Interview: Dan McAlister and Ramy Michael – Co-founders and Directors, EIDA Solutions, Ireland



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Dan McAlister and Ramy Michael, two of EIDA Solutions' cofounders, tell us the exciting story behind EIDA Solutions' rapid growth to become one of the best intelligent construction software companies for the pharmaceutical industry in Ireland, the key features of their software and their plans for internationalization to make EIDA Solutions the partner of choice for major pharma capital projects within Europe.

What is the idea behind EIDA Solutions?

The genesis of the company was an idea Dan had for a 'Test Pack'. This is a set of documentation a contractor has to produce at the end of pharmaceutical projects when they are testing the pipework. It typically requires the accurate collation of hundreds of documents. This used to be done manually and would take hours, if not days, eating into handover and delaying project completion.

The idea was to create a system that would do this automatically – in a minute or less, ideally. Contractors will still have to input the required information at the beginning of the project but this needs to be done regardless; doing it with our system allows them to then compile everything with a simple click.

Historically, the construction industry had been slow to adapt new IT developments and capabilities. There was a clear gap in the market for innovative software to make construction

easier and more efficient. Ramy's background is in IT while Dan's background was in engineering, so Dan would use his experience to outline desired capabilities and requirements and Ramy would program the software to meet them.

We had our first validation when a customer rang us to gush about how fantastic the system was. He said he had compiled a test pack of 1000 pages accurately in just twenty seconds.

The name EIDA stands for Engineering in a Digital Age – to reflect that our solutions bring the engineering and construction sectors into the digital age, using the latest technologies to streamline projects for greater efficiency.

How difficult was it for EIDA Solutions to break into the market?

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Our first client was Mercury Engineering, for whom we did a pilot project. There was a clear fit there between their project objectives and our product, and it went so successfully that we won another contract with them for a project they had with Intel. Even though we had already completed the pilot project with them, to win this first proper contract, we did about three large demos with around forty people. In addition to that, Dan must have done about 20 individual demos.

It took about 1.5 years to build up the software to a certain working standard before we could use it on the pilot project for Mercury Engineering, so in total, two years to code and develop the software, and to obtain our first paying customer.

We moved from having one user on one Mercury laptop a week to 200 in the space of two weeks, so the scale-up there was pretty challenging as well.

What is the most exciting thing on your plate right now?

It is undoubtedly the BMS Cruiserath biologics facility that is currently under construction, which is our biggest project – and also Ireland's biggest investment in the past decade. We are involved in the construction, and commissioning, qualification nd verification (CQV) stages of the project with a four-year contract. Our software essentially runs everything for BMS on the construction side of things.

BMS needs the data that the contractors provide and our system facilitates data entry and storage for the contractors, which in turn means that BMS will have no problems on the asset management side. The information accumulated over the project lifecycle is also very valuable when the plant

goes into operation, because it means that BMS will have the institutional knowledge of its construction.

We have approximately 600 users logging in and 44 contractors using this software, along with 200 direct BMS users. We are visiting the site once a week to initiate new contractors to our software and to ensure that our client is satisfied with the performance of our software.

In addition, we have a number of other projects involving several hundred users in total.

How important are the pharmaceutical and biotech sectors to EIDA Solutions' operations?

Only a few months ago, we realized that our software delivers the most value for the pharmaceutical industry, compared to, say, oil and gas, semiconductors or building services, areas where we had done projects previously.

As a result, we are aligning ourselves with the pharmaceutical manufacturing industry to position EIDA Solutions as the provider of choice for process management and standardization solutions. We want pharma companies to think of us when they look for construction and commissioning software for critical, complex and capital-intensive projects worth hundreds of millions of euros.

What are the key features of your software that makes it so suitable for pharmaceutical manufacturing projects?

There are a number of key benefits. The first and foremost is that it provides the client with certainty as they see the true progress of the project in real time, so that they can address any issues as and when they arise. There will be no surprises when it comes to project delivery at the end. For a billion-dollar project like what BMS is doing, this is absolutely critical.

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It is all about the system turnover. Our software requires every item to be tagged within the system, which meets the stringent requirements of pharmaceutical manufacturing. For instance, on the piping side of things, QR codes are generated for each pipe unit, which contractors then scan in as it is laid to track progress, giving clients full visibility. This is all done through a mobile app and a smart device. Normally, it could take a contractor a week to locate a piece of equipment and in that week, it could have moved somewhere else.

Our software draws in all this data and tracks all the movement. This also promotes trust and collaboration between all the stakeholders on the project because everything is tracked and visible.

When it comes to data entry, collection and collation, our software also guides the user towards the correct choices. Companies often use Excel or a similar program otherwise, which leaves a lot of room for errors.

As another example, our software also has the functionality of organizing site permits. One of our customers had planned on ordering EUR 40,000’s worth of paper for their permit system but moving to a digital, paperless solution meant eliminating that cost.

We also place a huge emphasis on security. A lot of valuable and confidential client data are collected in the cloud and we do the due diligence to encrypt and secure that information.

How does EIDA Solutions keep up with the pace of innovation and technology developments?

Fundamentally, the specifications of our software meet actual user requirements on the job, not just because we built it from our own internal experience as project engineers, but because we are constantly improving it based on user feedback. Each contractor will have their own way of doing something and when they suggest a better solution or method, we dedicate time and resources to build that into the system. Over time, these improvements accumulate to make our software a community-built platform that represents the best-possible, but ever-improving software solution out there.

Userfriendliness is the name of the game. The best technology will not be used unless people actually want to use it, and they will only want to use it if they feel comfortable with it. Naturally, we provide training materials and video tutorials, but a lot of contractors actually feel at ease with the software almost instantly. In addition, a lot of contractors within Ireland now would have used it on past projects now, given the traction we have gained, so that is another advantage.

Our feedback system is very responsive. A contractor simply creates a ticket or a request for information (RFI), which is routed to the correct response team. We track their response rates and produce a full response report to keep the team accountable and client-focused.

That said, we always want to incorporate the latest technologies and innovations. Augmented / virtual reality (AR/VR) is something we are currently exploring. We would like give contractors the ability to be on the field with a hardhat on while looking at a screen providing relevant information in front of them.

How does EIDA solutions compete with the giant software companies?

There may be many document control and management programs on the market but ours is much more than that. It not only manages documents but also streamlines the construction process. Our software brings in far more capabilities and functionalities that facilitate system turnover, making the entire construction process far more efficient and secure. This is also why we are targeting the pharma industry as there is a higher return to investment for them. For less complicated building projects, a cheaper software with fewer functionalities might be sufficient.

Pharma companies could also use their in-house databases and software but that means new contractors would have to be trained to use the program.

We are very proud that we have gained a significant level of traction within Ireland now. Currently within Ireland, any new pharma project would approach us first for their construction and commissioning software. A certain level of confidence and customer awareness has been attained. For BMS, for instance, a number of their jobs listed familiarity with our software as a desired job qualification for potential candidates.

Many, if not most, of the contractors in Ireland would have used or be aware of our software. It takes just one or two engineering contractors to recommend our software for a pharma company to then consider and vet us for use, but to get that vote of confidence, you need to actually be meeting their needs on a consistent basis.

How do you plan to leverage on your success within Ireland to international markets?

We are essentially following the market: we want to be wherever there are pharma projects. Europe is our main geographic focus at the moment, particularly Belgium and Germany. We also have ongoing projects in Sweden, the Netherlands, Switzerland and the UK. We had previously also completed jobs for the oil and gas sector in the Middle East but with the recent spate of huge pharma investments in Ireland and Europe, it just made much more sense to focus on that sector.

We also try to accompany our current clients within Ireland into international waters, so the likes of Jacobs Engineering and Mercury Engineering.

The advantage for us is that our reputation within Ireland definitely transfers over to these European markets. Irish contractors have a reputation for delivering pharmaceutical projects to stringent requirements and our general industry expertise is highly valued. Furthermore, there are a lot of Irish pharma contractors on building sites across Europe, who then spread the word of mouth about our software too.

Looking forward three years, what would you like to accomplish for EIDA Solutions?

Fundamentally, we would like our footprint to be much larger, specifically in continental Europe. We would like to be the first port of call for pharma projects requiring external construction project management software across Europe, just as we are in Ireland.

From a technical point, we are always striving to improve our software and stay at the forefront of innovation. In the tech and IT industry, if you stand still, you are going to fall way behind because the pace of development is so fast. Whatever the pharma industry is looking for in our product that we lack, we want to build that in so that EIDA Solutions can be the go-to partner of choice and one-stop-shop.

Visibility, traceability, userfriendliness and community collaboration: these are the hallmarks of EIDA Solutions and we believe that will not only differentiate us as a partner of choice but ensure that we see sustained growth.

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