Bosch eBike Systems expanded its product and expertise portfolio to include phone-based solutions for the first time in 2017. Further innovations such as the Kiox display (2019) and the first integration of an anti-theft protection feature (2019) soon followed.

Smart system milestone: the eBike Flow app as a digital assistant

A particularly important milestone in this development and the start of a new, connected eBiking future was the launch of the smart system in 2021. With this system generation from Bosch eBike Systems, all components – such as the drive unit, battery, display and phone – are fully connected, can communicate with one another and exchange data. Since then, eBike riders have been offered an intuitive and convenient eBike experience with a wealth of new options. The centrepiece is the eBike Flow app, which is trusted by more than one million eBikers worldwide, with an average app store rating of 4.3 out of 5 stars. It enables access to additional digital functions, personal settings, analysis and display of riding data, navigation, updates and much more. The eBike makes everyday life and leisure activities easier. Bosch is continuously improving the smart system with ongoing updates and new functions in the four areas of theft protection, navigation, personalisation and update & service.

Additional theft protection: parking the eBike with complete confidence

Whether a quick stop at a café or an extended break on a sporty tour: anyone parking their eBike for a brief or lengthy period of time wants to do so with peace of mind. The digital [theft protection functions](#) of the smart system offer additional security and are the ideal complement to the mechanical lock. Thanks to the “eBike Lock”, the phone or display becomes a digital key that prevents the motor support from being enabled. The “eBike Alarm” function shows the current location and status of the eBike. In the event of attempted theft, the eBike emits an audible and visual alarm and sends a notification to the phone. If the eBike nevertheless does get stolen, automatic tracking starts – including location tracing for the police.

To explore means to experience: next-generation navigation features

So that every kilometre becomes an experience, the smart system offers [route planning, navigation and activity tracking](#) via the Flow app. Tours can be planned with maximum freedom and efficiency before setting off. The AI-based “Range Control” feature helps out here. When eBikers put together a route in the eBike Flow app, it immediately shows them what percentage of battery power is likely to remain when they reach their destination. To rule out every last worry about range during the journey, it’s even possible to set the desired minimum battery level at destination and the smart system takes care of the rest. Other AI-based functions recognise user behaviour, learn from previous journeys and can offer customised routes with a precisely calculated arrival time. Routes planned in advance with komoot can also be automatically imported. During the ride, clear display of the route and precise turn-by-turn directions ensure a modern navigation experience – whether using a display, phone on the handlebar or via voice-based navigation. If desired, all important data such as speed, battery

level, elevation graph or (in conjunction with a heart rate monitor), the current heart rate can be viewed at all times. Thanks to Activity Tracking, all tour and performance data is recorded – synchronised with Strava or Apple Health if desired – and can be analysed, exported as a GPX file or in FIT format and shared with the user's community after the ride.

Personalisation: adapting the eBike to individual preferences

Whether City eBike, Trekking eBike or eMTB: eBikes are as diverse as the requirements of eBikers are varied. The topic of [personalisation](#) is therefore becoming increasingly important. The eBike is increasingly adapting to individual lifestyles – fully in keeping with personal use habits. Thanks to the connectivity of the individual components, the eBike can be customised to the rider's needs via the eBike Flow app. The display screen layout, for example, can be customised with over 30 different options and shows the information relevant to the current riding situation and route. The riding modes can also be customised to suit personal preferences: dynamic on the trail, energy-saving on tour or relaxed in city traffic.

Update and service: the eBike always keeps up with the times

With [updates](#), improvements and new features are continuously being introduced in the smart system. This means that the eBike remains up to date and always feels like new. Here again, a great deal has changed in the ten years since the beginnings of Connected Biking. Whereas the specialist dealer used to install the latest version, updates simply take place over-the-air via the eBike Flow app. Particularly clever: the eBike Flow app also serves as a digital service booklet.

Outlook: connected eBikes will be the standard in the future

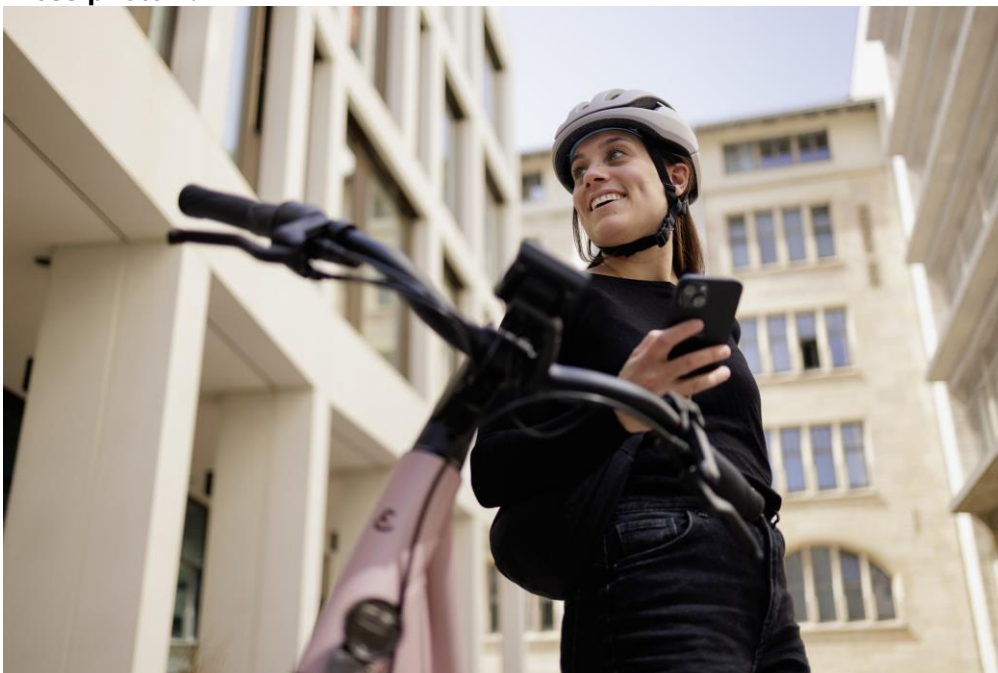
The future of the eBike will be characterised by additional digital functions and even more customisation options that can be installed via software updates. Non-connected eBikes will be the exception in the future – the topic of Connected Biking will therefore continue to play a central role for Bosch eBikes Systems in the coming years. In addition to greater flexibility and extra functions, eBike connectivity is also playing a decisive role on the road to the mobility of tomorrow. It forms the basis for networked communication between eBikes and the relevant infrastructure, such as bicycle traffic lights or other road users and providers of smart services, as is being discussed by science, industry and politics in the Smart City context of the Bike2X concept.

Press photo 1:



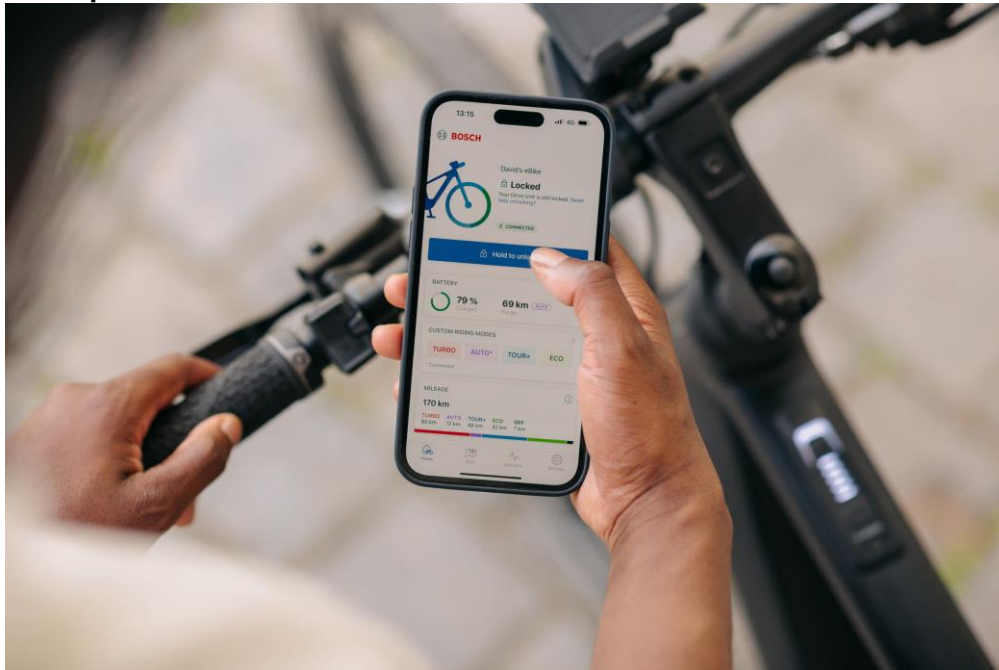
For more riding fun, convenience and personalisation: Bosch launched Connected Biking back in 2014, which became the new standard for eBikes.

Press photo 2:



In the smart system introduced in 2021, the mobile phone, in conjunction with the eBike Flow app, becomes the centrepiece and provides access to numerous additional digital functions.

Press photo 3:



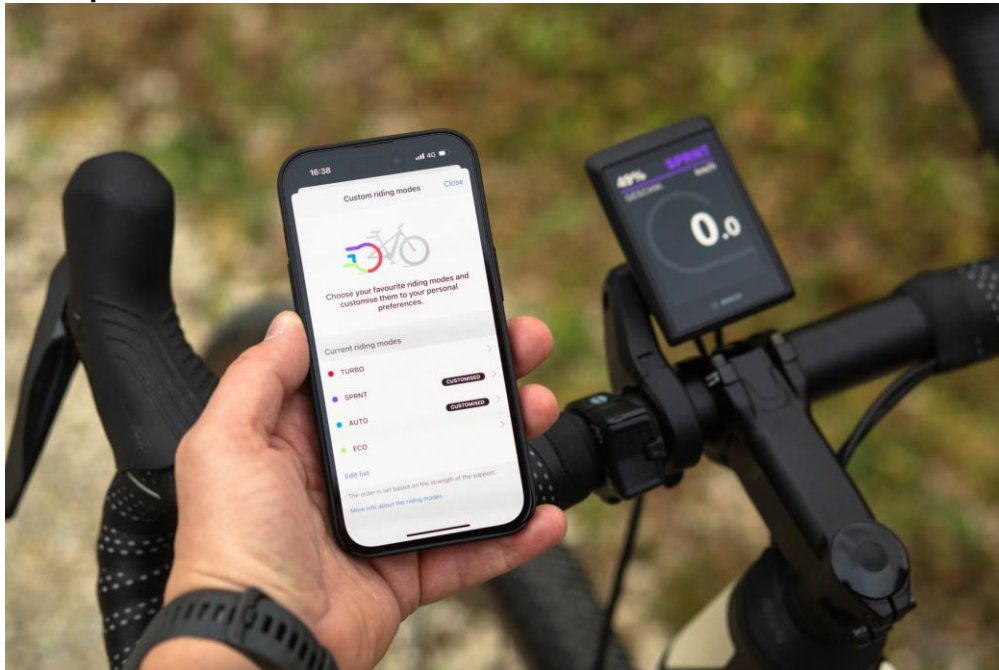
The digital smart system theft protection functions offer additional security and are the ideal complement to the mechanical lock.

Press photo 4:



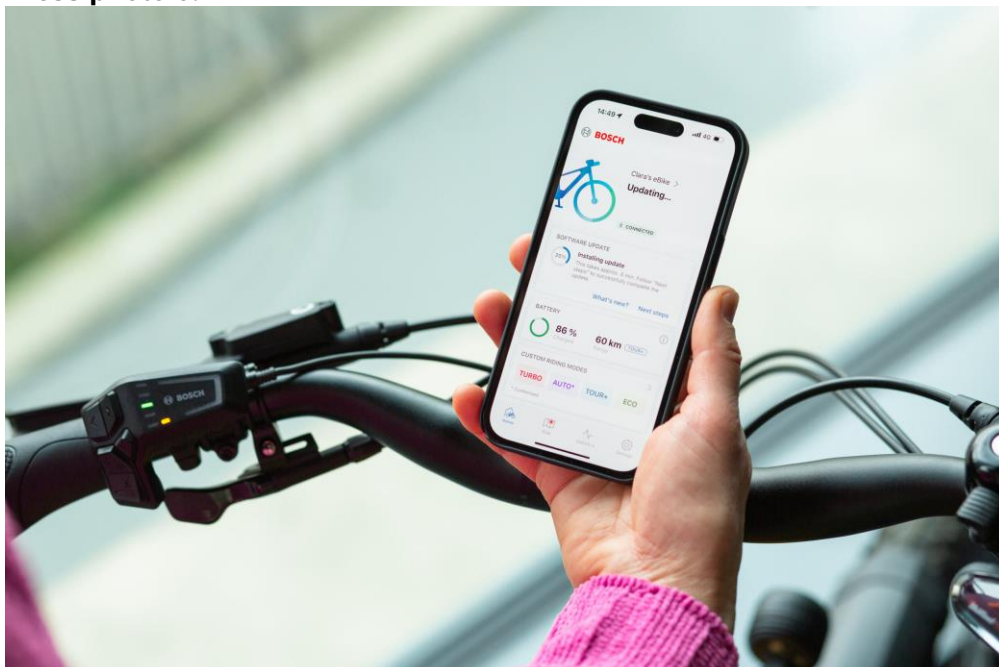
The smart system enables route planning, navigation and activity tracking via the eBike Flow app. A phone, for example, can become a navigation device with the SmartphoneGrip.

Press photo 5:



Thanks to the connectivity of the components, the eBike can be customised to the rider's own needs using the eBike Flow app – for example with individually adapted riding modes.

Press photo 6:



New features are continuously being introduced through updates to the smart system. They are simply transmitted over-the-air from the eBike Flow app to the eBike.

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Bosch eBike Systems is shaping the future of eBike mobility with innovative products and digital services ranging from highly efficient drive systems and the first series-ready ABS for eBikes to connected biking solutions. On daily routes through the city, on enjoyable tours through the countryside or for sporty adventures in the mountains: Bosch eBike Systems offers eBikers the right drive system (drive unit, battery, display and app) for every requirement and every area of use, which ensures a unique riding experience. Today, more than 100 of the world's leading bicycle brands trust in the perfectly coordinated, modular product portfolio. As an independent business unit within the Bosch Group, Bosch eBike Systems also uses the group's technology and manufacturing know-how. For healthy, safe and sustainable mobility that is fun.

For more information please visit www.bosch-ebike.com

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