Three Timeless Entrepreneurship Lessons from the Eiffel Tower's Tumultuous Story

by Jérôme Barthélemy

The story of the famous tower's conception exemplifies core lessons for successful innovation.
Gustave Eiffel was a very successful French entrepreneur who died one century ago (on December 27, 1923). He designed some of the tallest bridges and viaducts of the late 19th century. He is also famous for providing the interior metal framework of the Statue of Liberty. However, Eiffel is best known for the tower that bears his name. In 1889, the World’s Fair (a large international exhibition) took place in Paris. Its objectives were to celebrate the 100th anniversary of the French revolution and to showcase French industrial expertise. The Eiffel Tower was the main attraction of the exhibition. At the time, the 300-meter-high (i.e., 1,000-foot-high) building entirely made of iron was the tallest building in the world. It will only be topped by the Chrysler Building in 1930 and the Empire State Building in 1931. Since 1889, the Eiffel Tower has attracted more than 300 million visitors. Several timeless entrepreneurship lessons can be drawn from its story.

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**Lesson #1: innovative projects should not be dismissed too quickly**

Although the tower is named after Gustave Eiffel, it was actually designed by someone else. In early 1884, Eiffel was approached by Edouard Lockroy, the future French minister of industry and commerce. Lockroy was in charge of organizing the 1889 World’s Fair. He asked Eiffel whether he had any idea for an innovative building that would be the highlight of the exhibition. Eiffel had no particular idea and little time to work on such a project. Therefore, he asked some of his employees to do so. Two engineers (Maurice Koechlin and Emile Nouguier) came up with the idea of a giant tower made of iron. The original design was inspired by the pillars of the viaducts that Eiffel’s company was building at the time. It was also quite basic (four legs rising obliquely to meet at the top).
Eiffel was not impressed. He rejected the proposal but he allowed Koechlin and Nouguier to keep working on the project. They teamed up with Stephen Sauvestre (an architect who was also one of Eiffel’s employees) and reworked the project to make it more appealing. In particular, Sauvestre came up with the detailed lattice work that will make the tower famous. In September 1884, Eiffel gave the project the green light. He also registered a patent for the tower in the names of Eiffel, Nouguier and Koechlin. Three months later, he bought the shares of his two employees. In exchange, each of them received a grand total of 80,000 Francs (1 percent of the construction costs...).

The first lesson for entrepreneurs is that innovative projects should not be discarded too quickly. In the beginning, they are always half-baked. They need to be considerably refined before they become acceptable. Eiffel perfectly understood this. Instead of rejecting the initial proposal, he asked Koechlin and Nouguier to keep working on it until it was ready to be submitted to Lockroy.

**Lesson #2: innovative projects always require entrepreneurs to go that extra mile**

In 1886, Lockroy launched a competition to select the main attractions of the 1889 World’s Fair. By that time, Eiffel had gained his trust. Therefore, Lockroy asked candidates to “study the possibility of building an iron tower with a square base of 125 meters per side and a height of 300 meters.” In addition, he only granted them 15 days to come up with proposals. Unsurprisingly, Eiffel’s project was chosen (from among more than a hundred other projects). But there was a twist. While the cost of building the tower will be close to 8 million Francs, the French state was only able to provide a 1.5 million Francs subsidy. Eiffel agreed to invest the remaining 6.5 million Francs himself in exchange for a 20-year lease. As the tower welcomed more than 2 million visitors during the 1889 World’s Fair alone, Eiffel managed to recoup construction costs in a single year.

The second lesson for entrepreneurs is that it is impossible to innovate without taking risks. Techniques such as “test and learn” and “lean start up” are very popular these days. In essence, they suggest that innovation can be a safe bet if entrepreneurs carefully craft and test hypotheses with potential customers. (Very) innovative projects such as the Eiffel...
Tower can rarely be subjected to such testing. They always require entrepreneurs to put their money and reputation at stake. If Eiffel had not gone that extra mile and agreed to finance the tower himself, it would never have existed.

Lesson #3: innovative projects are always met with resistance

Eiffel’s project came under attack immediately after it won the competition. Most artists and intellectuals hated it. They formed a committee and published an open letter in a newspaper called *Le Temps* asking for the tower not to be built. The letter was entitled “Artists vs. Eiffel Tower” and read as follows: “We writers, painters, sculptors, architects, lovers of the beauty of Paris which was until now intact, protest with all our strength and all our indignation, in the name of the underestimated taste of the French, in the name of French art and history under threat, against the erection in the very heart of our capital, of the useless and monstrous Eiffel Tower.” Eiffel fought back by inviting as many journalists as possible on the tower site while it was under construction. He kept doing once the tower was open to the public. Thanks to the appreciative articles written by journalists, the tower progressively gained acceptance from the general public.

But the story is not over yet. The tower was supposed to be torn down at the end of the 20-year lease and Eiffel spared no effort to prevent his masterpiece from being destroyed. He began by installing a laboratory in the tower where scientists could make meteorological observations and conduct various types of experiments. Then, he put an antenna on the top of the tower that the French military could use for wireless telegraphy. Thanks to all of Eiffel’s efforts, the lease was eventually renewed for 70 years on January 1, 1910, ensuring that the tower would never be destroyed.

The third lesson for entrepreneurs is that innovative projects are always controversial. Eiffel had to fend off critics before the construction of the tower even began. Innovative projects always challenge the status quo. They will only gain acceptance if entrepreneurs have enough political skills to overcome opposition. To do so, it is useful to create alliances with key stakeholders (such as politicians, journalists, scientists and the military in the case of the Eiffel Tower).
While the tower was designed by Maurice Koechlin and Emile Nouguier, it is named after Gustave Eiffel. Should it have been called the Koechlin and Nouguier Tower instead of the Eiffel Tower? When a journalist asked him this question, Koechlin answered: “Eiffel is the undeniable father of the Tower... He (was) the man of sufficient prestige and audacity who was able to shake up the public authorities and impose his project.” Eiffel did not design the tower that bears its name. Likewise, Steve Jobs did not invent the iPhone and Tesla was not founded by Elon Musk. Coming up with ideas is (relatively) easy. It is far more difficult to turn them into reality. The names of Eiffel, Jobs and Musk will always be remembered because they were (Eiffel and Jobs) or are (Musk) masters at championing other people’s ideas!

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