

96

Merkur — JUL • AOUT 2020

Startup

Vlad Guerciu

CEO and founder, Keymitt



Smart locks are the key

TEXT Marie-Hélène Trouillez
PHOTOS Matthieu Freund-Priacel / Primatt Photography

«Keymitt has developed a universal adapter in response to the huge market demand for residential smart lock retrofits.»

Vlad Gherciu is an entrepreneur who came to Luxembourg in 2012 to work for Amazon. The Moldavian had previously studied in Italy, where he obtained a Master's degree in 'Economics and Management of Innovation and Technology'. After five and a half years in Luxembourg, Vlad left his job at the US online retailer to start his own business and founded Keymitt in 2017. The equipment manufactured by the Luxembourg-born startup lets users remotely unlock their door via an app. Potential Keymitt customers include homeowners renting out their place, or wanting to provide access entrance to relatives, friends or repairmen, or someone expecting a delivery when they are not physically present to open the door.

What exactly is Keymitt and how does it work?

Keymitt is the name of our product and company. It is a specific connected device that rotates the door key in the lock and allows you to unlock your door using a smartphone, while you are not at home. There's no need to change the existing door or to replace a conventional door lock. Keymitt keeps it remarkably simple! All the user must do is attach the supplied strong adhesive tape, affix the device, insert the key into the lock on the inside of the door, secure the key with the Keymitt device and connect to an app on a smart phone. Once this is done, the customer will be able to control the existing lock remotely, securing or opening it with their smartphone. This way, you can let your friends or any trustworthy person in, while you are away or at work. Moreover, Keymitt can be instructed to automatically lock up behind you when you leave your home. No more worrying about having left the door unlocked.

How did you come up with the idea to create Keymitt?

A few years ago, I was renting out my apartment in Luxembourg via Airbnb. Due to the many requests, I found it exceedingly difficult to hand over the apartment keys almost every day, especially when guests would arrive in the evening or later. But what other choice did I have than to personally hand over the keys? Leaving them in a hidden place was too risky and hiring someone to bring the keys would have been too expensive. Having a key lockbox that can be opened with a manual code is unsafe. Unfortunately, products that tried to solve this issue were rare and expensive. There are several electronic door



systems on the market, but they are costly and require professional installation. Further, all other options require maintenance. I tried to find an easy cost-effective solution for this problem. That is how I came up with the idea to develop Keymitt. The advantage over other expensive 'smart' devices is that with Keymitt, neither doors nor locks need to be replaced. Original hardware is transformed into a smart lock. Keymitt also offers a set of retrofitting devices that are placed on top of existing mechanical locks and analog intercoms creating a key-less entry system remotely operated via the Keymitt app. The smart lock is compatible with European, US and Japanese door locks and entry doorknobs. Therefore, Keymitt has developed a universal adapter in response to the huge market demand for residential smart lock retrofits.

How did Keymitt attract funding to develop this product?

In 2017, I met the German manufacturing company FATH at the Web Summit. This is the annual technology conference held in Lisbon, Portugal, and considered the largest tech event in the world. Since then, it has been like a pilgrimage to attend the Web Summit each year! FATH Group, who is also a strategic investor, provided seed money and has become our main partner. FATH Group has 25 years of experience in the components engineering domain. It employs 200 staff in Germany and has other subsidiaries located in China, Hungary, Poland, the United States and the United Kingdom. This partnership boosted Keymitt and made us an industry-recognised innovator. Together with the FATH Group, the hardware of the Keymitt Smart Lock system was developed. Keymitt remains the owner of the design and the intellectual property. Our company was in the process of developing a solution to remotely open locked doors while also controlling the intercom button system via a smartphone. After further research, I contacted Naran, a San Francisco-based company. Naran Inc. manufactured the MicroBot Push, a robotic technology that enables the ability to virtually press any type of button. In 2019, Keymitt exhibited with Naran at the Consumer Electronics Show (CES), an influential tech event in Las Vegas, and showcased the first

smart lock and push for intercom combination. It was perfect timing for Keymitt, because Naran was shifting towards high-end commercial solutions and we had the chance to acquire the rights to the MicroBot technologies and continue its legacy.

Both Keymitt Smart Lock and ex-MicroBot devices are now produced by FATH group.

Who developed the engineering software?

Keymitt Smart Lock and Push is a robotic device that, upon receiving a signal, mechanically does an action. However, to use it, you also need the Keymitt WiFi hub which was developed as an accessory. The hub connects Keymitt to the cloud and allows for remote access and control. For example, if the owner is absent, passwords that allow certain people to access the door lock can be issued. In addition, the hub allows third party integrations with Google Assistant, Amazon Alexa and Apple Homekit. Keymitt sells its smart lock system as a complete package. Over 90% of our customers do purchase the whole system. However, Keymitt does offer the opportunity to purchase the stand-alone hardware, should a large company wish to develop their own IT system and integrate the technology to make the smart lock work with their own IT team in mind, but this constitutes fewer than 10% of sales.

How difficult was it to move your product from prototype to production?

Creating a new hardware product is challenging. The process requires extended periods of research and development, and significant up-front investment costs. 3D printing has enabled fast iterations of the design of our hardware. Without this, it would have definitely taken more time and capital to reach our goals. Such a prototyping approach, once mastered, can accelerate turning ideas into reality. In addition to the seed money from FATH, Keymitt launched two fundraising campaigns on Kickstarter and Indiegogo in May 2019 and July 2019, respectively. Both campaigns have proven to be successful. Investors were requested to pledge a minimum of EUR 99 to get a retrofitting smart lock without the hub or EUR 139 to get one with the WiFi hub. Our target was EUR 30,000, but the results



03



04



02

showed enormous interest from 1,246 backers raising EUR 204,832! This was a great milestone and proved to us and our investors that there is a need for the product. We produce our units on demand and our production lead time is approximately 30 days. The devices are available for pre-order on our website.

Is Keymitt safe?

It is very safe and furthermore, the app allows you to track all entries to your home. The owner receives a notification whenever there is something wrong at the door and the system cannot be detected from the outside. The software is hacker safe and the communication between a smartphone and the app is encrypted. The Keymitt app is available for Android and iOS devices. Moreover, Keymitt’s lithium batteries can store four times more energy than regular AA batteries and last up to one year, based on 5 daily uses. The app

will also notify the user when the battery power gets low and Keymitt’s batteries are replaceable and can easily be purchased online.

Did your business suffer from the health crisis?

Unfortunately, the COVID-19 lockdown did have an impact on our business. Throughout March, April and May, Keymitt stopped all social media advertising and our sales declined, but we expect to be able to bounce back soon. In addition, like many other startups, we had to find different sales channels and began developing B2B sales in Luxembourg, Germany, Italy, Spain and the United States. We offered our customers discounts based on quantities purchased and are currently developing a dashboard which will allow co-working spaces, companies, offices, restaurants, elder homes or real estate brokerages the opportunity to control building entrances and exits. For

“As a hardware company, it is important to have an investor who knows how to manufacture the product.”

02. Wi-Fi and Bluetooth are crucial for Internet of Things (IoT) operation, serving different but complementary purposes. Keymitt uses both to turn a smartphone into a key and make any door lock smart.

03. 04. 3D printing technology helps considerably developing and designing high-tech products such as the Keymitt Smart Lock.



05



05. Around 5,000 hours were put into taking Keymitt from a bundle of cables on a breadboard to a fine-tuned smart lock.

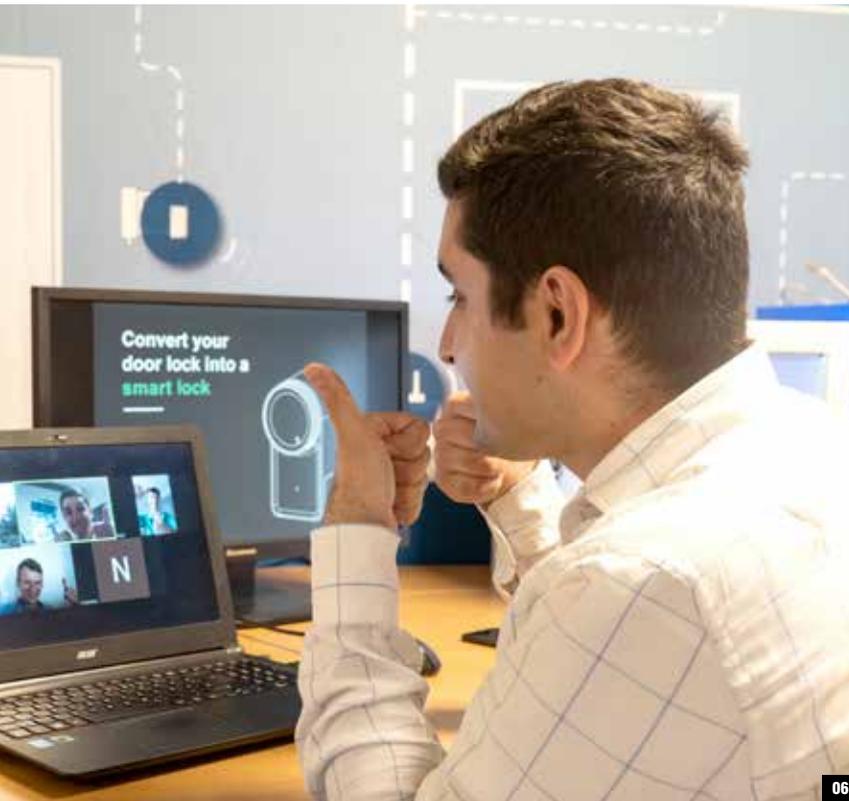
06. In 2019, the project team turned its prototype into a viable business after raising almost EUR 205,000 through two crowdfunding campaigns.

« Our ambition is to fit 90% of door locks worldwide in the near future! »

instance, real estate agencies will no longer need to send an agent to make on-site visits saving an average cost of EUR 100 to 150 per visit due to less driving and fewer potential unsafe meetings with visitors. During the health crisis, Keymitt participated in the call-for-projects 'StartupsVsCovid19' organised by the Ministry of the Economy in collaboration with Luxinnovation. This competition was aimed at selecting and supporting the best startups developing innovative solutions coping with the health and economic effects of the current crisis. Over 300 startups responded to this call-for-projects, 15 of which were selected and received financial support of up to EUR 150,000 granted by the Ministry of the Economy. Keymitt is one of the winners and the prize will certainly help speed up production and develop the dashboard!

Did you receive any other help or advice?

The House of Entrepreneurship helped us at the beginning, when we were in the process of setting up a simplified limited liability company (*Société à responsabilité limitée simplifiée – Sàrl-S*). This is a form of commercial company that is subject to rules somewhat different from a regular private limited liability company (*Société à responsabilité limitée – Sàrl*). One of the advantages of the Sàrl-S is that it reduces the burden of some of the requirements for entrepreneurs forming a company. For example, the minimum share capital required is just one euro, and the company can be formed by private deed, without the need of a notary. The simplified limited liability company is very straight forward. It was of great help and Keymitt was converted into a joint-stock company afterwards.



«Keymitt applied to the call-for-projects 'StartupsVsCovid19' and was one of 15 projects selected as most innovative to combat the COVID-19 pandemic in Luxembourg.»

In your opinion, what is Keymitt's strength as a company?

Our responsible team members work hard together and there is a real group dynamic and a lot of comradery. Having found the right people to make an effective team, we meet every week online and all decisions are made together. During my time at Amazon, I worked as a team leader and those skills flourish within Keymitt.

A further strength are our investors and partners. As a hardware company, it is important to have an investor who knows how to manufacture the product. Our partners have a financial interest in Keymitt and they support the company. Furthermore, our Technical Director and CTO, Terence Park, is a veteran of software development and is now leading our team into the future of cloud-based systems.

We have a distributed team. We work closely with five freelancers and have seven employees working for Keymitt worldwide fulltime situated in Sri-Lanka, Moldavia, Pakistan, Italy and the United States, with two staff members based in Luxembourg. Soon, we aim to consolidate the whole team here

in Luxembourg. Our employees' broad range of skills and expertise allows us to quickly ideate and prototype new ideas and bring them to reality.

What are your plans for the future of Keymitt?

Our ambition is to fit 90% of door locks worldwide in the near future! In a second phase, Keymitt would like to develop a broader range of products using fob engineering. Fobs, which are also called hardware tokens, are small, programmable hardware devices that provide access to a physical object. There is a broad choice of accessories that can be developed using this technology such as remote controllers for children who do not have a smartphone.

What are your best memories when you look back on your professional career?

The Keymitt validation is one of my fondest memories. The team worked so hard on a new prototype between 2017 and 2019! The success of the fundraising campaigns was the best news ever! The contract signed with FATH at the Web Summit in 2018 was

also a highlight, as well as the acquisition of rights from Naran Inc. in 2019.

What is the key take away message?

Communicate upwards, sideways and downwards! Both to your peers and to the people reporting to you. That is real leadership. A mistake is fine, as long as you communicate about it. Take the time to find the right business model and the right partners. Having an idea is not the difficult part of setting up a business. Perseverance is what matters. —

Useful link:

www.keymitt.com