

# Start-Up

What we may still learn  
from Silicon Valley

EPFL– eLab – Session 1  
17 September 2015  
Hervé Lebreton

[www.startup-book.com](http://www.startup-book.com)

# Agenda

- A short history of Silicon Valley
- Silicon Valley vs. Europe (part I): about culture & networks
- A few European examples
- Silicon Valley vs. Europe (part II): go West?
- The Innovation dilemmas
- A (long) conclusion!



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- Silicon Valley vs. Europe (part I): about culture & networks
- A few European examples
- Silicon Valley vs. Europe (part II): go West?
- The Innovation dilemmas
- A (long) conclusion!

Shareholder	Shares	Ownership
S. Brin	38'490'304	14.2%
L. Page	38'490'304	14.2%
<i>A. Bechtolsheim</i>	<i>1'600'000</i>	<i>0.6%</i>
<i>D. Cheriton</i>	<i>1'600'000</i>	<i>0.6%</i>
<i>J. Bezos</i>	<i>1'600'000</i>	<i>0.6%</i>
<i>Stanford University</i>	<i>1'842'070</i>	<i>0.7%</i>
<i>Others</i>	<i>8'717'930</i>	<i>3.2%</i>
Series A	15'360'000	5.7%
<i>Kleiner Perkins</i>	<i>23'893'800</i>	<i>8.8%</i>
<i>Sequoia</i>	<i>23'893'800</i>	<i>8.8%</i>
Series B	47'787'600	17.6%
Series C	6'479'000	2.4%
Others	110'470'300	40.7%
<i>Eric Schmidt</i>	<i>14'758'800</i>	<i>5.4%</i>
<i>Omid Kordestani</i>	<i>4'810'520</i>	<i>1.8%</i>
IPO shares	14'142'135	5.2%
Total	271'219'643	100.0%

Table 1-1 - Google Shareholding



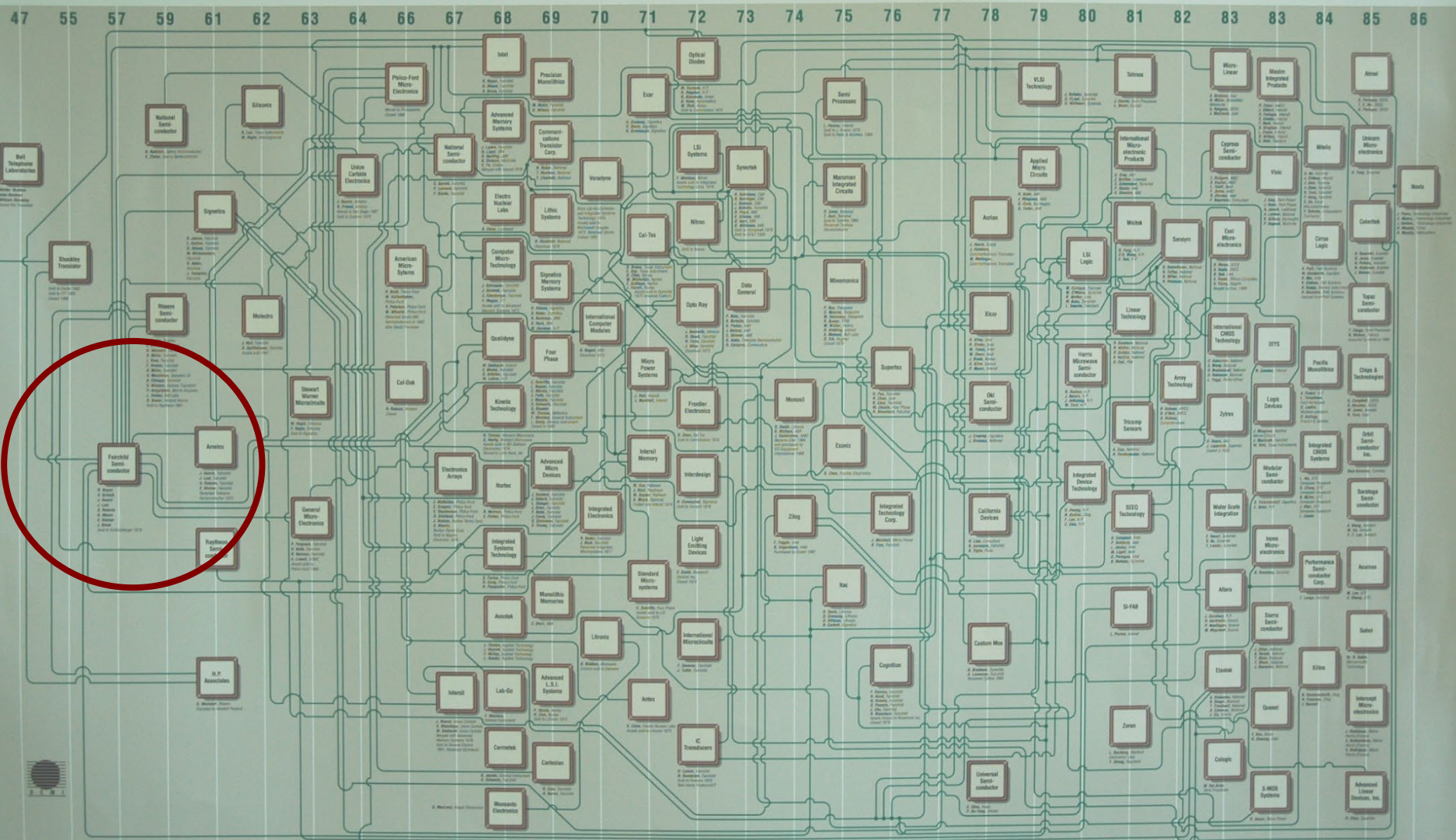
amazon.com.



Shareholder	
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Others	
Series A	
Kleiner Perkins	
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Series C	
Others	
Eric Schmidt	
Omid Kordestani	
IPO shares	
Total	

Table 1-1 - Google Shareholding

# SILICON VALLEY GENEALOGY





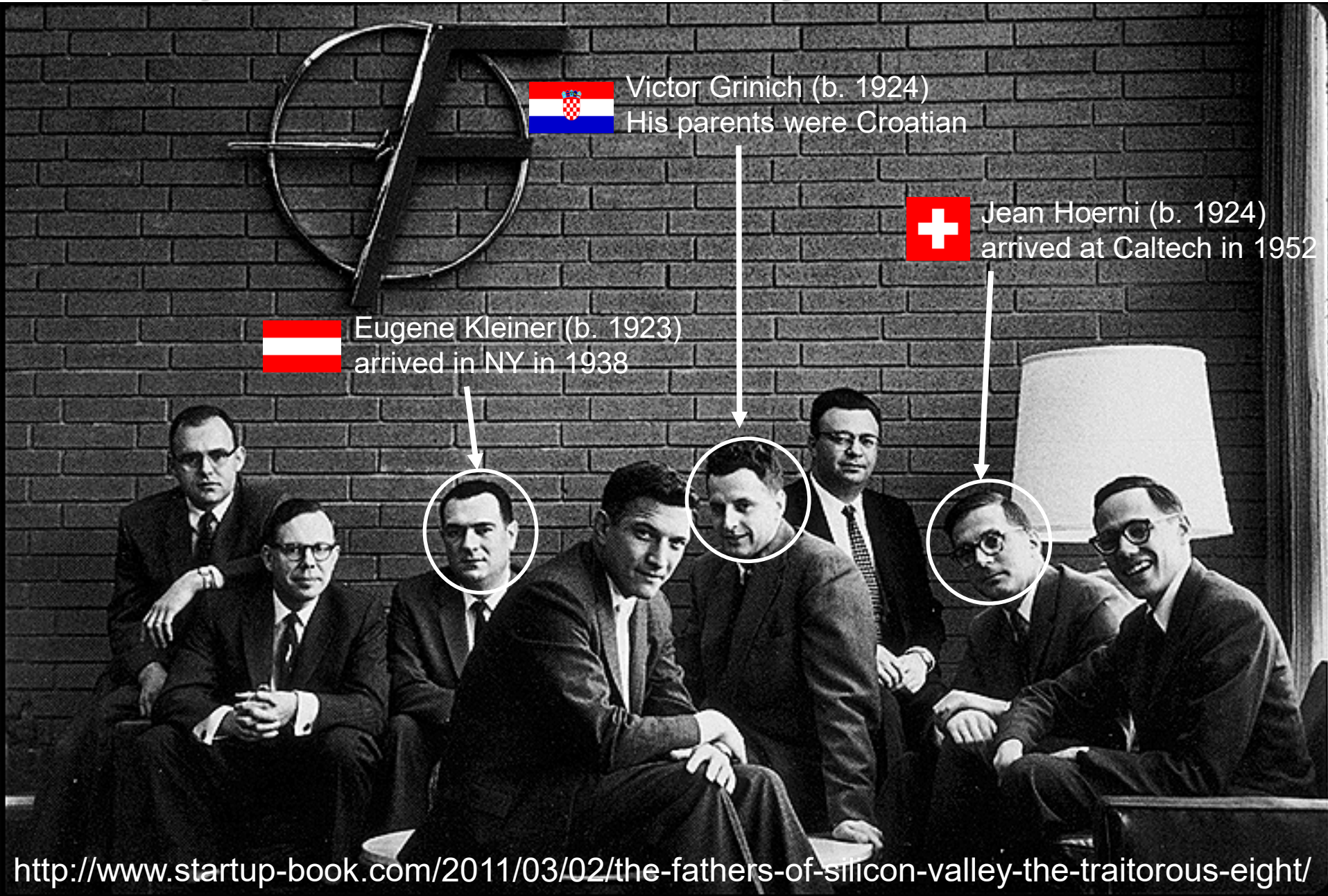
The Eight  
Traitors  
at the  
origin of  
Silicon  
Valley

**Fairchild  
Semi-  
conductor**

*R. Noyce  
V. Grinich  
J. Hoerni  
J. Last  
S. Roberts  
G. Moore  
E. Kleiner  
J. Blank*

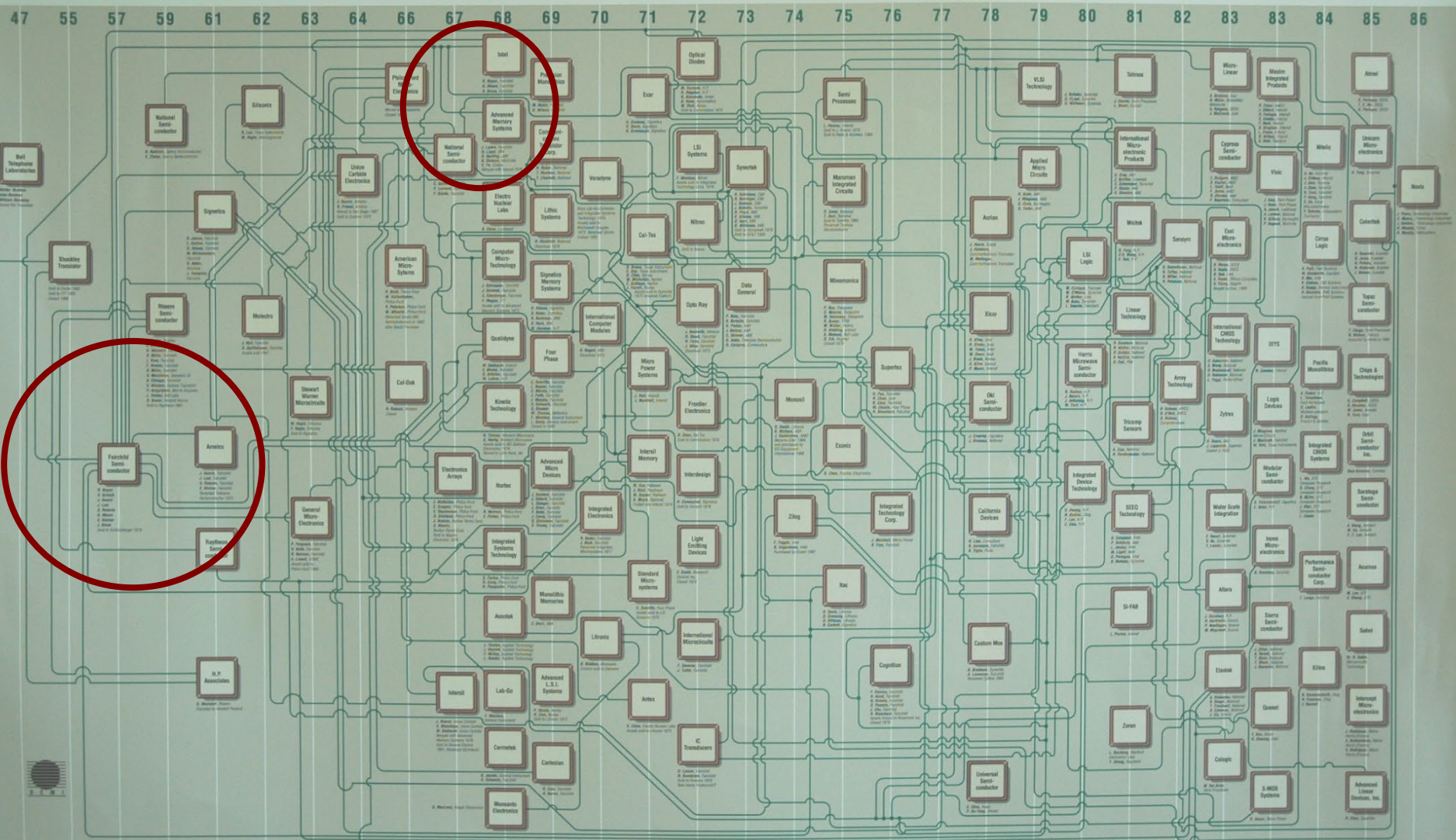
*Sold to Schlumberger 1979*

# The eight Traitors: Julius Blank, Victor Grinich, Jean Hoerni, Eugene Kleiner, Jay Last, Gordon Moore, Robert Noyce and Sheldon Roberts.





# SILICON VALLEY GENEALOGY





67

68

Intel

*R. Noyce, Fairchild*  
*G. Moore, Fairchild*  
*A. Grove, Fairchild*

Advanced  
Memory  
Systems

National  
Semi-  
conductor

*J. Larkin, Fairchild*  
*R. Lloyd, IBM*  
*D. Berding, IBM*  
*B. Dickson, Motorola*  
*C. Fa, Collins*  
*Merged with Intersil 1976*

*C. Sporck, Fairchild*  
*P. Lamond, Fairchild*  
*F. Bialek, Fairchild*

Electro



Cofounder  
National Semiconductor, 1967





# The one-page Intel business plan, 1968

The company will engage in research, development, and manufacture and sales of integrated electronic structures to fulfill the needs of electronic systems manufacturers. This will include thin films, thick films, semiconductor devices, and other solid state components used in hybrid and monolithic integrated structures.

A variety of processes will be established, both at a laboratory and production level. These include crystal growth, slicing, lapping, polishing, solid state diffusion, photolithographic masking and etching, vacuum evaporation, film deposition, assembly, packaging, and testing, as well as the development and manufacture of special processing and testing equipment required to carry out these processes.

Products may include diodes, transistors, field effect devices, photo sensitive devices, photo emitting devices, integrated circuits, and subsystems commonly referred to by the phrase "large scale integration". Principal customers for these products are expected to be the manufacturers of advanced electronic systems for communications, radar, control and data processing. It is anticipated that many of these customers will be located outside California.









# 1958 WEST

1959 1960 1961 1962 1963

< Edward Heller (1935)  
 < McMicking & Co. (1948) Henry A. McMicking  
 J. R. McMicking  
 < David M. Goodman (1957)  
 Draper, Gaither & Anderson William H. Draper, Jr. Fred Anderson Pete Bancroft Crawford Cooley Don Lucas  
 Rowan Gaither Larry Duerig Tom Carey Bill Draper  
 Western Business Assistance Corp. Prentis Hale H. D. Thoreau



From *Business Week*, Oct 29, 1960  
 General partners H. Rowan Gaither, Jr.,  
 Frederick L. Anderson, Laurence G. Duerig,  
 William H. Draper, Jr. pictured left to right.  
 William H. Draper III in the background.

Electronics Capital Corp. Charles Salk  
 Continental Capital Corp. Frank Chambers Fred Cox  
 Small Business Enterprises George Olust Don Muller Steve Merrill  
 First SBIC of California Tim Hay  
 Page Mill Associates Jack Melchor  
 Cascade Capital Al Coates Jack Flowers  
 Moshe Alafi  
 Davis & Rock Tommy Davis Arthur Rock  
 Bryan Capital Co. John Bryan  
 Edvestco  
 Draper & Johnson Investment Co. Bill Draper Pitch Johnson  
 Sutter Hill Capital Co. Greg Peterson Frank Local Bill Draper  
 Ocean Science Capital Corp. Ward P...  
 P. M. Investment Co. Dan McGanney  
 Sierra Capital Dick Goldman Marshall Kas  
 Fireman's Fund Reid Dennis  
 Palo Alto Investment Co. Jack Melchor Burt McMurtry  
 Hill Scientific Investment Co. Moshe Alafi John Hunsley  
 Arthur Rock & Co. Arthur Rock Dick Kramlich  
 Edwards John Bryan Al Brudos Bill Edwards  
 Sutter Hill Ventures  
 OS



**Companies**  
 \*Advanced Technology Ventures  
 Alafi, Moshe  
 Alpha Fund  
 Alpine Venture Capital  
 American Euro Interfund  
 Anscott, Norton & Associates  
 Asset Management Co.  
 Associated Venture Investors  
 BankAmerica Capital Corp.  
 Bay Investment Partners  
 Bay Venture Group  
 Berliner Associates  
 \*Bessemmer Venture Partners  
 Brentwood Associates  
 Bruce A. Blinn

Newtek Ventures  
 Northwest Growth Fund  
 Norwest Venture Capital Management, Inc.  
 Oak Grove Ventures  
 Ocean Science Capital Corp.  
 Opportunity Capital Corp.  
 OSCCO Ventures  
 P. M. Investment Co.  
 Pacific Technology Venture Management

1983-1976-1983  
 1983-  
 1971-1978  
 1962-1971  
 1970-  
 1971-  
 1962-  
 1981-



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<p><b>Investment</b>  <b>1975</b>  <b>1976</b>  <b>1977</b>  <b>1978</b>  <b>1979</b>  <b>1980</b>  <b>1981</b>  <b>1982</b>  <b>1983</b>  <b>1984</b>  <b>1985</b>  <b>1986</b>  <b>1987</b>  <b>1988</b>  <b>1989</b>  <b>1990</b>  <b>1991</b>  <b>1992</b>  <b>1993</b>  <b>1994</b>  <b>1995</b>  <b>1996</b>  <b>1997</b>  <b>1998</b>  <b>1999</b>  <b>2000</b>  <b>2001</b>  <b>2002</b>  <b>2003</b>  <b>2004</b>  <b>2005</b>  <b>2006</b>  <b>2007</b>  <b>2008</b>  <b>2009</b>  <b>2010</b>  <b>2011</b>  <b>2012</b>  <b>2013</b>  <b>2014</b>  <b>2015</b>  <b>2016</b>  <b>2017</b>  <b>2018</b>  <b>2019</b>  <b>2020</b>  <b>2021</b>  <b>2022</b>  <b>2023</b>  <b>2024</b>  <b>2025</b>  <b>2026</b>  <b>2027</b>  <b>2028</b>  <b>2029</b>  <b>2030</b>  <b>2031</b>  <b>2032</b>  <b>2033</b>  <b>2034</b>  <b>2035</b>  <b>2036</b>  <b>2037</b>  <b>2038</b>  <b>2039</b>  <b>2040</b>  <b>2041</b>  <b>2042</b>  <b>2043</b>  <b>2044</b>  <b>2045</b>  <b>2046</b>  <b>2047</b>  <b>2048</b>  <b>2049</b>  <b>2050</b>  <b>2051</b>  <b>2052</b>  <b>2053</b>  <b>2054</b>  <b>2055</b>  <b>2056</b>  <b>2057</b>  <b>2058</b>  <b>2059</b>  <b>2060</b>  <b>2061</b>  <b>2062</b>  <b>2063</b>  <b>2064</b>  <b>2065</b>  <b>2066</b>  <b>2067</b>  <b>2068</b>  <b>2069</b>  <b>2070</b>  <b>2071</b>  <b>2072</b>  <b>2073</b>  <b>2074</b>  <b>2075</b>  <b>2076</b>  <b>2077</b>  <b>2078</b>  <b>2079</b>  <b>2080</b>  <b>2081</b>  <b>2082</b>  <b>2083</b>  <b>2084</b>  <b>2085</b>  <b>2086</b>  <b>2087</b>  <b>2088</b>  <b>2089</b>  <b>2090</b>  <b>2091</b>  <b>2092</b>  <b>2093</b>  <b>2094</b>  <b>2095</b>  <b>2096</b>  <b>2097</b>  <b>2098</b>  <b>2099</b>  <b>2100</b>  <b>2101</b>  <b>2102</b>  <b>2103</b>  <b>2104</b>  <b>2105</b>  <b>2106</b>  <b>2107</b>  <b>2108</b>  <b>2109</b>  <b>2110</b>  <b>2111</b>  <b>2112</b>  <b>2113</b>  <b>2114</b>  <b>2115</b>  <b>2116</b>  <b>2117</b>  <b>2118</b>  <b>2119</b>  <b>2120</b>  <b>2121</b>  <b>2122</b>  <b>2123</b>  <b>2124</b>  <b>2125</b>  <b>2126</b>  <b>2127</b>  <b>2128</b>  <b>2129</b>  <b>2130</b>  <b>2131</b>  <b>2132</b>  <b>2133</b>  <b>2134</b>  <b>2135</b>  <b>2136</b>  <b>2137</b>  <b>2138</b>  <b>2139</b>  <b>2140</b>  <b>2141</b>  <b>2142</b>  <b>2143</b>  <b>2144</b>  <b>2145</b>  <b>2146</b>  <b>2147</b>  <b>2148</b>  <b>2149</b>  <b>2150</b>  <b>2151</b>  <b>2152</b>  <b>2153</b>  <b>2154</b>  <b>2155</b>  <b>2156</b>  <b>2157</b>  <b>2158</b>  <b>2159</b>  <b>2160</b>  <b>2161</b>  <b>2162</b>  <b>2163</b>  <b>2164</b>  <b>2165</b>  <b>2166</b>  <b>2167</b>  <b>2168</b>  <b>2169</b>  <b>2170</b>  <b>2171</b>  <b>2172</b>  <b>2173</b>  <b>2174</b>  <b>2175</b>  <b>2176</b>  <b>2177</b>  <b>2178</b>  <b>2179</b>  <b>2180</b>  <b>2181</b>  <b>2182</b>  <b>2183</b>  <b>2184</b>  <b>2185</b>  <b>2186</b>  <b>2187</b>  <b>2188</b>  <b>2189</b>  <b>2190</b>  <b>2191</b>  <b>2192</b>  <b>2193</b>  <b>2194</b>  <b>2195</b>  <b>2196</b>  <b>2197</b>  <b>2198</b>  <b>2199</b>  <b>2200</b>  <b>2201</b>  <b>2202</b>  <b>2203</b>  <b>2204</b>  <b>2205</b>  <b>2206</b>  <b>2207</b>  <b>2208</b>  <b>2209</b>  <b>2210</b>  <b>2211</b>  <b>2212</b>  <b>2213</b>  <b>2214</b>  <b>2215</b>  <b>2216</b>  <b>2217</b>  <b>2218</b>  <b>2219</b>  <b>2220</b>  <b>2221</b>  <b>2222</b>  <b>2223</b>  <b>2224</b>  <b>2225</b>  <b>2226</b>  <b>2227</b>  <b>2228</b>  <b>2229</b>  <b>2230</b>  <b>2231</b>  <b>2232</b>  <b>2233</b>  <b>2234</b>  <b>2235</b>  <b>2236</b>  <b>2237</b>  <b>2238</b>  <b>2239</b>  <b>2240</b>  <b>2241</b>  <b>2242</b>  <b>2243</b>  <b>2244</b>  <b>2245</b>  <b>2246</b>  <b>2247</b>  <b>2248</b>  <b>2249</b>  <b>2250</b>  <b>2251</b>  <b>2252</b>  <b>2253</b>  <b>2254</b>  <b>2255</b>  <b>2256</b>  <b>2257</b>  <b>2258</b>  <b>2259</b>  <b>2260</b>  <b>2261</b>  <b>2262</b>  <b>2263</b>  <b>2264</b>  <b>2265</b>  <b>2266</b>  <b>2267</b>  <b>2268</b>  <b>2269</b>  <b>2270</b>  <b>2271</b>  <b>2272</b>  <b>2273</b>  <b>2274</b>  <b>2275</b>  <b>2276</b>  <b>2277</b>  <b>2278</b>  <b>2279</b>  <b>2280</b>  <b>2281</b>  <b>2282</b>  <b>2283</b>  <b>2284</b>  <b>2285</b>  <b>2286</b>  <b>2287</b>  <b>2288</b>  <b>2289</b>  <b>2290</b>  <b>2291</b>  <b>2292</b>  <b>2293</b>  <b>2294</b>  <b>2295</b>  <b>2296</b>  <b>2297</b>  <b>2298</b>  <b>2299</b>  <b>2300</b>  <b>2301</b>  <b>2302</b>  <b>2303</b>  <b>2304</b>  <b>2305</b>  <b>2306</b>  <b>2307</b>  <b>2308</b>  <b>2309</b>  <b>2310</b>  <b>2311</b>  <b>2312</b>  <b>2313</b>  <b>23</b></p>
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<b>101</b> <b>102</b> <b>103</b> <b>104</b> <b>105</b> <b>106</b> <b>107</b> <b>108</b> <b>109</b> <b>110</b> <b>111</b> <b>112</b> <b>113</b> <b>114</b> <b>115</b> <b>116</b> <b>117</b> <b>118</b> <b>119</b> <b>120</b> <b>121</b> <b>122</b> <b>123</b> <b>124</b> <b>125</b> <b>126</b> <b>127</b> <b>128</b> <b>129</b> <b>130</b> <b>131</b> <b>132</b> <b>133</b> <b>134</b> <b>135</b> <b>136</b> <b>137</b> <b>138</b> <b>139</b> <b>140</b> <b>141</b> <b>142</b> <b>143</b> <b>144</b> <b>145</b> <b>146</b> <b>147</b> <b>148</b> <b>149</b> <b>150</b> <b>151</b> <b>152</b> <b>153</b> <b>154</b> <b>155</b> <b>156</b> <b>157</b> <b>158</b> <b>159</b> <b>160</b> <b>161</b> <b>162</b> <b>163</b> <b>164</b> <b>165</b> <b>166</b> <b>167</b> <b>168</b> <b>169</b> <b>170</b> <b>171</b> <b>172</b> <b>173</b> <b>174</b> <b>175</b> <b>176</b> <b>177</b> <b>178</b> <b>179</b> <b>180</b> <b>181</b> <b>182</b> <b>183</b> <b>184</b> <b>185</b> <b>186</b> <b>187</b> <b>188</b> <b>189</b> <b>190</b> <b>191</b> <b>192</b> <b>193</b> <b>194</b> <b>195</b> <b>196</b> <b>197</b> <b>198</b> <b>199</b> <b>200</b>	<b>201</b> <b>202</b> <b>203</b> <b>204</b> <b>205</b> <b>206</b> <b>207</b> <b>208</b> <b>209</b> <b>210</b> <b>211</b> <b>212</b> <b>213</b> <b>214</b> <b>215</b> <b>216</b> <b>217</b> <b>218</b> <b>219</b> <b>220</b> <b>221</b> <b>222</b> <b>223</b> <b>224</b> <b>225</b> <b>226</b> <b>227</b> <b>228</b> <b>229</b> <b>230</b> <b>231</b> <b>232</b> <b>233</b> <b>234</b> <b>235</b> <b>236</b> <b>237</b> <b>238</b> <b>239</b> <b>240</b> <b>241</b> <b>242</b> <b>243</b> <b>244</b> <b>245</b> <b>246</b> <b>247</b> <b>248</b> <b>249</b> <b>250</b> <b>251</b> <b>252</b> <b>253</b> <b>254</b> <b>255</b> <b>256</b> <b>257</b> <b>258</b> <b>259</b> <b>260</b> <b>261</b> <b>262</b> <b>263</b> <b>264</b> <b>265</b> <b>266</b> <b>267</b> <b>268</b> <b>269</b> <b>270</b> <b>271</b> <b>272</b> <b>273</b> <b>274</b> <b>275</b> <b>276</b> <b>277</b> <b>278</b> <b>279</b> <b>280</b> <b>281</b> <b>282</b> <b>283</b> <b>284</b> <b>285</b> <b>286</b> <b>287</b> <b>288</b> <b>289</b> <b>290</b> <b>291</b> <b>292</b> <b>293</b> <b>294</b> <b>295</b> <b>296</b> <b>297</b> <b>298</b> <b>299</b> <b>300</b>	<b>301</b> <b>302</b> <b>303</b> <b>304</b> <b>305</b> <b>306</b> <b>307</b> <b>308</b> <b>309</b> <b>310</b> <b>311</b> <b>312</b> <b>313</b> <b>314</b> <b>315</b> <b>316</b> <b>317</b> <b>318</b> <b>319</b> <b>320</b> <b>321</b> <b>322</b> <b>323</b> <b>324</b> <b>325</b> <b>326</b> <b>327</b> <b>328</b> <b>329</b> <b>330</b> <b>331</b> <b>332</b> <b>333</b> <b>334</b> <b>335</b> <b>336</b> <b>337</b> <b>338</b> <b>339</b> <b>340</b> <b>341</b> <b>342</b> <b>343</b> <b>344</b> <b>345</b> <b>346</b> <b>347</b> <b>348</b> <b>349</b> <b>350</b> <b>351</b> <b>352</b> <b>353</b> <b>354</b> <b>355</b> <b>356</b> <b>357</b> <b>358</b> <b>359</b> <b>360</b> <b>361</b> <b>362</b> <b>363</b> <b>364</b> <b>365</b> <b>366</b> <b>367</b> <b>368</b> <b>369</b> <b>370</b> <b>371</b> <b>372</b> <b>373</b> <b>374</b> <b>375</b> <b>376</b> <b>377</b> <b>378</b> <b>379</b> <b>380</b> <b>381</b> <b>382</b> <b>383</b> <b>384</b> <b>385</b> <b>386</b> <b>387</b> <b>388</b> <b>389</b> <b>390</b> <b>391</b> <b>392</b> <b>393</b> <b>394</b> <b>395</b> <b>396</b> <b>397</b> <b>398</b> <b>399</b> <b>400</b>	<b>401</b> <b>402</b> <b>403</b> <b>404</b> <b>405</b> <b>406</b> <b>407</b> <b>408</b> <b>409</b> <b>410</b> <b>411</b> <b>412</b> <b>413</b> <b>414</b> <b>415</b> <b>416</b> <b>417</b> <b>418</b> <b>419</b> <b>420</b> <b>421</b> <b>422</b> <b>423</b> <b>424</b> <b>425</b> <b>426</b> <b>427</b> <b>428</b> <b>429</b> <b>430</b> <b>431</b> <b>432</b> <b>433</b> <b>434</b> <b>435</b> <b>436</b> <b>437</b> <b>438</b> <b>439</b> <b>440</b> <b>441</b> <b>442</b> <b>443</b> <b>444</b> <b>445</b> <b>446</b> <b>447</b> <b>448</b> <b>449</b> <b>450</b> <b>451</b> <b>452</b> <b>453</b> <b>454</b> <b>455</b> <b>456</b> <b>457</b> <b>458</b> <b>459</b> <b>460</b> <b>461</b> <b>462</b> <b>463</b> <b>464</b> <b>465</b> <b>466</b> <b>467</b> <b>468</b> <b>469</b> <b>470</b> 
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<p><b>Alpha One</b> is a          100% employee-owned          company that has          been successful in          the construction          industry for over          20 years. We are          looking for a          qualified individual          to join our team.          Please send your          resume to:          Alpha One          1000 Main Street          Suite 100          New York, NY 10001          Tel: 212-123-4567          Fax: 212-123-4568          Email: info@alphaone.com</p>	<p><b>Beta Two</b> is a          100% employee-owned          company that has          been successful in          the construction          industry for over          20 years. We are          looking for a          qualified individual          to join our team.          Please send your          resume to:          Beta Two          2000 Main Street          Suite 200          New York, NY 10001          Tel: 212-234-5678          Fax: 212-234-5679          Email: info@betatwo.com</p>	<p><b>Gamma Three</b> is a          100% employee-owned          company that has          been successful in          the construction          industry for over          20 years. We are          looking for a          qualified individual          to join our team.          Please send your          resume to:          Gamma Three          3000 Main Street          Suite 300          New York, NY 10001          Tel: 212-345-6789          Fax: 212-345-6790          Email: info@gammathree.com</p>	<p><b>Delta Four</b> is a          100% employee-owned          company that has          been successful in          the construction          industry for over          20 years. We are          looking for a          qualified individual          to join our team.          Please send your          resume to:          Delta Four          4000 Main Street          Suite 400          New York, NY 10001          Tel: 212-456-7890          Fax: 212-456-7891          Email: info@deltafour.com</p>	<p><b>Epsilon Five</b> is a          100% employee-owned          company that has          been successful in          the construction          industry for over          20 years. We are          looking for a          qualified individual          to join our team.          Please send your          resume to:          Epsilon Five          5000 Main Street          Suite 500          New York, NY 10001          Tel: 212-567-8901          Fax: 212-567-8902          Email: info@epsilonfive.com</p>	<p><b>Zeta Six</b> is a          100% employee-owned          company that has          been successful in          the construction          industry for over          20 years. We are          looking for a          qualified individual          to join our team.          Please send your          resume to:          Zeta Six          6000 Main Street          Suite 600          New York, NY 10001          Tel: 212-678-9012          Fax: 212-678-9013          Email: info@zetasis.com</p>	<p><b>Eta Seven</b> is a          100% employee-owned          company that has          been successful in          the construction          industry for over          20 years. We are          looking for a          qualified individual          to join our team.          Please send your          resume to:          Eta Seven          7000 Main Street          Suite 700          New York, NY 10001          Tel: 212-789-0123          Fax: 212-789-0124          Email: info@etasix.com</p>	<p><b>Theta Eight</b> is a          100% employee-owned          company that has          been successful in          the construction          industry for over          20 years. We are          looking for a          qualified individual          to join our team.          Please send your          resume to:          Theta Eight          8000 Main Street          Suite 800          New York, NY 10001          Tel: 212-890-1234          Fax: 212-890-1235          Email: info@thetaeight.com</p>	<p><b>Iota Nine</b> is a          100% employee-owned          company that has          been successful in          the construction          industry for over          20 years. We are          looking for a          qualified individual          to join our team.          Please send your          resume to:          Iota Nine          9000 Main Street          Suite 900          New York, NY 10001          Tel: 212-901-2345          Fax: 212-901-2346          Email: info@iotanine.com</p>	<p><b>Kappa Ten</b> is a          100% employee-owned          company that has          been successful in          the construction          industry for over          20 years. We are          looking for a          qualified individual          to join our team.          Please send your          resume to:          Kappa Ten          10000 Main Street          Suite 1000          New York, NY 10001          Tel: 212-012-3456          Fax: 212-012-3457          Email: info@kappaten.com</p>
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**Woodman, Kirkpatrick & Associates, Inc.**  
 10000 Woodloch Forest Dr., Suite 100  
 Dallas, TX 75243  
 Tel: 972/344-1100  
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 E-mail: [info@woodmankirkpatrick.com](mailto:info@woodmankirkpatrick.com)  
 Website: [www.woodmankirkpatrick.com](http://www.woodmankirkpatrick.com)





JOHN DOERR



# 1957 – Arthur Rock



**Rock**, a NY banker, introduced the 8 traitors to Fairchild in 1957, then funded Intel and Apple



# 1972 - Kleiner Perkins

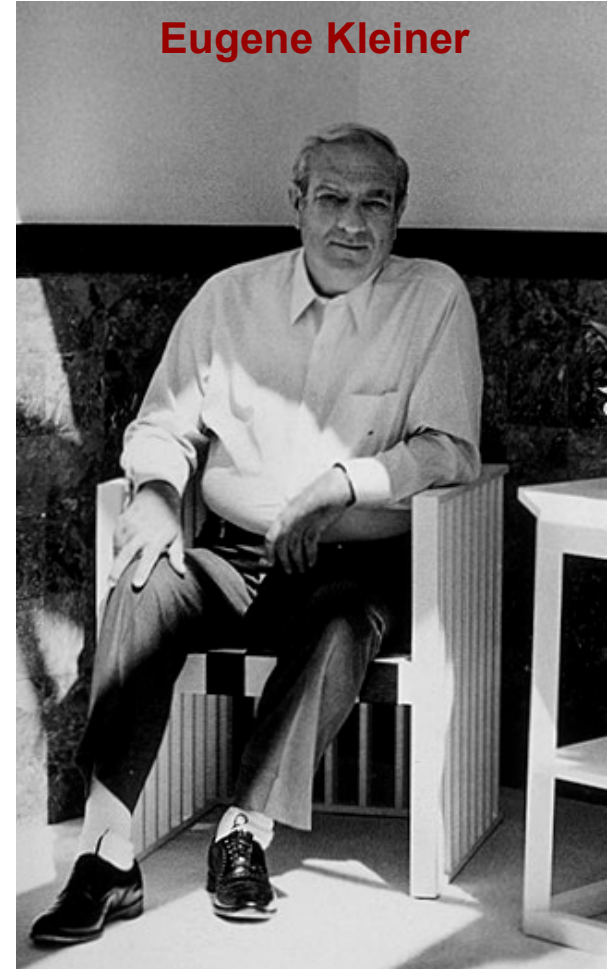
**Thomas Perkins**



Tom Perkins (HP) and  
Gene Kleiner  
(Fairchild) raise  
together their first  
fund in 1972.

They consider  
themselves as the  
first VCs with an  
industry and  
entrepreneur  
background

**Eugene Kleiner**



# 1972 - Sequoia



Cofounder  
National Semiconductor, 1967

**Don Valentine,**  
a co-founder of National  
and Fairchild marketing director  
creates in 1972 the VC arm of the  
Capital Group, later named  
Sequoia.



# Kleiner Perkins

Perkins and Kleiner  
will be joined by  
Caufield and Byers  
in 1977 and  
the partnership  
becomes KPCB.

Later come  
famous icons  
John Doerr (Intel)  
and  
Vinod Khosla  
(Sun founder)

FRANK CAUFIELD



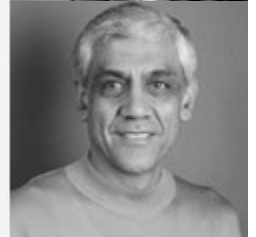
BROOK BYERS



JOHN DOERR



VINOD KHOSLA



# Sequoia

SEQUOIA CAPITAL®

THE ENTREPRENEURS BEHIND THE ENTREPRENEURS®



Joining **Valentine**, the firm will grow with famous to-become partners.

Pierre Lamond (National) - 1981

Mike Moritz (Time Magazine) – 1986

Doug Leone (HP, Sun) – 1988



Cofounder  
National Semiconductor, 1967



Correspondent  
TIME Magazine, 1979



Sales  
Hewlett Packard, 1979



# Some of their investments

KP First fund: \$8M

Tandem, Genentech, Hybritech,  
Compaq, Sun,  
Amazon, AOL, Netscape, Google

The \$1.6 million the firm invested in Tandem Computers Inc. in 1975 was worth \$203.4 million in 1982. Genentech was an even better investment, with a return of 200 to 1 in two years.

<http://www.startup-book.com/2009/02/09/about-kleiner-perkins-first-fund-episode-3>

Sequoia

First fund: \$7M

In the early days, Atari, Apple  
then 3com & Cisco

Also Oracle, Cypress, Yahoo, nVidia, Google,  
youtube

# About Swanson...& Boyer

- Bob Swanson was working for Kleiner Perkins
- He had the intuition genetic engineering would become important
- Against the will of his firm, he left KP and began contacting the best biologists in the San Francisco Region
- He got a 10-minute Friday afternoon meeting with Herbert Boyer who agrees on the potential, but sees it as a 10-year horizon; we are in 1976...
- “Why, why, why” does not stop saying Swanson. “Why does it have to be so long?”
- The 10-minute talk became a 3-hour meeting with many beers
- The beers apparently convinced Boyer
- The duo went back to Kleiner who was extremely skeptical
- Impressed by their energy, he accepted to invest \$100k in a step-by-step mode to assess the risk and potential
- ...
- ... (more on <http://www.startup-book.com/2009/06/11/bob-swanson-herbert-boyer-genentech>)
- In 1980, Genentech went public and the biotech industry was born!

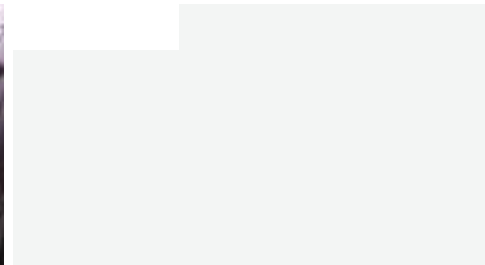


# Entrepreneurs and investors

60's



70's



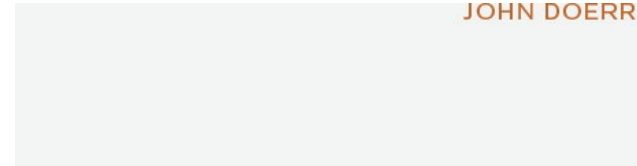
TOM PERKINS



80's



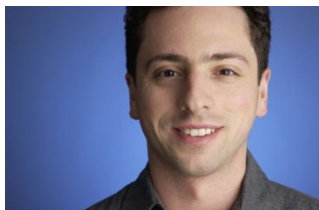
VINOD KHOSLA



JOHN DOERR



90's



SEQUOIA CAPITAL





# Another source to enjoy the early days

# SOMETHING VENTURED

RISK, REWARD,  
AND THE ORIGINAL  
VENTURE CAPITALISTS

f t

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- PRODUCERS
- SPONSORS
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- PRESS
- PRESS MATERIALS
- CONTACT



WORLD  
PREMIERE

**SXSW**  
FILM FESTIVAL

2011

OFFICIAL SELECTION  
SAN FRANCISCO INTL FILM FESTIVAL

Official Selection  
**Seattle International  
Film Festival**  
2011



<http://www.somethingventuredthemovie.com/>

# Agenda

- A short history of Silicon Valley
- Silicon Valley vs. Europe (part I): about culture & networks
- A few European examples
- Silicon Valley vs. Europe (part II): go West?
- The Innovation dilemmas
- A (long) conclusion!



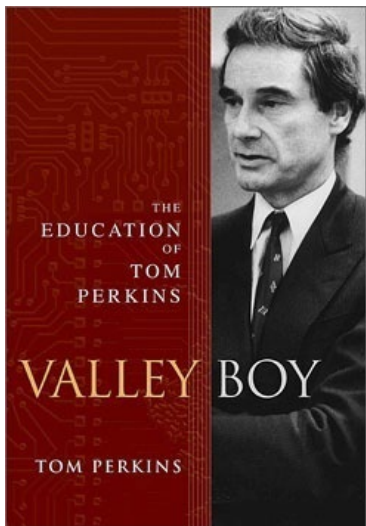
**Steve Jobs about why Silicon Valley** “[There are] two or three reasons. You have to go back a little in history. I mean this is where the beatnik happened in San Francisco. It is a pretty interesting thing... You've also had Stanford and Berkeley, two awesome universities drawing smart people from all over the world and depositing them in this clean, sunny, nice place where there's a whole bunch of other smart people and pretty good food. And at times a lot of drugs and all of that. So they stayed... I think it's just a very unique place”

**Don Valentine on Founders:** *“Founders are genetically impossible by choice.”*  
“There are only two true visionaries in the history of Silicon Valley. Jobs and Noyce. Their vision was to build great companies... Steve was twenty, un-degreed, some people said unwashed, and he looked like Ho Chi Min. But he was a bright person then, and is a brighter man now... Phenomenal achievement done by somebody in his very early twenties... Bob was one of those people who could maintain perspective because he was inordinately bright. Steve could not. He was very, very passionate, highly competitive.”





“Launching a start-up is not a rational act. Success only comes from those who are foolish enough to think unreasonably. Entrepreneurs need to stretch themselves beyond convention and constraint to reach something extraordinary.” **Vinod Khosla**




“The difference is in psychology: everybody in Silicon Valley knows somebody that is doing very well in high-tech small companies, start-ups; so they say to themselves “I am smarter than Joe. If he could make millions, I can make a billion”. So they do and they think they will succeed and by thinking they can succeed, they have a good shot at succeeding. That psychology does not exist so much elsewhere.” **Tom Perkins**

# Famous US start-ups

Company	Foundation	IPO	Market value	Employees
Apple	1976	1980	\$520B	80'000
Google	1998	2004	\$367B	50'000
Microsoft	1975	1986	\$327B	99'000
Oracle	1977	1986	\$185B	120'000
Facebook	2004	2012	\$150B	7'000
Amazon	1994	1997	\$138B	117'000
Qualcomm	1985	1991	\$135B	31'000
Intel	1968	1971	\$130B	107'000
Cisco	1984	1990	\$124B	75'000
eBay	1995	1998	\$66B	32'000
Yahoo	1994	1996	\$34B	12'000
Tesla	2003	2010	\$24B	6'000
Twitter	2006	2013	\$18B	3'000
<b>Average</b>	<b>1989</b>	<b>1994</b>	<b>\$171B</b>	<b>57'000</b>
HP	1939	1957	\$62B	317'000

Reference : Yahoo Finance, May 21, 2014

# Famous US start-ups

Company	Foundation	IPO	Market value	Employees
Apple	1976	<div>KP CB</div>	\$520B	80'000
Google	1998		\$367B	50'000
Microsoft	1975		\$327B	99'000
Oracle	1977		\$125B	120'000
Facebook	2004	2012	<div>  </div>	7'000
Amazon	1994	1997		117'000
Qualcomm	1985	1991		31'000
Intel	1968	<div> <div>SEQUOIA CAPITAL®</div> <div>THE ENTREPRENEURS BEHIND THE ENTREPRENEURS®</div> </div>	\$155B	10'000
Cisco	1984		\$124B	75'000
eBay	1995		\$66B	32'000
Yahoo	1994		\$63B	12'000
Tesla	2003	2010	\$24B	6'000
Twitter	2006	2013	\$18B	3'000
<b>Average</b>	<b>1989</b>	<b>1994</b>	<b>\$171B</b>	<b>57'000</b>
HP	1939	1957	\$62B	317'000

Reference : Yahoo Finance, May 21, 2014

# Famous European start-ups

Company	Foundation	IPO	Market value	Employees
SAP	1972	1988	\$88B	66'000
ASML Litho	1984	1995	\$35B	10'000
ARM Holding	1990	1998	\$20B	3'000
Dassault Syst.	1981	1996	\$15B	11'000
Gemalto	1988	2000	\$9B	12'000
King Digital	2002	2014	\$5B	800
Logitech	1981	1990	\$2B	9'000
Criteo	2005	2013	\$2B	800
Betfair	2000	2010	\$1.7B	1'600
CSR	1998	2004	\$1.5B	2'000
Swissquote	1997	2000	\$0.7B	500
Soitec	1992	1999	\$0.6B	1200
F-secure	1988	1999	\$0.4B	900
<b>Average</b>	<b>1990</b>	<b>2000</b>	<b>\$14B</b>	<b>9'000</b>
Nokia	1865 (1966)	1915 (1994)	\$27B	55'000

*Reference : Yahoo Finance, May 21, 2014*

# Biotech is not much different...



Company	Creation	IPO	Capital.	Employees
Amgen-Immunex	1980	1984	72	20'000
Genentech	1976	1986	86	10'500
Gilead	1987	1993	32	2'515
Genzyme	1981	1986	15	9'000
Biogen	1978	1983	14	3'750
Medimmune	1987	1991	7.5	2'350
Cephalon	1987	1991	4.1	2'900
Vertex	1989	1991	3.7	945
Invitrogen	1987	1999	2.9	4'830
Affymetrix	1991	1996	1.7	1'120
Human Genome	1992	1993	1.4	770
Medarex	1987	1991	1.4	492
Zymogenetics	1981	2002	1.0	498
Celera	1998	1998	1.0	480
<b>Average</b>	<b>1985</b>	<b>1991</b>	<b>17.4</b>	<b>4'300</b>

Company	Creation	IPO	Capital.	Employees
Shire	1986	1996	10.6	2'870
Elan	1969	1992	5.6	1'734
Actelion	1997	2000	5.0	1'252
Genmab	1999	2000	2.5	240
Qiagen	1996	1996	2.3	1'590
Crucell	1993	2000	1.4	900
<b>Average</b>	<b>1990</b>	<b>1997</b>	<b>4.5</b>	<b>1'430</b>

Similar data in biotech: <http://www.startup-book.com/2010/06/14/europe-vs-usa-growth-in-it-and-biotech/>

Source: Google Finance, Yahoo Finance, March 8, 2007

# The European VCs – old model

<i>Average IRRs</i>	Europe		USA	
	1984-2003	1994-2003	1984-2003	1994-2003
All funds	7.2%	8.3%	15.5%	25.4%
Early stage	1.9%	1.3%	19.1%	37.0%

Table 9-5: *Performances of Venture Capital in Europe*

	<b>US Model</b>	<b>Old European Model</b>
<b>People</b>	Entrepreneurs (founders and builders)	Consultants and accountants
<b>Stage</b>	Creation (seed)	Early (A round) but not seed
<b>Provide</b>	“Value added”	“Just money”
<b>Style</b>	Hands on (active)	Hands-off (more passive)
<b>Talent</b>	Sales & marketing	Scientists
<b>Objective</b>	Create very large companies	Create medium size companies
<b>Philosophy</b>	Maximize upside	Minimize downside
<b>Returns</b>	Target a small number of big winners (home run investing)	Believe returns can be earned across the portfolio

Table 9-1: *Comparison of the VC Models in the US and in Europe in the First Years*

Source: Tim Cruttenden – International VC Conference – Melbourne, 2006

# Founders' age

Company	Foundation	Founder	Age
Microsoft	1975	Bill Gates	20
Microsoft	1975	Paul Allen	22
Oracle	1977	Larry Ellison	33
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	Andy Bechtolsheim	26
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
Netscape	1994	Marc Andreessen	23
Intel	1968	Robert Noyce	41
Intel	1968	Andy Grove	32
Amazon	1994	Jeff Bezos	30
HP	1939	Bill Hewlett	26
HP	1939	David Packard	27
Dell	1984	Michael Dell	19
Facebook	2004	Mark Zuckerberg	20

Average: 27

Founder	Company	Age
Hasso Plattner	SAP	28
Dietmar Hopp	SAP	32
Hans-Werner Hector	SAP	32
Klaus Tschira	SAP	32
Francis Bernard	Dassault	>36
Pier Luigi Zappacosta	Logitech	30
Daniel Borel	Logitech	30
Bernard Lietaud	Business Objects	27
Denis Payre	Business Objects	27
Jamie Urquhart	ARM	32
Mike Muller	ARM	31
Tudor Brown	ARM	31
André Auberton-Hervé	Soitec	31
Jean-Michel Lamure	Soitec	44
James Collier	CSR	40
Glenn Collison	CSR	35
Mike Lynch	Autonomy	31
Richard Gaunt	Autonomy	28
Marc Lassus	Gemplus	49
Daniel Le Gal	Gemplus	37
Marc Bürki	Swissquote	37
Paolo Buzzi	Swissquote	37
Jean-Baptiste Rudelle	Criteo	35
Franck Le Ouay	Criteo	31
Risto Siilasmaa	F-secure	22
Petri Allas	F-secure	21

Average: 32

# Founders' origin

Founders and Spin-offs from Leading Institutions in Silicon Valley and in the Boston Area					
	Silicon Valley (1)			Boston (2)	
	Employee Founders	Spin-off Start-Ups		Employee Founders	Spin-off Start-Ups
Leading Companies					
Apple	94	71	Data General	13	13
Cisco	41	35	DEC	52	41
HP	117	99	EMC	9	6
Intel	76	68	Lotus	29	26
Oracle	73	57	Prime	5	5
SGI	50	37	Raytheon	7	7
Sun	101	79	Wang	11	11
IBM	82	77	IBM	23	23
Leading Universities					
Stanford	71	64	MIT	74	63
UC Berkeley	20	20	Harvard	32	31

(1) Founder sample size : 2'492

(2) Founder sample size : 1'157

Table 7-1: *Professional Origin of Start-up Founders*

Source: J. Zhang (2003) compiled data from VentureOne based on VC-backed spin-offs from 1992 to 2001



# A Darwinian ecosystem

1982	2002
1. Hewlett-Packard	1. Hewlett-Packard
2. National Semiconductor	2. Intel
3. Intel	3. Cisco <sup>b</sup>
4. Memorex	4. Sun Microsystems <sup>b</sup>
5. Varian	5. Solectron
6. Environtech <sup>a</sup>	6. Oracle
7. Ampex	7. Agilent <sup>b</sup>
8. Raychem <sup>a</sup>	8. Applied Materials
9. Amdahl <sup>a</sup>	9. Apple
10. Tymshare <sup>a</sup>	10. Seagate Technology
11. AMD	11. AMD
12. Rolma	12. Sanmina-SCI
13. Four-Phase Systems <sup>a</sup>	13. JDS Uniphase
14. Cooper Lab <sup>a</sup>	14. 3Com
15. Intersil	15. LSI Logic
16. SRI International	16. Maxtor <sup>b</sup>
17. Spectra-Physics	17. National Semiconductor
18. American Microsystems <sup>a</sup>	18. KLA Tencor
19. Watkins-Johnson <sup>a</sup>	19. Atmel <sup>b</sup>
20. Qume <sup>a</sup>	20. SGI
21. Measurex <sup>a</sup>	21. Bell Microproducts <sup>b</sup>
22. Tandem <sup>a</sup>	22. Siebel <sup>b</sup>
23. Plantronics	23. Xilinx <sup>b</sup>
24. Monolithic	24. Maxim Integrated <sup>b</sup>
25. URS	25. Palm <sup>b</sup>
26. Tab Products	26. Lam Research
27. Siliconix	27. Quantum
28. Dysan <sup>a</sup>	28. Altera <sup>b</sup>
29. Racal-Vadic <sup>a</sup>	29. Electronic Arts <sup>b</sup>
30. Triad Systems <sup>a</sup>	30. Cypress Semiconductor <sup>b</sup>
31. Xidex <sup>a</sup>	31. Cadence Design <sup>b</sup>
32. AvanteK <sup>a</sup>	32. Adobe Systems <sup>b</sup>
33. Siltec <sup>a</sup>	33. Intuit <sup>b</sup>
34. Quadrex <sup>a</sup>	34. Veritas Software <sup>b</sup>
35. Coherent	35. Novellus Systems <sup>b</sup>
36. Verbatim	36. Yahoo <sup>b</sup>
37. Anderson-Jacobson <sup>a</sup>	37. Network Appliance <sup>b</sup>
38. Stanford Applied Eng.	38. Integrated Device
39. Acurex <sup>a</sup>	35. Linear Technology
40. Finnigan	40. Symantec <sup>b</sup>

## Lamarckian Culture

Continental Europe  
Hierarchy of Schools  
"I did Polytechnique"  
Uniformity of elites  
Large Corporations  
Culture of Engineering  
"Agrégés" (teaching)  
Culture of Compliance  
Managed innovation  
Selection on IQ  
Applied R&D  
Colbertism  
Career  
CAC40

## Darwinian Culture

USA  
Diversity in excellence  
"I created a business"  
Diversity of elites  
"Small Business Act"  
Culture of Research  
PhD (research)  
Culture trial and error  
Darwinian algorithm  
Selection on creativity  
R&D by emergence  
Freedom of territories  
Entrepreneurship  
Top25

<http://www.startup-book.com/2011/12/19/darwinian-and-lamarckian-innovation-by-pascal-picq/>

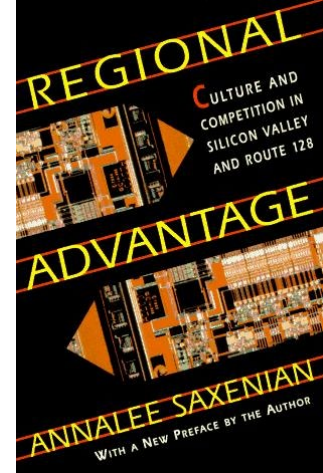
**Twenty of the 1982 companies did not exist anymore in 2002 and twenty one of the 2002 companies had not been created in 1982.**

NOTES: This table was compiled using 1982 and 2002 Dun & Bradstreet (D&B)

Business Rankings data. Companies are ranked by sales.

<sup>a</sup> - No longer existed by 2002.

<sup>b</sup> - Did not exist before 1982.



# The Wagon Wheel Bar



"During the 1970s and 1980s, many of the top engineers from Fairchild, National and other companies would meet there to drink and talk about the problems they faced in manufacturing and selling semiconductors. It was an important meeting place where even the fiercest competitors gathered and exchanged ideas."

# Richard Newton (1951-2007)

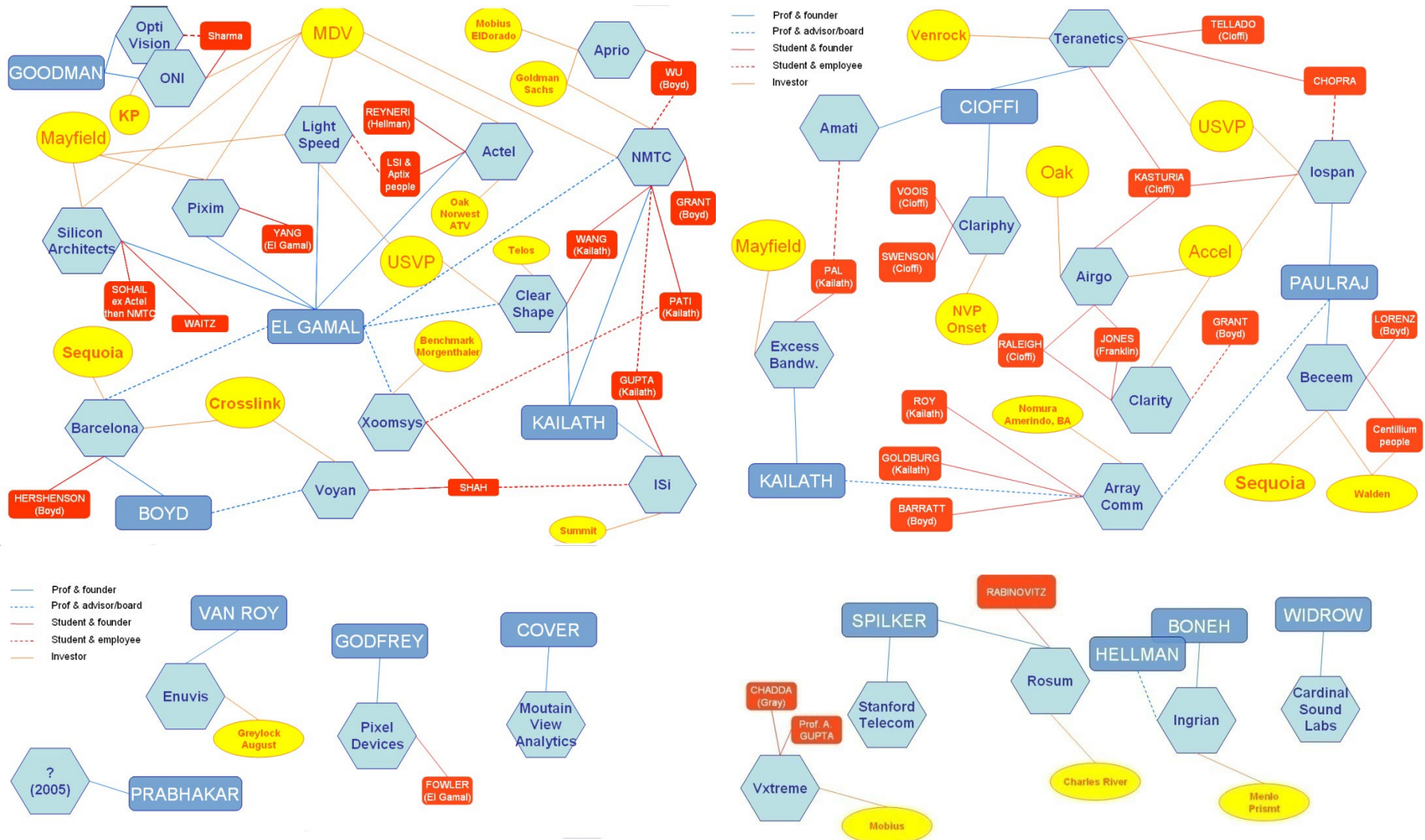


Richard Newton had stated: “Silicon Valley and the Bay Area are cradles of innovation.” And he further added, stating a colleague of his: “**The Bay Area is the Corporation.** [...When people change jobs here in the Bay Area], they're actually just moving among the various divisions of the Bay Area Corporation.”

*“If there is a single point I wish to make here today, it is that as a discipline, both in industry and in academia, we are just not taking enough **risks** today.”*



# About networks again: a Stanford lab. example



# Value creation from Stanford

	VC Amounts (\$B)	M&A Value (\$B)	Public Value (\$B)	Sales (\$B)	Jobs
Spin-offs	3	8	300	65	100'000
Others	29	248	370	280	900'000
Total	32	256	670	345	1'000'000

More on <http://www.startup-book.com/2010/06/18/high-growth-and-profits/>



intuit.



Rambus®



# Cisco's growth: A&D



Year	Number of employees	Sales (in \$M)	Acquisitions	
			Number	Amount (\$M)
1984	2			
1985	2			
1986	4			
1987	9	1.5		
1988	29	5		
1989	111	27		
1990	251	69		
1991	503	183		
1992	875	381		
1993	1'459	714	1	89
1994	2'269	1'334	3	419
1995	3'827	2'232	4	468
1996	8'259	4'096	7	4'714
1997	10'728	6'440	6	572
1998	14'623	8'459	9	1'094
1999	20'657	12'154	18	14'598
2000	34'613	18'928	23	12'081
2001	38'402	22'293	2	331
2002	35'670	18'915	5	1'133
2003	34'466	18'878	4	748
2004	34'371	22'000	12	796
2005	38'413	24'800	12	7'996
2006	49'926	30'120	9	316

Table 7-2: *The Cisco Growth - Employees, Sales and Acquisitions*

# Start-ups' origin

Area	Number
Silicon Valley	56
California (exc. SV)	5
Massachusetts	12
Texas	11
Other American States	17
Israel	4
Scandinavia	3
United Kingdom	2
Others	5

Table 7-3: *Geographic Origin of Cisco Acquisitions*

More on <http://www.startup-book.com/2009/11/04/ciscos-ad/>



# Agenda

- A short history of Silicon Valley
- Silicon Valley vs. Europe (part I): about culture & networks
- A few European examples
- Silicon Valley vs. Europe (part II): go West?
- The Innovation dilemmas
- A (long) conclusion!

# Other European success stories

Company	Country	Status	Value	VCs
Skype	Sweden	M&A eBay	\$2.6B (2005)	DFJ, Index
Navision	Denmark	M&A Microsoft	\$1.5B (2002)	-
mysql	Sweden	M&A Sun	\$1B (2008)	Benchmark, Index
Qeyton	Sweden	M&A Cisco	\$800M (2000)	-
Element14	UK	M&A Broadcom	\$800M (2000)	Oak, Amadeus
Virata	UK	M&A Globespan	\$545M (2001)	Oak, Index, 3i
Kelkoo	France	M&A Yahoo	\$500M (2004)	Innovacom, Banexi
Adva	Germany	IPO Frankfurt	\$470M (2006)	-
Swissquote	Switzerland	IPO Zurich	\$470M (2006)	-
ILOG	France	IPO Nasdaq/Paris	\$300M (2006)	Oak, Atlas

# Other European success stories



# Other European success stories

**All acquirers are US companies!!!**

Company	Country	Status	Value	VCS
Skype	Sweden	M&A eBay	\$2.6B (2005)	DFJ, Index
Navision	Denmark	M&A Microsoft	\$1.5B (2002)	-
mysql	Sweden	M&A Sun	\$1B (2008)	Benchmark, Index
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Swissquote	Switzerland	IPO Zurich	\$470M (2006)	-
ILOG (now IBM)	France	IPO Nasdaq/Paris	\$300M (2006)	Oak, Atlas



D as in ...  
Draper

BENCHMARK  
CAPITAL

funded eBay

Index  
VENTURES



# The European VCs – new model

	<b>US Model</b>	<b>Old European Model</b>	<b>New European Model</b>
<b>People</b>	Entrepreneurs	Consultants and accountants	Founders and operators
<b>Stage</b>	Creation (seed)	Early (A round) but not seed	Seed, follow through
<b>Provide Style</b>	“Value added” Hands on (active)	“Just money” Hands-off (more passive)	“Value added” Involved
<b>Talent</b>	Sales & marketing	Scientists	Recruiting outside Europe
<b>Objective</b>	Very large companies	Medium size companies	Large companies
<b>Philosophy Returns</b>	Maximize upside Home run investing	Minimize downside Believe returns can be earned across the portfolio	Maximize value Big winner focus

Table 9-3: *Comparison of the Recent VC Models in the US and in Europe*

# European Venture Capital

The race is opened for  
the European KP and  
Sequoia...

Fund (€M) <sup>2</sup>	Location	94	95	96	97	98	99	00	01	02	03	04	05	06-07	Total
3i	Europe	330		650			2000								3000
Accel	UK								400						400
ACT	Ireland	63			19		111		171						360
Alta Berk.	UK			55				67							120
Amadeus	UK				77			360							440
Apax UK	UK		245		460										700
Apax FR	France			82		305		720							1100
Apax GE	Germany				132										130
Atlas	Europe				230		404	758	600						1990
Auriga	France					65				115				150	330
Banexi	France					61		150					130		340
Benchmark	UK							400				300			700
Capman	Finland						203			156					360
Capricorn	Belgium				22				50						70
CDC Inno	France							142	112						250
Crescendo	UK				115		250	650							1000
DFJ eplanet	UK						650								650
Doughty H.	UK							270							270
DVC	Germany					20	80	200							300
Early bird	Germany					60		202							260
Eqvitec	Finland					68		57	133				50	140	450
Europatweb	France						500								500
Galileo	France					89		160							250
Gilde	Netherlands			150			200								350
Holland	Netherlands						150								150
IDG-Acacia	UK							100							100
Index	Europe					180			244				300	350	1070
Innovacom	France					40		200			120				360
Invision	Switzerland				115	21		90							220
Kennet	UK				70			200							270
Logispring	Europe								103						100
Nesbic/Solid	Pays Bas					45		140					75		260
Northzone	Scandinavia				7	10	75				78			175	340
Nordic VP	Scandinavia							220				115			330
Iris	France						400				104				500
Partech	France			120				300						150	570
Polytechnos	Germany					65		130							190
Prelude	UK				100										100
Quester	UK							29	60		35				120
Scottish EP	UK							35	160					240	430
Siparex	France			25		61		36							120
Sofinnova	France	47				121			330				385		880
TVM	Germany				93	61		300	336	128			240		1150
Ventech	France						62	112							170
VI Partners	Switzerland								70						70
Viventures	France					118		299							410
Wellington	Germany				55			210					150		410



A typical European success story

1990: 1st office

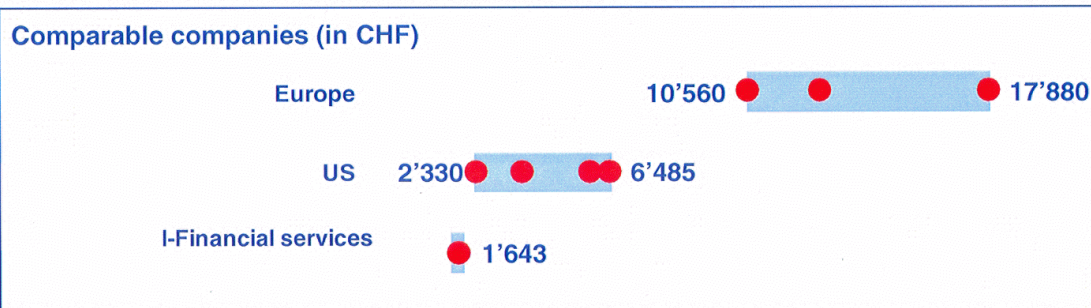




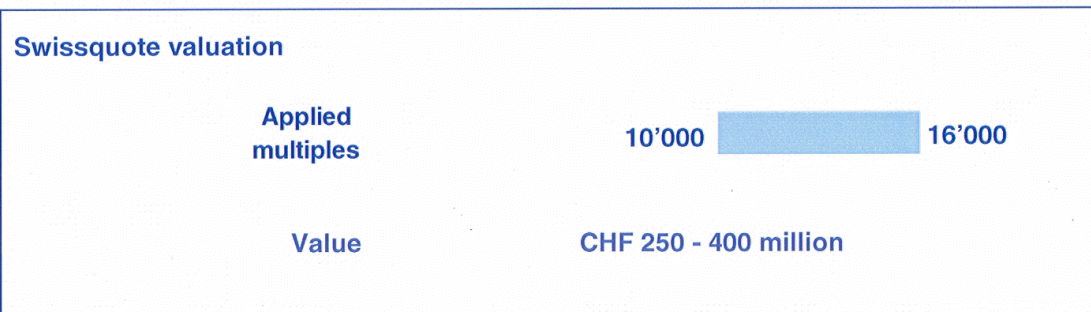
1990: 1st office

1997: [www.swissquote.ch](http://www.swissquote.ch)

### Valuation based on multiple “Market cap/Accounts 2001”



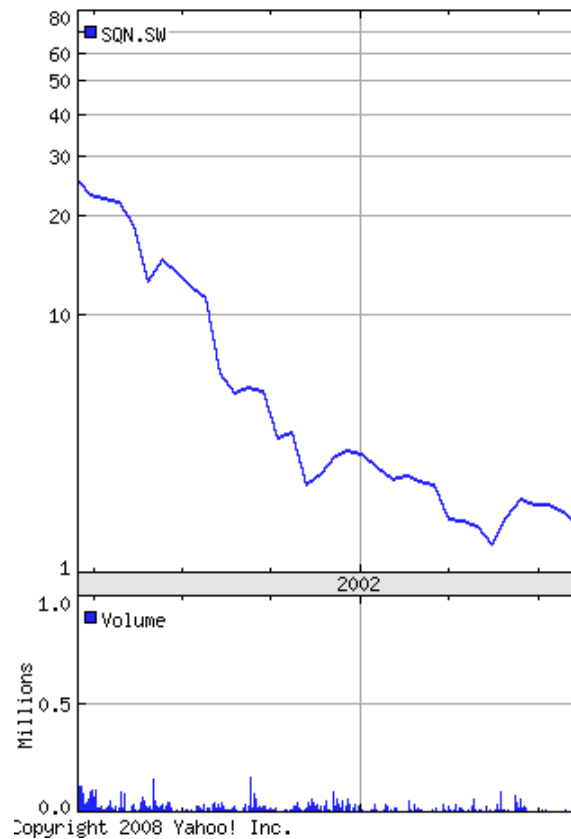
Swissquote accounts			(1) Assumption: additional 6'000 I-Bank customers
	1999	500	
	2000	4'200	
	2001	25'000 <sup>(1)</sup>	



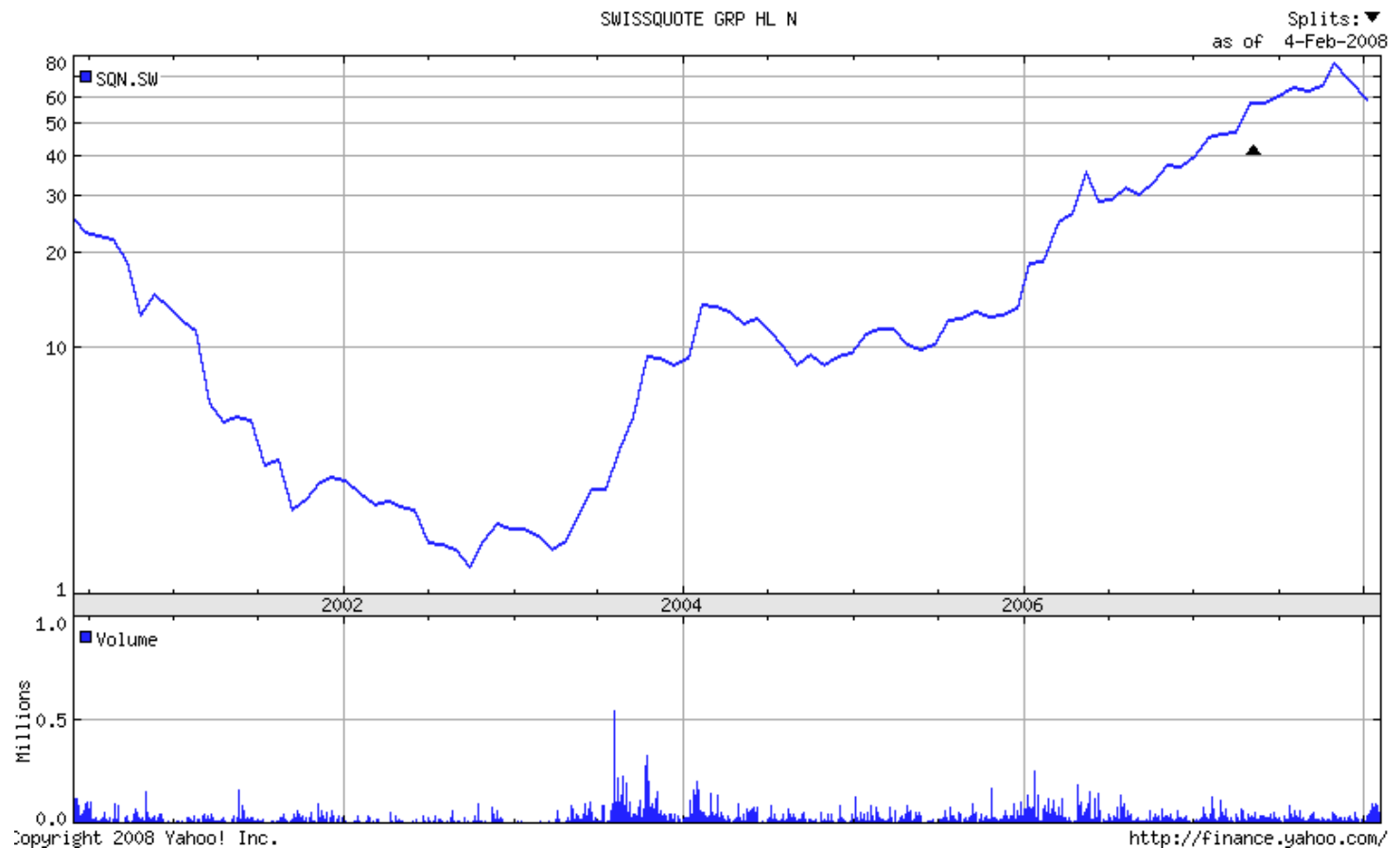
1990: 1st office

1997: swissquote.ch

2001: the Internet crash

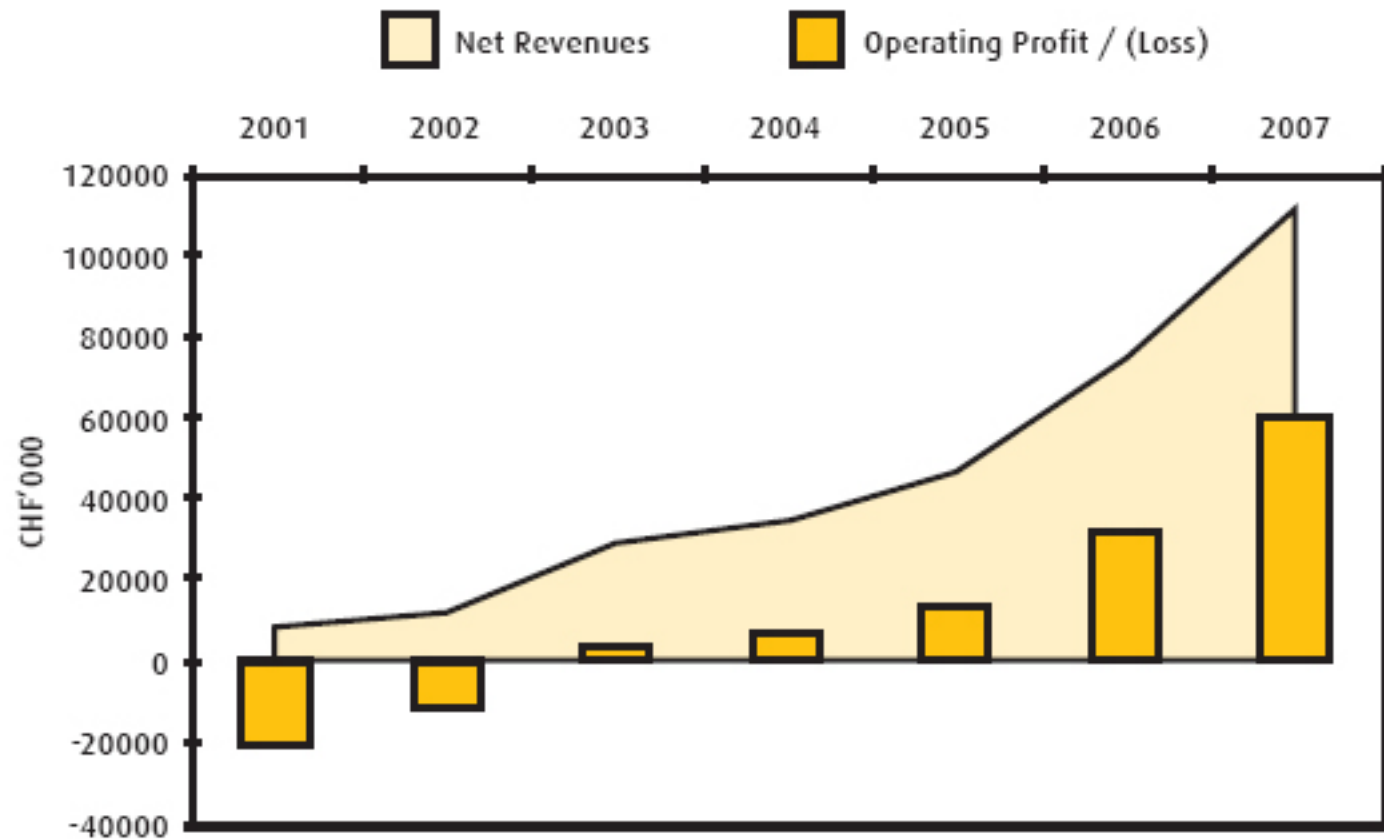


1990: 1st office  
1997: swissquote.ch  
2001: the Internet crash  
2002-06: survive to succeed





1990: 1st office  
1997: swissquote.ch  
2001: the Internet crash  
2002-06: survive to succeed  
2007-08: a success story





The new start-up model

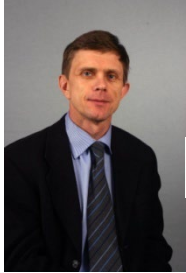
# The new Start-Up: founders



- **Pierre Fazan, Founder and CTO**



- PhD Physics, 20+ years process integration, 8 years Micron Technology
- > 150 patents

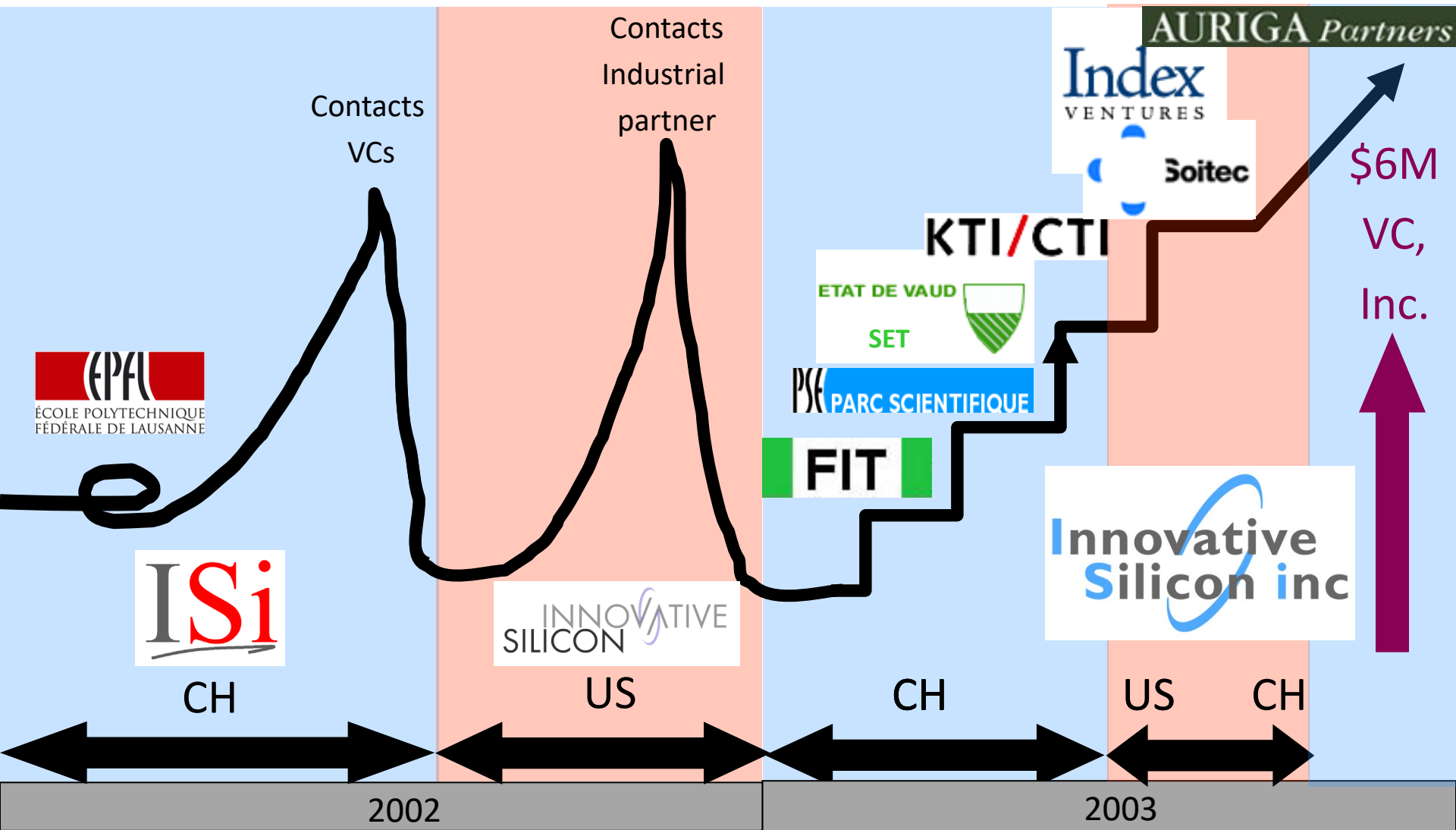


- **Serguei Okhonin, Chief Scientist**



- PhD EE, 22+ years device physics, test & reliability
- > 20 patents

# The new Start-Up model





# Innovative Silicon



## ▪ **Mark-Eric Jones, CEO**



EE, 20+ years in start-up management,  
CEO, 3Soft, VP & GM, MoSys



## ▪ **Jeff Lewis, Vice-President Sales & Marketing**



22 years in management, marketing, engineering  
CEO CiraNova; VP Marketing, Form Factor and Artisan



## ▪ **Michael Van Buskirk, Vice-President Engineering**



30 years in industry AMD, PMC Sierra  
CTO Spansion (AMD & Fujitsu)



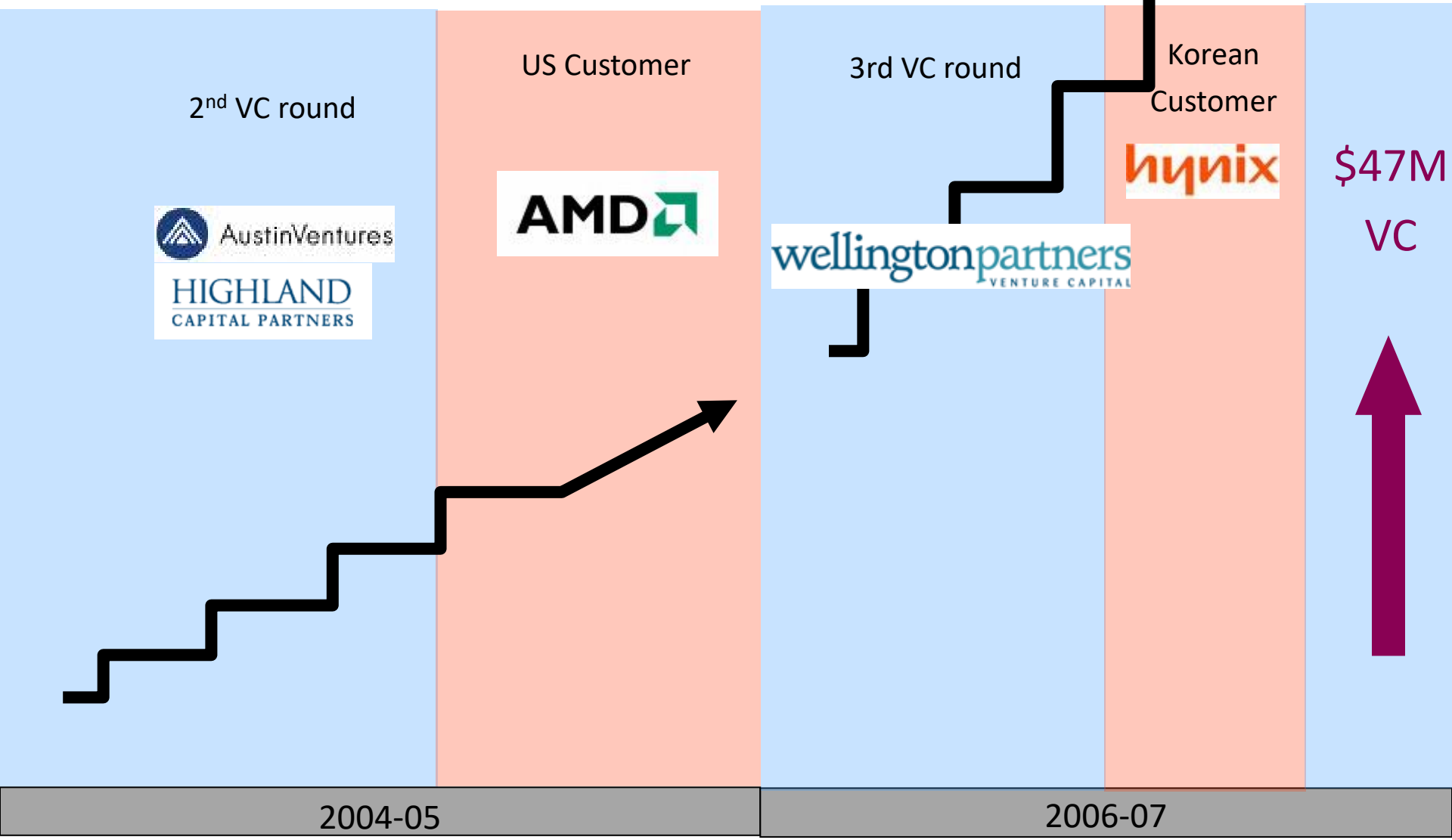
## ▪ **Virginia Picci, CFO**



20+ years in finance, Pricewaterhouse Coopers Boston & Geneva

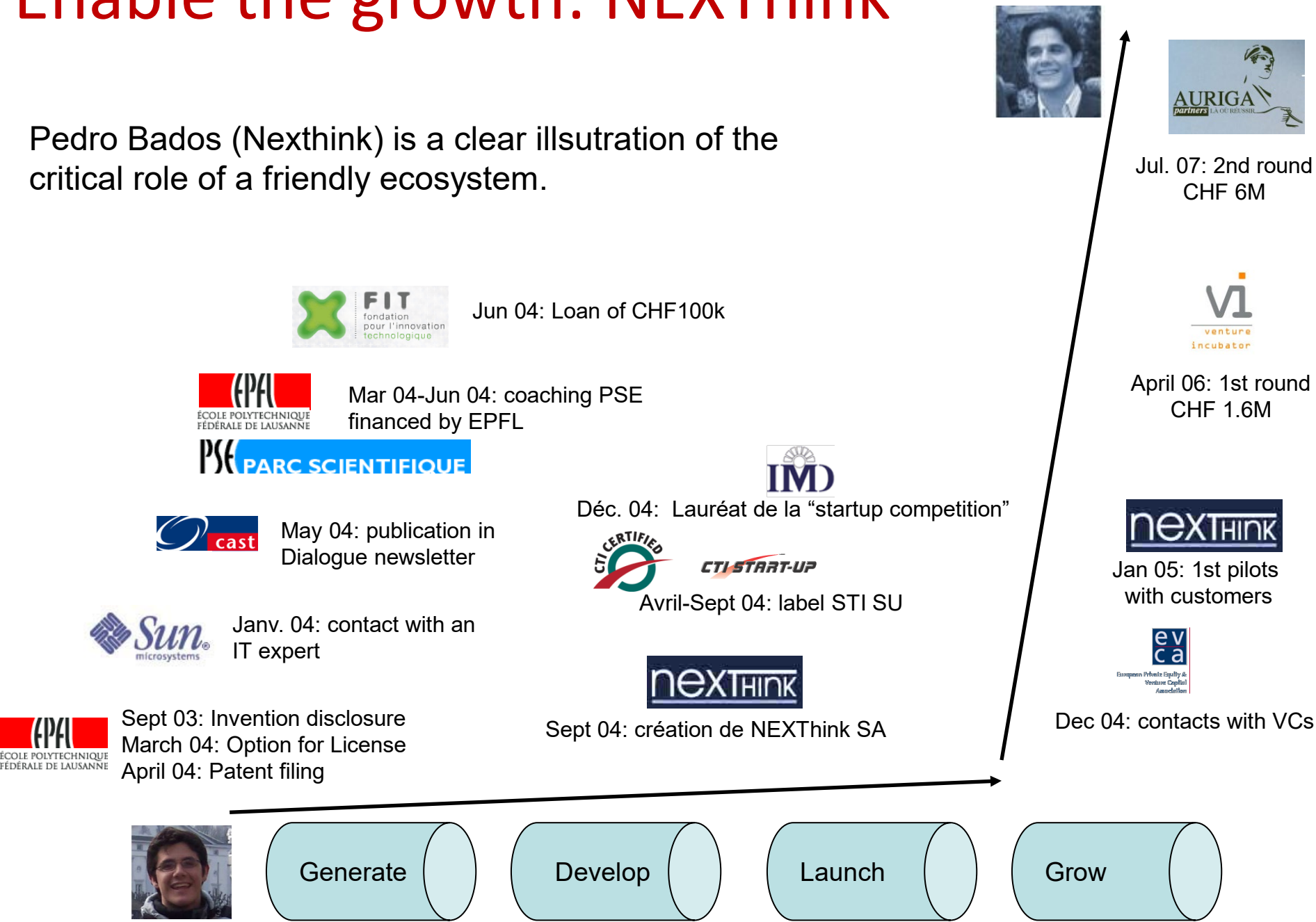


# Innovative Silicon



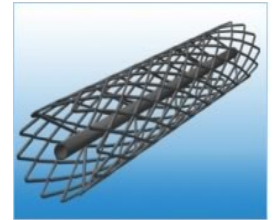
# Enable the growth: NEXThink

Pedro Bados (Nexthink) is a clear illustration of the critical role of a friendly ecosystem.



## Ups & downs which finish well

**1998** EPFL Spin-off, two founders, developing a stent technology



**1999** First VC round: €8M

**2004** Out of cash, IP litigation, €6M to be paid to litigator

**2005** New VC round: €3M, new development of a gastric ring followed by clinical tests, new VC round of €9M in 2006



**2007** Acquisition of EndoArt by Allergan for \$97M



### A few thoughts:

- Technology success not linked to initial idea
- Investments €30M
- Management 2 CEO's
- Duration 9 years



# As a conclusion on Endorart

quoting their former CEO



Be ambitious, dream

Be prepared for adventure, be aware that anything is possible.



# European Start-Up models

Old	New
No venture capital	A lot of capital
Mostly local management and isolated	International management and a dense network
Local customers	Global customers
Very slow growth	Aggressive & risky growth

# Lifestyle vs. high growth



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# Europeans in Silicon Valley



“Europeans that come to North America are on a quest.”

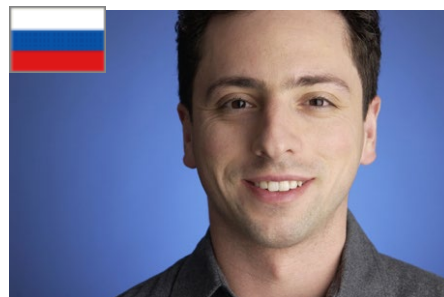


Andy Grove



Intel co-founder

<http://www.startup-book.com/2009/12/11/a-european-in-silicon-valley-aart-de-geus/>



<http://www.startup-book.com/2010/03/16/a-swiss-in-silicon-valley/>

# Europeans in Silicon Valley

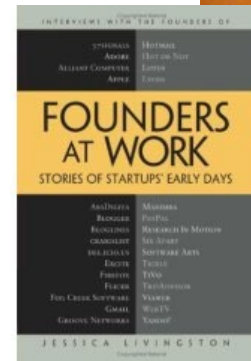
Country	Software	Technical fields			California Start-ups
		Hardware	Communi- cation	Semicon- ductor	
India	34%	24%	15%	15%	20%
Taiwan	3%	6%	17%	10%	13%
China	4%	6%	19%	15%	10%
Israel	6%	2%		5%	3%
United Kingdom	9%	6%	6%		2%
Germany	5%	4%	2%	5%	4%
France	2%	2%			2%
Poland	1%	1%		5%	2%
Switzerland			2%	5%	1%
Europe (others)	6%	4%	10%		1%
<b>Total Europe</b>	<b>23%</b>	<b>17%</b>	<b>20%</b>	<b>15%</b>	<b>12%</b>

Table 11-1: *Origin of Immigrant Founders of Start-ups in the USA*

*Compiled from Vivek Wadhwa, AnnaLee Saxenian, Ben Rissing & Gary Gereffi, America's New Immigrant Entrepreneurs.*

# Paul Graham

*"I read occasionally about attempts to set up "technology parks" in other places, as if the active ingredient of Silicon Valley were the office space. An article about Sophia Antipolis bragged that companies there included Cisco, Compaq, IBM, NCR, and Nortel. Don't the French realize these aren't startups?"*



## **"How to be Silicon Valley?"**

Few startups happen in Miami, for example, because although it's full of rich people, it has few nerds. It's not the kind of place nerds like. Whereas Pittsburgh has the opposite problem: plenty of nerds, but no rich people.



# Ingredients of tech clusters...

- Universities and research centers of a very high caliber.
- An industry of venture capital (i.e. financial institutions and private investors).
- Experienced professionals in high tech.
- Service providers such as lawyers, head hunters, public relations and marketing specialists, auditors, etc.
- *Last but not least, an intangible yet critical component: a pioneering spirit which encourages an entrepreneurial culture.*

Source: M. Kenney "Understanding Silicon Valley, the Anatomy of an Entrepreneurial Region",  
in chapter: "A Flexible Recycling" by S. Evans and H. Bahrami



# An entrepreneurial culture means:

- Passion and ambition.
- A pioneering spirit which accepts uncertainty and risk taking, which tolerates failure.  
失败乃成功之母
- Innovation and commercialization via a trial and error process (including customers)
- A decentralization and freedom offered to talents who should not be snatched from start-ups.
- The necessity of a critical mass.
- Feelings of urgency for the entrepreneurs and patience from the environment.
- Feelings of urgency and of competition which imply ambitions of rapid growth and adequate resources.
- Motivation, hard work, connections, personal networks, mentors.
- Founders, ideally young (energy) and possibly migrants, never alone.
- Experienced teams backing the founders, and motivated by optimized capital structures.

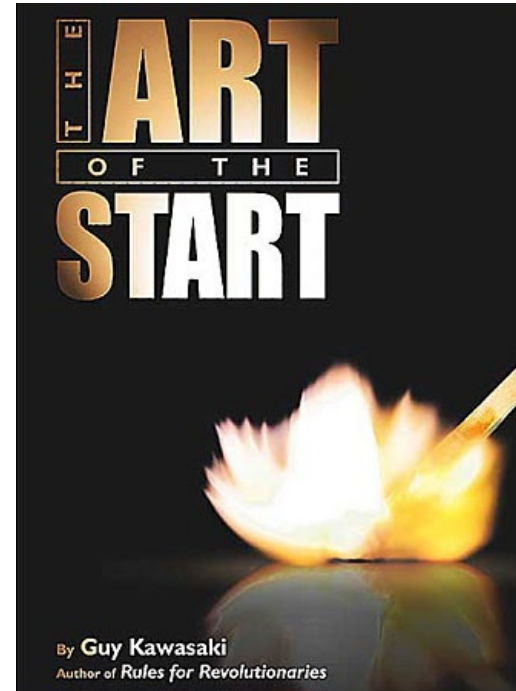
# A start-up is a baby

- Do parents know about educating a baby?  
so why do we say to founders to gain experience first?
- Do parents control everything it does, forever?  
so why founders are so paranoid about losing control?
- Would they give/abandon responsibility to teachers, doctors, “professionals”?  
so should not founders just hire the best people to increase chance of success?

A start-up is a baby which needs to grow and its founders should help it succeed (and yes your start-up baby is the most beautiful on earth... )

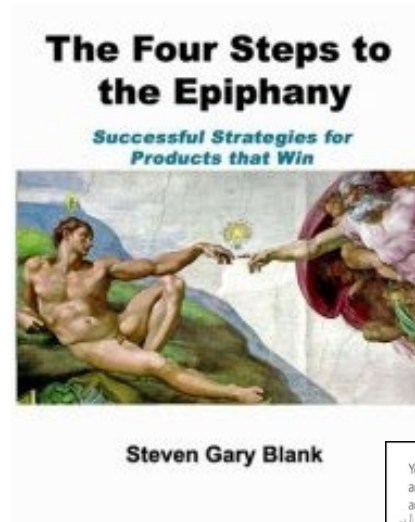
# What is needed to succeed?

- ✓ A great idea
- ✓ Great people
- ✓ A unique product
- ✓ A big market
- ✓ The ability to sell to investors and customers

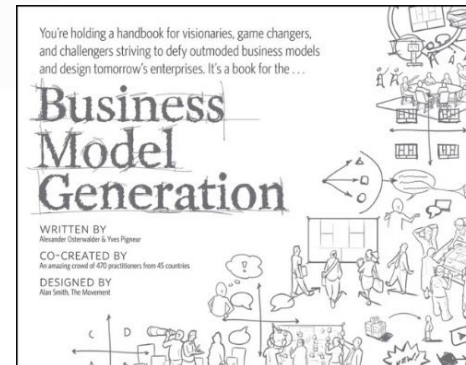


# What is needed to succeed?

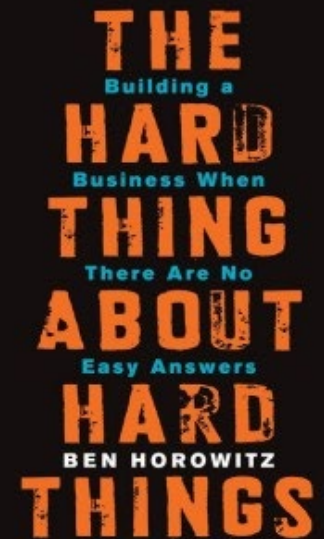
✓ Customers



✓ A viable business model

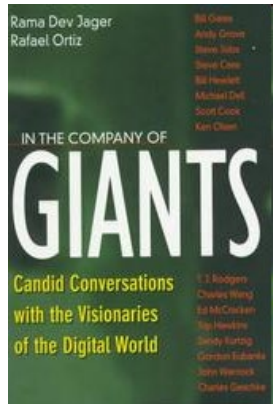


✓ Courage

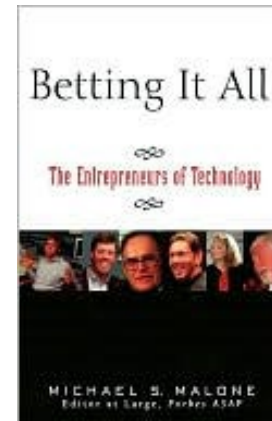




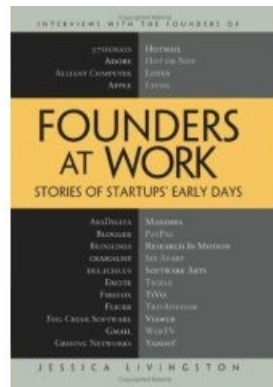
# Entrepreneurs say it all



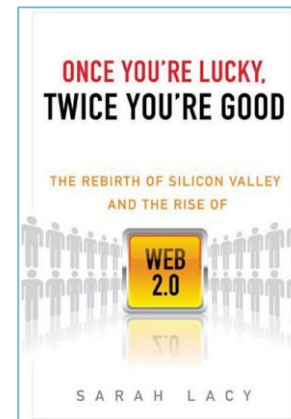
In the Company of Giants  
**Rama Dev Jager**  
**Rafael Ortiz**  
1997



Betting It All  
**Michael S. Malone**  
2001



Founders at Work  
**Jessica Livingston**  
2007



Once You're Lucky,  
Twice You're Good:  
**Sarah Lacy**  
2008

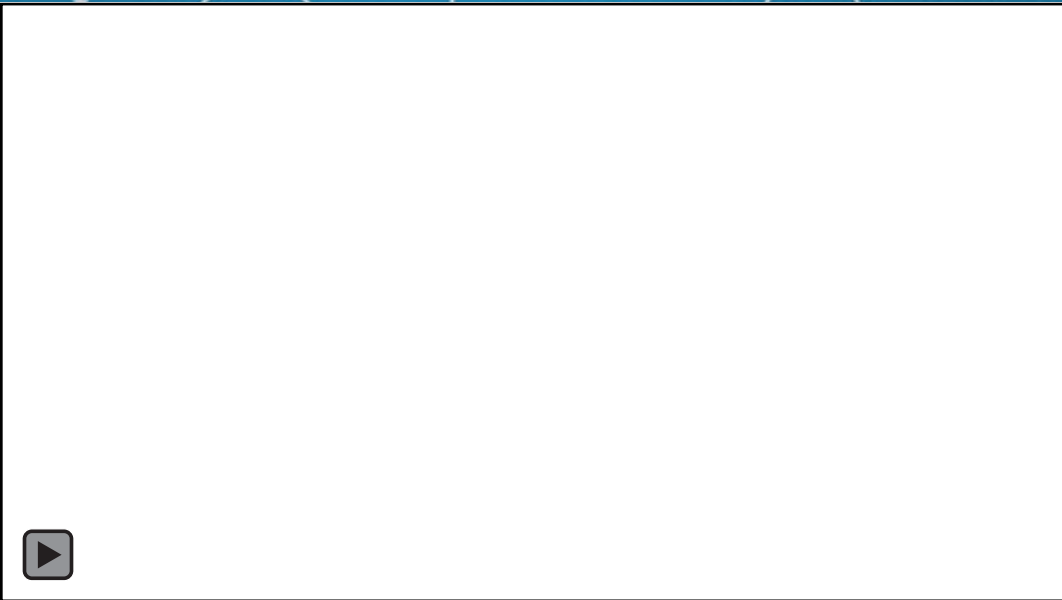


Start-Up Nation  
**Dan Senor**  
**Saul Singer**  
2010



European Founders  
at Work  
**Pedro Gairifo Santos**  
2012

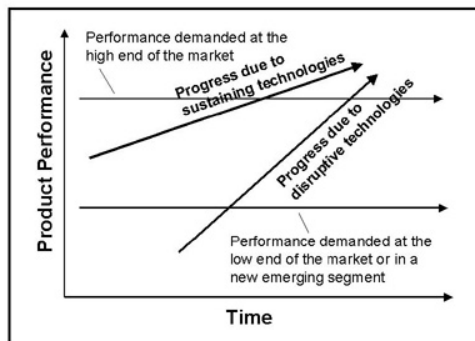
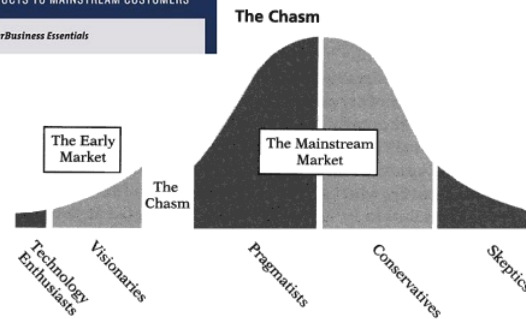
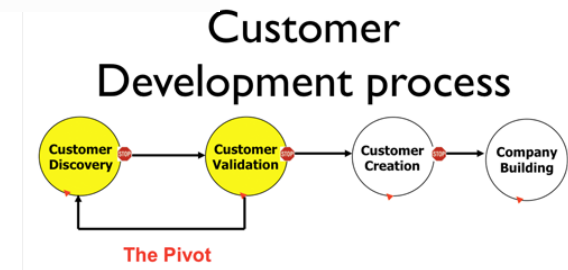
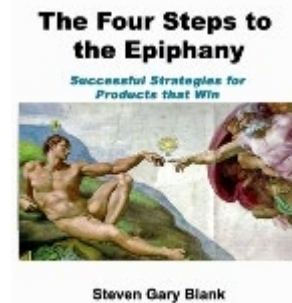
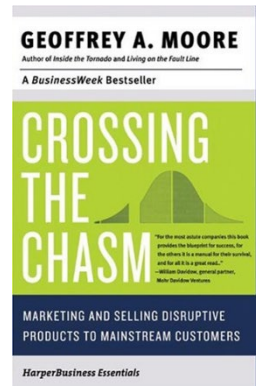
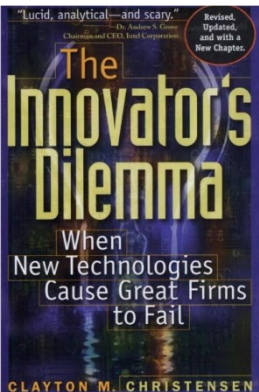
# Entrepreneurs say it all



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# The innovation challenges



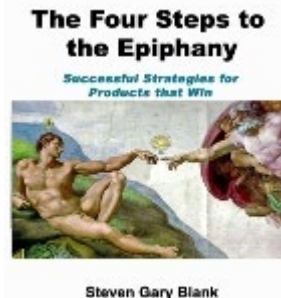
Innovation is full of counterintuitive traps.

# Steve Blank & “systematic” innovation

Steve Blank who believed he had developed a scientific theory of innovation said, “Over the last decade we assumed that once we found repeatable methodologies (Agile and Customer Development, Business Model Design) to build early stage ventures, **entrepreneurship would become a “science”** and anyone could do it.

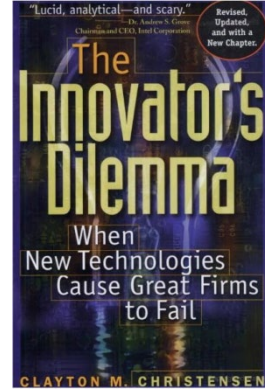
I’m beginning to suspect this **assumption may be wrong**. It’s not that the tools are wrong. Where I think we have gone wrong is the belief that anyone can use these tools equally well.” In the same way that word processing has never replaced a writer, a thoughtful innovation process will not guarantee success.

Blank added that ” until we truly understand how to teach creativity, their numbers are limited. **Not everyone is an artist**, after all.”



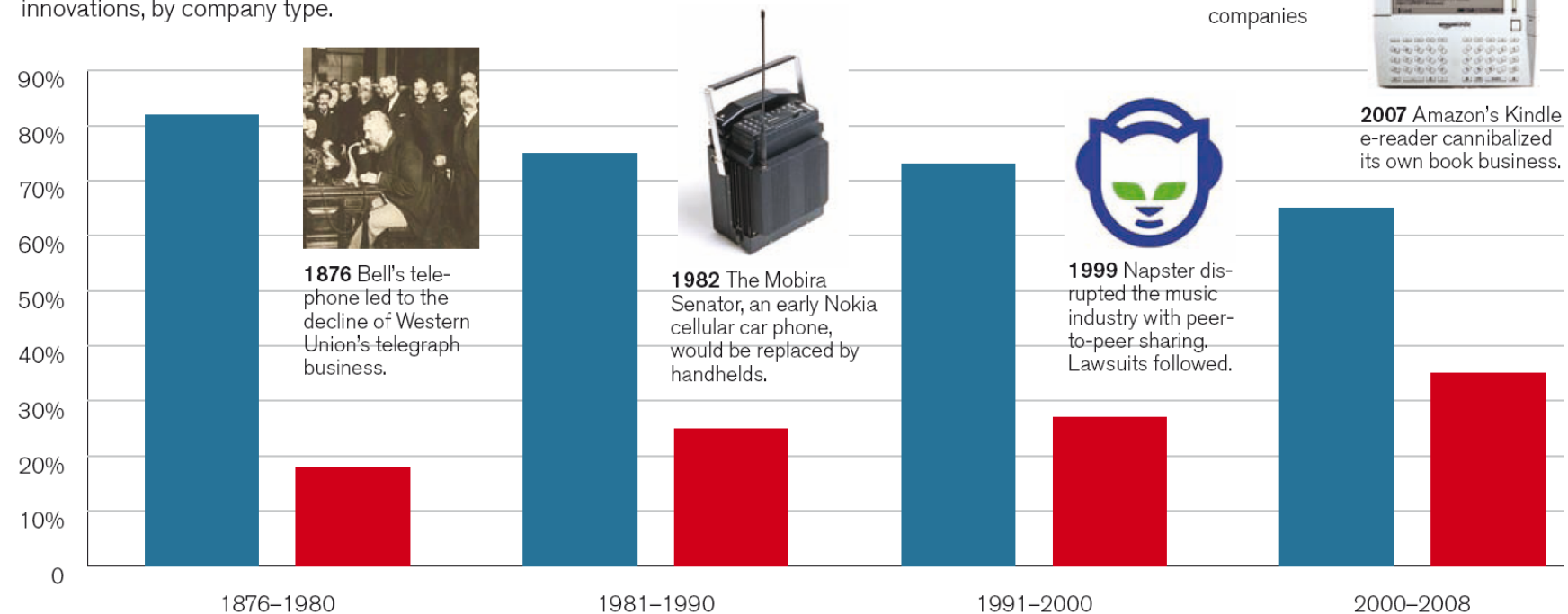


# The empire strikes back



## A NARROWING GAP?

Most disruptive technologies are brought to market by startups. But established companies are responsible for a growing percentage. Below, we compare the origins of over 250 significant innovations, by company type.



Source: Innosight

Schumpeter

## Big and clever

Why large firms are often more inventive than small ones

Dec 17th 2011 | from the print edition

Like 494

Tweet 425



## Are big companies the best catalysts of innovation, or are small ones better?

Joseph Schumpeter argued both sides of the case.

- In 1909 he said that **small companies** were more inventive.
- In 1942 he reversed himself. **Big firms** have more incentive to invest in new products. In a competitive market, inventions are quickly imitated, so a small inventor's investment often fails to pay off.

But in the 21<sup>st</sup> century:

- economic growth is increasingly driven by **big ecosystems** such as the ones that cluster around Apple's iPhone or Google's Android operating system.
- **globalization** puts more of a premium on size than ever before.
- many of the most important challenges for innovators involve **vast systems**, such as education and health care, or giant problems, such as global warming.

However

- although big companies often excel at incremental innovation, they are less comfortable with **disruptive** innovation—the kind that changes the rules of the game.
- what matters is not so much whether companies are big or small, but **whether they grow**.

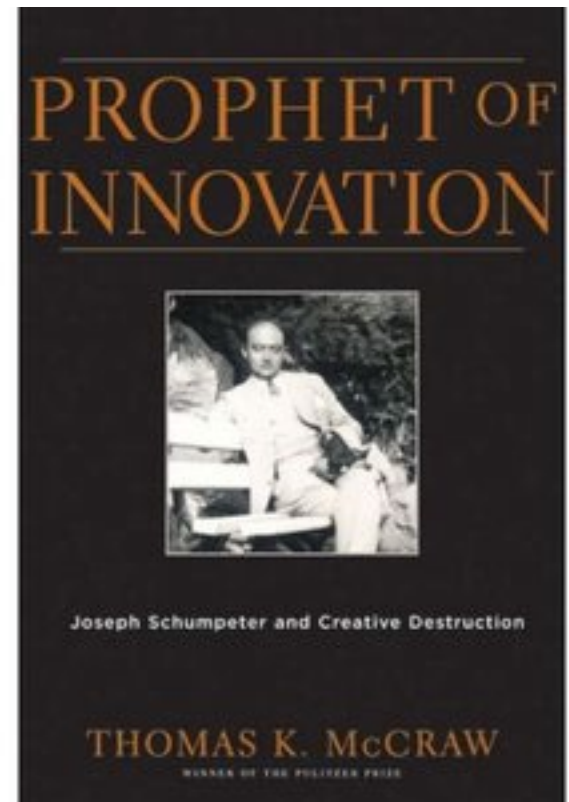
# Schumpeter & destructive creation

*“In Schumpeter's vision of **capitalism**, **innovative** entry by **entrepreneurs** was the disruptive force that sustained economic **growth**, even as it destroyed the value of **established** companies.” Wikipedia*

**New firms** “do not arise out of the old ones but start producing beside them”. In transportation for example, “it is not the owner of stage coaches who builds railways”.

Any company [falling into routines] “will soon be overtaken by aggressive, risk-taking **competitive entrepreneurs**”.

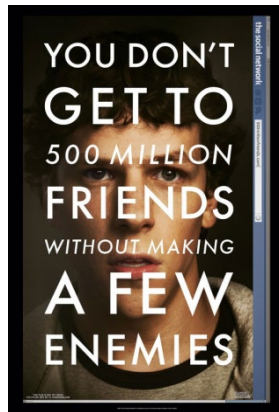
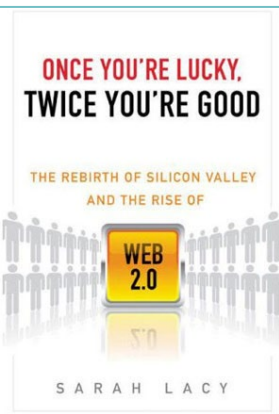
Entrepreneurship was never widespread even if there were “early forerunners such as Venice, Florence and the Netherlands.” It was even widely **resisted** for reasons which are “as much **cultural and social** as they are economic”.



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# What about the 21st century?



Activity Town, St f= founder D= director	Internet Palo Alto, CA Price per share Symbol	Company IPO date \$75.00 Market cap. not yet! URL		Facebook not yet! \$33'007'500'000 <a href="http://www.facebook.com">www.facebook.com</a>		Incorporation State Date years to IPO		DE, MA; CA Jul-04		
Title	Name	Initial * Ownership	Angel round and reorg Ownership**	Series B Ownership	Current Ownership	Initial* Ownership	Angel round and reorg Shares**	Series B Shares	Current Shares	Value
FD Founder & CEO	Mark Zuckerberg	65.0%	42.1%	31.3%	25.6%	24.0%	6'500'000	9'800'000	105'600'000	\$7'920'000'000
f Co-founder	Dustin Moskovitz	5.0%	10.7%	7.8%	6.4%	6.0%	500'000	2'500'000	26'400'000	\$1'980'000'000
f Co-founder	Eduardo Saverin	30.0%	12.9%	6.5%	5.3%	5.0%	3'000'000	3'000'000	22'000'000	\$1'650'000'000
f Co-founder	Chris Hughes		0.0%	1.2%	1.0%	0.9%		4'000'000	4'000'000	\$300'000'000
Founders		70.0%	65.7%	46.9%	38.2%	35.9%	10'000'000	15'300'000	158'000'000	\$11'850'000'000
Sean Parker			8.6%	5.2%	4.3%	4.0%	2'000'000	17'600'000	17'600'000	\$1'320'000'000
Total common before options			74.3%	52.1%	42.5%	39.9%	10'000'000	17'300'000	175'600'000	\$13'170'000'000
Options-Total		20.0%	15.7%	37.7%	30.7%	28.9%	2'857'143	3'657'143	127'000'000	\$9'525'000'000
Total - company			90.0%	89.8%	73.3%	68.8%	12'857'143	20'957'143	302'600'000	\$22'695'000'000
Investors (Angels)		10.0%	10.0%	10.2%	8.4%	7.8%	1'428'571	2'328'571	34'500'000	\$2'587'500'000
Investors (A - Accel)					13.0%	12.2%			53'500'000	\$4'012'500'000
Investors (B - Greylock, Meritech, FF)					5.4%	5.1%			22'500'000	\$1'687'500'000
Investors (Series C)						6.1%			27'000'000	\$2'025'000'000
Total - Investors				10.2%	26.7%	31.2%	1'428'571	2'328'571	34'500'000	\$10'312'500'000
Total			100.0%	100.0%	100.0%	100.0%	14'285'714	23'285'714	337'100'000	\$33'007'500'000

## VCs & board

D Accel	Jim Breyer
D Greylock	
D Meritech	
D	Peter Thiel
D	Marc Andreessen
	Donald E. Graham

Revenues	2009	2008
Amount	\$800'000'000	\$280'000'000
Growth	186%	
Number of employees	1700	
Avg. val. of stock per emp	\$776'471	

\* The difficulty with Facebook is that probably they were internal sales of stock in addition to the fact that founders' shares number evolved.

A lot of ESOP might be owned by investors and/or other type of shareholders

\*\* On September 27, 2004, Peter Thiel formally acquired 9% of the new company with a convertible note worth \$500,000.

Before the transaction, Facebook ownership was divided between Zuckerberg, with 65%, Saverin, with 30%, and Moskovitz, with 5%.

After the transaction, the new company was divided between Zuckerberg, with 40%, Saverin, with 24%, Moskovitz, with 16%, and Thiel with 9%.

The rest, about 20%, went to an options pool for future employees. From there, a good chunk of equity went to Eduardo's replacement, TheFacebook.com's new COO, Sean Parker.

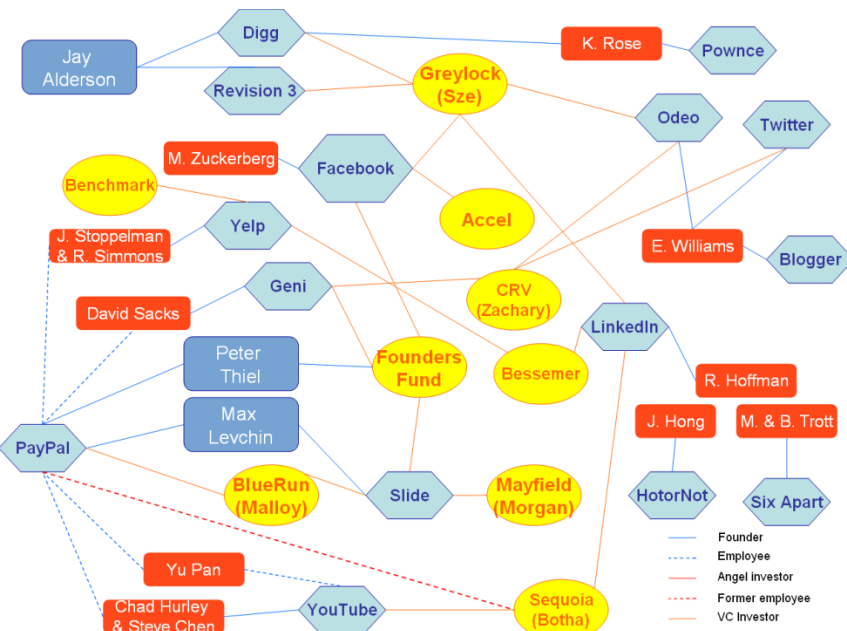
On October 31, 2004, Eduardo signed a shareholder agreement that allotted him 3 million shares of common stock in the new company.

In the agreement, he handed over all relevant intellectual property and turned over his voting rights to Mark Zuckerberg. Mark became Facebook's sole director.

On January 7, 2005, Mark caused Facebook to issue 9 million shares of common stock in the new company.

He took 3.3. million shares for himself and gave 2 million to Sean Parker and 2 million to Dustin Moskovitz. This share issuance instantly diluted Eduardo's stake in the company from ~24% to below 10%.

The only way to reconcile all numbers is to imagine some stock split around 10 new shares for 1 old which explains the huge new number issuance



Investors	Round	Date	Amount	# Shares	Price per share	Valuation (\$M)	Ownership at time of round
Peter Thiel and others	Angel	sept.04	\$500'000	34'500'000	\$0.01	\$5'000'000	10.0%
Accel	A	may. 05	\$12'700'000	50'568'097	\$0.25	\$98'000'000	13.0%
Greylock, Meritech, Founders Fund	B	apr. 06	\$27'500'000	22'710'665	\$1.21	\$500'000'000	5.5%
Microsoft	C	oct. 07	\$240'000'000	7'058'824	\$34.00	\$15'000'000'000	1.6%
Li Ka-shing	C	2007-08	\$120'000'000	5'280'000	\$22.73	\$10'000'000'000	
Others	D	2008-09	\$335'000'000	14'740'000	\$22.73	\$10'000'000'000	
Total			\$735'700'000	134'857'585			

Facebook also raised \$100M in debt with TriplePoint in 2008

Facebook numbers (\$M or '000s)	Revenue	Income	Employees	Financing	Cash Flow	Debt
Year						
2004				0.5		
2005	10			12.7		
2006	52			27.5		
2007	150		450	300		
2008	280	50	1'000	75	-150	100
2009	1'080	180	1'410	200		
2010			1'700	120		
Total				735.7		



# What about the 21st century?

Is it about biotech and IT only?



Activity Town, St	Automotive Palo Alto, CA	<b>Company Tesla Motors, Inc.</b>			Incorporation State	DE
f= founder	Price per share	\$5.0	IPO date	Jun-10	Date	Jul-03
D= director	Symbol	TSLA	Market cap.	\$645'649'465	years to IPO	6.9
			URL	<a href="http://www.teslamotors.com">www.teslamotors.com</a>		

	Title	Name	Founder's Ownership	Employee Ownership	PreIPO Ownership	Post IPO Ownership	Founder's Shares	Employee Shares	PreIPO Shares	Post IPO Shares	Value
f	founder, ex-CEO	Martin Eberhard									
f	founder	Marc Tarpenning	39.8%				3'192'873	3'192'873	3'192'873	3'192'873	\$15'964'365
D	Chairman & CEO	Elon Musk						28'300'444	28'300'444	28'300'444	\$141'502'220
	founders' shares *		100.0%	60.2%	8.1%	6.2%	8'025'401	8'025'401	8'025'401	8'025'401	\$40'127'005
	CTO	Jeffrey Straubel		1.0%	1.0%	0.8%		1'012'034	1'012'034	1'012'034	\$5'060'170
	CFO	Deepak Ahuja		0.1%	0.1%	0.1%		137'497	137'497	137'497	\$687'485
	VP S&M	John Walker									
	VP Manufacturing	Gilbert Passin									
	founder	Ian Wright									
* there were 8.025M common shares in Dec 2004; founders' shares show all Elon Musk shares (inc. Investor shares)											
	Officers & executives		100.0%	9.3%	9.3%	7.1%	8'025'401	9'174'932	9'174'932	9'174'932	\$45'874'660
	Other common *			4.2%	4.2%	3.2%		4'148'244	4'148'244	4'148'244	\$20'741'220
	Total common before options		60.2%	13.4%	13.4%	10.3%		13'323'176	13'323'176	13'323'176	\$66'615'880
	Options-outstanding			36.8%	36.8%	28.3%		36'509'302	36'509'302	36'509'302	\$182'546'510
	DOE warrant			9.3%	9.3%	9.3%		9'255'035	9'255'035	9'255'035	\$46'275'175
	Options-Available			40.4%	40.4%	31.0%		40'042'380	40'042'380	40'042'380	\$200'211'900
	Options-Total			86.6%	86.6%	66.4%		85'806'717	85'806'717	85'806'717	\$429'033'585
	Total - company		8.1%	100.0%	100.0%	76.8%		99'129'893	99'129'893	99'129'893	\$495'649'465
	Investors (Blackstar-Daimler)				22.6%	17.4%			22'427'223	22'427'223	\$112'136'115
	Investors (Al Wahada)				22.1%	17.0%			21'891'419	21'891'419	\$109'457'095
	Investors (Others, not management)								- 44'318'642	- 44'318'642	-\$221'593'210
	Total- Investors				0.0%	0.0%			-	-	\$0
	Total - PreIPO		8.1%		100.0%	76.8%			99'129'893	99'129'893	\$495'649'465
	IPO					23.2%					
	Option (underwriters)									30'000'000	\$150'000'000
	Total outstanding		6.2%			100.0%				129'129'893	\$645'649'465

NB: The information in this prospectus does not reflect the 1-for-3 reverse stock split of our outstanding common stock effected in May 2010.

## Board

H.E. Ahmed Saif Al Darmaki  
 Brad W. Buss *Cypress Semicon*  
 Ira Ehrenpreis *Technology Partners*  
 Antonio J. Gracias *Valor Management*  
 Steve Jurvetson *DFJ*  
 Herbert Kohler *Daimler*  
 Kimbal Musk

Total cash before fees	\$150'000'000
Paid to underwriters	
Others	
Net	\$150'000'000
sold by company	30'000'000
sold by shareholders	3'300'000
Total shares sold	33'300'000
Option to underwriters	-

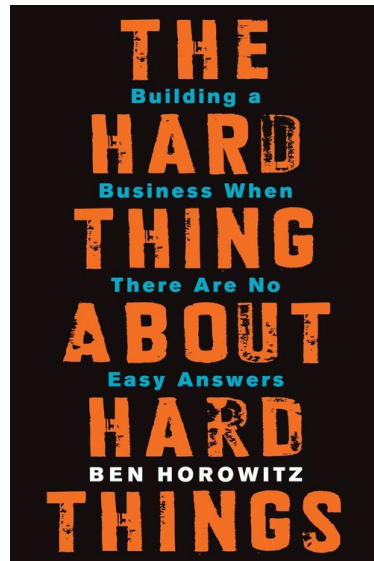
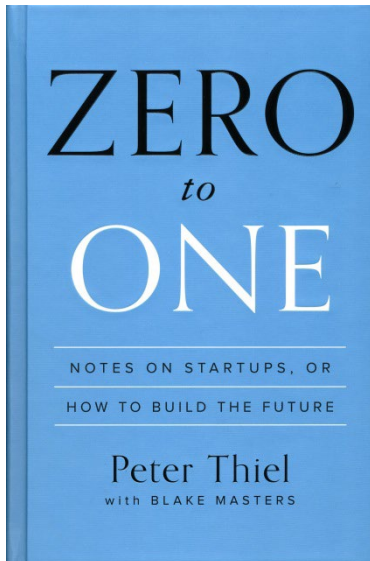
Revenues	2009-9m	2008
Amount	\$93'358'000	\$14'742'000
Growth	533%	
Number of employees		514
Avg. val. of stock per emp		\$875'048

Investors	Round	Date	Amount	# Shares	Price per share
Elon Musk, Compass, SDL	A *	Apr-04	\$7'500'000	15'213'000	\$0.49
Valor	B		\$12'899'000	17'459'456	\$0.74
Musk, Brin, Page, Skoll, DFJ (32 in total)	C	Jun-06	\$39'789'000	35'242'290	\$1.13
Private Investors	D	May-07	\$45'000'228	18'440'449	\$2.44
Daimler	E **	May-09	\$258'216'380	102'776'779	\$2.51
Al Wahada Capital	F	Aug-09	\$82'500'003	27'785'263	\$2.97
Total			\$445'904'610	216'917'237	

<http://www.startup-book.com/2010/03/08/tesla-motors-and-paypal-a-tale-of-founders/>

# What about the 21st century?

And the investors?



# If you are not convinced yet...

Loic Lemeur: “Why Silicon Valley kicks Europe's butt”



I love Europe. But you won't like my presentation. It's all positive and honest though.

The main reason why Silicon Valley wins is how much time we take for lunch

Silicon Valley is all in one place: best internet companies and never seen as that many bright people concentrated

It feels like a campus

Business happens 24/7 even when you don't expect it

There is more seed funding and VCs

Social environment is very flexible (hire fast in growth cycle, fire fast in recession)

“How can I help” attitude

Easy to get an appointment and meet pretty much anyone

People tend to trust you by default if you say you can do it

Diversity is actually higher than in Europe with so many immigrants in Silicon Valley

Key tech bloggers and press care much more if you're a Silicon Valley company #fact #toughtochange

European entrepreneurs wake up to dominate their city or country first, not the World

In Europe, too much copying US stuff (Foursquare latest example), they could not do that in Silicon Valley



Tend to hire locally: only french, spanish, german teams => more difficult to go global

Think in english by default is challenging

You guys can fix it. Go ahead and kick ass like Vente-Privée or Meetic

Find a niche, innovate, aim at being the world leader of something, not local leader

Focus on execution, the idea doesn't matter that much

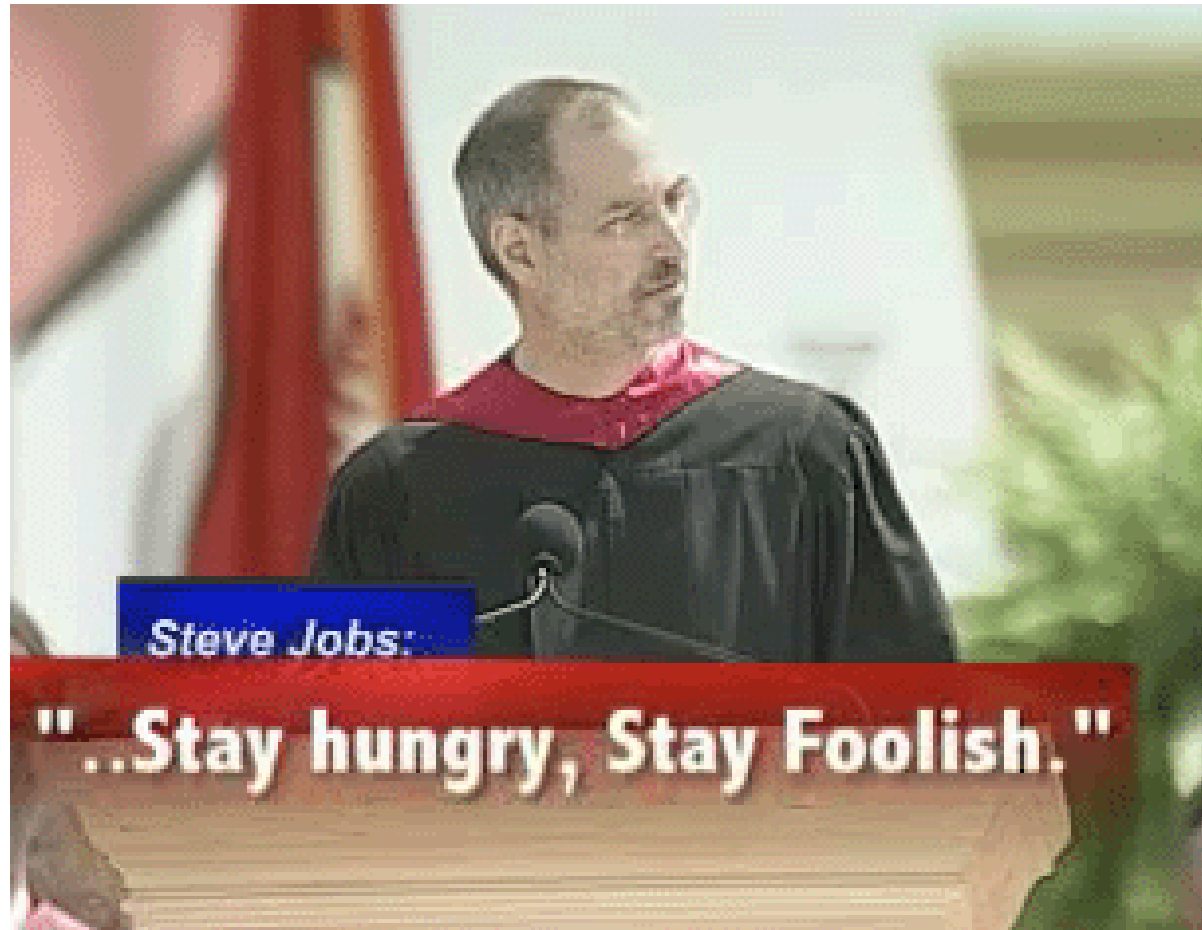
Gather an initial (global) community of users and iterate like crazy based on feedback

# Entrepreneurs are the heroes



“Look around who the heroes are. They aren’t lawyers, nor are they even so much the financiers. They’re the guys who start companies” **Robert Noyce**

And more importantly, “have fun”.



<http://www.startup-book.com/2007/07/04/steve-jobs-at-stanford-university-in-2005/>  
<http://news.stanford.edu/news/2005/june15/videos/53.html>



# Start-Up

Q&A?

and more on

<http://www.startup-book.com>