

## 5.1 Current State

### 5.1.1 Current State of the Electric Vehicle Markets In Europe

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In this section, we will discuss the global market for electric vehicles. Note that this market may still be considered a niche market, but electric vehicles develop very dynamically around the world, and this is what we will explain here.

#### Current state of the global market

As you can see in Figure 5.1, the growth rate of the electric vehicle market for the past 4-5 years has been particularly dynamic. The fleet, i.e. the number of electric vehicles on the road, increased from approximately 100 000 vehicles in 2012, which is already interesting, as the first vehicles of the current generation date from 2010-2011, which means that it became quite rapidly dynamic, to over 1 300 000 vehicles in circulation around the world today.

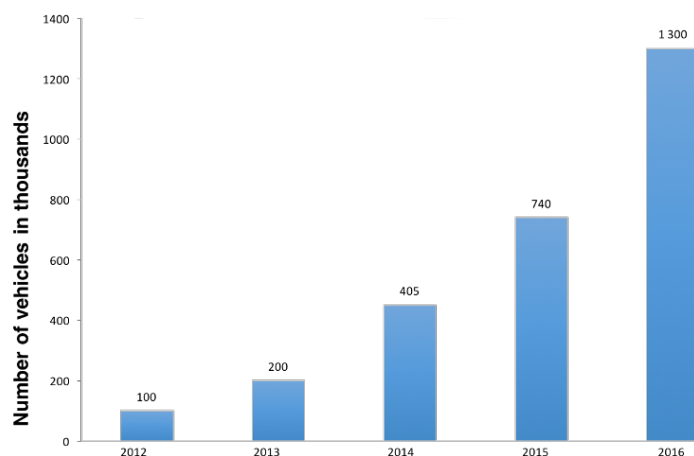


FIGURE 5.1 – Number of electric vehicles in circulation worldwide between 2012 and 2016 (in thousands) - Source : AVERE-France

**Main markets** In 2012, the main market was primarily Japan. It is indeed there that the first electric cars were launched, notably the Mitsubishi i-MiEV and the Nissan LEAF. Primarily Japan, but also the United States, that were very dynamic, with California as a driving force, and Europe, that had a slow start, but was still the third market notably with France.

Today we see that the growth was significant, but the players in this growth have changed, with one notable game changer, China. China has actively engaged in the electric vehicle market. Last year, they registered over 350 000 electric vehicles, a significant figure for a total market of 1 300 000 units. It must be understood that half of the global fleet is in China, this is very important. Europe remains dynamic, and we will see that France is the first European market. The United States are also very dynamic, with a good level of growth, however, Japan is in slight decline compared to previous years.

## Current state of the European market

Now that we saw the global market, we will focus on the European market. Europe has four main markets : the United Kingdom, Germany, Norway, and France with more than 92 000 electric vehicles in circulation for the last one (Figure 5.2).

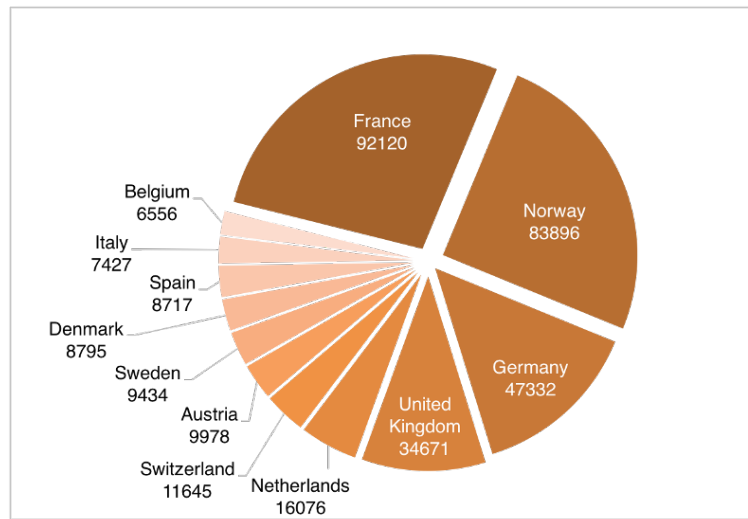


FIGURE 5.2 – European fleet of electric vehicles Decembre 31, 2016 - Source : AAA, AVERE-France

Why these four countries ? Because as we will see in Section 5.1.3, they have very active public policies in support of electric vehicles.

These four countries make up most of the European market, they are followed by other countries that are starting to take off, but to a much lesser extent.

**Focus on United Kingdom, Germany, Norway, and France** Let us look more precisely at what has happened in recent years in these four countries. As you can see in Figure 5.3, the growth rhythm is relatively important. Some years even saw double-digit growth rates, notably in countries such as France, where the market is very dynamic, but also Germany, where it started a bit later than in France but where the motivation is high, the manufacturers and the state have made strong commitments, and the market is taking off.

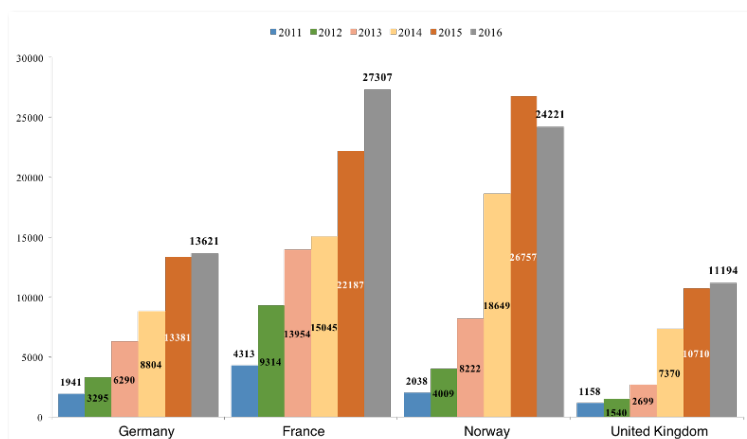


FIGURE 5.3 – Registrations of electric vehicles 2011 - 2016 Main markets - Source : AAA, AVERE-France

Something extremely remarkable in 2017 but which does not show on this graph is the case of the United Kingdom, where an ambitious policy of investment in electric vehicles has been implemented, notably by the public authorities, and the effects are very strong in 2017, the market is booming, and is even overtaking France in terms of monthly volume. The United Kingdom appears as a small market in Figure 5.3, but is actually a big emerging market.

The two main markets are of course Norway and France, as they are the countries where the policies of investment in electric vehicles pre-date those of the other countries by far, the largest European fleet being France, as we saw earlier.

### Current state of the French market

So, in concrete terms, what is happening in France regarding the electric vehicle market ?

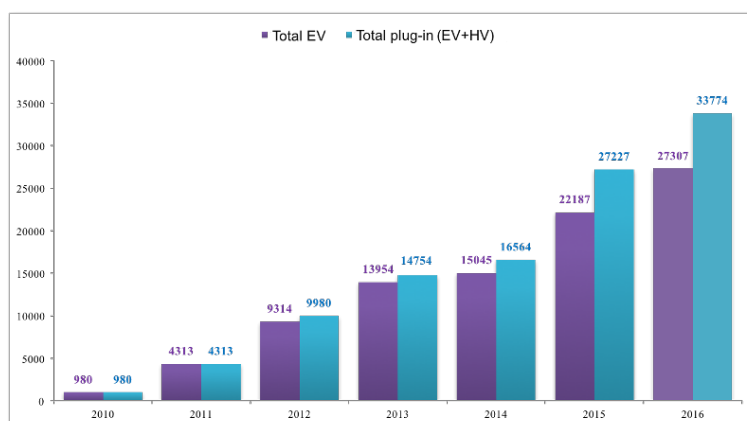


FIGURE 5.4 – Registrations of electric and plug-in hybrid vehicles Evolution 2010-2016 in France (metropolitan) - Source : AAA, AVERE-France

The growth has been substantial since 2010, and even exponential in some years. Today, the growth rates are still significant, as you can see, but they return to normal

compared to the previous years. It is indeed easier to double a small figure than a large one, and the French market has now reached large growth figures. The global market growth was 23% as compared to the previous year with a total of over 33 000 rechargeable vehicles sold, among which 27 000 were 100% electric. We can see that the electric vehicle market is very important in France, and there starts to be a market of plug-in hybrid vehicles, with two engines, but they are still expensive today, and they also arrived later, around 2012-2013, on the French market.

The characteristics of the market in France may finally be explained by how it is structured at the regional level, and what you can see (Figure 5.5) about the state of the fleets at the end of 2016 is that there are significant differences between the regions.

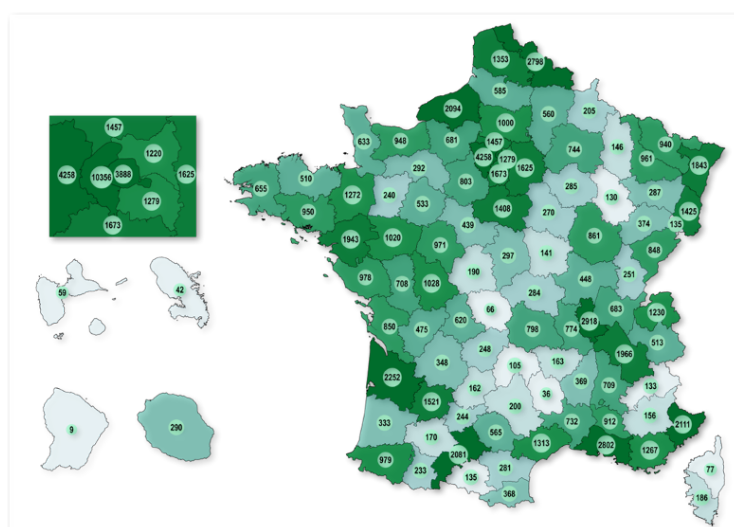


FIGURE 5.5 – Registrations of electric vehicles from January 1<sup>st</sup>, 2010 to December 31<sup>st</sup>, 2016 - Source : AAA, AVERE-France

Of course it is due to the number of people, the more people the more electric vehicles. But there are also densely populated territories where electric vehicles are not very developed, and we notably see a very dynamic wave coming from the West of France. This is due to something very important, the involvement, notably of the regional authorities, in the development of networks of recharging points. This is a determining factor, these networks of recharging points are very mature in the west, and we see a market wave that follows this development of recharging infrastructures and that unfolds from the West. Also very important in the dynamism of local markets are the potential local purchase aid schemes that complement the national aid schemes.

We see that in the end the market is dynamic, but the determining factor is the political involvement for its support.