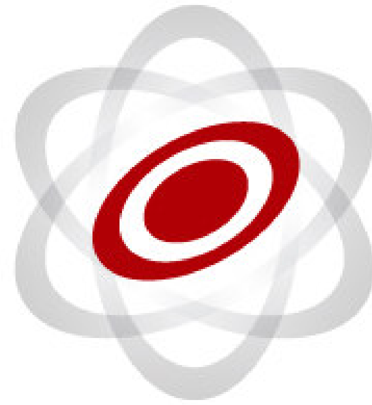

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Please note: all information has been obtained from public data sources.

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Financing sustainable businesses

Poor understanding of sources of finance leads to much time being wasted by investors and entrepreneurs and holds back business start-ups and development to the detriment of the local cluster and national economy.

Different sources are appropriate at different stages in the enterprise's development and can include:

- personal savings/credit cards
- family and friends
- grants
- business angels
- venture capital
- banks
- corporate venturers

The Equity Wheel and Equity Fingerprints are tools to help you understand how to maximise both the value of your business, and your share of that value

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The Equity Wheel

The Equity Wheel is a way of thinking about the value of the business and its distribution

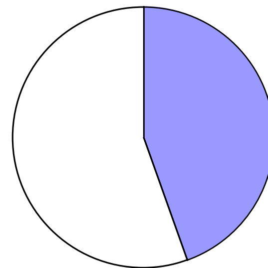
The size of the Wheel represents the size of the business

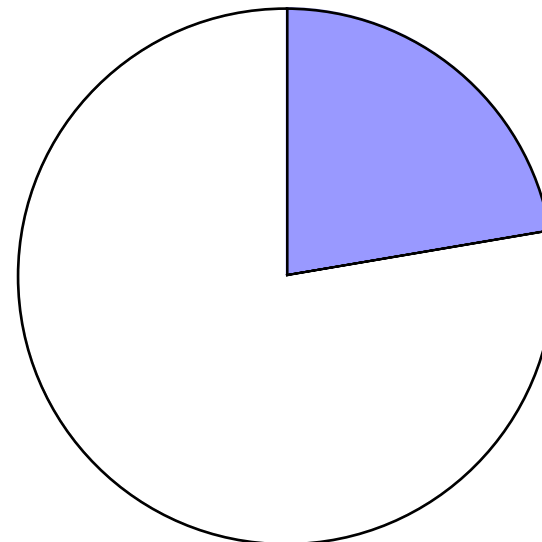
r, the radius of the Equity Wheel, increases as the value of your business increases

θ is the percentage of the business that you own. As the number of shareholders increases, your percentage of the Equity Wheel decreases

Complete control, $\theta = 360$, is important to some people. But if you want a large r quickly you may need to share the Equity Wheel to raise money and build a good team. As the founding entrepreneur, you need to decide how to balance the forecast increase in r against your share of the value θ

small r,
high θ





larger r,
smaller θ

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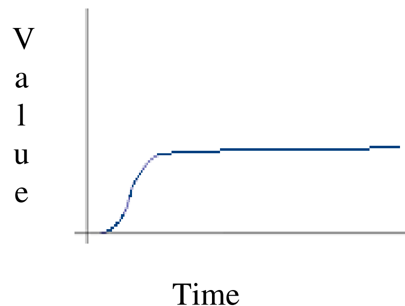
Implications of θ and r

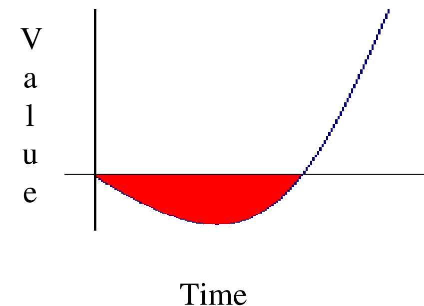
Example 1: Consultancy companies are 'soft start' companies, i.e. they can initially grow quickly without the need for much investment: However, subsequently growth tends to slow, and so they are good for the founder's θ, but bad for r

Likely outcome: keep the company and run it as a 'lifestyle' business



Example 2: Technology companies need funds to develop and sell the product and to build the team. Money usually comes from friends and family, 'angel' investors and venture capitalists who are sold shares in the business. This is great for r but potentially bad for your θ

Likely outcome: pressure to sell or launch on stockmarket.



The Entrepreneur's Dilemma

If you, the entrepreneur, need to raise £10m to start a new business why do you not raise it all on day one? The answer is that you would end up with little or no equity. This is the role of the professional manager who is well paid and part of a large plc. The sort who values pensions and company perks. The sort of person who will one day buy your company.

The entrepreneur has to take a different approach:

Stage 1	Form the team, focus on the idea
Stage 2	Start small. Sell 33% of the business for £50k to FFF (friends, family and fools!). Then you develop the product, find customers, etc.
Stage 3	The business is more than a gleam in the eye. Now you seek £500k from Business Angels for 33% of the now more valuable business
Stage 4	Customer orders, experienced managers want to join the party. The value of the business increases again and now you raise £5m for 33% of the business
Stage 5	All goes well and you receive an offer for £100m. Do you stay or do you go?

Of course, there are many sources of funds available and equity funds should be used with grants, customer advances, etc. But you also need to consider equity for key people, share options .... Was that 30% pre or post valuation?

Understanding Equity Fingerprints

The Equity Fingerprint of a business focuses on the points of major change when entrepreneurs accept dilution of their equity stake in exchange for the resources required to accelerate development and growth.

In the following slides, the Equity Fingerprints of several companies are discussed, highlighting some of the factors which influenced their investment decisions:

- Daniolabs - ‘soft-start’ company with founder/Angel funding
- Baddeley Associates - organic growth
- BioRobotics - hybrid revenue streams
- Active Booking Company - building a £100m business with Angels and VCTs
- Cambridge Silicon Radio - a VC’s dream

Note: the size of the Equity Wheel is relevant only within each illustration, and should not be compared across examples

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Example: Daniolabs

TIME

IDEA

DILUTION

Stage 5

Stage 6

This is a hybrid company undertaking the same bio-discovery process in 3 ways for:
- a fee (income generating from year 1 with benefit of being close to market)
- a reduced fee and a share of the profit
- in-house with the intention of licensing the discovery.

Stage 1 (2000) A medical doctor doing his PhD dreams of having more impact on more patients by developing drugs, after working in research departments in Cambridge and UCSF, San Franciso. Contacts Cambridge Enterprise and attends Summer School
Stage 2 (Jan 2002) Assembles academic team including Cambridge Professor and former colleague who remains an academic at UCSF; also appoints experienced Chairman and secures inital funding from UCF, £150k
Stage 3 (July 2002) Experienced bio-entrepreneur leads Cambridge Angel and UCF investment of £850k (including SMART award) and joins board as non-executive director. Experienced COO with Judge Institute MBA appointed
Stage 4 (Nov 2002) Wellcome Trust invest £450k
Stage 5 (Dec 2003) Current Angels, UCF and Wellcome invest £500k and in April 2004 company wins another £220k govt grant. Total grants won total nearly £1m
Stage 6 (Jan 2005) Cambridge VC, Gateway, lead £3.2m round from existing investors, new angels and two other VCs

Example: Baddeley Associates Limited

TIME

DILUTION

IDEA

Stage 1

1982

Form Limited Company

Stage 1

1984

2 Key employees as shareholders

Stage 2

1984

Stage 2

1985

Vcs invest £150k

Stage 3

Stage 3

1987

Example of soft startup, writing and designing easy-to-use User Guides for nascent PC market. Company then developed skills as change management consultants.

Started as a husband and wife team. Grew to employ 50 people before being sold in June 1987.

At time of sale, 5% of total proceeds distributed between staff. In those days, share options were not common as so very few companies had experienced rapid growth.

One of the first companies in Cambridge built up and sold with in five years.

Example: BioRobotics Limited

TIME →

IDEA

1994 → 1995

1993 → 1994 → 1995 → 1996

1996 → 1997 → 1998 → 1998 → 1999

1999 → 2000

D I L U T I O N ↓

Example of soft start company with founder/Angel Funding, no VC funding, slow start, successful sale and almost perfect timing.

BioRobotics developed from a research project at the MRC in Cambridge which funded the initial development. The MRC wished to develop the machine with USA partners but four of the team decided to form a company in 1993 to develop the technology commercially.

The MRC work was key in bringing the team together. The initial team consisted of a Cambridge University lecturer (with many years of experience of inventing, patenting and commercialising devices; he took a sabbatical and made the products in his machine shop at home), another lecturer (who also acted as a Business Angel), a researcher and a recent PhD graduate who had started his own consultancy company and who became CEO.

In the very early days, the team were financed by their main jobs, consultancy and the founders/Business Angel. In 1994, one of the founders left.

After a very slow start, BioRobotics growth took off when it developed a new product: the MicroGrid microarray robot, designed for use by scientists working in genomics. BioRobotics were world leaders concentrating on superb products, fast development and innovative design.

In 1995, two key people arrived and were offered a share incentive package. It is assumed this vested over two years. Around 1998, the Business Angel died and his shares are presumed to have been acquired (by some scheme) by the remaining shareholders. In 1999, it is presumed that a share option scheme for all employees was introduced.

By 2000, BioRobotics employed 65 people in the UK and USA, and were making a net profit of £2m on sales of £10m. 95% of sales were exports. The sale completed in early 2001.

BioRobotics was sold to a USA conglomerate for an undisclosed sum probably considerably in excess of £10m. All financial details of the sale are confidential.

Some of the founders have retired. The then recent PhD graduate is now Chair of various companies in the Cambridge area. The University did not have a shareholding.

Example: Active Hotels Limited

TIME

IDEA

Stage 1 → Stage 1

Stage 2 → Stage 2

Stage 3 → Stage 3 → Stage 3 → Stage 3

DILUTION

In 2000, two cousins in their early thirties decide to build a £100m business. One (Marketing Director) had worked for Acorn and then founded an educational software business with extensive selling experience to multiple sites (schools). The other (CEO) was working for BOC and had just obtained an MBA from INSEAD to add to his Cantab PhD.

They chose the Internet, of course, and travel as its the big growth area. Hotels are used to paying commission and, in 2000, very few small/medium sized hotels had computers or were on the web but knew they should be. The cousins would market their brand on heavily accessed partner websites such as those of major car rental companies. Active Hotels collected a commission on each reservation delivered. They found a low-cost simple terminal to allow hotels to access e-mails and then proceeded to do rigorous MBA style market and customer research. They also decided that by 2004 a large USA Inc would want to buy the brand!

With a carefully prepared focused plan, £405k of Business Angel finance was secured in two weeks from groups in Cambridge and London. Quickly the small terraced home was outgrown and the business grew. A further £3m raised over the next two years from VCTs. Experienced non-execs join Board. Interestingly, investors liked the team but some preferred to question the "Brains" and others the sucessful "Salesman". Most of the 150 staff were recruited from the Cambridge 'mafia', with good leavers keeping their shares and an involvement with the company.

Accumulated losses to 2002 were £3m, but in 2003 it was 'hockey stick' time - profits up at £2.2m, against 2002 losses of nearly £1m. In 2004, with the company profitable and winning the Deloitte prize for fastest growing company, some shareholders were keen to make it a long term play. But the cousins kept faith with their plan and sold out for £100m cash to a USA company. The VCTs made a ten fold return on their investment. Cousin PhD remains as CEO and the other is developing Sawston Hall into an Eco Hotel.

Plan for the future - build a £billion business in the same time as it will take to get the necessary permissions to renovate a Grade 1 luxury hotel!

Example: Cambridge Silicon Radio

TIME

IDEA

DILUTION

Stage 4

Stage 4

Stage 5

Stage 5

CASH OUT

Stage 6

The VCs' dream: a groomed spin-out from Cambridge Consultants. A team of 9 (of whom 3 were senior executives; including one world class expert in the technology) had been working together on "wireless" for many years and realised that their innovative chip design met the recently agreed Bluetooth short-range wireless standard. After nearly 2 years of planning, costing some £2m, the group spins-out straight into a VC-funded company. No business angels here or kitchen table! An experienced CEO starts three months later.

The experienced, committed founders were prepared to travel worldwide frequently to visit customers and suppliers and early on appointed a PR agency. Total focus on an IPO, with an ethos of 'Big company started Small'! Valuations increased all the time whilst raising a total of £50m before IPO.

Stage 1 Project funded by Cambridge Consultants, costing around £2m
Stage 2 Two local Cambridge VCs with domain experience and deep pockets, 3i and Amadeus, plus Gilde Investment Management. £6m in three tranches against milestones (would the chips work at the Bluetooth frequency?). Investment from team with shares split equally in the two groups.
Stage 3 Intel Ventures join - serious international business
Stage 4 A host of corporate VCs of companies in the Bluetooth consortium invest (Sony, Phillips, Compaq, ARM) each now keen to see Bluetooth in their products; names and phone numbers of key decision makers in their companies.
Stage 5 Corporate finance arms (Scottish Equity and Lloyds Development) of two banks invest giving due diligence, credibility and cash for the IPO
Stage 6 March 2004, floated on LSE, valued at £250m. Approx. £40m raised by the company and £40m of shares sold by existing shareholders.

However, is this entrepreneurship or incentivised management, a form of MBO? At flotation the founders and 200 staff only owned around 20% and most have stayed working with the company. Great for the VCs who have created a £250m company and paid out their funds. But it has not generated wealthy Angels who can recycle cash in the Cambridge cluster nor were Angels given the chance to invest, build wealth and keep the cycle moving. But what fantastic execution with total focus.

Supping with the Devil

As the example show, VC funding is by no means a pre-requisite for building a successful business

"Venture capital money is highly combustible, and it can either propel you to heights of unimaginable fame and glory (Google, EBAY, etc.)—or it can blow up in your face and destroy you (Kozmo, WebVan, etc.)."
Jason Calacanis of Weblogs, Inc

VCs invest in a particular type of company that fits their investment cycle. Many good companies are not suitable for VC investment

Even if an entrepreneur has a good team and good track record, it can still take 100 meetings with many VCs before securing term sheet

KISS principle (Keep it simple, stupid) always applies: legal complexities can cause misunderstanding, so use plain English and do not re-invent the wheel (BVCA model document project)

The Venture Capital Cycle

Sale of investments

10 yrs

OUT

7 yrs

Product sales

VC
10 year cycle

5% mgt. Fee

20% capital profit

Sale of company

Customers

Company
5 year cycle

Raise funds

Development

Invest

IN

0 yrs

2 yrs

Team

Term sheet

Research

Due diligence

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Advantages of working in a Cluster

Note that all of the examples above were Cambridge start-ups, and benefited from the special combination of expertise and capital which is only found in a 'cluster'

Being based in a cluster gives you an immediate headstart - be sure to exploit the insight and knowledge of those who've succeeded (or failed!) before you

Entrepreneur in a cluster

Customers
Global contacts
Consultants
Skilled staff
Manufacturers
Universities
Serial Entrepreneurs
Grants
Development agencies
Mentors
Academics
Business link
Venture capital
Patent agents
Business angels
Accountants
Banks
Solicitors

Final thoughts

- Be clear what you want to spend the money on. Investors often back specific projects rather than working capital
- Decide what type of partner you want: hands on or off, partners with relevant expertise, deep pockets, long or short term views etc. As a partner they can have a big influence over the way your business grows
- Anticipate the total amount you are likely to need to give the business a good chance of success. Unless you can get to breakeven within the limits of the first fundraising, you may well have to come back to the investors for more. If that becomes difficult the later investors can often more or less wipe out the early ones
- Think through future problems arising from the nature of the finance. If you accept a tranche of loanstock then the holders get their money back before any equity investors, perhaps deterring later equity investment
- Investors often expect the entrepreneurs to put additional money in each time there is a fund raising round. Make sure you will be able to continue to support your company yourself, or other investors may pass on future rounds
- Remember: a smaller percentage of a much bigger cake can be more valuable than a big percentage of a small cake. Always make sure you have raised enough money so that you don't risk running out and being on the back foot.

For further information on equity fingerprinting, visit www. yoef.com or email philip@baddeley.com