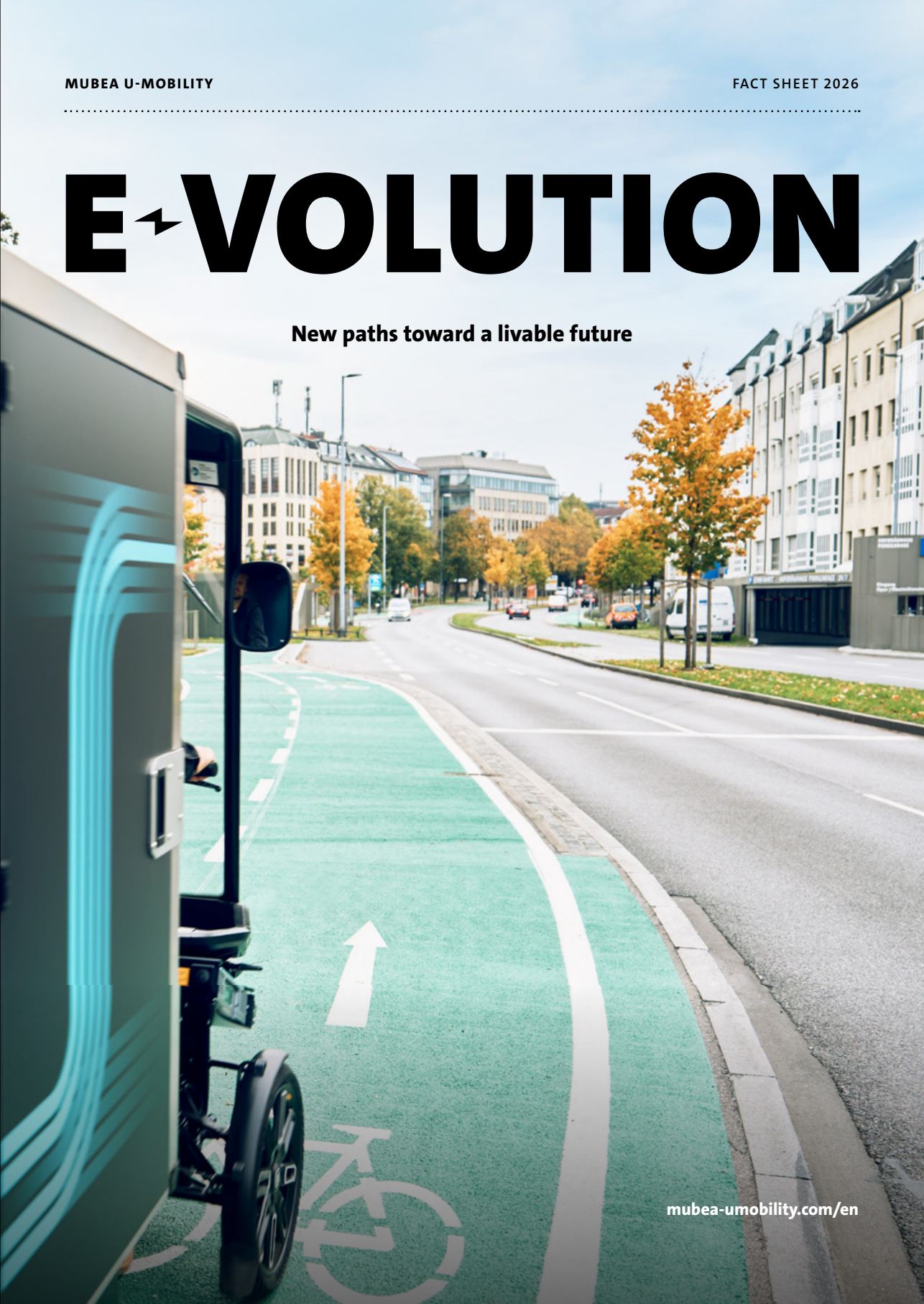
E-VOLUTION

New paths toward a livable future



mubea-umobility.com/en

EDITORIAL

Dear reader,

Noise, air pollution and congested streets are concomitants of everyday urban life. But there are ways to improve the situation and actively contribute to climate protection. And transporting goods with electric cargo bikes is one of them.

While fascinating future technologies such as autonomous and connected mobility emerge, the hands-on transport revolution is under way. Electric cargo bikes do not only reduce CO_2 emissions but also offer an environmentally friendly, flexible and convenient alternative to conventional delivery vehicles. Analytical findings show that they outperform other means of transport in urban areas up to distances of five kilometers and dovetail with the dense traffic network of our cities. We don't have to develop sustainable urban logistics in the first place, we just need to make greater use of it.

Germany is lagging behind its climate targets in the transport sector. But there is hope: Studies show that the increased use of bicycles and cargo bikes could reduce CO_2 emissions in the immediate area by up to 34% by 2035. In view of the increasing volume of consignments of goods, it is clear that sustainable solutions for inner-city transport and emission-free delivery are essential.

Big changes often start with small steps. All of us can contribute to shaping a more livable future. We have made a start with our strong and reliable eCargobikes. We are delighted to have your attention!

May this reading inspire you!

Jakub Fukacz
Head of PR | Marketing & Digital Sales
Business Unit Micromobility

For livable cities

Mobility is a fundamental human need. Movement is in our DNA. How to shape mobility at best, however, is controversial: How to fully exploit potentialities? How to reconcile the various needs of all users of an increasingly limited space, especially in our cities?

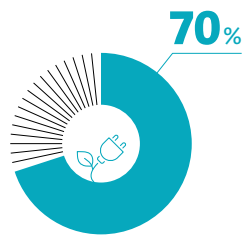
It is common knowledge by now that a one-time solution has become a problem because cities revolving around the requirements of cars cannot satisfy urban mobility needs in the long run. The reasons are obvious: the growing volume of delivery traffic, the decreasing resource of urban space due to densification, the call for making traffic in conurbations more efficient and economical, and the protection of the environment are just the most important ones. Even though electric cars are emission-free and quiet, cars are increasingly reaching their limit as the prevailing means of transport in our cities.

If urban mobility is to remain compatible with livability, traffic and mobility patterns must change – and they already do. European cycling cities such as Amsterdam (NED), Copenhagen (DEN) or Münster (GER), sharing schemes for cars, e-scooters in major cities around the world, making public transport more flexible and opening it up to integrated mobility solutions are examples of positive developments in recent years. There are more and more options for moving across town or transporting goods, and urban mobility is becoming much more varied. According to **Bitkom Research (2022)**, 96% of those surveyed claimed that their mobility patterns have significantly changed in recent years. **The big winner here is the bicycle,** with 39% asserting that they use it more often.

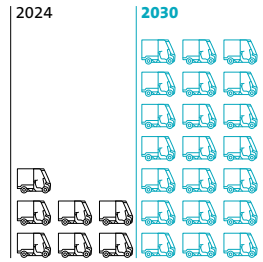
There are more and more options for moving across town or transporting goods, and urban mobility is becoming much more varied. ... The big winner here is the bicycle.

Prof. Dr. Andreas Herrmann
Professor of Business Administration at the University of St. Gallen and Director of the Institute for Mobility

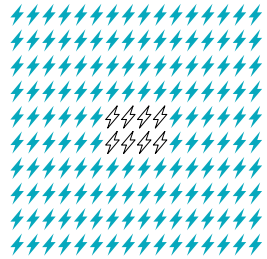
E-mobility in the fast lane



Desire for mobility alternatives
70% of employees want environmentally friendly mobility alternatives.



Change in vehicle fleets
Compared to 2024, three times as many vehicles with alternative drives will be on the road in German fleets in 2030.



Electric vehicles in use
By 2030, 160 million battery-powered electric vehicles are forecast worldwide.

40
h

In 2023, Germans spent an average of 40 hours in **traffic jams.**

20
%

In Germany, up to 20% of commercial traffic could be shifted to **eCargobikes** by 2030.

400
€

In Germany, **a small car** costs an average of €400 per month.

62
%

62% of Germans are in favor of **car-free city centers.**

The potential of electric mobility in urban transport has yet to be fully tapped. Little brother Cargo and big sister Tram (Munich, Germany) from the big family of electric vehicles. →

The level of change in individual transport is still not matched by that of urban transport logistics – but the latter offers great potential. Online trade and changes in consumer behavior have increased delivery traffic such as courier, express and parcel services – and even though the boom is over, the growth is bound to continue.

Cargo bikes are an attractive option, especially for last-mile deliveries right up to the customer's front door. Besides the benefits for the climate, the environment and therefore the quality of urban life, they are less expensive, more cost-effective to maintain, and more flexible in use. Many difficulties arising for conventional delivery vehicles can simply be avoided. Traffic jams or parking are no problem for cargo bikes, the flow of traffic is hardly disrupted by their frequent stops, and they can still deliver on narrow inner-city streets or access urban areas that cars and vans cannot, which is gaining in importance with regard to more and more restrictions on car traffic. London's well-known Congestion Charge Zone and Ultra Low Emission Zone or the new Zone à Trafic Limité in the center of Paris, where car traffic is now restricted, are just two examples of ways to reduce emissions and noise and promote "softer" mobility.

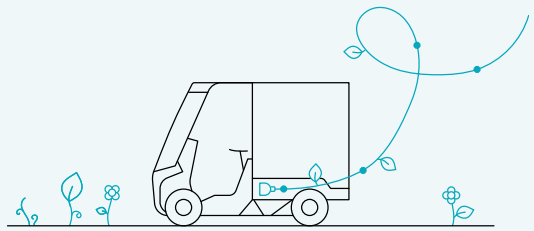
The potential to shift the transport of goods from conventional delivery vehicles to cargo bikes varies depending on the study in question, but above 50% seems realistic; a Hamburg study (2022) concluded that in suitable urban areas a potential of up to 80% were possible. However, regardless of how much of this potential will be tapped in actual fact, the improvement of the quality of life for all will be considerable. ●

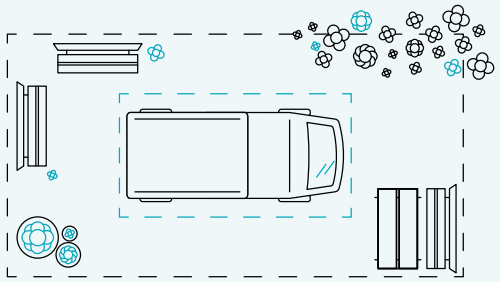
URBAN MOBILITY

New ways of thinking – letting go of old ways

Mobility in our cities is changing: New requirements are challenging old habits. But no-one needs to feel nostalgic about it. Here are three reasons for a change of perspective towards better urban mobility.

Avoid emissions
Unlike internal combustion engine vehicles, electric vehicles do not produce direct carbon dioxide emissions and other harmful and hot exhaust gases. In cities, their use directly improves climate and air quality and does not contribute to climate change through direct emissions. This means that we can all breathe easily.

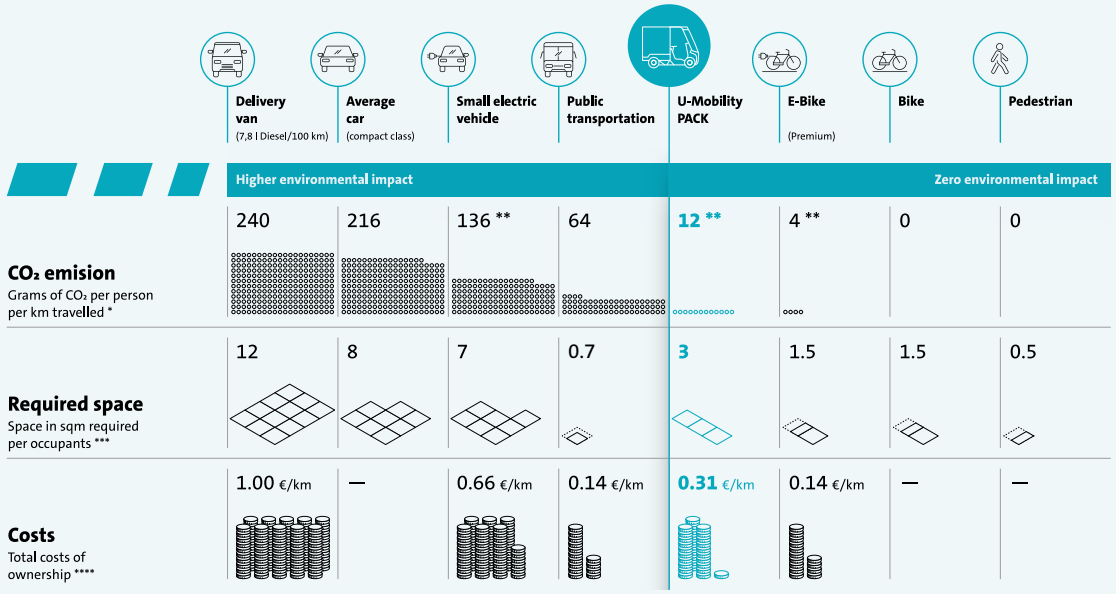




Reduce space requirements
Due to their expansive design, conventional vans take up a lot of space on the road, especially when parked. eCargobikes require much less space. Therefore, they improve traffic flow, leave more room for pedestrians and cyclists, and enable more efficient use of urban space overall. This way, more efficiency and relaxation is achieved.

Reduce noise pollution
Vehicles with combustion engines produce a lot of noise, which has a negative impact on health and quality of life, especially in the city. E-vehicles, which are much quieter in operation, reduce noise stress in urban areas and improve the quality of life for residents. It's simply easier to live quietly.

Mobility in comparison
Mubea U-Mobility PACK – Small CO_2 footprint. Space-saving. Low cost of ownership.



* Based on calculations by the Institute for Energy and Environmental Research Heidelberg;
Source: Quarks 04/2022 (https://www.quarks.de/umwelt/klimawandel/co2-rechner-fuer-auto-flugzeug-und-co/)
** German electricity mix
*** In house assumptions
**** Based on calculations by ADAC & in house assumptions (Unit price + Operating costs + Service + Tax + Insurance Package)

MORE SUSTAINABLE PARCEL DELIVERY

The workday of an eCargobike rider for an Amazon delivery service partner in Munich

Text and photographs by **Irmgard Jarosch**

It's more environmentally friendly and customer-oriented, but above all, it's also fun. We'll get to know how Enis delivers an average of 180 parcels a day.

Enis is one of a growing number of riders on eCargobikes for Amazon delivery service partners. Amazon is investing heavily in becoming carbon neutral by 2040. Over the next few years, 400 million euros are planned for the German Amazon transport network alone, including more eco-friendly deliveries with electric cargo bikes. In order to find out how this works, we accompanied Enis for a day on his delivery route through Munich.

Starting work at the Amazon distribution center
Just before 9 a.m., Enis is getting ready for his tour at an Amazon distribution center in the east of Munich: Such centers are no storage facilities. The parcels, distributed through Amazon's European logistics network and sort centers, are unloaded, presorted by delivery district, and then delivered to Amazon customers by van or eCargobike. By now, there are seven

German cities – Aachen, Berlin, Essen, Freiburg, Hamburg, Koblenz and Munich – using modern eCargobikes for parcel deliveries operated by staff like Enis.

Enis is twenty-three. He has been working for Sanse Transport GmbH for two years. They are one of Amazon's regional delivery service partners. Until recently, Enis had been using an electric delivery van. Six months ago, his boss added modern eCargobikes to their fleet of delivery vehicles, and Enis became one of their riders pedaling with the powerful support of an electric drive. "It's great fun, and for me it's ideal: I get some fresh air and I get in touch with our customers. I can use cycle paths instead of roads and don't have to look for a parking space first. And it's good for the environment."

Modern eCargobikes for parcel delivery
We also meet Enis' boss, Sedat, at the Amazon distribution center. You can't compare modern e-cargo delivery bikes with standard e-bikes, he explains. "eCargo-bikes are specially designed for parcel delivery. Every single one is tested for product safety by an independent test laboratory before being put into service. They have four wheels instead of two, automatic transmission, wear-resistant brakes, reverse gear and reverse warning system, hill start assist, and many more features for safe driving." ... "On average, one cargo bike can carry 90 parcels in one go," says Sedat. In terms of traffic regulations, they are considered pedelecs, i.e. standard bicycles. Their permitted maximum speed is 25 km/h, they can use cycle paths and do not require a special driver's license.

Safe behind the handlebars: Safety is top priority when delivering Amazon parcels
Additional safety regulations apply to riders like Enis: He had to attend special training before starting out on the eCargo-bike. "Riders are to learn how their cargo bikes behave. After all, they have completely different dimensions to a normal bike," explains Sedat. In addition to their uniforms, bicycle delivery staff are equipped with helmets, all-weather clothing and gloves for the winter period.

Amazon analyzes regional weather data for route planning. Conditions such as extreme heat, rain or snow are taken into account. "Under certain weather conditions, the amount of parcels per rider is automatically reduced to allow more time for the individual delivery," says Sedat. "We maintain close contact to Amazon in order to ensure that our riders are safe on the road and delivery remains reliable." ... ↗ ●

Read the whole article on Amazon (in German only)

FLEXIBLE FESTIVAL SUPPLY

Even a festival of digital possibilities needs real supply

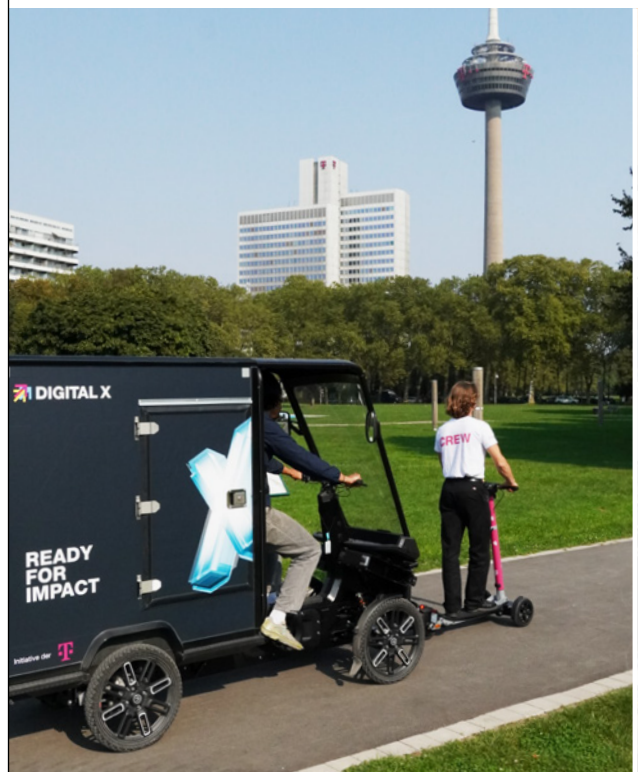
Visit the Digital X website

For two days, at Digital X 2024 was all about digitization – but it took place in real life at various locations in Cologne. To ensure that the entire event with venues spread across the city was not just virtually a unit, it was supplied and connected by a fleet of emission-free eCargobikes.

The city as a networked diversity – that's pretty much the basic idea of Digital X 2024 put in a nutshell. To that effect, the two-day event in Cologne would not have one central location but took place at four main venues spread across several districts, and instead of exhibition stands, pubs and restaurants served as contact and information points.

Managing the logistics before, during and after each event posed a significant challenge for the agency in charge in order to supply each venue with merchandise, event technology, drinks or printed matter among others. Deliveries had to be made right across the city even in areas or times of high traffic density. And when time was pressing, even right up to the stage.

A fleet of eCargobikes equipped for different purposes proved to do the job perfectly. Eight to ten riders, operating from a central micro hub, supplied all Digital X venues in the most flexible and quick way. And by the most direct route, because these cycling mini trucks were able to get past any traffic jam and to cut corners by taking the direct route through the park for example. So even when the pressure was on, deliveries were efficiently and reliably ensuring a great atmosphere for the event. ●



EFFICIENT MICRO LOGISTICS

Sustainability included

The London based company Delivery Mates are committed to environmentally friendly logistics: zero CO_2 "final-mile" deliveries within London's city area. And it works perfectly: with eCargobikes.

Delivery Mates is a leading company in urban delivery, specializing in sustainable solutions for the so-called "last mile" operating for pharmacies, restaurants, workshops, and laundry services. The extensive network of over 400 km of "cycleways" created by London's transport authority Transport for London to provide access by bike across the whole city, is a great advantage.

Against this backdrop, Delivery Mates expanded their original fleet of Mubea cargo bikes, introduced in London in July 2023, by another 40 Mubea eCargobikes in August 2024. Thus reducing traffic, emissions and noise even more without Londoners having to do without their expected deliveries. ●

EMISSION-FREE EXPRESS SERVICE

UPS relies on cargo bikes for deliveries

In downtown Munich, with its dense traffic and narrow streets, traffic jams are inevitable and parking space is in short supply. The global logistics provider UPS has managed to outwit these adverse conditions by using eCargobikes.

Congested roads, lane closures due to roadworks, double parking or parking way off the destination address – these are just some of the obstacles parcel and delivery services have to overcome day in day out. But in this setting cargo bikes can make a difference. Compact and agile as they are, they allow riders to weave through alleyways, use cycle paths, park in tiny gaps, reach backyards or deliver right up to the front door.

The advantages are obvious and therefore UPS covers deliveries in Munich's city center employing a significant number of cargo bikes. Several micro depots across the city supply one of the currently largest fleets of eCargobikes in Germany with their daily cargo. From there they set out for households and offices all over Munich on the shortest and least stressful route for everyone. ●

PARTNERSHIP – RIVA EV MOBILITY

Exemplary cycling culture in the Netherlands

The Netherlands are considered one of the most progressive countries in Europe – not least in terms of traffic. Thanks to the prioritization of bicycles, especially in urban areas, Germany's northwestern neighbor is a European "pioneer" in emission-free mobility.

Bicycle-friendliness is a public good in the Netherlands, and the Dutch cycling culture is considered exemplary worldwide: There are many and mostly separate cycle paths everywhere and plenty of bike parking spaces too, urban traffic planning prioritizes bicycles over cars, and in many city centers entire bike-only zones are set up – no wonder that the percentage of people cycling in the Netherlands is the highest in the EU and that there are more bicycles than inhabitants. Dutch people will choose the bicycle in particular for short journeys – whether to school, work, shopping or sport facilities – more often than others.

Cargo bikes are part of modern urban mobility in the Netherlands. Yet being environmentally friendly is only part of why they are so popular because also in terms of space required and cost-effectiveness cargo bikes often have an advantage over larger delivery vans: They are cheaper to buy and maintain, easier to maneuver, ride, use and park, and faster in reaching their destination – in short, they are often simply the more practical choice in inner-city areas. This is something Dutch pragmatism has long understood.

Photo: unsplash.com

We have entered into partnership with Riva EV Mobility to ensure that emission-free logistics with heavy-duty cargo bikes will soon be part of everyday urban life in the Netherlands. And our electric cargo bikes have been available on the Dutch market since. Riva's general manager, Thijs Pitlo, considers this partnership a win-win situation – for the environment as well as for economic development. According to Pitlo, urban logistics is a huge growth market in which innovative, flexible and climate-friendly solutions are becoming increasingly important. *"The introduction of zero-emission zones will change urban logistics drastically. However, not everybody needs to own an electric van or wants to buy one. In this case, eCargobikes are a viable and good-value alternative."* ●

At Riva EV Mobility we understand the importance of sustainability and environmental responsibility, which is why we offer a range of EV-solutions that prioritize both efficiency and ecological impact. With our state-of-the-art EV-solutions with cutting-edge technology, we're confident we exceed expectations and provide a reliable, sustainable EV-mobility solution.

Read our press release

Flexible
Modular & versatile - for individual needs.

Environmentally friendly
Emission-free & quiet - for green mobility.

Cycle path-ready
Registration-free, driver's licence-free - for skipping past the jams.

Sheltered
Cab & windshield - providing shelter in all weather conditions.

PACK

The PACK mini transporter is a real space miracle. Its large capacity transport box available in a range of sizes, means you can deliver packages right to your customers' doorsteps.

Electric motor
Chainless Powertrain

Gearshift
two-speed transmission with boost gear

Box interior volume
2.0 m³ / 2,000 l

Max. gradeability under full load
18 %

Max. electrically assisted speed
25 km/h*

Electric reverse manoeuvring aid
yes, up to 4 km/h

Turning circle
< 6,750 mm

Max. range (per battery)
25 km

Braking system
Hydraulic disc brakes on all 4 wheels

* According to national legislation

More details on the product page of the PACK

1 Electronic parking brake
Double parking lock with RFID Quick-Lock and electronic parking brake – smart and theft-protected.

2 Seat
Ergonomic, upright riding position with height and angle adjustable saddle for best visibility.

3 Inspired by technology
Thanks to our smart motor control, energy will not be wasted but recovered. Whether pedaling backwards, freewheeling or braking – the rider benefits from additional range and a smooth riding experience.

4 Battery system
Removable battery system with a maximum capacity of 2.88 kWh (with 2 batteries) and two battery slots.

5 Safe and dry in the rain
Lightweight polycarbonate windshield with anti-scratch coating and windshield wiper for excellent visibility even in the rain thanks to the lotus effect.

6 Theft prevention
RFID system with Quick-Lock function on the box to secure the delivery.

7 Lighting & safety
High-quality lighting and turn signal system, taillights with integrated brake lights, hazard warning lights and extra-large turn indicators for improved visibility. A beep when reversing or pushing backward increases safety.

8 Solid tires & wheels
Performance wheels with tubeless motorcycle tires (80/80-16") on specially developed aluminum rims with integrated reflectors ensure grip on any surface.

9 Box with loads of space
Interior volume of 2,000 liters and a payload of up to 250 kg – electronic RFID lock on all doors, two side doors for easy access and full use of the interior thanks to the "barrier-free" box.

10 Powerful e-drive
Serial powertrain with high-performance motor and boost gear with a gradeability (under full load) of up to 18%.

WORK

Whether its park, allotment or municipal applications. The electric WORK is a genuine workhorse.

Get the best organization and the smartest gear for your devices and work tools
Every device and tool has its own safe place, perfectly stored and always at hand.

Innovation on wheels: The eCargobike with the power of a commercial vehicle
With its robust design and powerful engine, it is not only a reliable transport solution, but also a statement of environmentally conscious mobility.

The all-rounder. With the electric PICK-UP you can deliver goods emission-free and take a spin to the lake with friends after work.

PICK-UP

TECHNOLOGY

Bike at heart, built like a car

A bike that can really take a beating! Thanks to its commercial vehicle DNA, functional design and premium components, our electric cargo range sets new standards in terms of robustness, functionality, ergonomics, payload and driving safety. German quality craftsmanship for your daily deliveries in the city.

The parking brake for safe parking
In daily delivery traffic, safe parking is almost as important as safe driving. That's why we have equipped our Cargo fleet with a double parking-safety mechanism: an RFID system with quick-lock function and an electronic parking brake.

The Cargo rolls on and on and on
A powerful drive unit is at the heart of the Cargo. And what a strong heart it is! The serial powertrain with a powerful engine has no chain and includes less wear-prone components that need servicing. Besides, a more robust and recyclable battery combines performance and greater durability.

Boosting you uphill
Our Cargo family has become even more powerful: With a gradeability of up to 18% it is an excellent climber, taking ramps in any conventional parking garage in a stride – fully loaded!

The fine art of safe maneuvering
A big one, too, when it comes to safety: Like any commercial vehicle, our Cargo sounds an alarm when backing up or being pushed backwards. And in maneuvering mode, pedaling forward and backward allows you to easily pull into a parking spot super-fast. ●

The U-Mobility Way

Tradition meets innovation – Mubea is a family-owned company that can look back on more than 100 years of successful business. Around 17,000 employees at 54 locations worldwide make us the world market leader in the development and manufacture of automotive components. In addition to lightweight automotive parts, we have also been developing products and modules for the aerospace industry for a number of years. We apply all this know-how to the sustainability, efficiency, robustness, user-friendliness and safe driving pleasure of our products.

We are changing mobility sustainably – beyond the automobile. At Mubea U-Mobility, we stand for innovative, sustainable and, above all, customer-centric mobility solutions for urban micro mobility and logistics applications. With innovative energy, functionality, comfort and aesthetics, we want to excite people about e-mobility and by that make a valuable contribution to more sustainable and affordable mobility. The “U” in U-Mobility stands for “Unique”, “Urban” and “You”.

3,100
million € turnover

17,000
Employees

54
Locations worldwide

108
Years of experience

Three questions
put to Konrad Schlösser

Mr. Schlösser, Mubea, a specialist supplier to the automotive and aviation industries, has also been a provider of electric micro mobility solutions for some time now. That’s quite an unusual move, isn’t it?

KONRAD SCHLÖSSER: *At a first glance, it may confuse that in addition to our role as a supplier, we’re also becoming a vehicle manufacturer trying to get the attention of real consumers in a brand world. Of course, that’s a very different market and different rules of communication apply. But in view of diversifying mobility solutions, it’s not so unusual at all. We want to contribute our automotive expertise in the field of micro mobility but also actively help shaping the future of mobility while expanding our strategic position as a company.*

So electric mobility is the future?

KONRAD SCHLÖSSER: *It’s evident that urban mobility must be designed around transport solutions that require little space and are efficient, electrified and emission-free. An ever-growing population in our cities increases the need for mobility. Inner-city deliveries continue to increase as well but the public space available is shrinking. At the same time, climate change is already being felt today, summer heat waves and air quality have become major issues. It’s a matter of harmonizing realities with human mobility needs, developing contemporary and economical solutions and keeping our cities livable. Mubea offers smart and high-quality solutions against this backdrop.*

So, would you consider yourself a premium provider of urban mobility?

KONRAD SCHLÖSSER: *Yes indeed, with a focus on micro mobility and urban logistics. Our automotive roots guide us, and we transfer our know-how, expertise and creativity to vehicle types such as cargo bikes and e-scooters. It’s not about reinventing the wheel but rather the dynamics of a vehicle like an e-scooter with tilting technology based on a transversal carbon leaf spring or cargo bikes by drawing on commercial vehicle technology and automotive test bench validation.*

Konrad Schlösser
Head of Business Unit
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