Meet AZmed, the startup helping physicians to save time and reduce diagnostic errors

As part of our quick fire questions series – or QFQs – we spoke to Liza Alem, Head of Marketing and Communication at AZmed about using AI to reduce medical errors, global partnerships and the importance of open-mindedness.

In the last 10 years medical images have doubled whereas the number of doctors has stagnated. As a consequence, radiologists struggle to keep pace, which increases the risk of medical errors. Elie Zerbib-Attal, one of the AZmed co-founders, has been a medical resident for 8 years. He encountered many difficulties on a daily basis to analyse the large volume of X-rays produced, that he often had to rush the diagnostics.

In addition, doctors only have time to consult X-rays without having the ability to interact with the patient, which would be key to establish the right diagnosis.

This led to an idea, an AI algorithm that would reduce medical errors, improve doctors' working conditions and give them more time on what matters most: the patient.

Tell me about the business – what it is, what it aims to achieve, who you work with, how you reach customers and so on?

Since our creation in 2018, we are trying to help doctors analyse the explosion of medical images. To do so, we developed Rayvolve, a computer aided-diagnosis tool capable of detecting all types of fractures on X-Rays. It also sorts exams by priority order. The solution is 100% integrated into doctors' workflow and directly connected to PACS & RIS. It allows physicians to save time and reduce diagnostic errors. Clinically tested with outstanding performances, including 67% false negatives avoided and 27% time saved.

Today, we already have more than 650 partnerships with university hospitals, groups of radiology centres and clinics in 26 countries across 5 continents.

Our global long-term vision is to become the reference for AI-aided diagnosis tools. To this date, we have a solution detecting fractures but also chest pathologies on X-Rays. Our goal is to develop more intuitive solutions, to offload physicians' workflow and improve their performance. Thus, we will enhance the physician's most important role: patient care.

How has the business evolved since its launch? When was this?

Since our creation in 2018, we had a constant growth. After 2 years of research and development, we started the commercialisation in 2020. Some hospitals started to trust us and we were able to install our first partnerships with French hospitals and then European hospitals. In 2021, we developed our 2nd algorithm for the detection of chest abnormalities. Then June 2022 was a big step for AZmed because we get the FDA approval for Rayvolve for trauma (fracture detection algorithm).

Today, we have more than 670 partnerships among 27 countries across the 5 continents, and we are still trying to work with new hospital centres.

Tell us about the working culture at

AZMed

Our team is our main asset. The three core values of AZmed are open-mindedness, responsibility and excellence. We are women and men with different nationalities, cultural backgrounds, work and life experiences.

Our values have been identified and settled by all the team itself. They have been created thanks to all the persons who have worked here. They are now part of who we are, and are thus subject to evolve.

Continuous improvement: We debate, challenge ourselves and give each other continuous feedback, it helps us stay objective and not rely on our laurels.

Responsibility: The point is not to be tremendous at times, and not up to the task at some others: it is to deliver something good, consistently. Teams are structured in a way that every single person can be essential to the company; it is up to you to use your independency and autonomy as you want, to get things done.

Open-Mindedness: We build our vision & objectives thanks to the diversity of our experiences. We focus on our teammates' skills, and are not here to make judgment; it turns out to be a good way to create collective emulation. We are here to help patients, doctors and our teammates; it makes us happy. We try to ensure that our employees work in the best possible conditions by making sure that their needs are met and that they are given the best environment in which to learn and grow.

How are you funded?

We have completed an initial fundraising of more than €2M in September 2019 from Techstars, business angels, the BPI, and also from radiologists. This participation by doctors reveals their awareness of the added value of artificial intelligence in their daily practices. We had a second round of fundraising from more radiologists and investment funds such as FII institute in 2021.

We are also willing raise more funds in the months coming to support our international growth.

What has been your biggest challenge so far and how have you overcome this?

At the beginning, the biggest challenge we had to overcome was the

acceptance of AI by doctors. The goal was to explain to doctors how it works and to explain that it is a tool that would improve their working conditions and patient care. In no case, we created our AI solution to replace physicians. We always have free and non-binding trials when we start a new partnership with a healthcare centre so doctors can try the solution and understand what it can bring them. With time and with experience, they understood that we aim at helping them and they adopted AI by including our solution in their practice.

How does AZMed answer an unmet need?

The number of medical imaging procedures has doubled in the last 10 years while the number of physicians has stagnated over the same period. Standard radiography is one of the most frequently performed examinations (1 out of 2) because it is the first-line examination in traumatology.

The high volume of radiographs to be analysed per day by radiologists and emergency physicians prevents them from being able to fully concentrate on high-value-added tasks. In addition, radiology departments are often faced with a lack of practitioners in recent years, for whom the workload is increasing.

This overload results in a considerable lack of time to detail reports and communicate with patients as well as a lack of time to focus on more medically engaging procedures. Furthermore, 92% of trauma patients seen for radiological imaging have no fracture, yet physicians spend considerable time diagnosing them. Physicians spend a great deal of time negating images.

This standard x-ray analysis is often characterised as time consuming and off-putting. As a result, radiologists experience stressful working conditions, which increases the risk of medical errors.

To solve this issue, we developed Rayvolve.

What's in store for the future?

First, we will try to improve our solution for X-rays to cover 100% of the physicians' needs. Then we would like to extend our offer to CT-scan and MRI to help doctors even more.

What one piece of advice would you give other founders or future founders?

Our CEO, Julien Vidal has one piece of advice to give to others/future founders : "Grow your Network" As a matter of fact, the network is really important for startups, because of it, you can learn faster, you can get support and you can go further than alone!

And finally, a more personal question! What's your daily routine and the rules you're living by at the moment?

The major rule is being organised! We must prioritise, we have so much to do in the healthcare system nowadays, a lot of issues that needs to be answered.

At AZmed, we want to go step by step. We want to constantly increase the quality of our product we created before starting a new project. It means being sure that we give doctors the best we can before working on something else. So, we have yearly objectives that then give monthly objectives, that help us organising our weeks.

Liza Alem is Head of Marketing and Communication at _AZmed_.

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