



**This year, FABERNOVEL is dedicating its annual study to TESLA.**

**Warning.** *Since 2006 FABERNOVEL has been producing annual studies which are accessible to all, such completing one of its missions: to contribute to the understanding and accessibility of the digital revolution.*

*These studies takes an average of 3 months and the work of 2 to 5 dedicated analysts to be completed. They are an opportunity to go further and deeper in the exploration of the latest innovation topics, and give their readers the ability to take a step back and to really observe the digital age. By developing clear frameworks, they help in deciphering today's biggest recipes for success which worked for the GAFAs, unicorns and Chinese giants. The aim is to analyze all the competitive dynamics of this new economy, its performance factors and its development strategy.*

*In 2014, these studies were named "GAFAnomics" and have since been taught at Sciences Po Paris, HEC and ESCP, amongst others.*

## **TESLA, UPLOADING THE FUTURE**

In June 2017, Donald Trump announced the United States' withdrawal from the Paris Agreement. According to the President of the United States, the commitments set during COP21 "did not respect the interests of the Americans" while he had been elected "to represent the people of Pittsburgh, not Paris". At the same time, many political and economic leaders, including the mayor of Pittsburgh, dissociated themselves from the decision. One personality in particular decided to resign from the US President's Council: Elon Musk, because "climate change is something real". And - having devoted the last 10 years to developing clean transport by combining the best of the energy, automotive and software industries - he definitely knows something about it.

The electric car is actually an old idea as well as an old-fashioned design. At the turn of the 1900s, Nikola Tesla invented the electric motor. At the century's beginning, 40% of vehicles were steam-powered, 38% were electric and only 22% had an internal combustion engine.

However, from 1908 onwards, the performance of the petrol engine, the political choices for the development of individual transport, the productivity gains achieved by the Fordist revolution (production chain and labor division) and the accessible oil prices made it possible for the combustion engine to take control of the automotive market. In 1914, 99% of the cars in service were gas-powered.

A century later environmental emergencies are changing the game once again. It is in Silicon Valley - today's Olympus - where start-ups dream of changing the world and solving fundamental problems, that Elon Musk steps in.

That is because Elon Musk, an archetypal entrepreneur from Silicon Valley, cut for a Marvel studio blockbuster, still believes in Nikola Tesla's vision. Some of his companies - PayPal, SpaceX, Hyperloop and Tesla - aim to rethink structural industries: banking, space, transport and energy. And he's about to succeed! Here is how:

**To FABERNOVEL**, Tesla's success lies in its ability to evolve within 3 distinct but complementary worlds: the world of ideas, the physical world and the digital world.

1. As a master of the world of ideas, Tesla has developed a vision - the one of a world free from environmental pollution - supported by an ambitious mission: to accelerate the world's transition to sustainable energy.

2. As an actor in the physical world, Tesla has established itself as a 21st century industrialist at the head of a global system. Having become a key player in the automotive and energy sectors, Tesla has never followed a single principle. The codes of industries considered impenetrable are thus overturned to create what did not exist.

3. As a true pure-player, Tesla has become in just a few years a digital giant. Tesla develops artificial intelligence systems capable of making cars self-sufficient, and takes advantage of connectivity to create distributed transportation and energy networks, the probable infrastructures of our common future. Tesla is above all a network orchestrator, like the pioneers of the GAFAM kind.

But how did this young actor manage to combine these three worlds and establish itself in such fundamental markets as the automotive and energy ones? And in under 15 years? 6 theorems, formulated by some of the greatest entrepreneurs of the industrial and digital era, give us the keys to analyze and learn from this technological epic.

### **1) Be bold. Look and think further.**

Tesla goes way further than any one of the traditional players in its age-old industry. While its classic competitors on the automotive market focus their strategy on a product and/or consumer-based approach, Tesla broadens its horizons by implementing a much wider perspective for the company. A vision in which its product - the car - is just one of the many components. With its committed and confident approach, the company reflects much more than a mission statement and embodies a true philosophy the consumer can engage with. With the promise for a better future, Tesla surprises, touches and successfully engages its various stakeholders: investors, clients, employees, media, "believers" ...

And the numbers are there to confirm it: Tesla spends 40 times less on its marketing budget than its competitors. Because people actually want to talk about it.

## **2) Challenge the status quo**

Henry Ford and the production chain killed the dream of the electric car. Tesla brought it back to life.

Mechanics, technology, infrastructures, consumer needs...the Tesla project had nothing going for it.

As insuperable as these challenges could seem, Elon Musk met them all. One by one. By decomposing the big problem into many smaller ones, he and his team were able to gradually overcome them. How? By applying startup methods and not hesitating to think opportunistically: while the main focus was in solving the major battery problem, the Tesla team saw no shame in "borrowing" another manufacturer's chassis for its first model.

Yes, Tesla is a key player in the automotive industry. But it never actually followed any of the market's guidelines. The thing is this: if you want to create something completely new you have to set the rules.

## **3) Integrate! If you want it done well, do it yourself.**

Once the challenge of producing sufficiently powerful electric cars was met, Tesla faced another major hurdle: infrastructure. For its now super-efficient cars to actually run, it needed a charging network on the whole territory... The only way that was possible? By doing it themselves.

Mirroring Ford and his iconic River Rouge factory, Tesla started gradually integrating all necessary talents and skills under one same roof. By coming back to an industrial model that has long been forgotten, Tesla is able to create something brand new, from scratch instead of simply assembling a standardized product.

The best thing about integration in the Tesla era? Information. One same factory reunites designers, mechanics and engineers, allowing information to circulate more freely and efficiently. And solutions to emerge faster. It is by bringing its suppliers so much closer that Tesla was able to considerably better its innovation cycle, all while progressively developing its global skills and finally controlling its product's full production line.

## **4) There are no more markets, only customers.**

Following Ford's example, Tesla relies heavily on value chain integration to build the best cars on the market. But Tesla goes further, by putting the user at the heart of its concerns the company provides services along the entire car use chain.

Tesla is shaking up the retail market with new codes such as a direct sales model without the need for an intermediary and a Tesla car maintenance and insurance service. Tesla is also developing its own infrastructure to provide a better user experience.

Finally, in addition to its B2C offering, Tesla offers its customers energy production and storage services which allow them to build a range of products dedicated to individuals and communities. They are therefore less dependent on the traditional energy network and Tesla is placed in a quasi-public service position.

## **5) Putting software at the core of its business**

Unlike traditional cars, Tesla cars are built around a single core: the software. It allows continuous automotive improvement, frequent updates, prevention of technical problems and

quicker repair than any other car. This software, which is in perpetual evolution, leads progressively to the emergence of autonomous cars.

In order to improve this software, Tesla takes advantage of network effects: it only needs to detect a dysfunction in one of the cars, to update it and apply it to all other cars.

Thanks to this software, which is replacing the driver, Tesla is in the process of shaking up the entire economy, as Benz and Ford did a decade before.

## **6) Networks are the twenty-first century's assets**

The network developed within Tesla, using the software available in the cars, not only enables them to be connected to a centralized global system, but above all to link them together. This therefore leads to the construction of a fully independent fleet.

With the desire to further revolutionize the automotive industry, Elon Musk aims to open up his fleet - network - to the public, so that anyone can benefit from an autonomous electric car without owning one. This ambition is perfectly in line with his original vision of a global transition to sustainable energy in the 21st century.

**MEDIA CONTACT**

[medias@fabernovel.com](mailto:medias@fabernovel.com)