

VLife vouches for research

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Growing at a rate of 83 percent, Pune-based VLife Technologies has tuned itself to the demands of the R&D industry.

With a niche technology specialization in research and drug discovery space and a clientele list comprising Reliance Industries, Glenmark Pharmaceuticals, Lupin, Advanced Enzyme Technologies and Manipal College of Pharmacy, Manipal, VLife Technologies (VLife) has come a long way since its inception in 2002.

With a forte in life sciences research, VLife was recently recognized by NASSCOM among India's Top 100 IT Innovators. In the past VLife had completely incubated and successfully developed two ready-to-use technologies, ChemGen and MDS that are complementary to each other. In fact, the company also has an in-house team for the design and development of technologies. "Our aim is to reduce the cycle time and improve the quality of leads, thus addressing the two major challenges of the present pharmaceutical industry", said Atul Aslekar, CTO, VLife.

The Pune-based company has grown at a phenomenal rate in the last two years. In 2007-2008, the company witnessed an 83 percent growth rate as compared to 40 percent in 2006-07. This is not all. Currently in India, 30 percent of the customers use VLife products. The company has set a target of 50 percent in the coming year. It has set up a mammoth target of touching a triple digit growth in their topline for the coming year.

Research enabling technologies

Over the years, VLife has molded itself to the sky-rocketing demand of the biotech R&D industry. "As far as research enabling technologies are concerned, VLife utilizes the advances in information technology to create a three dimensional simulated research environment where scientists are able to build, try out various discovery hypothesis. Our technologies also provide 'Decision Support' tools to help scientists in zeroing down to separate 'useful from not so useful'," added Aslekar. This, he asserted, is the differentiating factor between technologies designed by the VLife team from other players competing in the same space.

Supreet Deshpande, CEO, VLife Technologies, agreed, "The foremost differentiation comes from the fact that research done exclusively using VLife's technologies has resulted in drug candidates which are being further developed in clinical trials. Secondary and the most critical differentiation comes from the fact that these technologies have unique protocols which are found more accurate and rapid in head-on benchmark studies conducted with leading technology brands in similar scope of work. For example, GRIP docking, GQSAR, SCOPE. Tertiary differentiation again comes from the fact that our technologies are 100 percent home-grown and hence, we are able to provide pro-active support and customization".

The drug discovery division is a separate company at an arm's length with VLife now. The company, Novalead Pharma, pursues two in-house research programs – NCE program in oncology and new indications program in unmet needs area. Its lead compound in oncology VLI27 is expected to enter clinical trials in early 2009 while Galnobax – the new indication diabetic foot ulcers will enter clinical trial in 2008 itself. Both these discoveries are filed for PCT patents and are exclusive output from use of VLife's technologies only. Incidentally, Novalead Pharma outsources the entire experimental work doing only the computational research in-house.

Apart from this, the VLife team also emphasizes on customization for seamless integration of technologies. "All our technology products are 100 percent developed within VLife and we own every line of code that goes into our products", said Aslekar. Products here are built on a modular architecture. For this the scientific team applies the concept of plug-in and plug-out. Both these elements have their distinct advantages.

"If a customer has any type of software output of which they wish to bring into VLife's product, it can be easily plugged in. If the customer needs any particular feature which they have developed in-house or want VLife to develop for their exclusive use, we can plug them into seamlessly work with rest of the VLife products enabling cross-talk and seamless data exchange. On the other hand, none of our product features are forced upon the user, unless they need it. In other words, our customer has to pay for only those features in our product that they require. With our modular architecture, we can 'plug-out' undesired features", informed Aslekar.

The foremost requirement for customizing technology requires that the provider must have access to every line of code that has gone into it. "VLife owns every single line of code because every line has been written within VLife. Second, customers often have their own small in-house technologies that they wish to use in tandem with technologies like that of VLife. Such a need requires their seamless integration with VLife's products. We are perfectly capable of ensuring this as we have the technological expertise and full access to the software code underlying our technologies," said Deshpande.

Business model type unknown

Despite changes in the demand in the market, VLife has not changed its business model since its inception. "Our focus was and continues to be to develop NextEdge technologies which continuously stretch the formidable benchmarks which we ourselves have set and bring them to the customers through multiple ways in tune to their specific requirements. In the first three years of our existence, VLife invested in developing technologies that address practical needs of scientists. Over the last two years since launching their technologies in the Indian academic market alone, we have grown by 40 percent and 88 percent respectively". "Though these are early days, in the small uninitiated segment, this level of growth is highly encouraging," added Aslekar.

Target audience for the company is however continuously expanding. "We started in 2006 to make our technologies available in the Indian research segment and in 2007, we are leading this segment in the midst of global competition. In 2008, we are gradually making our technologies available to the Indian industry. In 2009, we will go global entering into the US and the European markets," revealed Deshpande.

Three revenue streams

The revenue sources for the company is segregated into three divisions.

Revenue stream 1: Licensing of computer aided discovery software

VLife offers software for computer aided drug and molecular research for a range of industry verticals including pharmaceuticals, biotechnology, chemical, petrochemical, agritech and other life sciences sectors. The software is made available on term-based licensing in which the customer can choose the period for which they wish to license the software for in-house use. The software products include VLife Molecular Design Suite (VLifeMDS), which is the flagship product for computer aided drug and molecular discovery. This product has several exclusive technologies from VLife stable namely GRIP docking, QSAR, SCOPE.

Since last two years, the Indian market is growing rapidly for learning and accepting niche technologies like computational chemistry and biology. For computational biology, the number of user groups opting for commercial software in the last one year was approximately 50 and for computational chemistry, it was 35 to 40 groups. Most of the research groups prefer combined package addressing biology and chemistry so that there is an overlap. Last year, VLife successfully built the platform by conducting over 20 workshops all over India. This has resulted in over 250 researchers trained on VLifeMDSTM software.

QSARPro is a specialty software for expert users for undertaking extensive QSAR [Quantitative Structure Activity (or property or toxicity) Relationship] studies, with multiple methods for variable selection & statistical regression. The users have extensive choice of QSAR methods. This product has a patent pending technology from VLife stable named GQSAR. ChemXplor is a software which is focused on chemo-informatics requirements including but not limited to the database generation and searches based on molecular structures, descriptors, fingerprints, receptor properties.

Revenue stream 2: Computational research services

With this offering, companies and collaborators get full access to VLife's technologies as well as expert scientific team. Deshpande added, "Our service offerings range from turnkey research often resulting in valuable Intellectual Property (IP) for the customers to specific problem-solving services that accelerate their in-house research programs". A flexible engagement model enables to choose from specific project based fixed fee option to an FTE model. VLife's services include target-based drug and molecular discovery, ligand-based drug discovery (like conformational analysis, combinatorial library generation and screening, pharmacophore modeling and lead identification), QSAR/QSPR/QSTR analysis, profiling services, custom specific projects.

Revenue stream 3: 'Customized' technology solutions

VLife designs and implements specialized technology solutions for the customers. "We have successfully developed technologies around specific discovery methodologies of our partners so as to ensure reliable and predictive results which are validated in laboratory in animal models. Our partners have filed patents for the discoveries and the molecules are progressing in clinical development," said Aslekar. The engagement model ranges from a fixed fee structure to a hybrid model, which involves basic fixed fee, followed by milestone payments on success customers achieve by use of the technology. The representative scenarios for this offering include:

- Technology enabled scientific systems: Design, development and deployment of research enabling applications, along with engagement models similar to Build-Operate-Transfer (BOT).
- Customization and integration of components from VLife software in the mainstream research system, along with some new component development as per user needs, for specific research purpose.

What next for VLife?

Apart from expanding to the US and European markets, the company has kept a target to grow at over 100 percent in 2008-09 through introduction of new offerings and accessing newer geographical markets. The larger picture is to be a leading provider at a global scale, of cutting edge technologies that improve research productivity. "All actions and decisions at VLife are being taken in line with this larger vision. Expansion of geographical reach and bringing new special purpose products are the two critical aspects we are working on and you will find significant strides made towards these in the next 12 months", concluded Deshpande.

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