

blue sky thinking and washing the pots on the road to success at a technology start up



- Ian Brookes, director, Cake Solutions
 - Spent 25 years in professional services, the IT sector and dabbling with start-ups
 - Director with Cake for three years
 - Responsibility for Cake Invest
- Rob Strange, CTO, Sphonic.com
 - Early career in the Army
 - Experience in IT consultancy
 - Now CTO Sphonic.com



A close-up photograph of a person's hand and face peeking through the slats of window blinds. The hand is pressed against the blinds, and a single eye is visible through the gap. The lighting is warm and golden, creating a dramatic and mysterious atmosphere.

overview

- Business introductions
- The technology trigger
 - Roadmaps
 - MVP
- Pivots & customers
 - PAYG
- Going Forward to 2.0



Pain

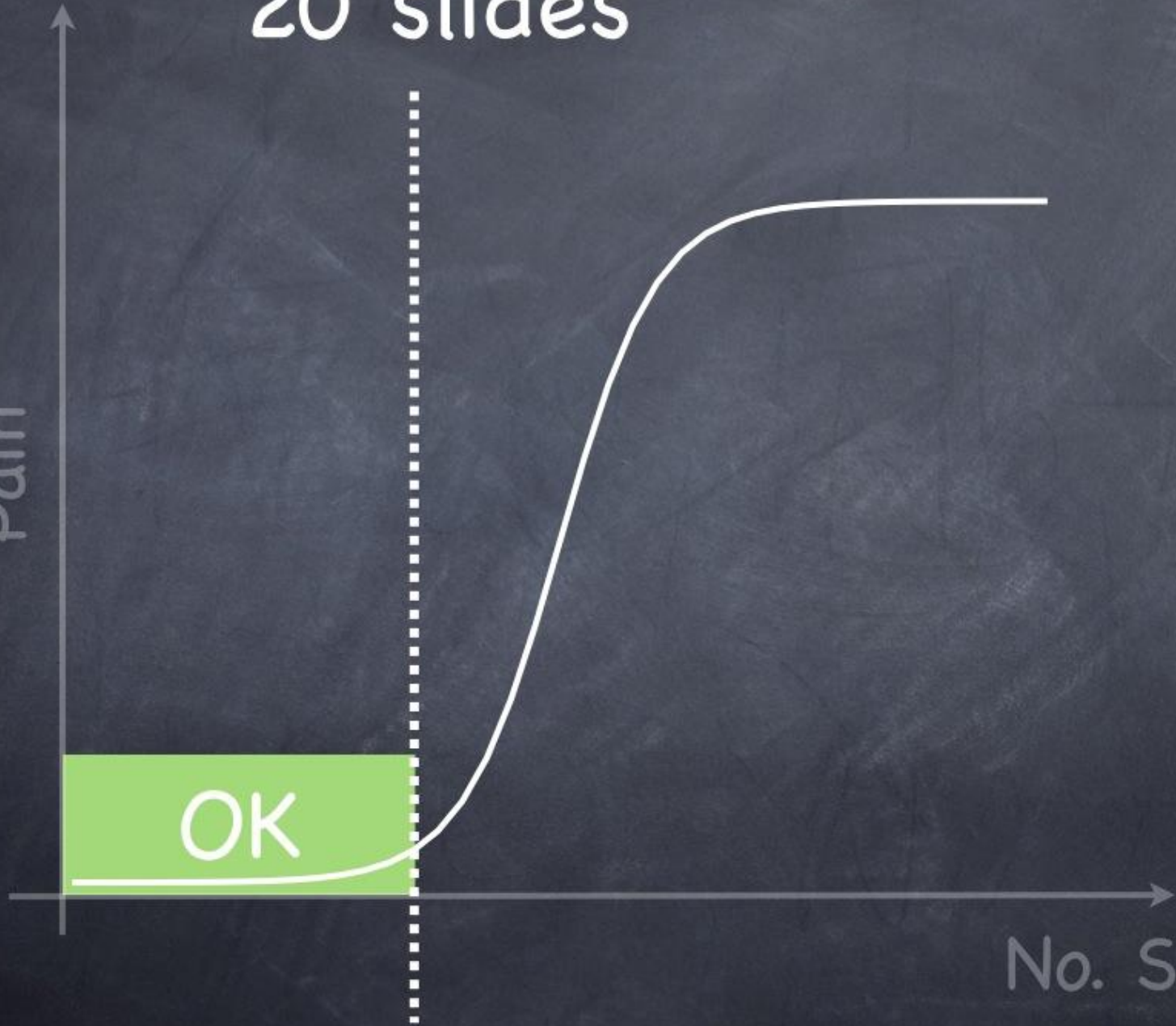
No. Slides

20 slides

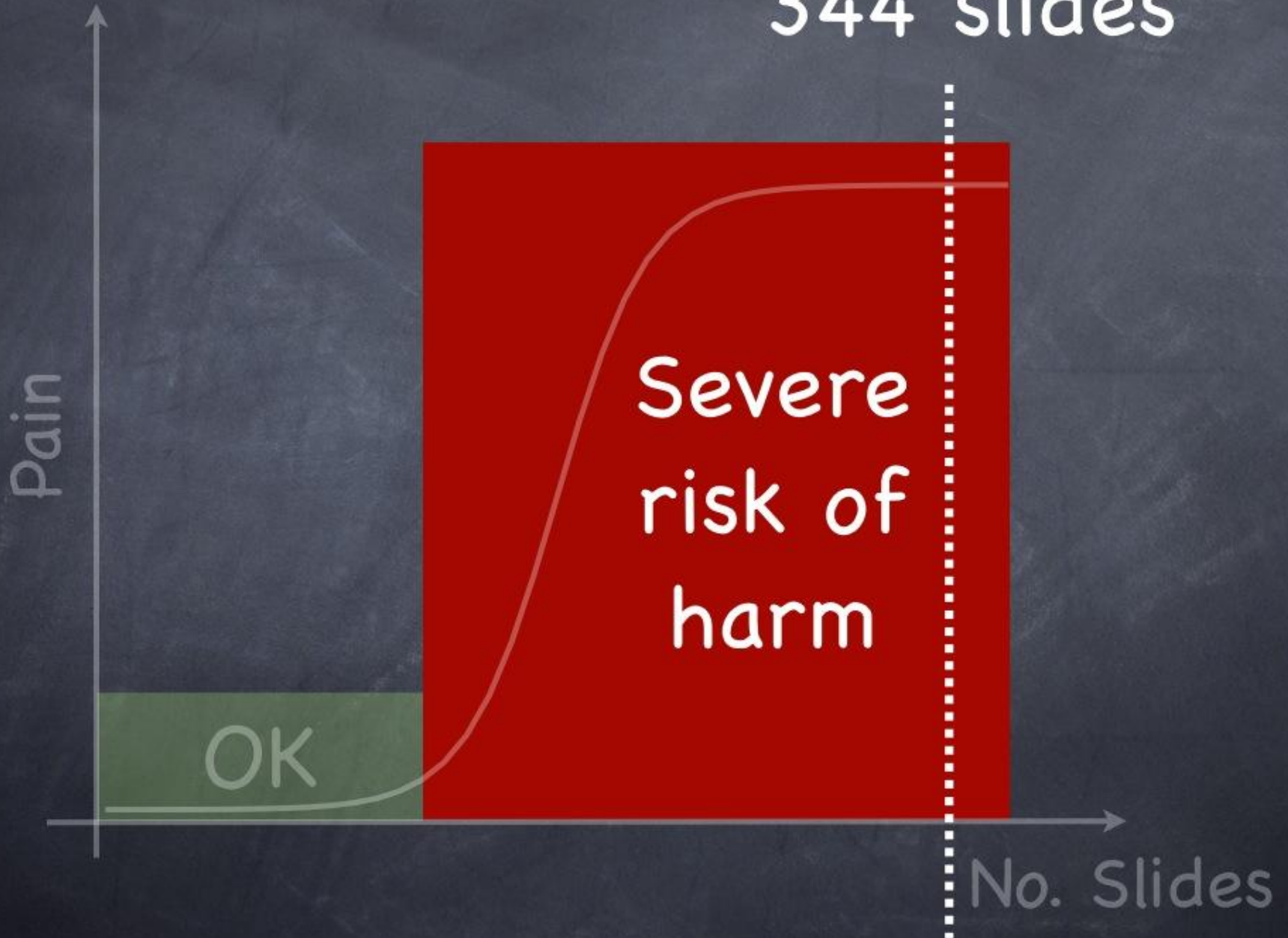
Pain

OK

No. Slides



344 slides



The New York Times

Ministry: Education, Culture, and
Sports; Sports, pleasure, recreation
Public works; urban planning
Food, drug, alcohol, tobacco products
and chemicals (U.S. customs & H. R. 100)

FOR THE RECORD

Voice From Moon: 'Eagle Has Landed'

Journal of Management Education 33(10) 1139-1154



His first stop on the main coast at 10:30 AM, was a telephone booth inside the city surrounded by a fence. He sat, stood and moved around it. He took a picture of it with an Apple.

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

Advance Praise for **THE LEAN STARTUP**

"The book is a classic when you write down what you think, and it's a must-read for every entrepreneur and every business owner who is interested in innovation."
—*author of Entrepreneur Magazine, Success Inc., and Success*

"The book is a must-read for every entrepreneur, and the more you read, the more you will learn. It's a book that is filled with practical advice and is a must-read for every entrepreneur who is interested in innovation."
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#leanstartup

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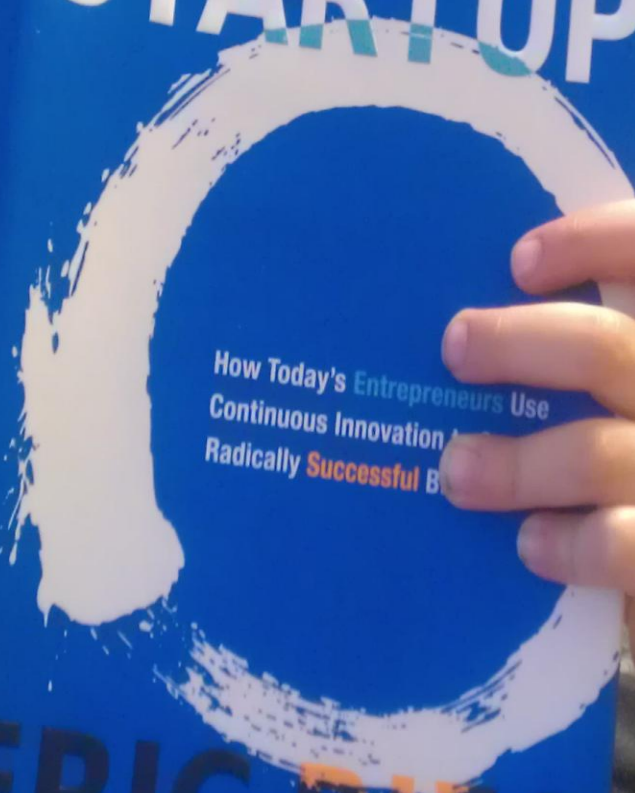
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THE LEAN STARTUP

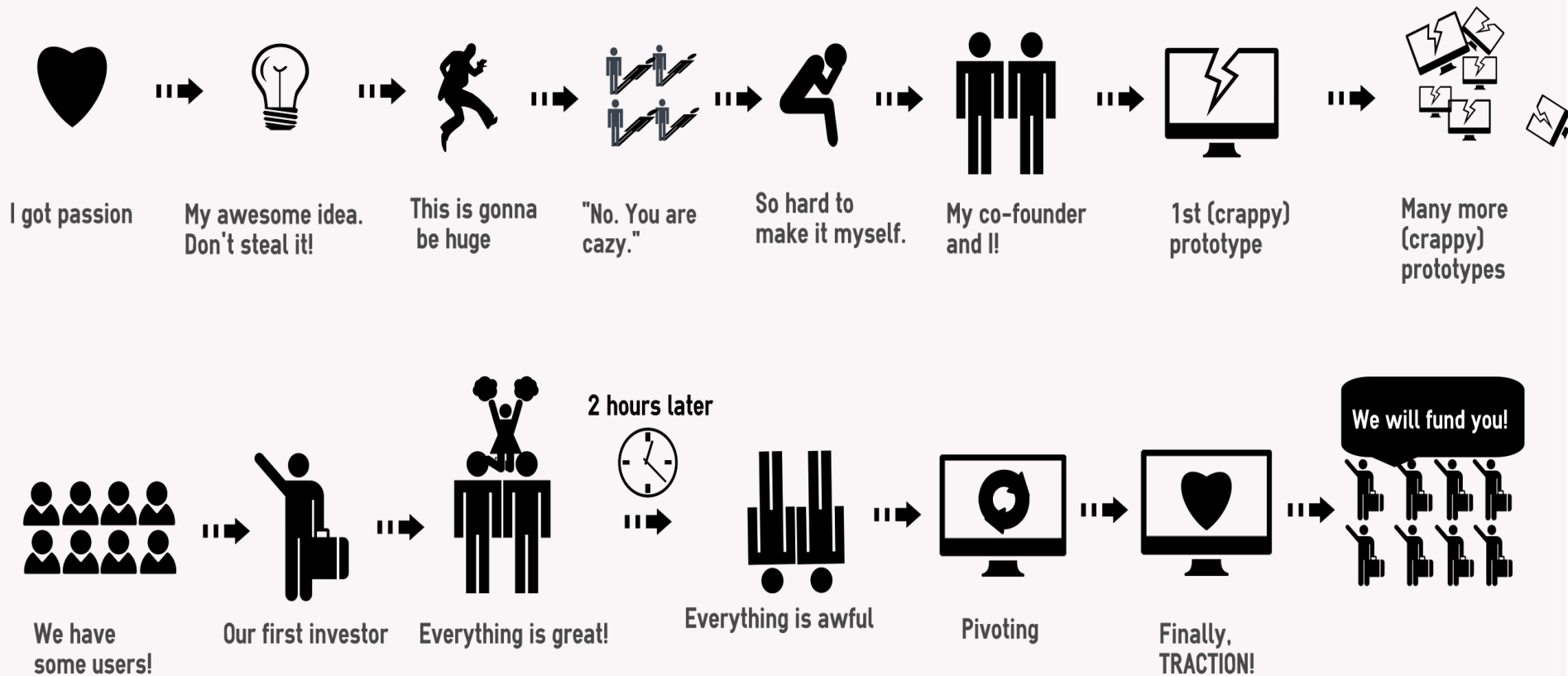


How Today's **Entrepreneurs** Use
Continuous Innovation to
Radically **Successful** Business

ERIC RIES

LIFE

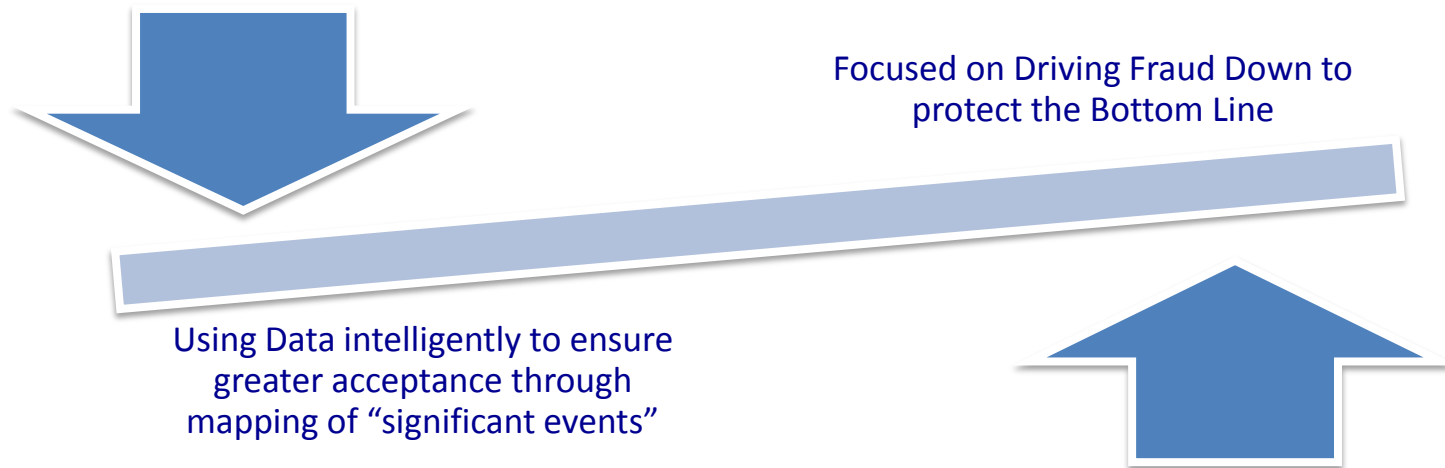
OF A **STARTUP**





- Cake Solutions is an enterprise software development business
- We live in Manchester & Oxford, team of 25 outstanding thinkers & doers
- Focus on Java, Scala, agile, functional programming & cool technology
- Good habits & thought leadership - founders & editors of the OSJ
- Partners to Typesafe/VM Ware - direct access to the companies who design the technology we specialise in
- Not just technology innovators, but also technology venturing - Cake Invest Model & The Catalyst process

Balancing Fraud & Customer Acceptance



- Sphonic
 - Formed Jan 2012 after market analysis out of consultancy
 - Initial round friends and family
 - Started build of current project July 2012
- Market
 - Fraud cost the UK approximately £73bn in 2012
 - Regulation
 - Losing considerably currently due to low risk profiles

- Concept Designed over a period of months
- Needed to be sure it solved a problem
- Needed Vendors on board before build started
- Scoping

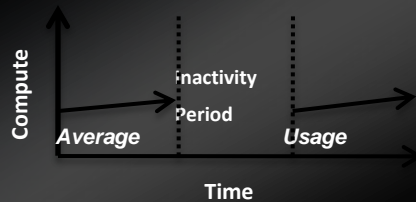
- Initially looked at getting V.1 built in MS
 - Cheap
 - Overseas devs
 - Stable technology
 - Build and throw away
 - Waste of money
- Moved for initial release used tech we wanted going forward
 - Concurrent
 - Scalable
 - Cheap to deliver and easy to scale

- Language
 - Scala
 - Akka
- Databases
 - Mongo DB
 - Cassandra (currently 1.2, evaluating DSE 3.0)
- Hosting
 - AWS currently reviewing other options
- Other
 - Jenkins
 - Chef

- High volume transactions - 10,000/sec
- Reliable, scalable robust system to handle concurrent operations
- Design software to deal with failure
- Typesafe stack - Scala & Akka framework
- Agile methodology mirrors the business/product strategy
- Ideas rich, technical elegance, cash restrictions

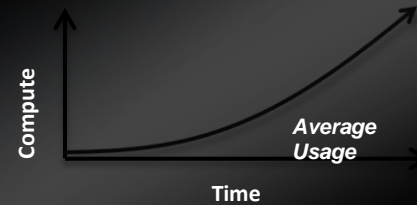
Workload patterns - relevant for Sphonic.com

“On and Off” “



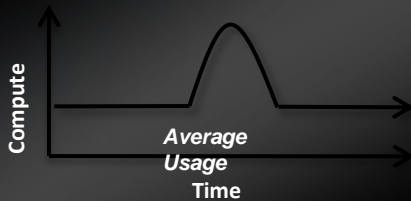
- On and off workloads (eg. batch job)
- Over provisioned capacity is wasted
- Time to market can be cumbersome

“Growing Fast”



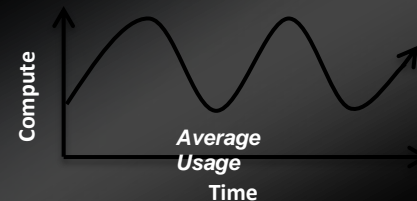
- Services needs to grow/scale
- Keeping up with growth
- Complex lead time for deployment

“Unpredictable Bursting”



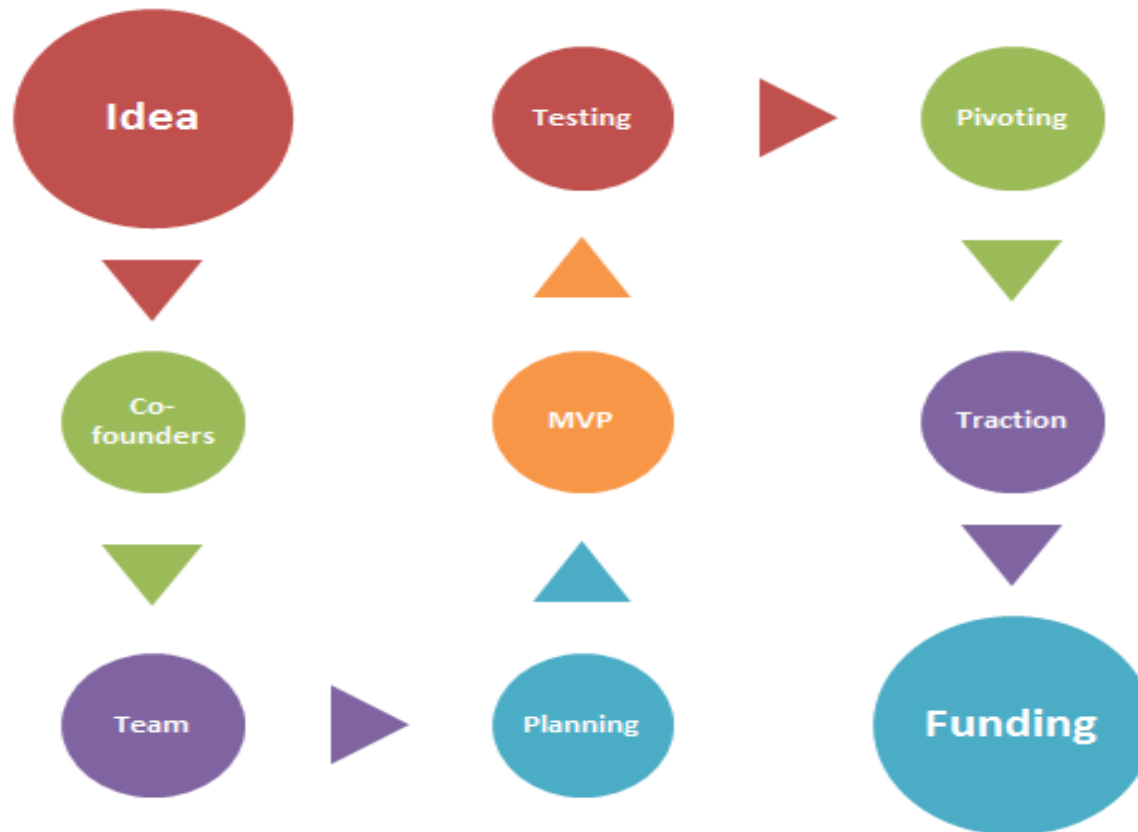
- Unexpected/unplanned peak in demand
- Sudden spike impacts performance
- Can't over provision for extreme cases

“Predictable Bursting”



- Services with micro seasonality trends
- Peaks due to periodic increased demand
- IT complexity and wasted capacity

- Had been built before, significant costs proprietary software/hardware
- Knew we could do it better
 - Technology reviews
 - Designed with scale initially
 - Takes off not going to have time for rewrite
 - Security Very important
 - SASS model



Learn Faster

LEARN

- Split Tests
- Customer Interviews
- Customer Development
- Five Whys Root Cause Analysis
- Customer Advisory Board
- Falsifiable Hypotheses
- Product Owner Accountability
- Custom Archetypes
- Cross-functional Teams
- Smoke Tests

IDEAS

BUILD

Code Faster

- Unit Tests
- Usability Tests
- Continuous Integration
- Incremental Deployment
- Free & Open-Source Components
- Cloud Computing
- Cluster Immune System
- Just-in-time Scalability
- Refactoring
- Developer Sandbox

CODE

DATA

Measure Faster

MEASURE

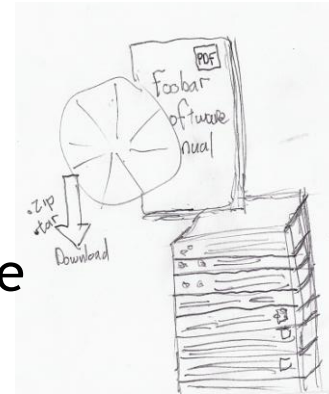
- Split Tests
- Clear Product Owner
- Continuous Deployment
- Usability Tests
- Real-time Monitoring
- Custom Liaison

- Funnel Analysis
- Cohort Analysis
- Net Promoter Score
- Search Engine Marketing
- Real-Time Alerting
- Predictive Monitoring

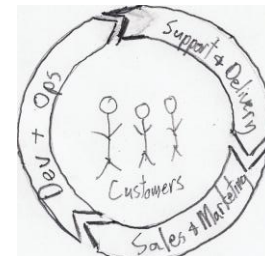
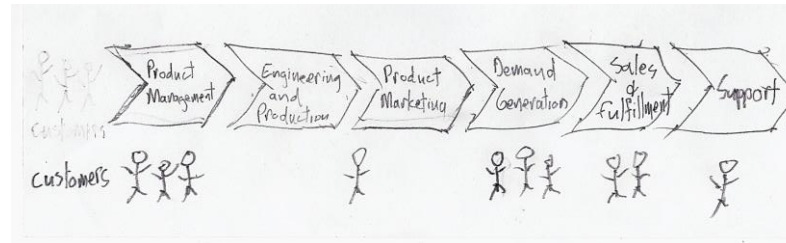
Cake Invest mindset

T-2-R transaction to relationship

Destination P-2-S Product to Service



Organisation L-2-C Linear to Circular

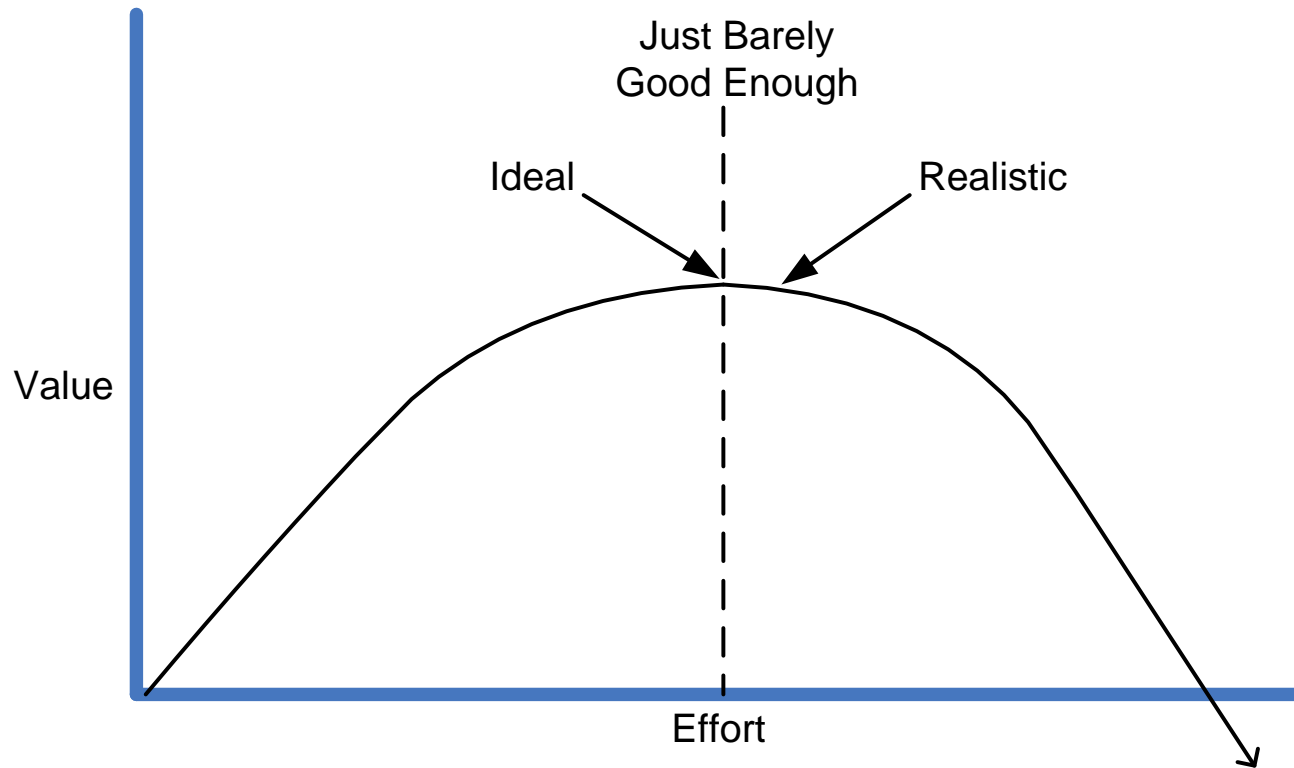


Go to Market E-2-E Evaluation to Experience

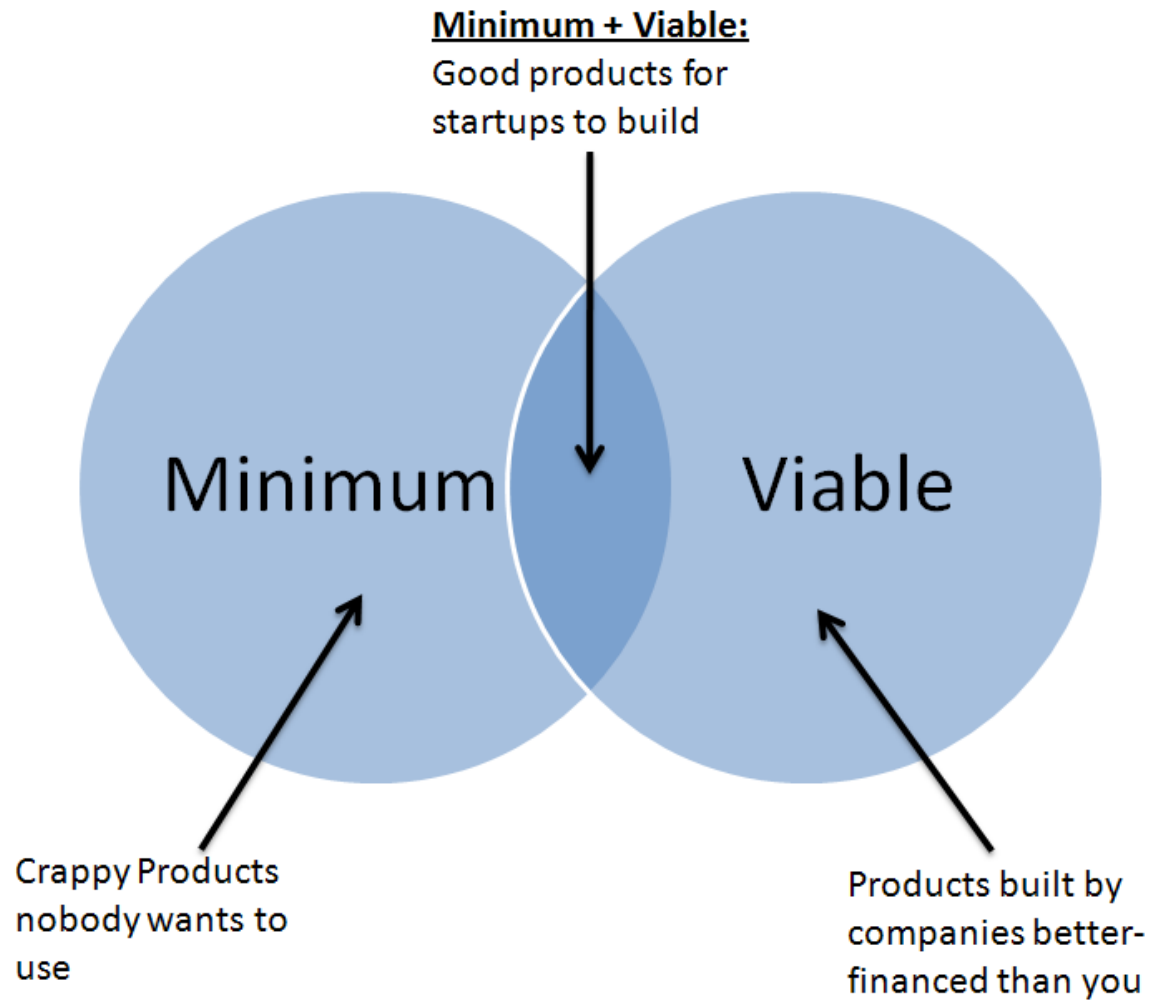


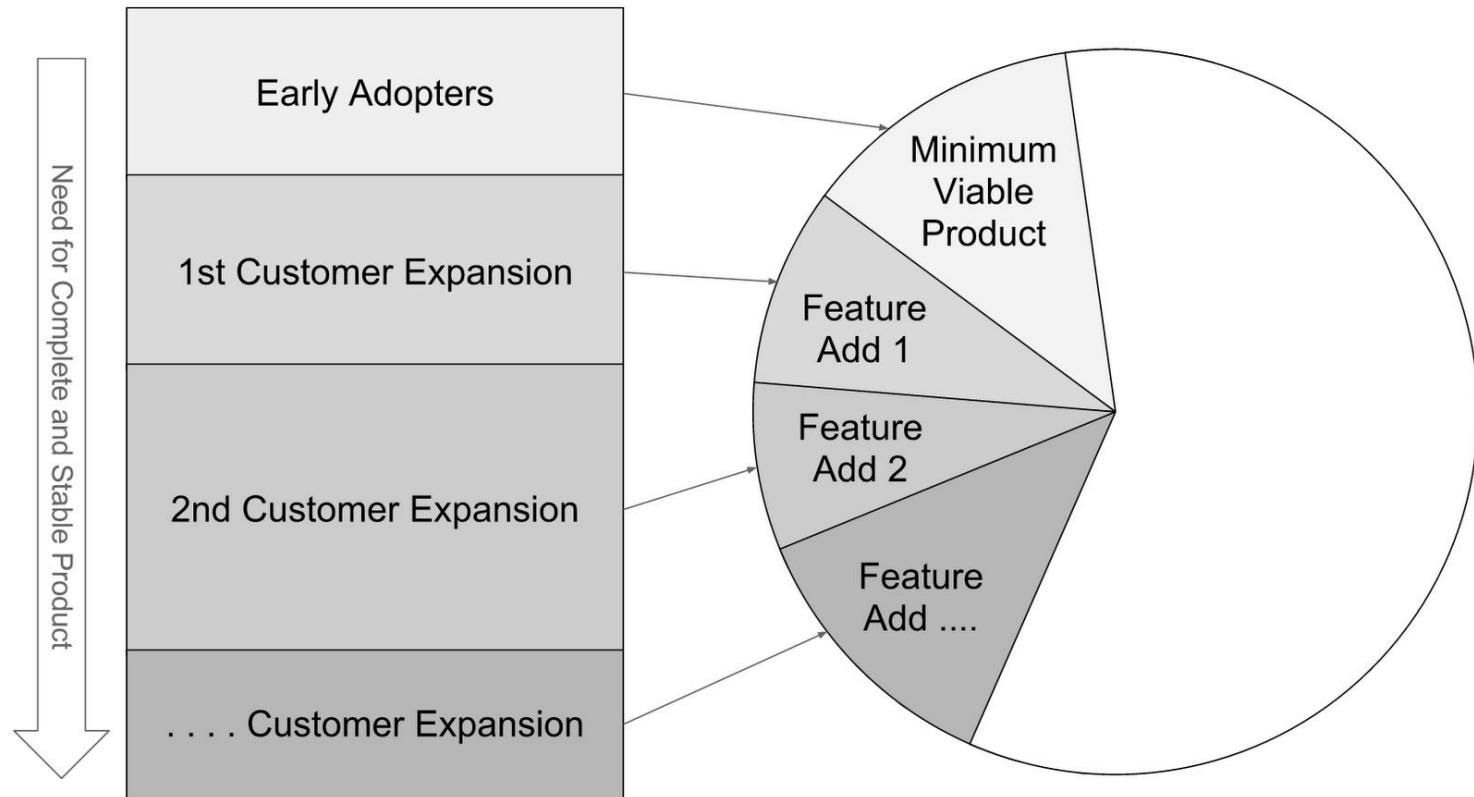
- Three stage process
 - Assessment - this is what we know, this is what we *think*
 - MVP - you want how many features? *just give it a go!*
 - 1.0 - serendipity of technical & business vision
- Living in the product backlog
- Share the technology & financial risk - PAYG
- Symbiotic co-existence of living, breathing, learning & eating together

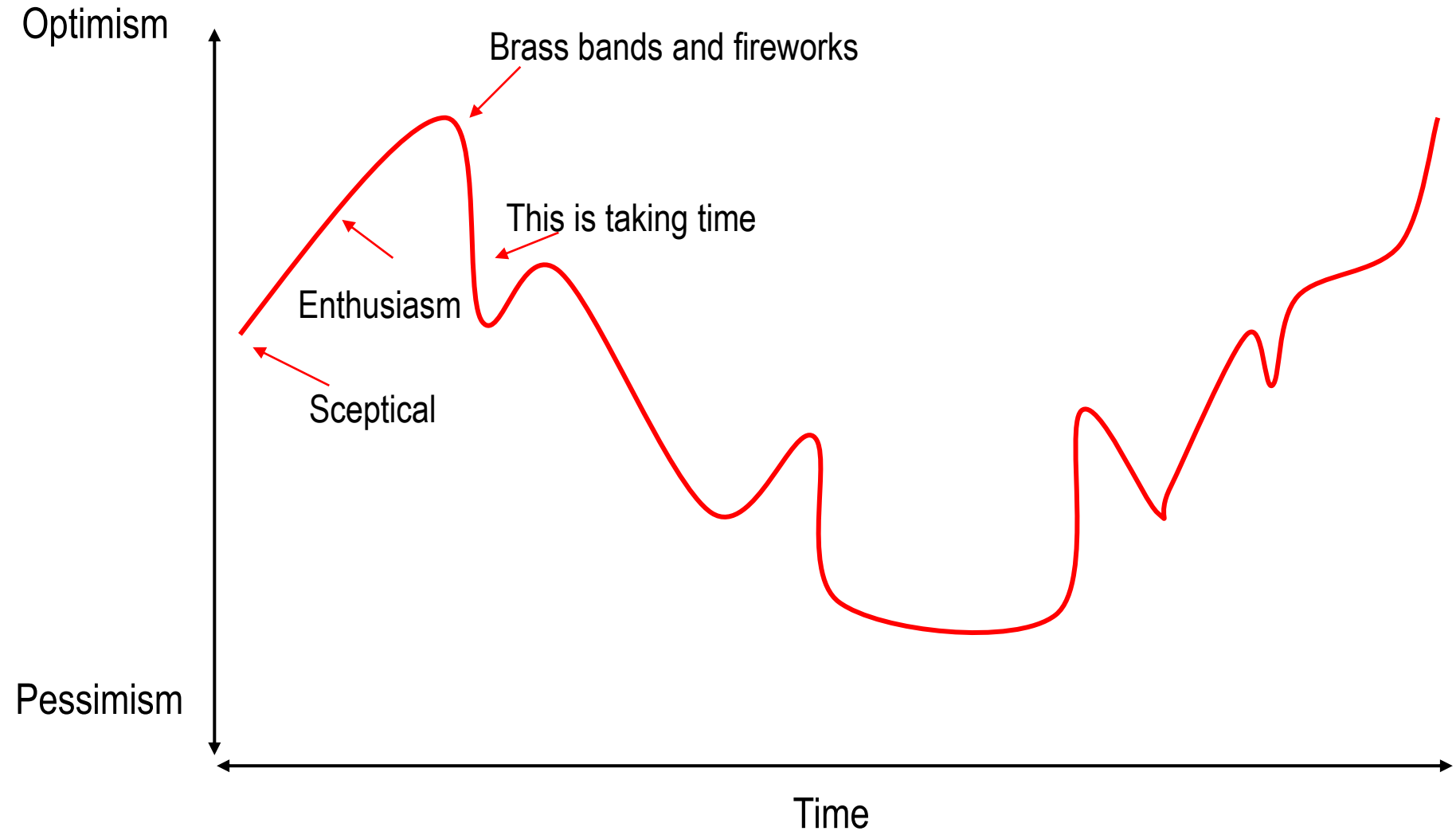
- Risk - manage the technical and business (financial) risk
- Economics - optimisation of capital investment
- Agility - implementing change faster & greater flexibility
- Creativity & innovation - support for new, emerging requirements
- Simplicity - ability to scale, overcome failures
- Trust - address the issues of developer-client relationship

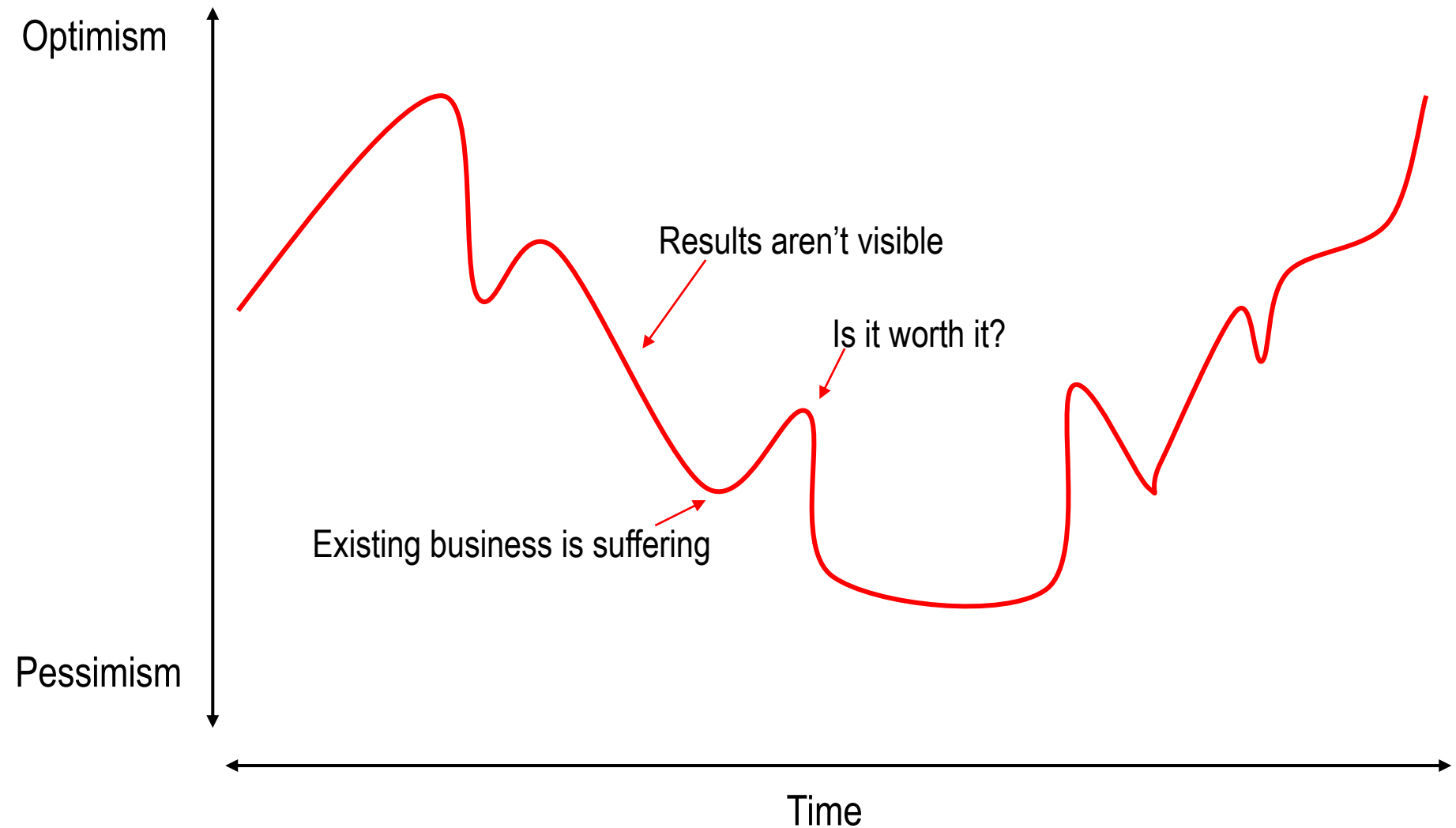


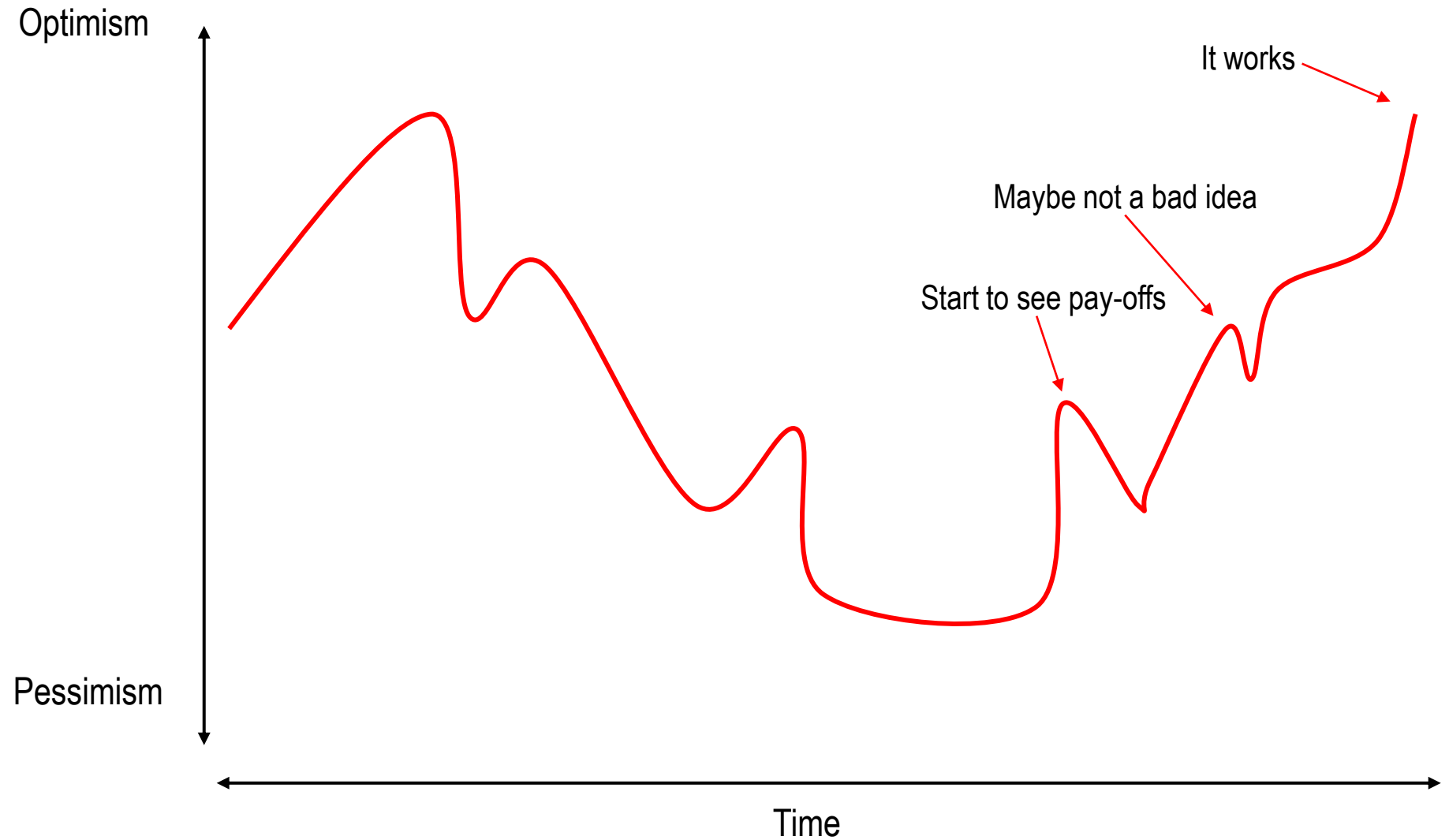
Copyright 2005 Scott W. Ambler











- What did we need for V1.
- Work done initially during consultancy
 - Able to discuss opportunity with clients directly
- What vendors could be onboard
 - Minimum for market acceptance
- Pricing models

- Able to show original idea to clients
 - Loved it needed it now
- Could have done it better
- Too much “minimum functionality”
- Cash is king – get it coming in
 - It will take at least 6 months longer than you imagine, as a B2B business to get cash in

A hand-drawn diagram of a soccer field in yellow on a dark green background. The field includes a center circle, two smaller circles near the top corners, and two larger circles near the bottom corners. Arrows indicate the flow of play, with one arrow curving from the top left towards the center, and another curving from the bottom left towards the center. The text "WHEN SHOULD A STARTUP PIVOT?" is written in a bold, yellow, distressed font across the middle of the field.

**WHEN SHOULD A
STARTUP PIVOT?**

- Demos in front of customers
 - Screen shots
 - Demos
 - Working demos
 - All provide feedback to design
- Careful of function creep to please potential customers

- Time will kill you
- Need to make hard decisions
- Ship
 - Get people using it – User testing
 - with caveats
- Need some resource in house
- Keep control or you could be held hostage

- Need to be flexible
- Try not to get sucked up 80/20 avoid in early months
- Validate them
 - Time
 - Costs
 - Likely hood

- Keep your promises
- Get your foot in the door
 - Consulting
 - Conferences – choose carefully
- Be honest about delivery timelines
- Expect delays at their end

- *The purpose of a business is to get customers* - Drucker
- 'We need all these features'...'Just give it a go'
- The business has to know how the product works
- Fail fast, fail quick, fail at least cost (product & business)
- Know when you will fail - test to make it break, damage to the limits
- Trust nothing, make no assumptions
- You have to believe in failure: things go wrong, so what's next?

startup project budgeting



It is better to be roughly right, than precisely wrong
John Maynard Keynes

*To be uncertain is to be uncomfortable,
but to be certain is ridiculous*
Chinese proverb

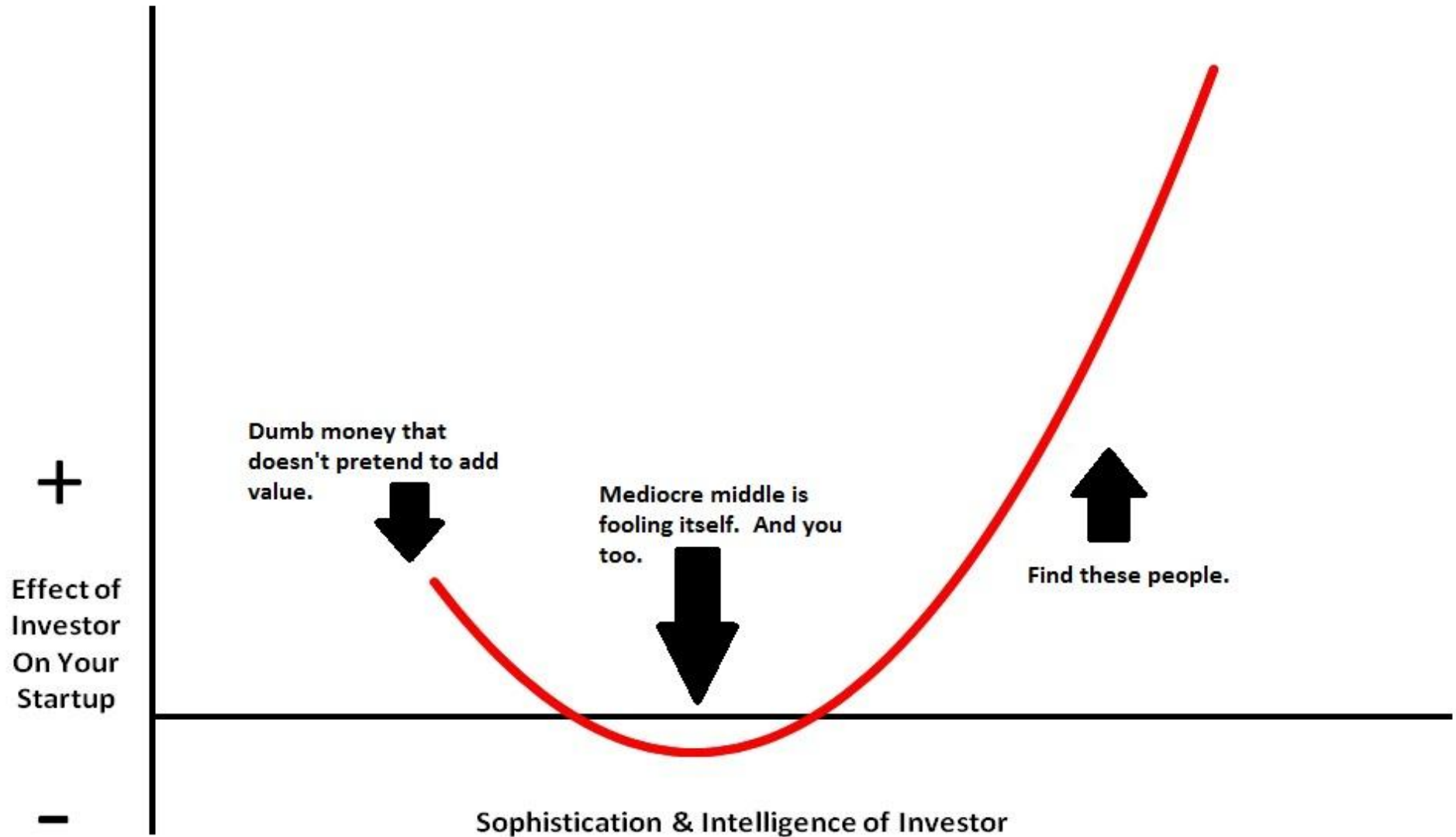
*An accountant is a man who watches the battle from the
safety of the hills and then comes down to bayonet the wounded*
Stephen Fry



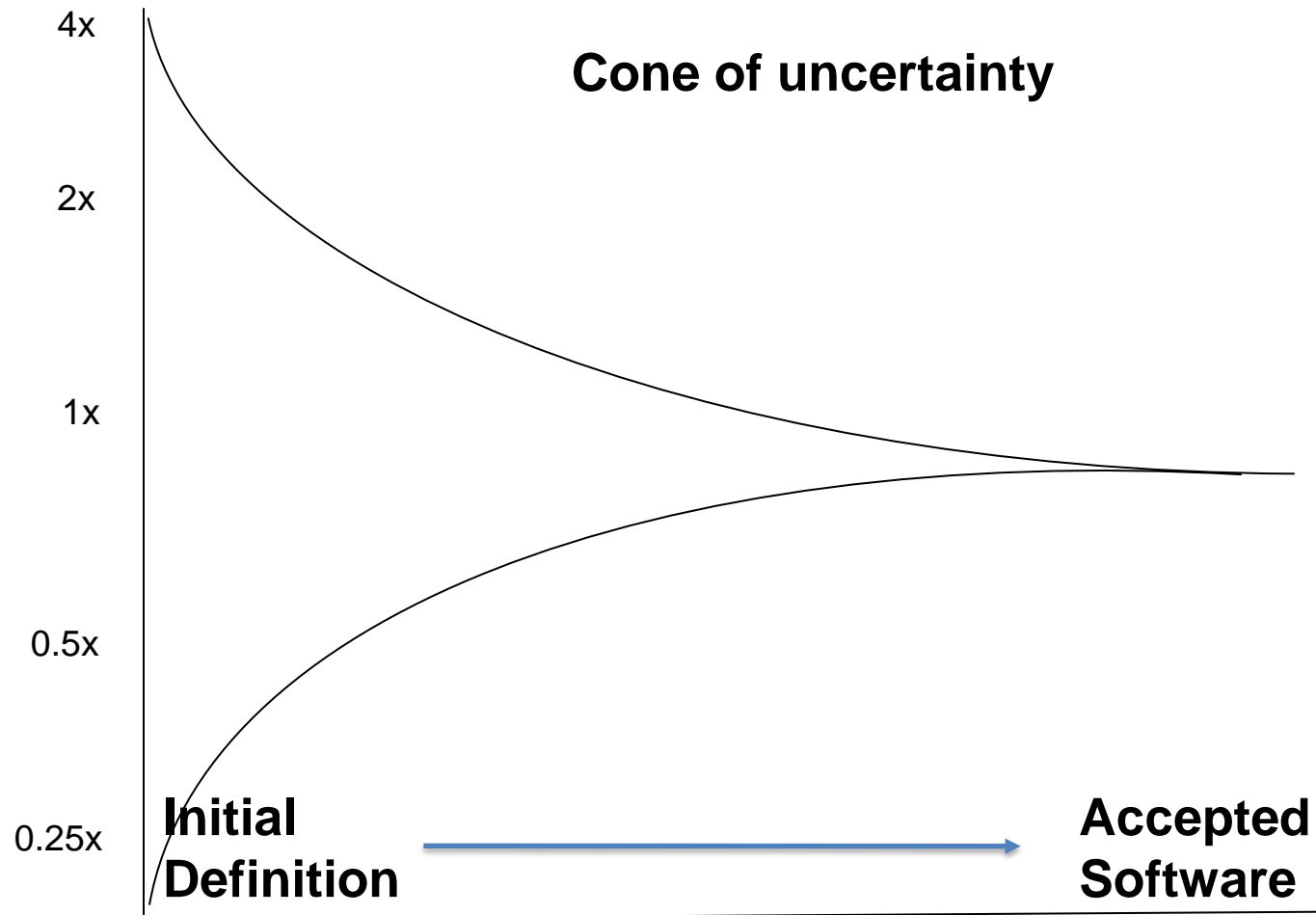


CAKE SOLUTIONS
ENTERPRISE SOFTWARE SERVICES

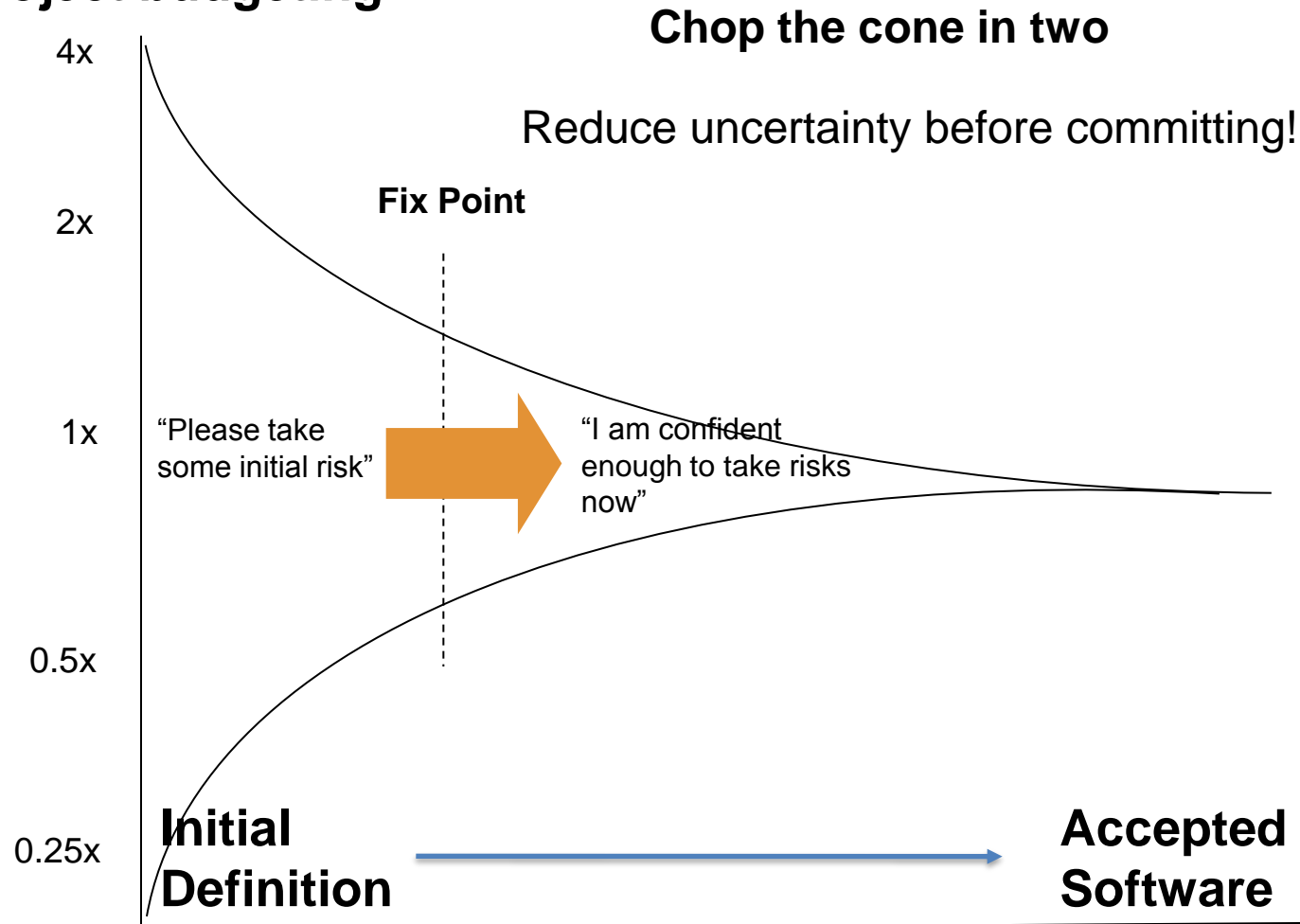
PAYG



Project budgeting



Project budgeting



- Pot of first round funding insufficient for full v1.0 development
- Cake Catalyst process provided technical & financial risk due diligence for both parties to work together
- Cake Invest received PAYG reward:
 - On commencement of project
 - In two further performance related tranches
- Cake Invest model shares the technology & financial risk in startups - the ultimate PAYG partnership model
- Sphonic.com is now billing customers funding v2.0 development

Transparency on everything

creates

Trust on everything



- Allowed us to get where we are without giving too much away
- Able for Cake to assess product development
- Helps to manage costs
- Pros
 - Quick
 - Manage costs
- Cons
 - Lose some control
 - Can't go on for ever!



- Move some in house
 - Split the workflows
 - Day to Day
 - Upgraded functionality
- Lots of lessons learned
 - Engineering /Devops in house early
- Great relationship going forward
- Keep control
 - Releases
 - Testing

- If you want a guarantee, buy a toaster
- It's not just an IT thing, it's about business advantage
- Measure (and pay for) outcomes not activity (work done) -
'working software is the primary measure of value delivered'
- Business value = revenue, cost savings, cashflow, market share,
customer relations, reputation
- Cake is now exclusive development partner to Sphonic.com



We are hiring!

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