

Dr. Shyam Vasudevarao



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President and CTO

Forus Health Pvt. Ltd.

1. What are the top 3 innovative trends you see in semicon technology?

The top 3 innovative trends I see more from an Health care perspective for semicon are

1. MEMS and nano technologies
2. Real time image processing using GPU's and multi core DSP
3. Microarray for gene mapping, point of care/ screening devices In the recently conducted study, India, with a global rank of 30, ranks seventh in the sample set of countries in terms of quality of scientific research institutes. Although quite encouraging, there is definitely scope for improvement here.

2. What part does India play in Forus Health's overall technology and marketing strategy?

Forus is mainly focused on developing technologies for reaching out health care for the masses.

India is the right market for this and also the place which deserves these technologies. Once we prove this in India, we can take this to other emerging countries like China, Africa etc where the problems of affordable health care is a challenge. Forus typically position their products for rural outreach in India, where there is high volume and thus we make High quality and affordable price and easy to access. The same technology can be packed for the developed nations as home health care or wellness and preventive care products.

3. What are the critical challenges facing companies looking to develop or expand existing semiconductor operations in India?

My focus has been on Health care and what I can say is that we are at an infancy stage when it comes to health care products or system development.

The ECO system with right competence and sub system / component manufacturers is still in its infancy. Also we need clinical validation, certification and funding to give a boost to this ECO system if we are thinking of making India as the hub for health care and medical instrumentation.

4. How do you place the competency of Indian product companies as compared with MNCs?

In India we have very good IT/ BPO/ KPO competence and most part of this also utilised for health care system development. However when we talk of product development, interdisciplinary skills are needed and that is where we have a challenge. I would say Public Sectors have better competency for product development than MNC's units in India or other Indian product companies but this is all in a very niche areas like defence and satellite technology. If we compare MNC's with Indian Product Company, on the sub systems involving software system development, we are at par with any MNC's but when it comes to head end processes like research, innovation, proof of concept prototyping, requirements elicitation, open innovation, interaction with academia etc., we have a huge opportunity and as there is a big gap.

Again on the product integration we see a big gap in competency like interacting with ECO system, sub contract management, component sourcing, handling third party IP's etc. The gap is less in the development phase of the product life cycle.

5. What would be the key market drivers in 2012?

The key drivers in 2012 could service factory driven by some technologies and products to deliver high end services. Value engineering for hi tech and high reliability products and systems. Local for local and local for global product development particularly in Health care. In health care KPO could be another key driver.

6. How do you see the Indian engineering education scenario? What do you think are its strengths?

The IT boom has definitely helped and fueled engineering education, however the side effect is that the entire engineering education has got too polarised towards IT and ITES. This has also lead to a digital divide between IT and non IT disciplines and interdisciplinary competencies needed for product development has taken a back seat. In today's education system we have very less hands-on and practical exposure. The great strength in Indian education system is that the foundation is strong and people are highly adaptable. If we see that there is a growth opportunity in a particular field, soon we can get the system to build capacity in that field. This we have already seen with the service industry growing rapidly in India.

7. How does your company plan to leverage the unique needs of India in the various market verticals?

Health care product development needs a large patient population for validating our products and also build innovative business models to deliver health care. We have this unique opportunity in India. All the while India had good talent, great ideas, government support etc, but local market was not attractive from a business point of view. Now even the market is growing at a fast pace in India due to fast growing economy. We at Forus are rightly positioned to make good use of this opportunity and fulfil the grand vision of democratising health care.

About the author

Dr. Shyam Vasudevarao

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Dr. Shyam holds a doctorate in Real Time Embedded Systems, specialising in Parallel Computer Architecture from Indian Institute of Science (gold Medal) & has been with CG Smith, Ericsson, Tata Consultancy Services and Philips. He was instrumental in devising one of the first hardware based antivirus solution in 90s.

At Tata Consulting Services as Product Manager, Dr. Shyam spearheaded their new product development initiatives, including the product development programs on Wireless Communications and Medical Electronics. He was involved in university relationships for joint research programs with IISc Bangalore & IIT Mumbai and Alborg University in Denmark to work on wireless technology and medical electronics.

During his stint at Ericsson, Dr. Shyam was responsible for building a technical team of 100+ engineers, involved in the execution of their product development activities at Bangalore. While at Ericsson, he was on a special assignment at their head office in Stockholm, as a Strategic Product Manager for over 2 years. This involved building revenues and profits, through innovative and creative business strategies and extensive customer-centric business analysis
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