Volume 31 - Issue 1 BC BENZ BULLETIN March 2022

MBCA BCStars

BRITISH COLUMBIA SECTION

INSIDE:

Cars & Coffee - First In-person Club Outing for 2022

Mercedes-Benz VISION EQXX

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On the cover:
The Mercedes-Benz VISION EQXX electric concept vehicle

From the President

BC Stars Volume 31 - Issue 1 - March 2022

Well spring has finally arrived and hopefully you have all gotten your cars out of their winter slumber – if that is what they have been up to. Time to check your tires, see what maintenance and service is required and get out on the road as often as you can. These cars do not like to sit...they just get old and cranky like we do!

Despite having installed a wireless battery operated tire pressure monitoring system on my 560SL (after having a sudden flat tire), the tires just didn’t look “right”, so off came the sensors and each tire was plugged into my electric air compressor and sure enough, all 4 tires were low. And on the SL500 which didn’t have a monitoring system, but whose tires all “looked” normal, again, they were all down about 5 psi over the winter!

A check of all of my service records nicely organized on a spreadsheet quickly revealed that in addition to oil changes, things like coolant and brake fluid should probably be changed since it has been 3 yrs since changing, despite only a couple thousand miles. Time takes it’s toll.

Then there are the “special” projects to tackle from the ever expanding list of to-do’s for the cars...let’s see...the 560 needs a hood pad, a plastic gear wheel for the USA calibrated odometer, the AC needs a new compressor, the brake rotors are starting to pulsate, the rear diff seal seems to be leaking.....which shall I prioritize first....the SL500 runs like a champ, despite the never ending check engine light, and so far, the roof hydraulics have never misbehaved.

So these are my tasks to be accomplished by my lucky trusted mechanics – unfortunately my mechanical skills stop as soon as I have opened the hood. So check on your cars, they will thank you for it.

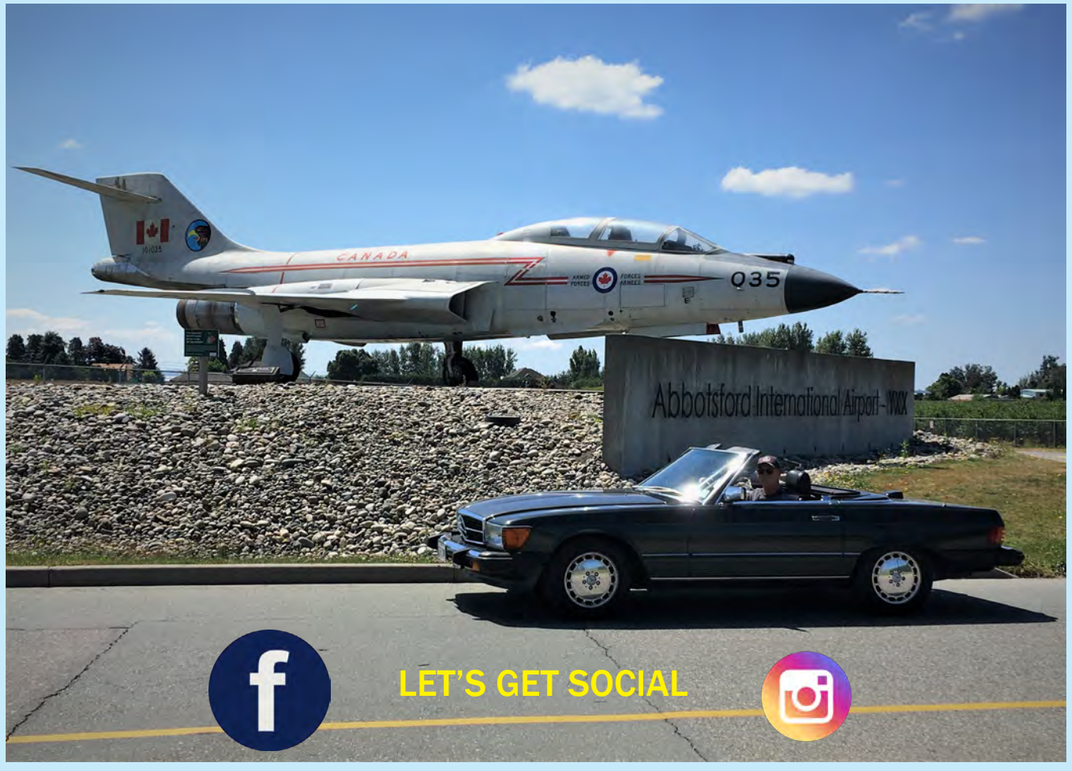
And now, we have some firm dates for drives and adventures in the next few weeks. Our first country drive will take place Saturday May 14 th from Richmond to the Shelter Island Pub on the banks of the Fraser River. Full details to come on our website bcstars.mbca.org, and our Facebook page @mbcabcstars. Saturday June 18th will see us venture out in the Fraser Valley to Agassiz, ending at the Corner Café. Again, details will be forthcoming. As it stands, our May monthly meeting will be by Zoom on Tuesday May 3rd at 6 pm, unless we can secure a suitable venue. We are hoping to do our annual Show’n’Shine on the Labour Day weekend at Mercedes-Benz Langley, but we are awaiting confirmation.

We have had increasing attendance at our monthly MB Cars and Coffee, at Starbucks on Como Lake Road in Coquitlam (3rd Sunday of each month from 0830). We had 16 cars this month from a 1971 250 to a stunning G550 in pastel gray with red interior, along with many cars from the 80’s, 90’s and 2000’s! All MB’s are welcome whether members or not. We are looking for suggestions for fund drives or events for July and August so bring any ideas forward.

Leigh Gayman
President BC Section

EDITORIAL TEAM

Editor: Joseph Anthony
Contributing Editor: Sean Clark
Contributing Editor: Tony Millikin



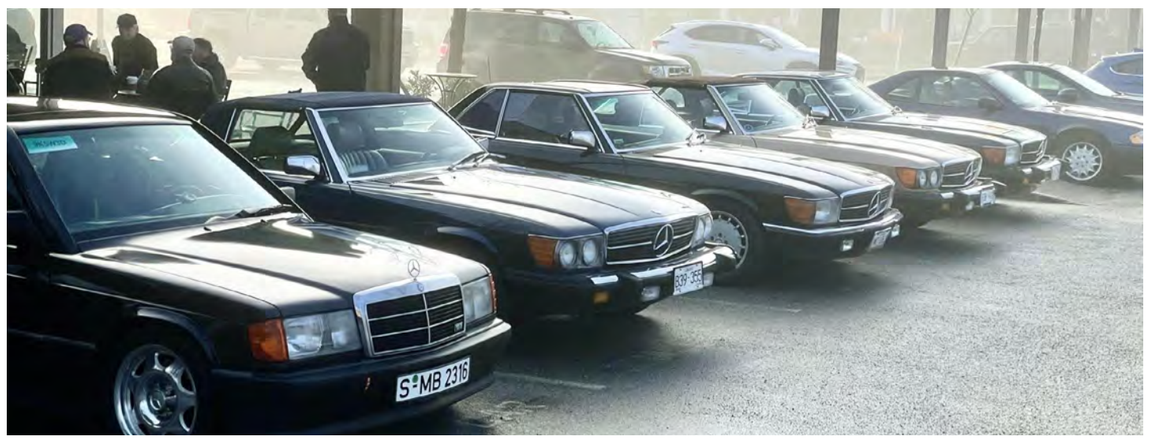
Ah, Spring!

Photo: Sean Clark

Report on the BC Stars First Monthy In-person Club event for 2022.

by

Jeff Shindler
MBCA Regional Director, Pacific Northwest



The BCSTARS Section is very pleased to say that we were able to hold our first in-person event for the 2022 driving season. While we sat outside, under a heater for some lucky members who were early arrivers, and it comes on the heals this week of a relaxation of some of our Provincial health restriction. We can now have larger group numbers and less restrictions as health orders that limited what we could do for Covid protection have been relaxed.

It was a chilly 2-3 degree Celsius (roughly 35 degrees Fahrenheit) morning as we assembled at the Starbucks location on 1980A Como Lake Road in Coquitlam BC, at 8:30 AM. The Section plans to hold such an event on the 3rd Sunday of each month, rain or shine at this location so put this in your calendars for the future.

We hope to gather for a couple of hours or so it shouldn't be too time consuming out of your Sunday. Today we were there for just a bit less than 2 hours, depending when you got there.

The dominant car present was not surprising; the various iterations of the 107'S. We had at least one SL500, a SL 550 (Mine), a late model ML, and a W202 C280.

The Section is actively searching for a location for our premier event, our annual Show & Shine. Prior to Covid limitations we held this over the Labour Day weekend and consistently attracted over 100 cars. We had a great venue in a park on North Vancouver's waterfront with a spectacular view of downtown Vancouver and Stanley Park to name just 2 viewpoints.

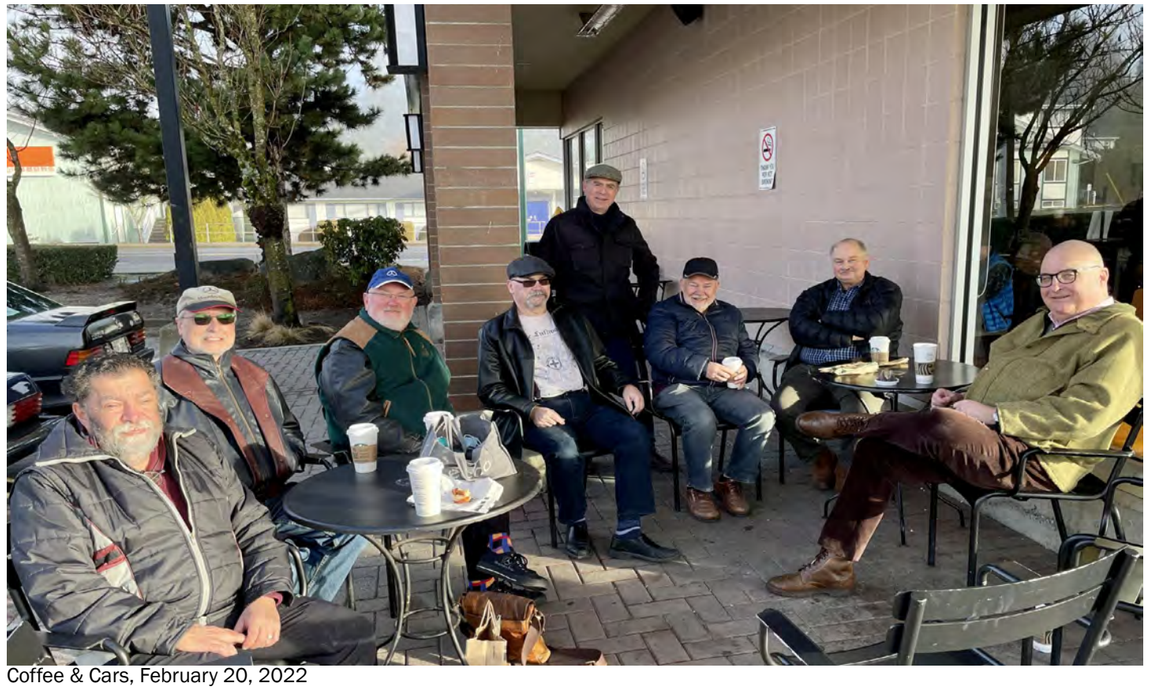
Local and more distant drives are also being developed as well. We also support the events on Vancouver Island and there is typically a Regional Event in the Seattle that draws cars from across Washington, Oregon, possibly Idaho, and we have prior to Covid supported it as well. If the border regulations ever get relaxed for short trips, this might become a viable option for us. Keep your eyes and ears open as things seem to be constantly changing both at the Provincial and Federal level as it relates to Covid rules/regulation changes.

We had a mixture of veteran members of the Club having been there decades as well as others who have joined in the last 5~10 years like myself, and a couple of people who are brand new to the MBCA. One of these members is also a proud owner of a Morgan car which we might get to see one nice day.

There is nothing like seeing each other face-to-face in my opinion. Things like Zoom are great as replacements in time of need such as what we all have been through, or for business type settings rather than flying people all over the place. I guess finding the right balance will be the key.

Images courtesy Sean Clark
Additional images over

Coffee & Cars, February 20, 2022



Coffee & Cars, February 20, 2022

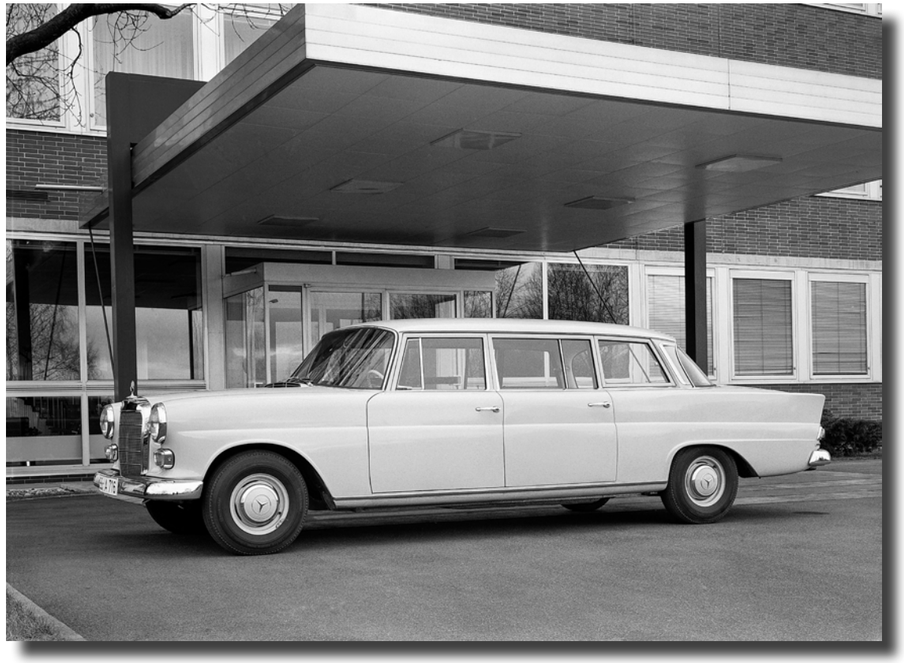
Mercedes-Benz Classic Notes April/May 2022

Important anniversaries and milestones from the chronicle of the world's oldest luxury car manufacturer.

April 1967 – 55 years ago

Pullman feeling in the upper mid-range segment

- First Mercedes-Benz long saloon in the predecessor of the E-Class
- In demand as a large-capacity taxi and hotel limousine
- Today, the V-Class is perfect and popular for this use

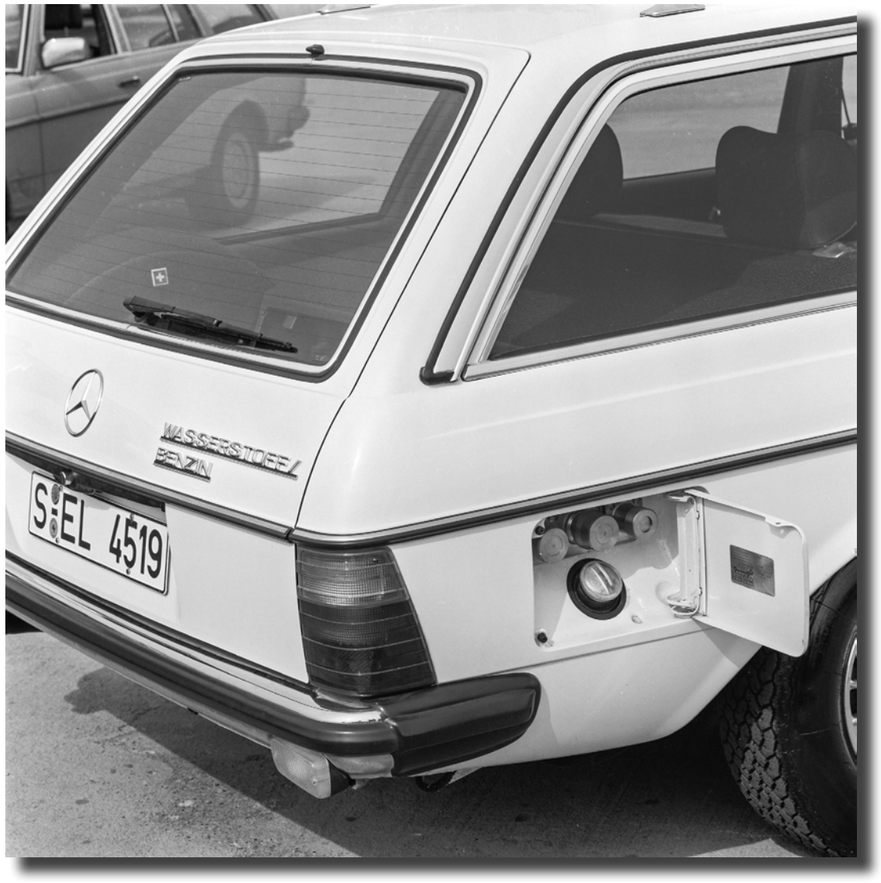


There has never been so much space in the upper mid-range: in April 1967 Mercedes-Benz presented the 200 D (W 110) as a saloon with up to eight seats for the German market. Its wheelbase is extended by 650 millimetres to 3,350 millimetres compared to the normal saloon. This premiere, occurring shortly before the end of the production period of the "tail fin" saloons in 1968, comes on the heels of the great interest shown by taxi and travel companies. The vehicle with the spacious feel of a Pullman saloon had already been built for export. The space gained by the larger wheelbase is used entirely for the benefit of the passengers in the rear: either in the form of an additional split folding bench seat in front of the standard rear bench seat – or with particularly luxurious legroom in the rear. Customers also include airlines and consulates.

21 to 28 April 1982 – 40 years ago

A look into the future of alternative drives

- Mercedes-Benz 280 TE for a petrol-hydrogen mixture
- Presentation of the research vehicle at the Hanover Fair
- Today, the Mercedes-EQ brand goes electric



Will we be driving on hydrogen instead of petrol in future? Mercedes-Benz posed this question to the public 40 years ago at the Hanover Fair with a research vehicle based on the 280 TE of the 123 model series. The engine of the estate burns a variable mixture of hydrogen gas and petrol; the two energy sources are fuelled and stored separately: the liquid fuel comes in a classic 35-litre fuel tank, the hydrogen is carried by the vehicle in a low-temperature metal hydride storage unit consisting of two modules above the rear axle. A fleet trial in Berlin begins in 1984. In 1982, Mercedes-Benz also presented the first battery-electric research passenger car of the time in Hanover, also based on the 123 model-series estate with a 30 kW (41 hp) electric drive and nickel-iron battery.

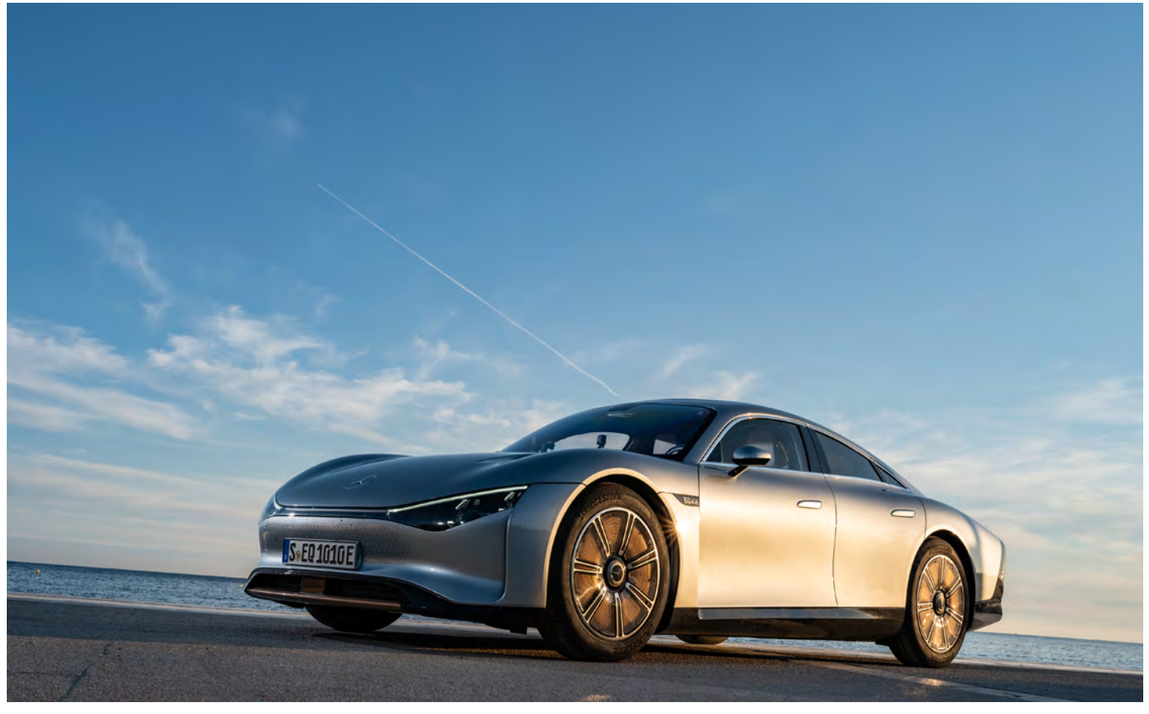
Mercedes-Benz VISION EQXX demonstrates its world-beating efficiency in real world driving – over 1,000 km on one battery charge and average consumption of 8.7 kWh/100 km

Successful first road trip takes electric vehicle efficiency to a new level

Text and images (C) Daimler AG

Stuttgart/Cassis. The VISION EQXX from Mercedes-Benz has now taken to the roads of Europe and has demonstrated its outstanding range and efficiency. Travelling from Sindelfingen across the Swiss Alps and Northern Italy, to its destination of Cassis on the C te d'Azur, it effortlessly covered more than 1,000 km in everyday traffic, on a single battery charge. The journey started in cold and rainy conditions, and was undertaken at regular road speeds, including prolonged fast-lane cruising at up to 140 km/h on the German autobahn and near the speed limit elsewhere. The battery's state of charge on arrival was around 15 percent, amounting to a remaining range of around 140 kilometres, and the average consumption was a record-breaking low of 8.7 kWh per 100 kilometres.

The VISION EQXX has thus taken electric vehicle efficiency to a whole new level – in real-life conditions and with independent proof. The long-distance drive was completed with the charging socket sealed and accompanied by an independent expert from certification body T V Süd. This officially confirms the effectiveness of the new Mercedes-Benz development approach – thinking holistically about efficiency from the drivetrain to aerodynamics and beyond, down to the tiniest detail, as well as working with even greater interfunctional collaboration and with external partners. This new blueprint for automotive engineering has delivered a new benchmark for electric vehicle efficiency and range, and the technology in the VISION EQXX will be deployed in upcoming series-production Mercedes vehicles. *Cont'd over*



“We did it! Powering through more than 1,000 kilometres with ease on a single battery charge and a consumption of only 8.7 kWh/100 km in real-world traffic conditions. The VISION EQXX is the most efficient Mercedes ever built. The technology programme behind it marks a milestone in the development of electric vehicles. It underpins our strategic aim to ‘Lead in Electric’,” says Ola K llenius, Chairman of the Board of Management of Mercedes-Benz Group AG.

Ready for the longest road trip since the invention of electric mobility
There’s a reason why road trips have been a cultural touchstone for decades, telling stories from the highway in books, movies and music. The road trip defines freedom, individuality, the very spirit of the automobile and the passing world. Stick a pin in the map – and drive.

The journey to electric mobility is also a road trip; as exhilarating as it is challenging, as unknown as it is certain. For Mercedes-Benz, it is a journey with a clear goal – maximum efficiency through innovation. The VISION EQXX is the product of a holistic approach with innovations in all technical areas that have an impact on energy consumption. *“With our successful road trip to the South of France, we’ve shown that efficiency is the new currency. And this success also clearly speaks for our new collaborative development process, incorporating many learnings from the Mercedes-AMG F1 team and its cutting-edge expertise in electric powertrains. The VISION EQXX is the result of a comprehensive programme that provides a blueprint for the future of automotive engineering. Many of the innovative developments are already being integrated into production, some of them in the next generation of modular architecture for compact and midsize Mercedes-Benz vehicles. And the journey continues. With the VISION EQXX, we will keep testing the limits of what’s possible,”* says Markus Sch fer, Member of the Board of Management of Mercedes-Benz Group AG, Chief Technology Officer responsible for Development and Purchasing.

Challenging route profile and varying weather conditions
The VISION EQXX is packed with innovations. This software-defined research prototype is part of a far-reaching technology programme that combines the latest digital technology with Mercedes’ pioneering spirit, the agility of a start-up and the speed of Formula 1. The mission in developing the VISION EQXX was to break through technological barriers across the board. To show what is electrically “feasible”, the research vehicle completed a one-day road trip across several European borders: from Germany to Switzerland, on to Italy, past Milan and finally to its destination, the port town of Cassis near Marseille in the South of France.

The route profile – from motorway to mountain passes, including roadworks – and the weather conditions presented the VISION EQXX with a wide variety of challenges. Departing from the Sindelfingen R&D centre near Stuttgart in cold conditions, temperatures from start to finish ranged from 3 to 18 degrees Celsius. North of the Alps there was light rain and further south a gentle headwind blew in the sunshine. The various sections of the route helped document the effect of the many efficiency measures.

An excerpt from the trip log:
Up to 140 km/h on the motorway – low drag and rolling resistance pay off
The first leg from Sindelfingen to the north-eastern border of Switzerland runs along Autobahn 81. At times, the VISION EQXX sliced through the wind at speeds of up to 140 km/h. With its low cd value of 0.17, it gives the wind virtually nothing to grab hold of. This world-beating figure for a road-legal vehicle results from the intelligent interaction of many individual measures. It starts with the basic shape of the body, cradling the smooth-surfaced dome of the greenhouse as it flows elegantly like a water droplet towards the rear. Equally beneficial to the aerodynamics are the small frontal area of 2.12 m and the reduced rear track. Because this is 50 mm narrower than at the front, the rear wheels roll in the slipstream of the front wheels. The active rear diffuser, which automatically deploys at 60 km/h, provides better airflow and thus contributes significantly to the reduced drag.

The technology vehicle gains further efficiency benefits from its tyres, with their extremely low rolling-resistance rating of 4.7. Bridgestone developed these specifically for the VISION EQXX in partnership with Mercedes-Benz. By way of comparison, the current EU tyre label requires a figure of 6.5 for the top rating in Class A. The EQS uses tyres with a rolling resistance of 5.9, which is significantly lower. With the VISION EQXX, Mercedes-Benz is now going one step further. A striking feature is the size of the new tyres. The dimensions 185/65 R 20 97 T mean they have a large diameter and a narrow tread. The specialist Turanza Eco tyres combine two innovative Bridgestone technologies that enable a higher range: ENLITEN technology reduces both rolling resistance and weight by up to 20 percent. The ologic technology reduces tyre deformation while driving, in part through a more tensioned belt section. In addition, the transition from the tyre to the wheel rim was optimised in cooperation with the Mercedes-Benz aerodynamics team.

Over the mountains – the lightweight dividend
The VISION EQXX’s special features also include its carefully thought-through lightweight construction, which has a particularly positive effect on uphill climbs. Any keen cyclist knows why it’s always the same kind of rider out in front on mountain stages. The heavier, more muscular sprinters are always staring at the taillights of the wiry featherweights on the uphill slogs. The decisive factor is the power-to-weight ratio. It’s not about sheer performance in the sense of “faster; higher; further” but about endurance and lower energy consumption.

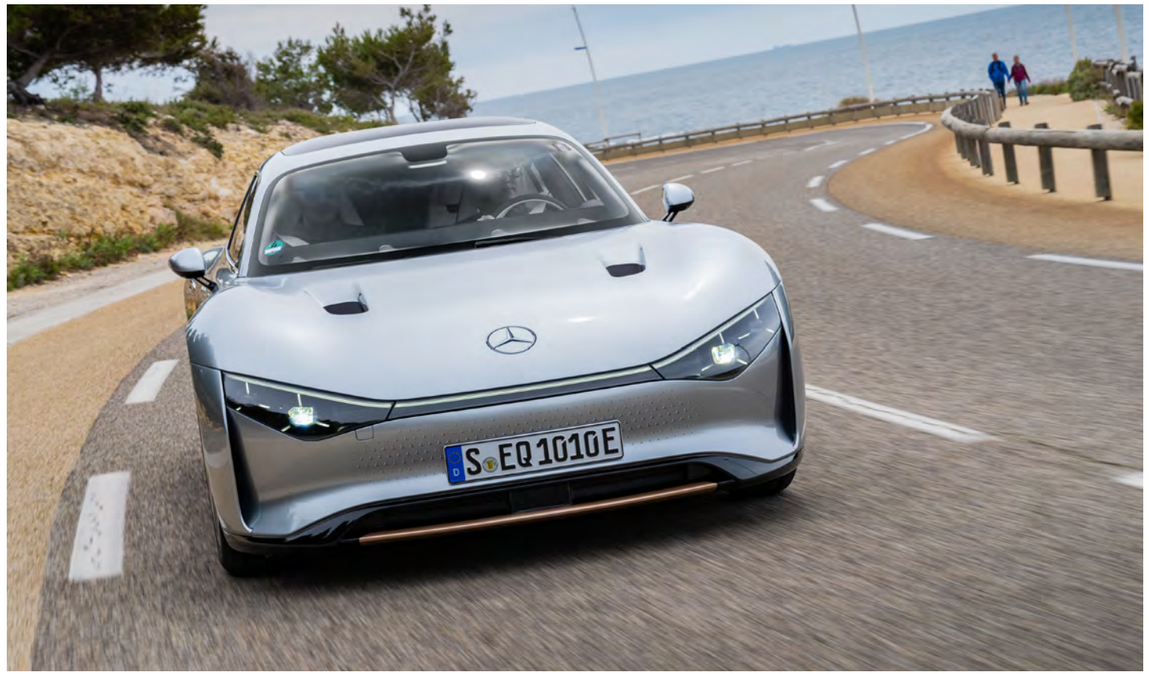
This is exactly what the VISION EQXX demonstrates impressively on the approach to the Gotthard Tunnel heading for Italy. On the section between Amsteg and G schenen, there’s a 14-kilometre uphill stretch with a gradient of up to five percent. It is here, where every gram of extra weight eats up energy, that the VISION EQXX scores sustainable points with its unladen weight of only 1,755 kilograms.

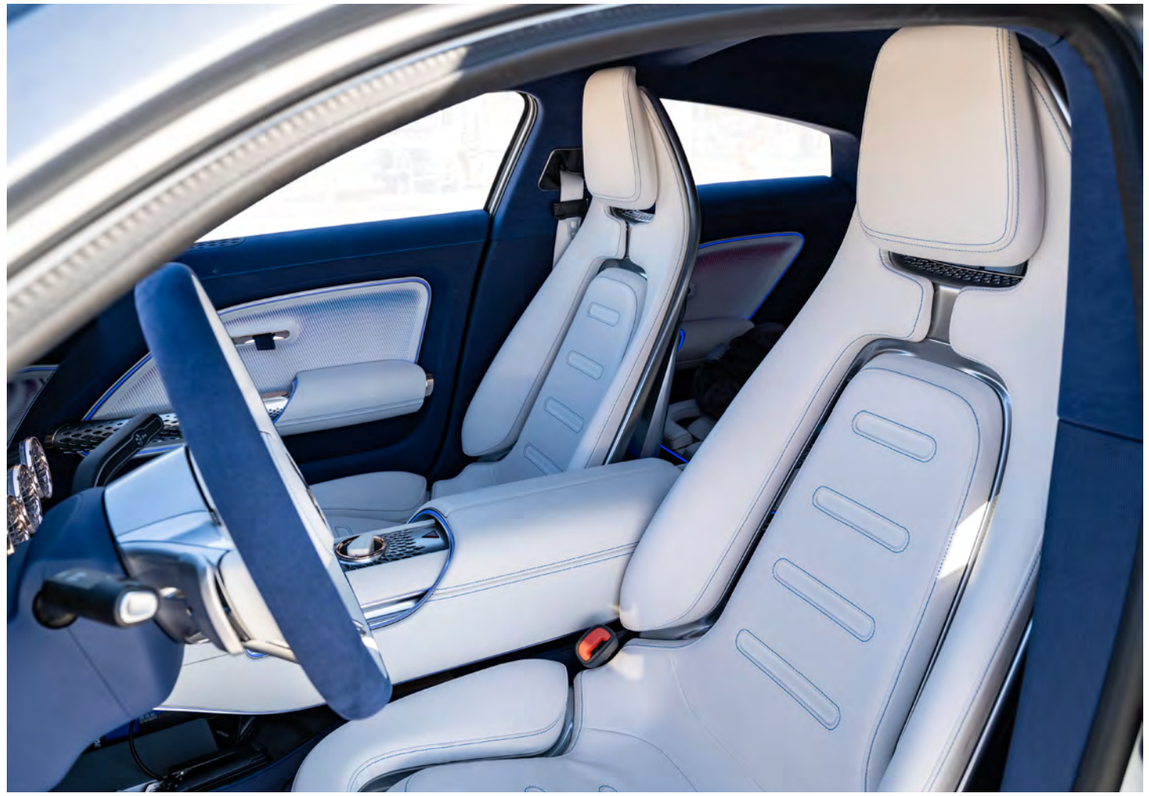
The lightweight design concept of the VISION EQXX is comprehensive – from the materials used to innovative bionic structures that deliver a favourable power-to-weight ratio. Examples of this are the sustainable carbon-fibre-sugar composite material used for the upper part

The VISION EQXX can use the recuperation effect on any type of gradient and during every braking manoeuvre, thus extending its range. A positive side effect of this electric braking is that the mechanical brakes are barely of the battery, which is also used in Formula 1, and the BIONEQXXTM rear floor, manufactured using an aluminium casting process. The light metal structural component replaces a much heavier assembly of several interconnected parts. It has gaps in places where structural strength is not required, thus saving material. This innovative design approach results in a weight saving of up to 20 percent compared to a conventionally manufactured component.

A large part of the weight efficiency is also due to the dedicated electric chassis with lightweight F1 subframe and aluminium brake discs. Another is the battery. At 100 kWh, the power storage unit developed specifically for the VISION EQXX has almost the same amount of energy as the battery of the EQS, which is already a global benchmark among electric cars currently on the market. However, it has 50 percent less volume and is 30 percent lighter. The outcome is that the compact battery, measuring just 200 x 126 x 11 cm, is also comparatively light at 495 kilograms and fits in a compact car. The electric drive was developed in cooperation with the experts from Mercedes-AMG Petronas F1 Team.

Back down the hill – recuperation is the name of the game
After the Gotthard Tunnel, the road goes downhill for a very long way. This is where the VISION EQXX makes the





most of the situation in its own way. While the golden rule of the professional cyclist is to go full throttle downhill to make up time, the VISION EQXX does the unthinkable and regenerates its energy reserves. In electric cars, this is called recuperation, the recovery of braking energy. In this discipline, too, the VISION EQXX sets new standards thanks to its highly efficient electric powertrain.

The VISION EQXX can use the recuperation effect on any type of gradient and during every braking manoeuvre, thus extending its range. A positive side effect of this electric braking is that the mechanical brakes are barely used. This makes it possible for the first time to use new types of aluminium brake discs that weigh significantly less than their steel counterparts.

Solar roof – energy snack in sunny Italy

The VISION EQXX gets a hearty energy snack around midday in the Po Valley near Milan – not at the charging station, but via its fixed solar roof. The 117 solar cells feed the 12-volt battery, which supplies power to auxiliary consumers such as the navigation system. The added value is measurable through the load this removes from the high-voltage battery, displayed by the onboard computer. Overall, the solar booster increases the range by more than two percent – which adds up to a good 25 kilometres on a journey of over 1,000 kilometres.

Innovative eATS – powerful, frugal, enduring

The electric drive unit in the VISION EQXX – consisting of the electric motor, transmission and power electronics – was developed together with the F1 specialists at HPP, and has a peak output of 180 kW. Thanks to the torque available from the first rev of the motor and the very low aerodynamic and rolling resistance of the VISION EQXX, its full potential is barely tapped during the entire trip. Much more important than top performance are other factors. Just like the battery, the electric drive unit is compact, lightweight and highly efficient. Its average efficiency in this application is 95%. That means 95% of the energy from the battery ends up at the wheels.

This goes hand-in-hand with further efficiency benefits such as the reduction of losses in the drivetrain. The engineers at Mercedes-Benz have succeeded in reducing the total losses

in the drivetrain. The engineers at Mercedes-Benz have succeeded in reducing the total losses in the drivetrain (motor, inverter and transmission) by 44% compared to an e-drive that is not based on this project. This makes a big different to the bottom line, with one percent more efficiency bringing two percent more range. This effect is further amplified by the battery of the VISION EQXX, thanks to its remarkable energy density of almost 400 Wh/l and particularly high operating voltage of more than 900 volts. And on the topic of high voltage: The VISION EQXX marks the first use of this technology, which proves itself throughout the entire journey. With not a single problem such as line overheating, everything is well under control. There are further efficiency from the active cell balancing. It ensures that energy is drawn evenly from the cells during the journey, which increases the usable energy and thus the range even more.

Efficient thermal management system – passive powertrain cooling is all it takes

Since the electric drivetrain generates little waste heat thanks to its high efficiency, passive cooling is sufficient throughout the journey. The cooling plate in the underbody uses the airflow to ensure even cooling. This aerodynamically highly efficient solution increases the range by 20 kilometres, while the cd value remains unchanged at a low 0.17.

Even on the ascent to the Gotthard Tunnel, the air shutters remain closed. The air control system would only open an additional airpath if there was an increased demand for cooling the electric drive or for climate control inside the cabin on hot days or if the heat pump was running on cold days. The airpath then connects the high-pressure zone at the front of the vehicle with the low-pressure zones along the top of the bonnet. This enables highly efficient thermal management with minimal air resistance. With the shutters open, the cd value would increase by only seven points (0.007).

Efficiency assistant – actively helping to save energy

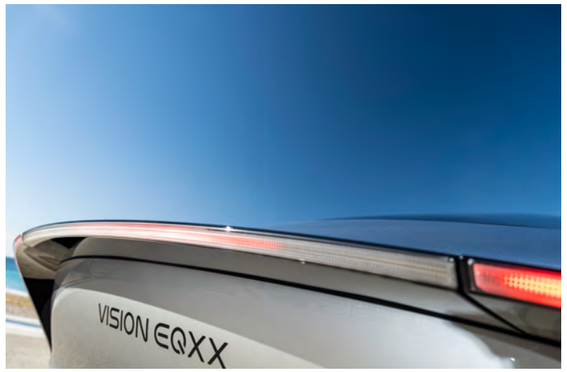
Whether e-drive or combustion engine, the amount of energy a motor consumes in practice ultimately depends a great deal on driving style. In Switzerland, Italy and France, “pedal to the metal” is not an option anyway, thanks to speed limits and attentive law-enforcement officers. However, the VISION EQXX also proves to be an intelligent sidekick, assisting the driver like a co-pilot with tips on the best possible driving style. The efficiency assistant provides information on energy flow, battery status, topography and even the direction and intensity of wind and sun.

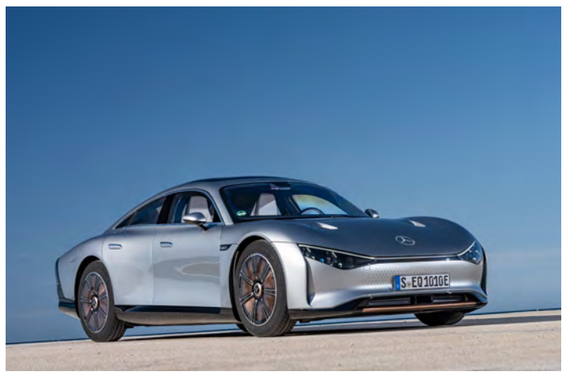
The UI/UX features an all-new, one-piece display that spans the entire width of the interior. Elements of the user interface support seamless interaction between the driver and the vehicle. These include Artificial Intelligence (AI) that mimics the way the human brain works. In the VISION EQXX, Mercedes-Benz takes a radically new UI/UX approach. A game engine takes UI graphics to a whole new level. The UI shows how real-time graphics open up new digital possibilities by reacting instantly to the driver’s needs and bringing the real world into the vehicle.

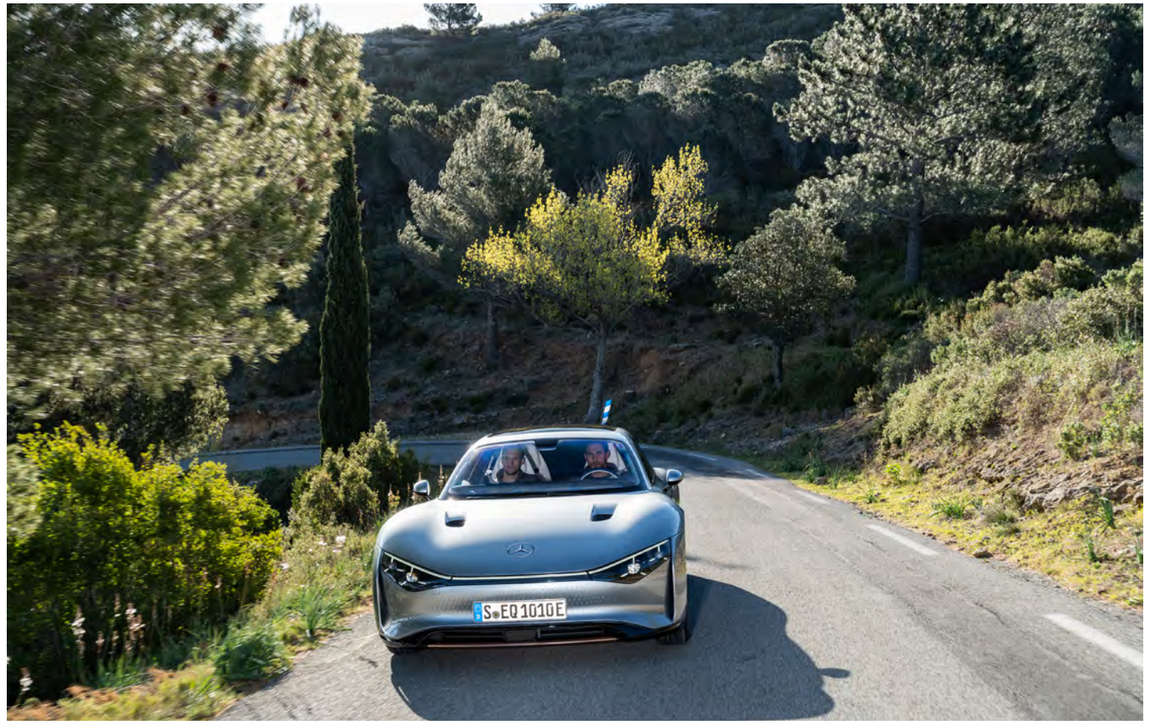
Finale in France – crossing the finish line with around 140 kilometres of remaining range

Shortly before crossing the finish line in Cassis, the VISION EQXX gathered energy once more through recuperation. After 11 hours and 32 minutes of driving time, it ended its 1,008-kilometre road trip with a remaining range of around 140 kilometres. This means it could have set off again for a jaunt along the Mediterranean coastline without recharging.

The VISION EQXX has unequivocally proven the real-world potential of outstanding efficiency for electric vehicles. This first road trip to Cassis is a watershed moment on a much bigger journey that is far from over. There’s a lot more to come.







Welcome New Members

The BC Stars Section warmly welcomes the following new members to our club:
- Jack Griffin, Anchorage, Alaksa
- Paul Fisher, Surrey, BC
- William O'Neill, North Vancouver, BC

Oops! Please Pardon Us!

The winning photo for The Wakening Photo Contest was taken by **Peter De Witt.** Our apologies to Peter for printing his surname incorrectly.

Another image from the February 2022 Cars & Coffee event.

BC Stars Executive

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