

TAIPEI CYCLE SHOW DAILY

THURSDAY



ENGLISH

中文

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INSIDE TODAY'S SHOW DAILY:
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EU GREEN DEAL | SUSTAINABLE PRODUCTS | EU RIGHT TO REPAIR
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TAIPEI CYCLE EVENT GUIDE 2024

	Event time	Event name	Location	Organizer
Mar 7 Thu	09:00-18:00	E-bike Demo	4F, TaiNEX Hall 2	TAITRA
	09:00-12:00	2024 Bicycling Alliance for Sustainability (BAS) ESG Initiative Forum	402, 4F, TaiNEX1	BAS
	10:00-15:00	TAIPEI CYCLE Workshop	Stage, Area R, 4F TaiNEX Hall 2	TAITRA
	10:00-16:00	TAIPEI CYCLE Live Studio	Booth # , 4F TaiNEX Hall 1	TAITRA
	13:00-17:30	TAIPEI CYCLE Forum	401, 4F TaiNEX Hall 1	TAITRA
	16:00-18:00	Bike Venture Pitch & Social Spin	Bike Venture (booth # L0118) 4F, TaiNEX1,	TAITRA
Mar 8 Fri	07:00-17:00	TAIPEI CYCLE Ride Together	TBA	TAITRA
	09:00-18:00	E-bike Demo	4F, TaiNEX Hall 2	TAITRA
	10:00-15:00	TAIPEI CYCLE Workshop	Stage, Area R, 4F TaiNEX Hall 2	TAITRA
	10:00-16:00	TAIPEI CYCLE Live Studio	Booth#, 4F TaiNEX Hall 1	TAITRA
	14:00-16:00	Bike Venture Close-door Industry Roundtable (By invitation)	3F, TaiNEX Hall 2	TAITRA
	15:30-17:30	TIMTOS 2025 application partner tour-Bicycle Smart Manufacturing Seminar	4F, TaiNEX Hall 2	TAITRA
Mar 9 Sat	09:00-15:00	E-bike Demo	4F, TaiNEX Hall 2	TAITRA
	10:00-15:00	TAIPEI CYCLE Workshop	Stage, Area R, 4F TaiNEX Hall 2	TAITRA
Mar 10 Sun	06:30-11:30	Bike Venture Social Ride	TBA	Taitra

Exhibition Center

Exhibit Area
展區配置

TaiNEX ①

 台北南港展覽館 1 館
TAIPEI NANGANG EXHIBITION CENTER, HALL 1



1st Floor:

Area I, J, K

Parts & Components, Cycling Accessories, Cycling Apparel

4th Floor:

Area L, M, N

Complete Bicycles, Overseas Brands & Country Pavilions, Parts & Components, Bike Venture, Cycling Accessories & Apparel, Start-ups

一樓展區

I, J, K 區

自行車零組件、自行車配件及人身部品

四樓展區

L, M, N 區:

自行車整車、海外品牌及國家館、Bike Venture
自行車零組件、自行車配件及人身部品、新創企業

TaiNEX ②

 台北南港展覽館 2 館
TAIPEI NANGANG EXHIBITION CENTER, HALL 2



TAIPEI CYCLE *T-IsPO*

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台灣國際運動及健身展
聯合場館

4th Floor:

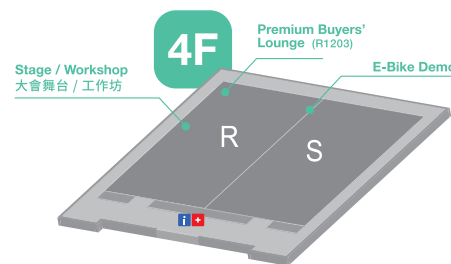
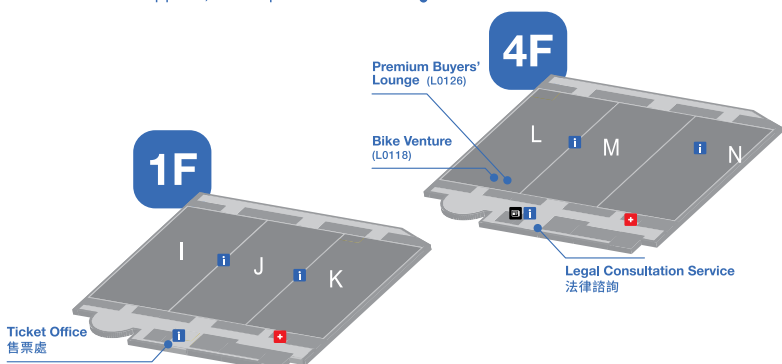
Area R, S

E-Bikes & Drive units, Overseas Brands, Cargo-bike & Micromobility, Parts & Components, Cycling Accessories & Apparel

四樓展區

R, S 區


電輔車及電機系統、海外品牌、都市低碳載運會
自行車零組件、自行車配件及人身部品




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www.taipecycle.com.tw


TODAY
March 07
TAIPEI
16°C
 LIGHT RAIN



TONIGHT
13°C
 LIGHT RAIN



TOMORROW
17°C
 LIGHT RAIN




D&I START-UP WINNER PUTS THE FUN BACK
 Despite its slogan “Be the funnest people”, Taichung company Sillykids [hall 1 / L1313] is passionate about product design, specializing in lifestyle-oriented e-bikes and electric mopeds. After their employer went bust during the pandemic, in 2022 the team founded their own brand that has just won this year’s d&i start-up award. The presentation of their Bug e-bike lives up to their slogan and is very much tongue-in-cheek.



CHECK OUT THE E-BIKE DEMO AREA IN HALL 2

Looking at the latest e-bikes and e-drive systems is one thing, but it’s only when you try them out that the differences and features can be truly experienced. For this reason Taipei Cycle has introduced the E-bike Demo area in hall 2 / 4F this year. Conveniently placed adjacent to the e-bike zone on the 4th floor of hall 2, the latest products from the likes of Hyena, Acer MPS, GW, Delta Electronics, Acer Gadget, Dyaco, MPF, Dosun and Stone are ready to be ridden on a test track. Since it’s indoors, you don’t have to worry about the wet weather forecast for the next couple of days. Just make sure to preregister for test rides on the website of Taipei Cycle.



Front cover photo: Giant’s co-CEOs Young Liu and Bonnie Tu pose for domestic media before the company’s press conference at Taipei Cycle yesterday. See page 8 for details.

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During its traditional dinner party before the start of Taipei Cycle, Velo had two reasons to celebrate: the company’s 45th anniversary and the promotion of Ann Chen to CEO, seen here with founder Stella Wu.

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Fashion Moped Ebike



Off Road Electric Scooters

VOX POP

WHAT DO YOU EXPECT FROM TAIPEI CYCLE THIS YEAR?



Felix Jahn
Head of Corporate Social Responsibility
Schwalbe
"To witness the progress of the exhibitors on the sustainability journey. How they are doing in

terms of their social and environmental responsibility. What's the progress that has been made since last year? Last year we felt a strong presence of sustainability and I think this year everyone needs to prove that they are taking action on what they are talking about. I'm hoping that collaboratively we are able to transform our industry to make it future proof."



Fabio Guerini
Sales & Marketing Specialist
Deda Elementi
"Our expectations are high, as usual. This is a great opportunity for us to meet both the end users, new B2B customers, suppliers and new opportunities in Taiwan. It's a very complete fair that will give us the opportunity to meet a vast range of different customer and supplier segments."



Jennifer Miller
Business Development Manager
FLR
"For us this year it's very important to showcase our new collection. We have new top-of-the-line

shoes for road that are worn by pro tour riders. This year it's really important for us to connect with the public and our current suppliers and partners. The past year has been the year of patience. It's only the beginning of 2024 and things are picking up a bit. There is potential."



Chiara Franzzetti
Sales Manager
Assos of Switzerland
"It's the very first time that Assos is exhibiting in Taipei. It's a test trial event, with just the small booth to start off with and plans to expand next year. We have lots of distributors in the Asian region and we would like to get some more, as well as build more awareness of our brand. So we're here to build that awareness and enhance our cycling community in support of our distributors. We are also specifically showcasing our new collection, just launched for the summer 2024 season."



Ryan Guo
Special Assistant
Alu Mega Industrial Co., Ltd.
"To let our customers know that we are still here and to reconnect with those who in this last year

have stepped back. At Eurobike for example, perhaps they were not at the show or they prioritized other shows. So for us it's all about reconnecting."



Sam Hsu
Sales Director
Greatland Enterprise Co., Ltd.
"This is only our second year. Normally we go to optical trade shows abroad. Last year we

were in Hall 2 together with Taispo. It wasn't so good for us because we do sunglasses. Having moved to Hall 1 this year we expect more traffic who are more interested in sourcing sunglasses. Around this part of the hall there are six other manufacturers, so it's competitive, but people will come here looking for this specific product."



Eddie Chi
Product Manager
Glory Wheel
"This year most people are coming back to the Taipei Show after the pandemic which was a very difficult time

for so many people in the industry. The bicycle industry is coming back. Many brands have overcome the problem of excess inventories and I'm expecting new stock to be coming into the market as people start to buy more bikes."



Norman Cheng
CEO
Strategic Sports Advanced Manufacturing Ltd.
"The number of visitors is down, but I think this will give us the opportunity to

have much more in depth meetings at a time when there's a lot of volatility in the market. It's a great opportunity to sit down with our clients and identify opportunities for the rebound of our industry. Certain categories are up and certain categories are down. It's what I call the ripple effect. We are 'down ripple' as it were. So we have to be prepared for the categories that are up, and be ready for 2026 and 2027."



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OFFICIAL OPENING CEREMONY

TAIPEI CYCLE & TAISPO REV UP: SUSTAINABILITY TAKES CENTRE STAGE

The grand opening of Taipei Cycle and Taispo brought four distinguished speakers from the bicycle and sporting goods industries and politics on stage. They all had a clear message for buyers and suppliers that have gathered for this year's edition of Asia's prime platform of exchange.



Key players in the sports and cycling industry gathered on stage.

Taitra chairman James C.F. Huang welcomed the audience to the grand opening while pedaling through virtual landscapes on a smart roller trainer. This was a neat way to showcase the products and services of the bicycle & sporting goods industries as well as Taiwan's thriving tech industry. "Technology, innovation and sustainability are at the core of the success of Taiwan's bicycle and sporting

goods industries. And they are all on display at this year's Taipei Cycle and Taispo shows which feature plenty of groundbreaking technology."

Taiwan Bicycle Association chairman Robert Wu pointed to the bike industry's role in finding new ways to reduce the impact of human activity on the planet and address challenges like fossil fuels, traffic jams and pollution: "We only have one Earth, so we need to make

good use of every single day and drive change. With the Cycling Alliance for Sustainability (BAS), Taiwan's industry has created a platform to do this. Seeing the World Bicycle Industry Association (WBIA) host a sustainability summit at this year's show is great as well."

For more than 30 years, Taispo has been held as part of the Taipei Cycle Show, and it is adding over 200 exhibitors and 850 booths to this year's show, filling the first floor of hall 2. Mike Hwang, president of the Taiwan Sporting Goods Association (TSGA), stressed the importance of ESG topics. "We need to lower the carbon footprint along our supply chains, improve the sustainability of corporate operations as part of social responsibility and learn from each other for corporate governance efficiency."

The final speaker on stage, MOEA vice minister Chuan-Neng Lin thanked TAITRA and others involved for building such an important platform for Taiwan. Lin called for private public partnerships to streamline ESG-related efforts and address the current inventory challenge. "Innovation is a core instrument to set 'Made in Taiwan' apart, and ongoing investments



C.F. Huang was the first of four speakers at the grand opening of this year's show.

in R&D for advanced technologies are key. By uniting resources and energies, we can achieve better results in terms of both products and ESG, and Taiwan absolutely wants to be a part of that global effort."

The electrification of bicycles is a key element to get more people riding across all demographics. This is reflected in the massively extended e-cycling pavilion on the fourth floor of hall 2 where all kinds of e-bike suppliers are exhibiting. Thanks to the adjacent E-Bike Demo test ride area, visitors also get to ride the latest products on display. ■ LVR

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ECOSYSTEMS FOR E-BIKES**E-BIKES GET SMARTER WITH CONNECTED APPS AND IOT DEVICES**

More and more companies are offering services through apps and IoT devices. By creating specific ecosystems, all these manufacturers and developers are bringing connected solutions to enhance the riders' experience.



Emma Wang, sales manager at Digiwise.

components (Enviolo e-shifting, e-lock) can be conveniently and interactively operated and controlled through the Bikewise application. Of course, the app also offers many other features to collect data (activity records) and provides route and navigation information. "We have also created a smart helmet with features such as turn signals, voice guided navigation, and team radio," notes Emma Wang, Digiwise sales manager.

Leading Taiwanese company **Acer [R0214]** is using its IT know-how in the ebike market with its ebii Smart eBike. This model offers many functionalities for an enhanced ride experience. For example, the model can detect collisions thanks to built-in sensors. But the brand goes even further with its ebiiGO app, as Jary Chang, director of Acer Gadget, points out. "Our app uses artificial intelligence to better manage energy consumption by adapting to rider behavior," he says. For the moment, the ebiiGO app is only available for the ebii Smart eBike and, later this year, the brand-new ebii Elite. "Our next goal is to transfer the ebiiGO application technology to all our ebikes," noted Chang.

Ebike component manufac-



Jary Chang, director of Acer Gadget.

turer **Aikema [R1013]** is promoting its Freebeat app and the ebike range powered by its system. For example, the Freebeat MorphRover is a 2-in-1 ebike that can function as both a stationary exercise bike and a classic electric bike. When the rider is using it as a stationary exercise bike, the battery will recharge. The application, which needs a subscription, allows the user to do exercises indoors with a coach and provides a lot of functionalities including real-time data, route planning, and performance tracking. Additional models (Morphcity, Morphgravel and Morphmountain) are planned for future release.



Tim Su, assistant sales manager at Microprogram Information (Bikonnnect).

Microprogram Information [R0931] has developed a solution called Bikonnnect. By integrating a specific IoT, Bikonnnect collects data in real-time and creates related applications. The company offers an e-bike app with many features, such as anti-theft, remote tracking, real-time connectivity, cloud service or diagnostics, automated service notification, and many more. For manufacturers and retailers, Bikonnnect can be used as a service tool manager to get information (service records, error codes, and troubleshooting) and to update device firmware. ■ **LG**

In Hall 2 (4F) of the Taipei Cycle Show, many manufacturers are presenting technologies related to electric bikes. Between IoT and smartphone applications, it's easy to discover a range of interesting new products to enhance the user experience.

Based in China, **Digiwise [R0308]** is specialized in display manufacturing. The company presents several models within its Northbond System ecosystem. All the components in this ecosystem can interconnect and interact with each other. During e-bike riding, all the smart devices (wearables, GoPro cameras, sport gear such as helmets) and the

WIAWIS FROM ARCHERY TO BIKE: WIAWIS MASTERS CARBON

Korean brand **Wiwis [hall 1 / room 505a]** is well-known for its background in nanocarbon archery products. Founded thirty years ago by Kyung Rae Park, a former athlete and trainer, Wiwis entered the worldwide bike market and achieved significant results with athletes, not just in Korea but also in Europe, the US, Japan and China. In Korea, the brand claims a market share of 85% among elite riders, including professionals. Nowadays, the company carries out its R&D and high-end manufacturing at its Korean headquarters. Wiwis also operates production facilities in Myanmar (bikes) and China (archery).

Wiwis has now completed preparations for another leap forward. "We want to become an international brand and we're exhibiting at Taipei Cycle Show to meet distributors from all around the world," says Tony Park, executive director of Wiwis. Currently, the company produces 2,500 bikes a year, but as Park explains, the goal is to raise awareness of the brand and get people to test the bikes. At Taipei Cycle, Wiwis demonstrates its car-



Alessandro Colnago, in charge of business development, and Tony Park, executive director of WiWIS.

bon expertise with a wide range of models (road, track, MTB and BMX). For example, the brand is presenting a brand-new aerodynamic bike, the Waws Pro XP2, which boasts 39% improved aero performance and 12% lighter weight than the previous model. For its Liberty road bike and Rokon BMX model, the company is using its proprietary S-Core and nanocarbon technology, which makes the tube lighter and thinner than full-carbon tubes while offering excellent impact resistance. Wiwis is planning to launch its first gravel bike in the near future. ■ **LG**

REPORTS 16.4% REVENUE DROP IN 2023 GIANT FACES INVENTORY WOES, BUT EXPECTS RECOVERY BY Q3

Just like almost every other company in the bicycle industry, Giant reported lower revenue numbers for 2023. This raised concerns with domestic media, who were invited to a press conference on yesterday afternoon at Taipei Cycle.

As a publicly listed company, **Giant [hall 1 / M0820]** has to report its numbers monthly, and for 2023 those numbers looked sobering. For the full year, turnover was down by 16.4 percent, but the decline accelerated in the second half of the year and the last quarter in particular. As this raised concerns in its domestic market, Bonnie Tu and Young Liu, co-CEOs of Giant, decided to host a press conference yesterday at the show. Show Daily checked in with Young Liu to hear about the most important findings.

"The main concern of course was about inventory. Like many other companies Giant had to reduce production at almost all factories, which also meant reducing staff," Young Liu stated. "Still, the bottom line is that Giant should be okay, as we expect



Giant's co-CEOs Young Liu and Bonnie Tu pose for domestic media before the press conference.

inventory levels to start dropping by Q3 of this year – mainly thanks to increasing demand. This is also the time when Giant's factory in Vietnam should become operational."

Thanks to the company's size and reputation, Young Liu is confident that Giant can successfully hire staff once demand really kicks in. Bonnie Tu added that the company had seen three very good years from 2020 to 2022. "Thanks to this, two lesser years are not an existential issue. As a Taiwanese saying goes, 'it can't be Christmas every day'." ■ **LVR**

EU GREEN DEAL

EUROPE'S ECO-REFORMS GET REAL FOR GLOBAL BICYCLE SUPPLY CHAIN

Bicycle makers are facing more European constraints on sustainability in the years ahead, as regional authorities are finalizing green regulations on topics ranging from import levies on carbon-intensive materials to circularity and green claims.



These proposed measures often relate to the Green Deal, a wide-ranging plan that has been pushed by the European Commission with a target of achieving climate neutrality by 2050.

While this has some clear benefits for Europe's bicycle market and the environment, the Green Deal comes with proposals to regulate repairability, waste reduction, environmental due diligence and other topics that involve the supply chain.

The European Union's lawmakers have accelerated talks on such measures ahead of European elections in June, which will put an end to the current Parliament's term.

Among the most talked-about is the Carbon Border Adjustment Mechanism (CBAM), which should impose a carbon tax on some imports from sources that are deemed polluting. The declared purpose is to incentivise manufacturers to become more sustainable, and to ensure that the European Union's climate efforts are not undermined by production being relocated to countries with "less ambitious policies."

Technically, importers of these goods would have to pay any price difference between the carbon price paid in the country of production and the price of carbon allowances in the European Union's Emissions Trading System.

Last October, work started on setting up the mechanism for six carbon-intensive materials, including steel and aluminum, and its implementation should be phased in from 2026.

Based on legal advice, the European Bicycle Manufacturers Association

(EBMA) estimates that the CBAM will have little impact for the bike industry at this early stage, because it will apply on European imports of the relevant raw materials.

The late Moreno Fioravanti, the EBMA's secretary general, shared his views with the Show Daily in January, suggesting that "the real goal of the Commission is to push all the countries to adopt a system of compensation like we have for the energy-intensive industries in Europe, in order to compensate the imports of these six materials, and try to push many countries to clean up at least the production of these raw materials."

However, Fioravanti said that the impact of CBAM on the bike industry could change substantially if it were extended to the import of aluminum components.

A study from Milan Polytechnic last year showed that European bike production helps to save over two million tons of emissions of carbon dioxide, sulfur oxides and nitrogen oxides per year, owing to the European Union's trade defense.

The EBMA said about 65% of bicycles and 80% of e-bikes sold in the European Union and the U.K. are manufactured in this regional market, and the same applies for 35% of bicycle components and 50% of e-bike components.

Fioravanti said that attempts to impose CBAM on components would probably face staunch opposition from much larger industries, such as the automotive sector. If agreed, it probably would not happen for several years.

Yet still, he adds that sustainability

remains a compelling factor for manufacturers from Asia and other markets to invest in European production.

Separately, batteries have been added to a political agreement on the Right to Repair in the European Union, which was struck in February. As part of a compromise with the European Council, the European Parliament confirmed that it had to drop bicycles out of the proposed regulation, but batteries have been added.

"By that we also address the issue of e-bikes, which is the main reason why we had included the bicycles into the scope, said René Repasi, the parliamentary rapporteur for the Right to Repair, in a meeting with the relevant committee in February.

The agreement includes an obligation for manufacturers to repair products beyond their legal guarantee, and to make spare parts and tools available at a reasonable price. Consumers should be informed, they should have access to indicative repair prices, and options to borrow a replacement while their product is getting repaired. We cover the EU's "Right to Repair" directive elsewhere in this edition of the Show Daily.

This comes as work is ongoing on the European battery regulation, with a digital passport to be launched in 2027. Through a QR code, it should provide content on chemical composition, any recycled raw materials in the battery, information about repair, reuse and dismantling, as well as treatment, recycling and recovery at the end of its life.

Kevin Mayne, chief executive at

Cycling Industries Europe (CIE), said that work on this regulation is most urgent, and it involves the global supply chain to provide answers for all the required content.

A special group at the CIE and CONEBI is working on standards for content and checking what has been done in other sectors, such as the automotive industry. "We want to bring all that, fast-track that into the bike industry, just to make it easier for everyone, because this is important to companies of all sizes, so right across the supply chain, from Europe to Asia to American brands coming in," he said.

So far, the agreement on the Right to Repair covers products for which European legislation lays down repairability requirements, such as washing machines, dishwashers or fridges. With the eco-design regulation, the Commission could extend such requirements to other products, which would then be added to the Right to Repair.

Mayne is convinced that bicycles will be included in the years ahead, which would have wide-ranging implications in the supply chain.

"As you move through the bicycle, ultimately everything will follow the same frame," said Mayne. "The battery is a superb learning process because it's real and it's now." ■ BS

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INDUSTRY MOURNS MORENO FIORAVANTI



Moreno Fioravanti, the EBMA's secretary general, extensively shared his views on this topic while travelling in China in January. We were saddened to learn that Moreno unexpectedly and peacefully passed away on 17 February, at the age of 62. He was warmly lauded for his abundant contributions to the European bicycle business, driven by "unwavering commitment, expertise and passion for advancing the industry."

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POLINI MOTORI POLINI CONFIRMS GROWTH IN THE E-BIKE MARKET

Those who regularly engage with motorsports are familiar with Polini Motori’s products. For several years, the renowned Italian supplier of scooter and motorcycle components has also demonstrated its expertise in the E-Bike segment - as seen at this year’s Taipei Cycle Show.



Saimon Polini, Marketing Manager at Polini Motori

When Polini Motori [Hall 1 / 0529] announced its entry into the e-bike market in September 2016, expecta-

tions were high among many insiders in the bicycle industry. After all, the supplier of scooter and motorcycle

components is a well-known player in the motorsports world, with distributors in 63 countries worldwide. Indeed, these expectations were soon met, as the company from the Italian town of Alzano Lombardo leveraged its extensive experience and engineering expertise to establish itself in the e-bike market as well. After entering the market with the E-P3 motor, the company launched additional models in the following years, thereby solidifying its foothold in the bicycle industry.

The latest announcement from Italy also reflects this development. Following the 2023 season, where six manufacturers – Cipollini, E-Crow, Finna Cycle, Mechane, Nilox and Olimpia – chose the current E-P3+ motor to equip their e-bikes, the company was able to raise its forecast for the current financial year early in the new season. “We confirm our growth in the e-bike sector during a year that has experienced a market slowdown. In the first few months of 2024 alone, Polini has noted a revenue growth, continuing the trend from the previous year,” Marketing Manager Saimon Polini

stated ahead of Taipei Cycle 2024.

At the fair in Taiwan, the company aims to capitalise on this positive momentum and attract additional partners. The cornerstone of this strategy is the new E-P3+ GP motor – a refinement of the already successful E-P3+, specifically designed for e-gravel bikes and e-road bikes. “As we enter the new year, we firmly believe that our approach, focusing on high-performance and potent motors that ensure remarkable autonomy, is the winning strategy for us,” Polini hopes, adding that attending Taipei Cycle for the second consecutive year shows the importance of the bicycle sector for his company.

However, the new E-P3+ GP motor will not be the only highlight at the trade fair stand in the Taiwanese capital. The Italians also want to showcase the company’s commitment to sustainable mobility. Saimon Polini says: “We are proud to participate in the Taipei Cycle Show, and we are proud to showcase our commitment, which is guided by a more sensitive attention to environmental issues and eco-friendly lifestyle trends.” ■ WMS

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OVERVIEW: SUSTAINABLE PRODUCTS PEDALING TOWARDS A GREENER TOMORROW

Taipei Cycle showcases the significant strides being made by bicycle industry towards greater sustainability. From innovative materials like recycled fishing nets in tires to digital solutions for transparent supply chains, companies are taking steps to reduce their environmental impact. Let's look in more detail at these advances and the industry's commitment to a greener future.



Formosa Taffeta shows its Seawastex material that helps to make bicycle tyres more environmentally-friendly.

The bicycle industry is striving to become more sustainable. This ambition is visible in both the initiatives companies are undertaking when it comes to changing their business strategies and the release of new products. Efforts to reduce the carbon footprint are not just limited to the use of recycled materials in components and accessories. There's also a significant push towards adopting manufacturing techniques that are energy-efficient, aiming to cut down emissions and waste during production. Furthermore, the industry is taking a critical look at the lifecycle of products, including packaging and transportation methods. Digital solutions are further propelling the industry towards sustainability by improving the transparency of the bicycle industry's complex supply chains. This year's Taipei Cycle Show serves as a global stage, showcasing these extensive sustainability ambitions within the bicycle world.

A good example of the industry's journey towards more climate and environmentally-friendly products is in the field of bicycle tyres. Recently, significant advancements have been made by both tyre producers and suppliers. A pioneering company in this area is **Formosa Taffeta [Hall 2 / S0224]**, especially known as one of the premier textile suppliers for leading sports and outdoor brands. Their Etycord fabric is an eco-friendly tyre cord fabric designed for bicycle tyre production. The sustainable fabric is produced with nylon threads originating from discarded fishing nets. Those nylon threads, which are also known under the name Seawastex, are then the base for producing tyre cord. The success of the new technology was already visible at last year's Taipei Cycle Show when tyre manufacturer Maxxis introduced a prototype featuring the Seawastex technology. At this



Schwalbe's Green Marathon has been updated and now contains 80% recycled and renewable materials.

year's edition, German market leader Schwalbe follows and also showcases a tyre utilising the green material.

Schwalbe's [Hall 1 / M0313] corresponding product is the new Green Marathon tyre. As the first bicycle tyre produced from a closed-loop material cycle, this model already made headlines at last year's Eurobike show. At the Taipei Cycle Show, they now present a new version in which the proportion of recycled and renewable materials has been increased from 70 to 80%. This achievement is made possible by Formosa Taffeta's Seawastex material, which is used in the tyre's carcass and replaces petroleum-based nylon entirely. Interesting fact: Seawastex saves 49% CO₂e emissions compared to conventional nylon carcasses and, therefore, reduces the CO₂ footprint of a bicycle tyre significantly.



Norwegian company reTyre has developed a new production technology for tyres, allowing them to replace rubber completely with bio-based elastomers that are 100% reusable.

Norwegian tyre company **reTyre [Hall 1 / L0325]** showcases another sustainable innovation in bicycle tyre technology. Their engineers have developed a new production technology for tyres, allowing them to replace rubber completely with bio-based elastomers that are 100% reusable. The elastomers behave like rubber and can be sourced from renewable biological resources like corn, sugarcane or cellulose. reTyre claims that their tyres have superior eco-credentials compared to classic bicycle tyres and are 100% reusable by eschewing traditional rubber materials.

Interestingly, the ride towards more sustainability in bicycle tyres isn't limited to the manufacturers; related entities are also making significant contributions. A case in point is Pax, a Taiwanese supplier affiliated with Yee Jee Technology Co. Its sustainable efforts have led to the creation of the GA Tire Sealant. This sealant is based on pineapple leaf extract and, therefore, aids in reducing agricultural waste.

Another Taiwanese company that is highly committed to sustainability is **Nuvo [Hall 1 / J0828]**. Based in Taichung, the firm is known for its bottle cage solutions, and with the n+1-BC125RR, they now present an eco-friendly bottle cage. Thanks to its unique design, the three-piece bottle cage significantly reduces packaging volume during transportation compared to traditional products. This reduction substantially lowers transportation costs and aids in worldwide energy-saving and carbon-reduction efforts. Its modular structure allows users to replace only damaged parts, effectively extending the product's lifespan and decreasing overall maintenance and replacement expenses. Furthermore, the design incorporates recycled materials,

including discarded fishing nets and recycled textiles, in its construction.

On the way to more sustainability every step counts – even small ones. An example of this is provided by **Joy Industrial [Hall 1 / I0922]**. Their hub and wheel brand Novatec uses a presentation stand at their booth crafted from high-quality wood, aiming to draw attention to the use of natural materials. Additionally, they are exploring various solutions to make the production of aluminium and carbon products more sustainable.

Accessory specialist **Handyway [Hall 1 / K0228]** also aims to become more eco-friendly. Their bicycle chain covers utilise a non-toxic, skin-friendly material that naturally decomposes. Additionally, they opt for recyclable paper for their packaging, lowering the product's overall CO₂ footprint. An exciting aspect of their sustainability ambitions is that they have initiated a public welfare project that is closely connected to the sale of their bicycle chain locks, which are available in a cat-themed and a whale-themed design: a set percentage of the proceeds goes to the Heart of Taiwan



Nuvo presents a more sustainable bottle cage that reduces the CO₂ footprint in different ways.



Handyway's whale-themed bicycle lock cover supports ocean conservation,



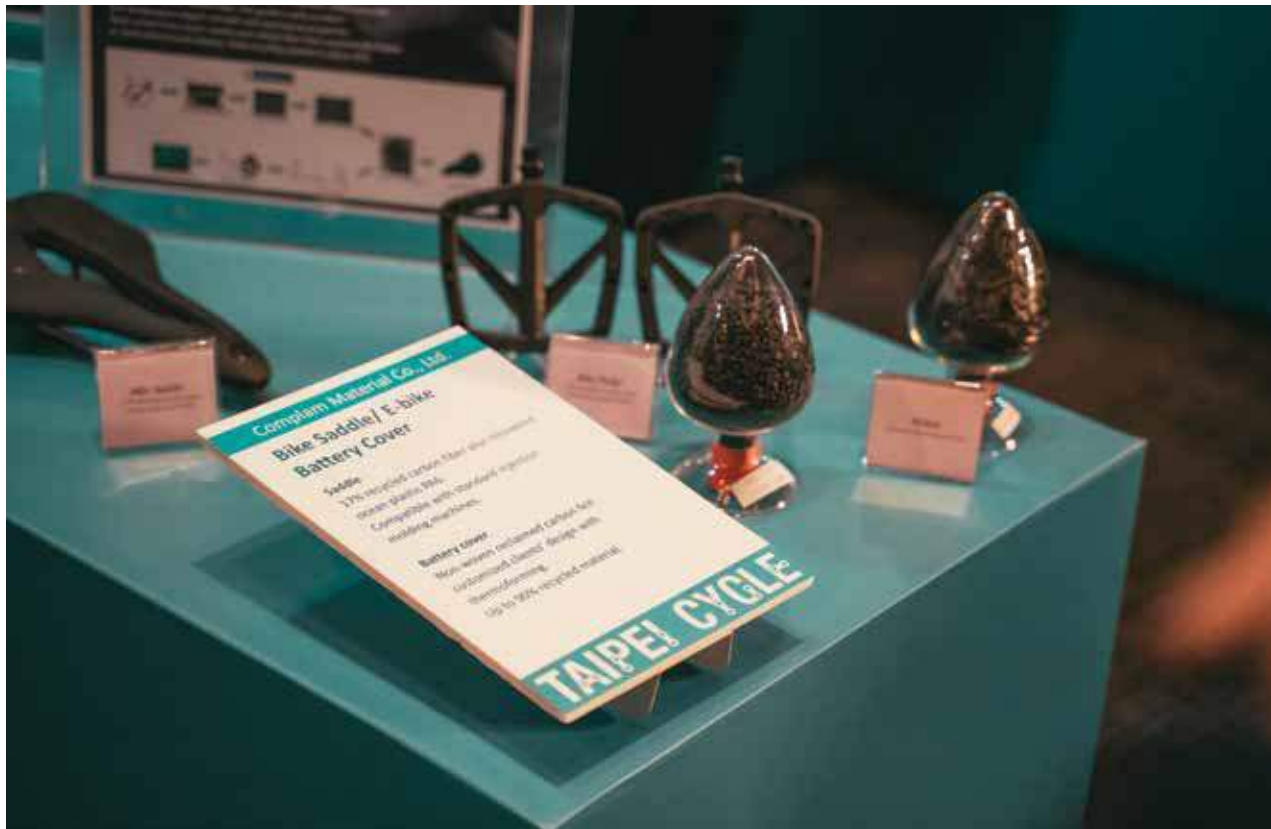
While the cat-themed version promotes animal welfare.

Animal Care for the cat-themed covers, promoting animal welfare, and to the Taiwan Environmental Information Association (TEIA) for the whale-themed covers, supporting ocean conservation.

Litemove Technology [Hall 1 / N1129] addresses the challenge of wiring for lighting systems on electric bicycles. The idea behind their concept: most electric bike lighting systems are installed with little consideration for future maintenance, leading to complex and hard-to-access wiring that complicates repairs and creates unnecessary waste. Therefore, they introduced the FE cable solution for electric bicycles, streamlining the assembly process and cutting costs and materials while making subsequent maintenance easier. This approach not only simplifies repairs but also lessens the environmental footprint.

As a trade show primarily catering to a B2B audience, the Taipei Cycle Show also highlights numerous initiatives designed to make manufacturing processes more eco-friendly. An interesting case regarding material

Litemove wants to reduce the complexity of wiring for lighting systems on electric bicycles.



Complam has developed solutions for producing green and sustainable composite laminates.



HYC is heavily investing in carbon recycling.

sustainability is **Complam [Hall 2 / S0414]**, a Taiwanese company which presents various solutions for producing green and sustainable composite laminates. Among other achievements, they have developed technologies to utilise recycled materials for both thermoplastic resins and fibre reinforcements. At a press conference before the Taipei Cycle Show, they introduced a saddle made with 17% recycled carbon fibre, compatible with standard injection moulding machines. They also showcased a battery cover made from non-woven reclaimed carbon felt, consisting of up to 90% recycled material.

"Green enterprise, green factory, green products" – under this motto, Taiwanese company **Hsin Yung Chien [Hall 2 / S1027]**, has been committed to sustainability for several years. This commitment is vividly showcased at their booth, where various large posters draw attention to the company's recyclable carbon fibre frames and wheels. Together with a partner company, they collect old or damaged carbon products. These are then processed into small pellets, from which new carbon products can be created. HYC, as the company is commonly abbreviated, therefore also contributes to enhanced material



Noca Mobility software solution for supply chain collaboration in the bicycle and micromobility industry.

sustainability. Our last example of the various sustainability ambitions on display at this year's Taipei cycle Show comes from the digital world, where various initiatives aim at spotlighting sustainability innovations and making supply chains more transparent. An example is **Noca Mobility [Hall 1 / L0118]**, which offers a software solution for supply chain collaboration in the bicycle and micromobility industry. Through their platform, the German company helps to simplify the data exchange along the supply chains and enables more seamless collaborations between component suppliers and OEM vehicle manufacturers, retailers and assemblers. One example of how Noca Mobility can contribute to greater sustainability is the calculation of Scope 3 emissions, which presents many stakeholders in the bicycle industry with numerous challenges.

In summary, this year's Taipei Cycle Show vividly demonstrates the bicycle industry's efforts towards more sustainable business practices. From innovative materials like eco-friendly tyre cord fabric to advance-



Novatec raises awareness for bio-based materials with a wooden wheel presentation stand.

ments in supply chain transparency, the show highlights the numerous paths companies take to reduce their environmental impact. One thing is certain: There is still a long way to go. But through the collective effort of manufacturers, suppliers, and consumers, the bicycle industry is indeed pedaling towards a greener tomorrow, proving that innovation and environmental responsibility can go hand in hand. ■ **WMS**

TROUBLED BRANDS & COST-CUTTING EFFORTS THE SCRAMBLE TO CUT COSTS AND STAY AFLOAT

The toxic combination of rising costs and interest rates, dropping revenues and high inventory levels has caused a lot of problems throughout the bicycle industry. As a consequence, some companies have gone bankrupt or into administration while others resort to layoffs in a bid to reduce costs and regain liquidity.



The Accell Group has decided to close down one of its factories in the Netherlands due to overcapacity.

and has also announced to reduce the size of staff by up to 300 people. Most of these cuts will be done at the corporation's motorbike factories in Mattighofen and Munderfing.

Albeit at a smaller dimension, Swiss e-bike pioneer Flyer also had to announce a restructuring of its operations in late September due to a drop in revenue and high inventory levels. While reducing the staff from just over 200 to 120 may sound like a drastic decision, it means that Flyer returns to the size it had in early 2021 before the Swiss company significantly expanded its assembly capacity due to the high demand during the pandemic. The quest to reduce costs is not restricted to bicycle manufacturers: Uvex Sports decided to close one helmet manufacturing facility in Bavaria due to over-capacity. And Vista Outdoor has grouped its bicycle-related brands QuietKat, Giro, Bell, Fox Racing and Blackburn in the Adventure Sports business unit at the newly-founded subsidiary Revelyst. Following this decision a number of offices in the United States were closed down, reducing both staff and operational costs as a consequence. Vista Outdoor is also considering selling some of the

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Two years of massive demand left the bicycle industry in a constant catch-up race to increase its production capacity. At the same time it was struggling to get all the parts and components it needed to build those bikes in backorder and ship them out to the markets. While this frantic period saw many companies turn record results in terms of turnover, a constant shortage of goods along its supply chains kept delivery times up and purchasing and production planning departments awake and on their toes. And rising costs for raw materials, electricity and transport cut into the margins, lowering profitability. Nobody expected the pandemic boom to end, and when it did in the first half of 2022, it wrong-footed most players in the industry.

As turnover crumbled due to bad consumer sentiment and cost of living issues, rising interest rates increased the cost of lending and lured investors to other opportunities or at least made them reassess their activities. Full warehouses translated into a lot of fixed capital and shortages in cash flow – which was one of the reasons why rating agency Fitch downgraded the Accell Group twice in 2023, calling the financial situation of one of Europe's biggest companies in the bicycle industry “unsustainable” at the end of the year. So the management of the Accell Group started to look for ways to reduce costs. It was decided that the parts and accessories business of Raleigh UK would be discontinued in November 2023. Next-

up the offices of cargo bike brands Carqon and Babboe were merged in a bid to profit from synergies.

Two weeks later the Accell Group announced the next step to save costs: due to low demand, the assembly of Ghost Bikes in Waldsassen will be discontinued after more than 30 years. Instead the production is going to be moved to Accell-owned factories in Hungary and Turkey. According to local media, this decision will see 80 of a total of 200 jobs gone at Ghost Bikes' Bavarian headquarters, with administrative tasks set to remain in Waldsassen. As a next step, Accell Group is combining its two facilities in Heerenveen, the Netherlands. The separate factory of Koga will be discontinued and the production moved to the main factory, with some volume models set to be produced in other European manufacturing facilities. This will result in a loss of 100 to 150 jobs.

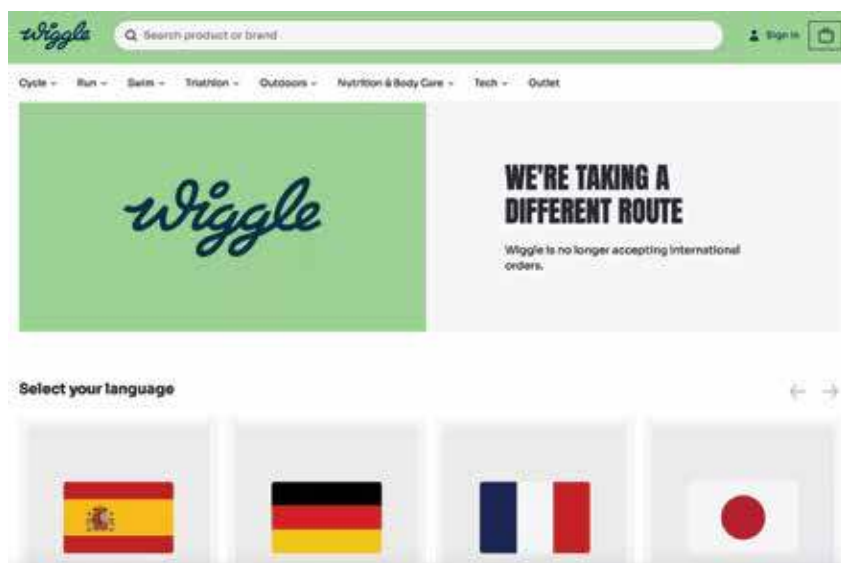
Despite increasing its sales by 33 percent year-on-year to 157358 units in 2023, two thirds of those e-bikes, Pierer New Mobility has seen its margins erode in the bicycle business. This shows in the result of the entire Pierer Mobility group: While turnover grew by 9 percent in 2023, the operating profit dropped by 32 percent. Apart from rising costs along the supply chain, a big factor in this are high inventory levels leading to discounting. In a bid to lower costs Pierer Mobility is splitting with both the R Raymon and Felt Bicycles brands



Swiss e-bike pioneer Flyer was forced to scale its staff back to early 2021 levels.



GasGas motorbikes on the assembly line at Pierer Mobility's factory



One of the world's biggest bicycle-related online shops, Wiggle has stopped its international business.

brands operating under its Adventure Sports business unit.

A cardinal rule in business is that liquidity comes first, profit comes second and turnover only comes third. Ignore this at your peril, as fair-weather business plans based on quick growth at low margins with hardly any profit to back it up will fail as soon as demand drops or interest rates go up and investors want to see some return. The most baffling example of putting turnover first to impress investors was Dutch e-bike maker Vanmoof, a darling of venture capital investors that managed to scoop up US\$ 180 million. Vanmoof's business model relied on venture capital for liquidity while scaling up a technically immature product and pushing it into markets to drive turnover. To make matters worse this D2C brand insisted on selling its products at two thirds of the price of

brick and mortar offerings.

This resulted in a negative margin for the third-generation S3 and X3 e-bikes of Vanmoof. In other words, the company lost money with every bike it sold. To make matters worse, these e-bikes were pushed into the market despite serious technical issues and a failure rate of up to 10 percent. Since manufacturers carry a product liability for two years after a purchase within the EU, the technical issues did not only cause a reputation damage but forced Vanmoof to collect and fix those e-bikes. This added more than 120 people to the existing staff and the payroll, further escalating the build-up of costs. In early 2023, Vanmoof rang the alarm bells and told investors it needed more funding to keep going. In June 2023, it was all over, Vanmoof was bankrupt – and left a staggering debt of US\$ 140 million in its wake.



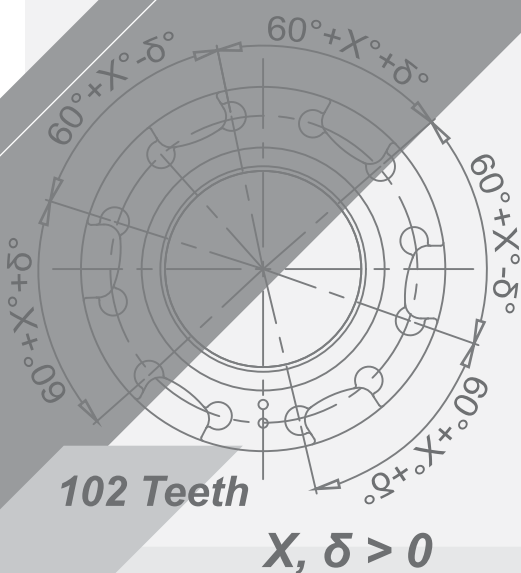
The bicycle assembly at Ghost's German headquarters has been discontinued and moved to Hungary and Turkey.

Another story that made plenty of headlines was the one of Signa Sports United (SSU): As the e-commerce subsidiary of one of Europe's largest real-estate developers Signa Holding, this unit grew fast through acquisitions of the likes of Internetstores in Germany and Wiggle CRC in the United Kingdom. Using volume as its main leverage and profiting from lean structures and low costs, SSU was a new-economy darling amidst the Covid pandemic but also contributed to the erosion of retail prices and margins. When central banks raised interest rates in a bid to dampen inflation, the risky business model of Signa Holding collapsed. As a consequence a safety of EUR 150 million backing the operations of SSU got withdrawn on short notice, pushing the e-commerce darling into administration and likely marking its end.

There are plenty of examples of companies as well who were forced into administration but came up with a plan on how to go on. Examples for this include the likes of KSR Group, KED Helmets and Advanced Sports Europe (ASE) who came up with a business plan convincing enough to get the okay from creditors. German Prophete Group found a new investor and owner from Singapore, and iconic English mountain bike brand Orange Bikes opted to move in with its frame building partner to share the costs of the factory while streamlining a production that now can be done fully in-house. Others were not so lucky: Despite offering truly innovative products, Austrian cargobike maker Gleam and Finnish e-drive maker Revonte could not find additional funding to keep going and were forced to close down. ■ **LvR**

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KOREAN BICYCLE MARKET

BETWEEN DOWNTURN AND OPPORTUNITY

For years, companies from Korea have been among the top buyers at Taipei Cycle Show. This trend continues in 2024, with numerous manufacturers set to showcase their products. It's a perfect opportunity for us to delve behind the scenes and examine the current developments in the Korean bike market.



A behind-the-scenes look into the production of wheel specialist Avilav.



Newwise already showed its new bikes at last year's Taichung Bike Week.



Charles Kim is the CEO of RB International, the parent company of performance wheel producer Avilav.

Bicycles are the future. It is a statement that is often heard when discussing mobility trends. However, in the South Korean city of Sejong, about 100 kilometres south of Seoul, it also applies to the future of energy production. The reason is a bicycle lane in the south of the city which not only serves as a road but also as a power plant. In total, 7,502 solar panels were installed on the roof of the covered road, producing 2,200 MWh of eco-friendly electricity each year – sufficient to supply around 600 households, as stated by the South Korean Ministry of Land, Infrastructure, and Transport. It is initiatives like these that demonstrate how bicycles are also increasingly permeating society in South Korea.

This is fundamentally good news for Korean bicycle manufacturers, especially since the local bike market in this country of around 51 million people is considered anything but simple. "I would say that the Korean bicycle market is unique," explains Charles Kim. He is the CEO of RB International, the parent company of performance wheel producer **Avilav [Hall 1 / L1326]**, one of several South

Korean exhibitors at this year's Taipei Cycle Show. "We are among the top countries in the world for sales of bicycles priced over 10,000 US dollars. Yet, when it comes to using bicycles as a mode of transport, Korea has one of the lowest transportation rates globally. Bicycles have been much more favoured for sports than as a means of transportation," he says, while also providing insights into the recent market developments: "Following a minor downturn from 2015 to 2019, there was significant growth from 2020 to 2022 during the pandemic. However, since 2023, there has been a decline that has resulted in a recession."

Conversations with various Korean exhibitors at Taipei Cycle reveal similar experiences, which also align with global trends in the bicycle industry. "Recently, bicycles have gained more recognition as an eco-friendly transportation option, with user numbers rapidly increasing until last year. However, 2024 is anticipated to be challenging due to the economic downturn," states Donghyun Lee, Marketing Manager at helmet manufacturer **Karmor [Hall 1 / L0425]**. Although there is no official market data for the South Korean bicycle market, a survey among local companies and distributors reveals that sales started to decline in 2023 – with decreases in the single or even double digits, depending on the product category. These observations are echoed by Sangkil Park, company spokesman at tyre specialist **Tannus [Hall 1 / J0701]**: "Poorer US dollar exchange rates and the global increase in interest rates have curbed consumer spending and reduced liquidity," he says, adding that companies with a high share of exports to international markets are suffering particularly from the global situation: "Due to recent Red Sea

logistics problems, the delivery cost of buyers has increased very much, and delivery has been delayed."

Like in other countries, many Korean firms are, therefore, struggling with high inventory levels. "Thus, starting from the 2023 season, most brands have initiated special promotions, which is expected to continue into the 2024 season as well," Hyun Chul Seo analyses. He is Chief Manager at Neowise, a subsidiary of bike manufacturer **Comet [Hall 2 / R0506]**, a specialist in producing high-end sports bicycles. He, therefore, hopes for a speedy recovery of the market. "Additionally, the increasing presence of e-bikes in the Asian market could present a good opportunity," he adds, referring to the Neowise FX20 e-gravel bike, a model that has already caused quite a stir at Taichung Bike Week.

Indeed, opportunity is currently the buzzword for the Korean firms. Many manufacturers are focusing on the emerging Asian bicycle market. For example, Karmor Marketing Manager Donghyun Lee identifies neighbouring countries Taiwan and Japan as key export markets. And RB international CEO Charles Kim hopes for global success of the Avilav wheels: "Currently, we are the brand with the highest market share for carbon wheels in Korea. However, in the global market, our products are almost unknown. It is also rare in the global market to find a brand from Korea rather than Europe or the United States. That's why we want to use Taipei Cycle as an opportunity to enter the global market." **Analogue Plus [Hall 1 / L0310]**, another specialist in bicycle helmets, has similar plans, as Overseas Manager Chris Kim reveals: "Beyond Southeast Asia, Europe is definitely a growing market for us. Products like our smart helmets, which have been at CES and elsewhere, are a good base for



Analogue Plus focuses on the development of smart bicycle helmets – and aims for more business in Europe.

this strategy," he says, mentioning the new Angler, a lightweight helmet, as one of its novelties at Taipei Cycle.

New products, an interest in international markets, and, not least, emerging companies distinguish the Korean exhibitors at the Taipei Cycle Show. A behind-the-scenes look at the South Korean bicycle market reveals that, despite the current situation, interest in cycling is growing in Korea as well. In the long term, the trend is, therefore, likely to head upward again. Initiatives such as the solar-panel-covered bicycle path in Sejong underscore the bicycle's promising future in the country. ■ **WMS**

RIGHT TO REPAIR EU FORCES OPEN ACCESS, LIMITS SELF-REPAIR FOR E-BIKES

The Right to Repair movement, aiming to empower consumers to fix their own devices, has seen recent progress in the EU. While bicycles were excluded, e-bike batteries are now covered, requiring manufacturers to offer spare parts for five years. This could set a global precedent, impacting companies like Viridus and Phyllion. But a controversial requirement forces battery removal by professionals, raising concerns about convenience and cost.



CKC pedals have been designed to be repaired

Last June the Right to Repair campaign scored a partial win in the EU with new rules for batteries, including e-bike and e-scooter batteries. In addition to forcing manufacturers to make batteries available as spare parts for a period of five years after the last model unit enters the market, the new rules also

state that spare batteries shall be sold at reasonable and non-discriminatory prices. What's lamentable is the fact that these batteries and others of light means of transport will need to be removed by independent professionals (as opposed to the battery owner), which represents a potential worsening of current

circumstances.

While EU market share pales in comparison to Asia, its regulations often ripple outwards. Here, stricter e-bike battery standards could incentivize global compliance, similar to California's emissions impact on carmakers. In the future, this may apply to **Viridus Manufacturing [L0302]**, **Greenway Battery [R0406]**, **Phyllion Battery [L0305]**, **Imeier Green Technology [R0116]**, **Longwin Technology [S1010]**, **Unique Product & Design Company [R1014]**, **STL Technology [S0902]**, **Celpert Energy Corporation [R0825]**, and **Acer Mobile Power System [S1018]**, among others.

Other proposals that Right to Repair advocates around the world would like to see legislated include the proposal for a Directive on Empowering consumers for the green transition, which — if passed into law — would enable consumers to be informed about the reparability and durability of goods *before* purchasing them. If that happens, companies that prioritize disposability over reparability

may soon find themselves heading for the bin unless they proactively promote the reparability of their products, starting with the production phase. Some manufacturers have already taken action to design products that can be repaired.

CKC Environmental Technology [I1218] has designed its CK-TB7 Biomass pedal specifically for reparability and recyclability. When the pedal body becomes unusable due to damage or other factors, its metal bearing can be saved and the body can be replaced with a new one made of a biomass material that meets the conditions of a solid recovered fuel (SRF). Thus, the repaired pedal can continue functioning as intended while its discarded body can serve another purpose.

As the Right to Repair gains momentum, manufacturers embracing consumer rights, sustainability, and innovation will not only comply with regulations but also lead the market. However, the balance between consumer empowerment and professional involvement in repairs remains a point of debate. ■ **WB**

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ORA ENGINEERING

BUCKING THE CARBON TREND: ORA STAYS LOYAL TO METAL CRAFTSMANSHIP

Over the past three decades ORA Engineering has specialised in bicycle frames and parts made of titanium, stainless steel, aluminum and chromoly. While carbon has become the material of choice for performance applications, ORA Engineering confidently swims against the tide.



This workstation transforms straight-gauge titanium tubes into butted and swaged tubes

A look at the products on display at Taipei Cycle Show quickly shows the current dominance of carbon composite frames and parts. One company that won't have any of that is **ORA Engineering [Hall 1, 10914]**: founded in 1996 by Jim Hsu, a metal engineer who learned his welding skills from Japanese partners, this company focusses on quality, a high-degree of in-house manufacturing and the

production of frames, forks and parts made of metal rather than carbon. The company's offices and factory are located in Taichung's rural Houli district, covering 35,000 square feet or 3,250 square meters.

Like many companies in Taiwan's bicycle industry, ORA Engineering is a family-owned SME, and Jim Hsu's daughter Agnes is in charge of day-to-day business as Vice President. While

walking from the office building over to the factory, she explains: "At ORA Engineering we manufacture frames made of chromoly and stainless steel, aluminum and titanium. Our annual capacity stands at 12,000 frames a year, with 30 percent each being made of aluminum, chromoly steel and titanium and the other 10 percent of stainless steel. Thanks to our ability to offer MRQs as low as 100 frames per year, our largest customer accounts for about 10 percent of our production with all others maxing out at 5 percent."

When ORA Engineering was founded the staff stood at 30, but this number had grown to 90 by the fall of 2023. Half of those personnel are working in production and the other half in the office, the warehouse and in quality control. ORA Engineering is working with costly raw materials and tubesets, so quality control is an important element practised throughout the production process. "We train our welders for three years in-house, and currently the second generation of welders is being taught how to work with various metals by our long-time employees", Agnes Hsu explains. "Apart



Ti frame welding demands a lot of expertise

from our in-house test-lab, we also carefully and continuously check every production step to avoid scraps."

Another way to keep track of and ensure quality is to do as much as possible in-house, as Agnes Hsu explains: "With our headquarters and factory in one place, we can do about 90 percent of the production in-house – from the butting and swaging of tubes and CNC works on the base floor of our factory to the welding on the top floor. The

INDUSTRIAL TECHNOLOGY RESEARCH INSTITUTE (ITRI)

PLAYING A MAJOR ROLE IN TAIWAN'S TECHNOLOGICAL DEVELOPMENT

Taiwan's Industrial Technology Research Institute (ITRI) is dedicated to driving innovation in the island's industries, developing numerous patents and technologies in the sports and bicycle industries.

Founded in 1973 following the merger of several Taiwanese laboratories, the **Industrial Technology Research Institute (ITRI)** is one of the world's leading high-tech applied research institutions. The institute has played a major role in transforming Taiwan's industries from labor-intensive manufacturing to innovation-driven enterprises. Nowadays, ITRI employs over 6,200 people in Taiwan, the USA, Europe (Germany), Japan, and, most recently, Thailand. In 2022, ITRI recorded a total revenue of NTD 24.3 billion (EUR 711 million). According to the institution, 45% of the research budget comes from the Taiwanese government and 30% from industry companies.

To address market needs and global trends, ITRI has filed over 31,000 patents over the last 50 years. "More than 500 technologies have been transferred directly to companies and startups," indicates Ming-Che Wang, President of ITRI USA. "We work on new technologies and help companies develop and produce their own. 50% of our budget is dedicated to R&D," he adds. To remain at the forefront of innovation, ITRI launched its 2035

technology strategy and roadmap in 2023. This strategy is focused on four popular application domains: smart living, quality health (including sport), sustainability, and a resiliency. The Institute strives to leverage technological innovations to inspire new lifestyles, engineer market-driven solutions, create uncontested spaces, and steer society toward a better future.

ITRI also includes the sports and bicycle industries in its research and technology endeavors. The institute has a long-standing partnership with Giant. In the area of bike fitting measurements, the two worked together to develop the Dynamic Cycling Fit technology that Giant is using to help customers find the best saddle. Moreover, ITRI (with its Chemical Research Laboratories) has collaborated with Giant to develop a new way of sorting carbon fiber material so that reclaimed carbon fiber will not lose any of its original durability. During the Consumer Electronic Show (Las Vegas, Jan. 9–12), ITRI showed innovations such as the Digital Twin for sport guidance with vital sign sensing. This incorporates non-contact thermal imaging respiration



During the Consumer Electronic Show (Las Vegas, Jan. 9–12), the Industrial Technology Research Institute (ITRI) showcased many of its innovations.

measurement technology into cycle sport breathing training, thanks to a camera located on the handlebar. The camera also analyzes the rider's back, shoulders, elbows, arms, hips, and knees through image-based skeleton movements. Users can focus more on realistic road condition simulations and enhance training effectiveness. ITRI has also developed iSportWear, a smart personal health management solution. Featuring non-contact low-power radar technology, it can be integrated into accessories such as sunglasses and bike handlebar grips to provide real-time



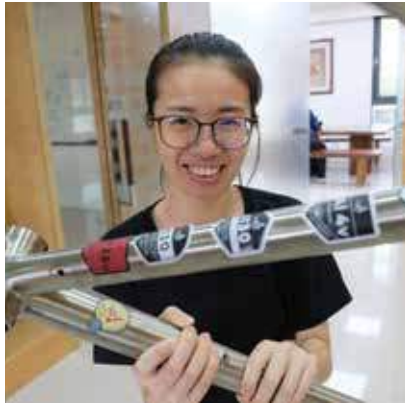
iSportWear is a technology developed by the Industrial Technology Research Institute (ITRI). Featuring non-contact low-power radar technology, it can be integrated into accessories (sunglasses or bike handlebars) to provide real-time detection and continuous monitoring of physiological parameters.

detection and continuous monitoring of physiological parameters such as heart rate, breathing, and more. Thanks to all these inventions, ITRI remains at the forefront of innovation and intends to continue in this direction in the years to come. ■ **LG**

outsourced steps are painting and polishing, heat treatment and casting and hydroforming; in Taichung there are many contractors who have considerable expertise in these areas.” As a final step an automated alignment table delivers a detailed protocol for each frame.

For its titanium frames the primary focus of ORA Engineering is on mountain bikes and gravelbikes. At Taichung Bike Week the company showcased an e-gravelbike with a hub-based light-support e-drive system from compatriots Hyena E-Bike Systems. “Since this system features a very slim battery, we can neatly integrate it into a titanium frame. This could not be done with the powerful mid-motor system as we can’t make titanium tubes with a large enough diameter to fit their larger batteries”, Agnes Hsu explains. At the butting and swaging station, a robot is feeding straight-gauge tubes into the machine to manipulate wall thicknesses and put extra strength where it’s needed.

Back in the showroom, a variety of parts goes to show that ORA Engineering is more than just a frame and fork builder. The company also produces handlebars, end caps, stems, seat posts, cranks, seatpost clamps, luggage carriers and special dropouts from titanium and forks, handlebars and cranks from cromoly steel for BMX bikes. One relatively new business of ORA Engineering is to provide tubesets, dropouts, derailleur hangers, yokes, disc brake mounts and various ports and guides for internal and external cable routing to frame builders. This business currently accounts for five percent of



ORA Engineering's Agnes Hsu

the company’s turnover. For marketing purposes, ORA Engineering has also introduced low-key branding and matching labels for its proprietary tubesets.

Due to its focus on frames and parts made of precious high-quality metals, ORA Engineering has been an early mover in terms of sustainability and ESG topics. When building its new factory in Houli in 2014, the management kept an eye on the treatment of wastewater and optimized ventilation and cooling solutions of the factory hall. The focus on low-waste manufacturing can be attributed to the considerable costs of raw materials such as titanium and stainless steel. “We also try to optimize in-house processes constantly, and our paperless workflow helps to lower ORA Engineering’s eco footprint. Last but not least our reliance on skilled metal workers that we train in-house extensively leads to a philosophy of sticking with existing employees.” ■ LVR

MULTIFUNCTION TOOLS BY U-POWER CHAIN AND TUBELESS TIRE REPAIR ON THE GO

U-Power Collection Enterprise Co., Ltd. [K0628] designs and manufactures small, portable bike wrenches and hex keys. In addition to offering designs under their own brand, the company also designs and manufactures on both an OEM and ODM basis. After more than 20 years in the business they have become the supplier of choice for many well-known brands.

Tools on display this year include a new version of the U-Power 2-in-1 chain removal wrench. The previous version was designed to open and close a quick release link in the one action. The front and rear sections of the “X” mount levers move in opposite directions when operating the handles. The PW-03 also enables quick and precise opening and closing of a link; the difference is in the separation of opening and closing functions. Closing a link is done through squeezing the handles nearest the user as with the previous version. Opening, however, is done through pressing a separate contact area just behind the levers.

The VICO2-B is a unique tubeless tire repair tool with a 3-in-1 functionality that can be customized for consumers. The unit

features twin-value CO2 inflation for rapid tire inflation. A tire can be directly inflated using a CO2 cylinder, or it can be pumped up directly through the valve. The plug provides seamless compatibility, and the package includes five high-quality D1.5x50mm Worms.

The patented HBT-12PK Handle Bar Tool is a multi-function, lightweight unit that stores away in both ends of 18.5mm & 20.05mm tube ID handlebars. Functions include tubeless tire repair, 11-size hex bits H2 to H8, a 6-12 speed chain tool, 0/1/2 spoke wrench, a set of D1.5x50mm Plugs, O-rings in Ø13.8xØ18.6xW2.7, Ø13.8xØ19xW2.7, Ø14xWD2 sizes. ■ GR



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FULL SPEED AHEAD & VISION TECH

SMART INVESTMENTS FOR A SUCCESSFUL FUTURE

Since 1993, Full Speed Ahead has established itself as a specialist in high-end bicycle components. We spoke with Global Vice President Claudio Marra and Katy Chiang, Manager of the carbon factory of FSA parent company Tien Hsin Industries, about the company's current projects.



FSA's new carbon-cutting machine reduces production waste by 40%.

"We are currently experiencing turbulent times," says Claudio Marra right at the start of our conversation ahead of the Taipei Cycle Show. "First, there was an explosion in demand, then the industry realised it might be a bubble. And now, we are all facing a certainly unique difficult situation," he continues. Marra knows what he's talking about. For 22 years, he has been the Global

Vice President of both **Full Speed Ahead** and **Vision Tech [Hall 1 / M1212]**. "We faced a lot of criticism during the peak of the pandemic for not significantly expanding our production capacities. However, we suspected it was only a temporary demand. That's why we tried to invest as wisely as possible," he says. The success of this strategy can be traced through the company's

historical roots, going back to 1971 with the establishment of Tien Hsin Industries, originally a producer of hunting rifles. Since 1990, the focus shifted towards the production of bicycle components, and in 1993, the consumer brand Full Speed Ahead was established, which subsequently became a specialist in high-end bicycle components. The company's success is reflected in its global reach, with FSA offices located in Taiwan, China, the USA, and Europe. At present, Tien Hsin employs approximately 400 staff members.

That this success can persist in the future – despite the tense economic situation in the bicycle industry – is something the investments mentioned by Marra aim to ensure. Lately, there has been a significant focus on enhancing the in-house carbon production facilities located in the Dali District of Taichung. "One of these investments, for example, is our carbon-cutting machine that can calculate the optimal arrangement of material shapes, reducing waste by 40%," says Katy Chiang, manager of the carbon factory.

Recently, there has also been a strong focus on investments in sustainability. One example is the decision to eschew plastic packaging. Additionally, in terms of machinery, the implementation of a heat recovery system is expected to reduce energy consumption significantly. "The first step in reducing one's ecological footprint is to understand and quantify it," Chiang remarks, referring to the comprehensive ISO14064-1 greenhouse gas inventory data Tien Hsin has gathered in recent months. Efforts are also underway to obtain ISO14001 and ISO50001 certifications, which outline a company's environmental and energy management systems.

"We are using this period to re-organise our production processes," Marra adds. He refers to the investments in more sustainable production measures as not only smart but also essential – especially when considering that the market will recover. Regarding the economy, he sees positive omens: "Our sales are still higher than before the pandemic. That's a good sign." ■ **WMS**



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TANNUS

“PUNCTURE RESISTANCE IS INCREASINGLY IMPORTANT”

When it comes to cycling, few things are more frustrating than a flat tyre. Under the motto “tyres that never go flat”, the South Korean manufacturer is showcasing its puncture-resistant tyre-insert solutions.



Tannus is showing its anti-puncture solution.

In the pursuit of puncture-proof solutions for bicycle tyres, one name consistently comes up: **Tannus [Hall 1 M0507]**. For several years, the South Korean manufacturer has been making waves with new patents and products that promise puncture-proof performance, a commitment that has already garnered the company significant international attention. That is also the

case at this year’s Taipei Cycle Show.

On the first day of the fair, Stefan Anton, Senior Product Manager at Tannus International, reported a rising demand in the puncture protection segment: “We’re experiencing a growing interest, mainly in the OEM segment,” he said, adding, “The changing mobility behaviour and the increasing mileage covered with

e-bikes, cargo bikes, and the like are bringing the issue of flat tyres increasingly into focus. Puncture resistance is becoming increasingly important.”

In this context, Anton referred to the Tannus Airless technology, which is prominently displayed at their booth. The technology promises more than 5,000 miles (ca. 8,047 kilometres) without a puncture. A closer look reveals that this claim is anything but exaggerated. The genius behind the Tannus Airless puncture protection lies in its simplicity: the tyre is infused with a light, patented multi-cell foam. As a result, concerns like bursting tubes, punctures, or tyre holes become things of the past. Interesting fact: at just 370g, Tannus Airless Tires weigh the same as the majority of tube and tyre combinations on the market. Notably, the Tannus Airless tyre can be used with existing wire bead rims – another advantage. And – in accordance with the sustainability endeavours of the bicycle industry – the product is 100% recyclable.

In addition to Tannus Airless, Anton also demonstrated Tannus Armour, an insert for tyres designed to enhance both the stability and the rolling characteristics of the tyre. “With Tan-



One of Tannus’ bestsellers is its Airless technology product line.

nus Armour inserts, puncture protection reaches new heights, covering up to 85% of the rims,” he said, also referring to Tannus Armour Tubeless, a variant for tubeless tyres. Tannus promises high puncture protection, enhanced grip on the trail, reduced vibrations, and a secure tyre fit on the rim, all while ensuring easy installation, relatively low weight, and a fair price. “These products are certainly of interest for various bicycle segments,” Anton explained, mentioning the B2B sector as one of them: “Here, a flat tyre means downtime and, accordingly, costs. So, appropriate solutions are very important,” he added. ■ **WMS**

ENGLISH

TANNUS

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- Puncture protection covers up to 85% of rim.
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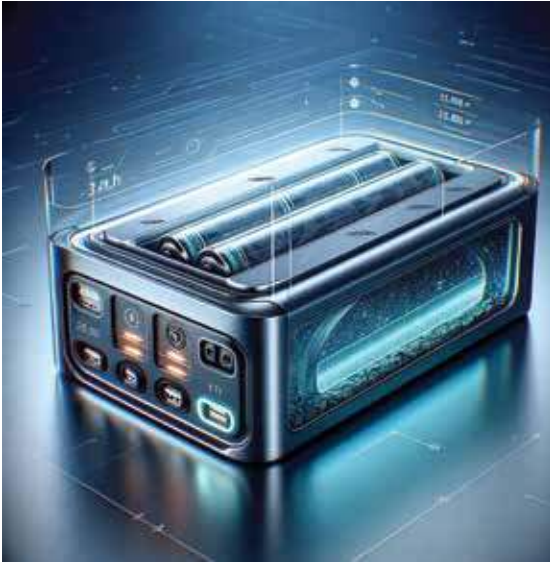


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E-BIKE BATTERY TECHNOLOGY A NEW GENERATION OF BATTERIES?

Since their breakthrough in the 1990s, lithium-ion batteries have been the leading battery technology for consumer products, e-bikes included. But what improvements are battery manufacturers working on these days? We spoke to different participants at Taipei Cycle to find out.



The e-bike battery market can expect various innovations in the next years.

Closely interconnected lithium-ion cells, a battery management system, and a casing with charging/discharging ports – the design of modern e-bike batteries is mainly similar. This applies not only to the various models on the market but also to the different manufacturers. The similarity is no coincidence, as lithium-ion batteries have been in use for more than 30 years and are, therefore, regarded as a mature technology – a fact that is also reflected in their popularity: these days, lithium-ion cells power everything, from smartphones to laptops, e-scooters – and also e-bikes.

Peter Tsau, CEO of Taiwanese battery specialist **Ecoics [Hall 2 / R1019]** outlines the reasons for this popularity. “Lithium-ion batteries can store a lot of energy in a small, lightweight pack. They also have a lengthy cycle life. And they require less maintenance compared to other types of batteries,” he details. However, he adds that, even after more than three decades of market presence, there are still several challenges associated with the technology – especially in the e-bike sector. “Lately, the energy density of lithium-ion battery cells has improved from 200Wh/kg to 260Wh/kg. Yet, there remains room for further enhancement. Another challenge lies in the costs, as the battery represents a significant part of an e-bike’s overall expense. Additionally, sustainability questions such as ethical sourcing of raw materials and the disposal of e-bike batteries are pressing issues.”

A mature technology that still offers room for improvement – a look at the battery manufacturers’ innovations at this year’s Taipei Cycle Show reveals that significant efforts are being made to tackle these tasks. One such example is the Taiwanese company **Darfon [Hall 1 / N0810]**. “Lightweight e-bikes are a market trend. Therefore, we will exhibit a 400 Wh battery weighing less than 1.9 kg, one of the lightest batteries

on the market,” explains President Josh Tsai. In addition, the electronics specialist will showcase a USB Type-C PD module capable of charging and discharging in both directions. “With the standardisation and popularisation of USB chargers, charging can be done anytime, anywhere,” he continues.

The Chinese manufacturer **Greenway Battery [Hall 2 / R0406]** also presents fresh developments: “We’re unveiling our ZZ209 model in Taipei, featuring a 40-cell integrated battery pack with customisable configurations. The ZZ209 is designed with a paintable battery cover and offers a high maximum capacity of 720 Wh,” announces Mo-Hua Yang, General Manager of Greenway Battery Europe. “Our goal with this new product is to cater to diverse drive system partners, conform to the new EN50604-1 battery standard, and anticipate the introduction of the battery passport, all achieved through a novel non-welding technology,” he notes. Later this year, Greenway is set to collaborate with a prominent German tech company to launch a new cargo bike battery with a digital, hybrid connector.

“This advanced battery features a smart and secure NFC power connector,



Darfon unveils a new 400 Wh battery weighing less than 1.9 kg.



Greenway presents its new ZZ209 battery pack at Taipei Cycle.

providing safe, digital, and mechanical locking across e-bikes, chargers, and swapping stations. The battery system is also scalable, allowing for straightforward capacity upgrades,” says Yang.

The battery expert believes that such detailed, bicycle-specific enhancements will shape the e-bike battery market in the years to come. “As an industry, we need to be realistic. The bicycle industry only uses 1% of the e-vehicle battery cell market. Therefore, when new technological leaps occur, major consumers like the automotive industry will first absorb the capacities. Smaller industries will then have to wait another two to three years. This is also my expectation with solid-state batteries, which will likely bring the next significant evolution to the battery market. Hence, in the foreseeable future, the bike industry will concentrate mainly on enhancing batteries equipped with 21700 cells.”

When searching for the next generation of batteries, solid-state batteries, short SSB, indeed stand out as the technology that could cause a stir in the coming years. In an SSB, the liquid electrolyte found in lithium-ion batteries is replaced with a solid electrolyte.

The result is increased safety, faster charging capabilities, and an energy density up to two and a half times higher



Mo-Hua Yang is General Manager of Greenway Battery Europe.

than modern lithium-ion batteries. Last summer, the Swiss manufacturer Stromer, for example, introduced a first prototype of a solid-state e-bike battery – a preliminary hint at what could happen in the years to come.

“Solid-state batteries are considered a potential future technology due



A look behind the scenes at Viridus Manufacturing, a battery manufacturer from Denmark.

to their higher safety, energy density, and fast charging capabilities,” Darfon President Josh Tsai confirms. However, in the short term, he sees other projects on the horizon: “Intelligent charging modes will significantly enhance the charging and discharging cycles of batteries and extend their lifespan. With the adoption of unified USB Type-C charging standards in Europe, we’re also on the verge of seeing e-bike batteries integrate USB PD charging technology.”

Addressing another critical theme poised to influence the e-bike battery market, Tsai also points to the necessity for the industry to adopt greener practices. “The importance of green design and production cannot be overstated: local manufacturing close to the European market, along with the utilisation of energy-efficient, carbon-reducing processes and green energy, will lessen the environmental impact,” he says and refers to the company’s factory in the Czech Republic which is intended to reduce CO2 emissions through its proximity to the market and tailored operational setup.

“The search for sustainable alternatives to traditional battery materials is becoming a priority for battery manufacturers, who aim to reduce the environmental footprint of their production by incorporating recycled and bio-based materials into the batteries,” Peter Tsau from Ecoics adds. He also mentions the growing focus on initiatives for battery recycling and the pursuit of more energy-efficient manufacturing processes. “By prioritising sustainability throughout the supply chain, manufacturers can

minimise the environmental impact of E-Bike batteries and support the transition to a greener economy.”

A side effect of these green ambitions could be that more battery manufacturers will follow Darfon’s lead and open European production facilities. Jesper Lundqvist, CEO of Danish company **Viridus Manufacturing [Hall 1 / L0302]**, for instance, believes that Europe will even develop its own battery supply chain from raw materials to finished cells – a key reason why he and his colleagues aim to showcase their company’s abilities to produce high-quality battery packs for the e-mobility industry at this year’s Taipei Cycle Show. Lundqvist, whose company operates under the motto “responsible batteries”, also highlights sustainability, alongside technical innovations, as one of the battery industry’s primary concerns: “Standard 50604-1 and EU regulations are expected to drive new approaches to enhance the reuse and recycling of battery components, with a particular emphasis on using recycled materials in battery cells. Therefore, we expect a rise in technology investments that make battery packs more repairable.”

From enhancing the tried-and-tested lithium-ion technology and pursuing greater sustainability to the emerging readiness of solid-state batteries for the market – engaging with exhibitors from the battery segment at the Taipei Cycle Show highlights that the e-bike battery market is on the move. This momentum will likely yield numerous innovations in the years ahead – impacting both the product spectrum and the industry. ■ **WMS**

ENGLISH



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TAIPEI CYCLE

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E-BIKE DEMO, 4TH FLOOR, NO. S1419



OVERVIEW: LIGHTS**LIGHTING SHINES WITH INNOVATION, INTEGRATION, AND CONNECTIVITY**

A practical approach to cycling means lighting is increasingly expected to come as standard. The trend for e-bikes and a general shift towards better integrated and more reliable solutions has seen the OEM lighting sector grow enormously. Of course, there's still a massive market for aftersales lights for those who find their bike still requiring illumination. Yet these add-on lights are also expected to work harder, whether via features like wireless operation and intelligent connectivity or simply by being more powerful and longer lasting. Below, you'll find all this year's brightest.



LiteMOVE's [N1129] TX Taillight uses a built-in sensor to warn following traffic as you slow down. This StVZO-approved unit offers neat integration to eliminate the need for additional fittings. Thanks to its simple wiring design, it's also less prone to damage and easier to install. The TX's innovative optical design evenly diffuses the LED light source across the unit's surface for excellent visibility and improved aesthetics. Makers wishing to add light to their bicycles will appreciate the area reserved for logo printing to enhance brand recognition. At the same time, LiteMOVE's use of environmentally friendly materials will help them meet their sustainability goals.

From German brand **SKS [L1217]**, the MonkeyLink system draws power directly from your e-bike's battery and features a slick self-locking magnet attachment. This allows both lights to be attached or removed in seconds while simultaneously connecting them to the wiring circuit. The matching ML-Skylight Connect front and rear lamps are one example of the system. The foremost is an angle-adjustable LED front light with a K-reflector that offers a choice of a 60, 80 or 110 lux output along with daytime running and high beam functions. Users also benefit from an additional mobile phone charging connection. Taking up the rear is a matching unit that offers COB technology and an integrated reflector, plus an optional brake light function. SKS has also pooled its expertise with Spanninga to create the Infinity Universal



A taillight with an auto-activated stopping function from LiteMOVE



German firm SKS expands its MonkeyLink interchangeable e-bike line

light, which fits the eponymous pannier rack. This COB-equipped USB rechargeable light fits perfectly with the popular carrier and kicks out 30 lumens.

Spanninga has also been busy on its own projects. Its Halo series features a compact design with smooth organic lines and integrated Z-reflectors. The firm has taken a modular approach, with seamless mounts for carriers and fenders. The lights rely on powerful chip-on-board LED technology to provide visibility up to 500 metres on all sides. Halo lights are available in several versions compatible with e-bikes, speed pedelecs, and dynamos. The Halo+ version also includes a wide-angle reflector to comply with regulations in many countries. Across the range, you'll find smart technology like stop-light functionality and wireless indicating. Building on last year's Glow decelerator-based stop-light is a new version of the unit with a mechanical brake function, which is ECE-approved and compatible with e-bikes and speed pedelecs. This provides a 40 Candela signal that's visible from over a kilometre. The light achieves



The Halo light from Spanninga features organic lines and integrated Z-reflectors

a high degree of diffusion while conforming to a minimalist shape compatible with MIK carriers.

You may have seen **Meilan's [L1431]** CuteEye taillight at last year's show. This time around, it's been updated and made even smarter. It now gains enhanced connectivity beyond its initial features, including laser-projected lane dividers and wireless indicator functions. This comes in the form of a fast and stable BLE 5.0 connection, allowing it to be used with the firm's new handlebar remote. This fresh connectivity also allows seamless pairing with Meilan's Navihood GPS bike computer. It's a combo that allows for the automation of the light's turn signals, which are pulled directly from the route on the computer. Also in the works is a matching front light with similar intelligent functions.

Jiashan Shengguang Electronics' [L0530] JY-7175 e-bike headlight features a high and low beam that can reach 170lux to create a wider field of view. It utilises efficient LEDs to reduce energy loss and ensure the best ratio between illumination and energy consumption. It also offers sophisticated styling based around a high-quality aluminium shell body design that looks attractive while ensuring superior heat dissipation. The light is supplied with a metal bracket along with a detachable reflector. It's StVZO certified and features a wide voltage input design covering 8-48 Volts, making it compatible with most e-bikes.

Büchel Group [M0203a] started 2024 by winning a German Design Award for its Optical 150 FL e-bike headlight. This neatly constructed unit delivers 150 lux via a specially developed optical lens that evenly distributes light. It also offers high and low-beam settings designed to avoid dazzling oncoming traffic. Switching between these is achieved via a remote on the handlebar. The light is made of aluminium and high-durability plastic and can be mounted on the handlebars, in front of the stem, on the fork, or under



Stylish looks and efficient LEDs characterise Jiashan Shengguang's JY-7175 headlight



Meilan's CuteEye can pull turn signals from your GPS computer



The award-winning Optical 150 FL e-bike headlight from Büchel Group

the e-bike's display.

B2B specialists **Brightstar [R0817]** offers lighting options for vehicle makers of all kinds. Its cycling range now features two new units for e-bikemakers to choose from in the form of its Darkbuster E9 and E10 headlights. The first is a slim-line model that offers high and low beam functions and is UNECE R149 (Class B standard) compliant. This neatly contained unit can be integrated within the handlebars or mounted via a bracket. It then provides adjustable brightness via a German-made OSRAM LED chip, advanced printed circuit board design, and smart independent control. Its sibling is a more conventional-looking headlamp using many of the same internals. Brightstar claims the E10 is the world's smallest E-Mark headlight with high, low, and positional light functions. It's also compliant with UNECE R149 regulations and conforms to electromagnetic compatibility (EMC) requirements, allowing your bike to pass its certification process quickly. The



Brightstar's lights can be integrated directly into the handlebar



Aftermarket units represent a new approach at Lightskin

light itself uses a compact two-inch housing and features a high output and low consumption design with carefully created beam modes for maximum visibility.

Lightskin [M0503] is rapidly becoming known for its neatly integrated lighting solutions. These can be found tucked neatly inside the seatposts or handlebars of high-end bikes from a range of makers. However, at this year's show, the firm is keen to highlight its foray into more conventional forms of illumination. Its U8 front light is a smart connected lamp which can twin with a remote for handlebar-activated control. It offers high and low beam functions with a dual cut-off line. These are powered by a durable 5,000mAh battery while the unit is recharged via the increasingly popular USB-C standard. The light can also be called upon as a battery pack to recharge your other devices if needed. The entire package is exceptionally neat, IPX6 waterproof, and comes with a handlebar mount and bracket for Garmin/GoPro-style attachments.

Rui Xing Electronics [L0008] specialises in OEM and ODM manu-

facture. Its Cliip light is a simple and compact unit that aims to help you be seen from as many angles as possible. As you might expect from its name, this light pushes into place without needing tools. Its curved polycarbonate outer housing encases a series of COB LEDs, giving a maximum 100-lumen output for the front and a 40-lumen output at the rear. All units are engineered for durability and include the prerequisite weatherproofing for year-round use.



Brands will find plenty of new OEM and ODM designs at Rui Xing Electronics

BikeSpark [I1224] produces a range of intelligent auto-sensing rear lights. These all feature a deceleration warning when braking is detected. This is activated by the firm's exclusive Vsenx algorithm, which prevents accidental triggering. Once deceleration is detected, BikeSpark lights increase brightness for two seconds to alert any vehicle travelling behind. The unit's built-in motion sensor also allows for auto on/off functionality, so you'll never have to remember to turn off your rear light again. Instead, BikeSpark lights turn off automatically after one minute of inactivity and turn on when motion is detected. The lights provide 220-degree visibility and a 35-lumen output. You'll find several models divided between

those with a seatpost mount and a 50 or 80-mm rack-type fixing.

JD



Clever thinking comes as standard on BikeSpark's autosensing lights



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OVERVIEW: CARGO BIKE-RELATED PRODUCTS

RIDING THE CARGO WAVE: GEARING UP FOR SUSTAINABLE MOBILITY

While the dedicated Cargo Bike & Urban Mobility pavilion might be missing from this year's Taipei Cycle Show, the cargo spirit is alive and well, manifesting in a diverse array of products. From complete bikes and frames to powerful e-drives, reinforced components, and innovative braking solutions, Taiwan's bicycle industry is riding the wave of the growing cargo bike trend.



The Tern GSD is the OG of compact cargo bikes.

The EU's Green Deal and a rising tide of eco-conscious consumers are reshaping urban transport, pushing people towards sustainable alternatives like cargo bikes. Once primarily popular in countries with established cycling infrastructure like the Netherlands and Denmark, the rise of e-bikes and pandemic-induced changes like pop-up bike lanes have made them a viable car alternative in other regions. This growing acceptance has fueled a significant demand for cargo bikes, and Taiwan's industry is ready.

Unsurprisingly big frame manufacturers have jumped onto this opportunity: **A-Pro Tech [hall 1 / I0610]** has invested substantially to adapt its Taiwan factory to producing large cargo bike frames and showed a sample at last year's Taipei Cycle Show. The same goes for **Carbotec Industrial [hall 1 / I1117]**: this specialist for frames and rims displayed a Long John cargo bike frame made of carbon fiber at its booth last year. And in the showroom of **Astro**

Tech [hall 1 / S0116] a Long John-type frame designed around Shimano's Steps mid-drive motor could be seen as far back as November 2022. But since these frames fill up freight containers quickly, many brands are starting to look for frame suppliers closer to their markets.

Compact e-bikes with additional transport capacities such as Tern's GSD are a viable alternative. One of the manufacturers rolling out similar products now is **Dosun Bikes**



The CG135 model of Dosun Bikes is ready to haul cargo and tackle unpaved routes.

[at Eiso Enterprise, hall 1 / N0515]. Originally an electronics specialist and a supplier of LED lights, the brand expanded its business into e-bikes in 2021 and has come up with the CG135. This compact semi-longtail bike rolls on a 24-inch wheel in front and a 20 inch wheel at the back. Thanks to three inch wide tyres it is suitable both for daily shopping and adventuring. While the rear carrier is part of the frame, a front carrier can be mounted to the head tube if needed. A battery with a generous capacity of 630 Wh sits in the frame's downtube and powers Bafang's M400 mid-drive motor.

Dyaco International's [hall 1 / N0620] Cikada model is aiming at a retail price of US\$3000. For agility in urban traffic, the Cikada rolls on compact 20-inch wheels and its aluminum frame has been built around a mid-drive motor from Datalake. With

a maximum torque of 80 Nm and 250 W or 350 W power (depending on the market), this motor is on par with the most commonly used competitors. For low maintenance, a Nexus Inter 8 hub is combined with a belt drive unit from Dayco. Add hydraulic disc brakes from Tektro, a suspension fork with 60 mm of travel and 2.8-inch wide tyres from Schwalbe for comfort and versatility. If the range provided by the main 706 Wh battery is not enough, a range extender with another 250 Wh can be added.

Of course, Taiwan's bicycle industry has some off-the-shelf offerings of complete cargo bikes at hand as

Assembly service provider Yota Cycles can brand various cargo bike designs for customers.





With full-size levers and four-piston calipers, the Cargo D series of Ride Rever is ready to take on big weights.



Disc brake systems for large cargo bikes come with a lot of motorbike technology.



With its CBS technology, Magura evenly distributes the oil pressure to multiple calipers.

well. As one of its larger players **Ideal Bike Corporation [hall 1 / M0628]** had a Long John front-loader model with an alloy frame and a wooden box on display at last year's Taipei Cycle Show. With **Yota Cycles [hall 1 / N0417]**, a newcomer to the bicycle business offers a choice of no less than three cargo bike models that it can assemble for customers. Apart from a classic Long John version with a wooden box, you can also choose between two models with an extended rear carrier – one with a smaller wheel and a big carrier up front and another one with two wheels of the same size and no front carrier.

Apart from the additional load, cargo bikes also need to meet the demands of inexperienced riders. To make sure they get the most out of the brake system onboard, **Magura [hall 1 / N0128]** has come up with the CBS System. This connects both brake levers and master cylinders to a central hydraulic unit that then distributes the brake force evenly to all calipers. While the CBS System also makes sense on normal utility e-bikes, it truly shines on cargo bikes for professional use where the delivery drivers are not cyclists but average folks not used to powerful hydraulic disc brakes. **Ride Rever [at Chia Cherne Industry, hall 1 / I0318]** has also tweaked its disc brake offerings

Samonix goes all-in with its heavy-duty cargo brakes.



Humpert tests its parts stringently to classify them by safety levels.



Taiwan-based LEV specialist Gaius displayed this XL cargo bike at last year's Eurobike.



The Long John-style cargo bike that Ideal Bikes displayed at last year's Taipei Cycle Show.

with various cargo options, including four-finger levers with an optional locking device, rotors made of 2.3 mm thick steel, beefed up brake pads and the option to connect two four-piston calipers to one brake lever.

Formerly known as Pioway, **Samonix [Hall 2, S0333a]** has recently changed its brand name for trademark reasons and rolls out a properly beefed-up brake set for cargo bikes at Taipei Cycle Show. From the four-finger brake levers with a locking device to options to guide the brake fluid from one lever to two calipers, this brake system is ready to take on the heavyweight demands of large cargo bikes. This is confirmed by the industrial-strength rotors made of 3 mm steel plates rather than the common 2 mm or the oversized 2.3 mm plates. A 5V Hall sensor known for reliability and longevity is used to detect any brake action and activate

the regeneration to support the brakes in slowing down.

SR Suntour has an impressive market share in the cargo segment, having developed reinforced suspension forks for 20 inch and 24 inch wheels early on. **Xfusion Shox [hall 1 / L0511]** is vying for a share of that market as well with its new Bruno Cargo fork. Built to fit a 20 inch-size wheel common both on Long John-style, full-size cargo bikes and more compact varieties, this fork boasts plenty of stiffness thanks to a 110 mm x 15 mm Boost thru-axle and plenty of material being built into its lowers that also feature post mounts for disc brakes and threads to mount fenders and lights. For a smooth and responsive ride, you get 50 mm to 70 mm travel depending on the settings. Hitting the scales at 2700 grams, the



A small suspension fork ready for big loads: the Bruno Cargo from X-Fusion.



Since there's no air that could escape, the airless tires of Tannus are a welcome add-on for professional logistics.

Bruno Cargo is sturdy enough to keep fully loaded cargo bikes going in the right direction.

Cockpit components such as handlebars, stems and seat posts also need to withstand higher loads on cargo bikes. With its Ergotec brand, **Humpert Asia [hall 1 / I1109]** has come up with a Safety Level system backed up by stringent lab testing. For cargo bikes, the company only recommends the levels 5 and 6, depending on overall system weights. Tires as the contact patch to the road surface are another key part that need to withstand the additional loads on cargo bikes. From Kenda to Schwalbe and Maxxis, all tire makers have matching, reinforced models on offer. If you want to reduce the risk of flats to almost zero, **Tannus [hall 1 / M05057]** has got you covered with its airless tires that now are available in 20-inch and 24-inch sizes as well to fit the needs of various cargo platforms.

Last but not least, oversized cargo bikes with more than two wheels come with some additional engineering challenges. There are clean solutions on the market with serial hybrid systems from the likes of Mando, Pendix and the cooperation of Schaeffler and Heinzmann connecting a pedal-driven power generator in the bottom bracket area to hub motors in the wheels. If you go for a powerful mid-motor unit from the likes of Valeo or Okawa instead, you have to find a way to transmit the power to both rear wheels. **YST [King Ritz Enterprise, hall 2 / S1016]** has a solution for this, offering a selection of differential gear devices that also enhance handling in corners and allow for suspension. ■ LVR



For cargo bikes with more than two wheels, differential drives like the one from YST are essential.

OVERVIEW: MOUNTAIN BIKES AND E-MTBS

BEYOND THE BOOST: E-MTBS DIVERSIFY

Differentiation is the sure sign of a maturing market or product category, and it's clearly happening in the e-MTB segment. There are also some interesting new mountain bikes without electric assistance to be discovered at Taipei Cycle Show, from brilliant all-round performers to fully-fledged racing steeds.



Within the mountain biking community, there's a long-standing joke that for every inch of extra travel some smart marketers come up with an entirely new category. You have heard of downcountry bikes as an example. The e-mountainbike segment is seeing a similar trend, fueled by the rise of the new light-support category. From short-travel models with a compact e-drive system, less support and a smaller battery to long-travel rigs with large batteries that render mechanized shuttle services in bike parks obsolete, electrified mountain bikes have become almost as diverse in concept and intended use as their conventional siblings.

Merida [hall 1 / M0620], Taiwan's second-largest bicycle

manufacturer, exemplifies this trend. Its e-One-Sixty and e-One-Forty models, powered by Shimano's Steps motors, are offered in various frame options and travel configurations, catering to a range of preferences and price points. After a first generation with external batteries, the second generation launched in May 2019 made some serious steps in terms of integration. At the Taipei Cycle Show, Merida is debuting the third generation of the eOne-Sixty and the eOne-Forty bikes. For the longer-travel platform you get to choose between lightweight CF models with a carbon fibre frame or more affordable Lite models with an alloy frame while the eOne-Forty is offered as Lite alloy models only. Thus these e-mountainbikes cover quite a range in terms of travel on offer, intended use and pricing.

As for the geometry, both the reach and the chain stays have been extended for more stability at high speeds and traction on steep climbs, the seat angle has become steeper and the head tube angle slacker. Both the kinematics and the progression are size-specific, and flip chips mounted between the swingarm and the rocker link allow for reverse-mullet builds without ruining the bike's geometry. To find the right fit, Merida relies on the reach more than on seat tube length and adds an own-branded dropper post with plenty of travel. Merida has opted to put a non-removable 600 Wh battery in the downtube of the eOne-Sixty CF while the alloy versions get a removable 750 Wh unit. If that is still not enough a range extender adds another 360 Wh for long days out on the trails.

However, not every e-MTB rider seeks peak performance. With its YT-MT 0184

model **Yota Cycles [hall 1 / N0417]** has built an e-mountainbike that blends contemporary elements with lots of comfort. The main tube of this alloy deep-instep frame houses a Darfon battery with a generous capacity of 708 Wh designed to work with Shimano's Steps EP600 motor. Thanks to 2.35 inch-wide Schwalbe tires and the rear suspension with its well-hidden shock and 120 mm of travel, this model is built to transmit the additional power to the ground safely while adding to both comfort and confidence when riding unpaved routes.

While e-mountainbikes have grown their market share substantially in recent years, there still is a market for mountain bikes without electric

Only the finest parts adorn Tom Pidcock's race bike, Pinarello's Dogma XC FS.

assistance. As the Paris Olympics approach, manufacturers have come up with new crosscountry race bikes to supply sponsored athletes with state-of-the-art equipment. While **Pinarello [at Sunstar Taiwan Enterprises, hall 1 / M0808]** is one of the most iconic brands in road cycling, the Italians are relative newcomers in the world of mountainbiking. Thanks to a sponsoring partnership with the Ineos Grenadiers worldtour team, they now have Olympic crosscountry champion Tom Pidcock riding Pinarello bikes, both on- and off-road.

In close cooperation with Pidcock and Pauline Ferrand-Prevôt, Pinarello has designed the Dogma XC platform. Made of carbon and offered as a hardtail or a full-suspension model, both versions share characteristic features such as the unique design of



Yota Cycles MT 0184

the bottom bracket area that is said to optimize stiffness. While the hardtail frame features wildly asymmetrical seat stays, the full-suspension Dogma XC relies on a rear triangle with flex stays rather than pivots at the dropouts. This rear triangle is made of two halves held together by the two-piece main pivot axle that resembles Campagnolo's bottom bracket axle construction and the rocker arm of the rear suspension. Its rear travel can be adjusted to stand at either 90 mm or 120 mm by changing the position of the shock mount on the top tube and thus the shock length.

Most mountain bikes sold all over the world will never be ridden in races of any kind. And for all those who do not plan to compete, an all-round full-suspension model is the best choice as it offers plenty of traction and efficiency on the climbs, isolates those tiring vibrations from the rider and adds to the fun and confidence on descents. The new One-Twenty from Merida is a typical example: With 120 mm of travel in the back, a dropper post and its progressive geometry, this bike performs amazingly well in rough terrain while still being efficient enough for those really long climbs in the mountains. Since it rolls on 29-inch wheels, the new OneTwenty is a proper mile-eater as well, with its moderate geometry allowing for long days in the saddle. ■ **LVR**



Merida's new One-Twenty combines versatility and affordability in one package.



The third generation of Merida's eOne-Sixty comes with an updated geometry and suspension upgrades.



Pinarello presents some wild shapes with its Dogma XC hardtail frame.

PERFORMANCE

RIM

R301-C30CL RACE DISC

<i>Rim Material</i>	Carbon Fiber , High Toughness Resin System
<i>Rim Construction</i>	Clincher , Tubeless Ready
<i>Rim Size</i>	700c
<i>Rim Width</i>	Internal 22mm External 29 mm
<i>Rim Depth</i>	30 mm
<i>Rim Weight</i>	392g (24H)
<i>Hole Count</i>	24
<i>Tire Pressure</i>	110 psi
<i>Wheel weight</i>	(F)682g

NEW PROCESS



NEW PROCESS



G301-C30HL GRAVEL DISC

<i>Rim Material</i>	Carbon Fiber , High Toughness Resin System
<i>Rim Construction</i>	Hookless , Tubeless Ready
<i>Rim Size</i>	700c
<i>Rim Width</i>	Internal 23 mm / External 29 mm
<i>Rim Depth</i>	30 mm
<i>Rim Weight</i>	411g (24H)
<i>Hole Count</i>	24 / 28
<i>Tire Pressure</i>	75 psi
<i>Wheel weight</i>	(R)784g

M601-C36HL AM

<i>Rim Material</i>	Carbon Fiber , High Toughness Resin System
<i>Rim Construction</i>	Hookless , Tubeless Ready
<i>Rim Size</i>	29"
<i>Rim Width</i>	Internal 30 mm / External 36 mm
<i>Rim Depth</i>	26 mm
<i>Rim Weight</i>	445g (32H)
<i>Hole Count</i>	28 / 32
<i>Tire Pressure</i>	50 psi
<i>Wheel weight</i>	(F)727g



Booth No. : I 0610

 **APRO**
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OVERVIEW: PEDALS

PEDAL MAKERS ARE PUSHING FOR MORE SUSTAINABLE MANUFACTURING

Bicycle pedals serve as the vital link between cyclists and their bikes by offering control, power transfer, efficiency, and now a chance to participate in a solution to climate change. From clipless systems to traditional platform pedals made from sustainable materials, the market reflects a diverse array of options tailored to different riding styles and preferences. Sure, there are still pedals for cyclists who seek enhanced performance and comfort, but now pedal manufacturers are taking on climate change through the design of their products and the materials they are made from. This varied range of pedals demonstrates the power of the pedal to propel a bike forward or to challenge standards in pedal production.

New CK-TB7 Biomass pedal from CKC Environmental Tech



Climate change has become an influencing factor in product design for some pedal manufacturers, like **CKC Environmental Technology [I1218]**, which now incorporates renewable and recyclable concepts, along with environmentally friendly materials, into both daily life and industry. The new CK-TB7 Biomass pedal is a pedal designed for repairability and recyclability. When the pedal body becomes unusable due to damage or other factors, its metal bearing can be spared, and the body can be replaced

with a new one made of a biomass material that meets the conditions of a solid recovered fuel (SRF). Thus, the repaired pedal can continue functioning as intended while its discarded body can serve another purpose. The CK-TB7 Biomass pedal embodies multiple values, including using plant-based renewable biomass as a raw material to reduce CO2 emissions and achieve carbon-neutral efficiency.

The pedal's development and production follow the company's principles of "Replaceable/Repair/Reuse" by integrating agricultural waste

Wellgo's new mixed color pedals



and biomass into the pedal's DNA. As word gets out about the CK-TB7 Biomass pedal, CKC predicts that the positive benefits that it generates for society, the environment, and related industries will be significant. With the introduction of its new pedal, CKC aims to be a contributor to both environmental protection and economic growth in a win-win situation.

Wellgo [J0517] cited the environment as the most important issue for its pedals. This year Wellgo started using Global Recycled Standard (GRS)-certified materials in its products in addition to reducing their carbon footprint. A new range of utility pedals named after popular beverages may be proof of the brand's efforts to fight back against climate change while giving riders a low impact pedal that supports their sustainable choice in transportation. Bamboo Milk Tea, Americano, Timber Milkshake, Latte, and Bubble Tea help quench a thirst for solutions to climate worries.

Whether a pedal is designed for a higher purpose (or not) may be up to the user to decide. Some pedals are built for performance, others are

manufactured as OEM parts. Whichever it is, the bicycle pedal isn't optional but some models could double as accessories. Wellgo is also introducing a large range of mixed color pedals to allow riders to personalize their bikes. Riders who are opting for performance instead have options too.

Describing itself as "the quiet achiever," **Exustar [K0616]** has been supplying OEM pedals and shoes to other brands, as well as selling products under their own name for more than 20 years. The Taiwanese company is one of the only companies in the world that provides a fully integrated clipless pedaling system, called simply the Exustar Pedaling System (EPS). Two new pedal models, one for road and one for mountain biking, feature the EPS system, which is compatible with Shimano SPD cleats. The E-PM246 are mountain bike pedals with an extruded, CNC-machined aluminum body that's anodized in black with an abrasion guard and clip-out guide. Heat-treated, CNC'd chromoly axles and a dual bearing system provide strength and durability, while double-sided chromoly bindings with EPS-M interface feature an adjustable tension gauge. The E-PM246 pedals measure 82x62 mm.

For road riders, Exustar offers full contact E-PRSL3 road pedals. Exustar increased the contact area between the pedal body and the cleat to improve power transfer, support, and stability. An added bonus to the enhanced interface is easier cleat engagement, which can save precious seconds during a race. The full contact pedal body combines thermoplastic with a stainless steel abrasion guard and fiberglass-reinforced thermoplastic bindings with an enclosed mechanism and adjustable tension gauge. Compatible with Shimano



New Exustar pedal for road



Pedals by Funn

SPD-SL, the E-PRSL3 feature Exustar's own E-RSL3H1 cleats and measure 90x89 mm.

Perhaps to be less quiet about what they can do, Exustar has recently been promoting their products more aggressively, including sponsoring race teams in both Europe and Asia.

Past product testers for **Jet Rider [N1229a]** brand, **Funn**, read like a lineup of who's who in gravity racing. With that kind of star power stomping on its pedals, Funn has mastered pedal design and manufacturing to produce pedals that can withstand abuse by elite racers, but at a price that's within reach of the rest of us. To prove that, Funn is introducing the Taipan series flat pedals, which blend economy and robustness in a lightweight design. Crafted from fiberglass reinforced thermoplastic, Funn has made these pedals to be durable as well as affordable. Chromoly steel axles and a slim 105x100 mm body with a 14 mm depth ensure both strength and a sleek profile. Each pedal features six



metal pins on either side for the best grip and control, yet weighing in at a modest 380 grams per pair, the Taipans can hold their own against their heavier anodized aluminum cousins. The Taipan series is available in seven colors to cater to cyclists' various aesthetic preferences.

Pedals with more of a utilitarian purpose favor function over anything else. CNC machining, heat-treated chromoly, and sealed bearings are a few hallmarks of these pedals, which should get their rider from point A to point B without incident.

Hafny [L1407], which evolved out of a veteran OEM/ODM components manufacturer in 2012, is presenting its latest pedal, the after-market aluminum HF-1500 designed specifically for mountain bike enthusiasts.



Hafny HF-1500 mountain bike pedal

Hafny has prioritized comfort and stability for its new pedal by giving it a wide CNC-machined, 105x105 mm platform to ensure a secure foothold, plus nine adjustable pins on each side to enhance stability. High-strength heat-treated chromoly axles were likely chosen for their durability and favorable strength-to-weight ratio, and probably their reasonable cost. Hafny has also added a distinctive CNC-machined maze pattern on the body to bring a touch of individuality to the HF-1500. The pedals are equipped with Icus Bush bearings and two sealed bearings to – according to Hafny – “guarantee a smooth and reliable ride,” thus making them ideal for off-road adventures.

One of only two remaining pedal manufacturers in Japan, **Mikashima Industrial [L0205a]** is still managed by same Ogino family as when it converted its operations from aircraft component manufacturer to pedal

manufacturer in 1946. **MKS**, as it's more commonly known, credits its highly skilled technicians who adjust every cup and cone bearing by hand, company expertise working with harder grade ADC6 aluminum, and onsite cold forging from Japanese steel as factors that have contributed to the company's longevity. Caution with respect to new product releases may also be key to MKS's 70+ years of success. This April MKS will release the new FD-7 Wide folding pedal. Its predecessor, the FD-7, is a strong, alloy pedal that uses a single action for quick and easy folding for bikes such as Brompton, Tern, and **Dahon [L0727]**. MKS pointed out that folding pedal manufacturers often use a relatively small platform, which can cramp the rider's footing. To address that, MKS has borrowed the folding mechanism from the FD-7 and installed a new wider step block. According to MKS, the popularity of pedals with large step blocks have led them to become a standard. The FD-7 Wide simply follows this trend. The company admits that the expected weight is a bit heavy at 589 grams but is convinced that the pedal's increased comfort will compensate for its weight.

The bicycle pedal is becoming a pivotal component that's evolving from simply functional to somewhat political. As they cater to increasingly diverse rider desires, from the pursuit of lightweight, efficient, durable, or personalized pedal systems to proof of sustainable production standards, it's pedals and manufacturers like these that continue to drive the cycling industry forward. ■ **WB**



MKS FD-7 Wide folding pedal provides more stability

ENGLISH

xp^{edo}

2024 NEW

APX ROLLER

SPECIFICATIONS

- Max Power 800 watts
- Power Accuracy +/-3%
- Max Simulated Slope 8%

FEATURES



Wireless protocol



Power, speed



BOOTH : #J0517

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OVERVIEW: BATTERY PRODUCTS

E-BIKE BATTERIES: SHRINKING SIZE, GROWING POWER

Your e-bike isn't going anywhere if it doesn't have power. Battery makers have been vital to the e-bike revolution and are still at the forefront of a transformative technology. After all, the process of batteries shrinking in size and increasing in capacity kicked off the electric mobility trend in the first place. This same struggle is still evident in the products on show this year as companies seek to reduce the size and increase the output of their units. At the same time, user-friendliness, whether for bikemakers or end users, has become a key way that battery suppliers seek to stand out. As are increasing serviceability and safety. Below, you'll find the latest batteries to power your designs.



SEGL Energy's [I0124] e-bike systems are made in Taiwan. The company offers a wide range of OEM and ODM products and can customise battery packs for most e-bikes. It also provides battery module outsourcing services and system integration solution services. The firm has established bases in Japan, the United States and Europe to provide customers with fast and easy product maintenance services. Today, SEGL's broad competencies see it create products for a range of light vehicles, making it an ideal partner for e-bike makers and creators of less traditional forms

of electric-powered transportation. A perfect example is its Rhino IR-7 battery pack, which has passed UL2271 certification and includes an integrated battery management system (BMS) to provide safe and stable performance.

Merry Electronics [S0802] was established in 2003 and has come to serve the needs of a broad range of electronics manufacturers through its specialisation in delivering innovative battery packs and power accessories.

Its range now includes e-bike battery packs, USB-C power banks, and wireless chargers.

At Taipei Cycle, it's particularly keen to demo its off-the-shelf batteries. Merry's e-bike battery lineup is customisable to suit various e-mobility needs and can be matched to multiple bicycle styles. Its batteries range from 200 to 700Wh and are available to work with 24 to 48-volt platforms. Case options include rear rack, on-frame, in-tube and semi-in-tube variants. Its engineers excel in diverse material structures, and its products fulfil the IP67 water and dust resistance standard. The company's firmware expertise also enables seamless integration into the drive system along with Internet of Things (IoT) applications.

Viridus [L0302] is a Danish-based European battery manufacturer specialising in high-quality battery packs for the e-mobility industry. It was created as a joint venture between the Chinese company Greenway and LEVA-EU member Promovec, which already supplies



New firm Viridus offers EU-made batteries that cut transport-based CO2 emissions

various components and services for electric bicycle production. Viridus aims to create innovative batteries with a reduced environmental impact that can serve the European market without needing to be shipped long distances, thus saving further CO2 emissions. This year, the firm is keen to highlight its Invisible battery pack, which is designed to be placed inside the downtube. This slick arrangement will suit lightweight and aesthetically



SEGL Energy's Rhino battery pack includes an integrated battery management system



Merry is happy to help with the physical and ndigital integration of its battery products

Trend Power's Slim Tube batteries now pack more power with no increase in size

pleasing bike designs and benefits from the company's new battery line. This allows it to create products with more charging cycles and a greater energy density.

Trend Power [S0526] supplies batteries and chargers to several big bike makers and is partnered with Shimano for servicing across North America. This year, it's exhibiting its new off-the-shelf products. First, its In-Frame Tube 800 battery offers an 800Wh capacity via its 21700 20Wh cells. The entire In-Frame line benefits from a user-friendly design, including battery mounts that make installing and removing the battery easy. You'll also find matching chargers, cable harnesses, and battery mounts to support bikemakers and end users. Those designing the most lightweight and slender tubed bikes will also want to check out Trendpower's new Slim Tube batteries. These now come in updated 800 and 600Wh capacities. Their new higher capacities still fit the same profiles, so builders won't have to change their designs while being able to pack in more power. Both work with the firm's extender batteries and are fully compatible with Shimano drive systems.

Phyllion Battery [L0305] has a range of new power packs on show this

The IT30 battery from Phyllion combines battery and controller into a single unit

year. Its IT28 is a newly launched in-tube battery that's suitable for a wide range of different applications. It offers a 530Wh capacity, achieved via an array of 21700 cells. It uses the popular Canbus communication protocol and offers robust IPX7 waterproofing. The entire unit weighs 3.2kg and arrives with EN15194:2017 certification. Its sibling, the IT29, offers similar features but with a larger 900wh capacity and 4.9kg weight that's ideal for bikes with oversized tyres. By comparison, Phyllion's IT30 provides power from a more compact package. Its clean, slimline design and minimalist 2.4kg mass make it a good fit for lightweight e-trekking bikes. At the same time, its 420Wh capacity offers plentiful support. Finally, the 400Wh IT30 is unique in combining battery and controller into a single unit. This results in a highly compact unit that's easy to integrate into the frame. However, despite being united in one package, both elements remain functionally separate in the interests of safety and serviceability.

GWA Energy [M1028] offers a range of battery products and testing equipment. Its ibo-COP3 service tool



Developers Velorooft Electronics is ready to help with integration and testing

is easy to operate and provides a quick test feature that can generate an A4-sized test report detailing the status of your battery. These can then be automatically saved to your laptop or PC or passed directly to a cloud server. Alongside its primary test mode, the ibo-COP3 service tool offers charging and discharging functions. These include a transportation mode that completely empties the battery before charging it and then discharging to 30% for stable storage and

shipping. The smaller ibo-COP2 offers similar functionality for home use. It's designed to work as a liaison between a charger and the firm's R37, R45, and R50 battery pack. It's then able to provide cell-balancing

functions along with self-diagnostic tools. Either would pair perfectly with GWA's many battery products, which will also be on display.

Velorooft Electronics [R0622] is located in New Taipei City and specialises in designing and developing e-drive system controllers and battery management systems. It leverages years of market experience to offer comprehensive services, including system integration, regulatory certification, production line management, and after-sales support. It provides physical products, including lithium-ion batteries, along with software and design services. This makes the firm an ideal partner for those seeking to design electrically assisted bicycles. Its customers retain the flexibility to choose commercially available products for system peripherals, with Velorooft Electronics stepping in to assist with product planning, specification confirmation, system integration, regulatory certification, and after-sales service. ■ JD



Auto-generate battery health reports with GWA Energy's testing equipment



2 in 1 Master Chain Quick-Link Installer and Remover

The PW-03 enables you to precisely, effortlessly, and quickly connect and disconnect your chain. The process is swift and efficient, making this tool essential for cyclists and enthusiasts seeking convenient chain maintenance.

PW-03

Customizable Tubeless Tire Repair Tool

The VICO2-B Series is a unique tubeless tire repair tool with a 3-in-1 functionality that can be customized for consumers. You can directly inflate the tire using CO2 or pump it up traditionally via the valve. It features twin-value CO2 inflation for rapid tire inflation. The Air through Plug guarantees seamless compatibility, and the package includes 5 high-quality D1.5x50mm Worms for comprehensive tire repair.

VICO2-B



HBT-12PK

Store Tools at Both Ends of Your Handlebar

The HBT-12PK Handle Bar Tool is a multi-function, lightweight tool easily stored in both ends of the handlebar: ● 6-12 speed chain tool ● #0/1/2 spoke wrench ● a set of 5pcs D1.5x50mm Plugs ● fits 18.5mm & 20.05mm tube ID ● O-ring Ø13.8xØ18.6xW2.7, Ø13.8xØ19xW2.7, Ø14xW2.7 ● tubeless tire repair function ● 11-size hex bits H2 to H8. The design is patented in Taiwan, with worldwide patents are also in process.

Check out all these and lots more at Booth **K0628**. You'll be glad you did!!



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RAM 61C

SAMOX

F.A.S. Fixed Axled-Bolt System

Built around a machined alloy axle combined with a single bolt crankarm connection.

This use of fewer, stronger, higher quality parts results in increased strength with fewer opportunities for things to go wrong.

Exactly what we told our engineers to accomplish. Highly suggest for MTB bikes.



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OVERVIEW: DROPPER POSTS

HOW INNOVATION IS LEVERAGING NEW MARKETS

New bicycle styles in the sharing and cargo markets mean dropper posts are now a must-have for riders of all kinds. It's a significant transformation from when they were considered beneficial only to the gnarlier end of the mountain bike segment. Of course, with new use categories come new designs, along with a handful of new players entering the market.



KS / Kind Shock [10818] was an early innovator in the field of dropper posts. This year, it continues to promote broader use categories for its products with an emphasis on gravel. Its Ragei-S post comes in a 27.2mm size and offers a 65mm drop. It's proved so popular that KS has been able to leverage its position to expand into other sectors and now also provides both a gravel suspension fork and a matching cockpit. Elsewhere, mountain bikers will find themselves served by the LEV Circuit, a wireless post that simplifies installation, reduces maintenance, and allows for beautifully minimalist looks while offering a massive 200mm of movement.

Limotec [N0828] is well-known for providing high-end engineering solutions. It's also begun offering its own products. Perhaps the most successful has been the E1P dropper post that was nomi-

nated for a Eurobike award upon its release last year. This high-tech wireless dropper post was developed in close cooperation with bikemakers Merida. The result is a long travel post offering wireless operation and high-speed activation. It's also unique in providing a height memory function whereby the user can set two favourite heights. The product can also be connected directly to your e-bike's battery to remove the need for separate charging.

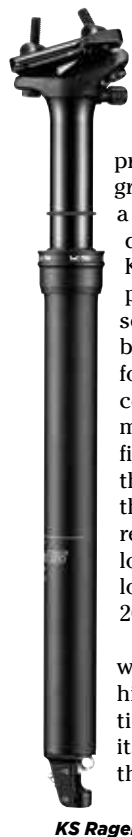
German firm **by,schulz [M0106]** is well known for its innovative and ergonomically driven products. It offers several dropper post options, including the D.2 ST-Ri. This combined dropper and parallelogram suspension seatpost is aimed at sporty city and trekking riders. Its 30mm of suspension offers comfort across less-than-perfect surfaces. Simultaneously, its ability to shift 80mm up or down allows riders to find a firm footing when

stopping at traffic lights before quickly switching to a more efficient position as they pull away. Users will benefit from slick internal cable routing and step-less height adjustment. The suspension element can also be customised via a range of four different steel springs to adjust performance based on the weight or preference of the rider.

Vazalab [L0001] is another firm interested in ergonomics. It was founded in 2016 and has since accumulated data from over 2,000 individual bike fits, the results of which feed into the products it develops. These include a range of saddles and its B3F comfort seatposts. The latter uses an elastic rubber suspension insert that allows the saddle to react to the rider's movement. This three-way stabilisation technology allows the saddle

to move top-to-bottom and left-to-right together with the thigh and hip muscles. Vazalab claims this significantly reduces friction between it and the rider. At the same time, it provides a degree of shock absorption. The firm's seatpost range has now expanded to cover carbon and alloy models for sporting cyclists, along with specific designs for Brompton folding bicycles.

RST [K0802] is one of several makers who have leveraged the synergies between the suspension and dropper post markets to successfully expand its offering. Its established Elev8 dropper range has expanded to cover models like the Elev8 E, which features wireless electronic activation, and the long-drop A2, which features air-activated height adjustment. This latter product has proved to be a hit



KS Ragei-S



Limotec E1 alt



by,schulz d2



Vazalab

RST Elev8 up



TranzX EDP01

with bikemakers thanks to its wide range of spec options, which includes 30.9 and 31.6mm diameter posts with height options of 80,100, 125, 150, and 170mm.

TranzX [J0407] claims to be the world's largest dropper seatpost manufacturer. Last year, it released the electronically activated EDP01 wireless dropper post, significantly reducing the entry point for such

remote technology. This burly post is aimed squarely at the more extreme end of the mountain bike market. With a sizable 200mm drop, the post benefits from automotive-grade IPX66 waterproofing and is driven by a 240mAh battery for up to 6,000 activations between charges. It's since gathered many positive reviews and helped cement the brand as a player in

both the OEM and aftermarket arenas.

FSA [M1212] makes a range of products that cover all types of competitive cycling. This broad spectrum of interests left it well-placed to adapt its Flowtron dropper post to meet the needs of gravel riders. A slimmed-down version of the Flowtron now sits within the firm's AGX line, which caters to



FSA Flowtron AGX

adventure, gravity, and cyclocross riders. The first challenge to overcome was fitting the post's internals into the slender 27.2mm size that gravel bikemakers favour. A second was creating a dedicated remote to work with drop-style handlebars. Finally, travel was reduced to a still sizable 100mm. The result is a light dropper post tailored to the needs of gravel and adventure cyclists, which is likely to find its way onto other bike styles, too.

As dropper posts are seen as essential on more bike styles, so makers are considering how to offer them. **Scada [I0503]** is unique in specialising in OEM and ODM solutions covering the dropper and gravel bike suspension markets. In 2024, it's offering a full spread of four ready-to-go posts. These cover all applications and are available in a full range of diameters. The entire range is supported by a host of different levers, which can further help match the post to your design. Alternatively, if you're looking for something not yet available, the firm is ready to collaborate with bike makers to help them realise their

vision. ■ JD

ENGLISH

TAVIA

TOLV-121 2.0

Featuring GST Technology & Compatible with Electronic Shifting.



ECO-FRIENDLY COATING
EASY TO CLEAN
RUST-PROOF TO 25 YEARS

RIDE **SMOOTHER**,
RIDE **LONGER**.

BOOTH K0707



NEW PRODUCTS



HYENA UNIDRIVE 70 MID DRIVE

An all-terrain mid-drive system. The UniDrive 70's lightweight, compact motor delivers 70Nm of torque and supports up to 12V 24W lighting. An exceptional weight-to-torque ratio makes it ideal for city, trekking, road, and gravel bikes. Compatible with Hyena's standard HMI's and batteries and supported by its software platform and applications. **Hall 2 / S0318**

KMC GLIDE SERIES

Glide series chains feature optimal chamfering and X-Bridge shaping, offering a broader entry space between teeth for seamless gear shifting while avoiding interference between the chain and gears. Shield Tech riveting technology provides high torsional and tensile strength, while heat treatment hardening of pins and rollers provides the durability e-bikers need. **Hall 1 / J0118**



NECO TECHNOLOGY 2-WR HEADSET

This unique headset allows for internal cable routing. The 35-degree opening on the top cover smooths the introduction of the brake and transmission cables. A nylon fibre design further reduces the possibility of cable wear and minimises resistance while ensuring zero interference with the bike's steering. Both entry points are water resistant to improve service life. **Hall 1 / J0507**

FULCHEE STI AXLE

Fulchee's STI axle is a bolt-style axle that comes complete with a hidden tool capable of removing the wheel. This screws into the axle via a knurled head that's designed to be entirely rattleproof. The buyer can specify several tool options, including 6mm hex and T25 or 6mm hex twinned with smaller 5-3mm hex bits. **Hall 1 / L0519**



KT 612POE HUB

With its advanced 612 POE six-pawl engagement system, KT Taiwan brings ultra-rapid 0.58-degree engagement to the mountain bike world. This rock-solid and ultra-fast system will appeal to racers and riders who want instant responsiveness for technical riding. Also available is the similar 102 POE system that offers 3.5-degree engagement twinned with a more accessible price. **Hall 1 / I0218**



RST SUSPENSION SMART TAG PLATFORM

The Smart Tag platform was created to help secure and track high-value bikes. Consumers can install an RST tracker on the bike's front fork to confirm its location through their mobile phone at any time to protect their property. The system is based on Apple's popular AirTag tracker and fits with a hollow torq key for added security. **Hall 1 / K0802**



U-POWER TW-07C12 TORQUE WRENCH

U-Power's 1/4" DR 2-12Nm adjustable torque wrench. Specifications include short light aluminum handle, bits & extension bar, and a quick screw nut with two sides with odd and even scales. Precision in your hands, packed with essential features. **Hall 1 / K0628**



AVS RC7 DISPLAY

This innovative display features a high-contrast greyscale LCD that delivers quick refresh rates, outstanding sunlight readability, 120° viewing angles, and all-weather IP56 resistance. With dedicated function and data screens, important info, including speed, assist mode, battery charge status, and system errors, is clearly displayed. Additional features include an ambient and IR light sensor, backlit buttons, plus options such as BLE and NFC. **Hall 1 / L0501**



ALEX RIMS E-BIKE HUBS

Alex's BEB004 and BEB504 rear hubs employ Power Stroke Technology from Bear Pawls to manage the increased power and torque requirements of e-bikes. A hardened steel cassette body is mated with a semi-high flanged hub shell to allow for broader spoke angles, resulting in a stronger wheel. Four sealed cartridge bearings are spaced to distribute internal forces while maintaining high rolling efficiency. **Hall 1 / J1117**

HAFNY WIND-RESISTANT BIKE MIRROR

The arm of Hafny's HF-M6002LS-FR052 mirror features a unique hollow design to decrease its weight and reduce wind resistance. It's also longer than the firm's other models for great adaptability. Its body is made of fibre-reinforced plastic and comes with a spacer to let bikers choose to lock in one angle or retain adjustability if needed. **Hall 1 / L1407**



CYCLE CHRIS JOYLAND FASHION MOPED EBIKE JLL046-5L

This 20-inch wheeled e-bike offers a mix of style and speed. Its 750-watt motor provides support up to 45km/h along with a range of 65km. Control is maintained via a front and rear suspension, broad tyres, and twin hydraulic disc brakes. Based on an aluminium frame, you'll also find a moto-style bench seat and integrated lighting. **Hall 2 / S1133**



PROFILE DESIGN 52ASC ARMRESTS

The front section of the 52ASC provides comfortable wrist support with 52-degree tilted grips. It will be a strong contender for the title of 'most comfortable aero extension', at least for standard aerobar brackets. **Hall 1 / K1308**



NEW PRODUCTS

TAYA STARRY TITANIUM CHAIN

TAYA is a well-known chain maker that produces all its products in Taiwan. Its top-end items include this Starry Titanium edition of its OZNE chain, which is adorned with titanium accents for smooth operation and standout style. [Hall 1 / K0707](#)



SPANNINGA GLOW BRAKE LIGHT

The newest addition to the Glow series is a version with a mechanical brake function that's ECE-approved and compatible with e-bikes and speed-pedelecs. When the user hits the brakes, it activates a light signal of 40 Candela, which ensures they're visible from over a kilometre. Designed to be directly integrated into carriers from brands including Massload and MIK.



AVS RC8-FS INTERFACE

A human-machine interface with a capacitive biometric fingerprint sensor. With its enhanced fingerprint recognition, the RC8-FS only allows authorised riders access to system startup activation and electronic lock to operate the e-vehicle. The unit has optional BLE and four RGB multi-colour backlight illuminated buttons for assist and walk mode, bike light control, general settings and system power. [Hall 1 / L0501](#)



DEDA ELEMENTI STAFFA SEATPOST MOUNT KIT



A mounting kit for rear lights designed to integrate with Deda seatposts. Ideal for use with rear radar lights, such as the Garmin Varia and Bryton Gardia, or with dynamo lights using the GoPro mount. It also

allows dynamo or e-bike power cable integration with Deda's Superzero and Zero100 ranges. It is compatible with seatposts from other brands featuring a 28mm diameter and 25-30mm width lower clamp. [Hall 1 / M0411a](#)

VELO VL-1C49 SADDLE

This performance-oriented, short-nose saddle is based on Velo's popular after-market Senso Ray. The VL-1C49 features lightweight shock-absorbing PU foam mounted on a solid shell with a full-length relief channel. The saddle features a classic T shape with gentle curves along the edges and a mostly flat top. Atmos shaping joins the upper surface and nylon injection base for a simple, sleek look that matches any bike. [Hall 1 / J0618](#)



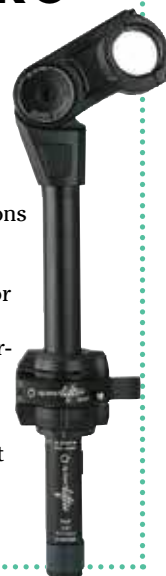
VISION SC45/60 WHEELSETS

These keenly-priced carbon wheels aim to attract ambitious riders looking to upgrade their bike and secure a real advantage. Vision's SC wheelsets feature 60 or 45mm depth full carbon clincher rims, allowing riders to balance aerodynamics, rotating weight, and handling. These then spin on hubs featuring cartridge bearings, two in the front and four in the rear. Holding everything together are 2:1 ratio aero-bladed direct pull spokes that are laced and adjusted by the firm's artisan builders. Weights are 1,690 grams for the SC60 wheelset and 1,590 grams for the SC45. Available in Shimano 10 to 12-speed and SRAM XDR 12-speed formats. [Hall 1 / K0616](#)



BY,SCHULZ SPEEDLIFTER TWIST PRO 2 SDS

Tool-free handlebar height adjustment with 90° rotation and an integrated angle-adjustable stem. Ideal for a range of applications and bike styles, the Speedlifter Twist Pro 2 SDS adapts your bike for personal comfort, easy sharing, or efficient storage. Simply select your position according to different extension or stem lengths and adjust your handlebars to suit your needs. [Hall 1 / M0106](#)



TRIPEAK JETSTREAM PRO DURA TECH HEADSET

Maintaining and replacing headsets is a headache, especially on bikes with internal cables. The Dura Tech headset uses an outer race made of Teflon composite material twinned with a stainless steel inner to extend its lifespan. These are backed by a nano-coating to prevent corrosion and combined with G3 ceramic balls to create a rolling surface that extends maintenance intervals and improves durability. [Hall 1 / K1124](#)

SKS VELODETECT+

The Velodetect+ allows an Apple AirTag to be integrated unobtrusively into your bike frame. The flat mounting for the AirTag is well concealed under the bottle holder and hardly noticeable once in place. The unit then includes supplementary rubberised hook-and-loop fasteners ideal for mounting mini pumps or tools. [Hall 1 / L1217](#)



SUNSTAR SP CONNECT WIRELESS CHARGING MODULE

A range of products to mount your smartphone on your bicycle quickly and securely. When linked to the electrical system on your e-bike, the Connect Wireless Charging Module can top up your phone as you ride. Perfect for those on the go or who want to use their phone to navigate or control the bike. Compatible with SP Conenect's wide range of phone cases. [Hall 1 / M0808](#)



VP COMPONENTS VPG-ER09A GRIP

VP's grips are carefully made with non-toxic, eco-friendly, and UV resistant materials. They all offer an excellent feel for a high performance handling experience. The VPG-ER09A uses recycled PP / Recycled TPR materials, with a recycled aluminium clamp. Sizing: ID 22.2mm x OD 33mm x L 133.2mm. [Hall 1 / K0810](#)

NEW PRODUCTS



JIASHAN SHENGGUANG ELECTRONICS STONE SERIES LIGHTS

A new range of four lights with various maximum intensities from 100 to 550 lumens. Clean and smooth lines and robust construction characterise these aftermarket units. Higher-end models benefit from an illuminated capacity indicator on the top of the housing, while all employ a carefully tuned lens to maximise useful output. **Hall 1 / L0530**

XPEDO FELIX OOLONG

Tackling climate change is a priority, and at Xpedo, we're committed to doing our part. This year, we've incorporated GRS-certified recycled materials and eco-friendly alternatives into our products, actively reducing our carbon footprint. Our new FELIX Oolong pedal, which blends tea leaves into the nylon material. This reduces plastic use without compromising strength and durability. It's a testament to our commitment to sustainability, allowing you to explore the world guilt-free as you pedal down different paths. **Booth no.: J0517**



VELO VL-1C50 SADDLE

A waterproof saddle using Velo's patented Atmos Shaping technology. The VL-1C50's tail-up design keeps the rider in position while pedalling and provides full support in multiple positions. Its centre channel then provides pressure relief and airflow. E-bike users will appreciate its I-Carry handle, which is located on the underside of the shell for easier manoeuvrability. A medium width of 145mm accommodates the majority of gravel MTB riders. **Hall 1 / J0618**



GLORY WHEEL AT WHEELSET

Glory Wheel's latest AT (All-Terrain) wheelset features the firm's GW hubs alongside European-made rims and spokes. These are laced together following precise specifications and standards. The firm's Vietnam factory is currently undergoing an environmental impact assessment phase and is well-equipped to offer competitive pricing with fast and cost-effective EU delivery. **Hall 1 / N1014**



PINARELLO DOGMA XC

The unique design of the bottom bracket area optimizes stiffness and accommodates an oversized bearing and pivot point for the rear triangle. Adjustable travel - the ability to move the suspension connection point under the top tube allows different rear shock absorbers to be fitted, with different travel, allowing the riders to match their bike to the unique demands of each ride. **Booth: M0808**

CONTINENTAL GRAND PRIX 5000 TT TR

The fastest Grand Prix 5000 tubeless tire for the pursuit of speed, be it in a criterium, time trial or triathlon. Black Chili compound provides the best balance of grip and rolling resistance for cycling. The latest polymers as well as specially developed carbon black particles and filler materials guarantee unique performance. Weight: starts at 220g, Dimension: 25-622, 28-622, Application: Race, Road, Urban, Category: Tubeless. **[M0808]**



SAMOX F.A.S. FIXED AXLE-BOLT SYSTEM

Built around a machined alloy axle combined with a single bolt crankarm connection, the use of fewer, stronger, higher quality parts results in increased strength with fewer opportunities for things to go wrong. Exactly what we told our engineers to accomplish. Highly suggested for Mountain bikes. **Booth No. J1209**



V-GRIP ONE-CLICK MAGNETIC BOTTLE AND CAGE

Simplify your hydration setup with the One-Click Magnetic Bottle and Cage. This minimalist magnetic bracket is designed with three different entry points and is perfect for bikes with limited frame space. Easily remove your bottle from the right, left, or centre with secure retention, making it suitable for gravel or mountain biking. Its lightweight and sleek design makes it a favourite across various disciplines. **Hall 1 / I1314**



CHOSEN ROAD TC STRUCTURE HUBS

Chosen's TC Structure hubs promise increased conduction efficiency. This ensures that the effort from each pedal stroke is converted into forward momentum for the rider. They achieve this through a design that permits extremely accurate tooth-coupling of the driver. This road-specific version allows for compatibility with the latest through-axle and spacing standards. **Hall 1 / I0314**



ORRO BIKES SIGNATURE VENTURI STC

The Signature Venturi STC is a fast and aerodynamic road bike that sits at the top of Orro's range. It uses exclusive Sigmalex Spread Tow Carbon to create its flowing lines and integrated profile. This British brand is exhibiting in Taipei for the first time and hopes to find international distributors for its range of innovative bicycles. **Hall 1 / L0504**



TACX NEO 2T SMART TRAINER

The pinnacle of indoor training, raised even higher. With an improved design and revamped components, the NEO 2T Smart trainer provides a more immersive experience, measures total power and left/right balance and more. **Booth: [M0808]**

全球最大自行車展 2024 年歐洲自行車展熱度不減

儘管自行車業整體銷售業績並不像預期的那般熱絡，但距離第三次在法蘭克福舉行的歐洲自行車展還有四個月，這場全球領先的自行車產業貿易展，主辦方表示他們的計畫仍將順利進展，並計劃在德國以外的地方推出一些新的昭展方案。

當歐洲自行車展從康士坦茨湖畔搬到主要的金融中心法蘭克福時，這意味著從夏末在風景如畫的地點舉行的酷炫登山車自行車愛好者的聚會，轉變為一個全球平臺，與全球航空樞紐接近的一個不斷發展的產業。新增更多的飯店和餐廳選擇，以及用高效的公共交通代替以往的交通擁堵，就能理解為什麼搬到法蘭克福是正確的決定。四個月後，參展廠商的招攬仍在如火如荼地進行中。

開放 LEV 領域

然而，正如展覽的主辦方 fairnamic 在一月底於法蘭克福時，對一群記者的發表會中所說的，他們對即將到來的第 32 屆歐洲自行車展充滿信心。與去年一樣，fairnamic 預計將迎來約 1900 家參展廠商，並使用法蘭克福展覽中心西區 8、9、11 和 12 號館的總展覽面積為 150,000 平方公尺。目標之一是將 2023 年約 34,000 名的貿易參觀者增加到 40,000 名。實現這一目標的其一方式是將貿易展開放給所有非汽車且 e 化的交通工具。

吸引更多訪客的另一個目標，特別是針對國內自行車經銷商，他們多半不願意在七月的自行車銷售旺季，少去一兩天的營業機會，因此吸引他們前往就與品牌的「連結性」十分重要。2024 年，德國自行車市場的兩個大主力一捷安特自行車和 PON Bike 的品牌 Kalkhoff 將重返參展行列。根據 fairnamic 的總經理 Stefan Reisinger 的說法，儘管面臨著具有挑戰性的經濟環境，似乎只有很少數的參展廠商減少參展的開支：「一些品牌的展位比去年小，一些由於缺乏資金而今年不會回歸。但我們還有一些品牌重返展覽會，還有一些首次參展的品牌。」

來自遠東的忠實參展廠商

當被問及過高的庫存情況，是否導致了削減了海外廠商的到來？fairnamic 的總經理 Stefan Reisinger 回答說，與一



些來自歐洲的參展廠商相比，來自遠東的參展廠商更加忠誠，僅對業內開放展覽的三個專業日，9 號館的二樓的 b2b 專區在二月初就基本上已經預訂滿了。這和兩個以 Eurobike 和 Asiabike 為名舉辦的新的貿易展覽有關，一個將於 2025

年在伊斯坦布爾舉辦，另一個將於 2024 年 4 月在雅加達舉辦，這表明了歐洲自行車展對自行車產業的全球影響力，在時機轉好之前，尤其需要更多溝通和協調，以做好迎接未來挑戰的時候，遵循參加展覽的樂觀目的：投資未來！

環繞第 10 號館的試車道去年非常受歡迎，比前一年的試車次數多了一倍，有時還會塞車。為了提供更好的騎乘體驗並分散沿路的流量，試車道將被延伸環繞第 11 號館，從 Portalhaus 入口通往法蘭克福展覽中心的停車場，然後返回到 Strasse der Nationen。由於與歐洲足球錦標賽時間有重疊，住宿可能比平常更難找到，fairnamic 將在展覽中心東區為參展廠商提供約 100 輛移動房車的露營區，還有另一個位於前 Rebstock 機場場地停車場旁邊的面向普通展覽遊客的評

價露營地，容納更多人。

「在過去的幾個月裡，我們成功地進一步擴大了上一次活動的成功，我們已經期待著在 Eurobike 2024 的出色展出。面對困難時刻，面對面的會議，品牌存在和共同設定產業利益的話題是特別重要的。Eurobike 已經成為一個穩固的活動，我們預期的參與者規模將超過 1,900 家參展公司，匯聚了全球價值產業鏈中的所有相關參與者。我們很高興的歡迎在 2024 年重新回到展覽會的全球參與者和品牌。此外，輕型電動移動領域的供應商將越來越受到關注和歡迎。」Stefan Reisinger 解釋道。

2024 第 32 屆歐洲單車展將於 7 月 3 日（週三）至 7 月 7 日（週日）在法蘭克福舉行。 ■ LVR



Valeo 優化產品 擴增供應 Cyclee

Valeo 今年將大幅提升其 Cyclee 中置馬達產量，提供更好降噪水平和更智能的數字介面，這家法國汽車行業領先供應商瞄準更廣泛的自行車市場。

兩年前，**Valeo [Hall 2 R0324]** 推出了 Cyclee，憑藉其在汽車業務領域的領先技術和製造資源，在自行車市場嶄露頭角。

該系統將 48 伏電機和七速自適應變速集成到驅動組件中。電動助力系統可產生 130 牛頓米的扭矩。

去年 Cyclee 的起步相對較慢，產量僅為 4,000 台，大部分應用於電動貨用自行車，用於最後一英里配送或家庭騎行。但領導 Valeo 電動自行車市場業務的 Benjamin Morlière 表示，他們計劃今年將產量提高到 20,000 台以上，到 2025 年達到 70,000 台。

Morlière 表示：“我們已經完全重新設計了中置馬達中的減速器，並在定子中進行了許多技術改進以降低噪音震動。我們在過去幾周內交付的品牌都告訴我們，產品完全符合市場需求。”

這位 Valeo 經理表示，這些變化對打

入登山車、城市車和旅行車市場至關重要。

Morlière 補充說，Cyclee 非常適合高速自行車，例如 Valeo 的合作夥伴 Fuell。“我們擁有巨大的扭矩和大功率，因此它完全適合時速高達 45 公里的電動自行車，”他說。



其他客戶包括 La Manufacture du Cycle、VUF Bikes、Cycleurope 和 Ultima。Valeo 表示，正在與其他大型品牌合作開發，將在今年晚些時候公布詳細信息。



台北展上展示的另一項升級技術是人機界面，它由一個智能底座、一個觸摸螢幕和一個遙控開關組成。它可以安裝在多個位置，這意味著它適用於不同類型的騎行，並且可以拆卸螢幕。

通過手機鏡像功能，騎士可以通過螢幕使用智能手機上的 GPS、性能跟蹤器、音樂庫和其他功能，從而安全地將設備放在口袋里。

該界面也用於防盜裝置。“如果您的手機放在口袋里，並且您距離自行車不到兩米，則系統會自動解鎖，”Morlière 解釋道。“但當距離超過兩米時，系統會自動鎖定。”

與最初的顯示器不同，這第二代顯示

器是由法雷奧內部開發的。“我們將許多來自汽車行業的技術引入到電動自行車行業，”Morlière 說。

Valeo 表示，Cyclee 產量的提升因自行車市場形勢而放緩，導致一些訂單延後。根據最新預測，最初的 100,000 台目標可能在 2026 年達成，比最初計劃晚了不到兩年。

Cyclee 在法國和土耳其的三個 Valeo 工廠生產和預組裝，所有零件都在里昂附近的 L'Isle-d'Abeau 中央工廠組裝。目標是將產能提升至每年約 300,000 台。

Cyclee 系統是與法國變速箱專家 Effgear 合作開發的。 ■ BS

NEW PRODUCTS

RST FIRST 20 避震前叉

這款專為年輕騎士設計的輕量前叉，配備了 RST 最新一代的 BO-TNL 阻尼桿組和 AIR3 系統。前者 (BO-TNL 阻尼桿組) 提供低速調整和鎖定功能，同時具備安全閥的自動開啟和回彈功能。升級的氣壓阻尼和增大的叉管尺寸，進一步確保了這款 20 吋輪圈的小車前叉的最佳性能。

Hall 1 / K0802



KT 動力輪殼

KT 的輕巧緊湊型發電機具有 6 瓦、三伏特的輸出功率，可幫助您在最黑暗的夜晚供電照亮前方道路。它支持快速放電和桶軸樣式，並且可以適用在輪圈或碟煞。其高品質的構造，可以確保電氣和機械元件均相當耐用且防風雨。

Hall 1 / I0218



NARO DELTA LCS LEANING CONTROL SYSTEM 三輪車

一款穩定且輕巧的三輪車，保留了許多兩輪車動力特性優點。LCS 傾斜控制系統 (Leaning Control System) 為三輪車靈活直接的轉向，提供了出色的牽引力，並提高在崎嶇路面轉彎和行駛時的安全性。對於行動不便或平衡能力有限或者任何對使用三輪車感興趣的人來說，這是一款相當理想的自行車。

Hall 1 / N1011a



AVS TT07 模組

AVS TT07 模組是一款上管模組，結合多彩五段 LED 燈條，可以顯示電池 SoC、輔助等級和系統錯誤訊息等訊息。其單一多功能按鈕可讓騎士管理電源、燈光和輔助模式的等級。藍芽連線可實現 OTA 軟體更新，並可透過 NFC 用於智慧型手機配對和自行車解鎖，與多種驅動系統和通訊協定相容。

Hall 1 / L0501

EXUSTAR E-PM246 踏板

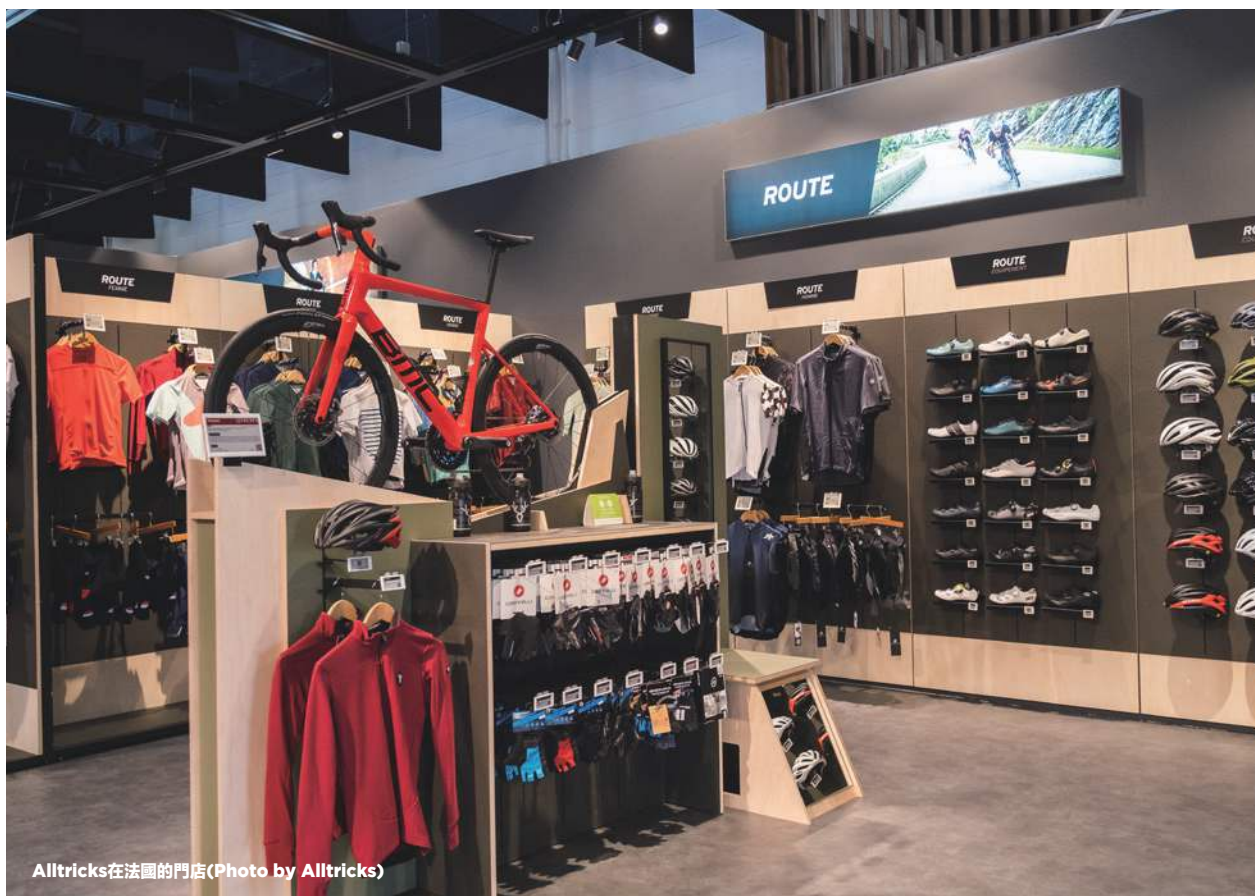
這款踏板是採用 CNC 本體和堅固的雙軸承系統，是任何比賽者或越野愛好者的絕佳選擇。它們還包括新設計的耐磨防護裝置，可以保護本體。踏板導軌，讓騎士可以更容易與踏板解開脫離。重新設計的雕飾纖細本體，可以提升整體外觀美感。

Hall 1 / K0616



歐洲零售商縮減產品線以降低庫存

隨著供應鏈中斷和需求放緩導致去年大幅下滑，歐洲自行車零售商預計今年市場庫存過剩的問題將得到緩解。



Alltricks在法國的門店(Photo by Alltricks)

零售商承認，今年年初零售市場仍然緊張，普遍折扣率超過 30%。毛利率下降和成本上升的結合給利潤帶來了壓力。

然而，普遍樂觀的是，歐洲零售商將在未來幾個月內處理掉大部分剩餘庫存，並能够在明年開始時擁有相對可控的庫存量。製造商延長產品供應週期也幫助了零售商。

法國領先的在線零售商 Alltricks 的總經理 Nicolas Burger 表示：“法國市場的復甦階段尚未完全結束，庫存量仍然很高，尤其是在自營自行車經銷商那裡。”

Burger 補充說：“市場消化時間比預期稍長，但我們相信未來幾個月價格會上漲，市場將在今年就會穩定下來。”

Alltricks 在歐洲在線自行車零售家中脫穎而出，去年其商品總值增長 5%，達到約 1.78 億歐元。Burger 將其歸因於其對產品種類以及商店和在線服務的投資。其八家門市均提供趨勢分析、點擊取貨和“全方位增值服務”。

Cyclable 是另一個表現相對良好的零售品牌。該集團在法國和瑞士的 75 家門市和加盟店去年銷售額有所增長。大部分增長來自十家新店開業，現有門市的營業額也有所提高。

Cyclable 的首席執行官 Céline Forestier 說：“Cyclable 專注於外出遠行市場，這可能有助於他們避免去年其他一些類別面臨的壓力。”

Forestier 補充說：“我們希望市場狀況能早點穩定下來，但需求仍然不理想。

徹底清理市場庫存可能需要今年一整年的時間。”

緊張局勢也影響了德國的專業零售商和最大的體育零售商，例如 Sport 2000。該採購集團報告宣稱，其德國零售合作伙伴的自行車銷售量在 2023 年下降了 11%，之前幾年則大幅增長。

擁有 Wiggle CRC、Probikeshop、Bikester 和 Fahrrad.de 等專業零售商。該一系列程序是由該集團奧地利所有者的更廣泛問題所引發的，但之前該集團的自行車銷量已經出現下滑情形。

Sportler 的類別經理 Frank Schwarzwaelder 表示，義大利市場的庫存仍然



在瑞典的Bike Nation

Bike 24 不得不於去年 10 月下調其 2023 年銷售指引。這被歸咎於下半年消費者情緒仍然處於“非常低”的水平，以及該零售商自己決定將重點放在利潤率而非銷售增長上。

德國市場尤其受到 Signa Sports United 破產的震撼，該德國集團間接

嚴重膨脹。他預測，大部分剩餘產品將在本季結束前售罄，但中價登山車等類別可能需要更長久的時間。

零售商正努力維持價格，至少對於受庫存壓力影響較小的產品類別，例如砂石路自行車和電動城市自行車。Schwarzwaelder 說：“我們無法像過去

幾個月那樣保持如此折扣的價格。”

除了降低價格，Sportler Bike 和其他零售商還通過縮減產品線、從更小的品牌購買、更少的產品來做出反應。

Cyclable 的 Forestier 說：“我們在採購方面一直非常自律。但在過去兩年裡，我們加大了對貨用自行車和長尾自行車的投入，並在品牌方面收緊了我們的產品線。”

瑞典自行車零售商庫存仍然過剩，今年年初大額折扣仍在繼續，但消費者似乎“越來越積極”，SGN 集團自行車類別主管 Mikael Jogmar 說。它包括 115 家專門從事自行車的商店，組成 Bike Nation 集團。

預計需求將回升，主要是由城市電動自行車帶動。“這就是消費者現在想要的，它一直在增長，”Jogmar 說。“如果春天銷售強勁，零售商可能會發現他們實際上庫存並不多。”

自行車協會預測今年英國市場將有所改善，去年自行車市場價值下降了 6%。然而，一些類別有所上升，例如公路和砂石路自行車，下半年的趨勢有所改善。

歐洲自行車產業協會 (CIE) 堅持認為歐洲市場的前景仍然強勁，並維持了 2030 年達到 3000 萬輛自行車的預測。該預測由 CIE、CONEBI 和歐洲自行車聯合會發布。“到目前為止，我們還沒有看到需要修改它的理由，”CIE 首席執行官 Kevin Mayne 說。“我們堅持這個預測。”

歐洲自行車需求預測： 汰舊換新帶動銷售成長

以上預測建立在歐洲各國政府持續政策和投資支持，以及調查顯示自行車使用率仍在穩定的基礎上。

Mayne 表示，早期研究表明，汰換週期變慢是需求最重大的威脅。與擁有多輛自行車並熱衷於嘗試最新技術的運動型自行車騎士不同，近年來購買自行車的消費者往往是剛開始騎車的人，他們只有一輛自行車 - 可能是一輛電動自行車，也可能是一輛租賃自行車。

去年進行的一項研究表示，這些消費者會在 3 到 5 年後考慮更換他們的自行車，這讓 CIE 預計今年會出現一波換車潮。“因此，我們預測消費者需求將會回升，”Mayne 說。

這一預測得到了“大量證據”的支持，這些證據表示近年來購買的自行車都經常被騎乘使用。 ■ BS

新品大觀園：連接智能化 創新提高了安全性和騎行體驗

源於智慧手機的普及，智慧自行車配件的發展激增、特別針對隨時取得資訊的期望以及電動自行車搭配屏幕的潮流。

這一廣泛性產品的共同目標，是透過使用超越以往的技術，使騎乘自行車更加便捷和安全。

這可能是一個無線充電站，將您的手機變成一個不可或缺的導航輔助工具，或者是一套能夠感知您轉彎並為您指示的燈光系統，所有這些產品的共同特點是對設計的創新方法和對新的連接技術。以下是今年展覽會上一些最聰明的智慧產品。



SP Connect Charging Module

SP Connect [M0808] 生產一系列自行車手機座架，所有這些座架都與其時尚的手機殼相容。其中最新的產品可讓您將手機安裝在把手上進行導航，同時連接到電動自行車的電池，實現可以在行進中充電。考慮到持續使用螢幕對手機電池的耗電，這個系統終於讓使用者能夠充分的適用於自行車各種應用操作，而無需擔心需要保護電池。使用者還可以自由使用最新的感應式無線充電，該公司的充電器能夠提供 15 瓦的功率和 100% 防水的結構。它還包括一條可用於其他電子設備的 USB 充電電纜，可運用於各種應用。

德國配件品牌 **SKS [L1217]** 為騎乘者提供了在騎行時充電手機的解決方案。其 Compit 系列座架最近擴展到包括直接從電動自行車電池抽取電力的型號，新的 COM/PAD 快速充電系統提供感應式快速充電，以及沒有無線充電功能手機的 USB-C 連接。它與 SKS 的各種機殼相容，並且與現有的座架相容。它加入了 Compit+ 座架的豐富系列，該系列具有供希望延長手機電力但無法使用電動自行車電池的騎士使用的行動電源選項。這些電源可以在車外充電，為您的手機或騎行時的其他設備，提供額外的 10,000 毫安時電量。

Velco 設計和製造高級的物聯網 (IoT) 產品，運用於電動自行車。這些產品可以在自行車裝配階段使用，並連接到公司的軟體套件。因此，Velco 的 Mobitrax 單元實現了許多有用的功能，包括檢測可疑運動、觸發警報、即時地理定位和遠程關閉。防盜和追蹤是這項系統最明顯的優點。然而，今年，這些功能將加入專為天氣預報特定的旅程規劃和事故檢測功能。這些正是可以幫助自行車製造商為技術愛好者提供獨特價值的創新功能。系統有直接從自行車蒐集騎行數據的能力還有助於遠程診斷，並可以讓製造商在需要時發送維護訊息。

將配件連接到您的自行車電腦可以擴增的智能協作效應。**Meilan [L1431]** 的 Navihood GPS 自行車電腦是一款最大程度利用這些功能的產品。當與公司的配套 CuteEye 尾燈一起使用時，它可以利用路線數據自動將燈光的轉向信號與即將到來的路線變化相匹配。這些信號無需騎士輸入即可觸發，有助於保持騎行安全，讓騎士可以專注於前方的路況。這兩個裝置均使用穩定的 BLE 5.0 連接，同時還提供獨立遙控器，以便無自行車電腦的用戶也可以控制尾燈。一款配套的前燈正在研發中，具有類似的



HAFNY 自行車後視鏡



Velco Mobitrax

Meilan Navihood GPS



SKS Compit



AVS RC8-FS 控制介面

AVS [L0501] 生產一系列智能連接的電動車產品。其中之一是由相應的智慧型手機應用程式支援的中央顯示器產品。此外，還有一系列手把遙控器，其中最新的是 RC8-FS。這種人機界面具有電容式生物識別指紋感應器。它允許電動車用戶通過確保只有授權騎士可以開啟系統的啟動開關並啟停電子鎖，從而開始操作電動車。該裝置還具有 BLE 連接和多色背光照明按鈕，用於啟動輔助和步行模式、自行車燈控制、一般設置和系統電源。如果您的自行車丟失，公司的一套實用工具包括 GPS 追蹤功能。這得益於與各種驅動系統和通信協議的廣泛兼容性。這些功能又允許實現 OTA 軟體更新和智能手機配對，實現

對自行車功能的遠程控制。

隨著電動自行車越來越多地提供原生連接性，一些使用更傳統車款的用戶會感到被遺漏。**AlterLock [L0104]** 提供的是一款可安裝的產品，可以警報、監控和追蹤您的自行車，因此即使是舊款的單車現在也可以連接到物聯網。精巧防盜警報器和 GPS 追蹤設備固定在您的自行車上，並與您的智能手機相連接。然後，如果它檢測到可疑的移動，它會通過簡訊與用戶聯繫，同時通過自動警報防止盜竊。如果您的自行車仍然丟失，AlterLock 提供的 GPS 追蹤功能可在充滿電的情況下追蹤長達一個半月，以幫助您找回它。該設備使用 Sigfox 低功耗廣域通信標準，由日本 IT

公司 Nextscape 支持。

同樣提供內建追蹤系統的還有 **RST [K0802]** 的智能標籤。它基於蘋果廣受歡迎的 AirTag 追蹤器，該追蹤器使用安全的藍牙信號，可以被附近的設備在尋找我的網絡中檢測到。這些設備將您的 AirTag 的位置發送到 iCloud，然後您可以使用蘋果的尋找我的應用程序在地圖上找到它。RST 的智能標籤產品使您的前叉轉向器內藏一個這些標籤變得容易。使用中空防盜工具進行安裝以增加安全性。該產品在去年的台北國際自行車展上獲得了金獎。■ JD

連接性，確保它也能與該品牌不斷擴大的系統無縫集成。

一種不那麼高科技但同樣聰明的方法，確保您知道自己後面發生了什麼，就是安裝一面後視鏡。**Hafny [L1407]** 的 HF-M6002LS-FR053 後視鏡增強了騎士的安全性，採用了高清晰車用級玻璃，與高端汽車後視鏡使用的材料相似。它具有比平均長的底部，可有效定位，以及 360 度可旋轉的夾球接頭，便於調節角度。這些功能得到了 45 度擺動範圍，可以在碰撞時移動整個裝置。最後，一個新專利的夾具簡化了旋轉或固定角度之間的切換。



Alterlock



RST Smart tag Platform

自行車新星殞落 新創品牌的興衰啟示

曾幾何時，像 VanMoof 這樣的自行車新創品牌意圖要改變整個產業，然而如今卻風光不再。電動自行車 (E-bike) 的出現吸引了原本不騎自行車的全新用戶群，最初大多數電動自行車是由現有的自行車製造商生產的。隨著技術的進步，專注於電動自行車的新創品牌開始挑戰既有品牌。

其中最知名的是荷蘭自行車製造商 VanMoof，他們生產時尚的智慧手機連接電動自行車，可以透過網絡向全球 20 多家的門市購買具有設計風格的車款。該公司吸引了大量投資，試圖與汽車產業競爭，在媒體上引起了廣泛關注，並售出了大量自行車。但最終卻破產了。這對於自行車產業意味著什麼？我們能從這個故事中學到什麼教訓？

像 VanMoof 這樣的新創品牌希望以不同的方式進入市場。他們不僅吸引了非傳統消費者，他們的自行車也與眾不同。像 VanMoof、Cowboy 和 Vässla 這樣的品牌基本上只提供單一類型的自行車，可選擇配置很少，尺

寸也有限。這些型號透過小型升級保持最新，且不是每年都進行改款。

與大多數自行車品牌的龐大目錄相比，很明顯，此類公司可以透過減少庫存持有和利用規模經濟來節省成本。這種簡化也使銷售和營銷更輕鬆，並有助於降低成本。同樣，基於與少數零組件供應商密切關係的垂直供應鏈也是如此。透過自己的門市銷售也削弱了整個產業通常依賴的經銷商模式。

然而，像 VanMoof 這樣的公司引入了聰明的新想法，同時也從新創公司領域引入了幾個不太聰明的想法。據報導，該公司以虧損的價格銷售自行車，以盡可能擴大市佔率。不出所料，這引發了人們對其長期可行性的質疑。有時，它難以滿足新款自行車需求和維修現有自行車的需求。

VanMoof 在短時間內售出了大量自行車，其車款使用了許多特規零件。當出現問題時，自行車店無法修復，也因為虧損，缺乏動力進行售後維修服務。VanMoof 的服務中心不堪重負。自行車產業有時可能發展緩慢，

但它通常避免利用以貼補價格，向市場投放大量導致虧損的自行車，而沒有太多維護方面的應急計畫。

那麼，VanMoof 破產和其他類似公司陷入財務困境，是否意味著電動自行車零售的高銷量、濃縮產品線和直接面向消費者的模式已經結束？可能不會。然而，這些公司的困境，可能會給更成熟的競爭對手帶來一些喘息的機會。由於電動自行車市場的增長並沒有減少相關產業的關注。事實證明，VanMoof 與汽車製造商競爭的擔憂，可能也將到來。目前其中幾家公司正在開發電動自行車產品線。

無論是新創公司還是成熟的電動汽車製造商進入市場，這對現有的零組件製造商和自行車品牌都有深遠的影響。傳統走量的自行車公司，傾向於



Vanmoof via Joe Delves

與少數供應商簽訂大單合約。這有可能是利潤豐厚的，但也可能存在風險，如果這些供應商未能實現多元化，或是訂購的公司大幅砍單，就會陷入困境。

儘管像 VanMoof 這樣的創新自行車製造商損害了消費者的信心，但它們仍然可以為消費者提供不少創新想法。他們想要改變產業的過程中，提供了一些好的和壞的策略，供其他人學習。然而，這些作法對自行車市場和現有產業的長期影響還有待觀察。

■ JD

NEW PRODUCTS

TAYA GST 鏈條

這是一款專為登山車愛好者設計的高性能鏈條。TAYA 的 GST 自行車鏈條採用了該公司的 Green Surface Treatment (GST) 技術，以確保不生銹、平滑且可靠的騎乘體驗。這種耐用的設計處理方式允許在各種天候條件下使用，並可以反複清潔鏈條而不影響其各項功能為此產品的特性。

Hall 1 / K0707



FORMOSA TAFFETA ETYCORD 環保輪胎簾線



Etycord的輪胎由SEAWASTEX製成，這是一種由廢棄商業漁網製成的材料。將海洋尼龍廢料透過化學回收，轉化為再生CPL。透過這種過程生產的再生尼龍輪胎簾線，具有與原生尼龍6織物纖維相似的性能。

Hall 2 / S0024

VP VRM-300220 輪組

這款來自 VP 的輪組採用了適用於無內胎的雙層焊接鋁圈，由20%的新鋁和80%的環保鋁 (UL認證) 製成。前軸SPC121F採用環保鋁主體，直拉式配置，100mm軸長，配有2個密封軸承和AL7075 12mm心軸。後軸SPC221R，一個帶有RDX系統和環保鋁主體的直拉式花鼓。軸長142mm搭配4個密封軸承和AL7075 12mm心軸。

Hall 1 / K0810



VELO VL-1C50 座墊

VL-1C50座墊採用維樂專利的Atmos成型技術，具有完全防水、易於清潔的結構設計。面對登山車或碎石路自行車騎士，其輕微的尾部上抬設計可以讓騎士在踩踏時保持正確姿勢，並在多種騎乘幾何結構中提供全面性的支撐力。專門為電動自行車使用者設計的座墊減壓通道，和專利的I-Carry手柄是本產品的主要優點。

Hall 1 / J0618



CYCLE CHRIS JOYLAND ESJ09G MAX 越野電動踏板車

Joyland ESJ09G Max是一款耐用的全避震越野電動踏板自行車，最高時速可達25公里，續航里程為45公里。Joyland ESJ09G Max採用雙槍後外避震和匹配的隱藏式前避震。雙碟煞車系統提供良好煞車控制力，而48V、500~1,000瓦的電動機則提供強大的動力支撐。IPX4 / IPX5級防水設計，可反複清洗且適用於各種天候條件。

Hall 2 / S1133



DEDA ELEMENTI SUPERZERO GRAVEL 手把

這是一款專為碎石路設計的鋁製車把。下彎部分的16°傾斜角度在挑戰性地形中提供了更高穩定度。該車把具有75mm的前展空間，120mm的小彎把密切貼合，提供更舒適的體驗，讓煞車桿到把手端的快速過渡。Deda的DCR內部布線將電纜完全整合到把手內，可與任何相容的車架一起使用。

Hall 1 / M0411a



SKS 迷你工具系列

SKS的新款迷你工具系列為各種需求提供了合適的工具。分別為Racer (賽車手)、Explorer (探險者) 和Traveller (旅行者) 三種類別，讓騎自行車的人和業餘機械師很快就可以找到合適的型號。這些工具具有多種功能以及完整的設計，可以讓騎乘自行車變得更加輕鬆。此產品從2024年第三季度開始提供。

Hall 1 / L1217



NECO TECHNOLOGY MM20MAX 中置驅動馬達



中置驅動馬達，最大扭力可達175牛頓米以上，並且在運行時近乎靜音。MM-20MAX 驅動單元使用多個扭力和速度感測器，採高達80千赫茲的頻率進行取樣，以實現精確控制。模組化設計和整合控制器使拆卸變得更加容易，並提高了維修便利性。

Hall 1 / J0507



SHIMANO RX880 碎石路車輪

Shimano 的 RX880 碎石路車輪專為處理崎嶇不平的道路上騎乘而設計。它們採用框高為 32mm 的碳纖維輪圈，內框寬度增大到 25mm，以支援更寬的輪胎。它們直接契合輪圈並可以輕鬆切換 Micro Spline E 和 HG L2 12 速自由輪體，並具有快速吻合，以實現快速加速性能。

Hall 1 / M0808

HAFNY 耐用自行車後視鏡

堅固耐用的HF-M702LS-FS002後視鏡，採用高質量的CNC機械加工的陽極鋁合金外殼，與高性能摩托車上使用的鏡體相呼應，但已經根據電動自行車騎士的需求進行了調整。由於其可360度旋轉的關節，所以其視角可以輕鬆調整。色彩鮮艷的陽極處理，使得這款產品更具時尚外觀。

Hall 1 / L1407



NEW PRODUCTS

U-POWER MC-52迷你多功能工具



這款迷你多功能工具採用冷鍛和CNC加工製成，具有強度和精度。它摺疊後非常平坦，重量輕，方便放在口袋或隨身攜帶的包中。儘管如此，它仍具有一系列十種常用的螺絲刀頭，以及整合的打鏈條工具，可幫助修復所有常見的機械問題。

Hall 1 / K0628

BRIGHTSTAR TW E10 多功能前燈

Speedlifter Twist Pro 2 SDS 提供無需工具的把手高度調整，可實現90°旋轉和一個整合式的可調角度。非常適合各種應用和車款，讓你的單車以實現個人舒適、方便共用或高效收納。只需根據不同的延伸角度即可符合你所需長度，多向調整把手以滿足你的需求。



Hall 2 / R0817

BY,SCHULZ D.2 ST-RI升降減震座管



D.2 ST-Ri 座管是一款專為熱衷於城市運動和越野騎行的運動型騎士設計的升降減震緩衝避震座管。D.2 ST-Ri座桿採用平行四邊形設計，可提供30mm的避震行程，以提高乘坐的舒適度。透過車把遙控器，還可以将座管升高或降低80mm，這意味著你可以在停車時安全著地，或在踩踏時找到最有效率的騎乘姿勢。

Hall 1 / M0106

ALEX RIMS EMP5輪組

亞獵士 EMP5輪組專為電動自行車設計的零組件，並組成一套完整的輪組，在各種電動自行車應用中得到了良好反應。其核心是BEB004軸承，驅動堅固的MD30輪組，是一套能够承載現代電動自行車巨大扭力和動力的輪組。

Hall 1 / J1117



中文

KMC REACT 飛輪

React 飛輪採用精心設計的角度來協助鏈條變速。這些上升和下降的角度提高了變速換檔的性能、穩定了零組件之間互動的效率。飛輪與齒牙的設計與 KMC 鏈條完美配合，通過高效率的飛輪齒與鏈條契合，減少摩擦，並提高其耐久性，達成極致協調的傳動系統。

Hall 1 / J0118



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