

Patents fuel daring flying exploits: *How French company Zapata took to the air*

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Former start-up Zapata is developing valuable technology and building a successful technological arsenal around patents.

On the 4th of August of 2019 Franky Zapata, the former professional jet ski pilot, and inventor of the Zapata Flyboard Air, became the first man to cross the English Channel on a jet-powered hoverboard. Escorted by three helicopters, it took Mr. Zapata about 22 minutes to fly over the 35 kilometers, reaching speeds of up to 177km/h.¹

Zapata is currently the leader in developing and manufacturing hydro- and jet-powered technologies and products. Their methodology, algorithms and patent designs are developed and commercialised for the recreation, entertainment, military, medical and industrial sectors.² Their story begins with Zapata Racing, a step taken by Franky Zapata to satisfy his passion for jet-skis by inventing aftermarket products for personal

¹ Franky Zapata crosses Channel by hoverboard at second attempt. Available at:

² Zapata – About us. Available at: < <https://www.zapata.com/>>

water crafts.³ With the desire to create faster products, Zapata began manufacturing the fastest sit-down and stand-up jet skis in the racing world.

With the launch of the Flyboard, the company entered the hydro-powered hoverboard market in 2012, starting a \$200M hydro flight sports and recreational industry. Four years later, the Flyboard Air was created. The technology uses proprietary algorithms and balance methodology to direct jet engines to act both independently and harmoniously.⁴

But Mr. Zapata's path wasn't always easy. In 2017 he was forbidden to fly on his invention due to an investigation into non-compliance with the minimum rules of conducting an aircraft.⁵ The episode resulted in a petition in support of Zapata⁶ that accumulated more than 15,000 signatures and which stimulated a debate over the possibility of French regulators inhibiting innovation.⁷

Neither was Zapata's most noted invention, the Flyboard Air, easy to finance.⁸ At first, the resources came from reinvesting the company's €1M profits from the sales of other products, like Jet-Skis or the aquatic flyboard. But Flyboard Air was also a target for other companies to copy. That led Zapata to dedicate a substantial amount of resources to enforce their patents.⁹ However, the main revenues for the development of the technology came from a subsidy of €1.3M from the *Direction Générale de L'Armement*

³ Zapata Industries announces the acquisition and consolidation of hydro-flight Intellectual Property Rights in the US and abroad. Available at: < <https://finance.yahoo.com/news/zapata-industries-announces-acquisition-consolidation-144509257.html>>

⁴ Zapata Industries announces the acquisition and consolidation of hydro-flight Intellectual Property Rights in the US and abroad. Available at: < <https://finance.yahoo.com/news/zapata-industries-announces-acquisition-consolidation-144509257.html>>

⁵ Interdit de vol, l'inventeur du Flyboard Air veut quitter la France. Available at: <https://www.ledauphine.com/france-monde/2017/03/15/interdit-de-vol-l-inventeur-du-flyboard-air-veut-quitter-la-france>>

⁶ Available at: <https://www.change.org/p/d%C3%A9put%C3%A9s-bouches-du-rh%C3%B4ne-pour-que-le-flyboard-air-vole-en-france>>

⁷ French hoverboard inventor banned from flying in France. Available at: < <https://www.theverge.com/2017/3/15/14906164/flyboard-air-hoverboard-france-ban-franky-zapata>>

⁸ 10 choses à savoir sur Franky Zapata, l'homme volant qui a réussi la traversée de la Manche. Available at: <https://www.nouvelobs.com/societe/20190804.OBS16758/10-choses-a-savoir-sur-franky-zapata-l-homme-volant-qui-va-re-tenter-de-traverser-la-manche.html>>

⁹ 10 choses à savoir sur Franky Zapata, l'homme volant qui a réussi la traversée de la Manche. Available at: <https://www.nouvelobs.com/societe/20190804.OBS16758/10-choses-a-savoir-sur-franky-zapata-l-homme-volant-qui-va-re-tenter-de-traverser-la-manche.html>>

(DGA) received in November 2018.¹⁰ After the creation of the flyboard, the SME took off. Its turnover has increased from €500.000 in 2015 to more than €5M in 2016.¹¹ After that, Mr. Zapata reinvested about €1M on the development of the flyboard.¹²

Often, small and medium enterprises face difficulties in protecting their knowledge and innovation. In 2008, the University of California Berkeley School of Law made the first comprehensive survey of the relationship between patenting and entrepreneurship in the United States.¹³ The survey outlined some of the central reasons that lead companies to patent or not. Some of the main reasons to seek patent protection are connected to securing investment and financing, considering that patents are a sign that the company has a high industrial expertise and that patents are valuable assets to companies.¹⁴

The survey found that the high cost of registering and enforcing patents is a very relevant obstacle for entrepreneurs when considering the spectrum of protections (such as trade secrets to prevent the disclosure of valuable technical information).¹⁵ Patents provide a competitive edge over the competitors, but it is important to highlight that the benefits associated with patenting need to be weighed against the relevant costs and financial considerations as well as the intent on how to exploit the patent.¹⁶ Even facing every start-up difficulty, in 2013 while still producing watercraft machinery, Mr. Zapata opted for the patent protection of his innovative technology.

Over the last few years Zapata's patent portfolio has grown due to the groundbreaking technology the company is working on. In 2016, Zapata announced the acquisition of the strongest patent portfolio in the field of hydro-flight, which granted the company the exclusive rights to manufacture, import and distribute hydro-flight products in the

¹⁰ 10 choses à savoir sur Franky Zapata, l'homme volant qui a réussi la traversée de la Manche. Available at: <https://www.nouvelobs.com/societe/20190804.OBS16758/10-choses-a-savoir-sur-franky-zapata-l-homme-volant-qui-va-re-tenter-de-traverser-la-manche.html>

¹¹ Flyboard, l'ovni qui cherche sa place dans le ciel français. Available at: https://www.lemonde.fr/economie/article/2017/03/25/flyboard-l-ovni-qui-cherche-sa-place-dans-le-ciel-francais_5100647_3234.html

¹² Flyboard, l'ovni qui cherche sa place dans le ciel français. Available at: https://www.lemonde.fr/economie/article/2017/03/25/flyboard-l-ovni-qui-cherche-sa-place-dans-le-ciel-francais_5100647_3234.html

¹³ Ted Sichelman and Stuart J.H. Graham, *Patenting by Entrepreneurs: An Empirical Study*, 17 Mich. Telecomm. Tech. L. Rev. 111 (2010), 114

¹⁴ *Ibid*, 122

¹⁵ *Ibid*, 135

¹⁶ O'Connell D. – Inside the Patent Factory [2008]. Pg 27

United States.¹⁷ From the 11 patents in his name in the USA¹⁸, over than 5 patents were granted for Franky Zapata over the last two years. The company currently has 18 issued patents and 19 pending. Clearly the inventor understands the value of his technology and trusts the patent system to protect his inventions.

A strong intellectual property strategy can contribute significantly to company growth and boost innovation. When the invention is disclosed, information about the innovative product becomes public and competitors tend to try to find a way around the patented technology, or even to enhance it with a more sophisticated product with non-infringing mechanics.

Zapata Industries is currently working on a new invention, a flying sports car. The prototype that Mr. Zapata already tested is powered by four gas turbines, but his plan is that the final product carries ten turbines, allowing the car to carry more weight while still going faster.¹⁹ The flying car is expected to be unveiled by the company by the end of 2019 and, with that, more patents will be filed and granted to Mr. Zapata's patent portfolio, the strongest of its field.

¹⁷ Zapata Industries announces the acquisition and consolidation of hydro-flight Intellectual Property Rights in the US and abroad. Available at: < <https://finance.yahoo.com/news/zapata-industries-announces-acquisition-consolidation-144509257.html>>

¹⁸ Available at: < <https://patents.justia.com/inventor/franky-zapata>>

¹⁹ Flyboard Air inventor plans to unveil 250-mph flying sports car by 2020. Available at: <<https://www.digitaltrends.com/cars/franky-zapata-announce-250-mph-flying-car-with-70-mile-range/>>