

Major Automotive Global Trends

January 2023

14.2.2023



Table of Contents:

1. Global	3
2. USA	5
3. China	9
4. South Korea	11
5. Europe	12
6. Israel	18



1. Global

New KPMG global auto executives survey: growing optimism for the upcoming years

Car manufacturers are more optimistic regarding 2023 than they were in 2021 regarding last year, so reveals KPMG's 23rd global survey that was conducted last year and published at the beginning of January. KPMG surveyed hundreds of auto industry executives from all over the world. Findings show that 83% of respondents feel confident that their profits will grow in the next five years, compared with only 53% of the respondents in 2021. However, more managers are concerned about their short-term business results. 76% of the surveyed managers expressed concern about the influence of the downturn in a global economy, especially inflation and interest rates, on their businesses in 2023.

As for the future of the EV, the survey reveals that the estimations of the managers in the auto industry are more realistic and cautious than two years ago. In 2021, the managers predicted that EVs would reach a global penetration rate of between 20-70% by the end of the decade. In the new survey, the expected penetration rate dropped to 10-40% in the face of the challenges the industry is experiencing in shifting to batteries as a power source. That being said, the survey shows that most managers share the belief that the production costs of an EV will be at par with the costs of manufacturing an ICE car. 82% of respondents believe that in the next ten years, it will be possible to market substantial quantities of EVs without the need for subsidies. 21% of respondents – 3 times more than in the last survey – think that governments should not give EVs subsidies at all.

The survey reveals that most managers in the industry think that the accelerated shift to online car buying is inevitable and that online trading companies will pit against traditional car-selling companies.

Most managers also believe that their income from after-sale services will grow in coming years. 62% of the managers surveyed feel "very confidently" that customers will be willing to pay monthly subscription fees for software services, EV charging, online maintenance analysis, ADAS, and more.



Most managers continue to express concern with supply chain disruptions for components and materials for the industry, especially chips, electronic parts, and low-weight materials that are vital for the expansion of the EV driving range. Nine out of every ten respondents believe that start-up companies with groundbreaking technology will have an essential influence on the auto industry in the coming years.

Research data: chip crisis has taken a heavy toll on the auto industry in the last two years, despite improvement is still with us

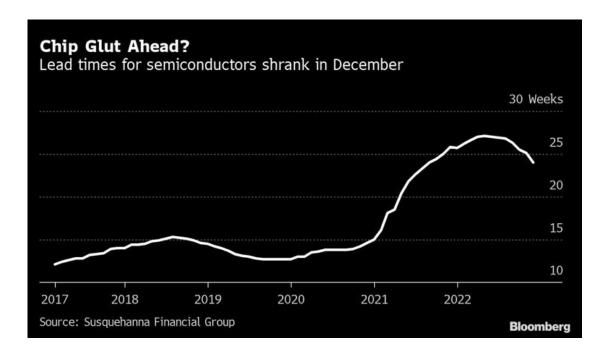
Since the chip crisis started in the first half of 2022, the global car industry lost production of 15 million cars, reveals data published this January by Auto Forecast Solutions research company.

The shortage is improving, and since June 2022, the global delivery cycle of chips (from order to delivery) has been shortening, and so are the delivery times of chips to customers. In December 2022, for instance, the average delivery cycle stood at 24 weeks, eight days less than at the height of the crisis. In the auto industry, the improvement is felt even more, and giant suppliers such as INFINEON registered in December a delivery cycle shorter by 23 days than in the peak of the crisis. Positive voices are also heard from the chip industry, and the chairman of the giant Taiwanese TSMC said in January: "The global demand for cars keeps growing, and although we cannot supply 100% of the demand, the situation is improving, and the shortage will end soon".

On the other hand, AFS research company notes that some of the improvement in supply times is caused not by more efficient production in the chip industry but by a temporary decrease in demand that is a result of the economic recession, forcing auto manufacturers to reduce their annual production forecast and consequently also the demand for chips. AFS's analysts estimate that the demand for chips will grow as the auto industry shifts to producing "Smart" EVs. A modern EV is expected to include chips valued at 1,600\$, compared with 500\$ in a typical ICE petrol car.

Pessimistic voices are also heard in the European car industry, where some believe that the crisis will not end at least before the end of 2023. Analysts at AFS project that the car industry will lose the production of 2.77 million units in 2023 as well due to chip shortage.





Source: Bloomberg

2. USA

American auto market finishes 2022 with an eleven-year low, but cautious optimism is registered among analysts.

The American auto market concluded 2022 with 13.87 million sales, a decrease of 8% compared with 2021 and an eleven-year low, according to summary data published in January. Most of the decline occurred in the first half of the year, mainly due to supply difficulties in the face of a demand surplus. However, as the year progressed, the market was affected by the worsening macro conditions, in particular, the rise in interest rates. Most of the large auto manufacturers reported lower sales than in 2021, some with a decrease of 13-32%.

Analysts in the US are more optimistic regarding 2023, pending unforeseen international developments off course. The research division of American auto group EDMUNDS estimated in January that 2023 would end with 14.8 million units sold, while the research department at COX estimates 14.1 million sales. Analysts point to the fact that auto manufacturers shifted most of the rise in raw materials costs to the customers, and the



prices, along with the high-interest rate, caused a swift decrease in demand for new cars in the US.

Cox Automotive research division publishes a "10-point forecast" for the American auto market in 2023

In the middle of January, the research division of American auto giant Cox Automotive published a forecast for the ruling trends in the American auto market in 2023. The forecast concentrates on 10 points:

- a. At the macro level, the researchers estimate that a slowdown is expected and even a decrease in demand for cars in the private sector due to the American economy's slowdown and its impact on American households.
- b. Inventory levels of dealers will continue to grow gradually after two years of a dramatic slump in inventories due to manufacturing and supply disruptions. However, the researchers assess that the improvement in inventory will not be uniform and will change between different manufacturers.
- c. The researchers estimate that in 2023 there will be a drop in the number of cars sold to the private sector and also a decline in used car sales volume. The overall picture will be balanced by substantial growth in sales for fleets that were low in the past two years, among other reasons, because the manufacturers preferred selling their limited inventories to private customers that are more profitable.
- d. The report estimates that EV sales will cross the one million mark for the first time in 2023, following an increase of 66% this passing year to 808,000 units. Along with hybrids and PHEVs, the company expects that almost a quarter of sales will be of EVs of different kinds.
- e. Used car prices are expected to drop sharply during 2023, beyond "Normal" depreciation, after surging to a historical high at the beginning of 2022. Gert values of used cars in the US already registered a 14.9% decrease in the passing year but are still far from balancing the 88% surge between April 2020 and January 2022.
- f. The biggest problem new car customers will face in 2023 is their ability to pay for them, given the sharp incline in interest rates that increased the average monthly payments of those using car financing services. New car prices are also close to a record high with an average transaction value of 49,000\$.



- g. The scope of cash transactions is likely to rise to a level that has not been seen in decades, given the diminishing attractiveness of credit deals with high-interest rates.
- h. Dealers' income from maintenance services is expected to rise since the average age of cars will rise as well, as a result of postponing new car purchases because of the surge in new car prices.
- i. Half of the new car buyers in the US in 2023 will use digital online shopping tools such as apps, e-trading sites, etc. This trend is expected to grow in the coming years.
- j. US administration Incentives and subsidies will encourage fleets to buy more EVs, among other reasons, because fleets have a wider model range entitled to governmental benefits than private customers.

The US is readying for the introduction of new and stiffer regulations for fuel consumption and emissions in new models from 2027

The Biden administration is continuing the vigorous trend of erasing the antienvironment stamp left by the Trump administration. This April, the NHTSA will present proposals for new regulations that will substantially reduce fuel consumption in all new petrol models sold in the US beginning in 2027. The goal is to approve the new regulations by the end of this year.

Noted, despite the quick growth in EV sales in the US, estimates claim that ICE cars will continue to be dominant in the US market, at least until the middle of the next decade. Therefore, the new regulations represent a "Financial blow" to American car manufacturers that will have to ready themselves to manufacture low-emission vehicles starting in the next year or two.

Originally, the regulations formed by the Obama administration were supposed to take effect earlier, but in 2020 the Trump administration announced their cancelation. It should also be noted that the EPA is supposed to present this March complementary regulation aimed at reducing the average emissions from all new models launched from 2027 at least until 2030.



The American administration decided to be more flexible and opened a "Side door" for foreign EV manufacturers to receive government subsidies.

Following a political struggle and international pressures, the American administration agreed to a certain flexibility with the IRA (Inflation Reduction Act) that threatened to revoke government subsidies from foreign EV manufacturers. The IRA was approved in the US this summer, and as part of it, the federal tax benefit of 7,500\$ for EVs was restricted to car manufacturers in the US.

The decision caused grievance in the world, especially in South Korea, Japan, and Europe, with the latter even hinting at the possibility of adopting a similar policy in which European auto manufacturers will be prioritized over foreign manufacturers. The pressure yielded fruit, and on January 1^{st,} 2023, the US treasury published an "Update" to the act.

The main difference is that EVs that are manufactured outside the US will enjoy the federal tax benefit if they are bought by leasing companies and used commercially. This means that foreign manufacturers such as Hyundai Motors, Toyota, and others will be able to sell large quantities of EVs to leasing companies, shared fleets, etc., and remain competitive.

However, US media stated that there is a large "Grey area" when it comes to EVs that are sold to leasing companies and then leased to private customers. It is said that these vehicles are not destined for "Commercial use" as the update to the act defines it, thus emasculating the effectiveness of the legislation. On the other hand, the update received praise from high-ranking officials in the EU that claimed that this is a WIN-WIN situation from which all parties will benefit.

3. China

China breaks records for the number of new cars in general and EVs in particular, during 2022

The number of electric cars of all kinds on Chinese roads in 2022 reached 13.1 million, out of which 10.45 million are BEV 100% electric. This is the largest number of electric cars – more than any other country in the world. EVs at the end of last year, 4.1% of all



cars, an annual growth of 67% compared with 2021, so it turns out from figures published by the Chinese "Ministry of public safety" who is in charge of transportation. In 2022, 5.35 million "New energy" vehicles joined Chinese roads, including hybrids and PHEVs, which is also a world record.

At the end of 2022, the number of vehicles of all kinds in China reached 417 million, an increase of 5.39%, 319 million of which are privately owned. The number of people holding valid driving licenses was 502 million. The number of new cars of all kinds registered in China last year was 34.78 million, out of which 23.23 million were new private cars.

According to government figures, in 84 Chinese cities, the number of cars exceeded one million, an addition of five cities in 2021. In 39 Chinese cities, there were more than two million cars, and 21 cities had more than three million cars. The largest cities in China, including Beijing, Chengdu, Chongqing, and Shanghai, hold the world record with more than five million vehicles each of them.

The market for second-hand cars in China also registered a substantial leap last year – according to government figures, no less than 30.27 million cars changed hands during 2022, 28.69 million of which were privately owned.

As Americans defend the local auto industry, China's global supply chain expands quickly

The US and Europe are trying to make their local EV manufacturers competitive again by applying a discriminatory trade policy. However, in the meanwhile, the Chinese auto industry supply chain is growing at an unprecedented and unrivaled rate,

A new industry pole published in China on January 11th reveals that no less than 600,000 companies in areas related to "New energy cars," including production, marketing, raw material processing, auto parts, and recycling, are operating in China. According to the pole, last year alone added 239,400 new companies, a rise of 40.3% compared with 2021. For comparison – in 2019, only 41,000 operated in these fields in China. The main hub of the activity is located in the Shandong district, followed by Guangdong and Jianghu.

Meanwhile, China is expanding its hold on the global supply chain for essential materials, specifically Lithium. On January 10th, Lithium extraction giant Tianqi Lithium signed a deal to purchase the Australian Lithium discovery and extraction company Essential Metal. The purchase was made via a daughter company of the Chinese corporate in exchange for 136 million US\$, and the deal includes unused



Lithium deposits in western Australia. According to estimates in Australian media, these deposits can be used to produce batteries for more than ten million EVs.

It is not considered a "Huge" mine on a global scale, but obtaining it is a victory for the Chinese government, which is continually laboring to increase its' Lithium reserves. The Chinese company that made the purchase already controls another Lithium mine in western Australia, considered to be one of the largest in the world, and it is also the first company that established in Australia a plant for distilling and processing Lithium-Hydroxide (LiOH) in a quality suited for car batteries.

Maritime transport distress grows deeper, and auto manufacturers are increasing orders to build new ships

The demand for vacant places in RORO ships keeps breaking records this January, especially due to the Chinese auto industry. Industry sources state that the huge "Traffic jam" in logistics and car transportation is the result not only of insufficient capacity in the ships but also lack of truck drivers, mainly in Europe, and loading machinery operators.

An additional cause for the congestion comes from a positive source: the accelerated improvement in chip availability releases industrial bottlenecks and accelerates the production of vehicles. As a result, some of the manufacturers that usually order SLOTS on ships a year ahead end up receiving quarterly and yearly orders that exceed their original plans by tens of percent – especially for EVs.

One of the by-products of this situation is a "Flood" of new orders for building ships for auto transportation in Asian shipyards. The orders come from known shipping firms but also from car manufacturers, especially Asian ones that decided to decrease their dependence on exterior elements and form their own fleet of ships. This new wave of orders is led by Chinese car manufacturers.

4. South Korea

South-Korean vehicles break export records, but in the domestic market, things look different

The South-Korean government is forming a new tax outline for "Green" vehicles, but meanwhile, the domestic market is experiencing difficulties. Last year, the government



decided to continue granting tax benefits for hybrid vehicles, even though the benefit was supposed to expire at the end of 2022.

However, a political vacuum in legislation in Korea caused the tax benefit not to take effect. As a result, buyers of hybrid cars that relied on the extension of the tax benefit paid additional hundreds of dollars to the original price they were supposed to pay. Due to public pressure, the public administration committee of the national assembly in Korea decided to refund the buyers retroactively in the full sum of the tax benefit until the regulation is approved. In the meanwhile, the Koreans are continuing to increase their hold in Europe, as their domestic market finished 2022 with 1.392 million units, a decrease of 3% compared with 2021.

5. Europe

Automotive year summary in the EU

The EU auto market shrunk by 4.6% in 2022, mainly because of the influence of shortage in key components in the first half of the year, reports the annual summary of the ACEA published in January.

Despite gradual improvement between August and December, the total sales volume amounted to 9.3 million units. As a comparison, in pre-COVID 2019, the EU delivered 15.5 million new cars. Out of the big EU markets, only Germany registered an increase, with a modest 1.1%, thanks to strong EV sales in December. The other three large markets registered declines, led by Italy (-9.7%), France (-7.8%), and Spain (-5.4%).

In December, sales in the EU leaped by 12.8%, completing a five-monthly sequence of increases. The sales in December were pulled upwards by the German market with an increase of 38.1% in sales compared with last December and the Italian market with an increase of 21%.

Car manufacturers are divided as to the upcoming trend, some forecasting the continuation of strong growth while others warn against a shrinking market and closure of production facilities. Analysts estimate that the EU auto market will demonstrate healthy growth of 7.8% during 2023 and will end with 11 million units sold. However, they also warn of a high degree of uncertainty since Europe is facing a recession period that will last at least for the first half of the year. According to the projections, supply



problems will be resolved gradually but still not vanish, and customers in segments with high demand, such as EVs, will have to keep waiting irregular time periods for their orders.

The German government held a "Summit meeting" with car and battery manufacturers in Germany. On the agenda: shift to EURO7 and market conditions

On January 10th, a "Summit meeting" was held in Germany between the German chancellor and his cabinet ministers and senior executives from the auto industry, including German companies, Tesla, chip manufacturers, and car battery manufacturers. The meeting dealt with the industries' burning issues, including EURO7 legislation which is on the way, the quick shift to electricity, battery regulation, and more.

The passing year has been a problematic one for the German car industry, with an increase of 1.1% only in sales due to prolonged logistic difficulties and surging inflation and energy costs. Most of the increase came from the EV segment, without which a swooping decrease in sales would have been registered in Germany. According to VDA estimates, in 2023, the German market will grow by 6%, pending an improvement in component supply and developments in Ukraine. That being said, the number will still be smaller by a quarter than pre-COVID 2019 deliveries.

The EU is readying to pose strict emission targets for heavy vehicles and a deadline to stop marketing trucks and buses with ICE

After the EU determined a deadline to stop marketing new ICE cars by 2035, green and activist states are now pushing the EU to determine a deadline to stop marketing trucks and buses with ICE as well.

On January 20th, the Netherlands, Belgium, Denmark, and Luxemburg presented a joint proposal for setting a date to stop marketing heavy vehicles with petrol or diesel engines. At the same time, the EU is promoting new stiffer emission targets for such vehicles that are supposed to be published during February and will call for a reduction of 30% in CO2 emissions from heavy vehicles (compared to 2020) by the end of the decade.

The joint statement by the four countries also calls for the EU to place even more stringent intermediate goals for CO2 emissions from these vehicles, beginning in 2030 and until the complete stoppage of their marketing. This statement comes from the background of data that shows that the land transportation and public transportation sectors were responsible for almost a quarter of the harmful emissions in the EU in the



last three decades. These figures, if continued, are jeopardizing the target set by the EU to decrease emissions by 55% compared with 1990 emission levels.

The EU is promoting new Cyber regulations. The auto industry warns against fines and cost increase

The European auto industry is in turmoil in the face of an EU new Cyber regulation initiative. The initiative, CRA- Cyber Resilience Act, will oblige all manufacturers of connected equipment to equip it with integral cyber protection, answering to uniform and stringent standards that include minimum requirements. The regulation doesn't address cars specifically, but all kinds of connected equipment – printers, routers, smart home equipment, etc. – but it will include almost all new car models. It should be noted that today, there are hardly any new cars that are not equipped with some kind of connectivity, such as Over Air updates (OTA), WiFi, and so on. Theoretically, all these vehicles are exposed to potential cyber-attacks.

The regulation was formalized following a dramatic increase in cyber-attacks on all European-connected devices and research that demonstrated the risks to Europe in case of a foreign state conceived and funded "Cyber war".

It should be noted that most auto manufacturers are already reviewing or adopting different cybersecurity technologies, but up until now, there haven't been uniform standards. The meaning of a regulatory alignment is a need to invest hundreds of millions of Euros in R&D and, at the same time, adoption of stringent cyber protection standards in production lines, management HQs, and dealerships. The industry is especially apprehensive about the proposal to include in the new regulations a fine of 2.5% of global annual income up to 15 million Euro to all companies that will violate the regulation.

More and more voices in Europe are calling to adopt a trade policy that will protect local car manufacturers

Europe keeps aligning to the establishment of "Territorial regulations" that will protect and prioritize the European auto industry over foreign manufacturers, a sort of a European version of the American IRA. The Europeans are fearful of most of the growing invasion of Chinese vehicles, especially EVs. This opinion was expressed recently by senior European politicians as well as European auto industry executives. The most recent and most severe expression of this take was by Stellantis CEO Carlos Tavares, in an interview he gave during the CES tech event at the beginning of January.



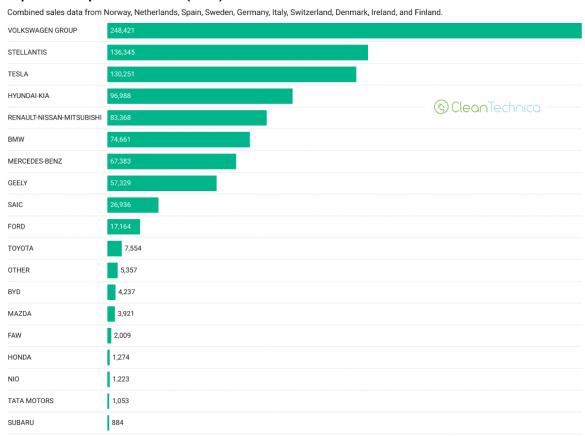
According to him: "New Chinese brands pose a threat to the European auto industry, and more clients from the European middle class will purchase Chinese-made cars." Tavares also said that "The European auto industry is at a crossroads since the Chinese offering is rapidly improving, but the prices remain low". According to him, the EU emission policy is to blame, and it causes EVs made in Europe to be 40% more expensive than equivalent Chinese EVs. "If the EU doesn't take decisive steps in order to reverse the trend, the European auto industry will meet the same fate as the European solar panels industry met (got completely wiped out by the Chinese cheaper counterpart)". Tavares mentioned that the purchasing power of many Europeans is diminishing, and that gives Chinese manufacturers a growing advantage over European manufacturers, whose cost structure is significantly more expensive. Tavares believes that there are two ways to deal with this situation: move the production of European manufacturers to cheaper countries in order to cut costs, causing the European auto industry to virtually disappear, or invest in rebuilding the industrial chain in Europe and at the same time adopting a new trade policy – a hint to the EU offers to adopt protectionism that will defend domestic made cars.

Nearly a million new EVs sold in Europe's ten largest markets in 2022

The EV segment broke new records in Europe in 2022, with almost 970,000 deliveries in the ten largest markets. VW Group won first place with a 25.6% market share, followed by Stellantis with 14.1% and Tesla with 13.4%. The fastest yearly growth was demonstrated by the Chinese brands, led by Geely, which delivered 57,329 units in the ten large markets, a market share of 5.9% (including Volvo and Polestar), and SAIC delivered 26,936 units, a 2.8% market share.



Top Auto Groups for BEV Sales (2022)



715 Chart: CleanTechnica • Source: EU-EVs.com • Created with Datawrapper

XPENG

Credit: CLEAN TECHNICA

British auto market recovers, but car manufacturing in the UK is at a historic low

The British auto market registered a decent recovery in December, among other things, due to an increase in government support towards the end of the year. But still, that is not enough to alter the big picture. A poll conducted by PWC among 235 British companies, including auto companies, revealed that the British industry is still very concerned with energy prices that are nearing a historical high. Almost two-thirds of the employees polled expressed concerns about prolonged power cuts and layoffs should the situation continue.

It should be noted that at the beginning of January, the British government declared that it intends to cut energy subsidies to industrial companies since the costs are too high to maintain. Estimates claim that subsidies will be reduced by 15%. These subsidies took effect in the second half of 2022 in order to give the domestic industry a "Breathing



space". The British industry states that even after the recent moderation in gas and electricity prices, they are still five times higher than in the US. Thus, continuing the subsidies is vital.

In the meanwhile, the British auto industry concluded 2022 with the lowest production volume since 1956. According to the Society of Motor Manufacturers and Traders (SMMT), production for the British market climbed 9.4% compared with 2021, but export dropped 14%, pulling the figures down as well since 80% of the country's car production is for export. All and all, 775,000 were produced in Britain in 2022, a drop of 9.8% compared with 2021. In December alone, production dropped by 17.9%. On the other hand, the production of EVs and PHEVs grew by 20%.

French government cuts subsidies to EV buyers

The French government joined other European governments in January and announced a cut in subsidies for EV buyers. The subsidies, called Eco-Bonus in France, were supposed to be slashed in January 2022, but the implementation was postponed to January this year. From the beginning of January, the subsidy for private customers is 5,000 Euros instead of 6,000 Euros before. This is the second phase, following a reduction from 7,000 Euros to 6,000 Euros in the middle of 2021.

Alongside the cut, the maximum price for models that are entitled to the subsidy has also been limited, and from now on, it will be given to models that cost less than 47,000 Euros. According to the new regulations, the subsidy for passenger EVs that are purchased by companies will be 3,000 Euros instead of 4,000 Euros. In the case of electric LCVs up to 3.5 tons, there is no maximum price, but the subsidy is for 40% of the total price plus the cost of the battery in case the battery is leased separately from the purchasing price -a deal structure that is common in Europe.

The subsidy for low-income families grew by 2,000 euros up to a maximum price of 7,000 Euros for an electric passenger car or 8,000 Euros for an electric LCV as part of the French government's "social" approach.

In addition, a subsidy of 1,000 Euros is given to buyers of used EVs or, in the case of low-income households, 3,000 Euros.

The new taxation completely cancels subsidies for PHEVs, passenger cars that weigh over 2.4 tons, and EVs that cost over 60,000 Euros. The "Environmental bonus" for heavy commercial vehicles has been canceled as well.



6. Israel

The ministry of the environment, in a position paper presented to the finance committee: "Raising buying tax for EVs should be delayed. The penetration rate is too low, prices are high, and energy costs are rising"

The ministry of the environment strongly opposes raising the buying tax for EVs, states a position paper prepared by the transportation and climate sections of the ministry of the environment and delivered at the beginning of January to the finance committee. The paper claims that cutting the tax benefit will cripple Israel's ability to reach the climate goals the country committed to as part of international climate agreements. The ministry mentions that EVs are a vital element in solving the problem of transportation-related air pollution, which is the most significant environmental cause of mortality and sickness in Israel. Also, it is vital to continue the infant industry protection for EVs since this is a young market. Recent data shows that only 1.1% of the cars in Israel are electric.

The document goes on and elaborates on the reasons for postponing the tax rise:

• EV prices have gone up during 2022. The ministry claims that when the current tax outline was formulated, global projections about the ongoing reduction in Lithium-ion batteries (a central cost component in EVs) estimated that production costs of EVs and ICE cars would be at par between 2024 and 2026. Therefore, the outline was formulated in order to provide infant industry protection and allow for creating a market for EVs at a phase when electric cars are more expensive.

However, states the ministry, the effects of the COVID pandemic and the war in Ukraine caused a shortage in raw materials and supply chain disruptions, that in turn caused a rise in battery prices. As a result of the global rise in battery prices, the prices of moderately priced EVs imported to the Israeli market rose by an average of 10% during 2022. The ministry estimates that these disruptions will continue to affect EV prices for at least two more years.

• Electricity prices have also gone up by more than 20% during 2022 and will continue to rise due to IEC (Israeli Electricity Company) debts caused by absorbing part of the high coal costs in the passing year. The result is a rise in the price of using an EV.



- Delivery disruptions of EVs in Israel and all over the world caused early adopters that bought EVs between 2020 and 2022, relying on the current tax benefit, to encounter long delivery times. This caused, in turn, among other things, a radical price surge of used EVs, a charge on the inventory that did arrive in Israel, and an increase in uncertainty. As 2023 unfolds and the tax goes up, many customers are still waiting for their EVs to arrive in Israel, hoping to enjoy the price according to 2022 taxation. Some of the clients are waiting a year or even longer.
- The tax rise will severely damage the economic reasons for buying an EV; it will increase uncertainty and slow the growth rate of the market for EVs.
- The goals of the national plan for reducing air pollution and greenhouse gas emissions will not be reached without a shift to full electric mobility by the end of the decade.
- The penetration rate of EVs in Israel is still behind international indexes. According to the ministry of transportation, in 2022, 10.2% of new car deliveries were of EVs, compared with European countries where the rate of EV buying is higher. The ministry of the environment believes that there are two market distortions that affected a relatively high percentage of EVs: delay in deliveries caused an artificial inflating of the amount of new EVs in 2022 because many of the cars delivered were ordered in 2021. Also, the customers wanted to purchase EVs before the tax is raised, which caused higher delivery figures towards the end of the year deliveries in the second half of 2022 were almost twice the amount of the first half. This is a known phenomenon when taxation changes, and as a result, fewer deliveries are expected in 2023. In conclusion, the 2022 figures are biased upwards. In addition, despite the tax benefit, the percentage of EVs in Israel out of the entire existing fleet is lower than in European countries.
- The paper also responds to the claim raised by the ministry of finance, according to which competitive pricing for EVs will result in higher milage and congestion the energy costs of EVs are significantly lower than those of an ICE car; hence there is a concern with increased milage, congestion, and the associated damages. "This is a known phenomenon since the milage costs for these cars are low, and we agree that this is a negative effect that needs to be reduced... however, the way to deal with this problem is not by raising the buying tax. One cannot solve the problem of use costs by raising purchasing costs. This argument



also contradicts the vehicle taxation policy led by the ministry of finance for many years, of reducing fixed costs and increasing variable costs".

The ministry mentions that there are a number of solutions to the increased milage problem that have been tested by the ministry of finance for a few years now, especially milage tax. "We promote advancing these solutions while understanding the external costs deriving from the milage of all kinds of vehicles and preserving the economic benefits of purchasing an EV over an ICE vehicle. The policy of the ministry of the environment is to decrease as much as possible milage of private cars for the sake of public transportation, or alternatively, out of the realization that some private milage will continue to exist in any scenario — milage by EVs should be favored over milage by ICE cars".

In conclusion, the ministry writes: "Tax benefit is the only incentive for electrifying private transportation in the state of Israel, and damaging it will have a profound impact. Before reducing the tax benefit, it is vital to promote regulation for reducing greenhouse gas emissions from transportation, a regulation that will be based on the European model and will ensure a gradual shift of the Israeli fleet to clean mobility".

Hezi Shayb – Ph.D CEO – I-Via