

Commercialization Strategies for High-Tech Startups

Prerequisites for commercial success

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Many roads lead to Rome – just as there is more than one strategy for the commercialization of technologies that result in success. Everything depends on the initial conditions, much depends on the managers, and some things are completely unexpected. The following article describes aspects of the commercialization strategy that play a leading role in its definition.

Technology origins

Where does the technology come from? Is it the result of years of leading-edge research at a university or is it a byproduct of the practical solution to a completely different problem? Did the inventor come up with it in private, working all alone? The more the technology appears in the foreground for marketing purposes, the more substance it must have. Research institutes with a global reputation know fairly precisely what their competition is up to, and must constantly match themselves against it. Typically, the alternative technologies are known, as are the relevant industrial companies in the market. The best pupils in the class have the best chances! Naturally, now and again there are developments and inventions that are beyond any competition – revolutionary approaches with high commercialization potential that no one has ever heard of – but they are unlikely. Technological problem-solving approaches appear in clusters because most technologies develop as a final “problem-oriented” conclusion.

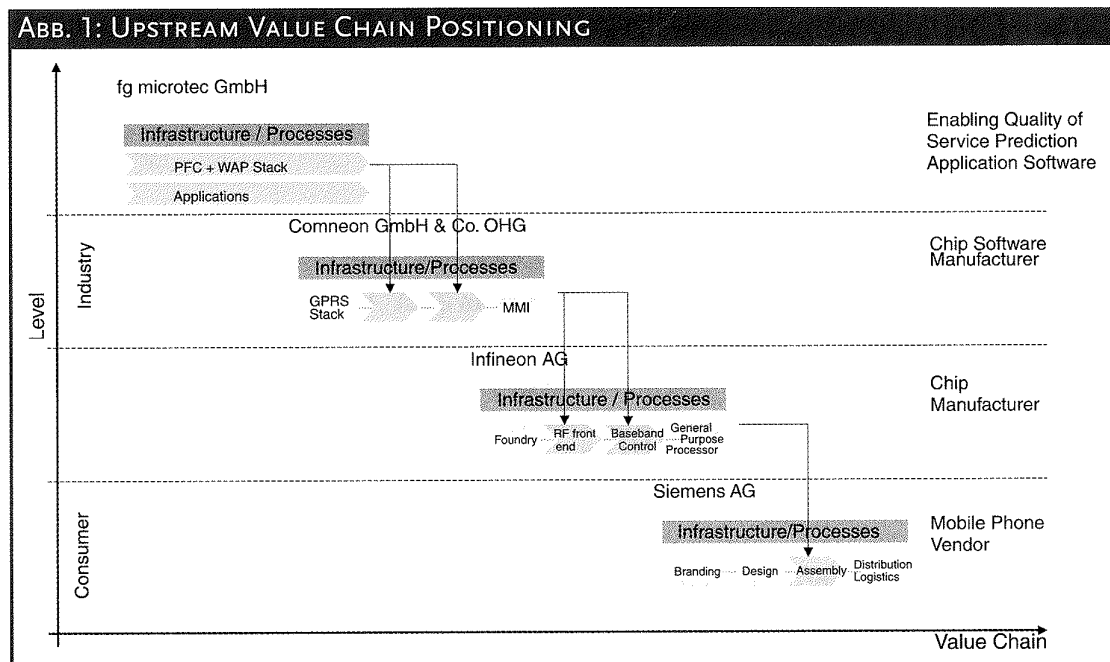
Problem-solving capacity/target market

Strategies for defining a target market fill books – and yet there is no universal answer. It is important that you 1) know the problem-solving capacity of the technology and 2) are familiar with the features of your potential market. Regarding 1: Do you have vertical competency in a single market or is it horizontal, across various markets? Is the technology used as part of a primary product, or as infrastructure for the manufacture of the product? Is the technology applied close to the end user, or in an industrial environment? The typical structure of an industrial value creation process can be seen in Figure 1 in the example of fg microtec, a high-tech startup. Regarding 2: Have the managers already been active in this market? What are its growth rates? How is the “food chain” structured and what is its half-life/volatility? Does the management know the market’s key opinion leader? Is it known who “can” with whom, and what moves market participants to spend their money? Is it known what the established companies said in their last meeting with analysts? Are the analysts known and do the analysts know the company?

Development of a suitable strategy

The response to the following questions plays an important role in developing a suitable strategy. Generally, mature markets are much more difficult to capture than adolescent markets. But there are in fact markets that define young submarkets through “new market participants” with innovations (e.g., retail is becoming innovative thanks to e-commerce, medical technology is being expanded by LASIK laser eye surgery). Such markets, although traditional, can then be very appealing indeed. The attempt to redefine a mature market can become very expensive, and is best left to someone else.

For this reason, the question becomes pertinent as to where technologies find themselves in the Hype Cycle Analysis regarding degree of maturity, public attention, and remaining time to broad productive application. Must the market be “educated” (technology push)? Or can you benefit from a market pull? It is probably too early for the former, which can be very costly, while with the latter, there may already be a lot of competition and you might have to “elbow” your way in, that is, buy your spot with expensive marketing investments.



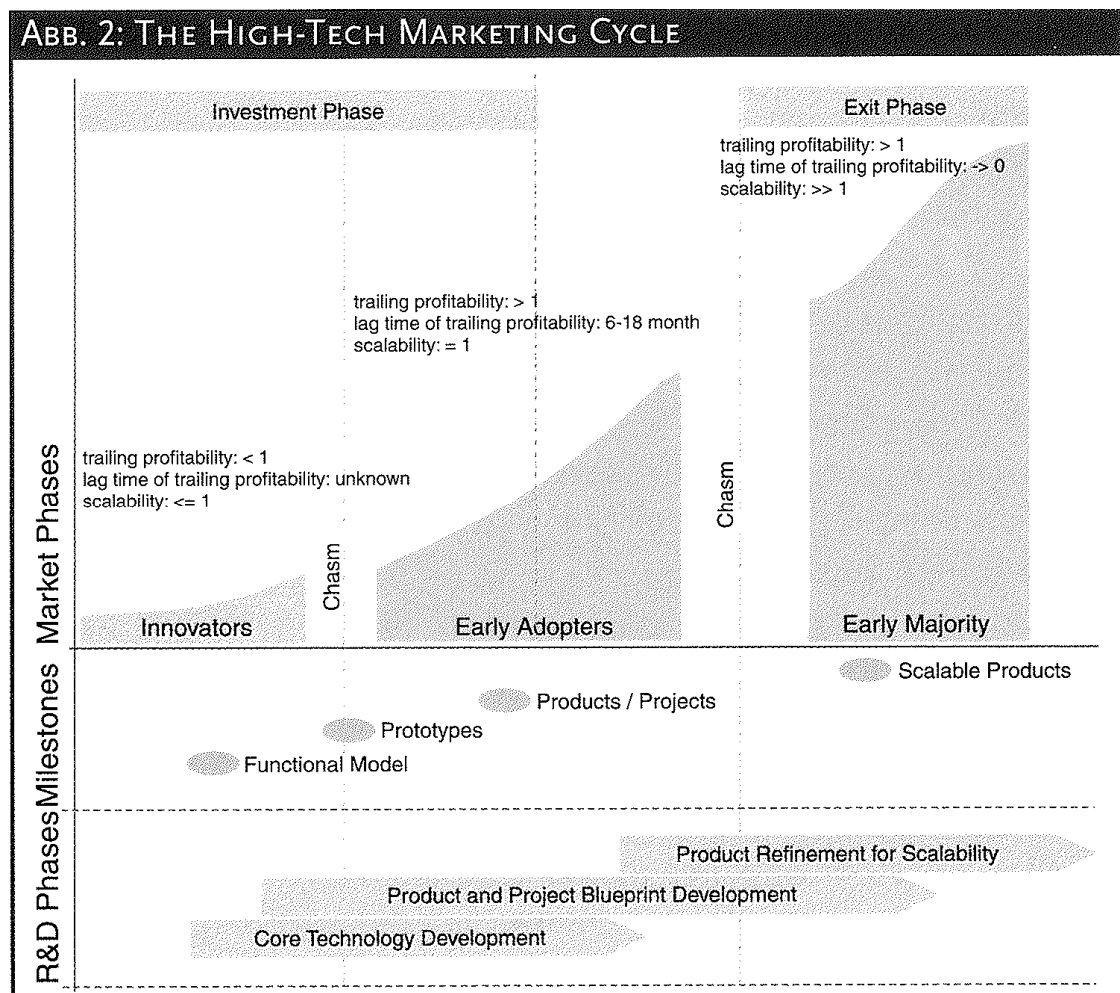
Source: Triangle

Unique selling proposition

Recently, a veteran service provider from the VC arena claimed: “Patents? They’re just for the life sciences sector.” That is an attitude that can cost someone dearly. Proprietary technologies for the key functions of the product function as hurdles for imitators and copycats and are the key to success. Of course there are exceptions along the lines of “winner takes all,” but these are very rare. This is even true for software. There are champions of open source that are motivated by ideology, and others who are practical proponents of it. But the truth remains that a commercial product must be proprietary since the public domain and successful commercialization are mutually exclusive. Another important question: How big is your technology’s share of the value creation chain – 10 percent, 50 percent, 100 percent? The theoretical value of the technology is always the sum of share plus indispensability. If a company has only about one percent of the value creation chain with your technology, then reality indicates that no technology is indispensable – and with that, a unique selling proposition quickly becomes useless.

Business models

The right business model is mainly determined by three parameters: trailing profitability, lag time of trailing profitability and scalability. The decision for or against a business model (consulting, projects, licenses, maintenance, leasing, per use, volume sales, etc.) should be made with an eye to optimizing the three parameters and not because a particular business model is currently en vogue. Trailing profitability should reach >1 as soon as possible, so that a certain degree of basic profitability can be displayed. Lag time of trailing profitability: The correlation between effort and result must be measurable. If the result takes too long to appear, no one will know if that which is being done makes any sense at all. Scalability: The entire point of trying to form a startup – making the profitability that you had when you were small, big, and growing it quickly and sustainably through scaling. The process of implementing a successful business model is viewed as a phasing-in in many stages: Initially, the story is sold to the opinion leader, then to the early adopters, where the first money is earned, and then you understand the market and can scale in the target market (Figure 2). Do not think that you will be able to plow through – most do not manage the leap into scaling and end up as an engineering firm that lives from hand to mouth.



Source: Triangle

The right communication

“Don’t hide your light under a bushel.” The best technology and the best product are useless if the customer benefit cannot be empathetically communicated to the ordinary man. The CEO in a high-tech startup is the “chief storyteller.” That differentiates the successful from the unsuccessful startups; the unsuccessful ones cannot part from their technologies and see the story as a necessary evil, whereas the story takes center stage for the successful ones – technology and product quality then ultimately become the encore!