



# HORIZON

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# IEEE Students' Branch



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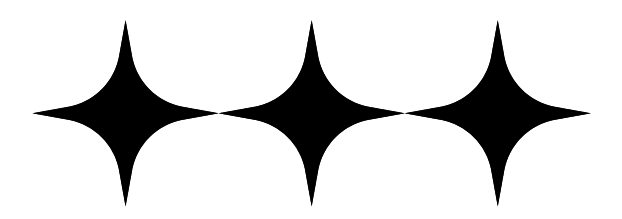
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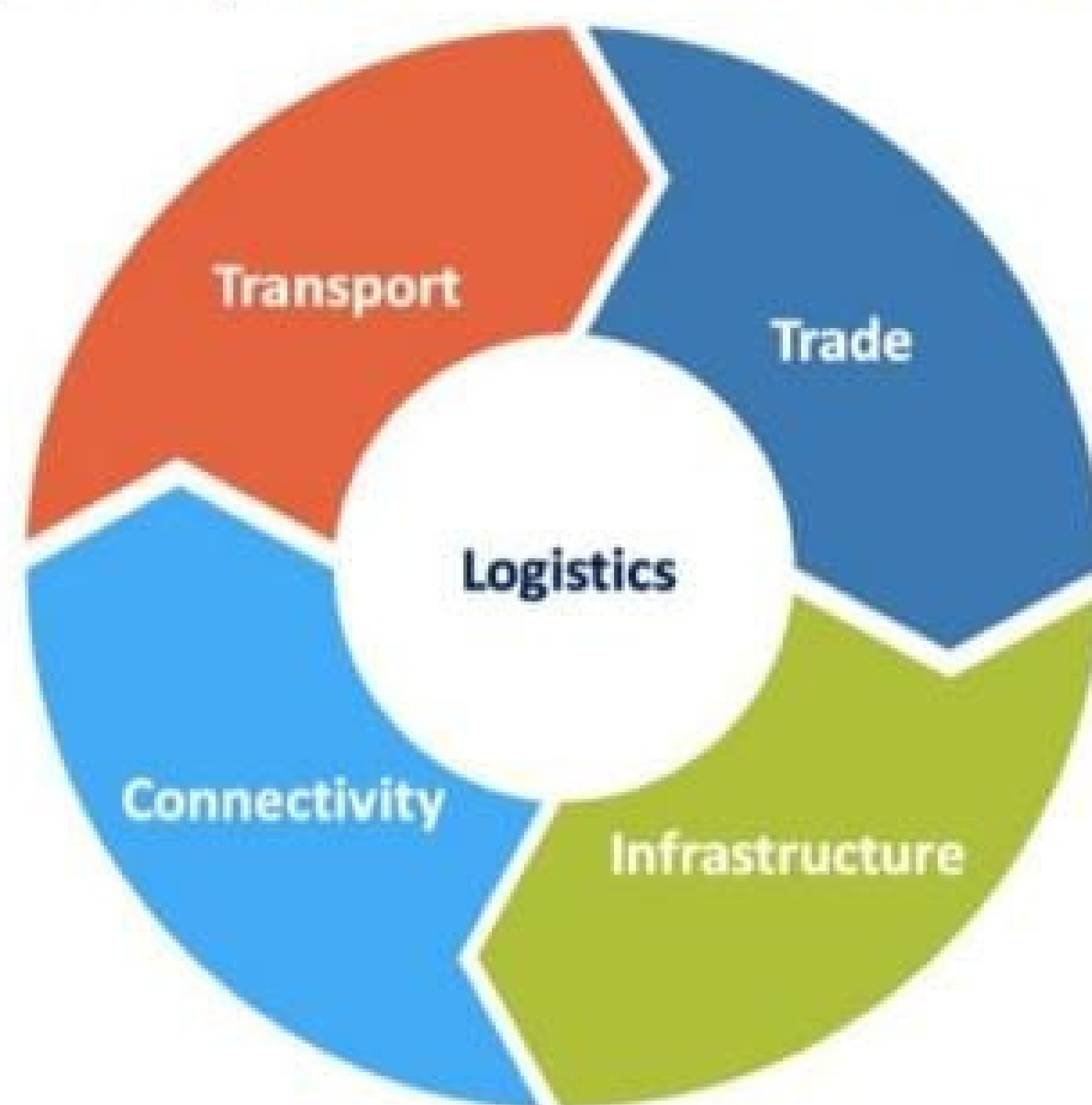
# Market Analysis



**W**ithin the recent context of the COVID-19 pandemic, the importance of infrastructure and logistics is more evident than ever. The continuation of logistics services helps guarantee the provision of food stock, medical supplies, and all consumption items. It is therefore, necessary to examine in detail the special needs of Land-locked Developing Countries which rely on access to transport gateways in neighboring countries, thus lacking autonomy and control over the connectivity network (inland, fluvial or maritime ports in foreign territories). A pivotal point to ease this burden is the development of strong domestic and cross-border infrastructure, and logistics services that can provide the much-needed connections to external markets, especially in times of crisis.

This report focuses on the impact of COVID-19 on transport connectivity and its implications for transport and trade. To facilitate the understanding of the interconnectedness of these concepts, their relationship can be summarized in figure 1:

**Figure 1**  
**Conceptual layers of the environment for commerce**



## **The objective and research contribution**

The global production and supply chain network is widely affected due to COVID-19 spread. The manufacturing plants are shut down or working with reduced capacities. In addition to this supply chain of raw and finished goods is also disrupted due to trade and transport restrictions. Most of the COVID-19 is focuses on the perspective of medical science, whereas a clear production and operations management perspective of COVID-19 is absent. To address the above challenges and put forward to manage the production and operations of the supply chain networks. The main objective of this opinion paper is to identify the challenges faced by manufacturing and service organizations, and prospective research dimensions for handling post-pandemic situations.

### **Pandemic control and production system**

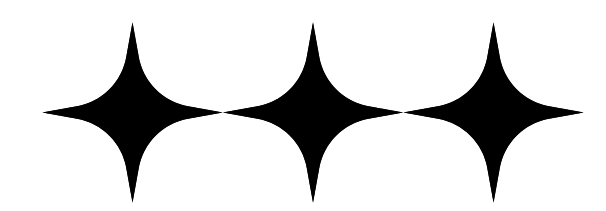
The pandemic situation arises the demand for rare production items such as ventilators, gloves, face shields, masks, and sanitizers at a high rate. During this pandemic era, some of the manufacturing giants such as General Motors and Ford Motors turn their production systems to support the need of society in terms of manufacturing ventilators. Therefore, a flexible manufacturing system is required to fulfill the requirement for such necessary items. National government institutions, manufacturing organizations, health institutions should be prepared in advance to tackle the pandemic situation to control the production of essential and nonessential items during a pandemic. This means that they should have sufficient buffer plans to address the availability of life saver stocks such as ventilators, vaccines, sanitizers, masks, and face shields.





## Concluding remarks

The global world faces a distressing time to combat COVID-19, and this is to be considered as the most significant disruption in the last three industrial revaluations. The COVID-19 situation has forced the manufacturing organisations to pause the production system for a longer time and search for sustainable solutions to ensure smooth supply and operations from both the businesses and the customers' perspectives. The production and services organisations need to be sustainable and resilient to handle the present situation as well as learn for such future pandemic.



## **EV rules the vehicle market**

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**Electric cars had a record year in 2020, with Europe overtaking China as the biggest market.**

After a decade of rapid growth, in 2020 the global electric car stock hit the 10 million mark, a 43% increase over 2019, and representing a 1% stock share. Battery electric vehicles (BEVs) accounted for two-thirds of new electric car registrations and two-thirds of the stock in 2020. China, with 4.5 million electric cars, has the largest fleet, though in 2020 Europe had the largest annual increase to reach 3.2 million

Overall the global market for all types of cars was significantly affected by the economic repercussions of the Covid-19 pandemic. The first part of 2020 saw new car registrations drop about one-third from the preceding year. This was partially offset by stronger activity in the second-half, resulting in a 16% drop overall year-on-year. Notably, with conventional and overall new car registrations falling, global electric car sales share rose 70% to a record 4.6% in 2020.



**A**bout 3 million new electric cars were registered in 2020. For the first time, Europe led with 1.4 million new registrations. China followed with 1.2 million registrations and the United States registered 295 000 new electric cars.

Numerous factors contributed to increased electric car registrations in 2020. Notably, electric cars are gradually becoming more competitive in some countries on a total cost of ownership basis. Several governments provided or extended fiscal incentives that buffered electric car purchases from the downturn in car markets.

## **Consumer spending on EVs continues to rise, while government support stabilises**

### **Consumer spending**

**C**onsumers spent USD 120 billion on electric car purchases in 2020, a 50% increase from 2019, which breaks down to a 41% increase in sales and a 6% rise in average prices. The rise in average prices reflects that Europe, where prices are higher on average than in Asia, accounted for a bigger proportion of new electric car registrations. In 2020, the global average BEV price was around USD 40 000 and around USD 50 000 for a PHEV.

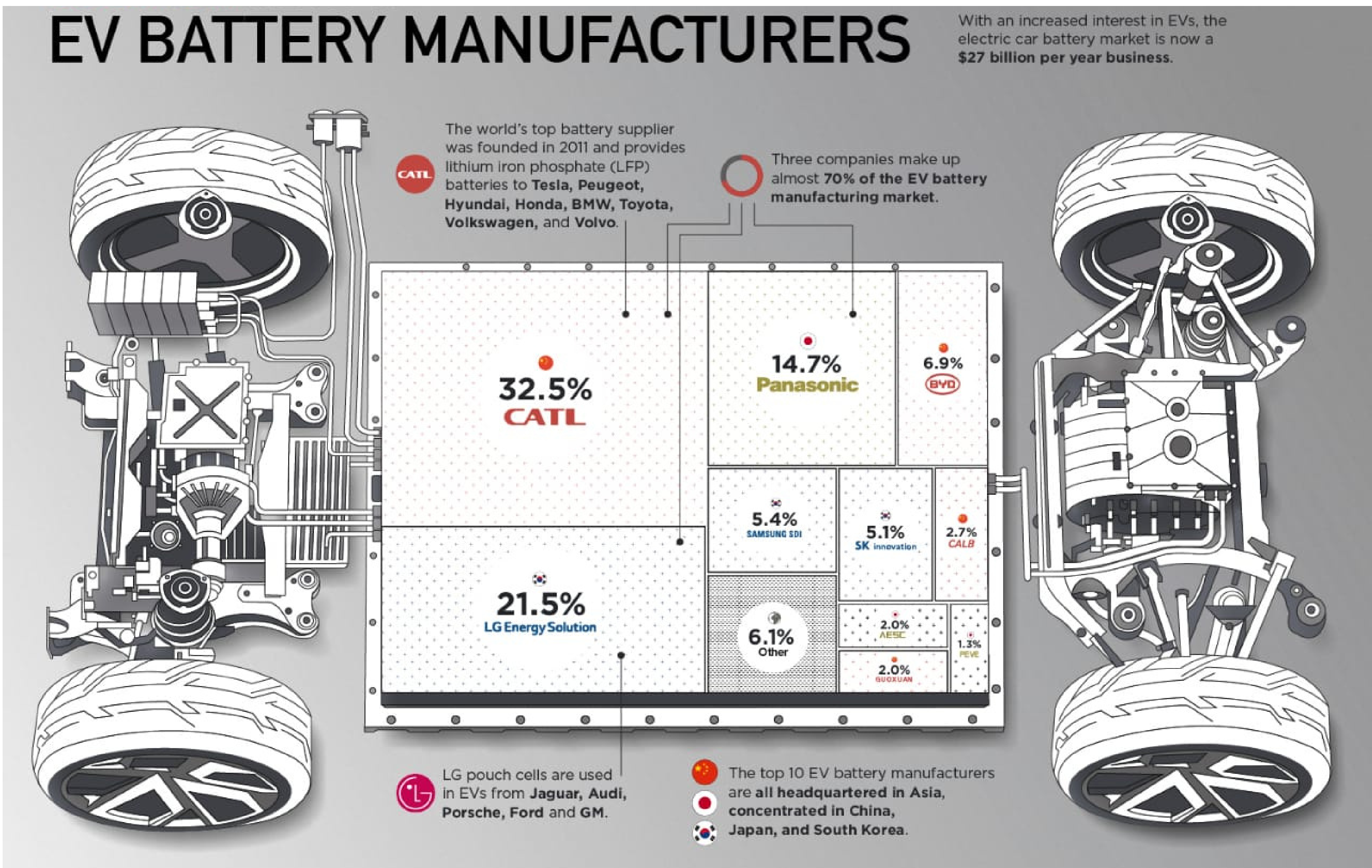
### **Government spending**

**G**overnments across the world spent USD 14 billion on direct purchase incentives and tax deductions for electric cars in 2020, a 25% rise year-on-year. Despite this, the share of government incentives in total spending on EVs has been on a downward slide from roughly 20% in 2015 to 10% in 2020.

All the increase in government spending was in Europe, where many countries responded to the pandemic-induced economic downturn with incentive schemes that boosted electric car sales. In China, government spending decreased as the eligibility requirements for incentive programmes tightened.

An important novelty in subsidy schemes was the introduction of price caps in Europe and China, i.e. no subsidy given for vehicles with prices above a certain threshold. This might be responsible for average electric car price falling in Europe and China: BEV cars sold in China were 3% cheaper in 2020 than in 2019, while PHEV cars in Europe were 8% cheaper.



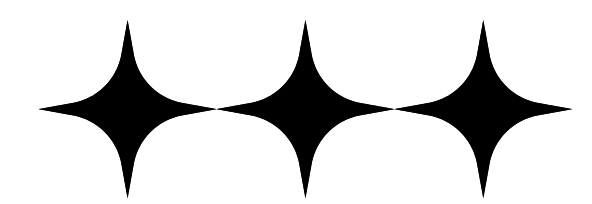


## 2020 was a pivotal year for electric cars – but the challenge ahead is formidable

Overall global electric car stock reached 10 million in 2020, with battery electric vehicles (BEVs) accounting for two-thirds of the world's electric car fleet. The largest increase in 2020 occurred in Europe, where registrations more than doubled to 1.4 million (a sales share of 10%), making it the world's leading electric car market for the first time. China followed with 1.2 million registrations (5.7% sales share), and the United States remained third at 295 000 (2% sales share).







# INDIA CONTRIBUTION TO GLOBAL HEALTH CARE

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2020 has been a most unprecedented year. No one, anywhere in the world could have predicted the kind of havoc COVID-19 created, not just in overwhelming the health systems but also challenging economic growth, industrial progress and overall life and morale of the population. Under the dynamic and farsighted leadership of the Hon'ble Prime Minister, Sh. Narendra Modi ji, India could tackle the pandemic through a wide range of public health and social measures along with timely identification, testing, isolation, quarantine and treatment facilities provided across the primary, secondary and tertiary level facilities. Hon'ble Union Minister for Health & Family Welfare steered the vision of Hon'ble PM, as a strong multi-sectoral effort with a 'whole-of-Government' and 'whole-of-society' approach to provide advisories, guidelines and services to the entire country even as the pandemic kept evolving. Today we have least number of Covid-19 cases, highest recovery rate, least number of deaths due to Covid-19 and now moving towards a Greater Win by developing Vaccines against the dreaded disease. Hon'ble PM of India launched the world's largest Covid Vaccination Drive on 16.01.2021. Government of India is committed to ensure the highest possible level of health and well-being of all, at all ages, through a preventive and promotive healthcare orientation in all developmental policies and universal access to good quality healthcareservices, without anyone having to face financial hardship.

The approach is to increase access to the decentralized public health system by establishing new infrastructure in deficient areas and upgrading the infrastructure in the existing institutions. There is also need to strengthen the role of public sector in social protection against the rising costs of healthcare and the need to provide a comprehensive package of services without reducing the prioritization given to women and children's health.





There has been a significant improvement in the creation of new facilities and infrastructure, though adequate human resource at these facilities by qualified health personnel, remains a challenge. Availability of drugs has improved at all levels and the robust logistic arrangement for procurement and storage of these drugs has been put in place. Under the second component of Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY), nearly 10.74 crore poor and vulnerable families (almost 50 crore citizens of India) identified as per the SECC database, are entitled to health cover of Rs. 5 lakh per family/year for secondary and tertiary care hospitalization services. This is the world's largest Public Healthcare Insurance Scheme. 32 States/UTs are implementing the scheme and over 1.5 Crore hospitalizations amounting to approx. Rs.18,600 Crores were authorized under the scheme by 31.12.2020. Additionally, over 1.6 lakh hospitalizations amounting to Rs. 345 Crores have been authorized under the InterState portability feature. So far, 13 crore e-cards (including cards issued by State Governments) have been issued under the Scheme to facilitate availing the benefits, easily. The National Health Mission (NHM), which is our flagship health systems reform program, provides a robust platform for the implementation of a range of interventions focused on primary and secondary health care in rural and urban areas. NHM's efforts in strengthening health systems in States by allocating additional financial resources, flexibility in design and implementation, ensured sharper focus on particularly marginalized and vulnerable populations and enabled us to achieve impressive improvements in several key indicators of RMNCH+A and communicable diseases. Under the RMNCH+A strategy of NHM, significant improvements have been achieved in the reduction of MMR and child mortality rates. The MMR at the national level has reduced to 113/ lakh live births during 2016-18, which was 122 per lakh live births during 2015-18 (SRS). Similarly, U-5MR has declined to 36 per 1000 live births and NMR to 23 per 1000 live births as per SRS 2018. The TFR is 2.2 (SRS 2018) A lot of emphasis is being given to dealing with the aftermath of COVID-19.







Thank you!