

PIERER

Mobility AG

KTM

Husqvarna  
MOTORCYCLES

GASGAS



# WHAT

Pierer Mobility AG (PMAG) formed in 1953 with the takeover of the established Austrian racing motorcycle manufacturer, KTM. Today, PMAG is Europe's largest manufacturer process premium powered two-wheelers in both the internal combustion engine (ICE) and electric sectors [1].

The group's 4 pillars of success; GLOBALIZATION, INNOVATION, BRANDS and PEOPLE reflect their 3 segments of value creation, highlighted in Figure 1.

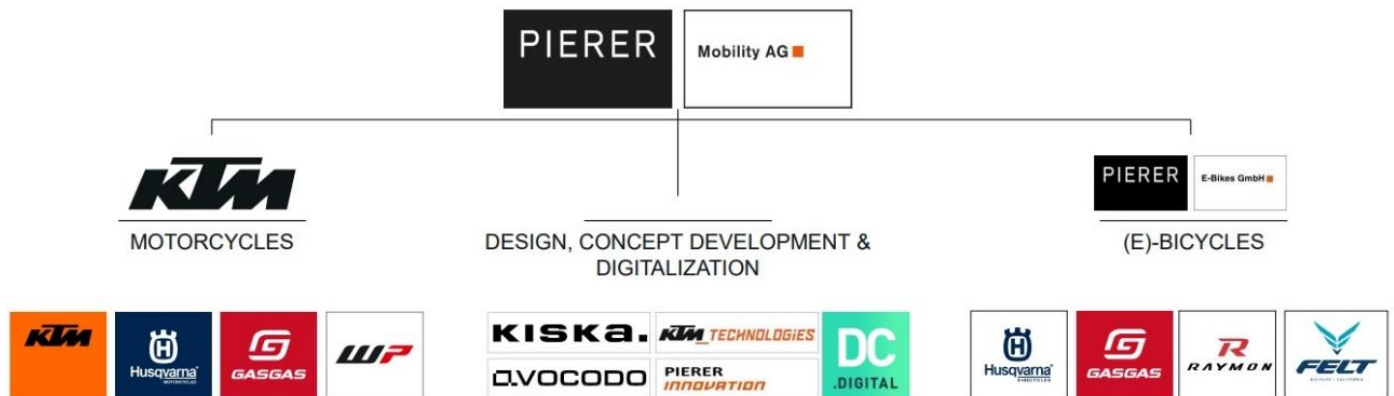


Figure 1 - The 3 segments of the Pierer Mobility AG structure [2]

This study will focus on PMAG's motorcycle segment, KTM AG, which consists of three distinct motorcycle brands (WP being a suspension manufacturer). KTM AG creates clear and vibrant brand identities for these three companies through outlining key values and providing the consumer with the power of choice, shown in Figure 2.



Figure 2 - KTM AG's three motorcycle brands: KTM, Husqvarna and GasGas[2].

KTM and Husqvarna produce bikes of all segment types, from off-road machines to sportbikes, with both combustion engines to a small number of electric vehicles. GasGas currently solely produce off-road bikes for Enduro, Motocross and Trials segments. All three brands are enhanced by their involvement in off-road competition racing, alongside the KTM division in MotoGP track racing.

# WHY

## THE MOTORCYCLE MARKET

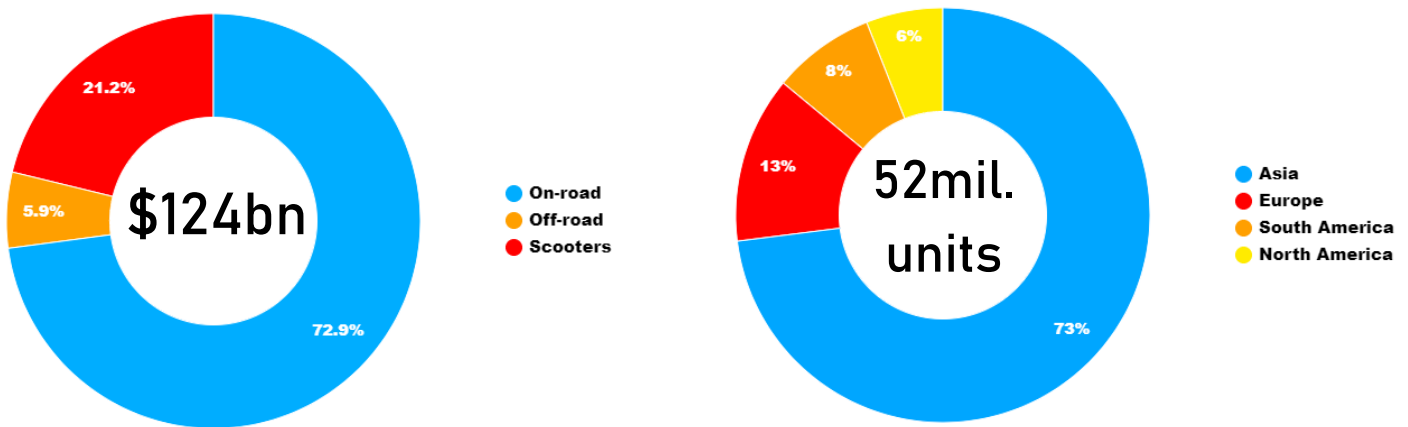


Figure 3 - global motorcycle market revenue, unit sales and type segmentation in 2019 [3].

Motorcycles offer lightweight mobility and affordability for millions of people worldwide over a wide variety of market segments. Market revenue is expected to show an annual growth rate of 8%, resulting in a projected market volume of \$160 billion by 2026[3].

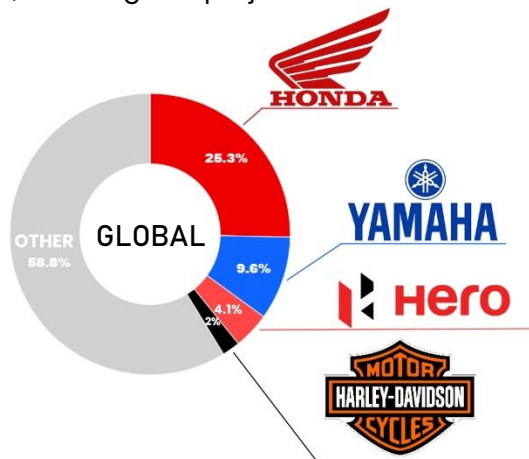


Figure 5 - Global motorcycle market share by manufacturer [3].

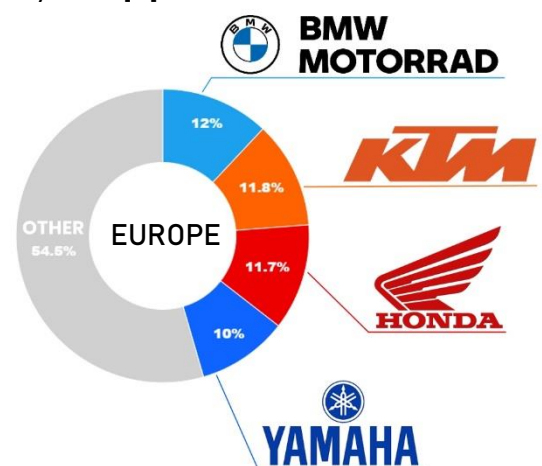


Figure 4 - European motorcycle market share by manufacturer [3].

The motorcycle market is highly fragmented with a large assortment of manufacturers competing for the market in different regions and demographics. BMW Motorrad are a leading force in Europe, accounting for 41% of their annual sales[4], providing premium motorcycles to a more mature customer base; reflected in their average customer age of 46[5]. On the global stage, BMW are less prominent with the Japanese giants dominating, with Honda producing over 20-million units annually[6]. Honda's customer demographic varies with their products from cheap commuter bikes to high-end competition bikes. By contrast KTM, while also a major player in Europe, produces only 300,000 units annually with the goal of 400,000 by 2022[2]. Their branding conveys bold and youthful messages; "Ready to race", "For pioneers", "Get on the gas!", appealing to a younger demographic. These distinct identities give KTM a standout USP and offer desirability particularly in Asia where Japanese bikes have long been the norm; KTM's debut product in the Indian market was an instant hit[7]. KTM are year-on-year increasing production



and sales outside Europe through strategic alliances and acquisition of brands. Although Honda and Yamaha currently dominate worldwide, KTM are swiftly expanding with high appeal through their vibrant brand identities.

## Thailand – “the land of 100 million scooters”<sup>[8]</sup>

Motorcycles are a popular form of transport in Asia due to their affordability and convenience; Asia holds 58% of the world’s motorcycles. Initial costs are considerably lower than cars with bikes regularly achieving over 100mpg which is near impossible in a car, especially in a crowded city. In Thailand, 86% of households own at least one motorcycle, equating to 18 million registered across the country with millions more unregistered blending into the crowds<sup>[8]</sup>. Alongside their affordability, the weather and traffic congestion in most Asian cities gives motorcycles clear advantages over their 4-wheel cousins.

With around 1.4 billion cars on the road across the world<sup>[9]</sup>, traffic congestion in major cities is a significant problem. A report by INRIX found that London was the most congested city on the planet with the average driver losing 148 hours a year in traffic <sup>[10]</sup>. To this motorcycles can offer a viable solution; a study by Transport & Mobility Leuven found that replacing 10% of all private cars with motorcycles in a given test area, congestion time losses decreased by 40% and total emissions reduced by 6%<sup>[11]</sup>.

Over the next decade the motorcycle market will see its greatest transformation, from ICEs to electric propulsion. The COP26 summit saw countries and vehicle manufacturers worldwide pledge to accelerate their efforts towards electric and end sales of all ICE vehicles by 2040 worldwide<sup>[12]</sup>. Currently, the EU’s transport sector represents 25% of their total greenhouse gas emissions and is continuously rising; an estimated 90% reduction in transport emissions is needed to achieve the 2050 climate neutrality goal<sup>[13]</sup>. These climate goals have already translated to a projected growth for the electric motorcycle market from \$15 to \$30 billion over the next decade <sup>[14]</sup>. Electric motorcycles, however, are still lacking the overall development of their ICE counterparts leading to purchase anxieties in customers despite presenting a range of clear advantages over ICEs, highlighted in Figure 7 and Figure 6.

### The following has put people off buying or owning an electric motorbike or moped/scooter:

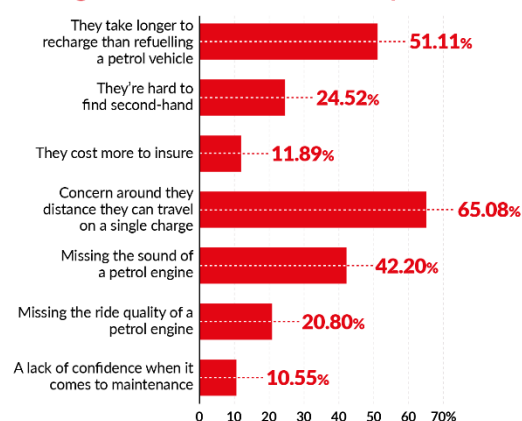


Figure 7 - Electric motorcycle purchase anxieties <sup>[15]</sup>

### Here are the top reasons for buying an electric motorbike or moped/scooter:

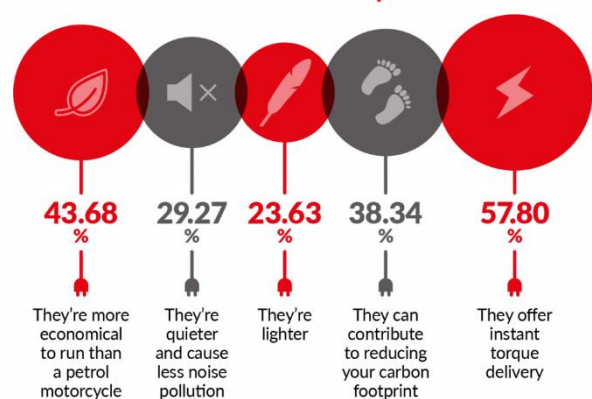


Figure 6 - Electric motorcycle advantages over ICEs <sup>[15]</sup>

The electric motorcycle market remains underdeveloped with only 1% of total 2021 motorcycles sales being all-electric. Market leaders, Honda and Yamaha both sell an electric scooter but are yet to fully commit to the electric shift leaving a large space in a rapidly expanding market. The most notable electric motorcycle manufacturer is Zero motorcycles producing bikes ranging from a \$9,000 small off-roader to a \$20,000 sportbike. Zero has enjoyed impressive annual growth since its 2009 EV debut but lacks the infrastructure and visibility to be a serious contender for leading motorcycle brands.

E-mobility conversion of the motorcycle market appears to be in the scooter segment, due to low cost and high usability for short distance journeys, with 25% of sales being all-electric compared with only 1% of total motorcycle sales[16]. However, for greater market penetration, manufacturers need to provide a range of vehicles comparable to current ICE product lines at affordable prices. One of India's largest motorcycle manufacturers and close partner of KTM AG, Bajaj, are at the forefront of the electric transition with over 12 electric models planned for upcoming release; among which are a several Bajaj-KTM AG electric scooters[17].

Electric two-wheelers are expected to contribute around 10% of total motorcycles sales by 2025[16]. With the need for emissions reduction worldwide becoming progressively more urgent, the EV sector will increasingly expand creating a gap in the two-wheeler market in which KTM has the ability to become a serious global figure.

# HOW

## Why KTMs look the way they do

In 1992, Stefan Pierer took control of KTM and recruited the then small design agency, KISKA. Since then, KISKA has been responsible for the manufacturer's branding and visual style from the conception of new products to the design of its website.

*"There was a certain basic aggressiveness within the whole team, and this is what the design of the bike finally expressed. It was a lifestyle, not just fashion". – Gerald Kiska, KISKA [18]*

When first introduced in the '90s, KTM's vivid orange hue was polarising and outlandish. KISKA saw this as an expression of an independent, disruptive attitude that went hand in hand with KTM's go anywhere philosophy. Today, the bright KTM brand is instantly recognisable and synonymous with their "Ready to race" slogan.

As subsidiaries of KTM, the brands of Husqvarna and GasGas have also seen major refinement. The Swedish Husqvarna brand now emphasizes its Scandinavian routes, stripping unnecessary fairings and gadgets, instead expressing its minimalism through subtle lines and distinct shapes. Ultimately, branding shaped by KISKA has enabled KTM to boldly stand-out in a highly saturated market.

## Success in Motorsport

Motorsport has long been an important channel for the innovation within the KTM group. In 1984, WP supplied suspension components to KTM's first Motocross World Championship victory – KTM



Figure 8 - KTM motorcycles logo [1]

since acquired WP suspension in 1992 [1]. This acquisition has enabled the development and success of both companies through competitive racing. WP is now a leading manufacturer of suspension components.

International race programs also provide a central communication instrument, increasing awareness of the brand worldwide. The group's three brands; KTM, Husqvarna and GasGas, have professional athletes that compete in a wide range of racing categories worldwide including Enduro, Motocross, Trials & MotoGP. The group have extensive victories and successes across all three motorcycle brands from Husqvarna rider, Billy Bolt, becoming SuperEnduro World Champion to KTM's Manufacturers Motocross GP World Championship titles. These achievements drive sales through enhancing the KTM image and differentiating from competitors.

## Research and Development

KTM AG have year-on-year increased their R&D spending to a current 9% of their total revenue, equating to around \$157 million [1]. This spending increase is aided by the support and encouragement of the Austrian government who provide R&D incentives including a tax credit rate of 14%[19]. Austria is the EU's third largest R&D spender at 3.2% of GDP, ahead of Germany at 3.1% and the EU average of 2.3%[20].

Aided by the Austrian government, KTM continue to keep their R&D facilities in Austria which along with their significant R&D spending, results in market leading innovation within the group. This translates to more desirable and high performing products across all three brands.

# STRATEGY

KTM AG's strategy is to hold a competitive market share in the global motorcycle market, alongside the large Japanese manufacturers such as Honda and Yamaha.

Since Pierer's 1992 KTM takeover, bringing the company out of receivership, KTM have gone from solely producing off-road bikes in Austria to producing and selling a range of motorcycles all over the world. With Honda commanding a significant dominance over the two-wheeler market, KTM are managing to expand out of Europe and carving away at Honda's market share. The KTM brands offer high desirability and are unique in locations where large Japanese brands have been the only options of choice for customers.

The group's growth can be attributed to the acquisition of brands to cover multiple market segments and certain strategic alliances resulting in increased production and global market expansion.

## Acquisition of brands

The acquisition of additional motorcycle manufacturers has propelled KTM into a stronger market position, specifically in the off-road segment. In 2013, KTM AG bought Husqvarna from BMW, who failed to revive the brand and establish it in their Motorrad portfolio [21]. In 2014, after only one year with KTM AG, Husqvarna achieved its best unit sales in its 111-year history, and again in 2015

[22]. KTM have now added GasGas motorcycles to their portfolio, the internationally recognised Spanish trials manufacturer, to collaborate on a new range of electric vehicles[23]. Acquisition of well-known, premium motorcycle brands gives KTM a larger customer base spanning a range of demographics. KTM's three subdivisions give customers identity choices in their purchase, whereas companies such as Honda offer significantly less identity variety in their products.

## Strategic Partnerships

In 2007, KTM AG formed a strategic alliance with Bajaj Auto Ltd – India's largest selling motorcycle manufacturer [24]. The partnership has enabled entry to emerging markets in southeast Asia, which are among the largest in the world. KTM-Bajaj introduced a never-seen-before range of bikes to India, presenting an attractive contrast to those previously available. KTM's 2012 Indian Duke launch was an instant hit, due to its low cost and high performance compared to competitors[25]. Bajaj was instrumental in reducing production costs through manufacturing KTM bikes at their Pune facility. On a global scale, this enabled customers worldwide to obtain KTM's premium bikes at a more reasonable price.



By 2019, the production of Husqvarna road motorcycles, up to 400cc, had also been relocated to Bajaj's Pune facility. This enabled increased accessibility of Husqvarna motorcycles within the Indian and wider Asian market. KTM AG's continued and increasing focus on small-cc motorcycles in Asia, through its alliance with Bajaj, is proving extremely lucrative. KTM-Bajaj in India now represents 24% of KTM's total sales; slightly less than their majority market in Europe, accounting for 38% of sales[22].

Similarly, in 2011, KTM AG entered a joint venture with CFMOTO, a leading Chinese ATV & motorcycle manufacturer, enabling the importing and selling of KTM bikes across China. Today, KTM AG have begun shifting production of middleweight models away from its facility in Austria, and into China at a CFMOTO facility, which is capable of producing up to 100,000 units annually of these models alone[26]. This partnership positions KTM to sell motorcycles across not only Asia, but worldwide with reduced manufacturing costs.

## Increasing Production

A key policy in KTM AG's goal is the expansion into emerging markets and the growth of its production capabilities. In 2018, the group established a production goal of 400,000 units by the end of 2022[27]. Partnerships with Bajaj and CFMOTO have enabled swift progression towards this through increased production capabilities – the first half of 2021 saw a 98% production increase to 170,000 units, with their Austrian facility accounting for less than half of this[1].

**GLOBAL MOTORCYCLE PRODUCTION FACILITIES**  
BUSINESS YEAR 2021



Figure 9 - 2021 KTM AG production facilities worldwide [2]

Not only have these alliances increased production volume, but introduced KTM to the global stage, owing to easier distribution of motorcycles and affordable prices. Ultimately, customers benefit from improved accessibility of KTM products, which secures KTM's position as a company that is expanding into a market previously dominated by Honda.

## Electric mobility shift

Global electrification of motorcycles is expected to particularly accelerate initially in the scooter and light-weight segments[28]. Accordingly, a KTM-Bajaj series production of low-voltage (48V) electric motorcycles are to be sold under both brands in the low power range (3 to 10kW)[22]. Among this KTM's first e-scooter, the Husqvarna Vektorr, is well positioned for success with its sleek and modern design, and appeal to a youthful and forward-thinking demographic.



Figure 10 - KTM's first e-scooter, the Husqvarna Vektorr [2].

This release isn't KTM's first electric venture – since 2011, their electric Freeride E off-road motorcycle has been well received, demonstrating their capability in EV technology. Improved versions have since been released, alongside kids off-road bikes and GasGas electric trials bikes[2].



Figure 11 - "Swappable Batteries Motorcycle Consortium" - KTM, Honda, Yamaha & Piaggio

Despite KTM's initial successes, battery infrastructure is one of the largest concerns surrounding EVs. Recently, major manufacturers including KTM, Honda and Yamaha, signed an agreement to create a "Swappable Batteries Motorcycle Consortium", aiming to standardise batteries globally[29]. Not only does this move ease EV anxieties thus aiding the electric transition, it places KTM alongside the Japanese giants, at the forefront of this industry-wide transformation.

The group are showing promising signs of expanding their EV line-up with upcoming releases; However, they must demonstrate full commitment to electric mobility by creating complete electric product variants (that are comparable to ICE counterparts) across all brands to fully benefit from the EV transition.

# CRITIQUE

KTM's increased production capabilities outside of Europe and expansion into the Asian market will see them become a stronger contender in the two-wheeler segment. However, this alone will not position them as an equal to companies such as Honda. KTM bikes are highly desirable, particularly in Asia, yet the company must explore other ventures to target a segment Honda have not yet capitalized on.



# ICE to Electric

The electric transition will be a considerable challenge yet has the capability to metamorphosise KTM AG into a market leader across a wide spectrum of electric product types and applications. Therefore, this critique section will focus on KTM's electric mobility shift.

With a current consumer base underpinned by ICE motorcycles, growth of new electric ranges and successful transition of customers to all-electric vehicles will be difficult. OEM manufacturers face four main challenges in the EV market, highlighted in Figure 6 below.

## EV market challenges for OEMs

Regulatory Environment	Customers	EV Infrastructure	EV business case & profitability
Time to market is critical: emission requirements & ICE bans	Customers not yet requesting EVs; consideration is up 50% but purchase conversion is still low	Charging network rollout has accelerated but still limited	Consumers not willing to pay extra cost of EV powertrain
Decline in government subsidies expected as EV technology advances	Purchase barriers: batteries, range & charging	A seamless charging experience is absent due to high market fragmentation	EVs have up to 60% lower aftersales revenues compared to ICE vehicles
	EV buyers have different preferences to ICE buyers	EV aftersales & parts operations are minimal	

Figure 12 - OEM EV market four main challenges [29]

## How do you market an EV?

"In the UK, 82% of countryside residents wouldn't feel confident purchasing an EV if the ban of petrol and diesel cars came in next week" - *Ford Mobility, 2021, based off poll of 2,000 UK adults conducted by OnePoll* [31]

### "Fordswitch" - Ford

Ford launched a campaign transforming Britain's smallest town, Fordwhich, for a weekend. More than 300 Mustang Mach-Es were offered to residents to test, with charging points being installed across the town. The basis for the initiative was guided by research suggesting people who had driven one were 3 times more likely to buy an EV[32]. This bold campaign aimed to increase

consumer confidence in EVs and charging infrastructure, alongside marketing their new electric Mustang.

### *“The Birdman” – Volvo*

A short film narrated by conservation biologist Carl Jones, showing his lifelong efforts to save endangered bird species threatened by climate change. The film explored the damage caused to the natural world by humans, ending on the words: “One species caused climate change. Only one species can fix it”. This is supported by Volvo’s pledge to 40% of emissions per car by 2025, which impactfully and directly ties the brand to a conscientious stewardship of the environment.

### *“Everybody In” – GM Motors*

GM’s call to accelerate the mass adoption of EVs, consisted of a talk by its CEO and a branding refresh aims to display the inclusivity and accessibility of participation in the climate movement. Giving substance to this campaign was GM’s \$27 billion injection into electric products by 2025[32]. The campaign implores mass transition to electric vehicles to enable its success, with the recognisable GM brand strategically positioned as a pioneer of the movement.

## What about KTM?

These campaigns all display a common objective: to increase confidence in electric vehicles and accelerate the transition away from ICE vehicles. Pushing people away from ICE vehicles through campaigns like Volvo’s birdman is not insufficient alone – a pull towards electric vehicles must be created through increased confidence alongside, affordability and practicality.

The marketing of KTM’s current electric motorcycles is somewhat limited, with ICEs remaining the majority in their product range. Off-road experience days are available for both their ICE and electric bikes, but these primarily cater to niche groups with previous riding experience. More accessible electric test days could enable KTM to build consumer confidence in electric motorcycles, similar to Fords “Fordswich” campaign, and begin building a reputation around their EV models.

Motorsport has always been an important tool for KTM in attracting customers and showcasing the performance of their motorcycles. Entering electric vehicles into motorsport would provide an excellent platform for the capabilities of EVs to be showcased worldwide. To complement this, KTM could use similar media and collaborations, like Volvo, to push people away from ICEs with environmental responsibility at the core.

## Proposed Strategic Policies

### Modular and Scalable Technology

Open-architecture, modular and scalable platforms could enable KTM AG to produce a wide range of two-wheelers, from lightweight to large high-performance bikes, through simple scaling and conversion. Cost and complexity are minimised thus enabling the retail of bikes at competitive prices to a very wide consumer base.

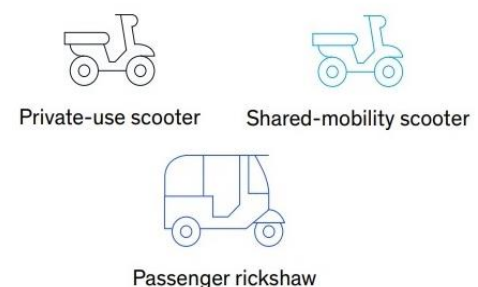


Figure 13 - modular and scalable motorcycle types [31]

With ease of product innovation, rollout of new products is swift, and enables the company to be more fluid with market trends and requirements.

## Short-distance delivery services

Delivery services worldwide have seen major growth over the past few years across a range of sectors, from food to online shopping. COVID-19 has subsequently propelled food delivery services years ahead of performance projections – the top four food delivery companies in the U.S more than doubled their revenue from 2019 to 2020[33].

Motorcycles play a major role in delivery services, with benefits including cost and environmental impact. This has led to many companies to increase their use of scooters, for example, Deliveroo, the UK's leading food company, doubled its riders over 2020[34]. Scooters allow faster delivery of goods through filtering traffic alongside further cost benefits surrounding initial outlay and maintenance costs when compared to cars.



*Figure 14 - CAKE motorcycles: food & last-mile delivery bikes [35]*

The number of business to consumer (b2c) deliveries is growing rapidly with increased online shopping activity with the UK's number of parcels delivered expected to double in the next ten years[35]. This has accelerated the need for lightweight mobility within cities, delivering orders from hub to final-destination. Last-mile mobility considers the transport of goods over short distances in the last-leg of an end-to-end journey. Swedish electric motorcycle manufacturer, CAKE, has revealed a new product line of last-mile motorcycles. CAKE motorcycles are modular, giving a versatile product range, from off-road bikes to utility vehicles. Their Osa model, in one configuration is a food delivery bike with a temperature-controlled food box, or in another configuration, a last-mile delivery vehicle with towing capabilities[36].

With emission restrictions in many cities globally and a subsequent ICE ban, short distance deliveries in cities need to be clean and efficient. CAKE motorcycles have a valuable product with their modular, scalable technology, aimed at inner-city mobility. A potential partnership between CAKE and KTM AG could see a dominating market share in short-distance delivery solutions for companies, with KTM now having the infrastructure and potential to make this viable global contender. Prospective partnerships with retailers spanning different industries, could see KTM as a leading electric mobility provider.

These policies could enable KTM to not only offer premium, more desirable private motorcycles than the likes of Honda, but affordable, lightweight last-mile vehicles in commercial applications. Capitalizing on the shift to electric mobility and growing trends, such as delivery services, will reshape KTM into a stronger global force against the large, Japanese manufacturers, who have dominated the two-wheeler segment for decades.

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