The future of moto auto world

Nataša Tomić-Petrović
University of Belgrade, Faculty of Transport and Traffic Engineering, Belgrade, Serbia
e-mail: natasa@sf.bg.ac.rs

Abstract: The new decade symbolically heralds the year of innovations and advancements in automobile sector. Dutch company “Lightyear” has announced that the first “long-range” solar-powered car arrives in 2021. “Lightyear One” will be charged on the household socket, and with a charged battery will be able to cover a distance of 725 kilometers.

At the fair in Las Vegas, a special place was given to electric “Mustang” with 900 hp. Among the many versions of “Ford Mustang”, for this model six-speed manual transmission was designed and the driver has at disposal three regimes, and the system is controlled by a large central touch screen.

The new European drone regulation, in effect July 1st 2020 will require new compliance and registrations by their users.

Unfortunately, during 2019, the public learned that “Audi” is withdrawing 138,000 A3 models of the following class, because their airbag does not open due to a malfunction, (models were manufactured between years 2015 and 2019) and these are: 2015-2019 A3 Sedan, 2015-2019 A3 Cabriolet (convertible), 2016-2018 A3 E-Tron (plug-in hybrid), 2017-2019 RS3 (based on the A3), 2015-2016 S3 Sedan (based on the A3).

At the end of 2019, the merger of “Fiat Chrysler” and “Peugeot - Citroen”, the two auto giants on the basis of 50:50 and production of 8.7 million cars a year were announced. More recent information comes with the knowledge that these car companies which are in negotiations will sign the merger agreement, which would create the fourth largest car producer in the world.

In Serbia there is shortage of about 10,000 drivers and from 80,000 active, already about 10,000 so far took the card and certificate for driving motor vehicles through Europe. Drivers are still in the category of the most wanted professions. In Belgrade City Transportation Enterprise is planning to hire 110 new drivers for the largest city carrier.

Interesting is also the phenomenon of electric scooters that became almost mandatory means of transport in cities throughout the world. These vehicles necessarily need legal restrictions, and it is interesting that Germany already limits the use of electric scooters.

KEYWORDS: AUTO, REGULATION, WORLD, SERBIA

Introduction

We are witnessing that numerous car shows have been canceled due to the crisis caused by the emergence and spread of the virus corona throughout the world. An epidemic caused by a corona virus has put a stop to the European auto industry. Car manufacturing is at the heart of European industry, as it employs directly or indirectly, almost 14 million people and this message comes from the European Automobile Manufacturers Association. Today in the time of pandemic the workers of factory “Fiat” in Serbia are on the forced leave.

NEWS IN THE AUTO MOTO WORLD

The transport sector is the fastest growing energy consumer and producer of greenhouse gases. The new decade symbolically heralds the year of innovations and advancements in automobile sector. Dutch company “Lightyear” has announced that the first “long-range” solar-powered car arrives in 2021. “Lightyear One” will be charged on the household socket, and with a charged battery will be able to cover a distance of 725 kilometers.

At the fair in Las Vegas, a special place was given to electric “Mustang” with 900 hp. Among the many versions of “Ford Mustang”, for this model six-speed manual transmission was designed and the driver has at disposal three regimes, and the system is controlled by a large central touch screen.

The new European drone regulation, in effect July 1st 2020 will require new compliance and registrations by their users.

Also worth mentioning are the new “Škoda” KamiQ, the “Citroen” C4 Cactus, then the technologie hybrid “Suzuki” (3 year warranty on 100,000 kilometers).

And the BMW X8 is coming soon and promotion can be expected in late 2020 or early 2021.

“BMW” has also introduced a powerful M2 CS that looks powerful with 450 horsepower under the bonnet. Only 2200 copies of this “pocket rocket” will be produced, with maximum speed limited to 280 kilometers per hour, but with the removal of the limiters it can increase up to 300 km/h. It is significant that in addition to the civilian version of BMW will offer racing “CS racing”, because this car certainly belongs on the racetrack.

Unfortunately, during 2019, the public learned that “Audi” is withdrawing 138,000 A3 models of the following class, because their airbag does not open due to a malfunction, (models were manufactured between years 2015 and 2019) and these are: 2015-2019 A3 Sedan, 2015-2019 A3 Cabriolet (convertible), 2016-2018 A3 E-Tron (plug-in hybrid), 2017-2019 RS3 (based on the A3), 2015-2016 S3 Sedan (based on the A3).

Also the new “Audi S8” is highlighted. During July 2019, unfortunately, the public learned that the Volkswagen’s choice was: Turkey is more important than Republic of Serbia, i.e., the Volkswagen’s Board of directors announced that it has chosen a location for a factory near the Turkish coastal city of Izmir, and Qatar has probably contributed to this decision (holding 17% of the capital in the German giant). However, a decision has not yet been made... the outcome is expected!

At the end of 2019, the merger of “Fiat Chrysler” and “Peugeot - Citroen”, the two auto giants on the basis of 50:50 and production of 8.7 million cars a year were announced. More recent information comes with the knowledge that these car companies which are in negotiations will sign the merger agreement, which would create the fourth largest car producer in the world.

“Folkslivsagen” is also preparing a boom on the market and that is the ordinary Golf, the eighth generation technically superior to the previous or electrical ID.3, with a range of up to 330 kilometers. Company “Mercedes” does not surrender, and so a new version of the recently updated models GLC and GLC cupe has arrived.1 Production of the new “Nissan Juke” began in October 2019, while production of the “Toyota Land Cruiser” has already exceeded 10,000,000.

The premiere of the totally all-new “Yaris” came next. The big-small “Yaris” is designed for urban life today. The small electric “Renault” arrives in Europe. Reno's affordable model “City K-ZE” is currently sold only in China, but the special version of the “K-ZE” is coming to Europe, where it will be more expensive due to certain changes and upgrades. Otherwise, the “City K-ZE” is powered by a 44hp electric motor, reaching a maximum of 105 km/h.

Interesting is also the phenomenon of electric scooters that became almost mandatory means of transport in cities throughout the world. These vehicles necessarily need legal restrictions, and it is interesting that Germany already limits the use of electric scooters.

\[1\] It is “Mercedes GLC 43 AMG”.

\[2\] There are 44,100 electric cars registered in Norway and 48,000 in Germany.
Europe by the number of sold electric cars. Far ahead of everyone is still China, with about 628,000 E-vehicles registered between January and June 2019. The famous Korean brand “Lotus” with a new owner from China (“Gili”) presented a new hypercar, “Exvia”\(^3\), an electric two-seater with 2000 horses, which will be produced in only 130 copies, as the most expensive project in the history of “Lotus”. Production should start next year.

The Japanese “Korola” is a hybrid version of the best-selling car of all times. It emerged in 1976, and today the 12th generation of this Japanese car with the new platform and the new look is in front of us. Experts say also with the new sensation in driving, because there is no more diesel engine. The gasoline engine is now lighter and the consumption and emissions of harmful gases are lower. It is said about smart cities and buildings, alternative energy, energy savings, recycling; the bike is being used more and more, electric scooters have covered the city. In Finland, for example, you can book the nearest city car for you through the mobile phone application, drive it and leave it, where you want. The applications also serve for noise measurement in the city, and citizens of the Finnish capital, Helsinki, are the moving noise measuring devices.

It is interesting that during Auto Fair in Frankfurt thousands of citizens demonstrated asking for more activities because of climate changes. It was announced that “strong cars are climate killers”, and the protest organizer’s demands were: to stop using combustion engines, climate-neutral traffic by 2035, speed limits on the highway and a strong German climate policy package.

Environmental groups cite the trend toward bigger and more powerful cars, especially SUBs, contrary to the increase in fuel efficiency in recent decades.

**AUTO WORLD IN THE PERIOD OF PANDEMIC**

We have witnessed the great struggle of the Chinese people with the epidemic of the deadly coronavirus (Covid-19) virus. All over the world people faced the same problem, especially in Italy, Spain, USA, England, Romania, Brazil, in Serbia too. One can say a superhuman struggle for every life and the effects of calming the epidemic and the gradual normalization of the situation are slowly coming to light, especially in parts of China that have been the most exposed and with the highest casualties among the population.

And before the outbreak of the pandemic caused by this virus, information from exhibition in Tianjin in China came on the helicopter called a “super-sized white shark”\(^4\), which resembles a flying saucer, and its prototype is scheduled to launch its first flight in 2020.\(^5\) That’s how it was planned, and today it is certain that the term has been changed. American National Aeronautics and Space Administration (NASA) has unveiled the “Mars 2020 Rover”, which was planned to be launched in July 2019, with its destination in a dried up lake bed on Mars, where it should land in February 2021.

The significant is success of the Korean manufacturers of “Kia” and the electric models that are increasingly in demand. The largest showroom in the region, “Kia Motors Corporation”, has been also opened in Serbia, before pandemic. The best-selling model is the “Kia sid”.

**EXPERIENCE OF SERBIA**

In Serbia there is shortage of about 10,000 drivers and from 80,000 active, already about 10,000 so far took the card and certificate for driving motor vehicles through Europe. Drivers are still in the category of the most wanted professions. In Belgrade City Transportation Enterprise is planning to hire 110 new drivers for the largest city carrier.

What are citizens of Belgrade transported by? By the “Spaniards” (trams), scooters and “sparrows” (electrical buses operating in the pedestrian zone of the center of the city).

Belgrade needs a metro, though metro is not the only criterion of a smart city. Metro is being built to reduce the number of cars on the streets and to reduce the pollution. The task for all urban transport vehicles is to be “Euro 6” standard, in order to reduce nitrogen oxide emissions for about 80% and to reduce PM emissions by half.

The public vehicles began to transport the inhabitants of our capital 127 years ago and there were horse-drawn trams.

Today arrival announcements have been modernized .... More decades of traffic problems will largely be resolved by the first subway lines.

Waiting for the metro, the cornerstone should be put in 2020 and today the citizens of Belgrade use rail transport - “BG train” (established in 2010) and considered to be the most accurate public transport in the capital. The BG train network has been expanding in recent years, and the authorities promise not to cancel this train with the departure of the first subway. In September 2016, the first e-buses, which became passengers’ favorites, began to cruise.

There are more and more electric scooters\(^6\) today, and their introduction in the law is also planned.

**CONCLUSION**

The state of our planet continues to deteriorate at an alarming rate. Viruses are the most serious threat to humanity. There is a race around the world for a vaccine against this viremia. Despite all the technical advances across the globe, we are experiencing today with significant climate change also the damage in traffic of about € 120 million that due to the pandemic is caused, i.e. consequences are suffered by road, rail and water traffic, while the most affected is air traffic.

And when the epidemic lets up and stops, the electric car for everyone - the “Opel Corsa” with a range of 337 km - will make us happy. Corsa’s “Selection” is the new sixth generation, as well as the “Edition” and Corsa’s “Elegance”, that won the prestigious “Connected Car Award”.

There was a revolution in transportation. Britain is legalizing electric scooters, because the proposed amandments to regulations will allow electric scooters to become legal. The Ministry of Transport in the United Kingdom is responsible for harmonization of regulation and technical rules in order to ensure that electric scooters can be safely used on the British roads (for start in 4 zones: Portsmouth and South Hamptont, West England; Derby Nottingham, as well as the West Midlands). Hoping that Great Britain will consolidate a position of leading innovator.

We hope that vaccine against corona virus will be found soon having in mind that numerous scientists all around world are working on its invention.

---

3 It uses 4 electric motors with a total of 2000 horsepower, and at its most efficient driving, the range with a single charge of batteries /70 kWh / should be up to 400 kilometers.

4 This aircraft will weigh 6 tons, it can fly at altitudes up to 6,000 meters, at speeds of up to 650 kilometers per hour. Military experts said that with great speed, the low noise level of this aircraft of the future was achieved.

5 The first flight of this futuristic aircraft will be at the “Air show China 2020” event in the city of Duhai, southern Guangdong province.

6 Electric scooter (from the company Denver electronics SCO-54220, product from Denmark) with a power of 300W is sold in Serbia for 32 000 dinars, with maximum speed up to 20km/h, the electric brake is on the front wheel and the foot brake on the rear, the diameter of the wheel is 6.5 inches, weighing 9.9 pounds and capacity of up to 100 pounds. Display: review - speed, distance, battery consumption.