

Israel's technology cluster

Land of milk and start-ups

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Silicon Wadi v Silicon Valley

IF HIGHWAY 101 south of San Francisco, Silicon Valley's main artery, were mysteriously to connect to one of the roads around Tel Aviv, many drivers would not even notice. The office blocks with large, tinted windows, housing technology start-ups, are hard to tell apart. Indeed, many people would argue that the world's second most important technology cluster, called Silicon Wadi ("canyon" or "gorge" in Hebrew), is essentially a clone of the first.

When it comes to entrepreneurial infrastructure, the similarities between the Valley and the Wadi are certainly striking. In both places corporate hierarchies are despised, risk-taking is rewarded and failure tolerated. Israel also boasts several elite universities, such as Technion in Haifa, and research centres run by big technology firms such as Cisco and Intel. Entrepreneurs have their pick of providers if they need legal or other services. And, as in California, there are plenty of well-funded venture-capital (VC) firms providing cash.

Yet there are many differences, too, starting with venture capital. In 2007 VC firms invested \$1.76 billion in Israel. Although this was the highest figure since the dotcom bubble burst in 2001, and was up 8.5% on 2006, it is still less than a fifth of the \$10 billion or so invested in Silicon Valley. (The figure for Europe was \$7.2 billion, down 5% from 2006.) Local funds do more than half of the deals, but almost all the money comes from abroad, mostly from America. And most of it is invested not in software or trendy web-based services, but in start-ups developing specialised chips or advanced telecoms equipment.

If Israeli entrepreneurs are more into hard-core technologies and innovation, it is in part because they have such a small market. Selling their wares abroad is more difficult in market segments in which firms must be close to the user, such as "Web 2.0" sites, which are as much a social and cultural phenomenon as a technological one. A more important reason is that many entrepreneurs cut their teeth in the Israeli army, which has always needed to compensate for the country's lack of manpower and resources with cutting-edge technology, mainly in communications.

As a result, Israeli high-tech is particularly strong in wireless technology, especially when it comes to combining digital and analogue signals on a single chip. Take Wisair, a start-up that designs such chips for a technology called ultra-wideband, which is expected to begin replacing cables between electronic devices, such as computers and monitors, later this year. David Yaish, the firm's founder and chief executive, used to manage wireless R&D at the Israeli ministry of defence.

The mindset of the typical Israeli entrepreneur has also helped shape the business. He (and it is usually a he, for there are even fewer female entrepreneurs than in Silicon Valley) is more of a nuts-and-bolts innovator than a clever marketer. Having grown up in a truly multicultural society, he is well equipped to deal with diversity, for instance in standards bodies. Being used to less generous funding, he knows how to improvise. Many Israelis also see their work as an act of patriotism, which explains how they can be both ultra-competitive, yet help each other out. And they are more interested in inventing things than in protecting them with patents. "It's like painting a good picture for others to see it," says Zion Hadad, boss of Runcom, a pioneer of WiMax, an upstart wireless-broadband technology.

All of this means that hard-charging Israeli entrepreneurs can find it difficult stepping down as chief executive when a start-up reaches the stage at which marketing and management become more important. They often work around the clock as well as the globe. Mr Hadad's day, for instance, is split into three shifts. In the morning he takes care of business in Israel. From the afternoon until after midnight he is on the phone to America, where many of his customers are. After that it is the turn of Asia, where the firm's chips are made. In between, he tries to get some sleep.

The focus on innovation and technology, and a relative lack of interest in management and marketing, explain why Israeli entrepreneurs tend to sell out early, mostly to big foreign firms, rather than build up their companies. Israel has few sizeable technology firms. There is a huge pressure to exit, argues Zeev Holtzman of Giza Venture Capital, a leading Israeli VC firm, but entrepreneurs are starting to acquire the necessary staying power—*Sitzfleisch*, in Yiddish—to make it big. A handful, such as Amdocs and Check Point, which sell telecommunications and security software respectively, have done so.

Still, as things stand, Israel is mainly an exporter of start-ups, and thus an R&D centre for large technology firms. It is not such a bad role, but being confined to a small country and far removed from their markets, Israeli entrepreneurs do not always get the best price for their labours of love. And one day soon, Chinese engineers, in particular, will be as good at building start-ups and developing intellectual property, warns Zohar Zisapel, a serial entrepreneur and chairman of RAD, a group of telecoms-equipment firms. After all, he says, "the Chinese mother is like the Jewish mother—quite demanding."