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FEEL THE FLOW 2022

FEEL THE FLOW

Bosch eBike Systems 2022

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Bosch eBike Systems



Nine dream routes for riders

This is how we will travel in the future

Which eBike suits you?



Enjoying the Uphill Flow: Freestyler
Ryan Howard (photo, back) on a trail in
Kamloops in British Columbia, Canada.
Find out more >> p. 42



EDITORIAL



Tamara Winograd

Vice President of Marketing, Communications and
Brand Management, Bosch eBike Systems

What will the cities of the future look like? How will we combine everyday routine, work and leisure? And how will we get around in 10 or 20 years time?

I am convinced that mobility will continue to play a decisive role in our lives in the future. Our ideas about mobility will be revised and practiced differently, electrified, automated, connected and personalized. Mobility that meets people's general need for safety, sustainability and health. Already closely associated with these values today, the eBike will play a key role in shaping mobility of the future. Of course, this will also be helped by innovative digital technologies. They will enrich the riding experience and open up a wealth of new possibilities. They are the key to our mobile future in a connected world. The eBike will automatically adjust to the individual needs of the rider and communicate with other road users as well as the entire environment. This will help people become more flexible, safer and more relaxed on the road.

We at Bosch eBike Systems are driving the development of smart eBiking, redefining mobility on daily trips in the city as well as adventurous tours of the countryside and mountains. We look forward to continuing to shape the digital and sustainable mobility revolution with you.

Best wishes,

A handwritten signature in black ink that reads "T. Winograd".

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**"NO TWO WAVES ARE ALIKE AND
WHEN I BECOME ONE WITH
THE SURF, I FEEL COMPLETELY FREE.
IT'S PURE EUPHORIA"**

Pauline Ado, the professional surfer's story >> p. 44

eBIKE PASSION

More and more people are riding eBikes. Destinations that previously seemed almost unattainable are now within reach. The eBike is about to change our lives, whether in the city on the way from A to B, as a means of transport, as a travel companion or as sports equipment that allows everyone to experience the special uphill flow. The following stories show why the eBike inspires so much passion, how versatile it is and the experiences new digital solutions have in store.



TRAVEL FEVER

Activity and recreation: the perfect combination for many people. That's why more and more people are enjoying eBikes while on vacation. It keeps you fit and allows you to explore new destinations.



Peak pleasure: Sissi (left) and Kathi Kuypers take a break during their eBike trip.

"BEFORE THE TRIP I FOUND MYSELF ASKING: CAN WE REALLY DO THIS?"

Kathy Kuypers, dirt jumper

Travel has never been as easy as with the eBike. Here's what Kathy and Sissi Kuypers experienced in the Alps.

Kathy, 31, a professional dirt jumper, completed the endurance test with her mother, Sissi, 59. Two generations, two eBikes, one great love: the joy of being active in nature. And one big goal in mind: To cross the Swiss Alps on the Haute Route in the canton of Valais, from Vercorin to Zermatt, which means negotiating several thousand feet of altitude differences in three days. A challenge, even for an experienced rider like Kathy. "Before the trip I found myself asking: Can we really do this?"

Just like Kathy Kuypers and her mom, more and more people are setting out for new destinations. They are looking for new ways to enjoy the great outdoors away from the hustle and bustle of the city. The eBike promises a lot of support and allows riders to master technical slopes and steep uphill climbs. eBiking brings cycling to another level. Over mountains, along riverbanks and lakes, on rough or smooth terrain, an eBike allows many destinations to be discovered on two wheels.

*U.S. estimated national average gasoline price: \$3.19/Gal. U.S. estimated average cost of energy: \$0.11/kWh. Average sedan fuel tank size: 12 gallons.

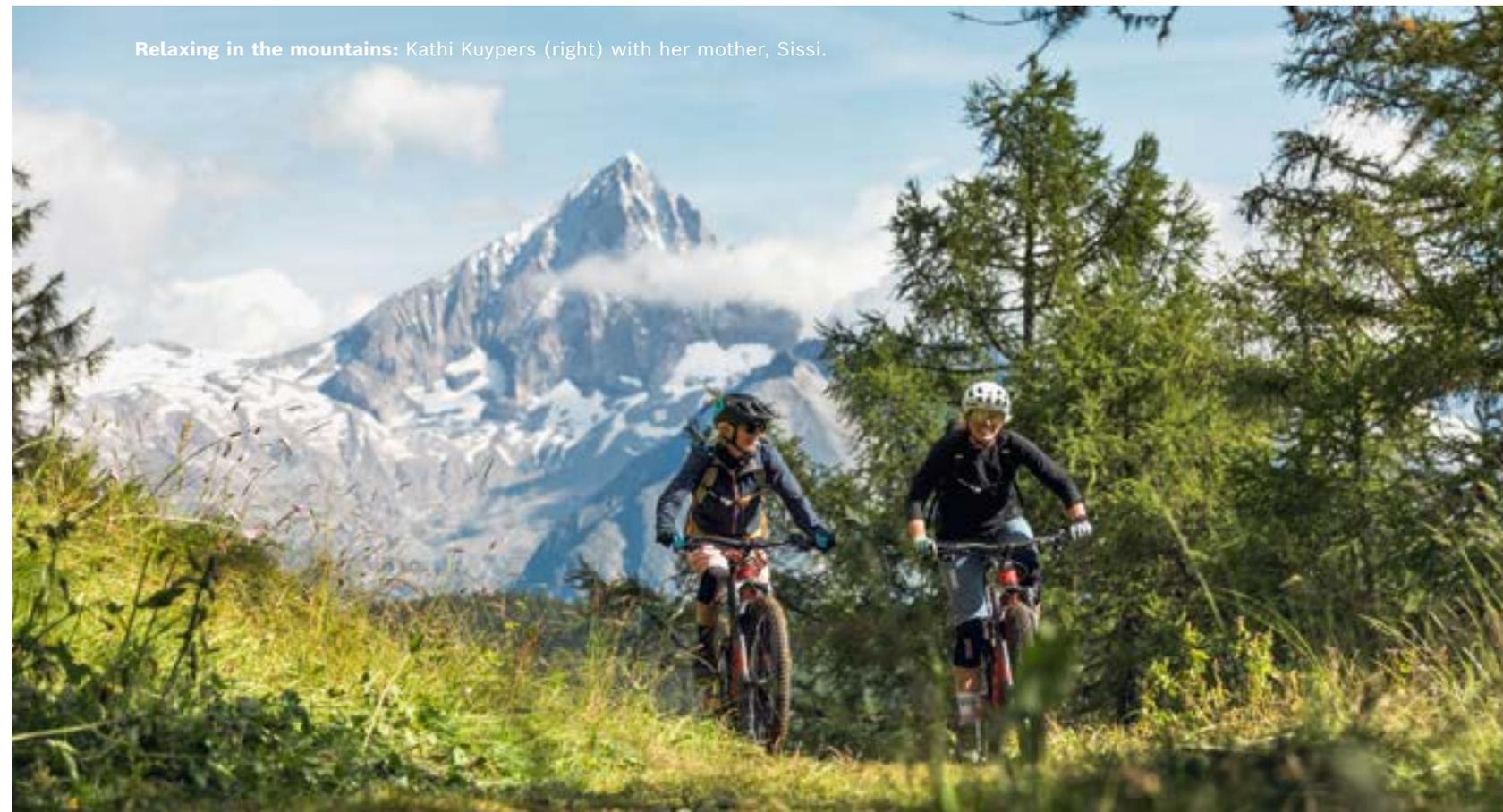
Cycling is booming

According to estimates by cycling associations such as the Allgemeiner Deutscher Fahrrad-Club, the number of short trips by bike rose by 40 percent last year. One-third of all cyclists already use an eBike. This offers many advantages on the road:

- Greater comfort thanks to the motor which provides enough thrust to cope with headwinds and hills.
- Greater freedom through long ranges. Depending on the route and the battery, distances of more than 62 miles (100 km) can be achieved.
- Covering longer distances without arriving at your destination in a sweat.
- Couples or groups with different performance levels can also take trips together more easily thanks to eBikes.
- eBike riders protect the environment and save money in the process. The cost of filling the tank of a passenger car is approximately \$38.28; the full charge of an eBike battery costs only 6 cents*.



Let's go! Sissi and Kathy Kuypers are ready for their alpine adventure.



Relaxing in the mountains: Kathi Kuypers (right) with her mother, Sissi.

**BEFORE SETTING OFF, THE QUESTION ARISES:
DO I HAVE ENOUGH BATTERY POWER FOR THE
PLANNED TRIP?**



So far, so good: Involving just a few climbs, the cycling path along the Danube leads through picturesque landscapes and a total of eight European countries covering a distance of 1,770 miles (2,848 km).



Range calculator: [bosch-ebike.us/range](https://www.bosch-ebike.us/range) 

Always with the flow

Many travel destinations in Europe have long since adapted to the eBike boom. Hotels, communal huts and restaurants offer charging stations along the routes. This enables batteries to be conveniently charged, so the eBike is ready for the next stage. The region around the Kitzbühel Alps in Austria, which is considered one of the largest unbroken eBike areas in the world, is particularly attractive. Whether you follow the Loire in France or the Adige in Italy's Trentino on Lake Garda or Flanders in Belgium, there are plenty of bike routes to choose from when eBiking.

What do I have to consider if I have decided to take a trip by eBike?

Careful planning and speedy connections

Good route planning is the key to finding the right trip and making the best possible preparations. eBike computers are helpful when it comes to planning. Alternatively, cyclists can map out their trip from the comfort of home using apps like eBike Connect and the Connect portal, and change things on-the-fly during the trip. Out on the road, they have the option of using their own apps, such as komoot, in conjunction with Bosch solutions.

Before setting off, riders face an important question: Do I have enough battery power for the planned trip? It's best to check the range calculator to plan ahead.

Into the wild: Get going and experience the great outdoors. The eBike pushes the boundaries of any trip. The achievable range can be more than 62 miles (100 km).



Staying on track

Traveling is fun when you can enjoy the landscape and environment along the way. To keep you on course via navigation, connected eBike computers offer access to free maps worldwide. Another advantage: The maps can be accessed even if there is no Internet connection while you are on the road. This keeps eBiker riders flexible and always on the right track. The map material contains various references to hotels, restaurants and public points of interest.

It is also worth checking out the computer for another reason: During the journey the range indicators show whether the destination can be reached with the available battery charge.

Another concern is how safe is it to park your eBike while on the road. As soon as the rider removes the connected computer, the motor support is deactivated via the "Lock" premium function.

What's next?

Having arrived at their destination, many cyclists like to see how much distance they have covered. The eBike Connect app provides fast access to trip and fitness data. In addition, the rider can share the results with the community and friends by means of the komoot and Strava apps. This acts as a motivator, as well as creating anticipation for the next trip.



On course:

The Nyon computer guides you to your destination and helps with route planning.

DREAM RIDES

On your eBike, get set, go! Nine fun routes in Europe, from the Iberian Peninsula to Scandinavia

City, country or river?

Why not experience all three in one trip? The eBike gives you many options.

1

Following the Danube

Untamed nature and lively cities as diverse as the 10 countries through which the Danube flows.

Length: 1,770 miles (2,848 km)

Stages: 30

utracks.com/danube-cycle-path

2

Through Flanders

This beautiful route takes you through northern Belgium from Antwerp to the nature reserve around Brabant.

Length: 36 miles (57 km)

Stages: 1

komoot.com/user/bosch/collections

3

Chateau tour

A relaxed ride from Tours through the garden of France with the chateaus of the Loire.

Length: 186 miles (299 km)

Stages: 5-6

biking-france.com

Climb every mountain

Rough surfaces, steep terrain: The eBike reveals its particular strengths in the mountains.

4

Matterhorn in view

The "Family & Friends" Haute Route offers breathtaking views in Switzerland's Valais region.

Length: 86 miles (138 km)

Stages: 3

e-alps.com/en

5

Transalp

The Via Claudia Augusta from southern Germany to Italy is also suitable for families, thanks to the eBike.

Length: 310 miles (498 km)

Stages: 5-6

viaclaudia.org/en

6

Pilgrimage on two wheels

Scenic route from Lisbon via Porto to Santiago de Compostela.

Length: 366 miles (589 km)

Stages: 7-9

bikemap.net

Sea and lakes

The eBike means you always have support, even if the wind is in your face.

7

Surf and turf

Varied route between Groningen and Zeeland with dunes and flower-filled meadows.

Length: 223 miles (358 km)

Stages: 4-5

komoot.com/user/bosch/collections

8

Large chain

The new "Mountains and Lakes eTrail" connects many lakes of the Salzkammergut in Austria.

Length: 391 miles (629 km)

Stages: 10

salzkammergut.at/en/bergeseen-e-trail

9

Cultural trip

Delightful seaside route from Copenhagen to the Louisiana Museum for Modern Art.

Length: 22 miles (35 km)

Stages: 1

visitdenmark.com



Claim your voucher now and discover even more routes.

The komoot voucher lets you choose one regional package and download it for free. It includes voice-based navigation, offline maps and a route export function for your GPS device.



Featured products

Nyon

You can plan your routes conveniently in the eBike Connect online portal and transfer them to the Nyon computer. Nyon users can choose from a variety of bike routes in the online portal; komoot routes also can be imported.



bosch-ebike.us/nyon

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Always charged

Tips and tricks for your battery when on the road. bosch-ebike.us/battery-guide

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VIENNA

Renowned magazine The Economist has named Vienna the world's most liveable city twice in a row. Yet the city on the Danube has much more to offer than magnificent buildings and a rich cultural scene. It is on its way to becoming a green showcase city and wants to promote environmentally friendly mobility. A foray with Viennese enjoying their city on two wheels.

"MY eBIKE HAS ENABLED ME TO DISCOVER A WHOLE NEW SIDE OF THE CITY"



Flâneur on two wheels: Here in a new development area of the Nordbahnhof quarter (right), architecture lover Oliver Oth cycles through Vienna in search of exciting photo opportunities.

Meeting point Prater. The amusement park with its rides and the giant wheel that can be seen from afar is still a landmark in Vienna today. It's the perfect starting point for a bike ride with Oliver Oth, hobby photographer and passionate eBike rider. He takes us on an eBike ride in his city.

Year after year, Vienna occupies top positions in the popularity scale of travelers and residents. The business magazine The Economist named the metropolis the world's most livable city twice in a row. This is not only due to its special charm, the baroque architecture and the stylish coffee houses. No other major city in Europe has more green space for every one of its 1.9 million inhabitants. Forests, vineyards, gardens and parks make up almost 50 percent of the city's territory.

But how much fun is it to explore this city by bike? Hardly anyone can judge this better than the people who cycle there every day, on their way from A to B, to the office, to the kindergarten or in search of the new sides of the city. Like Oth. The 47-year-old is a flâneur on two wheels, who roams Vienna in his spare time with his eBike and alert eyes, always on the lookout for new photo opportunities.

We leave the amusement park behind us and head towards "Viertel Zwei," one of the new residential and office districts. In the direct vicinity of the racetrack, modern glass and concrete facades are clustered, broken up by fountains, moats and parking spaces. Contrasts, as Oth calls them. His attention is focused on architecture and nature, and he finds enough of both in this city. "With my eBike, I can travel great distances in a day, discovering more remote places for my photos."

The trained hotelier inspires many followers on Instagram with his work. They appreciate his pictures, which fascinate with unusual perspectives or light reflections. Oth also finds exciting photos in Donau-City, the new district on the other side of the river. The cycle path there, from the second district over the Reichsbrücke Bridge, with its wide lanes running in opposite directions, offers enough space to enjoy the view. In the distance rises a glittering black tower called DC Tower 1, Vienna's modern landmark, soaring 273 yards (250 m) into the sky.

Oth pointed his smartphone at the second tower next to it, which is half-finished. "If you haven't been here for a week, something new will have already sprung up." For example, the new bicycle rental with eBike charging station on the Danube Island, the 21-kilometer-long belt that serves as a large recreational area. "Vienna is very green," Oth says, recounting his recent eBike ride, which took him from the city to the Vienna woods. A 74-mile (120 km) route where Oth listened to a podcast and his favorite music using the COBI.Bike app. "I need sometimes to clear my head on the road."

Vienna has a network of 1,027 miles (1,654 km) of cycle paths. A handsome number. But do the paths also permit safe movement?

On the way back from DC Tower 1 through the inner-city traffic, it becomes clear that Vienna is doing many things right. Numerous streets have been opened to two-way bicycle traffic, turning lanes have been separated from car traffic, and where cars have two lanes, protected routes lead through the downtown area in lanes marked in green. The municipality invests 27 million euros annually in the expansion of cycling lanes, separated cycling lanes and charging stations for eBikes. Because more than every third bike sold in Austria is now an eBike.



"120 KILOMETERS A DAY – WITH THE eBIKE IT'S REALLY EASY"

Oliver Oth, hobby photographer and eBiker

Covers a lot of ground: With the Active Line Plus drive, even long rides are no problem. Oth clocks 4,660 miles (7,500 km) a year with his eBike.

While for Oth the eBike is the perfect vehicle to discover new places and take pictures, physiotherapist Angelika Puntigam uses an eCargobike as a practical all-rounder for her everyday life. In the morning, she uses it to take her children to kindergarten, and then she rides on to visit her clients.

For a while, she used a bike without electric assist for this. But that became too tedious for her. "With the eCargo, I can get around the city in a relaxed and sustainable way, and the children enjoy it just as much as I do." A car would be out of the question for this Viennese woman. "I wouldn't be any quicker, and then there's the nuisance of looking for a parking space. I'm much more carefree on the road with the eBike."

Even when Puntigam parks her eCargobike, she feels safe because it has an electronic anti-theft device called "Lock" that supplements a mechanical lock.



"THE eCARGO REPLACES THE CAR FOR ME"

Angelika Puntigam, physiotherapist

Fasten your seatbelts, please: Physiotherapist Angelika Puntigam takes her two children and Bär Muzi to the after-school care center every morning on the eCargobike. She then starts her route of home visits to her clients.



1,654 kilometers is how comprehensive Vienna's network of cycle paths is.

More than every **3rd** bike sold in Austria is an eBike.

73% of Vienna's population move on foot, by bike or by public transportation.

"THE eBIKE IS FOR ME THE FASTEST MODE OF TRANSPORTATION IN THE CITY"

Laura Manschein, marketing manager Austria



Sponsor: With the project "Austria Cycles" Laura Manschein, marketing manager of Bosch eBike Systems, sparks the interest of companies in eBikes.



Angelika Puntigam has observed that more and more people in her circle of acquaintances are switching to an eBike. An experience that Laura Manschein from Bosch eBike Systems shares.

With "Österreich radelt (Austria Cycles)," she supports a nationwide project providing companies with eBikes as test bikes. "Most of them are enthusiastic after just a short time and want to have it as a company bike," says the 26-year-old marketing manager.

The eBike is her first choice when she travels from the company headquarter in Vienna's third district to cooperation partners in the downtown area. "The route along the Danube is optimal; there is a lot of space, and you can get through quickly." Sometimes she and her colleagues make an internal competition: Car vs. eBike, which is faster in the city? "The result," says Manschein, "is almost always the same: The car takes around 25 minutes, and with the eBike, I get there 10 minutes earlier."

This experience is also shared by Oliver Oth and Angelika Puntigam, who move through their city daily by eBike. "It's faster, and you get some exercise," Oth says. "It's just that when you ride out of town, you sometimes run into a patchwork of bike lanes. There is still room for improvement here in Vienna, as well."

Featured products

Active Line Plus

Durable and quiet motor. Powerful 50 Nm supports the rider on discovery trips.



bosch-ebike.us/activeplus

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COBI.Bike app

Info at a glance, including speed, distance, performance, plus weather info.

bosch-ebike.com/cobi-bike

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Lock

The electronic anti-theft device as a supplement to a mechanical lock.

bosch-ebike.us/lock

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MAKING FITNESS FUN

Physical activity is good for you. The World Health Organization recommends 150 minutes of exercise each week to strengthen the cardiovascular system and prevent disease. This doesn't necessarily mean having to work up a sweat. Moderate exercise is enough to promote health. Anyone riding an eBike is not just keeping the body and mind active but also having plenty of fun.

But does eBiking involve any physical exertion at all? And at what point does it become a sport? After all, you are assisted by an electric motor while cycling. Researchers at the University of Basel compared eBike riders with conventional cyclists. The results were surprising: After four weeks, the fitness of both groups had developed to a similar degree.

In fact, according to a study by the Norwegian Institute for Transport Economics, cyclists tend to use electrically assisted bikes much more often and cover more than twice the distance. This indicates that regular eBiking improves stamina quite significantly.

An effective workout on two wheels. Exercise strengthens the immune system, reduces the risk of cardiovascular disease by 24 percent, the risk of cancer by 16 percent and has positive effects on blood sugar levels and adrenaline. Anyone who rides an eBike in a normal riding style for an hour



Win-win: The eBike not only makes you faster but it also keeps you fit.

burns an average of around 300 calories. This is equivalent to about half an hour of jogging or 30 minutes on a cross trainer.

The eBike offers a particular benefit as a fitness device: The support provided by the motor can be regulated and adapted to the rider's stamina and fitness level. This makes eBikes an attractive prospect even for those who don't like cycling and those who are returning after a number of years. This allows them to gradually build up their fitness levels.

More fitness, more time. eBiking not only keeps you fit, exercising in the fresh air also releases endorphins. Then there is the time saved: The eBike is the fastest means of transport on a distance of up to six miles. This makes it ideal for the journey to the office or from A to B; traffic jams hold no fear for you. Whether you're shopping or dropping the kids off at kindergarten, an eCargo bike combines the benefits of physical activity with environmentally friendly transport.

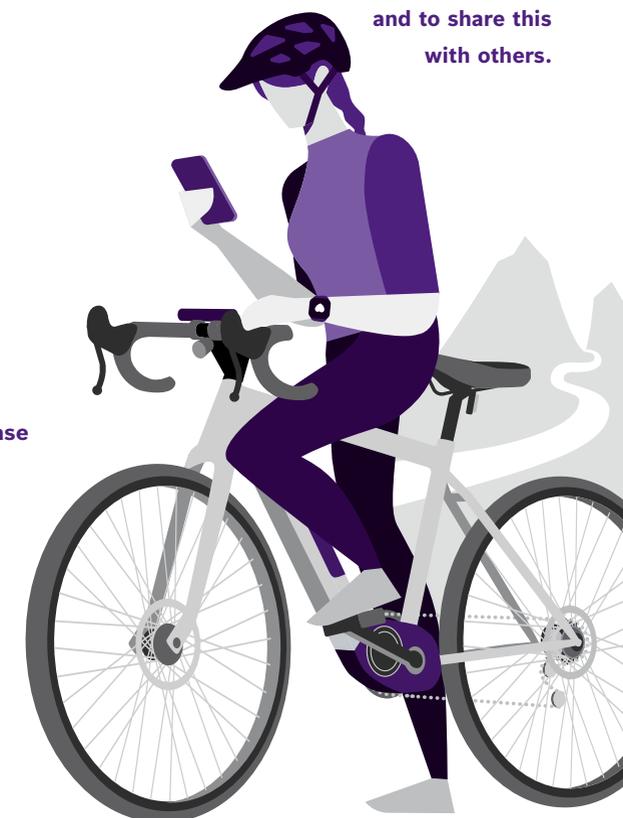
If you prefer something a little more sporty, you can also use the eBike as a personal trainer: The Kiox and Nyon computers, as well as the COBI.Bike smartphone solution with the corresponding app, display performance and health data. The COBI.Bike app allows you to share ride data with friends by linking to fitness services like Apple Health, Strava or Google Fit.

Always connected: The COBI.Bike app can be used to record trip and fitness data and to share this with others.

300 calories are burned in about one hour on the eBike.

There is a **24%** decrease in the risk of cardiovascular disease through exercise, such as on the eBike.

The eBike is the fastest means of transport on a distance of up to **6** miles.



Featured products

Kiox

The computer provides all key training data and shows the rider's cadence, calorie consumption and personal performance.



bosch-ebike.us/kiox

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COBI.Bike app

This app turns the smartphone into a digital trainer by connecting to fitness and health services like Apple Health, Google Fit and Strava.

bosch-ebike.com/cobi-bike

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CONQUERING THE ALPS WITH FLOW

The Alps have been a special place for adventure and pioneering achievements for centuries. Located in the heart of Europe, these peaks have been inspiring countless people to turn their dreams into reality for decades. Thirty years ago, Andi Heckmair set a milestone for mountain bikers when he crossed the Alps. Starting from Oberstdorf in Germany, he took a very direct line over the passes in Austria and Switzerland to reach Riva on Italy's Lake Garda.

The Heckmair route is considered an absolute classic and covers about 248 miles (399 km) and 44,291 feet (13,500 m) difference in altitude. The bike has to be pushed or carried at certain points along the way. Is that hard when you've got an eMTB? Claus Fleischer, CEO of Bosch eBike Systems, and mountain bike pro Stefan Schlie tried it.



The idea

"Ötzi made the crossing on foot, Hannibal took a pack of elephants, Paulcke used skis, but no one had done it with a mountain bike." This is how Andi Heckmair is quoted when he set a milestone in mountain biking history by crossing the Alps on his bike in 1990. His father, Anderl, was the first to climb the Eiger north face, but Andi took to his bike instead. The Heckmair route leads from Oberstdorf in Bavaria to the shores of Lake Garda, about 248 miles (399 km) across the Alps, on narrow paths and over a total of 44,291 feet difference in altitude. It was an endeavor Heckmair said in an interview that you'd have to have "masochistic tendencies" to attempt with a 55-lbs eMTB.

That statement goaded us to try just that. Every summer, Claus Fleischer, CEO of Bosch eBike Systems, and multiple runner-up Trials World Champion Stefan Schlie take a research trip together to get to know the various mountain-bike tourism concepts in the Alps, gather new inspirations and explore the possibilities of modern eMTB systems.

Their journeys reflect the spirit in which Bosch eBike Systems was founded in 2009 as a start-up within the Bosch Group, leading to significant advances in eMTB development in recent years. Now, 30 years after Andi Heckmair's first crossing of the Alps, they decided to try the Heckmair 2.0 adventure, this time with electric drive units.

Planning

"You guys are nuts. That's a crazy idea. Yes, we're in." That was the response from everyone Claus and Stefan asked for support. Markus Greber, photographer and journalist, eventually accompanied them on the trip, while transalpine expert Uli Stanciu assisted with GPS tour planning. The route included various sections where the eMTB needed to be pushed or carried, a real grind on the Schrofen Pass on the border between Germany and Austria, the Schlappiner Joch on the way into Switzerland and finally at Passo di Campo in Italy. They decided to do it anyway, four countries in four days instead of six, including a number of tricky passages. Claus says: "Otherwise, it wouldn't be a true Heckmair Route 2.0 for us."

Claus and Stefan prepared for the trip using the GPS data on their Nyon display units. They decided on four stages covering all original passes of Heckmair's route, plus one reserve day. The only exception was the section after Livigno, an Italian ski resort on the border with Switzerland, where Uli Stanciu planned a more scenic variant through the Valdidentro and Val Verva, instead of the paved route over the Gavia Pass.

**"FOUR COUNTRIES IN FOUR DAYS.
OTHERWISE, IT WOULDN'T BE A
TRUE HECKMAIR ROUTE 2.0"**

Claus Fleischer



On the legendary trail: mountain bike pro Stefan Schlie (left) and Claus Fleischer CEO of Bosch eBike Systems (right), were accompanied by transalpine pioneer Andi Heckmair for the first 9 miles.

Day 1

Departure at the foot of the Alps



Pioneer: 79-year-old Andi Heckmair (left) also came up with the concept for the world's first bicycle-specific backpack. His pioneering spirit inspired Fleischer.

The adventure starts early in the morning in Oberstdorf on the German side of the Alps, with spare rechargeable batteries and a charger in a backpack and other spare parts in the support vehicle. On the first 9 miles (14 km) to the entrance on the Schrofен Pass, which takes them from Germany to Austria, and which represents the highlight of many trips, especially for mountain bikers, Claus and Stefan are accompanied by the 79-year-old pioneer, Andi Heckmair.

When Heckmair set out 30 years ago, tourism in the Alps was quite different. It was only later, when increasing numbers of people were attracted to the Alps, that discussions flared up. Now, hikers and mountain bikers share centuries-old mule trails and trade routes. The eMTB is also part of the debate. The motor and the range of the rechargeable battery can help keep congested routes clear, as well as enabling paths far off the beaten track to be explored. "The Alps are not generally overcrowded, however conditions can get congested at certain points," say mountaineering legend Reinhold Messner. "One valley further over, the Alps are completely empty." The rechargeable battery support is a great help in leaving the hotspots behind, but consideration, tolerance and respect between people, as well as for nature, always helps. This is true whether you enjoy the mountains on foot or by bike.

For Claus and Stefan, the first day in the saddle ends after five hours and 32 minutes of trip time. With two rechargeable batteries and recharging during the breaks, they have covered the first 57 miles (92 km) and 10,663 feet (3,250 m) difference in altitude.



Steeplechase: From Oberstdorf in southern Germany, the route first leads over the Schrofен Pass to Austria.

Day 2 Uphill Flow fireworks in Switzerland

The second day starts with a feat of strength at the Schlappiner Joch on the way from Austria to Switzerland, 1,200 feet (366 m) difference in altitude across 0.9 miles (1.4 km). Barely rideable, a narrow, steep climb, part of which is still blocked, forces you to push or carry your bike. But after a lunch break in Davos-Dorf, Switzerland, Claus and Stefan can fully enjoy the fascination of the eMTB on the ascent to the Scaletta Pass as they head for Italy. "An uphill flow trail full of fireworks," Stefan says. Uphill flow, the feeling of being at one with the trail, only uphill instead of down. Claus and he had already hatched this idea in 2013.

Spurred on by exhilaration, the team traverses Switzerland from north to south and finally reaches Livigno via the completely rideable Chachauna Pass: 5 hours, 44 minutes of trip time, 52 miles (84 km) ridden and, 12,139 feet (3,700 m) difference in altitude. In the skies of the Italian Alps, low rain clouds and high winds already herald the challenges of the coming days.



After a long day: Claus and Stefan arrive exhausted but happy in Livigno.



Blocked trail in an idyllic setting: The Scaletta Pass from Davos into the Engadine is a genuine uphill pleasure for experienced mountain bikers.



The calm before the storm: On their way to the Scaletta Pass, Claus and Stefan ride their eMTBs up the trail, which is still easy going.

Day 3

Italian bad weather test

Dark clouds and strong winds accompany the pair from Livigno through the Val Alpisella as they head for the human-made lakes northwest of Bormio. The trails become a real challenge due to the weather, so good riding technique becomes essential. The ideal bike and foot position, the correct pedaling sequence and pedal position: If you want to push the limits with your eMTB and still be safe, good riding technique is key.

It's pouring buckets as they pass through the Italian Alps in Valdidentro and Val Verva, but still in good spirits. At the top of the pass, the wispy clouds part and isolated rays of sunlight light up the bizarre mountainous world, as the mist rises from between the boulders. After 73 miles, 11,318 feet difference in altitude and almost 6 hours of riding, the group reaches the finish at the foot of Mount Adamello.

Dark omens: Strong winds and clouds herald bad weather. Heavy rain makes the trails through Val Alpisella, Valdidentro and Val Viola a challenge.



Ready to jump:
The steep, slippery trail over roots and rock gardens demands balance and skill.

Day 4

Arrival and outlook

The final leg is delayed. Stormy weather settles on the Alps for two days, making the last and decisive stage seem impossible. What now? Leave or wait for one last opportunity? That would mean two days of enforced rest and crossing the notorious Passo di Campo at dawn.

They still want to complete the Heckmair 2.0 and, after 48 hours of waiting around, set off up to Passo di Campo. Partially blocked, a steep, slippery cart path leads ever upward through a fairytale forest still wet from the rain.

Contrary to the warnings, they only have to walk a little and can ride more than expected, crossing sections of knotted roots, rock gardens and slabs. Here, too, the best riding technique and alpine experience are required. This pass is not for beginners. At 7,380 feet (2,249 m), there is a nice surprise after the last challenge of the Passo di Campo. Uli Stanciu and his wife, Gio, are already waiting for the group with a chilled Nosiola from Trentino.

ONE BIKE, ONE GOAL AND PLENTY OF COURAGE

All are passionate athletes in various disciplines. Always ready to take on new challenges and satisfy their curiosity. The eBike helps them to feel the flow, even when on the way to training. Sometimes it provides powerful support and other times it simply extends the rider's range. Here, five athletes share how they experience the inspiring feeling and how it drives them onward.



Léa Deslandes

Climber and mountain biker, France



When former professional climber Léa Deslandes dons her climbing boots these days, it's just for fun. It's also to be in even better shape for her second sporting career with the eMountain bike. In 2020, the 35-year-old athlete won the E-Tour du Mont Blanc, a three-day adventure race covering more than 186 miles (300km) and 52,493 feet (23,810 m) difference in altitude, together with her compatriot Nadine Sapin. She aims to defend the title in 2021. Adding to her training workload, every day she rides her eMTB from her home in Landry in

the French Alps to Bourg-Saint-Maurice, where she runs the "Wood Bear Cafe," involving an altitude difference of 3,937 feet. She draws inspiration from the wide range and the Uphill Flow feeling that electric support gives: "For example, I could take out my bike tomorrow and cover 273 miles and 32,808 feet (1,200 m) difference in altitude, reaching the city of Dijon 40 hours later." Just a mind game? Who knows? She may have already crossed the mountains and be on her way to Burgundy in the center of France.

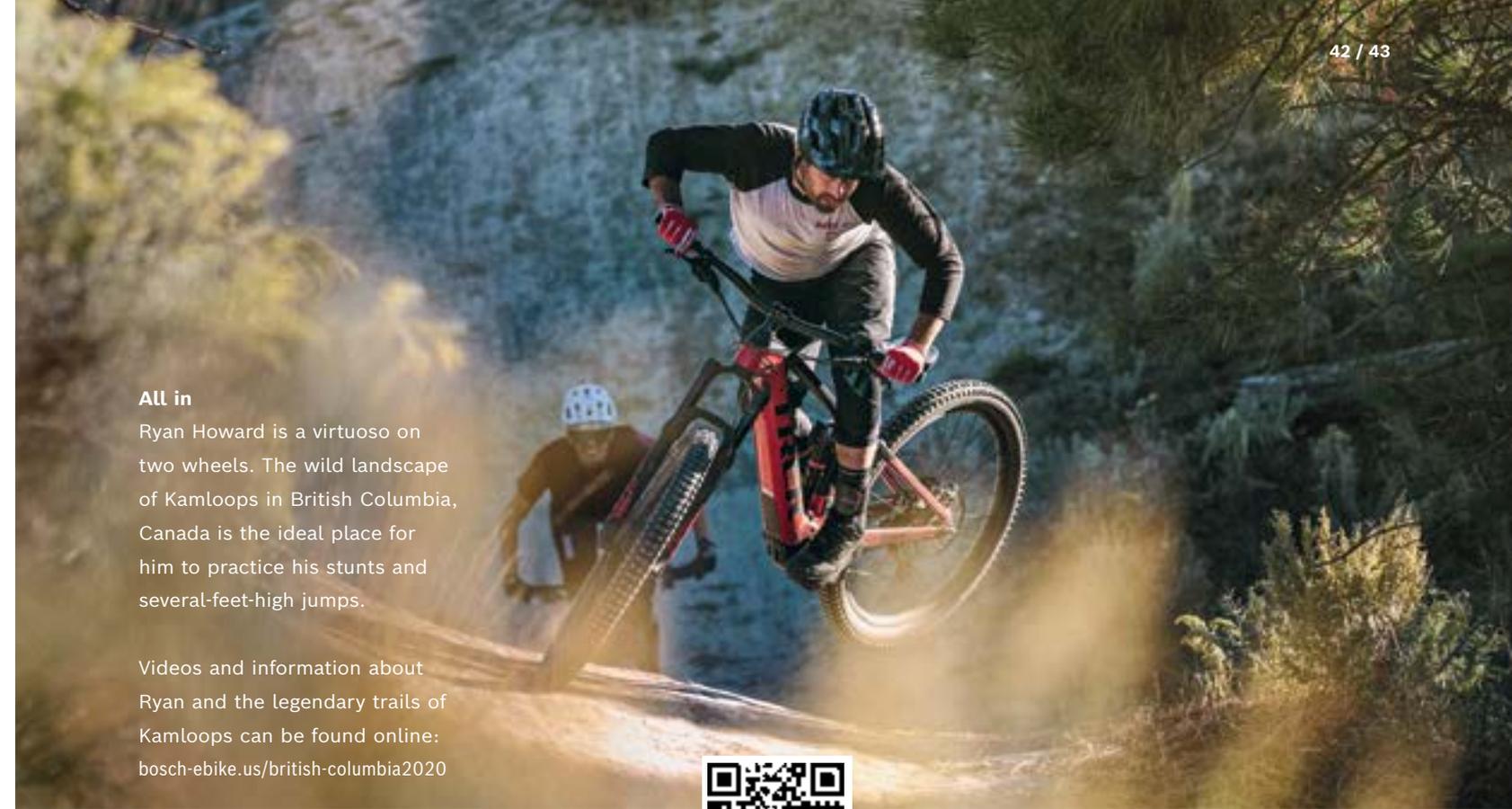
Ryan Howard

Freestyle rider, United States



Faster. Further. Bolder. Since Ryan Howard started riding his Trek Rail, his passion for the work has increased even more. For the 33-year-old, work means riding his bike and enjoying the time in the saddle. Few people try such daring aerial tricks as the pro from Aptos in California, and he does it with such style. He also enjoys the uphill flow and the exhilaration of flying up mountains on an eMTB. This saves strength, which he can then use in a

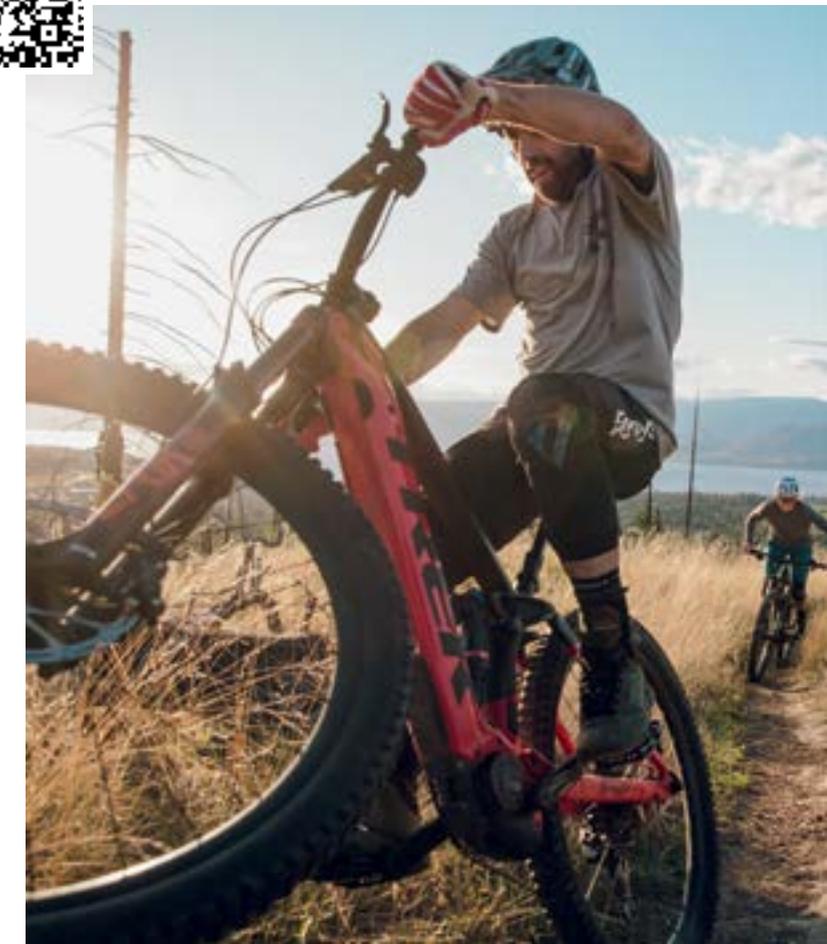
few more training rounds. He has won prestigious Crankworx Whip-Off races in Europe and New Zealand and always pushes himself to the limit. Sometimes, this puts him in situations that demand a certain respect even from experienced riders like himself. "But that's part of self-development," says Howard, who is known in eMTB circles simply as "R-Dog." That's because he can devour a sporting challenge like no other.



All in

Ryan Howard is a virtuoso on two wheels. The wild landscape of Kamloops in British Columbia, Canada is the ideal place for him to practice his stunts and several-foot-high jumps.

Videos and information about Ryan and the legendary trails of Kamloops can be found online: bosch-ebike.us/british-columbia2020



An affinity with the sea: Pauline Ado can read the waves to know whether it's worth taking out her surfboard. She uses her fatbike to get to the beach at Les Landes on the Atlantic coast.



Pauline Ado

Surfer, France



Pauline Ado has ambitious plans that include the Olympics and the women's championship tour of the world's best professional wave riders. The 30-year-old surfer, who finished first at the World Surfing Games in 2017 in Biarritz, enjoys the best training conditions right on her doorstep: the Atlantic waves on the beach of the French coastal town of Anglet, not far from Biarritz itself. "I love moving fast on the water," says Ado. "No two waves are alike, and when I become at one with the surf I feel completely free; it's pure euphoria!" Ado experiences this

fantastic flow when she is absorbed in the action. This is something she often experiences even on the way to the Atlantic coast: Her fatbike, an eMTB with extra wide tires, allows her to carry up to three boards, lashed along the side of the bike. "I can even ride through heavy sand with it, which is fantastic!" she says. It will enable her to reach the waterline effortlessly with her equipment long after her competition days are over. Pauline Ado is certain of one thing: "I'll be in the water every day!"



Feeling the flow in wild water: The professional kayaker from Tennessee plunges his boat into the abyss at the Godafoss waterfall in Iceland.

Nick Troutman

Kayaker, United States



For professional kayaker Nick Troutman of Rock Island, Tennessee, the world is made up of rivers. And waterfalls. Or preferably a combination of both, enabling him to plunge in his boat like an arrow from a bow. "This year I'm aiming to break the 100-foot (30 m) barrier," explains the 32-year-old former world champion freestyle kayaker. That would be a good 98 feet (30 m). His highest waterfall to date was approximately 80 feet (24 m). Whenever possible, he uses his eBike to scout for suitable locations for his adventures. For this

purpose, the Canadian-born Troutman travels around the world for up to 10 months a year. You might find him in bays on the Zambezi in southern Africa, in river canyons in China or in the rainforest on the Río Alseseca in Mexico. As a photographer and influencer, he seeks out spots that few people know. The greater the risk, the more likely Troutman is to get into the flow, "because that's when I stop thinking and go into auto-pilot mode." This incomparable feeling is familiar on land, too, when he is on his eMTB.

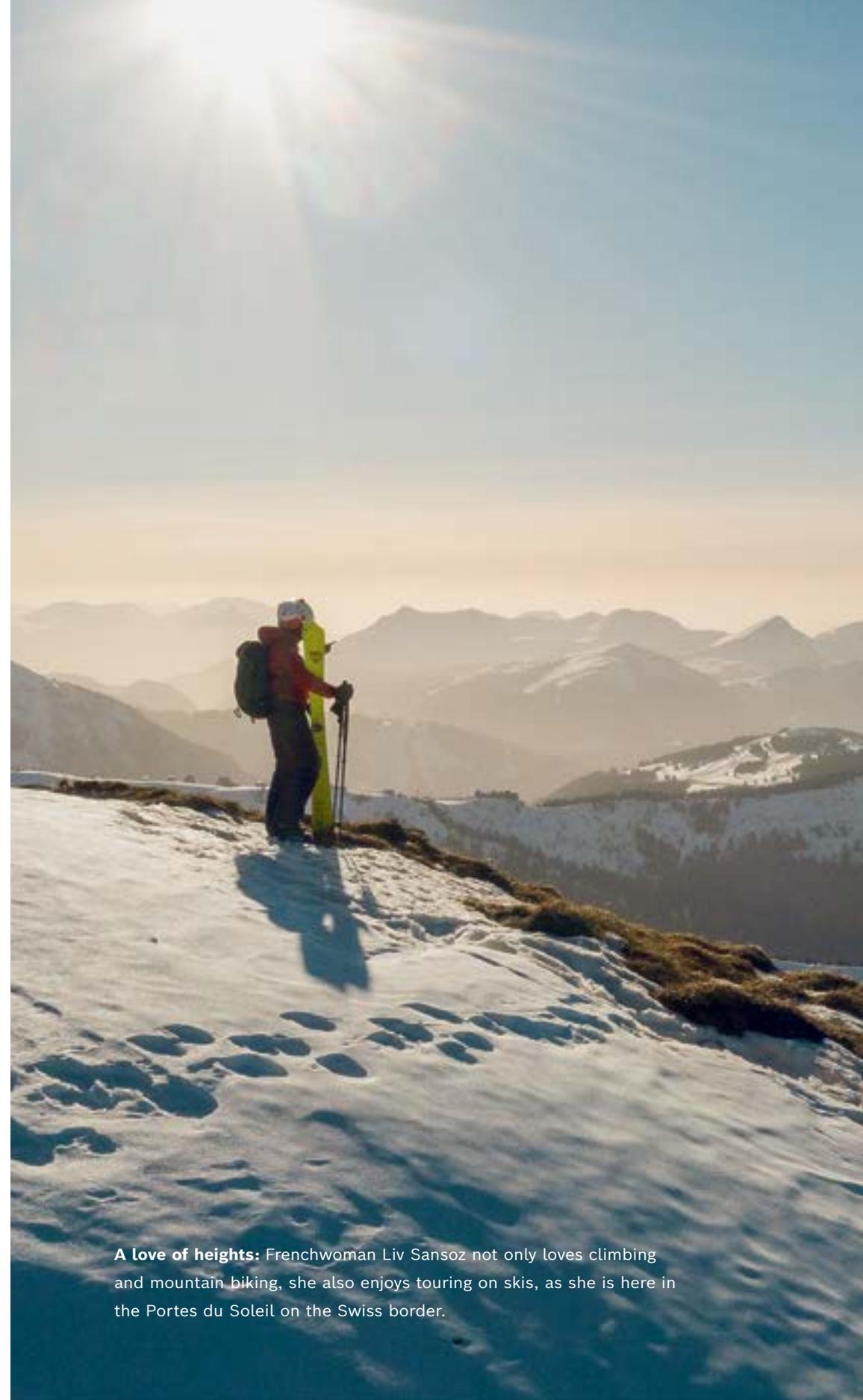
Liv Sansoz

Alpine mountaineer, France



Aiming high is what drives Liv Sansoz. She is a two-time world champion in lead climbing, a discipline that involves getting as far up a steep route as possible. Mountains are her passion, whether by rope, skis or paraglider. She recently discovered something new to spark her passion: "The eMTB has opened up the mountains to me in a new way. I can get up higher and therefore into the snow earlier and later in the season," says the 44-year-old multi-discipline athlete from Chamonix at the foot of Mont Blanc, a place she calls

her "playground." Her biggest goal is always to beat her own personal best: In 2022, her aim is to climb to 26,246 feet (8,000 m) in the Himalayas without oxygen. After being the first woman to stand on the summits of all 82 13,000-foot (3,962 m) peaks in the Alps in just 18 months, this year she is focusing on training as a high-altitude guide. The alpine mountaineer will then be able to pass on what her mountain sport has taught her: the ability to constantly adapt to new circumstances and make the right decisions quickly.



A love of heights: Frenchwoman Liv Sansoz not only loves climbing and mountain biking, she also enjoys touring on skis, as she is here in the Portes du Soleil on the Swiss border.

Featured products

Performance Line CX

A drive system for limitless riding experiences. Exploring off-road or summiting mountains, performance is always guaranteed.



bosch-ebike.us/performance-cx

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Kiox

The smart display provides information on power, cadence and heart rate.

bosch-ebike.us/kiox

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PowerTube 625

The battery provides a boost, even on long distances.

bosch-ebike.us/powertube

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TOO GOOD TO WASTE

An initiative in the English town of Milton Keynes, 56 miles (90 km) northwest of London, saves edible food that is no longer saleable from being thrown away and redistributes it to those who need it most. Bosch eBike Systems supports this social project.



New towns have a lot of advantages, provided they are well-planned. Milton Keynes, 56 miles (90 km) northwest of London, is one such town: It is just 54 years old, has many roundabouts, lots of parkland, 22 million trees and a dense network of cycle paths.

When Ritchie Dixon rides his electric-powered cargo bike around Milton Keynes to deliver surplus food from supermarkets to community fridges, he sees a lot of green spaces around him. "I listen to the birds, the rustling of the trees, I smell the flowers and sometimes stop to tell curious people what I'm up to," he says.

Ritchie Dixon is a rider for Hubbub's Food Connect pilot project, and he loves his job. A former social worker, the 53-year-old family man is delighted to be able to do something for the people of Milton Keynes. He's thrilled with how easy his eCargo bike is to ride, even when it's fully loaded. eCargo bikes can carry up to 551 pounds (250 kg), and on average Ritchie carries around 220 pounds (100 kg). To stay on the right route and to ensure the food reaches the right people, he follows the navigation instructions on his Nyon display on the handlebar. "It's never let me down," he says. "People can count on me finding them."



Rescue mission: Rider Ritchie Dixon on his rounds by cargo bike to deliver food to those in need.

He works for Food Connect, a food rescue and redistribution initiative set up by London-based charity Hubbub. Supported by Bosch eBike Systems, Food Connect uses three Bosch-powered eCargo bikes and an electric delivery van to collect and redistribute food in Milton Keynes in an environmentally friendly way.

The fight against food waste

Save instead of waste: Initiatives following this principle have emerged all over the world in recent years to combat a global problem. More than 1.6



Delivery to the front door: People who can't leave home get food brought to them by Food Connect.

billion tons, one-third of all food produced for human consumption worldwide, ends up as refuse every year, according to United Nations estimates. This has dramatic consequences for land use, water resources and carbon dioxide emissions. According to the UN, food waste is responsible for 8% of emissions worldwide.

Around one-third of the world's food ends up as waste each year

The pandemic has exacerbated the problem, including in Milton Keynes. During the national lockdown in summer 2020, Food Connect saved more than 21 tons of food from being thrown away. For the most part, these are products

that are no longer saleable but are in perfect condition, with expired best-before dates, or fruit and vegetables with minor blemishes.

In many U.K. cities, this food is stored in community fridges, known as "food hubs," which are part of Hubbub's network from which any member of the public can help themselves. Volunteers help in providing the food. They all work just as conscientiously and safely as the supermarkets where the goods originate. Anyone who goes to the community fridge is allowed to take up to 10 products per person per day and share them with friends or acquaintances.



Sustainability pro:
Helen Innes, Food Connect project manager.



Climate-friendly course:
The Nyon computer navigates the eCargo bike effectively to its destination.



More on Food Connect:
bosch-ebike.com/food-connect

Fast and effective

"Since Food Connect started delivering food to community fridges, people can be sure there's always something available when they come," says Helen Innes, who is leading the pilot project in Milton Keynes on behalf of Hubbub. "This is a very good model for the quickest way to share a lot of food that would otherwise have been disposed of." 77,500 people have been helped in this way so far, many of them regular users. Food Connect handles the logistics behind collecting expired food and immediately distributing it to stakeholders through its network of community refrigerators. "We don't have much time," says Innes. "The eCargo bikes help us get from A to B quickly, so the food stays fresh and the cold chain isn't broken."

The eBike has not only proven itself to be the fastest means of transport for distances of up to 6 miles (10 km), but also helps to reduce the impact on the environment. For example, an eCargo bike with Dual-Battery produces just 30 grams of carbon dioxide for a journey of 6 miles. The average emissions from a car for the same distance are 1,130 grams of CO₂.

Good and green: This is the principle on which the project is to be expanded after a successful pilot phase. Riders are paid a salary, and the service is expected to develop into an income-generating business, with the goal of creating environmentally friendly jobs.

Innes is confident that Food Connect has a future in the city: "The bridges we've built recently with many businesses in the city are sustainable, and we can use that to develop Food Connect even more." This is a promising prospect, and a model not just for cities in the U.K.

Featured products

Cargo Line

With a capacity of up to 550 lb., eCargo bikes can transport almost anything. The Cargo Line drive unit offers the rider up to 400% assistance.



bosch-ebike.us/cargoline

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Nyon

Easy navigation via touchscreen with the connected computer.

bosch-ebike.us/nyon

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DualBattery

Full power: the ideal rechargeable battery for cargo bikes.

bosch-ebike.us/dual-battery

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SUSTAINABILITY THAT AIDS PROGRESS

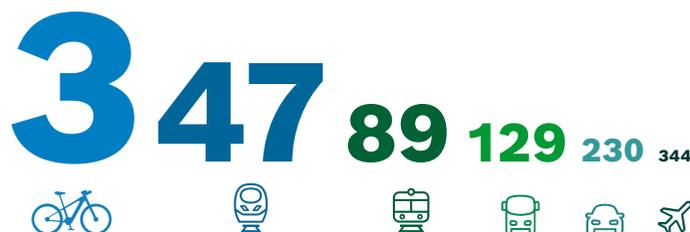
Sustainability is a community concern. We can all help to protect resources and emissions, out of respect for nature and future generations. Especially in traffic: Our mobility is responsible for more than a fifth of all CO₂ emissions worldwide. Riding an eBike helps to lower this figure. It enables us to reduce traffic and relieve the environment.

Mobility & CO₂ balance

The eBike is the next evolutionary step in cycling, allowing the rider to keep going longer, covering greater distances and overcoming greater differences in altitude. Overall, eBikes significantly extend the possibilities for use without

substantially changing the sustainability of the vehicle when compared to a conventional bicycle. This is the case even though more energy is required for the battery and drive system than for the bicycle, especially in production. eBike riders use their eBikes two to three times more often in everyday life, often as an alternative to cars and other means of transport. In addition, cyclists cover significantly longer distances on their electric bikes. In addition, the required energy consumption is very low, averaging around 7 Wh of electricity per 0.6 mile traveled. CO₂ emissions are likewise minimal. An eBike only produces 3.3 grams of CO₂ per mile.

Less is more: CO₂ emissions in comparison



Sources: CO₂ emissions from an eBike in use, basis: internal calculation with TÜV Rheinland Energy GmbH; all other means of transport: CO₂ equivalents of emissions in g/Pm (passenger miles), Federal Environment Agency

Batteries & Recycling

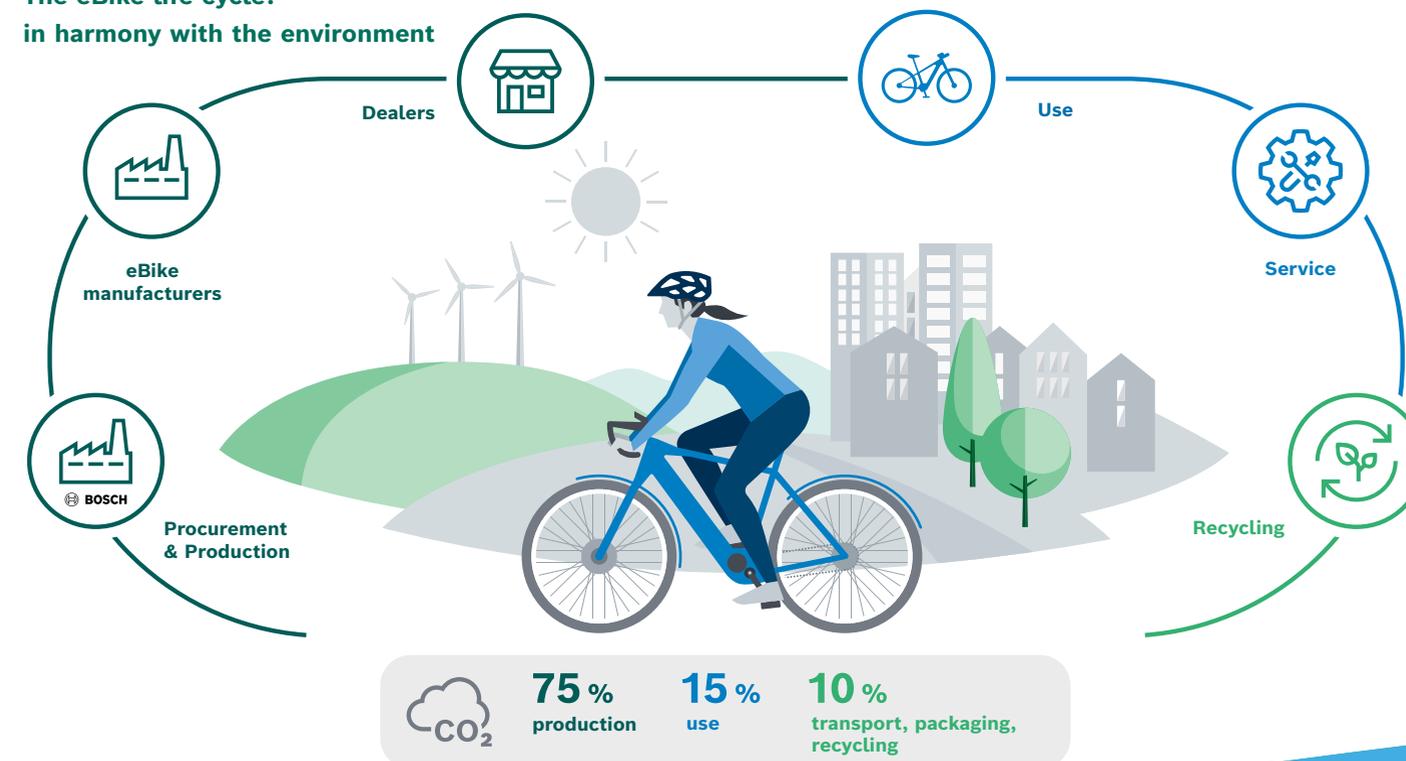
Correct recycling of rechargeable batteries conserves resources. It is recommended for eBike users to inquire with their local dealer if they accept old or defective batteries so they can be recycled in an environmentally friendly way. Bosch eBike Systems is in contact with many recycling companies and supports new and sustainable recycling methods. In the recycling processes used by the German GRS industry solution, more than 80% of many valuable raw materials are recovered and can be reused for new products.

The aim: design for environment

Sustainability plays a central role at Bosch eBike Systems and is part of the corporate strategy. Even during the development of a product, everything revolves around the question of how it can improve people's quality of life, minimize environmental impact and how to reduce the consumption of resources even further in our work. Design for environment is an integral part of the product development process: Already in the concept phase, we work out how a new product can be designed to be as sustainable as possible. Even at this early stage, the

criteria considered covers the entire value chain, such as the choice of environmentally friendly raw materials, the use of recycled materials, manufacturing steps that are as energy-efficient as possible and packaging design that favors sustainable alternatives. This approach is completely in line with Bosch's sustainability strategy. It aims to minimize the environmental impact of products, ensure transparency and responsibility in the supply chain and establish a recycling economy.

The eBike life cycle: in harmony with the environment



More info on sustainability with eBikes: bosch-ebike.us/sustainability



TRANSPORT FOR TOMORROW

The United Nations estimates that two-thirds of the world's population will live in cities by 2050. How will this affect traffic? And what needs to be done to ensure that the growing metropolitan areas are liveable for people? We asked three experts about how mobility is set to change in 10 to 15 years.



Gregor Dasbach, vice president of Digital Business for Bosch eBike Systems, sees the eBike as the driving force behind new mobility. For the future, he foresees new digital services that will enrich the riding experience.

Mr. Dasbach, how do you see mobility developing during the next 10 years?

It is likely that the space currently dedicated to cars will be freed up more for other road users. Cities are increasingly realigning themselves according to environmentally friendly principles. This includes more sharing services and electric vehicles, which, together with public transport, offer greater scope for intermodal travel. The bicycle in particular is taking a more central role.

What makes you so sure of this?

During the pandemic, it became obvious that work and private life are increasingly merging. The increasing trend of working from home means that long commutes are no longer necessary. As a consequence, people increasingly associate travel with leisure time. You might take your bike to a meeting first thing and then head into the woods to clear your mind. Mobility is not just a means to an end, but increasingly part of an individual lifestyle.

What role does the eBike play in this?

It is relevant because it combines both: In the city, it is often the faster mode of transport, and it enhances your quality of life. A few years ago, the eBike was primarily a kind of mobility aid for people who didn't want the effort of riding a bike or who believed that they were too old to do so. But the truth is, everyone is familiar with situations where you don't use your bike because it's stressful or inconvenient in some way. eBikes increase people's motivation to ride a bike. The eCargo bike reinforces this trend. More and more people are beginning to wonder: Do I really need a car in the city?

Couldn't I drop my two children to day care with a cargo bike? What else is possible? Shopping at the farmer's market, a trip to the hardware store? This is where opportunities arise that will get a huge boost from electrification.

As a manufacturer of eBike components, how is Bosch preparing for future developments?

We are constantly asking ourselves about the challenges that cyclists face. We provide innovative answers to these questions. For example, we have introduced Help Connect, a service that calls for help if a rider has an accident. We were the first to introduce ABS, an anti-lock braking system for eBikes. Another focus is on products for theft protection and other digital functions. Connecting the eBike with digital services is an elementary stepping stone on the way to future mobility. By introducing the smart system, we are expanding the ways to connect the cyclist and the environment with the eBike. For example, cyclists can regularly look forward to new functions that are conveniently transferred to the eBike via the app.

How digital will the eBike of the future be?

As soon as you combine the eBike and smartphone, you have a connected riding experience, so, for the most part, this is already possible right now. In the future, riders will not only be connected while cycling, but also when their eBikes are parked. Riders might want to make sure that their bike is still there when they return to them. This can only work if the bikes are connected to the internet to give the owners this information. Another advantage of a connected eBike is the ability to communicate with other road users.

What advantages do you mean?

We know from studies that many of the accidents involving bikes in the city are turning where cyclists were overlooked. In the future, by connecting road users, drivers and vehicles will be warned to avoid such accidents. I believe there is enormous potential to be tapped through communication with other road users.

How are digital services changing the eBiking experience?

Rather quite decisively. eBiking is becoming an increasingly individual experience. This begins right from the start. It doesn't really matter whether I unlock the eBike with a touch of the finger or by smartphone. The eBike will suggest a route that fits my riding profile. It handles gear shifting, making the most of my battery for the trip and effortlessly making my favorite apps part of my eBike experience.

What products will be under development at Bosch eBike Systems in the coming years?

We are pursuing two strategies in developing new products and services. Our first concern is rider safety, from the further development of ABS to assistance in the event of an accident. The second major topic is digital services that will make eBiking an even more enjoyable and individual experience in the future. This requires seamless connectivity. After all, the many new functions are only truly fun if the hardware and digital components are perfectly matched. We will continue to expand our innovation leadership in this area.

"DIGITAL SERVICES ARE SIGNIFICANTLY ENHANCING THE eBIKE EXPERIENCE"

Gregor Dasbach, vice president of Bosch eBike Systems



Stephan Rammler is working on sustainable mobility at his institute in Braunschweig, Germany.

S

Stephan Rammler, sociologist and founder of the Institute for Transportation Design, predicts a fundamental transformation in cities that will only succeed with sustainable mobility.

Mr. Rammler, how will cities be different in the future?

As more and more people move to urban areas, the demand for living space, cultural and leisure facilities and mobility will also increase. The question is how to reconcile future expectations with the available urban space.

What's your solution?

The increasing density of the population in cities will give rise to a central demand for greater sustainability, as otherwise we will simply run out of air to breathe in cities due to climate change. This affects many areas, but first and foremost mobility. Individual ownership of the classic combustion engine car with its significant ecological footprint cannot continue. As is evident in younger generations, usage patterns are shifting towards sharing, from car and ride sharing to electric scooter and bike sharing services.

Will the city of the future be car-free?

I wouldn't quite go that far. In the future, however, there will certainly be more electrified vehicles on the road. Politicians will have to incentivize more sustainable mobility, for example, by introducing a toll for motorists in the city. Because one thing is clear: The transformation can no longer be put on the long finger.



R

alph Buehler, professor and transportation researcher at the Virginia Tech Research Center in the U.S., discusses ways to create a bike-friendly city and the Copenhagen model.

Mr. Buehler, Copenhagen is universally regarded as a model for bike-friendly traffic management. What can other cities learn from it?

Like many smaller cities in the Netherlands, the statistics for the Danish capital are the stuff of dreams. Forty-nine percent of the population cycle to school, university or work. However, this did not happen overnight, as Copenhagen is a traditionally bike-friendly city that has stepped up its measures over the last 30 years. The reason why the city has become a model for the world at large can best be summed up with a formula for success: separate, protected cycle paths along the main traffic routes. These allow everyone to get around quickly and safely.

Do you see signs that other cities are following suit?

Yes, there is already a trend in many cities around the world to create protected bike lanes to allow cyclists to get from A to B safely and quickly, often in combination with more car-free zones in downtown areas and streets with speed limits. This is part of a transport policy that gives more space to pedestrians, cyclists and public transport, while restricting car traffic and making it less attractive. This can be seen in Montreal in Canada

Researcher Ralph Buehler is the author of "City Cycling" (2012) and "Cycling for Sustainable Cities" (2021) and commutes to work by bike himself.

"IT IS IMPORTANT TO HAVE SEPARATE, FAST BIKE LANES FOR COMMUTERS"

Ralph Buehler, traffic researcher

or Portland in the USA, as well as in the European cities of Paris, Vienna and Barcelona.

What is driving this development?

Municipal authorities around the world face the challenge of reducing CO₂ emissions, minimizing traffic congestion and combating local air pollution. This is the only way to maintain quality of life. We're talking about values like health, safety and recreational opportunities. For this, the traffic space needs to be reallocated.

How important is the role of the bicycle in the mobility revolution?

Cycling will play a major role in sustainable transport. In cities in particular, it is the perfect means of transport for many people when it comes to distances of up to six miles (10 km). The increased popularity of eBikes is giving this development a further boost. They allow longer distances to be covered and appeal to new target groups. For example, commuters no longer get into a sweat, even on long and steep routes to the office. This requires an expansion of the cycling path network so that people from outlying areas can commute quickly to the city and back home again. Many cities still have some catching up to do here.

Featured products

The smart system

Longer riding enjoyment, 100% connectivity: The smart system from Bosch regularly enhances the eBike with new functions.



bosch-ebike.us/smartsystem

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ABS*

For more control and stability when braking: Bosch eBike ABS prevents wheel locking and boosts the effectiveness of the braking system.

bosch-ebike.com/ebike-protect

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*Product not available in NA.

eBIKE SYSTEM AND PRODUCTS 2022

The eBike saves time. With a new app, control unit, display, battery and motor that all work together to connect the bike and ensure even more fun and safety in 2022. Quality and a passion for innovation are the driving forces behind new products and digital services with which Bosch is taking the eBike experience to the next level.



Full speed ahead:
The eBike offers the possibility to improve fitness and extends the radius, both in the city and on longer journeys.

RIDING IS FUN

An eBike is much more than a bicycle and offers you numerous advantages. The motor gives you an extra boost when you need it. At the same time, you are protecting the environment, improving your fitness and having fun. More and more people are discovering the eBike for themselves, whether for everyday use, in their leisure time or when traveling.

Reasons to ride an eBike:

You enjoy the ride:

The motor provides support on challenging climbs and conserves energy on long rides. This way you can easily expand your own radius.

You're improving your health:

Regular exercise keeps you fit and puts you in a good mood. Studies have found that eBike owners get on their bikes more often and cover much longer distances than conventional cyclists.

You're saving the environment:

With an eBike, traffic can be relieved just as much as the climate. It often makes the car redundant, takes up little space and causes neither noise pollution nor exhaust fumes.

You can all ride together:

The electric support compensates for differences in rider performance and makes the ride a shared experience, even if people with different levels of fitness are on the road.

You save time:

On a distance of up to 6 miles (10 km), eBikes are the fastest means of transport in a city. The daily route to work can be covered in a relaxed manner on an eBike.



The components of the eBike system

① App

Enhance your eBike experience with a variety of digital features and services.

Find out more >> p. 76

② Display

Conveniently control your eBike with the computer or smartphone solution and control unit.

Find out more >> p. 74

③ Battery

Together with the charger, optimally supply your eBike with power.

Find out more >> p. 78

④ Drive unit

Cover longer distances and more differences in altitude thanks to electric assistance.

Find out more >> p. 70

WHICH eBIKE TYPE ARE YOU?

In which situation do you want to use your eBike? For everyday use or in your leisure time?



Every day

Do you often drive short distances from A to B? Or do you use an eBike for commuting to work or for transportation?

From A to B

Your bike should look stylish and be able to connect to your favorite apps on your smartphone.

Your eBike should be practical, easy to handle and offer you additional protection against theft.

Commuter to work

You want to ride your eBike safely to work every day. Longer distances should also not be a problem.

Transport

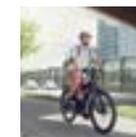
With your eBike, you want to transport your shopping and take your kids to school.



Urban eBike: The stylish networker
Your products: Active Line Plus drive unit, SmartphoneHub, PowerTube 400, COBI.Bike app



City eBike: The practical city cruiser
Your products: Active Line drive unit, Kiox, PowerPack 400, eBike Connect app, Lock



Speed eBike: The reliable company vehicle
Your products: Performance Line Speed drive unit, Nyon, DualBattery 1250, eBike Connect app



Cargo eBike: The sustainable second vehicle
Your products: Cargo Line drive unit, Nyon, DualBattery 1000, eBike Connect app

Both

Would you like to use your eBike for short rides, day trips or for longer vacations?

Comfortable short trips

Your eBike should be comfortable and allow short trips on different surfaces.

Day trips

On your day trips, you like to ride quickly and be minimalistic. A sleek design is important to you.

Multiday trips

With your eBike, you want to be able to take longer trips with bags as well as navigate, and plan routes.



Hybrid eBike: The comfortable all-rounder
Your products: Performance Line CX drive unit, Nyon, PowerTube 625, eBike Connect app



Gravel eBike: The athletic all-rounder
Your products: Performance Line drive unit, Kiox, PowerTube 500, eBike Connect app



Touring eBike: The optimal travel companion
Your products: Performance Line CX drive unit, Nyon, PowerTube 625, eBike Connect app

Leisure

Are you looking for a challenge on asphalt or do you prefer off-roading on trails?

Asphalt

You often work out with friends. Your eBike should give you a tailwind and push your limits.

Trails

You like to ride challenging trails. You want to have just as much fun with your eBike uphill as you do downhill.



Road eBike: The training partner with stamina
Your products: Active Line Plus drive unit, Kiox, PowerTube 500, eBike Connect app



Off-road eMTB: The dynamic powerhouse
Your products: Performance Line CX drive unit, Kiox 300 & LED Remote, PowerTube 750, eBike Flow app

THE SMART SYSTEM



100% connected

The smart system by Bosch eBike Systems – consisting of eBike Flow app, control unit, display, battery and drive unit – ensures an individual eBike experience. The new system generation combines technologically high-quality eBike components with digital functions and thus raises your everyday and leisure riding pleasure to the next level.

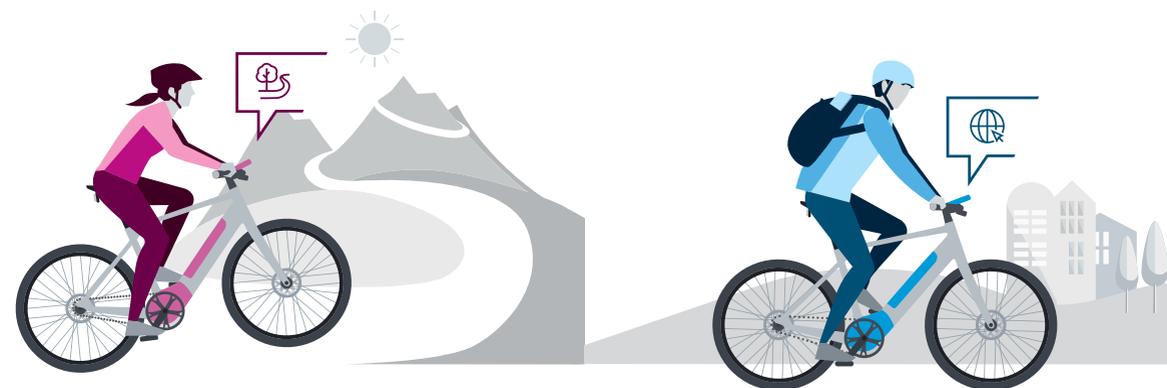


bosch-ebike.us/smartsystem



Easily upgraded

Keep discovering new things: With the smart system, your eBike continues to develop even after purchase. Your eBike experience is always enriched with new features – thanks to updates 'over the air,' whenever and wherever you want. The Bosch eBike Systems smart system brings the rider into the digital future.



Ride farther

The new PowerTube 750 battery in the smart system offers the maximum range among the PowerTubes in the current Bosch portfolio. In addition to a beautiful design and integration in the eBike, safety, easy handling and durability are top priority.

Always connected

The new eBike Flow app is the key to your Connected Biking experience. It connects you to your eBike and your eBike to the Internet. Via Bluetooth, the eBike Flow app can be easily connected to the LED Remote. This way, you are always connected to your eBike, and thanks to smart, customizable functions, you are always ready for new adventures.



Modern eBike design

The components of the smart system can be integrated seamlessly and enable an appealing design for the highest demands on performance and aesthetics. The Kiox 300 display provides a clean look on the handlebars and boasts optimal readability, as well as animation effects. Stylish and organized at the same time.



Convenient compatibility

The components of the smart system are compatible with each other and enable optimal performance for every rider. The eBike Flow app integrates third-party apps such as Apple Health and automatically synchronizes activity data.



The demands placed on drive units are as varied as their users. That's exactly why Bosch eBike Systems doesn't have a one-size-fits-all motor, but rather the one that's right for you, whether as an environmentally friendly alternative in the city, for transport, for a fun activity or for the challenge of mountainous terrain.

The smart system



Active Line

Discover the city

- ▶ Quiet riding, due to low-noise motor
- ▶ Up to 40 Nm assistance, for smooth acceleration
- ▶ Carefree cruising, thanks to a lightweight 6.4 lbs (2.9 kg)
- ▶ Clean eBike look, due to compact construction
- ▶ Natural ride feel, thanks to smooth pedaling in off mode and assistance up to 20 mph (32 km/h)



 bosch-ebike.us/active



Active Line Plus

For everyday adventures

- ▶ Authentic riding experience, through smooth pedaling in off mode and assistance up to 20 mph (32 km/h)
- ▶ Comfortable riding experience with up to 50 Nm of torque. The power is delivered smoothly to achieve a natural riding sensation.
- ▶ Modern eBike look, thanks to elegant integration into the bike's frame



 bosch-ebike.us/activeplus



Cargo Line

Transport made easy

- ▶ Comfortable riding even with cargo, due to the special adaptation to Cargo eBikes
- ▶ Easier starting and acceleration even at low cadences, with up to 85 Nm of torque
- ▶ Powerful uphill riding, due to as much as 400% assistance up to 20 mph (32 km/h)
- ▶ Maximum range, thanks to efficient motor design and DualBattery option



 bosch-ebike.us/cargoline



Performance Line

For limitless freedom

Performance Line

- ▶ Strong acceleration at high cadences, thanks to maximum torque of 65 Nm and assistance up to 20 mph (32 km/h)

Performance Line Sport*

- ▶ The drive provides support up to a maximum of 28 mph and 65 Nm of torque

Performance Line Speed*

- ▶ Dynamic riding experience, thanks to 85 Nm maximum torque and assistance up to 28 mph

*Not available in Canada.



 bosch-ebike.us/performance



Performance Line CX

For the ultimate Uphill Flow

- ▶ Powerful starting and acceleration, with up to 85 Nm support, even at low cadences
- ▶ Optimal control without switching riding modes with special eMTB mode
- ▶ Easily tackle roots and rocks when climbing, thanks to the Extended Boost function of the eMTB mode
- ▶ Continuous incremental support for a natural riding sensation and energy-saving riding with Tour+ mode
- ▶ Maximum agility on demanding trails, thanks to multi-sensor concept and Bosch power control
- ▶ Individualization of the eBike experience by the ability to customize the riding modes



 bosch-ebike.us/performance-cx



 bosch-ebike.us/smart-cx



With the Bosch eBike system, you have different riding modes to choose from. Whether riding in the city, commuting to work or in leisure time, there is the optimal support for every riding situation and for every type of rider.



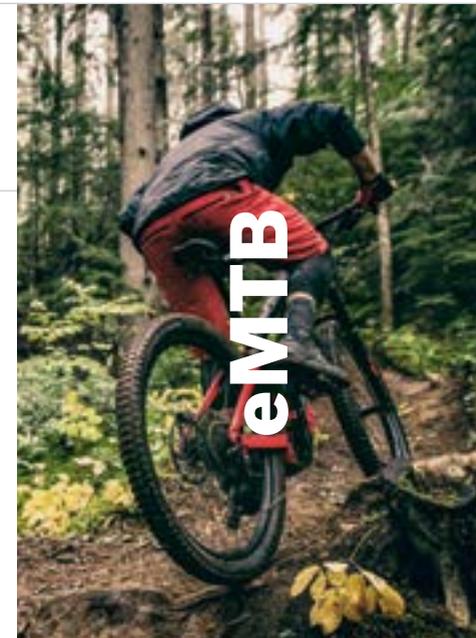
Riding modes at a glance

The Bosch eBike system offers a choice of different riding modes, providing ideal assistance, depending on type of use and rider type.

-  ▶ **Eco:** Maximum efficiency for maximum range
-  ▶ **Tour**:** Balanced assistance for every day rides
-  ▶ **Tour+**:** Continuous support for energy-saving rides
-  ▶ **Sport*:** Sporty riding off-road and in urban traffic
-  ▶ **eMTB*:** Progressive, dynamic support for a natural riding sensation
-  ▶ **Turbo:** Powerful assistance for a sporty ride
-  ▶ **Off:** No support, all display functions can still be displayed

*Contact your local dealer to find out whether your eBike can be updated with Tour+ mode.

**The eMTB mode replaces the Sport mode on eBikes with the Performance Line and the Performance Line CX drive units.



The eMTB mode perfectly adapts the support on every situation. This provides a unique riding sensation. We call it Uphill Flow.



eMTB mode

The riding mode for eMTB riding on the trail

- ▶ Overcome obstacles, such as rocks and roots easily with Extended Boost
- ▶ More control in all riding situations, thanks to optimal power delivery by the motor
- ▶ Easier starting up on a hill due to powerful assistance
- ▶ Master demanding trails through dynamic power delivery
- ▶ Extend the range by automatically reducing assistance on more relaxed sections



 bosch-ebike.us/emtb



Tour+ mode

The riding mode for sporty rides

- ▶ Full focus on the ride without manually switching between riding modes
- ▶ Natural riding sensation, due to sensitive power delivery by the motor
- ▶ Enjoy longer rides with a higher power input by the rider
- ▶ Assistance varies between the riding modes Eco and Turbo
- ▶ Available for the Performance Line CX drive unit as of model year 2020

The Tour+ riding mode eliminates the need to manually switch between riding modes and saves energy by increasing rider input. This allows you to ride farther, faster and have more fun.



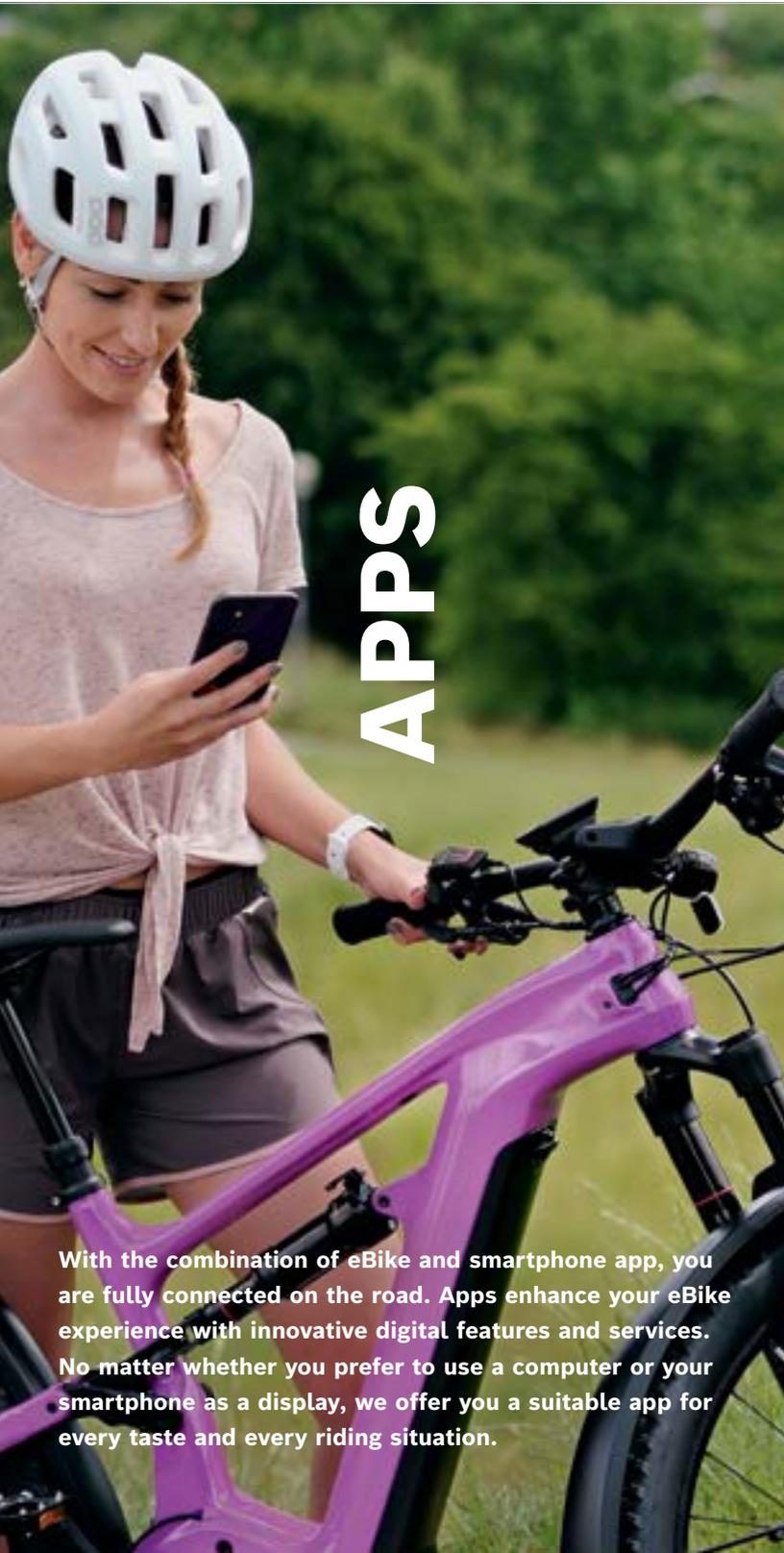
 bosch-ebike.us/performance-cx

The smart system



Bosch eBike displays offer a suitable companion for every requirement, from the purist control unit to the all-in-one computer or the smartphone solution on the handlebars.

							
<p>Purion</p> <p>The compact purist</p> <ul style="list-style-type: none"> ▶ Organized display of the most important riding data ▶ Optimum readability even in direct sunlight ▶ Safe operation with thumbs and a clean handlebar ▶ Optional service-interval display 	<p>Intuvia</p> <p>The intuitive control center</p> <ul style="list-style-type: none"> ▶ Easy operation via the separate control unit ▶ Good readability in all light conditions ▶ Can be used as a charging station, thanks to USB interface ▶ Shift recommendation for optimum range ▶ Optional service-interval display 	<p>Kiox</p> <p>The connected training partner</p> <ul style="list-style-type: none"> ▶ Optimal training, thanks to display of power, cadence and heart rate* ▶ Clear orientation with navigation function ▶ New functions via the eBike Connect app ▶ Clean handlebar, thanks to compact size ▶ Organized ride data evaluation in the eBike Connect app and in the portal <p><small>*When connecting a heart rate monitor via Bluetooth</small></p>	<p>Nyon</p> <p>The connected all-rounder</p> <ul style="list-style-type: none"> ▶ Intuitive operation of the color display, thanks to touch function ▶ New functions via the eBike Connect app ▶ Full concentration on the ride, thanks to offline navigation ▶ Organized display of the range before and during the ride ▶ Connected to your favorite apps 	<p>COBI.Bike*</p> <p>The intelligent smartphone cockpit</p> <ul style="list-style-type: none"> ▶ Safe and easy control of your smartphone display using the control unit on the handlebars ▶ New functions via the COBI.Bike app ▶ Integrated smartphone charging function ▶ Connected to your favorite apps <p><small>*Product not available in NA.</small></p>	<p>SmartphoneHub</p> <p>The flexible smartphone display</p> <ul style="list-style-type: none"> ▶ Use with smartphone or with integrated LCD display ▶ Navigate, track activities and experience new functions with the COBI.Bike app ▶ Easy charging of the smartphone, thanks to USB port ▶ Connected to your favorite apps 	<p>LED Remote</p> <p>The fully connected control center</p> <ul style="list-style-type: none"> ▶ Comfortable thumb operation with ergonomic L-design ▶ Fast status information and more safety through intuitive detection of the color LEDs ▶ New functions via the eBike Flow app ▶ Intuitive use of the smart walk-assistance function ▶ Good readability, even in changing light conditions 	<p>Kiox 300</p> <p>The smart sports friend</p> <ul style="list-style-type: none"> ▶ Determines fitness data and optimizes your training through a motivational display ▶ Improved route planning through mapping of remaining range ▶ New functions via the eBike Flow app ▶ Compact size, modern design and optimal readable color display ▶ Individual positioning by means of a flexible display holder
 <p>bosch-ebike.us/purion</p>	 <p>bosch-ebike.us/intuvia</p>	 <p>bosch-ebike.us/kiox</p>	 <p>bosch-ebike.us/nyon</p>	 <p>bosch-ebike.com/cobi-bike</p>	 <p>bosch-ebike.us/smartphonehub</p>	 <p>bosch-ebike.us/led-remote</p>	 <p>bosch-ebike.us/kiox300</p>



APPS

With the combination of eBike and smartphone app, you are fully connected on the road. Apps enhance your eBike experience with innovative digital features and services. No matter whether you prefer to use a computer or your smartphone as a display, we offer you a suitable app for every taste and every riding situation.

The smart system



eBike Connect app

The right app for your computer

- ▶ Connects your smartphone via Bluetooth to the Nyon and Kiox computers
- ▶ Allows you to plan your route and navigate through Nyon or Kiox
- ▶ Helps you integrate an active lifestyle into your daily routine by automatically recording your activities
- ▶ Helps you keep an eye on the most important information on your computer through customizable user interfaces



 bosch-ebike.us/connect



COBI.Bike app

The right app for your smartphone solution

- ▶ Connects your smartphone to the SmartphoneHub – and turns your smartphone into an eBike display
- ▶ Lets you control your audio apps directly from your eBike
- ▶ Connect with your friends with the ability to make and receive calls
- ▶ Synchronizes your fitness information with Apple Health or Google Fit, so you can easily share it with others

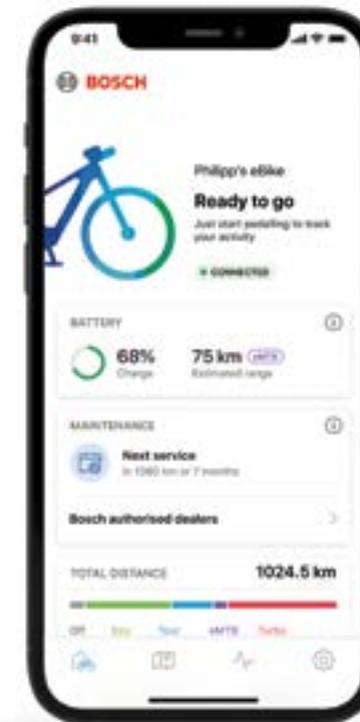


 bosch-ebike.com/cobi-bike



eBike Flow app

The right app for your eBike with the smart system



Expanding the eBike

Develops your eBike continuously through new functions and updates "over the air," so your eBike is always up to date

Recording activities

Records your ride and fitness data automatically, just put your smartphone in your backpack, get on your eBike and start pedaling

Customize riding modes

Provides the motor assistance you need, and lets you customize riding modes to perfectly match your riding style

Everything at a glance

Bundles all important information on the home screen, from battery charge status to the next service appointment to total distance ridden



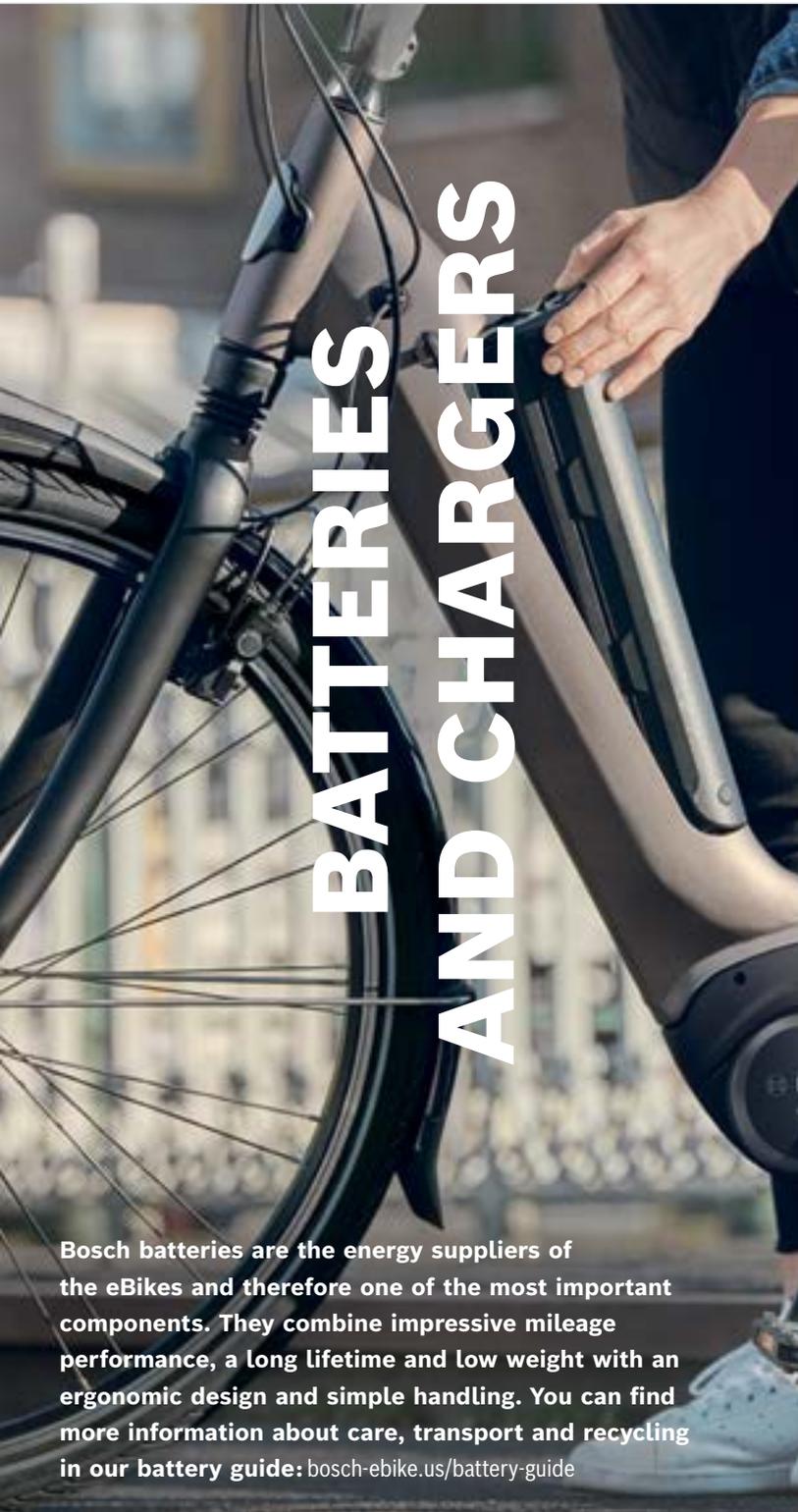
 bosch-ebike.com/flow-app-magalog

Connects to your favorite apps, like Apple Health, and synchronizes your activity and fitness stats

Answers many of your questions in the Help section about your eBike

Offers all setting options for your eBike in one place

The smart system



BATTERIES AND CHARGERS

Bosch batteries are the energy suppliers of the eBikes and therefore one of the most important components. They combine impressive mileage performance, a long lifetime and low weight with an ergonomic design and simple handling. You can find more information about care, transport and recycling in our battery guide: bosch-ebike.us/battery-guide



PowerPack

Versatile and always at hand: a power supplier for every eBike experience

- ▶ Easy charging on the eBike or easy removal in a single action
- ▶ Long service life, thanks to battery management system
- ▶ Easy handling, due to ergonomic carrying handle
- ▶ High safety standards through product design and manufacturing
- ▶ Variety of choice, thanks to different characteristics
- ▶ Frame battery: available with 400 Wh and 500 Wh
- ▶ Rack battery: available with 400 Wh and 500 Wh



bosch-ebike.us/powerpack



PowerTube

Convincing combination of top performance and appealing design

- ▶ Optimum integration into the downtube for a clean look
- ▶ Long service life, thanks to battery management system
- ▶ Secure even in challenging terrain, thanks to locking mechanism
- ▶ Intuitive removal
- ▶ High safety standards through product design and manufacturing
- ▶ More variety in eBike design through horizontal or vertical variant
- ▶ Available with 400 Wh, 500 Wh and 625 Wh



bosch-ebike.us/powertube



DualBattery

The perfect solution for long distances

- ▶ Double the range through the coupling of two batteries
- ▶ Flexibility through a wide range of battery combinations up to a maximum of 1250 Wh*
- ▶ Reliable charging through intelligent battery management system
- ▶ Long service life, thanks to battery management system
- ▶ High safety standards through product design and manufacturing

*DualBattery is not available in combination with PowerTube 400.



bosch-ebike.us/dual-battery



Charger

Practical chargers for every situation

- ▶ Easily transported, due to compact size and low weight
- ▶ Quiet charging without noise
- ▶ Easy handling, due to ergonomically shaped charging plug
- ▶ Varied selection for every situation
- ▶ 2 A Compact Charger: particularly light and small
- ▶ 4 A Standard Charger: the all-rounder for everyday



bosch-ebike.us/charger



PowerTube 750

The biggest capacity PowerTube for long and demanding tours

- ▶ Maximum range, thanks to 750 Wh
- ▶ Sleek bike design through frame integration
- ▶ Long service life, thanks to battery management system
- ▶ Secure even in challenging terrain, thanks to locking mechanism
- ▶ Intuitive removal
- ▶ High safety standards through product design and manufacturing
- ▶ More variety in eBike design through horizontal or vertical variant



bosch-ebike.us/pt750



4A Charger

Lightweight charger for energy in an instant

- ▶ Fast charging supplies the PowerTube 750 with the necessary energy in the shortest possible time
- ▶ Full charge of the PowerTube 750 in approx. six hours, 50% battery charge in a little more than two hours
- ▶ Easily transported, due to compact size and low weight
- ▶ Ergonomic charging plug design for easy use



bosch-ebike.us/smart-charger-4A



eBIKE PROTECT

Safety plays a central role in cycling. eBike Protect includes all innovative products and solutions from Bosch eBike Systems that make eBiking even safer.



Bosch eBike ABS*

The system for more safety and stability during braking

- ▶ More stability and improved steering due to optimized brake pressure control
- ▶ Reduced risk of front wheel skidding on loose surfaces when braking
- ▶ Reduced risk of an accident when braking on slippery surfaces due to rear wheel lift control

*Bosch eBike ABS is available in the countries of the European Union and the following countries: CH, NO



 bosch-ebike.com/ebike-protect



Help Connect**

The vigilant digital companion for more safety on every eBike ride

- ▶ Automatic accident detection, thanks to the intelligent algorithm of the COBI.Bike app
- ▶ 24/7 emergency support by trained Bosch service team, which immediately sets the rescue chain in motion in the event of an emergency
- ▶ Automatic transmission of the accident location to the Help Connect assistant

**Help Connect is currently only available for users with German SIM cards and in German and English. It is available in eleven countries: DE, AT, CH, FR, BE, NL, LU, GB, IE, IT, ES



 bosch-ebike.com/HelpConnect



Lock

The electronic theft protection is an ideal supplement to a mechanical lock

- ▶ Deactivates the motor when the computer is disconnected and thus makes the eBike less attractive to thieves
- ▶ Clear acoustic feedback similar to the central locking of a car
- ▶ Set up conveniently after purchase via the eBike Connect app
- ▶ Available for the Kiox and Nyon computers



 bosch-ebike.us/lock



Just to be sure

At Bosch eBike Systems, we create innovative mobility solutions and are committed to responsible eBiking. For people who want to get around in a relaxed, sustainable and, above all, safe way.

29%

The safety of eBike riders is a top priority for Bosch. The eBike ABS was developed using the already established motorcycle ABS from Bosch as a starting point. The active brake assistant enables more controlled, stable braking by combining front-wheel ABS and rear-wheel lift control. The pressure on the front brake is regulated during critical braking maneuvers within milliseconds and thus stabilizes the riding situation. In the event of an accident, Help Connect**,

a premium function of the COBI.Bike app, is available. In the event of a fall, Help Connect** makes an emergency call. This alerts a trained service team that is available around the clock and immediately notifies emergency services in the event of an emergency. Lock also provides electronic protection for the eBike itself, in addition to the mechanical lock. It deactivates the motor as soon as the rider disconnects the computer.

of all eBike accidents could be prevented by ABS.

SERVICE IS MORE THAN A PROMISE

It's an attitude. Because Bosch eBike Systems knows that every product is only as good as its service. That's why retailers and workshop staff receive extensive training to make them eBike experts, thus guaranteeing the best possible service. Whether you need personal advice, regular software updates or comprehensive all-round checks, enjoy that special riding sensation, and leave the rest to us. If you wish to contact Bosch eBike Systems directly with a query, feel free to reach out to our service staff.



Contact:
bosch-ebike.us/contact

Advice and support

More and more people are discovering a the joy of eBike riding. The choice of bike is becoming increasingly varied, raising the question: Which eBike is the right one for me? Even before visiting a specialist retailer, it can be helpful to consider what requirements the eBike should meet. What is the area of use and what distances do I expect to cover? Also, does the bike need to be connected? You can get initial guidance with our overview, starting on page 66.

When looking for a suitable eBike, it makes sense to visit an experienced retailer. This will enable you to get to know different eBike types and drive systems and, if you wish, also try them out on a test ride. This should reveal the advantages of the different models and which drive system is the right one for you.

After purchasing an eBike, you can enjoy the new riding sensation. Everything else will be handled by the retailers. They will advise you on the care of the system, carry out regular inspections, as well as professional repairs and help with individual settings, for example, activating and deactivating Walk Assistance. The CapacityTester can also be used to determine the current capacity of the eBike battery.

Staying up to date: Retailers can always keep your eBike up to date with software updates using the Bosch DiagnosticTool. This also enables impres-



Is your eBike up to date?

Here, you can see the current status of the software to enable your eBike to be updated by the retailer:
bosch-ebike.us/software-updates



Upgrade your eBike

All retrofitting products and accessories can be found here:
bosch-ebike.us/accessories-retrofitting



Switching to an eBike?

Here, you will find an overview of all brands that use Bosch drive systems:
bosch-ebike.us/brands



bosch-ebike.us/product-combinations

sive increases in power. Example: The Performance Line CX, whose torque can be increased to 85 Nm since 2021. Computers such as Kiox, Nyon and SmartphoneHub, can be upgraded with new smart functions and updated map material.

Get the best out of your eBike. Bosch offers numerous retrofitting and upgrade options through retailers. All computers and smartphone solutions can be converted and retrofitted. The retailer can also provide advice and assistance when the battery needs to be replaced or when you need to choose the correct charger. You will find an overview of which components can be combined on the following page:

Your satisfaction is what drives us. That's why Bosch eBike Systems offers retailers more than just a fast supply of spare parts. Regular training sessions and online tutorials provide retailers with comprehensive know-how to handle and care for new products. What counts is competent all-round service, from good accessibility and customer service through high-level product competence.

1,366

Cities offer Bosch eBike Service. They can be found in 17 countries in Europe and North America.

13,000

Retailers take part in Bosch training courses every year. And more courses are being added each year.



Credits

Title, p. 74: Julian Mittelstaedt; Opener: Robb Thompson; p. 2: Futter-Fotodesign; pp. 4-5, 44-45: RiBLANC; pp. 6-11: Jeremie Carron; pp. 12-15, 67: Maximilian Semsch; pp. 16-17, 73: Nathan Hughes; pp. 16-17: iStock/Getty Images Plus; pp. 18-25, 62-63, 66: Philipp Schönauer; pp. 26-27, 54-55, 68-69: Illustrations: Studio Vaar; pp. 28-39: Greber/Skyshot; pp. 40-41, 49: Thomas Meï; p. 42: Peter Jamison; pp. 43, 84-85: Robb Thompson; p. 46: David Wilder; p. 48: Antipodes Zeb; pp. 50-53: Christopher Cox; p. 56: Ms.Yang Photography; p. 59: Amin Akhtar; p. 60: Elmer Lovrien; pp. 64-65, 67, 76, 83: Ralph Klohs; p. 67: Puria Ravahi; p. 67: Kittelberger; pp. 67, 70, 78, 80: Ronny Kiaulehn; pp. 68, 71, 74-75, 77, 79: Manuel Deutschle; pp. 70-71, 76, 78-79, 80-81: Bosch eBike Systems; pp. 73, 80: Bosch