

## **From iGlove to the Fastest Electric Car in the World**

### **INTERVIEW WITH MATE RIMAC (RIMAC AUTOMOBILI Ltd)**

**By Gordana Blažević and Zlatko Barilović**

Rimac Automobili is a Croatian company specialized in manufacturing high-performance electric vehicles, founded in 2009. The company developed and introduced their first concept electric car named the Concept\_One, which later on went into production. It currently employs 60 young engineers of various professions that work intensively on the development of new technologies and launch first-rate electric products – from the aforementioned Concept\_One to an electric bicycle known as Greyp. In the premises of this successful Croatian business, we were greeted by the founder and director of the company, Mate Rimac. Rimac Automobili is praised and acknowledged from all over the globe and the story of its success is known. Nevertheless, we wanted to personally visit and get to know the 26-year-old who has already made a huge impact on the international market with his visionary ideas and high caliber competency.

We were welcomed by Monika Mikac, the director of operations and one of the first employees, in an energetic environment in which the young engineers work. She introduced us to the world of Rimac Automobili; it all began when Mate, who was 17 at the time, made his first patent – a glove that would act as a keyboard and mouse. Since then, he participated in numerous innovation fairs. Shortly after that, he launched his second invention called the Active Mirror System – a system designed to resolve the problem of blind spots in cars, and with these two products under his belt he won multiple first place awards, despite the strong international competitors.

Apart from his love for electrical engineering, he is also a fan of cars. He invested the money he made from his patents into a BMW E30 323i. This is where Rimac Automobili actually started. His passion for racing led him to develop the fastest electric car in the world. He initiated the CONCEPT\_ONE project. Read more into the story in the continuation of this article.



Picture 1 –the glove that replaces a computer keyboard and mouse – the first Rimac patent



Picture 2 –a Guinness world record set by Mate Rimac for the fastest quarter mile

**Q: The idea of the Concept\_One project came from your passion for cars, and it literally began from an empty piece of A4 paper. How did you gather a team for the project, and what did the initial project phase look like?**

A: It all started as a hobby, and I've always wanted to make my own car, so I jumped right into it. First, I met Adriano, a designer with whom I arranged the commencement of the project. This was back when I was still in college and there wasn't even a company yet. Adriano, who had a full-time job, did his part in designing and I moved along the technical side of the project. Even then, because of my involvement in racing, there was huge media coverage and investors came knocking – they wanted to order a car. This is when it occurred to me; what we were working on made sense and our project could become more than just a hobby; it could become our job. I founded my company in a garage and I hired the people who worked with me after their regular work. When I realized that this could be a serious business I started to hire full time employees, rented a facility and professionalized everything.



Picture 3 – Concept One – the fastest electric car in the world

**Q: Which limits of the Concept\_One project would you highlight as the most problematic?**

A: The whole situation with the investors and the finances was the biggest limitation. We received an offer from a royal family from the middle-east and we immediately signed a term sheet. We decided to showcase our car at the Frankfurt Motor Show back in 2011 – the biggest car show in the world. We reserved our spot in the show one year before the start of the fair. However, six months prior to the introduction of the car, it wasn't even remotely finished. Months of hard and dedicated work ensued. We finally succeeded and the prototype was showcased as we planned.

At the end, we broke off our cooperation with the royal family because they requested a relocation of the company to Abu Dhabi, which I turned down. After two years of exhausting negotiations, the investments which we depended on were gone and this proved itself to be a great problem for us. What kept us afloat were our know-how and the components which we

developed and sold to others in the car industry. Namely, the majority of the automobile industry does not develop and make their own parts. Instead, they buy it from their suppliers.

This is what we decided to do, but the suppliers were not used to deal with new and small companies in the car industry. The demands of the suppliers were as though we were a big company, which was out of the question for us. At that moment I realized we should develop our own components. Developing our technology and selling it to other companies pulled us out of the tough situation we were facing after the end of our contract with our Middle Eastern partners.

**Q: In which way did you define the goals of the project as the team leader? Were the goals achieved?**

A: I can't say any of us defined every single thing in our project, because we didn't even know what we were getting ourselves into. However, a certain range of the project was defined, such as the component prices, car performances etc. Nowadays, three years since the beginning of the project, we still can't define everything. Instead we are working on perfecting our skills. To us this was a completely new area of expertise – and you've got to remember that the car industry in Croatia isn't developed and nobody had any experience in such projects.

We stumbled into the unknown and the only definitive goal was to go as far as we can – which we are still doing to this day, every subsequent day. We are pushing the limits and often we don't know how far we can push them. So we just start and try to get as far as we can.

**Q: What do you consider your competitive advantage on the market?**

A: We are a team of fast and flexible workers, and we develop our technologies as rapidly as possible. We strive to make our development process less bureaucratic and standardized, because I believe that this holds back the development of the car industry and prevents a swift implementation of new technology.

**Q: You mentioned that the people involved in the project had no previous experience in similar projects. How do you recruit people into your team and what do you consider the most important traits as a team leader?**

A: We prefer to hire young engineers that just got their college degrees. We provide the additional education and pointers. A lot of the selection of candidates was based on the principle of trial-and-error, so we're not afraid of this approach. Team members who came with some work experience were involved with processes similar to the ones we have today, but on different products. There was a common line in between technologies that could be drawn and used. At first I came in contact with team members through various sources and acquaintances, but nowadays we have a department for managing human resources which completely deals with employment and the competencies of our workers, as well as their satisfaction.

**Q: Do you use any of the methodologies for managing projects? Do your employees have knowledge in the area of project management? Do you outsource experts and in which direction do you plan to evolve in this area?**

A: Because of the financial situation, we hired only crucial members of the team. I was the project manager. This year it's different. We just received a big investment, so the time has finally come to become more professional in the field of project management. We just released a job advertisement for the position of project leader. The company is currently divided into departments; every head of section manages his own team of people. To make things easier to manage, we use various tools, for example, software solutions, Gantt charts etc.

We are a company that strives for balance in the so-called "start-up" culture where rules or processes do not follow industry standards. It is important to realize in which context processes are really necessary, and in which they hold us back. In addition, we are currently working on the integration of our complete business with quality management. Individuals in the firm are already educated in segments of this field, and we are supporting their further education.

**Q: You have a longtime experience in initializing, developing and leading projects. Which competencies do you consider you should work on personally?**

A: I think, without any false modesty, that my competencies are fairly developed. The results of my company can confirm this. What bothers me the most and cannot be remedied is that the day is too short. This is why I am on the lookout for someone to take on the role of project manager. The time has come for me to focus on strategic leadership of the company with the goal of long-term development. My biggest challenge now is to convey the knowledge I possess to someone else.

**Q: What are your plans regarding sales? Do you have any signed contracts and a production schedule?**

A: Of course. Recently we negotiated our sixth car which should be delivered in the middle of next year. All of our manufactured cars were targeted for the international market. We need six to eight months to build a car from scratch. The car could, in theory, be delivered in as little as four months, but this exerts a far greater amount of resources. However, being able to do so is now a reality, because we have upcoming investments, therefore there is no worry in acquiring materials.

In 2015, we plan to make four new cars, and by 2020 we hope to achieve the goal of 500 cars annual sales. The plans are rather grand. At the beginning of this year we had 20 employees. We have tripled since and we plan to expand even further.

Recently, we began the production of our high-performance electric bicycle– the Greyp G12, which has since then been sold in over 30 copies at a price of €6,500 in five continents. The

parts for the Greyp are mostly manufactured in-house. The demand for the bicycle is high, but we currently do not have enough resources to deliver them all. More upcoming projects are held in secrecy because of our business contracts. We have a lot of ideas, for example, an electric wheelchair with a special battery, but since we are limited in R&D capacity, we cannot bring all our ideas to the market.



Picture 4 – Greyp – the electric bicycle

**Q: What do you think of the work conditions you provide to your employees? Do you have a way of evaluating their satisfaction?**

A: It is very important to me that my employees have great and inspiring work conditions and I consider this to be one of the reasons of our success. Before we established a department for human resources, I personally conducted anonymous questionnaires and monitored the satisfaction of my workers. I always received positive feedback and they aided me in making decisions.

**Q: And lastly, what do you consider makes a project successful?**

A: I would put perseverance in the spotlight. The project manager should be good in his sector, and should know his own product and technology. He should also possess good soft-skill abilities. If something is missing in the equation, it is important to find the person who can fill in. I personally cringe when someone says they don't know something with all that the internet and globalization provide. Today, anything is possible and everything is accessible. The key is perseverance and the will to educate and grow. And maybe even a bit of luck.

In the end, we asked Monika to share what it is like to work in a company like this and to be involved in such successful projects. Here is what Monika replied: "In the beginning, I was in charge of PR and marketing. But since we were a small team, I was also involved in the overall business. Currently, I'm the director of operations. I was always interested in challenges and searched for something that keeps me going. I found just this in a team that continually grows. This is a work environment that inspires and encourages us to give our best!"



Picture 5 –the authors of the interview alongside Mate Rimac  
(from left to right: Zlatko Barilović, Mate Rimac, Gordana Blažević)

If you plan on visiting Croatia and find yourself near Zagreb, we definitely suggest you visit the Rimac Automobili factory which organizes tours and showcases projects. See the quality of this project for yourselves. More information can be found at [www.rimac-automobili.com](http://www.rimac-automobili.com).



Picture 6 – Company headquarters in Sveta Nedelja (Croatia)

## About the Authors



### **Gordana Blažević**

Zagreb, Croatia



**Gordana Blažević** is a member of IPMA Young Crew and president of Young Crew Croatia. She was born in 1985, graduated the Faculty of Civil Engineering from the University of Zagreb in September 2010. After graduation, she worked for OPTIMA Project Ltd, a registered company for performing construction services, expert supervision, consulting and project management until September 2012. After that, the Faculty of Civil Engineering at the University of Zagreb in the Construction Management Department employed her as a young research associate. As the president of Young Crew Croatia, Gordana is a part of various projects on a national and international level. She is also a member of IPMA Marketing Working group. Questions and feedback are highly welcome via [goga.blazevic@gmail.com](mailto:goga.blazevic@gmail.com)



### **Zlatko Barilović**

Zagreb, Croatia



**Zlatko Barilović** was born in 1984 in Zagreb. He holds a graduate specialist degree (MA) in Marketing from the Faculty of Economics in Osijek, Croatia. Prior to that he graduated from the Specialist Graduate Professional Study of Project Management at the University of Applied Sciences Baltazar Zaprrešić, Croatia, which was a continuation of his undergraduate studies in Business and Management (major Cultural Management). Currently he is attending a doctoral study in Management at the Faculty of Economics in Osijek, Croatia. He is a member of the International project management association (IPMA) and a member of the Presidential Board of the Croatian Association for Project Management (CAPM). At the University of Applied Sciences Baltazar Zaprrešić he teaches Basics of Management, Project Management 1 and 2, and Planning, preparing and starting the project – practicum. He has written over 20 scientific and professional papers, and has lead several projects for the University of Applied Sciences Baltazar Zaprrešić. He was the editor of two project management books. Zlatko Barilović can be contacted at [zlatko.barilovic@bak.hr](mailto:zlatko.barilovic@bak.hr)