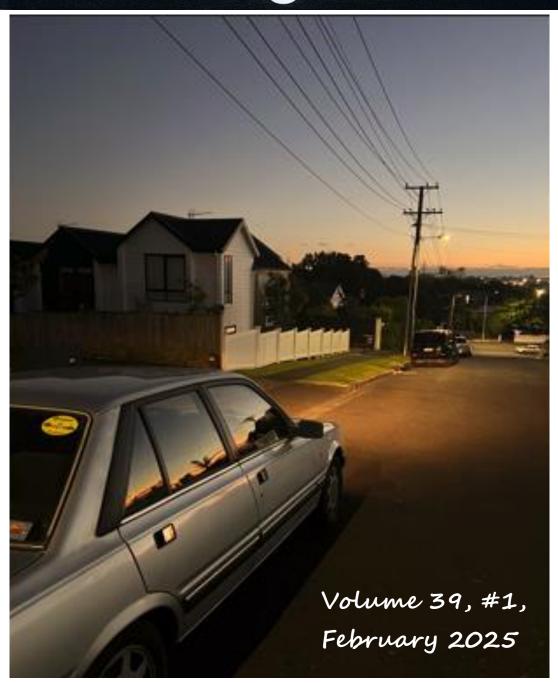
## Peugeot Car Club (Auckland) Peugeot Car Club (Auckland) Peugeot Car Club (Auckland) On the Company of the Comp





#### CONTENTS February 2025

- President's Ramble
- Coming events
- 10 Jeanette's Jottings
- 11 Solar paint for Mercedes12 Stellantis lithium-sulfer EV batteries
- 14 Dartsolar rooftop charging
- 15 Are combustion engines really on the way out?
- 15 Robo taxis withdrawn
- 16 Winter advice in France
- 17 The next 208??
- 18 Who is Eurig Druce?
- 19 From the history books
- 20 Ten top tech inventions
- 20 Tricky questions
- 20 Travelling shop in Cambodia

Front cover – Brent's 1988 505V6, twilight parked on a hill in Ellerslie. Above – Eurig Druce, SVP & Group Managing Director, Stellantis, UK.

2



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#### **COMING EVENTS**

#### peugeotclub.org.nz

## For updates on events, keep an eye on our website peugeotclub.org.nz

February 9 – Ellerslie Classic Car Show; the theme is "Summer Holiday".

March 2 – Auckland Brit & Euro Classic Car Show

March 8-9 - Franklin Heritage Weekend

August 10 – AGM, VCC rooms, Fairfax Ave, Penrose.

#### THOUGHT FOR THE MONTH

It is the overtakers who make work for the undertakers



#### P O BOX 29002 Epsom Auckland 1023

Peugeotex is the monthly magazine of the Peugeot Car Club (Ak) Inc. The Club accepts no responsibility for any views expressed in it.

#### PRESIDENT'S RAMBLE

Well here we are in another year. Welcome 2025. I hope it finds you all well, content and happy. Personally I am pleased to note I am writing this in January rather than during my typical last minute February rush.

We (Mandy, I and our children – the three Js) have just returned from a South East Asian holiday. Glad to have done it, glad to be home. Loved the experience, would probably do it again (there is still lots of the world to see including parts of NZ I haven't been to), but am loving being home even more. As Judy Garland said way back in 1939 "There's no place like home."

I will not install you with too many stories and largely keep to Peugeots and maybe a few driving observations I noticed abroad...

We were in Thailand for almost two weeks. In that time I observed that the speed limit appears to be optional; one either speeds excessively or drives less than the limit. Not many appear to drive at the limit! Traffic was heavy in Bangkok, but not impossible. I am certain I could drive there but it would be stressful, at least until I got used to it. Like us, their vehicles are right hand drive so that at least would be a familiarity. To cater for the tourists, vehicles appeared to come in five types, large gaudily painted modern buses with all the air conditioning and trimmings you could ever ask for; Minibuses that I think were

exclusively Toyota Hiaces, again well air conditioned and almost all with a variety of plastic toys; Religious (Buddhist generally - and athough in South Thailand the majority of the population is Muslim the Buddhist symbols still seemed prevalent) icons, symbols and garlands. TukTuk Utes - that is utes, older ones typically Nissans, newer ones more likely to be Mitsubishi or Isuzu, a few of any age being Toyotas. These usually consisting of a metal body built into the tray that is roofed, open sided, and with padded bench seats along the length of the tray, the air conditioning being the wind.

There was a subclass to these; they were almost "disco utes", almost exclusively built on a Suzuki chassis, had a large speaker system and flashing lights in what I suspect was a fibreglass body installed, I was too busy grooying to the beats on New Year's Eve to be certain that they weren't metal. If metal they were the only ones where they covered the framework with paint. The seating is more comfortable too and the one we caught was the same price as the ordinary, though we had others that same night try and get twice the price off us so maybe we got lucky?

The other forms of tourist transport consist of motorised tuktuks, very much a motorcycle front with a body much like the tuktuk trucks behind and numerous scooters, especially at the tourist destinations outside Bangkok, where many of the accommodations have them available to rent directly from them, let alone the copious number you can rent at the beach towns.

We didn't use the big buses or the later two; all of our travels were in vans or tuktuk trucks.

The locals generally seemed to travel in cars, tuktuk pickups, ordinary pickups, often with many seated in many different ways in the tray, or in public buses. Official public buses varied greatly between being tuktuk trucks, to modern air conditioned buses, though not gaudy like the tourist buses or as big. In Bangkok in particular I noticed both of the above types of buses being used as well as somewhat older beat-up, dirty old buses all of which ran with either windows open and I suspect some didn't have windows at all (other than for the driver). I didn't observe any of that condition in the provinces. And then there were the scooters, sometimes carrying the family of four out and about, I would pity anyone attempting to sitting on one with me, the Thais however are generally smaller people and mum, dad and two children fit nicely.

There were also many large trucks, especially in the country many decorated in ways you would never see here and likely illegal in NZ too, for instance they may have a number of chrome lances or other protrusions coming from their front, one I photographed had 27 spotlights mounted above the drivers window (that 27 isn't a typo!), plus 4 "Michelin" men like figures. At least 5 wing mirrors, and at least 26 chrome discs of some sort mounted in arches in front of and back to the drivers windows, not to mention a custom chrome riveted bumper and other chrome accessories. It was gaudy in blue pink and white paint with

geometric designs but frankly though over the top was beautiful. It wasn't an exception but the norm, though possibly topped the spotlights of any I saw. It wasn't unusual to see loads in ways that may have never been seen in NZ or perhaps only on the most rural of roads between farms (by that I don't mean what was loaded but how they were loaded/overloaded – protrusions everywhere).

In general though I consider Thailand to be the land of the pickup, they were used in so many ways, often hauling loads that we would expect to be on larger trucks, with bodies built high and racks everywhere, not to mention their people carrying capacity.

As for Peugeots I spotted 4, an RCZ and a 2008 at Ao Nang, a 3008 in Bangkok and another whilst being driven between Kanchanaburi and Don Mueang Airport (Bangkoks second international airport) - or in other words I have no idea where. From this you can gather that Peugeot is not big in Thailand. I did however find the mention of Peugeot in the news - The Bangkok Post (an English Language newspaper) reported that a drunk 41 year old Australian stole an impounded trailbike from a police station, and rode it proximately 16km before being caught. He was caught trying to evade capture by hiding at the local Peugeot dealer! At the time it was reported he was over twice the legal alcohol limit and was charged with drink driving, other charges were being considered including not being able to present a valid driver's licence

Although I did not see anything that I would consider too

dangerous and I saw no accidents at all, I did note that Thai Authorities had declared that there was an over the New Years' period this year which the Police referred to as "10 dangerous days on Thai roads." Over these 10 days they had a death toll of 436 people most of which they attributed to speed. This year over our equally 10 day long official holiday road toll period New Zealand lost 14 people. Quite a sobering difference, or to put it in another perspective in 10 days Thailand lost 143 more people in road accidents than we did over the entire 2024 year.

From Thailand we flew to Siem Reap in Cambodia, staying three nights. Things were immediately different, for a start vehicles are left hand drive. The Toyota Hiace vans were not to be seen. Instead just about every van that took tourists around were Hyundai H2 vans, though we did get one ride in a Toyota Veloz and we did see an occasional other one. None of the trucks or large tourist buses were gaudy, there were fewer pickups and more cars per head of population. There was a large fleet of midsized identically beige Hyundai buses that drove most organized tour groups around Siem Reap. I suspect they were governmentally regulated: everything had to be the same, all of the official tour guides, no matter what tour company they were working for had to wear the same uniform! However as Thailand was the land of the pickup, Cambodia was the land of the scooter and small motorbike. Their tuktuks consisted of small motorbikes towing a trailer that was attached to the top of the bike

just behind the rider's seat. These were often wooden and had front and backward facing bench seats that in a squeeze could fit six, but generally carried no more than four. The idea seems dangerous by NZ standards but generally relatively crowded roads in Siem Reap centre meant nobody was going too fast and all seemed safe.

However that wasn't it for the users of scooters and bikes. They were used for all sorts of things including as family transport as evidenced in Thailand (though notably in Thailand typically only one or none occupants would be wearing a helmet. In Cambodia helmet wearing was more typical. I don't think I ever saw four occupants with a helmet, but did see some where three would.)

Many were mobile stalls, often converted to three wheelers with frames that might carry fruit for sale, clothing racks and even mobile ovens that food was cooked up and sold from the side of the street. Some had been converted or perhaps were factory produced to be small tip trucks; others towed trailers that were over 5m long and carried household goods for delivery or even construction materials. Some of these motorcycles and trailers carried loads that were larger than what you would fit into a small truck in New Zealand.

Other than a little of the country side and the tourist centre of Siem Reap and tourist attractions that surround it I saw little of Cambodia, but I saw just as many Peugeots in my three days there as I did in all the time I was in Thailand, based on this small unscientific survey I can only

presume that Peugeot sell a greater proportion of vehicles in Cambodia. The vehicles I spotted were two 3008s and two 5008s, one given my past Rambles, rather appropriately was parked at the "Sausage Shop."

Vietnam however was something else again. Granted we were only in North Vietnam, therefore my impression may be incorrect for the nationwide situation. As our fine country is often referred to as the "Land of the Long White Cloud", my impression of Vietnam is that it could be referred to as the "Land of the Long Grey Smog." Traffic is chaotic, the frequent use of a horn is compulsory, especially within Hanoi. Scooters are everywhere, taxis are everywhere, in fact everything is everywhere! Pedestrians and all, even the train sharing the roads on "Train Street", the closer to the middle of town vou are the worse it gets!

Yet again there is a difference in the tourist vans, they now are almost exclusively Ford Transits, no Hiaces or H2's to be seen. Not all however are as Ford intended when they left the factory. There is a strong local market to convert them to limousines, most by a brand called Dcar, but others do conversions too. The Ford original seating from the passenger compartment is removed and typically six "captains" style chairs are installed, at least when they are new often being able to recline significantly - they weren't entirely maintained in the ones we had a ride in. The rear bench is also replaced but with a plusher version that matches the captain's chairs. Some may include all the modern

trimmings including a fridge, minibar, usb ports and wifi and a TV, none that we travelled in however were fitted out to that extent.

Outside Hanoi, in the country and smaller towns and cities the roads are busy but not as chaotic. However I never worked out their give way laws. Some of it appears to be based on common sense, i.e. if it is bigger than you, give way! Others appear to be based solely on who is using their horn the most and loudest. Likewise from what I can make out, lane markings are best described as guidelines as are the centreline of any given road, those in the country often being too thin for a centreline.

In Ninh Binh and surrounding districts there was a real mix of roads, very thin lanes between rice paddies, thin roads in the villages, perhaps at times 1½ cars wide, occasionally room for one each way. The bigger towns were usually wider; perhaps room for a vehicle each way, occasionally room for something to park on one or both sides of the road, the arterial routes could easily be three lanes wide, sometimes four each way, yet that still didn't quarantee you wouldn't find something oncoming in a lane towards you, even if you were two in from the centre. To make things more complicated (this was observed everywhere I went) although there might be footpaths for the pedestrians they were often unavailable, either parked on by a myriad of scooters, an occasional car or ute, or simply taken up as an extension of a shop or perhaps occupied by a street stall. Trucks would stop wherever they felt fit,

and on one occasion we observed a truck parked straddling the centreline whilst metal tubes and canvas were used to erect a series. of tents (presumably for an upcoming social occasion) within the lane next to it. To add to this most dogs appeared to have road sense, but occasional individuals lay on the road, presumably to enjoy the heat whilst others used it to traverse. We even came across water buffalo nonchalantly walking along the road, sometimes herded, other times apparently at their free will.

As for pedestrian crossings they also are a guideline, one that many, especially scooter riders, do not seem to think is necessary to stop should someone be using one. Having eye contact is the most important thing, and in my case sometimes my general bulk compared to the Vietnamese people may also have helped at times, I could have made a mess of them and their scooter as well as them making a mess of me, the family followed behind.

One thing that all of the above chaos does result in is that it is the most compliant country I have ever seen when it comes to use of indicators, albeit with ample use of horns too. Such is the degree of compliance that I even saw BMWs use their indicators, I am yet to find out whether the working globes in their indicators is an aftermarket accessory or if they have been installed by the manufacturer exclusively for the Vietnam market.

As for Peugeots, I saw many, of those on the road I think a 208 was likely the oldest, 2008 and 3008s were common, other than

that a couple of 5008s were also spotted. I even noticed a dealer, somewhere in the country. It was a large building but we were going past too fast to observe what their stock in the showroom was.

Amongst the tourist attractions we went to was the Presidential Palace compound. It is here that Ho Chi Minh ran the communist state from and although long dead (1969) he is still a large political force and popular with the people where he is reverently referred to as "Uncle Ho". The first stage of entering the presidential compound is to queue up in orderly and long queues (made orderly by the military and police quards, they are long, at least in the weekend when we went as many Vietnamese still see it as both their duty and respect to visit their former leader, the weekends are when the numbers swell with locals), you traverse through security one by one and any bags must be checked in. My camera was allocated its own bag in which I had to carry it for many hundreds of metres before checking it in at the cameras bag check. From here the queues move towards the Mausoleum, the military guards become more solemn and will not talk to you, enforce single file etc all with motions only grunting when required. As I was about to enter the steps up to the Mausoleum I received a gesture that made it clear it wasn't respectful enough to have my sunglasses on my head, they had to be removed and tucked into my shirt. We file through silently, both quickly but slow enough solemnly in front of Uncle Ho's body which is laid out for all to see, there is no

stopping, just filing past. I have no idea how they did it, not understanding embalming and the sciences involved, but it was remarkable to see him, looking as if he had died yesterday, not some 55 years ago. We leave through the exit and into the light. Talking can occur again, people can spread into groups rather than orderly files and the Vietnamese soldiers were willing and able to talk to us. I proceed to collect my camera which had been transported some 600m in the time we gueued from the drop off to the pick-up location, and I am able to take photographs again. We are free to wander around the presidential palace gardens and buildings and the sound of locals and tourists' voices alike are heard, a cacophony compared to the muted conversations that occurred whilst lining up to see Uncle.

My personal main purpose (the family tagged along for this one) of going was the desire to see the stilt house that had been built for Ho Chi Mihn. It apparently was based on traditional styles, and is a building of simplistic beauty. Uncle Ho would retreat to it and its fish pond to relax at the end of the day, rarely staying in the substantial palace buildings but spent his time there instead. It was not a disappointment, For me it is the most beautiful and inspiring wooden house I have ever had the fortune to view. I would love to build something like it here in New Zealand. However I suspect all of the modern building standards and requirements for insulation would make it near impossible to achieve.

Another highlight was seeing Uncles Ho's garage, this consisted

of three cars parked in the Presidential Palace garage, all viewable but behind glass. All three cars were donated to him. one a 1955 Pobeda "given to serve President Ho Chi Minh" by the Soviet Union in 1955, the second a ZIS, by the Soviet Union in 1954 "given to serve President Ho Chi Minh" and the third a Peugeot 404 "given by Vietnamese residents in New Caledonia (France) and used to serve President Ho Chi Minh." The 404 was in the nicest condition I have ever seen, including those at Peugeots' museum in France, granted it's front wheels were elevated on axle stands, I doubt it ever moves.

Aside from my holiday reportings things to think about include the Brit Euro, Sunday 2nd of March, contact Don Howarth enzo406@outlook.co.nz if you wish to be part of the Clubs Brit-Euro display - check out their web page https://www.briteurocarshow.nz/ and/or search them up on Facebook. My family have decided not to do Round the Bays this year, so I am very much looking forward to going to Pakuranga instead, I hope many of you go, Don will be delighted to have you there too.

And today fresh of the press we have been invited to display at the Franklin Heritage Weekend 8th and 9th of March. I would like us to have a club display on the 9<sup>th</sup>, at Pukekohe Showgrounds. It is a whole days commitment, aprox 9 to 5 on site. Anyone want to join me there? All Peugeot vehicles welcome. Call me 0274905336 or 6389421 or email brentdruskovich@gmail.com Happy New Year all,

Brent



This is one of Ho Chi Minhs personal cars found at the Presidential Palace in Hanoi, Vietnam. It is displayed behind glass in the garages at the Presidential Palace



#### **COMING EVENTS**

2025 February 9	Ellerslie Classic Car Show; the theme is "Summer Holiday"
2025 March 2 10am -3pm	Auckland Brit & Euro Classic Car Show, Lloyd Elsmore Park, Pakuranga. https://www.briteurocarshow.nz NB Note the change of date!
2025 8-9 March	The Vintage Engine Restorers Auckland in conjunction with the Franklin Vintage Machinery Club are organising the inaugural Franklin Heritage Weekend to be held on the Saturday 8th and Sunday 9th March 2025 at the Pukekohe showgrounds.
August 10	AGM – Vintage Car Club Rooms, Fairfax Ave, Penrose



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#### JEANETTE'S JOTTINGS

New York city has only just started to use plastic rubbish bins with lids. No wonder they have a serious rat problem.

Only 10% of the car market in the US is electric compared with 40% in China.

Engineers at the University of South Australia have taken a page from the days of wooden sailing ships and developed a way for drones to navigate by the stars at night using simple, lightweight equipment for areas where GPS signals aren't available.

A self-propagating series of explosions, contained between the blades of a high-speed rotor, promises a leap in power and efficiency during hypersonic flight – provided this radical new engine can be built strong enough to withstand its own power.

The Artemis II and III missions slated to return US astronauts to the Moon have been set back due to problems with the heat shield and life support systems which would delay the launches until 2026 and 2027.

Using data from twin studies conducted over many years, researchers have found a link between levels of depression and the amount of fruit and vegetables people eat each day.

#### Mormons officially abandoned polygamy in 1890.

In 1802, French mining engineer Albert Mathieu-Favier proposed an idea for a tunnel between France and England, lit by oil lamps and even mentioning an artificial island between the channels to 'change horses'.

Russian engineers have installed 16 chainsaw engines arranged in a V formation – in a Fiat 124-derived Lada.

A new study from the University of Miami shows that 35 buildings along Sunny Isles Beach and the surrounding coastal areas have sunk by as much as three inches between 2016 and 2023. That includes the Porsche Design Tower, the Ritz-Carlton Residences, and both Trump Towers, and comes less than four years after a 12-story residential tower collapsed in Surfside, Florida, just a few miles away.

DNA testing of both human and squirrel bones has shown the red squirrels (and their fur) were probably responsible for the spread of leprosy in mediaeval England.

In 2001, an attorney in Australia managed to obtain an innovation patent for a "circular transportation device." He was trying to highlight deficiencies in a new patenting system by reinventing the wheel.

## SOLAR PAINT FOR MERCEDES

Drivers of electric cars often worry about how many miles are left in the 'tank', hoping they can reach their destination or another charging point before they run out of power.

But Mercedes is developing a solar paint that generates enough electricity to power a car, bringing an end to what is known as 'range anxiety'.

In the manufacturer's home city of Stuttgart – which gets only slightly more sunshine than the UK – the paint could power a vehicle for around 7,500 miles in a year.

But in sunnier climates the paint could, in theory, meet all travel needs and generate so much electricity that the driver could use the excess in their home.

The paint uses photovoltaic technology, which converts solar energy into electricity through a semiconductor material. The car panels would be wired into a power converter that sends the electricity to the battery or directly to the motor.

But the bad news is that while Mercedes has shown that the technology works in principle - it may be another 15 years before it is commercially available.

Mercedes hopes to roll out the technology by 2040 and said the paint would even charge a vehicle when parked. In a press release, Mercedes said: 'The photovoltaic system is permanently active and

also generates energy when the vehicle is switched off.

'In future, this could be a highly effective solution for increased electric range and fewer charging stops'.

A big factor putting the public off buying electric vehicles (EVs) is 'range anxiety' – the fear of not having enough charge to get to a destination.

Therefore, many automakers want to give their vehicles as large a range as possible, by installing a bigger battery or improving the battery chemistry.

Other ways to increase range include making the car's shape more aerodynamic, using lighter materials, tweaking the software, or adding 'regenerative braking' – capturing energy from braking that would otherwise be lost and using it to recharge the battery.

Tesla's Model S has a range of 410 miles, while another budget model of the Model S revealed in August has an even lower range (320 miles), and the Model X has even less.

Mercedes states that though the 'Solar Paint' will be available in all colours, an engineer did admit it works best in darker shades. It will be as durable as regular paint as the photovoltaic surface is protected by at least two layers of lacquer finishes.

In September, Mercedes announced the Concept CLA Class, which measures more than 15 feet long and the manufacturer has claimed that the car's new innovative battery will help with 'range anxiety' until the 15-year wait for solar paint is over.

The low-emissions four-door sedan also has panoramic windows, an expansive glass roof, and low-energy lights.

Mercedes said its new car has an 'innovative battery' that includes more silicon-oxide for better 'energy density' – the amount of energy stored in the battery per unit of mass and can drive 466 miles on a single charge.

A 800V charging configuration also enables rapid top-up of up to 248 miles (400km) in 15 minutes.

Unlike other prototypes from the company, Concept CLA Class is actually set to go into production, in late 2024 – but price is to be confirmed.

STELLANTIS
lithium-sulfur EV
batteries: cheaper, lighter,
more range

In a potentially game-changing move for the EV industry, Stellantis and Zeta Energy Corp have teamed up to develop the next-generation EV battery with more range, more power, 50% faster charging, and at less than half the cost.

Lithium-ion batteries have powered the electric vehicle (EV) revolution since 2008, when Tesla introduced the Roadster to the world, powered by 53 kWh of Li-ion goodness, with a range of around 245 miles (394 km). The iconic Roadster nearly doubled the 140mile (225 km) range of General Motors' 1999 EV1, which was powered by an incredibly heavy, 26.4 kWh nickel-metal hydride (NiMH) battery pack.

Despite lithium-sulfur (Li-S) batteries having been conceptualized in the 1960s. practical applications were limited due to issues like poor life cycles and capacity loss from something called "the polysulfide shuttle effect," unique to Li-S batteries. As the battery discharges, sulfur at the cathode side reacts with the lithium. creating lithium polysulfides which diffuse through the electrolyte to the anode leaving deposits. While charging, some polysulfides would migrate back to the cathode, but not all, degrading the battery very quickly.

Texas, USA-based Zeta, in partnership with global automotive giant, Stellantis, reckons it's got that figured out.

Recent advancements in material technology and the development of barriers and coatings trap these polysulfides, preventing them from "shuttling" between the electrodes, effectively fixing the pesky premature death effect.

The collaboration could mean a leap in EV battery technology:

Li-S is significantly lighter than their Li-ion counterparts. A Li-ion battery typically packs between 150-250 watt-hours per kilogram (Wh/kg) of energy in them. Li-S can achieve up to 400-600 Wh/kg. That's a lot of juice.

Li-S can provide same amount of power with a smaller package — meaning not only greater range in your EV because the batteries are going to weigh 30-50% less, but better handling and performance. The lighter, the better.

The two companies also claim improvements in fast-charging speeds by as much as 50% over traditional lithium-ion battery packs. Li-S has a simpler chemistry and doesn't rely on the slow diffusion of lithium ions into solid materials (like the graphite in Li-ion). Instead, reactions occur directly between the lithium and sulfur which is faster and more straightforward. They also operate at lower voltages, so they don't have as much resistance during charging, making them absorb energy more quickly.

The kicker: Li-S batteries are expected to cost less than half the price per kilowatt-hour than Li-ion.

Sulfur is abundant and Zeta's Li-S batteries use waste materials like methane and unrefined sulfur from various industries. They also ditch expensive, hard-to-source materials like cobalt, graphite, manganese or nickel; which Li-ion is also made from. Zeta's approach can utilize locally sourced materials and use existing factories to assemble its batteries, slashing CO2 emissions compared to existing battery tech.

They're safer than Li-ion:

Contrary to what you might think of "sulfur" being in the name, it's not like what you find in gunpowder, matches or fireworks. The sulfur in Li-S is in a solid state. Li-S batteries don't have flammable electrolytes

like what you'd find in a typical Li-ion battery. It's often the electrolyte that causes battery fires. They're not without any flaws, however, as the the use of a lithium metal anode can pose risks like dendrite formation, which can lead to short circuits.

But if you've ever seen an EV battery fire, you know it to be highly destructive. Fire departments often have to simply wait until the fire burns itself out when a lithium-ion battery "vents" or explodes. Punctures or thermal runaway (usually from over-charging) lead to chain reactions that create a lot of heat in lithium-ion batteries. Li-S batteries are less prone to this as the sulfur's chemical reactions are less exothermic. And without ingredients like cobalt and nickel to fuel a fire. Li-S is considered to be safer than the batteries that power modern EVs, your laptop, your phone, et cetera.

With Stellantis aiming to roll out Li-S-powered EVs by 2030, this partnership could redefine how we think about electric mobility.

Source: Stellantis

#### HONDA+NISSAN+MITSUBISHI

It's really happening: Honda, Nissan, and Mitsubishi are joining hands to operate together under a single holding company, in a bid to stave off fierce competition around the world. Together, they'll be the third largest automaker globally.

#### DARTSOLAR ROOFTOP CHARGING

The DartSolar system was designed by California-based inventor/Tesla-driver Omid Sadeghpouto to add a rooftop solar power system to any EV.

At the heart of the system is a 960-watt solar array made up of six 160-watt fiberglass-backed, ETFE (ethylene tetrafluoroethylene)-coated photovoltaic panels. These are arranged in three groups of two, each of which is contained within a 4-mm-thick aluminium frame mounted on stainless steel telescoping tubing.

When the car is parked, all six panels are pulled out by hand to soak up the maximum amount of sunlight. Once it's time to hit the road, the front and rear sets of panels are slid in to nest one atop the other in the middle, leaving just two panels exposed (but still working).

The whole array is hardwired to a compact power unit in the rear of the car, which converts solar power into 120-volt alternating current.

Sadeghpour states that the setup can reliably add around 5 kWh of juice to the car's battery per day, for roughly 10 to 20 miles (16 to 32 km) of solar-powered driving – of course, those figures will vary depending on factors such as weather, driving style, and make/model of car. The power unit can also be used to charge 120-volt power tools or other devices via an integrated outlet.

While the previous DartSolar prototype sat a wind-catching 11 inches (279 mm) tall, the production model is a much more aerodynamic 1.5 inches (38

mm) in height. Road tests performed using a Tesla Model Y – at sea level, with 40-psi (3-bar) tires, at an ambient temperature of 70  $^{\circ}$ F (21  $^{\circ}$ C) – showed that the system increased drag by a claimed 1 to 2%.



The entire rooftop part of the system reportedly tips the scales at about 90 lb (41 kg). It's able to support loads of up to 50 lb (23 kg) via an adapter, so users can still carry cargo on their roof when the need arises.

Prospective buyers can preorder the DartSolar system now via the company website. It's priced at US\$2,950, has a 10-year expected lifetime, and should reportedly pay for itself in two years for a 5X return on investment. Sadeghpour tells us that units ought to be shipping to buyers by the middle of next year.



#### ARE COMBUSTION ENGINES REALLY ON THE WAY OUT?

After automakers and governments criticized the European Union for rushing the combustion engine's demise, some politicians are also against the ICE's 2035 ban. The European Parliament's largest political group, the European People's Party (EPP), is pressuring the higher-ups from Brussels to change their minds. Reuters got a hold of a draft paper saying the ban "should be reversed."

The EPP wants the combustion engine to survive in cars that run on alternative fuels beyond the middle of the next decade. In addition, the draft paper notes manufacturers should still be allowed to sell plug-in hybrids past 2035. Faced with dwindling demand, many car companies active in Europe have pushed back their lofty EV goals. Even Volvo has said it'll likely still sell cars with gas engines after 2030.

Before that, the EPP wants the stricter emissions regulations coming into effect next year to be delayed until 2027 to protect companies from paying fines. As previously reported, the current fleet average target of 115.1 g/km (based on the WLTP cycle) will decrease by around 19% in 2025 to 93.6 g/km. Automakers pay a €95 (\$100) fine for each gram over the fleet emissions target. Since the penalty is applied to every single car, the fine quickly adds up when you're a large automaker like the Volkswagen Group.

## ROBO TAXIS WITHDRAWN

The General Motors automotive group has decided to put an end to its Cruise driverless autonomous cabs. This decision follows a serious accident with one of its robot cabs in 2023.

However good they may be, robots are still machines. General Motors (GM) has learned this the hard way. So much so, in fact, that it has decided to put an end to its fleet of Cruise robot cabs operating in several major US cities. They had been on commercial hiatus since a serious accident at the end of 2023 in San Francisco (California - USA). These autonomous cars will now be scrapped.

Explanations... One of its robotaxis had run over and dragged a pedestrian knocked down by another vehicle driven by a human. By making a safety maneuver to the side of the road, the autonomous car aggravated the situation, unable to realize that it was endangering others.

At the time of the investigation, Cruise staff had been slow to tell the truth about the autonomous vehicle's movements. The company reportedly denied that it was in motion at the time of the accident. Once the truth had been revealed, the authorities withdrew GM's license. This stop, which was thought to be momentary, nevertheless directly cost 900 jobs in the automotive group's subsidiary, a quarter of the workforce. It also forced the resignation of Cruise cofounder Kyle Vogt. However, development continued with a view to

integrating the Uber platform in 2025. In the end, everything came to a halt.

GM has decided to call it a day. Staff will be reassigned to other positions within the General Motors galaxy. In particular, the engineers will be in charge of developing driver assistance and (semi-)autonomous driving systems for passenger cars, a new strategic priority. No more driverless robotaxi for Cruise. This is blocking its move into Japan with co-investor Honda. Competitors Waymo with its Jaguar, Amazon with its Zoox project and soon? - Tesla with its Cybercab don't seem determined to give up their fleets and projects just yet.

However, it's a blow for this mobility solution, even if General Motors officially cites the resources needed to face up to the competition as the reason for this change of course. Kyle Vogt didn't mince his words on X, calling GM executives - his former bosses - "big losers". This did not impress shareholders, since after the announcement of the end of Cruise robotaxis, the automaker's shares gained more than 2% in electronic trading after the close of the New York Stock Exchange.

(MH with Olivier Duquesne - Source : Le Figaro Picture : © Cruise - General Motors)

## WINTER ADVICE IN FRANCE

With winter fast approaching, the cold is gradually creeping into our lives, bringing with it its share of worries.

Finding your car covered in frost before going to work in the morning? Who hasn't? If one of your natural reflexes is to leave the engine running to melt the frost more quickly, you should know that this method is punishable by law.

Under French law, it's strictly forbidden to de-ice your vehicle by heating the battery. The Highway Code states that "motor vehicles must not emit fumes, toxic, corrosive or odorous gases, under conditions likely to inconvenience the public or compromise public health and safety". A dangerous method not only for human health, but also for the planet.

If a police officer catches you in the act of de-icing you car in this manner, you risk a fine of 135 euros. If the fine is increased, it can rise to 375 euros.

We therefore advise you to use an ice scraper, de-icer and patience Source : Demotivateur



#### THE NEXT 208??

Exerpts from Auto Express https://www.autoexpress.co.uk/peugeo t/208/365560/new-peugeot-208-gtiaiming-be-next-legendary-french-hothatch

The recent demise of the Peugeot 508 PSE has left the French firm without a performance-focused model in its line-up. But there is growing hope that the brand could return to its hot-hatch roots with a faster version of the next Peugeot 208 – and our exclusive images preview how it could look.

Now, in an exclusive interview with Auto Express, newly appointed managing director of Stellantis UK, Eurig Druce, suggested the 508 PSE's retirement doesn't mean the end of the brand's performance lineage. "There may be other products in the future," he told us ."Peugeot has always had a penchant for fast, small hatchbacks, as we've seen various generations of GTis. I remember the 205 GTi when I first ioined the company. And the 206 GTi thereafter. It would be a sad, sad day for us to declare that we will never go there again. I wouldn't want to see that sad day coming and I don't think I will."

Peugeot's hot hatchback heritage offers plenty of encouragement that the brand may return to this genre for its next performance car – as opposed to a crossover or family SUV. A gofaster version of the next Peugeot 208 would also give the company a rival to the hotly anticipated Alpine A290 and MINI JCW Electric.

We asked Druce if the PSE badge (which stands for Peugeot Sport Engineered) could return, or whether GTi would make a comeback, but he refused to be drawn either way. However, our exclusive images lean towards the latter; its resonance with fans and nearly 40 years of history would chime well with buyers in both the UK and Europe.

Druce said: "The crucial bit for me is the credibility that came from PSE. So, whether we call it PSE or GTi, the truth about it was that Peugeot Sport had engineered the car and there were significant driveability differences between that and a standard car. I think that's crucial." He continued: "What we cannot ever do is to put a GTi badge on something that is a conventional car with a slightly bigger e-motor, for example. One of the big things about this future market is that almost every electric car can be a quick car."

Other brands in the Stellantis family have launched their own small fast EVs recently, with the Abarth 600e, Alfa Romeo Junior Veloce and Lancia Ypsilon HF all based on the same underpinnings as the current 208.

Inside, buyers could expect the car to have contrast stitching and sportier seats – as well as a fresh take on Peugeot's famous i-Cockpit instrument cluster. There's a good chance Peugeot will also look to incorporate a version of the Hypersquare steering wheel expected to feature in the standard 208 when it arrives in 2026.

#### Who is Eurig Druce?

Eurig Druce was made Peugeot's new managing director of its operations in the UK, in October 2024. In 2001, he completed a Master of Engineering in Electronic Engineering at University of Wales, Bangor. He has been with the group for 23 years, joining the French brand on its graduate trainee programme in 2001.

He has experienced field roles in sales and after-sales, becoming Director for Parts & Service in 2015. Since then he became Managing Director for Citroen in 2016 and Group Sales Director. In October 2024 he replaced Maria Grazia Davino as Group Managing Director of Stellantis UK and will report to Jean-Philippe Imparato, Chief Operating Officer, Enlarged Europe region.

He will retain his most recent role as Managing Director for Peugeot for an interim period whilst a successor is sought and remain as vice-president of Stellantis Sales UK, responsible for business-to-business sales. He said: 'Peugeot continues to go from strength to strength, and I am delighted to return to where I started my journey in the industry.' With the largest range of electric vehicles in the UK market, I look forward to realising the true potential of the brand with our dealer network.'

Stellantis' Dare Forward 2030, is a bold strategic plan with the target of becoming a carbon net zero mobility tech company by 2038, with single-digit percentage compensation of the remaining emissions, Peugeot's UK boss has challenged the brand's rivals to a 'competition' as he backed the French outfit to increase its market share in the coming years. Eurig Druce says that Peugeot is ready for a 'race' when it comes to EV sales, with the brand boosting its electric line-up significantly in recent times.

The new UK managing director made the comments at the launch of the new E-5008 and 5008, where he also backed the controversial ZEV mandate. Speaking to Car Dealer, he said he was feeling 'confident' about Peugeot's future and warned the new Labour government about watering down its targets when it comes to the switch to electric motoring.

He said: 'I feel confident that we have the product range and therefore I want the race and I feel quite confident that our position in that race will be stronger than our position in existing markets. 'I'm not in favour of rolling back targets or changing the rules, I'm in favour of saying "let's have a competition and if you haven't prepared for it, that's your issue".'

Labour is currently planning on reinstating the 2030 ban on new petrol and diesel cars, although hybrids are set to remain on sale until 2035.

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## FROM THE HISTORY BOOKS

Having recently acquired a copy of Graham Hawkes' book 'On the road; the car in New Zealand' I feel I should share with you some of the odd facts I had not encountered before.

FOR INSTANCE.... The origins of motoring in NZ are uncertain and the honour of having driven the first motorcar is disputed... the honour probably belongs to **Robert Scott** who in 1880 designed and built what was described as a 'steam carriage' when it made its trial run in Dunedin. It was powered by an ordinary steam engine fired by coke and its wheels were modelled on a fieldgun with iron tyres. It reached speeds of 35-40mph and some say it was the first car in Australasia.

In 1897 **Cecil Walkden Wood**, an engineer of Winchester in South Canterbury, built NZ's first combustion engine using a chemical compound made by a Timaru chemist as an explosive. In 1900 he used this to power NZ's first motorbike then in 1901 he made the first petrol-engined car to be built in NZ. Unluckily its speed of 12mph attracted police attention and he was forced to have someone carry a red flag before him on public roads!

The car's biggest handicap was the state of the roads. The sight, sound and smell of horses was everywhere. In the 1901 census, there were 266,725 horses – one for every three persons in NZ. In addition, the growth of the railway system had brought road

development outside the main centres almost to a standstill.

One guide to overland trips recommended that the car driver took "oatmeal, a compass, plenty of spanners and tools, an oilskin, a supply of money to use when stranded, a spade, an axe, a wirestrainer and chains".

[It was also reputed that in such notorious spots as the Mamaku Hills, the local Maori used to keep the worst holes filled with water so that they could earn a few pounds a time for pulling cars through with a horse team.]

In 1898, **William McLean** received two knocked down Benz petrol-engined cars which arrived in Wellington on the *Rotomahana*. He named them *Lightning* and *Petrolette*. He was an MP as well as a successful businessman and introduced a private bill into Parliament which became the 'McLean Motor Car Act of 1898' and established the first rules of the road.

It defined a motorcar as "any vehicle propelled by mechanical power which unladen is under three tons in weight, such vehicle being so constructed that no smoke or visible vapour is emitted therefrom except from some temporary or accidental cause." It also imposed a maximum speed of 12mph and a fine of £10 for excessive speed.

The Mayor of Wellington was so impressed by the demonstration of these cars' abilities that he decided to try one himself. Unfortunately he crashed it into the Basin Reserve fence, fell off and broke his nose, thus becoming the first person in NZ to suffer injury in a motor car accident.

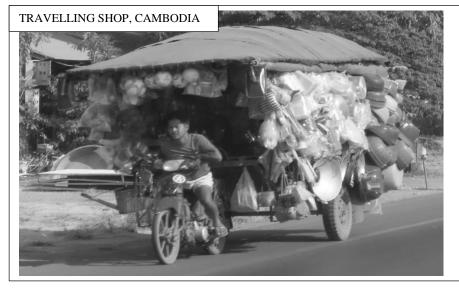
#### TEN TOP MOST ICONIC TECH INVENTIONS

- 10. Transformer Neural Networks
- 9. Atomic Bomb
- 8. YouTube
- 7. Airplanes
- 6. Television
- 5. Penicillin
- 4. Printing Press
- 3. iPhone
- 2. Electricity
- 1. Fire

Do you agree?

#### TRICKY QUESTIONS

- 1 If someone with multiple personalities threatens to kill himself, is it considered a hostage situation?
- 2 is there another word for synonym?
- 3. where do forest rangers go to "get away from it all?"
- 4. What do you do when you see an endangered animal eating an endangered plant?



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