

# Ride your eWorld

Bosch eBike Systems 2015



**BOSCH**  
Invented for life

# Mobility Connects

## Welcome to the Bosch eBike World

Getting from A to B – two letters with deep meaning for each of us. For centuries we longed for mobility. And the bicycle has played a key role in this. Today the eBike has become the new symbol of individual mobility: It represents freedom and independence, shrinks distances and mountains in front of us, and makes our goals attainable.

We at Bosch eBike Systems have set for ourselves the goal of creating an eBike world which supplies mobility to every individual. Regardless of whether you want to be active or just relax, or to be on the go with the eBike in everyday life or in your spare time. A world that is closely connected to the living reality of eBikers. A world where their needs are the focus.

We have dedicated ourselves to this idea. It drives us and is the key to new products and innovations such as Nyon, the on-board computer which is directly linked to the Bosch eBike World, providing support for a completely new way of planning, riding, and evaluating.

Mobility connects: Your eBike and you. You and others. All of us, always and everywhere in the world. This is precisely what this magazine is talking about. Let yourself be surprised.

Tamara Winograd  
Marketing Communications  
Bosch eBike Systems

**FietsVAK**  
January/February 2015  
Amsterdam, the Netherlands

**Interbike 2014**  
September 2014  
Las Vegas, USA

**f.re.e**  
February 2015  
Munich, Germany

**Sea Otter Classic**  
April 2015  
Monterey, USA

**Velo Berlin**  
March 2015  
Berlin, Germany

**Bike Days**  
May 2015  
Solothurn, Switzerland

**Rad am Ring**  
June/July 2015  
Nürburgring, Germany

**Eurobike**  
August 2015  
Friedrichshafen, Germany

**ExpoBici**  
September 2015  
Padova, Italy

**Best of Bike**  
September 2015  
Salzburg, Austria

**Interbike**  
September 2015  
Las Vegas, USA

# Bosch eBike Systems 2015

Riding sensation. Range. Ergonomics. Design. The Bosch drive system systematically makes what is important to you for eBiking a reality. The three components Drive Unit, battery, and on-board computer are perfectly matched and give you a unique eBike experience – epowered by Bosch.



reddot design award

## Performance Line



### Intuvia

With the on-board computer Intuvia, you control your eBike experience easily and intuitively. Now also with shift recommendation.



### Nyon

The first all-in-one eBike on-board computer – from tour planning to the evaluation of your performance. Networked with the online portal and smartphone app.



### PowerPack

The rechargeable batteries are available with either 300 Wh or 400 Wh, as frame battery or rack battery with 400 Wh.



### Drive Unit

The Drive Unit of the Performance Line is available with a top speed of 25 km/h or 45 km/h in cool Anthracite or as a stylish Drive Unit Performance CX (25 km/h).

## Active Line



### Intuvia

With the on-board computer Intuvia, you control your eBike experience easily and intuitively. Now also with shift recommendation.



### PowerPack

The rechargeable batteries are available with either 300 Wh or 400 Wh, as frame or rack battery.



### Drive Unit

The Drive Unit of the Active Cruise gives you a unique, natural, and relaxed riding experience up to 25 km/h. Optionally with backpedal function. Design in Platinum and now also in Black.

## For Performance Line and Active Line



### Charger

In addition to the Charger, there is now also the Charger Adapter for Classic+ batteries and the Travel Charger for when you are on the go.

### eShift

New: the integrated shifting solution for more comfortable riding.

# “I’m betting on a boom”

**World champion Stefan Schlie about his experiences with the mountain eBike**

**Stefan Schlie is the trial pro in our interactive film. In the Leogang Bike Park, the two-time world champion rode up the North Shore for us. His eBike: a full-suspension bike equipped with the Performance Line Cruise. Here he reveals what it was like, and what eBiking with a mountain bike offers for new opportunities.**

**Stefan, you had the chance to take the eBike to its limit for four days. What would you say makes eBiking so special?**

What is special about eBiking is very clear to me: the fact that you have a new flow definition, because you feel speed uphill. And this eFlow cannot be achieved with another bike.

**Is it also easier to ride on difficult trails with this eFlow?**

Yes, difficult trail riding is definitely easier, because you do not come into critical sections with a pulse of 185. That is, you take on such trails with the eFlow in the first place because you know that you can do it. That is a kind of extension of territory, and I think that’s cool.

**The flow, the speed is one thing. But is there something with eBiking with the mountain bike that has changed technically?**

Sure, it is easier to ride, but what you need less in terms of focus is used for concentration and coordination. Pedal management is the catchphrase. You need to be careful when sections with roots or blocked sections come. It is necessary to adjust your moves to enter such situations in a controlled manner. Another challenge is to transmit the uniformity of the drive as seamlessly as possible to the ground. You can take advantage of the system by riding with the rear brake slightly applied,



for example. This is especially important when riding uphill with blocked, hairpin bend situations, in order to be moving forward without power peaks, but with maximum traction.

**Uphill is thus an important issue for you for coordination. How do you see eBiking when riding downhill?**

The great advantage of the eBike is that you can ride up and still have reserves for riding back down again. It can’t get any better than that. You just have to be ready for a few factors of inertia while riding downhill, but they are easy to bear due to the great trail situation. In the film you can see that even hairpin moves are possible with the eBike despite the extra weight. And for those who want to maximize their daily flow, the eBike puts you way ahead of the game.

**So would you say that the eBike is fun, also in the sense of athletic fun?**

Absolutely! The eBike is often associated with age. But it is very much the case that the e-factor allows you to do things that were previously not possible or not accomplished very well. For example, you can ride over wet roots as if they were nothing. Or ride on extreme inclines, which is then also tiring, but not impossible. eBiking on trails is simply something new. A separate sport. A real sport!

**eBiking as a separate sport sounds good. What do you think about how mountain bikers can now use the eBike as a training tool?**

I see a variety of possibilities here. One is technique training, which is easier with the eBike, because higher cadences can also be trained under the lactate threshold and playfully. The second is the training of basics: Instead of first riding in the peloton on the flat, you can use the eBike to immediately go into the mountains and ride uphill in turbo mode. That would otherwise be impossible. And that makes the eBike a great extension.

**You can recommend eBiking?**

Honestly, yes. eBiking is a tremendous amount of fun for me, and I’m sure that it will become widely established. The “virus” travels quickly. The eBike will soon take its place in the garage beside the road bike, the enduro, and the hardtail. I’m betting on a boom in any case.



## The Performance Line More power per mile

The Bosch Performance Line offers special dynamics for the eBike with the Drive Unit Cruise (25 km/h) or Speed (45 km/h) and, optionally, the Nyon or Intuvia on-board computer.



**Stefan Schlie** (41) accomplished becoming a team world champion twice and a German champion three times. He was the first to ride a bicycle down the Zugspitze, Germany’s highest mountain. And when he’s not sitting on his trial bike, he is probably using his cyclo-cross or freeride bike, and most recently his eBike.

Stefan Schlie rides the Performance Line Cruise (25 km/h) with a 400 Wh frame battery and Intuvia.



# The Film about the Bike

Bosch sponsors the world's first interactive eMTB race



**“The trend towards mountain eBikes will continue”**

**Leogang Bike Park, June 21, 2014, 5 a.m.**

**Fog still lies high above the valley. But the four men standing next to their mountain eBikes cracking jokes will soon be leaving this behind. In a moment the filming of the world's first interactive eMTB race will start – and it of course starts uphill. On eBikes with drive systems from Bosch.**

The idea for the film was obvious for project manager Christina Pfandke: “Anyone riding on the mountain with a drive system from Bosch experiences mountain biking from a new perspective: more speed, more power, more possibilities.” No mountain seems too steep, no trail unreachable. The four riders of the “Uphill Flow” project want to take the Internet users on their journey and allow them to share their experiences – from the perspective of their choice. For this the participants are filmed separately, and the videos are assembled into an interactive race. The user can then decide for himself with whom he will enter the race.

The Leogang participants include trial pro Stefan Schlie, downhill champ Marcus Klausmann, and Christoph Schumacher and Jonathan Sweet from Bosch eBike Systems. The four discuss their start sequences, then the race starts.

Stefan takes the North Shore uphill for us. Then he continues on steep singletrack trails through alpine terrain to the summit. At the same time, Marcus rides to the top on forest paths with the Bosch experts. Also fast, but relaxed enough to also be able to enjoy this fantastic Alpine panorama in the now bright sunshine.



The interactive eMTB film is available for immediate viewing at [www.bosch-ebike.com](http://www.bosch-ebike.com)

“Uphill is really fun,” says Stefan at lunch. “You can try things with the eBike that were otherwise impossible.” Marcus nods in agreement: “The bicycles are really well thought out. You ride relaxed and have even more of the flow of mountain bikes. It is a true sport.” How right he is becomes clear on the next day of shooting, when the eBikes are taken downhill.

Now it is Marcus's turn, who rides the downhill route alone. He was the German champion in this discipline 15 times, and today he takes the eMTB to the limit. Whether along the river, on the freeride course, or on the singletrack trails: There are spectacular sections everywhere. Even the pros are thrilled when they see the first images during breaks in the shooting. “I was surprised at how nimble the eBike is to ride,” says Marcus in the evening. Back at the start, the atmosphere is great and the riders pat each other on the back. “The trip was really special,” says Stefan. And Marcus declares: “The trend towards mountain eBikes will continue. Definitely.”

# “The missing link in my mobility chain”

Recreational cyclist Barbara Ebner get's into eBikes – and reports on her experience



**Barbara Ebner** (28) is an ambitious recreational athlete. In addition to running, biking is an integral part of her leisure time. The bicycle also accompanies her in everyday life: She commutes more than 35 km to work daily.

Barbara Ebner rides the Active Line Cruise (25 km/h) with a 300 Wh frame battery and Intuvia.



“Say, how old are you ...?!” – Such questions are not uncommon when you tell friends and family that you are now riding an eBike. And as an ambitious recreational athlete in her late 20s ... for many people, that does not fit together. What I always ask: Why are such stereotypes still held? A few years ago I would have been more likely to understand such reactions. But today? The eBike has long since become a common sight on our streets. And for me personally it was a missing link in my mobility chain.

I not only take care of everyday shopping with it but also use it to commute to work from time to time. I enjoy riding the 18 km to wake up in the morning, especially in the summer. Bright sunshine, fresh morning air, cheerful birdsong – for me the best alternative to constantly sitting in traffic. And in the evening? Then I really relax and let the day “roll away” in the truest sense of the word. It may be that I allow myself to be supported at the beginning of the trip in Turbo mode, but after ten minutes at the latest I then have my athletic ambition again, and I switch to Eco mode. I get something out of all five riding modes: Eco and Tour are great for easy gliding on straightaways, while in Sport or Turbo mode, hilly stretches seem to always go downhill.

Using the on-board computer Intuvia, the system recommends to me when I should switch to a higher or lower gear to get even more performance and battery life. With this usage profile, a full battery charge takes me to work and back home twice.

At home I park my eBike in the garage, but I usually take the empty battery with me into the house. You can remove it easily and connect it to any standard household power outlet. A full charging cycle takes approximately two and a half hours. I usually charge my battery overnight so I'm prepared again for the next trip the following morning.

At the office I park the bike locked to a public bike rack. Thieves have no chance, because the on-board computer and battery can be easily removed from the bike and taken into the office. I can still remember the feeling I had



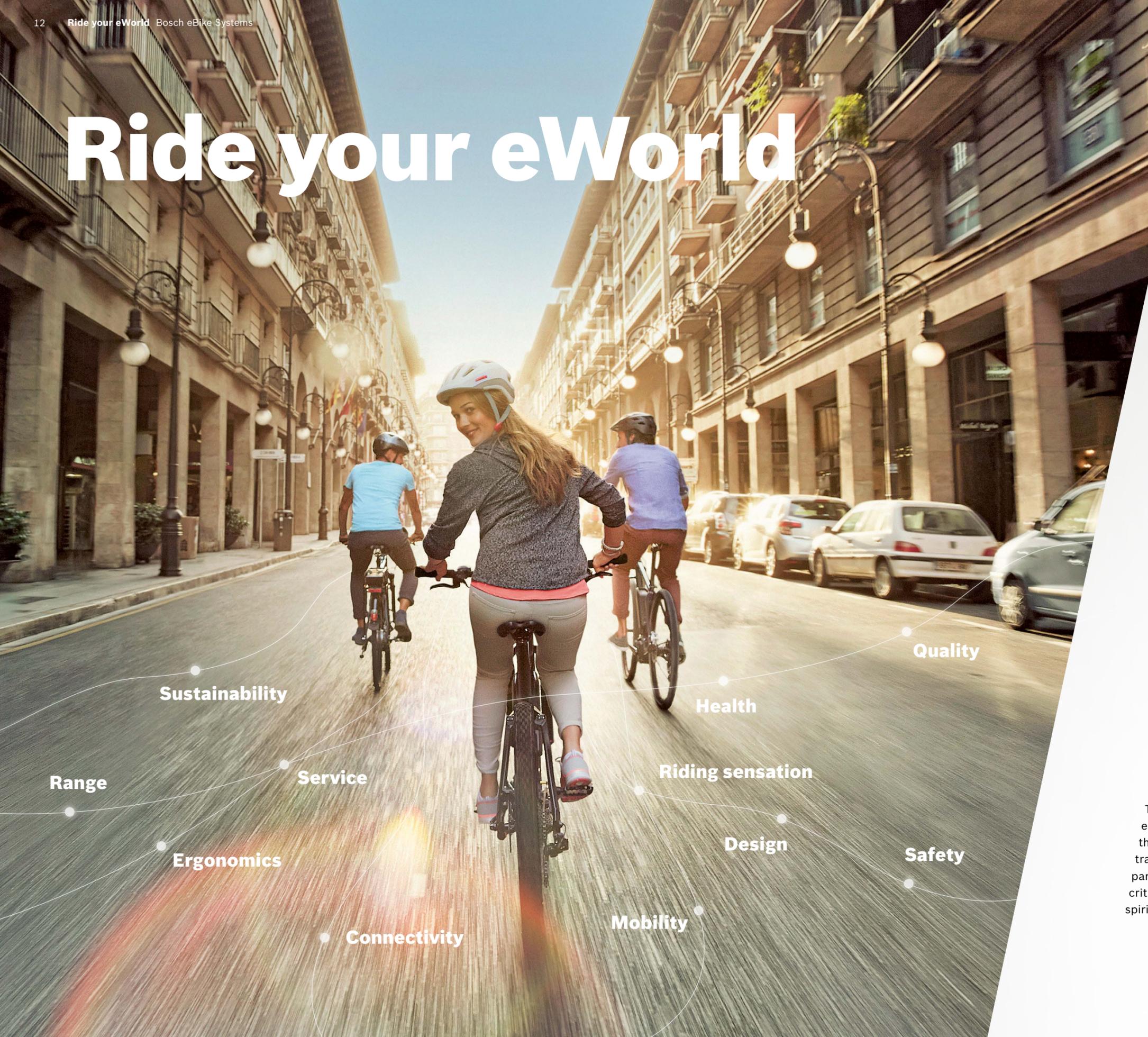
## The Active Line More possibilities per mile

The Bosch Active Line is ideal for city and touring eBikes: The drive system supports the rider with up to 25 km/h and ensures a relaxed riding experience – also with back-pedal function if desired.

when an eBike rider passed me on a hill. “I'm at least getting exercise!”, I usually said to myself then – although I secretly would have preferred to ride such a bike. Today I must admit that I smile to myself when I'm the one passing others. My “normal” mountain bike is now in the second row, but I still like to roll it out of the garage. Not just for old times sake, but also because I'm still looking for an athletic challenge from time to time. And then for me a pure mountain bike is what I like best of all.

Incidentally, I was able to quickly bring the eBike skeptics among family and friends over to my side. All I needed to do was ask a simple question: “Would you like to take it for a spin?” – and a test ride made the skeptics into true fans. And my bottom line? I wouldn't give it up!

# Ride your eWorld



Range

Sustainability

Service

Ergonomics

Connectivity

Health

Riding sensation

Design

Mobility

Quality

Safety

## Intelligent Mobility Connected and pioneering

**“Invented for life” is the company’s strategic imperative we live every day. We develop, produce, and market products that fascinate people and bring them forward. Our systems enable mobility that is more individual, sustainable, and networked than ever before. Bosch eBike Systems stands for quality and reliability, cooperative partnership with customers, dealers, and manufacturers, as well as optimal service.**

The pedelec as the trailblazer of electric mobility: It was with this conviction that Bosch eBike Systems launched in 2009. By listening to the market and keeping the needs of people in view, fascinating and successful drive systems quickly emerged. We want to make an important contribution to the mobility of the future and are taking development, production, marketing, and service into our own hands.

The perfect matching of the components is the key to the comfort and performance of the Bosch drive systems. In this way, the enjoyable riding experience typical for Bosch is created: natural, balanced, and powerful – and through the optimal interaction also extremely efficient.

With the on-board computer Nyon, Bosch eBike Systems has opened up a new, networked eBike World, making the megatrend issue of “connectivity” a reality on the eBike. Technological advancements such as eShift – a solution for intelligent and automated gear shifting – give the eBike another wave of innovation: eBikes are fresh, sexy, and embody the modern lifestyle. The market is changing. And we at Bosch eBike Systems are actively shaping this change.

The best “user experience” is a key differentiator for us: What does it feel like to ride, how easy is the on-board computer to use, how appealing is the appearance? And how good is the service? We support the trade and the eBike manufacturers with a comprehensive training program and technical expertise. And thus ensure that all our customers and partners get the quality and service they expect from Bosch. We take feedback and criticism very seriously. We will not cease in our pursuit of steady improvement. In the spirit of the slogan: “Ride your eWorld”.

# Nyon

Connect your Way

## The first all-in-one eBike on-board computer

Exclusively for the Performance Line



### Smartphone app

**eBike Connect**

Using Bluetooth, you connect Nyon with your smartphone, allowing you to adjust your tour goals and personal settings, for example. Premium features available for a fee enhance Nyon according to your needs.

### Online portal

**eBike-Connect.com**

Large-format, clearly laid out, and convenient: On the online portal, you can plan your next eBike excursion and transfer it to Nyon via Wi-Fi, upload your own tours, and analyze your training results.



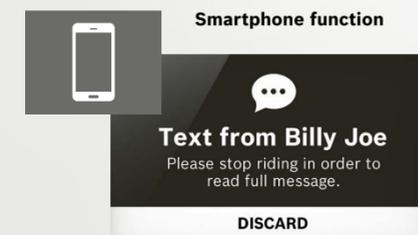
All riding-relevant information at a glance. On the Ride screen, you can view both the selection of information and the graphic presentation as well as customize the individual riding mode to suit your personal needs.



Nyon measures fitness-related data such as cadence and pedal power and uses this information to calculate the calories burned and your fitness level. If desired, even more detailed fitness information can be obtained with the heart rate chest strap.



The GPS module navigates you to your destination in a 2D or 3D display. You can choose between the fastest, shortest, and most scenic eBike route.



Connected to the smartphone using Bluetooth, Nyon provides notification regarding incoming SMS messages.

## Ride 20 Everything under control

### All features at a glance

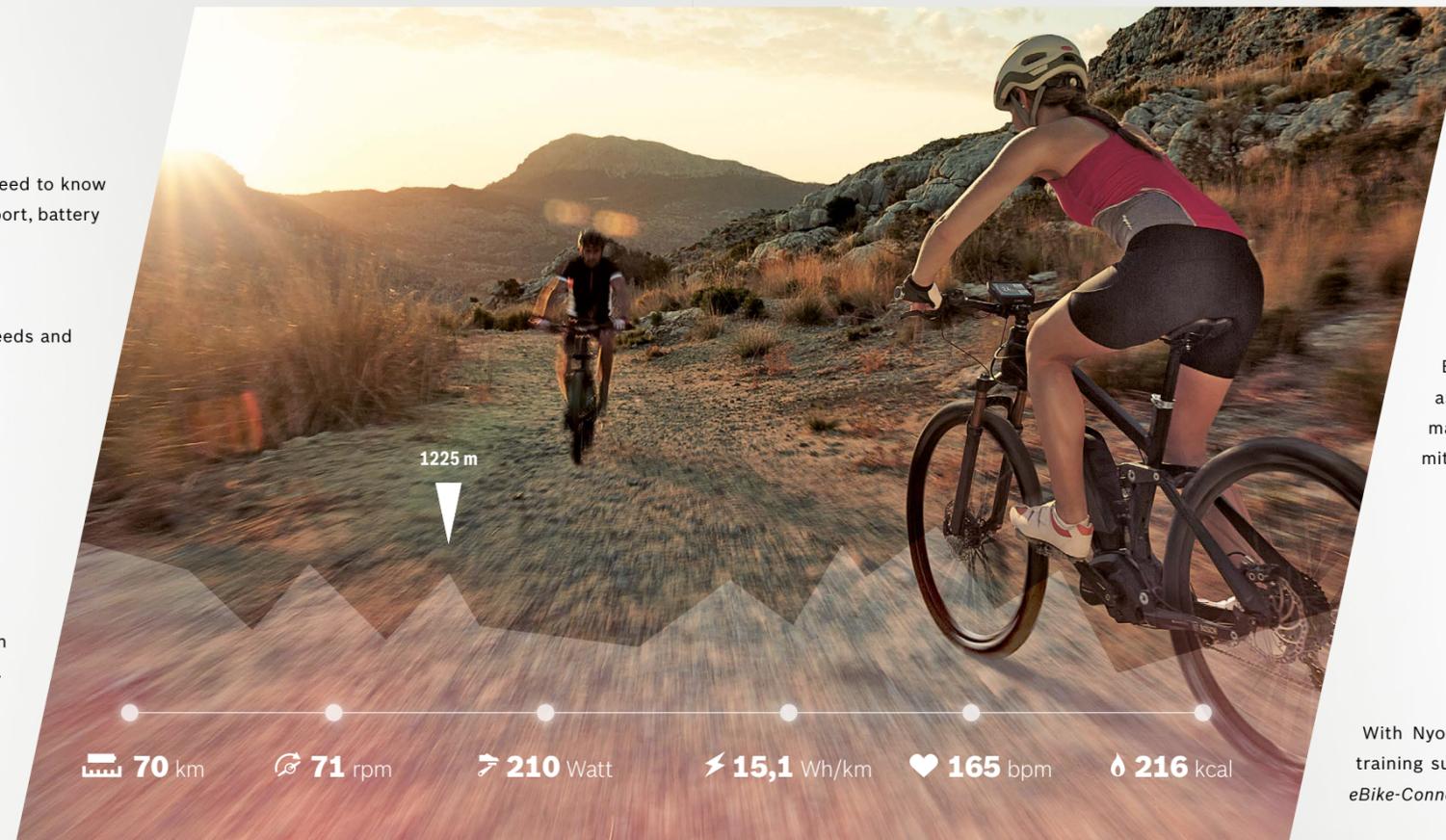
Clear presentation and easy to read at all times: Nyon shows you everything you need to know while riding. Ranging from time, speed, distance, and altitude to cadence, motor support, battery charge status, and much more.

### Riding modes – just as you would like them

Dynamic or relaxed? You can use the individual riding modes according to your needs and flexibly adjust the motor support for your tour.



Using the smartphone app *eBike Connect*, you can create your very own ride screen by selecting from 20 items of basic information and three different graphic layouts. Support for the Drive Unit can be further customized as desired using a paid premium feature of the smartphone app *eBike Connect*.



1225 m  
 70 km 71 rpm 210 Watt 15,1 Wh/km 165 bpm 216 kcal

## Fitness Enthusiasm in high gear

### Fitness and training functions

Nyon turns an eBike into your personal training partner – whether you are one of the more ambitious athletes or a fitness beginner. Nyon shows your personal performance overview in real time. To do this, sensors on the Drive Unit measure your cadence and pedal force up to 1000 times per second.

### How fit are you?

Based on the measured riding data, Nyon calculates your riding performance as well as your calorie consumption. You can train in an even more targeted manner in combination with a heart rate sensor such as the Polar H7. It transmits your values to Nyon via Bluetooth.



With Nyon, you train individually and effectively. You can analyze your long-term training success using the detailed analyses and visualizations on the online portal *eBike-Connect.com*.

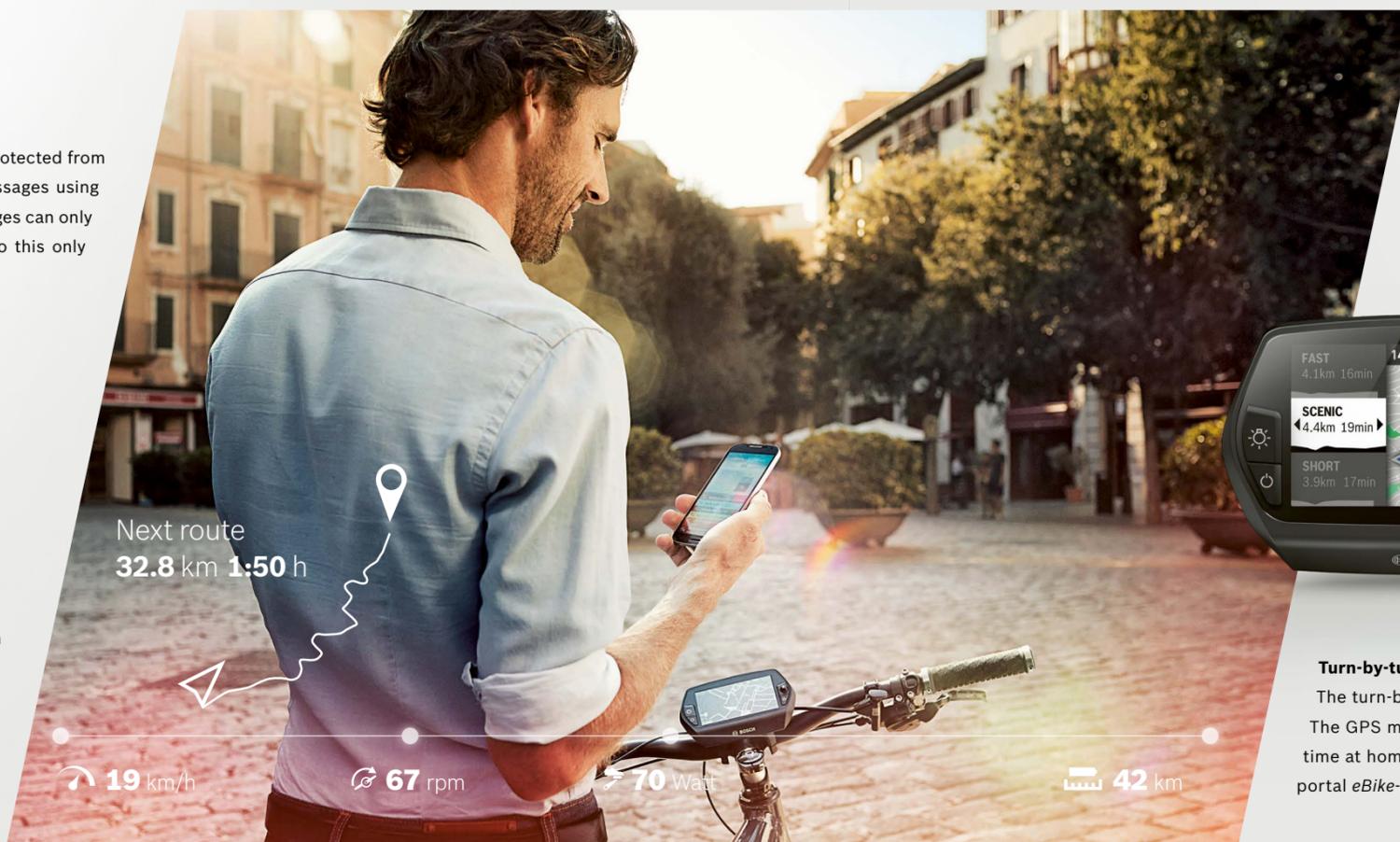
## Smartphone function Staying in touch

While your smartphone remains stowed in your pocket, safely protected from wind and weather, Nyon informs you about incoming SMS messages using a Bluetooth connection. Because your safety comes first, messages can only be read and responded to on your smartphone. And please do this only when you and your eBike are stationary.



## Ergonomics, quality, weather protection, safety

If required, Nyon can constantly provide you with information without distracting you from riding. Nyon is geared toward intuitive operation and easy readability in any weather. This is provided by the ergonomic product design and very easy-to-read color display. Due to its sturdy construction, Nyon can even withstand rain when its USB cap is closed.



Next route 32.8 km 1:50 h  
 19 km/h 67 rpm 70 Watt 42 km

## Navigation Always following your Nyon

Between start and destination, there are innumerable ways to go – and your Nyon knows them all. Choose from the most scenic, fastest, or shortest route, and make every journey into a unique experience. The range calculation takes into account your riding style and shows your range on the map.



### Turn-by-turn to your destination

The turn-by-turn navigation of Nyon takes you to your destination with a selectable 2D or 3D representation. The GPS module and global Open Street Map database make it possible. Plan your route and update it at any time at home or on the road. Directly through Nyon, on the smartphone app *eBike Connect*, or using the online portal *eBike-Connect.com*.

# A Day with Nyon

Ralf Ludwig is an avid eBiker. On Saturday he takes time for daughter Lorena and his favorite hobby, bicycle touring. Long since indispensable as a companion: the Bosch all-in-one on-board computer Nyon.

09:35 a.m.

Saturday morning belongs to my daughter. Lorena loves to explore the city from the trailer. The faster the world goes by, the brighter her eyes shine.

09:50 a.m.

The Stuttgart weekly market is a paradise for gourmets. The sellers know us, and no one can resist Lorena's charm. Before we make a purchase, there's always something to try.



10:55 a.m.

Lorena is tired. It's time for a nap. Nyon navigates us home on the shortest route.



10:30 a.m.

Since our college days, Alex and I have been united in our passion for cycling. Shoptalk is simply part of it! With the eBikes, our radius has expanded, and we constantly discover new destinations.

11:10 a.m.

Charging is as easy as with a smartphone – and it doesn't take too long. This afternoon I plan to take a tour of the countryside.



05:30 p.m.

There are endless possibilities in the area. I plan the tour on *eBike-Connect.com*. Here I can view timing, distance, route profile, and even my fitness values.



05:43 p.m.

Combined with the chest strap, Nyon keeps me constantly up-to-date about heart rate, calorie consumption, and training effect. My personal outdoor trainer.

05:38 p.m.

Out of the urban heat island and off to see the city from above: eBiking in Stuttgart is simply great fun. It's great that the mountains are here!



05:55 p.m.

Bärensee (Bear Lake) is a popular recreational destination in Stuttgart. After the brief thunderstorm this afternoon, it is deserted. A splendid evening.



06:45 p.m.

A fantastic view from the highest point of the city at sunset. Just the press of a button and Nyon's "Bring me home" function shows me the way home.



06:25 p.m.

Time for a break. The restaurant "Katzenbacher Hof" is on the way. The range calculation of Nyon shows that a side trip to Birkenkopf is still easily possible. And the incline makes it even more interesting. So off I go!



07:20 p.m.

Using Wi-Fi Nyon synchronizes the recorded data with my online profile. My fitness values are good, which is no wonder when it's so much fun to go cycling. I wonder what Alex will think of the route.

10:22 a.m.

Speed, riding mode, time, battery status: I combine the information on the screen as it suits me best. Using a smartphone app.



# Urban Riding Fun

Bosch's integrated gear shifting

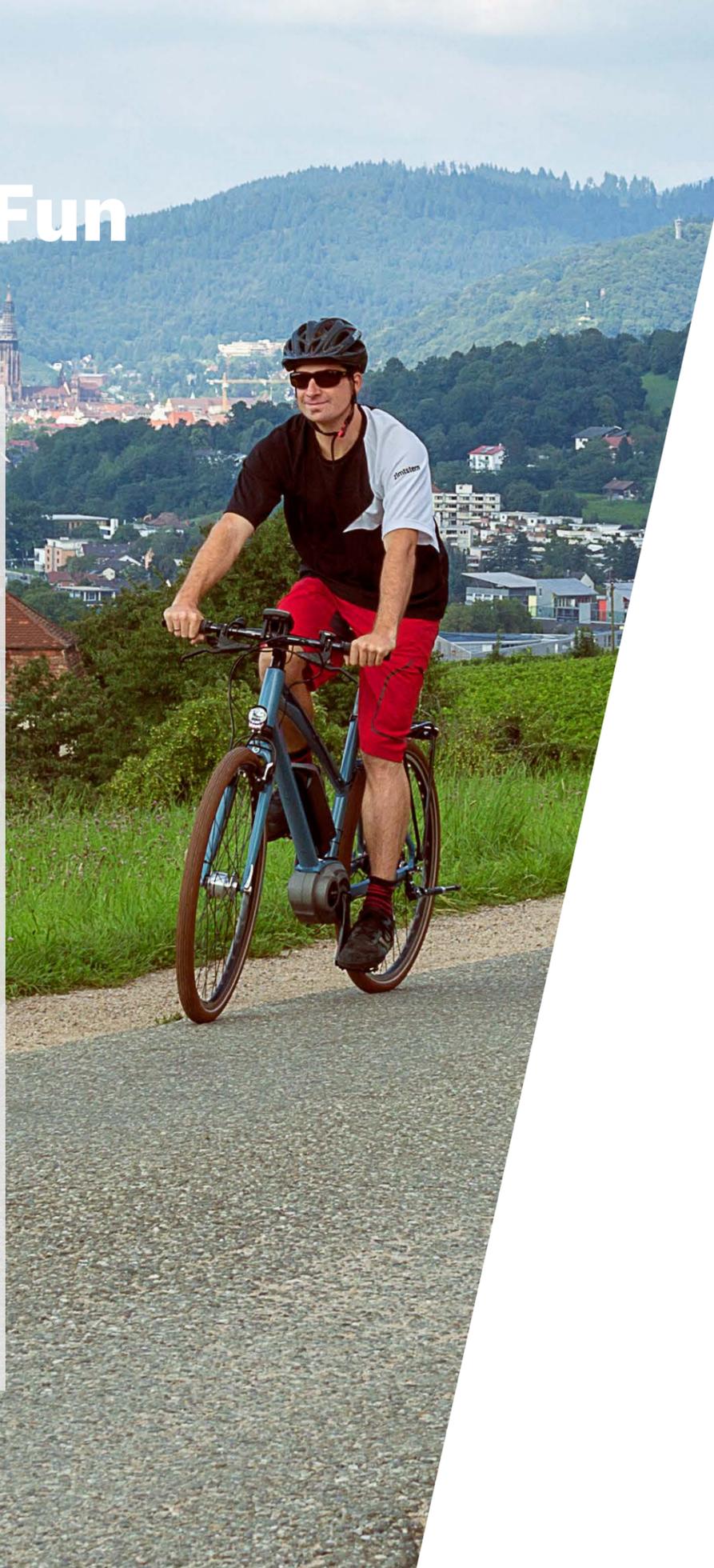
**An automatic transmission for eBikes: Nothing other than that is the new feature of Bosch eBike Systems, known as "eShift," to be released next year. Electrically driven shifting systems (such as the NuVinci H|Sync, SRAM Dual Drive 3 Pulse, and the Shimano Alfine and Nexus Di2) are integrated in the existing Bosch systems of Active and Performance Line through a special interface.**

In practice, these shifting systems differ in function and operation. For example, with the electronically controlled version NuVinci H|Sync, the cadence at which the shifting system is to operate is defined. It is possible to define a cadence in the range of 30 to 80 using the Bosch Intuvia on-board computer. Alternatively, you can manually shift as previously in five levels using the Intuvia remote. Based on these specifications, which can be adjusted at any time, the NuVinci regulates the gear ratio depending on topography, motor support, and personal effort.

With the SRAM Dual Drive 3 Pulse, the shifting operations are automatically controlled in three levels based on the current speed. The gear is indicated on the Bosch on-board computer. Another significant aspect of this gearbox rear hub is the combination with a sprocket cassette, which results in a wide gear range.

Shimano's Alfine Di2 hub gear system (Digital Integrated Intelligence), optionally with eight or eleven gears, and the gearbox hub Nexus 8 are operated with a shift paddle independently of speed and cadence. A servo motor near the hub makes the gear selection specified by the pedelec rider. The intelligent on-board computer also recommends the right gear – in terms of maximum efficiency – in an additional indicator on the Intuvia display.

All three shifting systems are integrated into the existing Bosch systems using what is known as the CAN bus interface, through which they are powered and controlled in their function.



## On the Road with eShift

An experience report from Julian Huber



**As an editor of one of the most popular Internet blogs about the pedelec, I was able to try out three different eShift variants in a long-term test under everyday conditions, allowing me to get an accurate picture of their use and operation.**

The test in everyday life is characterized by brief trips within cities and small towns. In urban traffic, the ride features frequent starts and stops, and outside the city I can make good progress on the flat. Especially in the city, the fully automatic shifting systems NuVinci H|Sync and SRAM DD3 proved to be a true asset. It is often the case in city traffic that you need to brake suddenly, and then the low gear is not set for quickly taking off again. With the electrical shifting systems of NuVinci and SRAM, the shifting process is now automated in conjunction with the Bosch drive system. With the assistance of the high-torque electric drive, rapid and relaxed riding as well as keeping pace in traffic is guaranteed.

But even away from busy areas, the automatic shifting systems make a good impression. The shifting systems independently and discreetly adapt to the topography, taking into account the specified parameters. If I am riding somewhat downhill, I roll into the opposing ascent without pedaling. When starting up again,

the system has already thought ahead and immediately shifts to the appropriate gear, allowing me to proceed uphill without delay. This is a pleasure that I still enjoy with a silent grin.

With the Shimano Di2 hub gear system, I very much like the shifting recommendation calculated by the system. The drive system works perfectly with me as a rider and draws the maximum efficiency out of the system. With the direct gear selection using a shift paddle, the fun factor is also not neglected. It occurs promptly – despite the brief throttling of the motor during shifting – and is precisely implemented by the system. My trips around the city thus take on an athletic and dynamic character.

I see the NuVinci H|Sync as good blend of comfort and sportiness, since the gear shifting is smooth and defined by the cadence. If I feel like more personal effort, I choose a value of 80 on the on-board computer and regulate the use of motor assistance to the smallest value, ECO (50%). Alternatively, it is also possible to manually set the gear selection in five levels. Here again there is a reasonable and practical gear recommendation on the Intuvia on-board computer.

A special challenge was the ride on the Kandel, one of the highest mountains in the Black Forest. Here you ascend to 1243 m of altitude on a route of 8.5 km and 1000 m of elevation gain at an average slope of 12%. The shifting system SRAM DD3 is the clear favorite here. In combination with a 9-speed cassette, its 27 gears offer a large, finely defined range of gear ratios, almost what you would expect from a sporty mountain bike.

All three shifting systems create a significant plus in comfort and security, as they reliably and accurately take over the shifting process and ensure a carefree riding experience. For me it was one step closer to modern and relaxed eBiking.

Text: Julian Huber, photo: Hieronymus Gottschaldt  
www.pedelec-biker.de

# eShift

## Integrated gear shifting

**Faster shifting, more pleasant riding: eShift makes it possible. The innovative shifting concept integrates the shifting function in your eBike system – and provides not only extra relaxation and comfort but also attractive design as well as more safety due to complete concentration on eBiking. Because fewer components make your handlebar less distracting – as well as more attractive.**



Automatic and based on cadence

### eShift with NuVinci H|Sync



As a cadence-based shifting system, the NuVinci H|Sync shifts gears automatically and smoothly according to the desired cadence set by you between 30 and 80 revolutions per minute. This allows you to ride harmoniously and pedal uniformly with one cadence – whether uphill, downhill, or on a flat section. That means more comfort for you and more mileage for the system, which always operates in its optimum range. Alternatively, a manual 5-speed shifting system is possible.



Integrated and electric

### eShift with Shimano Di2



With the integrated hub gear system, you can shift your eBike like a sports car: quickly, precisely, efficiently. Electronically. One tap of the Shimano shift paddle and the system shifts into the next gear. The fun factor increases, along with the range: Because you shift more frequently and are thus more often in the optimal gear ratio. You maintain full control through the display of the selected gear as well as the gear recommendation on the Intuvia display.



Automatic and speed-dependent

### eShift with SRAM DD3 Pulse



The speed-dependent shifting system combines a 3-speed hub gear system with a manual derailleur system. The gearbox hub automatically selects the correct gear according to the speed at which you are currently traveling. Using the derailleur system, you have the option to further adjust your gear ratio. The gears of the hub gear system are displayed at all times on your Intuvia display. Completely without additional user intervention. A real plus in terms of safety and comfort.



### Intuvia display



**NuVinci H|Sync**  
Cadence or gear



**Shimano Di2**  
Gear



**SRAM DD3 Pulse**  
Gear

eShift is available with the Bosch drive system Active Line and Performance Line.

## “You are always exercising”

In conversation with Dr. Herbert Boll



**For 27 years, Herbert Boll worked worldwide as a doctor at Bosch – and getting enough exercise was always seen as the key to a healthy life: “I often advised employees when they came with complaints: Try getting on a bike.”**

The doctor usually left his own bike in the garage, because it is always uphill into the surrounding nature from his house at Stuttgart’s Killesberg. However, with retirement Herbert Boll decided to saddle up: “It was clear that we would have time, and that we would be able to be on the go more. And then came the idea: eBike.”

For over a year, the 65-year-old has been riding with electric assistance. The rise in front of the house has lost its terrors, and his quality of life is increasing every day. “With the electric motor, difficult sections are easy, and we cover long distances with ease. That’s just great,” Boll describes the new riding experience. Careful consideration and arduous exact route planning are a thing of the past thanks to the Bosch drive: “We just take off with the eBike.”

“It feels like your brother is helping by pushing a bit.”



The Boll couple enjoys the newfound freedom on shared trips in the local environment and beyond. “Many of these are tours that we have long had on our to-do list,” the four-time grandfather reveals in the conversation, “but with the regular bike we would have said: Nope, not a good idea.” The congenial man’s enjoyment of the new mobility is clear. A second effect makes him truly proud: Before he began eBike riding on a regular basis, Herbert Boll visited a cardiologist – and was found in an ECG to be among the weakest 8% of his peers in terms of cardiac stress capacity. Today he is ahead of 75% of his peers in this comparison.



“I can recommend eBiking to everyone. It has nothing to do with age.”

“You are always exercising. And that is the important thing,” the doctor said about his much-improved fitness. “I can recommend eBiking to everyone. It has nothing to do with age.” The extent of the support is something you decide for yourself, after all.

This allows you to choose anything in the range from exhausting tour to comfortable cycling, depending on what you want at the time. He is now a staunch eBiker who saddles up with passion: “Last year I rode 1600 km with the eBike.” He might cover even more distance this year.

## With the eBike on the Road to Success

The Mondo Daily in Darmstadt

**Going into business for yourself on an eBike? Why not? In Darmstadt, Alexander Ernst delivers exotic cuisine to his customers. His cargo eBike operates with a reliable Bosch drive.**



The idea for an eBike delivery service arose spontaneously. “At a large barbecue party, one of the guests arrived on a bright green cargo bike,” Ernst says. “The plan to use such a cargo bike as the basis

for a delivery service was then quickly hatched.” The restaurateur stands relaxed in his bistro, which lies like an island of tranquility in the midst of the Darmstadt city center, and explains: Enjoyment, health, and environmental awareness play an equal role in his restaurant. For this reason, he uses many fresh ingredients, organic and grown in the region. In addition, many of the dishes are vegetarian or vegan. “And the cargo eBike also makes the delivery service environmentally friendly.”

In front of the business, traffic rolls forward laboriously. Angry motorists, with pedestrians rushing in between. Inside, the restaurant operator observes the scene with bemusement: “I’m glad I no longer have to be a part of that. With the eBike I can move more quickly through the city, and I no longer have to search for parking.”

The phone rings. A regular customer expects his lunch in time for the start of his break at noon. Alexander Ernst swings into the saddle. The precious cargo is stored in the insulated box in front of the handlebar while he cycles through the Darmstadt pedestrian zone. Delivery by car would be impossible here, but bicycles are allowed on several streets.



A few deliveries later, the well-trained man pedals his way back to the restaurant. Over a cup of rooibos tea, he speaks again about the cargo eBike. “With a normal bike, it would not be possible. The distances are too great and the goods often too heavy, especially on shopping trips. But with the eBike, it works out great.” The 44-year-old is already thinking about buying additional bikes. And what about bad weather? “The day before yesterday, it was pouring rain. But honestly: It’s so much fun to ride the eBike, the rain doesn’t even bother me,” Alexander Ernst says, easily laughing away thoughts of bad weather.

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# Inspiring People

## Claus Fleischer on the eBike – and what to expect next

**Mr. Fleischer, five years of Bosch eBike Systems – that is a great success story, and the market continues to grow steadily. In your opinion, what makes eBiking so popular?**

It's simple: eBiking makes us more mobile, it is fun, and it is becoming more and more athletic. In this way the eBike is tapping new possibilities with many target groups. More and more young people are currently discovering how cool eBiking is – a rare lifestyle trend that is evolving from old to young.

**When was the first time you sat on an eBike?**

That was roughly six or seven years ago. On a step-through women's bike! At the time we could hardly believe how great it rode, and we thought: What if such a drive was installed on a mountain bike? Today the eMTB is a reality and very exciting.

**You speak with great passion about eBiking.**

**Are you yourself also an avid eBiker?**

Absolutely, I've been riding a road bike and mountain bike for many years, and I previously also participated in MTB races and tours that involved crossing the Alps. For all the skepticism, the mountain eBike features the athleticism that mountain bikers want! Anyone who has ridden an eMTB will be enthusiastic, because it enhances the athletic and technical possibilities enormously.

**Where do you see areas of innovation for the future?**

We expect clear progress in terms of weight, size, and range. Steady progress is also being made in regard to design and

**Claus Fleischer** has been leading the product division Bosch eBike Systems since 2012. A degreed engineer, he is himself a passionate biker and, in addition to a great deal of passion for the product, he brings years of experience in automotive engineering to the development of Bosch eBike Systems.



operating functions. The next big trend is e-cargo bikes, that is, cargo eBikes for private and commercial use. You can see: The eBike makes people mobile. It brings with it more exercise and less emissions – these are important aspects of health and sustainability. Therefore, we also want to inspire as many people as possible for eBiking.

**The eBike captures the spirit of our time, the great social mega-trends. What is the success in very concrete numbers?**

In 2013, 410,000 eBikes were sold in Germany, which corresponds to a share of 11% of the bicycle market. There are approximately 1.6 million pedelecs on Germany's roads, and we expect that on a long-term basis more than 30% to 40% of all bicycles will be pedelecs. The eBike has now reached all ages and interests, and policymakers are also taking notice. This recognition is a tremendous motivation for us.

**And what do you wish for all eBikers out there?**

Keep on eBiking! I wish all enthusiastic eBikers much enjoyment. Watch out for yourselves. Your satisfied smile will be bring many others to the fold. That's what we're working on.

**1990**

First eBike with cadence sensors (built by Michael Kutter)

**2010**

Presentation of the first Bosch eBike generation at the Eurobike

**2013**

1.6 million eBikes in Germany

**1994**

First series eBike from Europe (Yoker)

**2009**

Founding of Bosch eBike Systems

**2012**

Bosch eBike Systems is the market leader in Germany and Europe

**2014**

Expansion of Bosch eBike Systems to the United States and Asia

## Five Years of Bosch eBike Systems

### A retrospective and outlook

**For five years now, Bosch eBike Systems has brought new impetus to the eBike market. This needed to be celebrated. With a large party at the Bosch Parking Garage at Stuttgart Airport with 280 guests, a fascinating retrospective and outlook, and a great deal of good humor.**

They came from everywhere: customers, partners, and companions along the journey, along with the entire team. It was not until 2009 that Bosch eBike Systems was established. Only five years later, the start-up has become the market-leading provider of eBike drive systems in Europe. Now pedelecs with Bosch drive will also begin conquering the roads of the Asia-Pacific region and the USA. "We want to get into the growth markets," says Claus Fleischer, head of the product division. Since March 2014 there has been a regional business unit in Irvine, California. The second is currently being launched in Suzhou, China.

But let's start from the beginning: The topic of mobility has always played a central role at Bosch, so engagement in the area of e-mobility was a logical step. The company recognized early on that bicycles and electric mobility complement each other very well, and for this reason deliberately focused on drive systems for pedelecs. In 2009, the first mobile prototype was created. Shortly thereafter, today's product division eBike Systems started with a handful of employees – and they presented the first Bosch eBike generation already at the Eurobike 2010.

Today the team is large, diverse, and yet still as passionate as the first day. "Our employees develop fascinating and beneficial solutions in the field of e-mobility," says Claus Fleischer. "They work with passion for a forward-looking eBike world and make an important contribution to the mobility of tomorrow." With this philosophy, in 2012 Bosch eBike Systems became the leading European provider in a market that is getting bigger and bigger every year.



From the left: Claudia Wasko, Stefan Kircher, Claus Fleischer, Gunter Flinspach, Tamara Winograd, Fouad Bennini

After five successful years, the future is bright for the birthday child, which in 2014 will again be presenting numerous innovations at the Eurobike. Claus Fleischer knows the secret of this success: "Innovative products that excite people and put their needs at the center."

And with this the manager, who is an avid eBiker himself, concludes his remarks and heads in the direction of the birthday cake with a smile on his face.

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