

# Start-Up

## What we may still learn from Silicon Valley

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A blog - <http://lebre.wordpress.com>

*Is the world of start-ups misunderstood? This major phenomenon, which was born in Silicon Valley near San Francisco fifty years ago, seems to face skepticism and even suspicion. It may still suffer from the consequences of the excesses of the Internet bubble in the late nineties.*

*However, Apple, Microsoft, Intel, Cisco, Yahoo and Google were all start-ups and they prove that the emergence of start-ups is not mere speculation. Neither is it limited to these famous success stories.*



*The book tells the exceptional story of start-ups, which have created, in Silicon Valley, a true ecosystem. It also explores why this model has relatively failed in Europe. And the author concludes by stating that the Old Continent and any other region interested in high tech should draw inspiration more efficiently from the success stories of Silicon Valley. Successes created by individuals driven by passion and dreams. For this reason, it should be read by a large public, not only by specialists of innovation or by high-tech entrepreneurs, but also by anyone puzzled by the thrilling world of start-ups.*

### SILICON VALLEY

**Chapter 1:** the Google saga. No better story to dive into the start-up world. This first chapter is anecdotal and provides an opportunity to address all the essential features of Silicon Valley. Two young PhD students, without any business experience and with the help of investors, have built in five years one of the most ambitious and successful company of our times.

**Chapter 2:** Google, an exception? Not really. The chapter analyzes start-ups which came out of one Stanford laboratory: 36 start-ups, \$900M of venture capital money, professors and their students, Americans and foreigners, a network of individual connections. Some features common to all of them reinforce the 1st chapter and describe further what is unique to start-ups.

**Chapter 3:** founders of start-ups. The focus is on founders because individuals count, not structures. This is illustrated through the evolution of the start-up capital structure and through its financing rounds. A fictitious case is followed by real, famous success stories. The chapter shows the importance of opening the capital of a company to attract team members (managers and staff) and investors until a possible public offering.

**Chapters 4 and 5:** the transition to venture capital ("VC") is natural after three chapters dedicated to entrepreneurs. Chapter 4 is about the history of American venture capital and chapter 5 deals with the VC process and mechanisms.

**Chapter 6:** entrepreneurs and investors build start-ups. They build industries. Here is described one specific industry, EDA (Electronic Design Automation), which developed in parallel to semiconductors. Risk taking and acceptance of failures appear again in this chapter.

**Chapter 7:** a synthesis and a conclusion of part one. Silicon Valley is a true eco-system and behaves like a living organism, with not much control or planning. No critical organ and a constant renewal. The keywords are risk taking, youth, ambition, passion, uncertainty and failure acceptance.

### EUROPE

**Chapter 8:** few success stories in Europe. The chapter shows the start-up world has not succeeded in Europe. The most famous examples are analyzed and the slowness of the development is shown. Some features are compared with those of Silicon Valley: the age of founders, the smaller size of companies for example.

**Chapter 9:** venture capital in Europe. As a logical consequence, VC has not been very successful in Europe. Its history is described and some reasons of these failures are analyzed.

**Chapter 10:** the start-up infrastructure in Europe. Because of the failures, Europe has tried to compensate with multiple tools and initiatives. But the system does not work, does not "live". We are far from an eco-system. I analyze again the reasons which are, I think, mainly cultural.

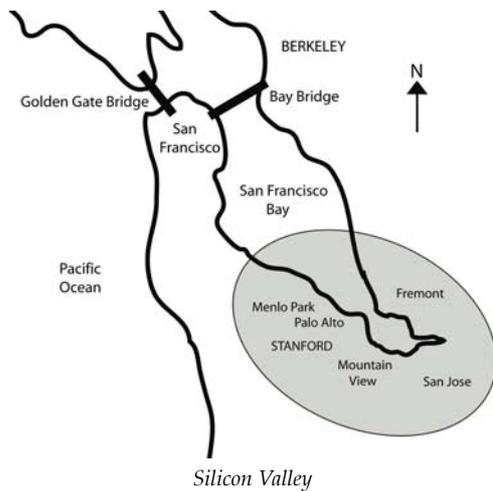
**Chapter 11:** flying to the West? As a kind of conclusion, I encourage the reader to take more inspiration from Silicon Valley and its role models. There is no point in trying to do things differently when things have been successfully done for 50 years. This should not be done at the structural level, but at the individual level. Entrepreneurs, investors, experts, decision makers, and also curious readers should be convinced at the end of this book that passion and ambition are key ingredients (together with other features mentioned before) for start-ups and these may be missing too much outside Silicon Valley

### ABOUT THE AUTHOR

**Hervé Lebre** has spent all his professional life in high tech. After a few years in academic research, he became a venture capitalist in 1997 with Index Ventures. Since 2005, he has managed an innovation fund to support high-tech entrepreneurs and start-ups at École Polytechnique Fédérale de Lausanne (Switzerland). He holds a PhD in Electrical Engineering and is a graduate of École Polytechnique (France) and Stanford University (USA).

## Silicon Valley

In 1957, eight engineers working near San Francisco resigned from their job at Shockley Labs and found financing in New York to fund their new project. The story is famous: the eight traitors are considered as the founders of the first Silicon Valley start-up, Fairchild Semiconductor. Hundreds of successful start-ups followed from Fairchild. This book is also a celebration of the fiftieth birthday of Silicon Valley, of its start-ups, of its entrepreneurs and of its investors.



## Entrepreneurs

The entrepreneur is often seen as an experienced and charismatic individual, as a visionary with exceptional enthusiasm. Steve Jobs, Apple's founder, is the quintessential entrepreneur but one should not forget he was 21 years old when he founded the company. A very venerable age... The table that follows gives the age of other founders when they created their start-up, often without any business experience. Risk taking, acceptance of uncertainty and failure are well-accepted characteristics in Silicon Valley and youth of entrepreneurs probably contributes to these unique dynamics.

## Investors

The venture capital world, the investors in start-ups, is quite different from classical finance. As venture capital is not about financial analysis, the investor has often been an entrepreneur in a prior life. Kleiner (Fairchild) and Perkins (Hewlett Packard), Don Valentine (National) and more recently John Doerr (Intel), Vinod Khosla (Sun) and Michael Moritz have become Silicon Valley icons, as much as Steve Jobs or the Google founders. Without the VCs, Apple, Sun, Cisco, Amazon, Yahoo and Google would not have existed. Mostly the activity of rich individuals (the "business angels") interested in technology fifty years ago, venture capital has become a real industry. The amounts invested are tens of billions of dollars per year.

Company	Date	Founder	Age
Microsoft	1975	Bill Gates	20
Microsoft	1975	Paul Allen	22
Apple	1976	Steve Jobs	21
Apple	1976	Steve Wozniak	26
Cisco	1984	Len Bosack	29
Cisco	1984	Sandra Lerner	29
Sun	1982	Vinod Khosla	27
Sun	1982	Bill Joy	28
Sun	1982	A. Bechtolsheim	26
Sun	1982	Scott McNealy	28
Google	1998	Larry Page	25
Google	1998	Sergey Brin	25
eBay	1995	Pierre Omidyar	28
eBay	1995	Jeff Skoll	30
Yahoo	1995	David Filo	29
Yahoo	1995	Jerry Yang	27
Amazon	1994	Jeff Bezos	30
HP	1939	Bill Hewlett	26
HP	1939	David Packard	27
Dell	1984	Michael Dell	19

Famous entrepreneurs

## Europe and the USA

When one compares European and American start-ups, figures are striking. The biggest American successes have tens of thousands of employees and their market values are in the tens of billions of dollars. European success stories generate thousands of jobs and billions of dollars in market capitalization. Another interesting difference is the time to IPO: in the USA, start-ups often go public on the NASDAQ 5 years after their foundation; in Europe, the time span is more around 8 to 10 years. Also, European founders are very seldom less than 30 years old.

The *Forbes Magazine* recently published a list of world billionaires. Even if wealth is not the most significant feature of start-ups, it is an interesting measure. Number one is Bill Gates of course, and the Google founders are not far behind. Around 50 billionaires in the USA owe their fortune to their start-ups. Among them, there are 4 venture capitalists, all based in Silicon Valley. What about Europe? The list features only four entrepreneurs linked to a European start-up, the four founders of SAP, Europe's biggest success story. There are also four other Europeans who live and succeeded in Silicon Valley, but who were born in Europe before migrating to the USA.



The reason for this relative failure is cultural: Europe tried to build an infrastructure (buildings, services) to compensate the lack of entrepreneurial spirit in high tech. Silicon Valley developed without any policy, thanks to the encounter of passionate and ambitious entrepreneurs and investors. Europe must digest the model to give itself a chance to succeed in the 21st century.

## What is said about *Start-Up*

"Your book is a tour de force and covers many of the issues I get involved in discussions about particularly trying to compare Silicon Valley with Cambridge and anywhere else. You have used your intimate knowledge of many of the cast of players to produce a highly readable and informative book. I believe that what you have achieved is to weave valuable and hard to find data into a story which is both fascinating to read and fills many gaps in people's knowledge and understanding."

**Charles Cotton, ex-CEO of Virata, non-executive director, the Library House (Cambridge, UK)**

"I was sad it was over. It stirred up the same emotions as reading Peter Drucker or Guy Kawasaki. This is a must read for anyone interested in high tech start-ups and entrepreneurship"

**Andre Mercanzini, EPFL PhD student and BSc. University of Toronto**

"The subject of the book *Start-Up* is of high interest for entrepreneurs and policy makers and of special interest for all universities; the concrete analyses (of a Stanford lab for example) are original and insightful. It should become a standard for courses in high-tech entrepreneurship."

**Martin Vetterli, Professor EPFL, Adjunct Professor, UC Berkeley**

# Start-Up

### PART ONE: SILICON VALLEY

#### 1- THE GOOGLE SAGA

#### 2- MANY SUCCESSFUL START-UPS

The example of a Stanford University laboratory

#### 3- FOUNDERS OF START-UPS

Shareholding and dilution

#### 4- A BRIEF HISTORY OF VENTURE CAPITAL

#### 5- THE VENTURE CAPITAL PROCESS

Investors facing entrepreneurs

#### 6- EDA: A SILICON VALLEY INDUSTRY

#### 7- SILICON VALLEY

An ecosystem

### PART TWO: EUROPE

#### 8- EUROPEAN HIGH TECH

Too few successful start-ups

#### 9- VENTURE CAPITAL IN EUROPE

#### 10- THE EUROPEAN INFRASTRUCTURE HAS FAILED

A system without life and passion?

#### 11- AS A CONCLUSION

Flying to the West?