

The Future of the light car in Europe

When the term Light Car was created in the UK about a hundred years ago, it was reflecting the French term Voiturette that was used to at the time refer to cars with an engine capacity up to 1.5 litres.

In the past the choice of motive power for light car, has been limited to the internal combustion engine, either using gasoline or diesel fuel, with the odd battery powered electric model making a limited appearance, but now that has changed with a range of options available, from an internal combustion engine on its own to the pure battery electric car, with in between a range of combinations that include both forms of motive power differing in the degree that motive power is provided by one or the other source.

Today in the twenty twenties at the light end, the (A Segment) City Car, the (B segment) Supermini and at the heavy end the (B Segment) Small Crossover, the latter being the latest fashion that has almost replaced the small MPV are the classes of cars that fit that range, but with a widening of options for motive power in a car. The capacity of the engine is not now relevant because light cars now use many forms of motive power but size is still the relevant factor.

A relatively new form of terminology has been created to describe these various combinations of power units. ICE = Internal combustion engine.

MHEV = Mild Hybrid. Comprising an Internal combustion engine assisted by a small electric motor generator usually with a simple form of drive with a small battery pack. With the capacity for regenerative braking to top up the battery.

HEV= A true hybrid. Comprising an Internal combustion engine assisted by an electric motor generator and battery pack, in some cases capable of propelling the car on its own, With the capacity for regenerative braking to top up the battery through an automatic transmission.

PHEV. Comprising an Internal combustion engine assisted by an electric motor generator and battery pack, capable of propelling the car on its own for a limited period, With the capacity for regenerative braking to top up the battery through an automatic transmission and addition of the option of plugging in to an external power supply to charge the battery.

BEV. An electric motor and battery pack, capable of propelling the car on its own needing plugging in to an external power supply to charge the battery.

A range of options are now available to a potential light car owner. Due to the increasing limits on emissions and legislation to encourage their reduction, the internal combustion engine only models, although more numerous at the moment will have to give way to the more complex and expensive types to meet the emission target and in time will not be produced. The hybrids will survive for a few years, depending on how efficient they are, finally giving way to battery electric car. By then the fuel cell electric car may be viable, widening the choice of motive power available to the light car user.

A Snapshot of Light Cars Available in Europe in 2021.

ICE only City Cars.

- Hyundai i10.
- Susuki Ignis
- Kia Picanto.
- VW up.
- Skoda Citigo.
- Toyota Aygo.
- Fiat Panda.
- Fiat 500.
- Citroen C1.
- Peugeot 108.
- Renault Twingo.

MHEV City Cars.

- Suzuki Ignis.
- Fiat 500.

HEV City Cars.

- None.

BEV City Cars.

- Fiat 500 EV.
- Seat Mii Electric.
- VW e-up.

Skoda Citigo-e IV.
Smart EQ ForTwo.
Smart EQ ForFour.

ICE only Supermini.

Opel/Vauxhall Corsa.
Ford Fiesta.
VW Polo.
SEAT Ibiza.
Mini Hatch.
Peugeot 208.
Renault Clio.
Citroen C3.
Mazda 2.
Hyundai i20.
Kia Reo.
Susuki Swift.
Toyota Yaris.
Honda Jazz.
MG MG3.
Dacia Sandero.
Audi A1.
Skoda Fabia.

MHEV Supermine.

Susuki Swift.
Ford Fiesta.

HEV Supermini.

Toyota Yaris.
Honda Jazz.
Renault Clio E-tech.

PHEV Supermini.

None.

BEV Supermini.

BMW i3.
Renault Zoe.
Peugeot E-208.
Mini Electric.
Opel/Vauxhall Corsa -E.
VW ID.3.
Nissan Leaf.

Honda E.



ICE only Small Crossover.

Hyundai Kona.
Honda HR-V.
Ford EcoSport.
VW T-Roc.
Nissan Juke.
Peugeot 2008.
Citroen C£ Aircross.
Opel/Vauxhall Mokka.
Renault Captor.
Opel/Vauxhall Crossland.
Audi Q2.
Seat Arona.
MG ZS.

MHEV Small Crossover.

Ford Puma.

HEV Small Crossover.

Kia Niro.
Hyundai Kona.
Honda HR-V.

PHEV Small Crossover.

Kia Niro.
Renault Captor.

BEV Small Crossover.

Hyundai Kona Electric.
Kia E-Niro.
Peugeot E 2008.
Opel/Vauxhall Mokka E
MG ZS EV.