

Achieving Escape Velocity

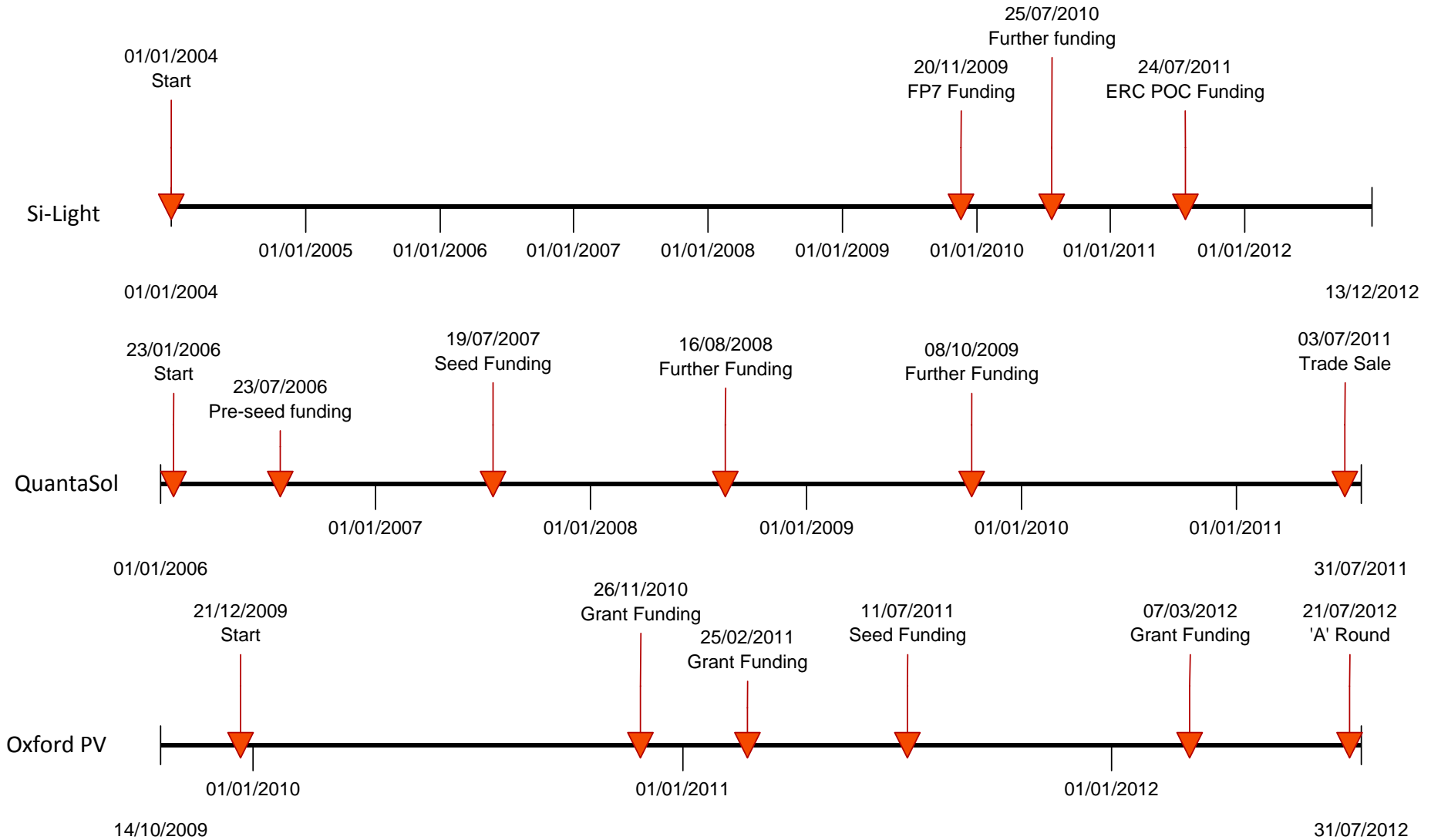
Kevin Arthur

Founder, CEO Oxford PV

Oxford PV background

- December 2010 Spin-out from Oxford University Physics Department.
- Grant income of £0.4M
 - UK Technology Strategy Board £350K
 - Shell Springboard award £20K
 - FP7 £200K
- Seed Funding £700K secured in June 2011
 - MTI, Parkwalk, WGC, Oxford UCSF, Business Angels
- Series 'A' internal round £2M secured January 2013
 - MTI, Oxford University, Parkwalk, Business Angels
- Additional external funding £0.7M secured April 2013.
 - Longwall Ventures.
- Commercialising £6.5M fully funded research programme
 - 20 researchers led by Dr. Henry Snaith
- Extensive patent portfolio (13) provides barriers to entry

Different Time Bases



Hidden Phase

- QuantaSol “June 2007 Imperial spin-out” Actually started 2006.
- Oxford PV “December 2010 Oxford spin-out” Actually started 2009.
- Always a “belief” stage before investment
 - Intense selling of concept to anyone that will listen.
 - Production and selling/pitching of business plan to investors.
 - Intense selling of investment opportunity.
 - Locating and selling to start-up team.
 - Selling to suppliers
 - Selling to customers
 - Selling to manufacturing partners.
 - Creating a buzz.
 - No/little remuneration for founders.....other sources of remuneration!
- Common denominator.....selling

What's really important

- Enter every funding competition and apply for every grant you can find.
- Engage customers before you make anything!
 - It's not about how cool your technology is, it's all about what customers will buy!
 - Early Price estimates will be wrong by at least 2x
- Engage suppliers and manufacturing partners before you start making decisions on BOM and Process.
 - Early Materials cost estimates will be wrong by at least 2x
 - Early Process time estimates will be wrong by at least 2x
- Speed and agility
 - If you're not faster than a corporate then don't bother.
 - Do everything and anything to reduce cycle time.

More thoughts

- Good people often become available when you have no money to recruit them.
 - Find a way!
- If more money is offered take it!
 - Don't worry about dilution, focus on \$\$\$
- Set up alerts for auctions of 2nd hand equipment.
 - Have a contingency fund to take advantage of good deals

Golden Rules

- Only the paranoid survive (Andy Grove).
 - Take competition seriously, always assume that they are faster than you and have better technology just around the corner.
 - Assume that your competitors are doing at least as good a job as you in front of your customers.
- He who has the gold makes the rules.
 - Choose your investors wisely!
- Fortune favours the brave
 - To compete and survive against the status quo a start up must be fearless, faster, more agile, more challenging, more aggressive, more spontaneous

People deal with People

- It's about people and relationships.
 - Staff that want to be there, enjoy the challenge, sign-up to the vision, believe in the technology and are having fun.
 - Customers that want to help because they believe in the vision, back the technology and want to incorporate it into their products because it will make them more profitable.
 - Suppliers that want to engage very closely because they can see that they will win differentiation over competitors, bring new products to market and generate new and profitable business.
 - Investors that believe in the team and vision, and will back the company through thick and thin.

Thank You

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