

**CHALMERS EXECUTIVE MASTERS PROGRAM IN
TECHNOLOGY MANAGEMENT**

Unilever Corporate Venturing 2002-2006.

By Matt Reed

Supervised by Anthony Quayle

**Report submitted as a dissertation to the Department of
Technology Management and Economics at Chalmers University
of Technology**

Year of presentation 2007

© Copyright Matt Reed 2006-2008

Contents

Acknowledgements	4
Abstract	5
1. Introduction and Scope	7
1.1 The late 1990's and the Path to Growth	7
1.2 The birth of Unilever Corporate Ventures Group	8
1.3 Methodology, literature models and design tools	10
Chapter 1 Exhibits	13
2. Corporate Venturing	15
2.1 The cyclical nature of Corporate Venture Funding	15
2.2 Managing internal corporate venture cycles	16
2.3 The future of Corporate Venturing	17
2.4 A typology of Corporate Ventures	18
2.5 The Väva model of Corporate venture group type	19
2.6 Visualisation, analysis and design tools	22
2.7 Worked example of tools – Volvo Technology Transfer AB	24
Chapter 2 Exhibits	27
3. The Foundation of the Unilever Corporate Ventures Group	35
3.1 Unilever service and Internet businesses	35
3.2 From isolated experiments to Corporate Venturing	38
3.3 Langholm Capital	39
3.4 Unilever Ventures	39
3.5 Unilever Technology Ventures	39
3.6 Unilever-Henley Review of Global Corporate Venture Groups	40
3.7 The Unilever CVG	40
Chapter 3 Exhibits	41
Chapter 4 - Unilever Technology Ventures	46
4.1 UTV structure and strategy	46
4.2 Way of working	47
4.3 UTV Investment Portfolio (August 2006)	48
4.4 The Perlegen Investment	52
4.5 Analysis of UTV	55
Chapter 4 Exhibits	57
Chapter 5 – Langholm Venture Partners	58
5.1 Langholm Strategy	58
5.2 The Structure and operation of Langholm Venture Partners	58
5.3 Langholm Investment Portfolio – July 2006	59
5.4 Analysis of Langholm	61

Chapter 5 Exhibits	62
Chapter 6 – Unilever Ventures	63
6.1 Unilever Ventures early investments	63
6.2 Unilever ventures Investment Portfolio (August 2006)	64
6.3 Unilever Ventures investment in the US – Brand New Brands	69
6.4 Analysis of Unilever Ventures	70
Chapter 6 Exhibits	74
Chapter 7 – Unilever Ventures Operations	78
7.1 Unilever Technology IP	78
7.2 UV Ideation process	80
7.3 Unilever Ventures Structural Profile	84
Chapter 7 Exhibits	86
Chapter 8 - Discussion	94
8.1 Unilever’s current business environment	94
8.2 The Unilever value chain	94
8.3 The application of existing literature models to Unilever situation	96
8.4 The development of the Väva model	99
8.5 The application of the Väva model to Unilever	100
8.6 The Väva model re-considered	101
8.7 The Unilever Ventures approach to Harvest venturing	104
8.8 Relation of the Väva model to other literature models	105
8.9 A Unilever Enabling Venture Fund	108
8.10 Evaluation of Unilever CVG operations 2002-2006	111
8.11 Conclusions and Recommendations	113
Chapter 8 Exhibits	115
References and Bibliography	120

Acknowledgements

I would like to thank both John Coombs and Nick Allen of Unilever Ventures and Unilever Corporate Ventures Group respectively for their enthusiasm for this project.

Anna Ohlsson of Unilever Ventures very kindly made available details of the Unilever Ventures Ideation process and its progress since 2002.

I would like to highlight the many stimulating and rigorous conversations I have had with Tony Quayle on the subject of this thesis and more broadly on the challenges faced by Unilever and Unilever R&D.

It should be noted that although I had access to confidential Unilever material during the preparation of this thesis I made a conscious decision in writing it up to limit the information contained in this written report to that which is, or has been, in the public domain.

Last, but not least, I would like to thank Dawn, Lorna and Ben for helping me focus on finishing this thesis during the Christmas holiday 2006 and their inspiration.

Abstract

During the late 1990's a number of business units in Unilever launched new service oriented businesses or radical brand extensions. The performance of these "orphan ventures" was mixed and Unilever's main board concluded that it needed to establish a new activity that specialised in the building of early stage businesses.

The Unilever Corporate Ventures Group (CVG) was founded in September 2002 with a total of €170 million. It was structured into 3 separate funds; Langholm had €100M to invest in mid-market European consumer-facing businesses. Unilever Ventures had €40 million for business development of early stage business ideas. Unilever Technology Ventures had €30M to invest in technology-based funds and start-up companies. Unilever had wisely learnt from the experiences of previous generations of Corporate Venture investing. At the inception of the CVG the Unilever Executive made it clear there would be three separate funds, each with distinct management, offices, reward structures and strategic aims. These decisions were communicated clearly to Unilever shareholders.

Now after four years of operation the activities of the Unilever CVG are compared with a number of literature models of Corporate Venturing. This comparison has provided a framework for a broader reflection on the phenomena of Corporate Venturing. As part of this process a model was sought that was simultaneously Explanatory, Comprehensive and Emergent. Two existing literature approaches were woven together to make the Väva model. This model is used as the basis of a number of simple analysis, visualisation and design tools. The tools are then illustrated in action on the three Unilever funds, with a particular emphasis on Unilever Ventures.

The conclusion of this analysis is that the strategic aims and profile of the three Unilever funds are not only close to the "ideal" for each fund type but also that the three Unilever funds continue to be well separated and distinct. In addition some specific proposals are made about each of the existing funds.

Finally an outline proposal is made to merge the Väva model developed in this thesis with a model of corporate venturing proposed by Chesbrough (2002). This merged model suggests that Unilever could consolidate its successful use of corporate venturing to develop two new funds;

(1) Establish an "Enabling Venturing" fund that would allow Unilever to make investments to help build the new "Vitality" ingredient, product, supply chain and business model ecosystem that it needs to engage in to fully exploit the Vitality mission. These investments should be under the close guidance of the most senior executives in each product category/brand and this approach would represent "Open Innovation" for Unilever at the level of its strategic business units.

(2) In addition Unilever could found an “Innovation Venturing” activity similar in scope and intent as the Shell GameChanger program. This would allow Unilever to more successfully exploit the creative energies of its most entrepreneurial R&D in the pursuit of breakthrough innovations for future Unilever products, technologies and businesses.

In conclusion, Unilever started well in 2002 when it set up three structurally independent funds with distinct and clearly communicated strategic goals;

- Unilever Ventures was set up as a Harvest venturing activity.
- Unilever Technology Ventures was set up as a small technology focused Ecosystem venture unit.
- Langholm was established as a Private Equity venture fund.

By December 2006 it is clear that the original architects and current leadership of Unilever Corporate venturing activities have successfully built a highly appropriate and professional approach to Venturing that meets the needs of, and respects the historical strengths of, Unilever as a corporation. It would be a shame if this fascinating and successful move by Unilever into Corporate Venturing where now to be stopped or reduced. Hopefully the recent successful IPO of Just Retirement Ltd will give fresh impetus to the Unilever Executive to both reinvest in its ongoing Corporate Venturing and to consider developing the new opportunities highlighted in this thesis for Unilever to expand the scope and scale of its corporate venturing Group.

Matt Reed 7/2/2007

I. Introduction and Scope

Unilever was created in 1929 as a merger of the British soap manufacturer Lever Brothers and the Dutch foods company Margarine Unie. Both companies had previously built significant consumer businesses based on conversion of a shared raw material (palm oil) and the merger allowed the combined company increased negotiating power, with both the raw materials producers and wholesalers of the finished products. The dual nationality structure of Unilever was retained within the formal corporate structure of the company and is even retained to this day. The company is composed of twin holding companies, Unilever PLC and Unilever NV (PLC is capitalised in pounds sterling and NV in Euros). Although the companies have different shareholders they have identical boards of directors. In this thesis the dual parentage of Unilever is not relevant and is therefore not explored further, but for readers who want to pursue this, or get a more general overview of Unilever's most recent history they are recommended to the very readable history of Unilever recently published by Jones (2005).

Unilever has historically grown by significant mergers and acquisitions, beginning in the early 20's with the huge UAC (a wide range of West African interests) and latterly a merger in 2000 with Bestfoods. In fact Jones (2005) asserts that one of the core competencies that Unilever as a corporation has developed is the ability to acquire, and then professionally "Unileverise", smaller companies. This process has allowed Unilever to take a number of previously local businesses and graft them onto the financial, supply chain and brand building expertise of its global organisation. Typically, Unilever would take a business which was successful and proven in a lead market and then accelerate it to become a global branded goods business e.g. Chesebrough-Ponds, Elida Gibbs, Faberge, Cif, Brooke Bond, Knorr, Hellmans. In fact it could be argued that one of Unilever's chief competitive advantages over its competitors from the 1960's through to the 1980's was this ability to acquire and internalise brands and technologies from other companies. As a more recent example see the case study by Thompson (2002) who gives a very detailed description of the acquisition by Unilever of Slim-Fast, Ben & Jerry's and BestFoods.

Unilever not only has a rich history, it remains today a fascinating company. In financial terms it has a significant turnover which is consistently in excess of \$40 billion per annum. However, although Unilever is virtually unknown as a company and its corporate name and logo are largely anonymous its brands are ubiquitous. For example, it is claimed that one can find a Unilever brand in one out of every two households in the world. If one considers that Becel, Dove, Flora, Persil, Impulse, Axe, Sunsilk, Omo, Knorr and Surf are just 10 out of the top 400 brands that it owns then this is quite believable (See Exhibit I.1 for a summary of Unilever product Categories in 2000). In short Unilever is one of the world's top three food firms (after Nestle and Kraft) and the world's second largest packaged consumer goods company (after Procter & Gamble).

1.1 The late 1990's and the Path to growth

Over the past 75 years Unilever has operated successfully in some of the most competitive and fast moving markets in the world and has had a long history of profitable global operations. However, in spite of this pedigree (and in common with other major branded FMCG corporations) by the 1990's it was showing signs of pressure from a number of directions (including supermarket own brands and low price retailers). During the 1990s, Unilever's sales grew at an average annual rate of 2 percent, well beneath management's target rate of 5–6 percent and below the 3.1 percent achieved by Nestlé and the 4.9 percent achieved by Procter & Gamble. Furthermore, the share price of Unilever PLC had lagged the FTSE 100 Index by almost 40 percent since 1995. In terms of sales per employee Unilever had \$160,000 in 2000, P&G \$360,000, Nestlé \$205,000, Kellogg's \$458,000 and General Mills \$605,000.

By 2000 Unilever had come to symbolize what a Business Week article of June 11th 2001 called "the lumbering ways of European conglomerates". In February 2000, following several years of sluggish performance (Exhibit 1.2) the Executive of Unilever announced a new five-year "Path to Growth" strategy. The aim was to rejuvenate the company and restructure its portfolio of food, home, and personal care businesses. The announcement was preceded by a significant decline in Unilever PLC's stock price from a peak of 690 pence in June 1998 to 341 pence just prior to the announcement.

The Path to Growth involved a reduction of the company's brand portfolio, the concentrating of R&D and advertising resource onto the company's leading brands, divesting a number of underperforming brands and businesses, boosting product innovation, making new acquisitions, and achieving faster growth in sales and earnings. Although the 5 year plan was expected to cost the company about 5 billion euros, senior management predicted that by 2004 the company would have an underlying sales growth of between 5 and 6 percent annually with a profit margin of over 16 percent. These, they claimed, would provide shareholders double-digit growth in earnings per share.

The Path to Growth prompted vigorous activity on behalf of Unilever. By March 2001 it had made 20 new acquisitions worldwide. These included the US focused Slim-Fast diet foods business, the ultra-premium Vermont based ice-cream brand Ben & Jerry's and the huge US based food company Bestfoods. This was a huge takeover for Unilever; Bestfoods had sales in 1999 of \$8.6 billion across 110 countries and had a number of major brands including Hellmann's mayonnaise, Skippy peanut butter, Mazola corn oil and margarines and Knorr packaged soups and bouillons. Unilever acquired Best Foods for \$24 billion, Ben & Jerry's for \$223 million and Slim-Fast for \$2.3 billion. In addition to investments there were significant cost saving exercises. More than one hundred of Unilever's 350 factories in 90 countries were sold or closed and the work force was reduced by more than 25,000.

1.2 The Birth of Unilever Corporate Ventures Group

In addition to more traditional corporate acquisitions and mergers, Unilever also spent the late 1990's and early 2000's developing a range of new service oriented businesses. These were based on radical brand extension, partnership or outright business creation. Examples of the approach include MyHome PLC, Ch'a tea shops, Lynx Barbershops and a \$100M investment in e-commerce initiatives such as Wowgo (a European Digital Community for Teen Girls with Investment from Unilever and Durlacher Corporation) and iVillage (a US website for women). On the basis of these experiments Unilever senior management concluded that building early stage and new businesses from scratch, rather than by acquisition, has a number of specific issues. The board undertook a strategic review and decided that Unilever was right to use new business systems and more innovative opportunities as a contributor to future growth, but in order to do so it needed to develop a conscious corporate venturing model, rather than continue to create isolated experimental operations in the core business.

Unilever's corporate venturing activity was formally founded in September 2002 when it was announced that it was to invest €170 million in building business opportunities, close to its core business interests in Foods and Home and Personal Care. This announcement saw the creation of 3 separate funds, Langholm, Unilever Technology ventures (UTV) and Unilever Ventures (UV). Unilever consciously used the organisational device of 3 separate funds to try and signal that there was no confusion in roles within a single corporate venturing group.

Unilever took the position as sponsor and lead investor (about €100 million) in the newly created Langholm Capital Partners Fund, which was set up to target investments in mid-market European consumer-facing businesses.

Unilever Ventures (UV) had an initial investment of up to €40 million over three years, to act as an early stage business development fund, supporting early stage business ideas. Investment in a particular business was expected to range between €200,000 and €3 million over the life of the investment. It was expected that this funding would be matched or exceeded by external institutional funding.

Unilever Technology ventures (UTV) was also set up with €30 million over three years. UTV was initially based in Santa Barbara, California, and was set up to identify and invest in technology-based funds and start-up companies. Its aim was to enhance the scope and quality of Unilever's own R&D activities by exploiting new technologies. Areas of investment were expected to include genomics, advanced bioscience, advanced materials science and nanotechnology.

In 2002 the Unilever chairman, Anthony Burgmans, said; "We have identified substantial long-term growth opportunities in areas adjacent to our businesses, but recognised we need specialist expertise in developing their full potential. In combining our business

knowledge and marketing experience with the undoubted expertise available in venture capital and in private equity, we have a unique partnership. This enterprising approach – reflecting the new culture in Unilever - will bring ideas and services that will create new "connections" with consumers world wide."

Unilever set up its Corporate Venturing activities in 2002 with the objectives of:

- creating options for growth, by either taking stakes in interesting companies or creating new businesses, which could take Unilever or its brands into new areas
- accessing emerging technology by investing in technology start-ups
- exploiting Unilever IP by creating new businesses for spin-out

This thesis describes how Unilever set up its Corporate Venture Capital (CVC) activity and how it has operated it over the past 4 years. For Unilever this is a new departure and in many ways signals the end of an era in its corporate history. Its three funds, UV, UTV and Langholm can also be seen as one of the legacies of the Path to Growth first announced in February 2000.

The seeds of the Unilever Corporate venture activity were sown in the late 1990's and early 2000's. Each of the three funds has been in serious operations for at least 4 years and a significant number of investments have been made. If one had expected early teething problems in the operations of its funds, then one could also expect that these would be ironed out by now. It is therefore timely to evaluate the overall shape of the Unilever Corporate venturing activity and also to compare their operations and strategy with some of the current thinking on Corporate Venturing available in the literature.

1.3 Methodology, literature models and design tools

As far as possible the research methodology adopted in writing this thesis has been modelled on the approach used in those Natural Sciences that deal with the results of historical effects (such as geology and palaeontology). This approach was pioneered by Charles Lyell and Charles Darwin and has been extensively described by the American evolutionist Stephen Jay Gould. Gould describes the problem as follows.

“The special problems of historical science (as contrasted with, for example, experimental physics) are many, but one stands out prominently: Science must identify processes that yield observed results. The results of history lie strewn around us, but we cannot, in principle, directly observe the processes that produced them. How then can we be scientific about the past?

We must develop criteria for inferring the processes we cannot see from results that have been preserved”, Gould (1983).

As Gould notes this is science unlike that of the Physics lab. Interestingly it is also quite close in philosophy with the way that mathematicians carry out their research, i.e. they perform “quasi-experiments” to derive mathematical theories (Polya 1954 and in principle it seems a similar approach can be applied to business studies and economics (for an entertaining example of this see the work of Levitt & Dubner 2006).

In this mode of reasoning the historical context of a phenomenon has to be unearthed. For this thesis that means that it is vital to describe the period leading up to the establishment of the Unilever Corporate Venturing activity as well as current activities. In fact one would expect that many of the distinctive approaches that Unilever has to investing Venture funds will bear the hallmarks of the longer term history of the company, the immediate pre-Ventures history, Unilever culture and the personalities of the funds architects and current leadership. Given this historical contingency it is inevitable that Unilever’s venturing activities will be unique. The key question to be answered then is **not**, “is the Unilever Corporate venture activity best in class?”, but rather “is the Unilever Corporate venture activity best for Unilever?”

Given that the historical contingency of Unilever is a key determinant of the study in this thesis the following approach has been applied (intuitively at first, consciously later). Informally choose a literature model that somehow seems internally consistent and relevant to some aspect of the Unilever Corporate Venturing experience. Try to understand the model sufficiently well that it can be applied as fairly as possible to the Unilever situation. Consider this attempted application as an “experiment” and ask the following questions. Does the model fit the data? Does it provide an insight new to the author? Do new questions or lines of inquiry naturally arise as a consequence of the experiment? If it fits, so what? Could a more integrated model, relevant to Unilever, be derived from the proposed one and if so how?

This iterative procedure is typical of historical science. Unlike experimental science it is unlikely that even a well posed question will result in an unequivocal answer. Therefore, in this thesis there is not a single guiding theory, but rather an exploration of a series of mental models (informally a model can be defined as, “more than a hunch but less than a theory”). A good model is able to meet the following three *desiderata*,

- (a) The model is able to explain many, if not all, of the current empirical observations (Explanatory).
- (b) The model covers the whole space of the possible theoretical “states” of the studied phenomena (Comprehensive) and
- (c) The model is capable of generating insights and opportunities for action - i.e. more comes out of the model than was put into it (Emergent).

As the learning from each sequential exploration was acquired the preceding experiments were re-visited and models previously discarded re-considered. Sometimes the older material become more interesting or some component was merged with other aspects of the currently explored model. The aim then is to obtain via experiment and

reflection a model of corporate venture activities that meets the above desiderata and has real relevance for Unilever. And in addition the research reflects the quote of Gould above and seeks to “identify processes that yield observed results”.

It should be noted that in conducting the thesis research a conscious decision was made to avoid undertaking an extensive literature search. There are plenty of high quality overviews available (including in particular the 4 references below) and nothing would be gained by re-hashing these references. The reader interested in a comprehensive reading list of the area is directed to the reference sections of the papers below. The papers were chosen for further study in this thesis as they appear to be highly pertinent to the corporate venturing activity that Unilever is involved with. Extensive use has been made of the following 4 papers;

Managing internal Corporate Venturing cycles. Burgelman, R.A. and Välikangas, L. (2005). *MIT Sloan Management Review*. Vol **46** (4).

The Future of Corporate Venturing. Campbell, A., Birkinshaw, J., Morrison, A. and van Basten Batenburg, R. (2003). *MIT Sloan Management Review* Vol **45** (1).

A typology of corporate venture units: Exploration, exploitation and locus of opportunity. Birkinshaw, J. and Hill, S. (2005). London Business School Working Paper SIM36.

Making sense of Corporate Venture Capital. Chesbrough, H. (2002). *Harvard Business Review*, Vol **80** (3) pp 90-99.

I owe a debt of gratitude to the authors of the above 4 papers as the models they propose were both coherent and stimulating. They provide the basic frameworks for following the research methodology of the historical sciences and represent distilled learning of about 30 years of literature work on corporate venturing. I have no idea if they are the “best” models available. They are certainly “good enough” to help build a model of Corporate Venturing that is simultaneously Explanatory, Comprehensive and Emergent. On the basis of this one could expect to a number of key insights and opportunities. In particular the chance to obtain unexpected insights and a coherent set of visualisation, analysis and design tools.

Exhibit I.1 – Summary of Unilever Product Category structure in 2000

Product Category	Typical Brands	Comments
FOODS GROUP		
Margarines, spreads and cooking Oils	I Can't Believe Its Not Butter, Country Crock, Imperial, Flora/Becel, Bertolli, Take Control	World number 1. Sales in more than 50 countries.
Frozen Foods	Birds Eye, Iglo, Findus, Gortons, Quattro, Stelle	Unilever was a technical pioneer in this category; particularly with fish and peas.
Ice-cream and frozen novelties	Breyers, Magnum, Solero, Walls, Langnese, Ola, Algida, Cornetto, Klondike, Popsicle, Good Humours	Sales in more than 90 countries.
Tea based beverages	Lipton, Lipton-Ice, Brooke-Bond PG, Beseda.	Lipton worlds number 1. Unilever has extensive tea plantations in India, Tanzania and Kenya.
Culinary Products	Ragu, Colmans mustard, Amora, Maille, Wishbone, Calve, Sizzle 7 Stir, Oxo, Batchelors dry soup, Cup-a-soup.	A number of soup businesses sold to Campbell in Jan 2001 for 1 Bn Euros.
Desserts	Carte d'Or, Vienetta.	
Bakery Products	Bread and Confectionary	Operations in 13 countries. Sales 900M Euros.
HOME & PERSONAL CARE GROUP		
Prestige Fragrances	Calvin Klein, Chloe, Cerrutti, Valentino, Lagerfeld, Nautica, Elizabeth Taylor, White Shoulders, Vera Wang.	One of the largest fragrance businesses in the world.
Deodorants and Toiletry	Rexona/Sure, Axe/Lynx,	Rexona/Sure worlds

	Dove, Degree, Brut, Suave, Impulse.	number one deo brand.
Hair Care	ThermaSilk, Sunsilk, Mods Hair, Finesse, Suave, Caress, Dove, Salon Selectives, Timotei, Organics, AquaNet, Rave.	
Soaps, Lotions & Skin Care	Dove, Lux, Degree, Caress, Lever 2000, Lifebuoy, Shield, Ponds, Vaseline, Faire & Lovely, Hazeline, Q-tips.	Dove was world number 1 soap brand.
Laundry and Fabric conditioning.	Wisk, Omo, Surf, Ala, Persil, All, Skip, Brilhante, Snuggle, Robijn, Cajoline, Comfort.	Snuggle number 2 fabric conditioner in US, sales \$350M.
Household care & Cleaning	Domestos, Cif, Sunlight, Solvol.	Domestos in 43 countries and Cif in 53 countries.
Diagnostics.	ClearBlue Pregnancy test.	
Professional cleaning	Diversey-Lever	

Table derived from Thompson (2002) and other internet sources.

Exhibit 1.2 –Selected figures showing financial performance of Unilever 1995-2005

Year	Turnover (€Millions)	Underlying Sales Growth (percent)	Closing Net Funds (€Millions)
1995	36429	3.7	-2134
1996	39980	4	-2275
1997	43099	4.1	-4821
1998	40639	5	-5778
1999	41262	2.1	684
2000	48066	1.6	-26468
2001	52206	4	-23199
2002	48760	4.2	-16966
2003	42942	1.5	-12555
2004	38566	0.4	-11185
2005	39672	0.7	-10502

Chapter 2 - Corporate Venturing

In one form or another Corporate Venturing has become an important component of the everyday business of hundreds of large corporations. For example, in the 1990s, more than three-quarters of Fortune 100 and FTSE 100 companies set up corporate venturing units as part of their strategies for growth. Despite the ups and downs of the economy since then and an inherent cyclical variation in both corporate and private venture funds, there are still a substantial number of top companies that undertake some venturing activity.

One of the issues that arises on first encountering Corporate Venturing as a business process is the fact that the term “Corporate Venturing” has been applied to such a broad set of business activities that it can appear virtually meaningless. Certainly, there are numerous activities that corporations carry out that are lumped together by the senior management of the corporations, or academics, under the heading of “Corporate Venturing”. For example, according to Chesbrough and Tucci (2002) these include, but are not limited to, the following;

- An investment made in an internal corporate division
- An investment made for financial reasons alone
- Mergers and acquisitions
- Strategic alliances
- Internal business development funds
- Investment offerings from financial services companies
- Non-profit activity

Since the 1960's CVC, as defined above, has been a permanent, but fluctuating, facet of both large corporation activity and the venture capital scene. However, in more recent years the percentage of total venture capital dollars coming from Corporate Venture funds has increased significantly. According to Venture Economics and the National Venture Capital Association, in the United States in 1994, only 2% of venture capital investments were corporate venture capital. By 2000, corporate venture capital accounted for 17%, nearly \$20 billion.

2.1 The cyclical nature of Corporate Venture Funding

Although CVC has been around for more than 45 years the amount of CVC available for investment at any one time has been extremely variable. In fact, not only is the total amount variable, it also seems to have a cyclical nature. This is well illustrated in Exhibit 2.1, which shows the total CVC investment for the period 1981-2001. If a plot of the

number of corporations having an active CVC program were to be plotted over the same time scale then a similar pattern would be found.

The cyclical nature of CVC has prompted significant research activity over the past 30 years. Further detail and discussion of the periodic nature of CVC can be found in Block & Macmillan (1993), Chesbrough (2000), Gompers & Lerner (1998), Ginsberg (2001) and Chesbrough & Tucci (2002). Although the cycle length is not exactly periodic Block and Macmillan (1993) estimate that the cycle timescale of CVC activity is about ten years.

There appear to be many factors that influence both the cyclical variation of available CVC funds and the cycle length. Recently Chesbrough & Tucci (2002) have presented an analysis that suggests that the cycle of a corporate's entry and exit into CV activities is strongly correlated with changes in its R&D expenditure. This perhaps suggests that CVC is seen by CEO's as an innovation activity related closely to more traditional forms of innovation such as internal R&D expenditure.

The big CVC funds have impressive investment portfolios. For example, from 1995 to 2000, General Electric (GE) Equity, a business unit within GE Capital, invested nearly \$4 billion in 300 businesses. Of these investments 60% represent opportunities that emerged outside GE (and of these two-thirds are companies that sell products and services to GE). Currently GE Equity invests between \$1.2 billion and \$1.5 billion annually in ventures. Between 1998 and 2001 Nortel invested in approximately 100 external start-ups, acquiring from 5 to 20% of equity in each of the ventures. In 1998 alone Intel invested in more than 50 new companies with a total value of \$500 million.

Because the CVC phenomena is now well established there are numerous academic studies available on various aspects of CV investment. One of the more interesting developments in the literature is an ongoing debate concerning the factors that influence the success of a CVC funded venture. For example, Parhankangas and Arenius (2003) attempt to develop a taxonomy for the range of corporate spin-off formats that are possible and also to statistically analyse the degree of complementarity of the resource base of the parent firm relative to its spin-off, the intensity of collaboration between the parent and the spin-off, and the dependence of the spin-off firm on the resources provided by the parent organization.

2.2 Managing internal Corporate Venturing cycles – Burgelman & Välikangas (2005)

The authors begin their analysis by summarising, briefly, 30 years of research on Corporate venturing. This summary reveals that, "many major corporations experience a strange cyclicity in their Internal Corporate Venture activity". This paper then seeks to describe a simple model that can explain the cyclical variation in CV activities at the level of a corporation or conglomerate. The research evidence called upon by the authors

suggests that the cyclical nature applies both within and across corporations and is also not fully accounted for by “fashion”, cross industry trends or macroeconomics.

The authors revisit a taxonomy that they had previously proposed in Burgelman (1983). This model differentiates between four generic CV approaches, which one might almost term “pathologies”. The authors argue that at any particular stage in the evolution of a corporation and its interaction with the market there will be a balance between the prospects of the mainstream business and the availability of uncommitted financial resources. Differentiating along these two dimensions into sufficient and insufficient (prospects) and available and unavailable (uncommitted resources) gives rise to the 2 x 2 model shown in Exhibit 2.2.

Although this is a simple abstraction of the reality of a corporation it does provide an interesting conceptual framework for assessing why a particular corporation is either embarking upon, reaping the rewards of, or closing down a CV activity. Furthermore, the authors make the point that unless a corporation is aware of the drivers underlying these pathologies (and their associated pitfalls) it is likely to blunder its way around this landscape, losing valuable learnings from previous cycles of CV and seeing CV as alien to their corporations culture and history.

Interestingly, the authors take a position that it is almost inevitable, that in a large corporation there will always be a small number of senior managers and other employees exploring new business opportunities that are outside the scope of the currently understood corporate strategy. In fact they state that, “internal venturing activity, may very well be an irrepressible force in all established companies”. This assertion is backed up by a number of references and suggests that even corporations who do not have an active and conscious policy of CV investment will be spending some shareholder money on activities alongside, or even at a tangent to, the top down strategy of the corporation. The authors contend that the strategic management of CV activities is therefore a skillbase that all large corporations need to develop or acquire, and that those charged with managing the CV activities become acutely aware of where in their own CV cycle they are operating.

2.3 The future of Corporate Venturing – Campbell, Birkinshaw, Morrison & van Basten Batenburg (2003)

This paper provides an attempt to classify a number of sub-categories of corporate venturing. The research brings together existing literature work and fresh questionnaire based activity by the authors. In summary they argue that there are five generic sub-categories of Corporate Venturing. These are Ecosystem, Innovation, Harvest, Private-Equity and New-Leg. The authors argue that only the first four of these are sustainable, and therefore strategically valid, models of CV activity. Furthermore, they argue that the biggest cause of CV failure was “setting up venturing units with mixed objectives and mixed-up business models”. Exhibit 2.3 shows the basic scheme of their model.

Campbell *et al.* (2003) adopt a position that New Leg venturing is not sustainable and is almost never successful. They acknowledge that this is contentious. The authors define a New-Leg venture as a significant, permanent new business that is profitable, part of the parent and either 20 per cent of sales of the parent or having an annual turnover of at least \$1 billion. In a related piece of work, Campbell & Birkinshaw (2004b), they claim that, “even when the research was extended back to venturing units set up in the 1970s or 1980s, none of them spawned a new business that passed our significance and permanence tests”.

The remainder of their taxonomy is useful for describing some different CV approaches that exist and are clearly distinct in focus, funding, management and success criteria. Their main message is that having mixed venturing models within a single organisation is the single biggest cause of failure for the CV organisations they survey in their research. They use Nokia Ventures Organisation (NVO) as a best in class example of separation of activities; New Growth Business is an innovation venturing outfit that seeks to supplement existing Nokia R&D activity, Nokia Venture Partners is a private equity venturing outfit focusing on financial return and Nokia Early Stage Technology Unit is a Harvest venturing outfit that invests in early stage Nokia technologies that mainly end up being spun out.

The model described by Campbell *et al.* (2003) is a classic example of an “Explanatory” model. The prose descriptions of the four sustainable CV types are compelling distillations of what Campbell *et al.* had observed from their analysis of the literature and an analysis of 95 CV groups. Although the prose descriptions provide motivating verbal descriptions of what each CV type should do, its approach and potential pitfalls, it cannot convince the reader that it covers all of the state space. Why only 4 possible types?

2.4 A typology of corporate ventures – Birkinshaw and Hill (2005)

This is a recent working paper from the London Business School. In it the authors try and work from a theoretical perspective to describe a 2 x 2 model for corporate venturing units. The authors stress that many previous papers had proposed models that are taxonomies (empirically derived) rather than typologies (theoretically derived). They also make the pertinent point that many previous schemas haven’t been validated by decent sized samples of corporate venture units.

The authors propose that there are two theoretically justified dimensions on which corporate venture units can be discriminated. These dimensions are ‘locus of opportunity’ and ‘strategic logic’. These theoretical constructs are well known in the management theory literature. The locus of opportunity describes, “whether or not new venture ideas lie inside or outside the formal boundaries of the firm” and the authors explicitly note that in the modern framework of Open Innovation proposed by Chesbrough (2003), these are may become equally likely. The strategic logic axis of their

model relates to two broad strategies a corporation can adopt, namely exploration or exploitation (March 1991). Exploration involves, “experimentation with new alternatives” and exploitation is the use of and extension of existing organisational competencies, business models and technologies. Their schema is presented in Exhibit 2.4. The four CV types that this model describes are as follows;

Internal Explorer – invests in opportunities that arise within the parent corporation, nurtures them to become sources of growth.

Internal Exploiter – generates cash from un-used or underused company assets (essentially the same as harvest venturing above).

External explorer – invests in small firms and entrepreneurs outside company, often seen as a window on new technology (essentially the same as ecosystem venturing above).

External exploiter – external investments made for financial return, belief that this type can leverage existing company assets such as industry knowledge, brands and relationships (essentially the same as private-equity venturing above).

For example, the Internal Explorer type is a very well known form of “Corporate Venturing” e.g. a New venture Division (Burgelman 1983) or Internal Venturing unit (Sykes 1986). The emphasis is on exploration of an opportunity and although often managed as a separate unit it will have close similarities with traditional R&D. The Shell GameChanger is an excellent example of this approach (Verloop 2004). Between 1996 and 2002 they had screened over 400 ideas from within Shell, from which they commercialised 32 technologies and started 3 new businesses.

The authors construct a number of interesting hypotheses that relate to how well corporate venture units link their strategic objectives, as defined in the 2 x 2 model above, and the structural profile of the unit. The authors argue that the internal structures and management systems used by a venture unit will be determined by the strategic role of the group and that performance will be higher when these elements are aligned to the strategic goals. The authors also propose that exploitation type corporate venture units survive longer than exploration-oriented units. The authors test these hypotheses on data from 95 corporate venture units and find support for their hypotheses.

This model has the basis to be comprehensive – it attempts to show why only 4 types are possible by describing two conceptual axes that are essentially orthogonal and cover the state space of sustainable CV groups in a convincing manner. It has some explanatory aspects, but crucially the names of CV types proposed by Birkinshaw & Hill are clumsy and ill suited for communication purposes. The model has potential to be emergent due to the number of very interesting metrics built into the model. It will be the major building block for the theoretical work of this thesis.

2.5 The Väva model of corporate venture group type

In the opinion of this author the papers by Campbell *et al.* (2003) and Birkinshaw & Hill (2005) represent two of the most interesting papers in the academic literature dealing with Corporate Venturing. However, the intimate combination of the two papers could be even more powerful than the separate papers. In the following I propose to ‘weave’ the two papers together. This should be easy to do; the papers have a common author (Birkinshaw) and analyse exactly the same data set of 95 corporate venture groups.

Both papers propose that there are four main types of CV group. Campbell *et al.* provide taxonomic descriptions of four venture group types with no overriding theoretical rationale. Birkinshaw & Hill on the other hand provide a theoretical framework and derive a typology. On reflection one can show that both papers arrive at the same place and there is a one-to-one correspondence between the CV groups types described in each paper (see table below).

Campbell <i>et al.</i> CV Type	Birkinshaw & Hill CV Type
Harvest	Internal Exploiter
Innovation	Internal Explorer
Ecosystem	External Explorer
Private Equity	External Exploiter

What Birkinshaw & Hill gain in theoretical soundness they lose in a clumsiness of description. In fact the models can easily be woven together, picking the best aspect of each to make a more comprehensive model. To avoid clumsy expression I will not refer to this model as “the combined Campbell-Birkinshaw model” but rather as the Väva model of CV group types (this Swedish word for weave indicates that the model has been “formed by combining various elements or details into a connected whole”).

The Väva model thus suggests that there is a solid link between a theoretically based *typology* and an empirical observed *taxonomy* (Exhibit 2.5). The model thus potentially provides features of an Explanatory and Comprehensive nature.

The qualitative prose descriptions given by Campbell *et al.* (Innovation, Harvest, Private Equity, and Ecosystem) have an attractive Explanatory property, they can account for many of the examples of CV group one would want to study (and in the first instance the Unilever CV groups). However, the prose descriptions give no indication of why there are only four or how different and spread out these four types really are. When the two strategic axes used by Birkinshaw & Hill are employed, it starts to become clearer that the axes are rather binary in structure.

Internal-External.

Even though there is an increasing adoption of “Open Innovation” approaches in many R&D organisations the fact remains that there is no smooth transition between operating internally and externally to the corporation. The reality of corporate life is that the legal, IPR and commercial barriers to engaging in an external activity are *a/ways* of a different nature than the corresponding internal barriers. Thus, following an internal route will require completely different processes to be used, people to be influenced and risks to be managed. Operating externally requires that a stakeholder (or budget holder) has made a positive decision to make a legally binding contractual relationship with an external party.

Exploit-Explore

Likewise, there is no smooth transition between commercial exploration and exploitation activities. Exploitation requires the corporation to focus down on a single (or small number) of costly activities. This focusing, explicitly involves the rejection of numerous possibilities in the pursuit of an exploitation route. Going to market, in whatever way that manifests itself, requires disciplined and focused action. Exploration on the other hand requires the imaginative expansion of the number of possibilities open to a corporation. It is an activity that will inevitably be seen as a “waste” of resources and time, some of this will deliver and some will be spent on dead ends.

If there is no continuum along either of these axes and furthermore they are binary in character it follows logically that one must obtain four and only four discrete states. This explains why the four CV group types described by Birkinshaw & Hill and Campbell *et al* can be combined into a model containing mutually exclusive and comprehensive “states”.

Birkinshaw & Hill extend their analysis beyond a theory. The authors claim, and show data analysis to support the claim, that once a particular type of CV activity is chosen by a corporation this activity will increase its probability of success if it adopts the mode of operation that is most closely associated with this activity. Although this appears to be simply the application of common sense there are many examples of CV units that have either started with the wrong mode of operation or the mode has changed over time. Specifically Birkinshaw & Hill hypothesise that the most successful CV units will be those which have a high degree of concordance between strategic objectives (as defined in their model) and its structural profile.

In order to test these hypotheses the authors develop two sets of metrics. The first has six parameters describing the strategic aims of a corporate venture group (Exhibit 2.6); the second has eight parameters that define a structural profile (governance structure, activities, network of relationship and managements systems, see Exhibit 2.7). Furthermore, for each of the four venture unit types they have used expert raters to asses the importance of each strategic and structural metric for that CV type.

This rater data for the ideal types is shown in Table 2 in Birkinshaw & Hill and graphically in Exhibits 2.8-2.11.

Exhibit 2.8 shows the six dimensional strategic profile metric. Unfortunately it is difficult to display more than 3 dimensions easily on paper so here the six dimensions are shown side by side for each of the four Väva venture group types. In each case the integer count rating derived from the Birkinshaw & Hill table is normalised to a 0-1.0 scale so that they can all be represented on the same scale. The visualisation is sufficient to indicate that the four types are quite distinct. Later in this chapter numerical measures based on these visualisations will be derived and applied.

Exhibit 2.9 shows the axes used to display the eight dimensional structural profile metric. In each case the integer count rating derived from the Birkinshaw & Hill table is normalised to a 0-1.0 scale so that they can all be represented on the same scale. In addition each of the Väva structural profiles is shown. The visualisation shows that the four types are distinct.

Because the six dimensions of the strategic profile are difficult to visualise a number of pairs of dimensions are plotted in two dimensions in Exhibit 2.10. In these visualisations four of the dimensions are plotted versus a common dimension of “Financial Gain”. In each case the positions of each of the Väva types are shown as a large circle.

2.6 Visualisation, analysis and design tools

Using the detailed framework developed in the papers by Birkinshaw & Hill and Campbell *et al.* an analysis and design tool is proposed below which has the following steps;

(1) Administer a questionnaire based on that of Birkinshaw & Hill to elucidate the strategic and structural elements required of the proposed or analysed CV group. These questionnaire data can be used to construct normalised strategic and structural profiles.

(2) The empirical data obtained can be normalised to give a strategic profile \mathbf{Q} composed of 6 numbers ranging between 0.0 and 1.0. This strategic profile is a vector quantity comprising 6 independent dimensions scaled from 0 to 1.0.

For example, $\mathbf{Q} = \{Q_1, Q_2, Q_3, Q_4, Q_5, Q_6\}$,

where

Q_1 = Focus on Internal Ideas

Q_2 = Focus on external Ideas

Q_3 = Importance of Organic Growth

Q_4 = Importance of Spin-Outs

Q_5 = Importance of learning from Spin-Outs

Q_6 = Importance of financial gain from Spin-Outs

This data can then be visualised in the same manner as Exhibit 2.8. Immediately the strategic profile of \mathbf{Q} can now be compared graphically with those of the four ideal types. By eye one can judge which of the four types the CV group is closest too in overall shape. Are there any dimensions, or pairs of dimension, that are particularly close or far away from each other? Can a visualisation such as Exhibit 2.10 help indicate closeness on two of the six most important strategic dimensions?

(3) The next step is to calculate some goodness of fit estimates of how close the strategic profile \mathbf{Q} is to one of the reference models, \mathbf{P} say (where \mathbf{P} is either Innovation, Harvest, Private Equity or Ecosystem).

For any particular pairs of strategic profiles, \mathbf{Q} and \mathbf{P} , one can calculate a goodness of fit statistic, Z , as follows

$$Z = \sqrt{\sum_{i=1}^6 (Q_i - P_i)^2}.$$

This statistic is simply the Euclidean distance between the point in six dimensional space representing \mathbf{Q} and that representing \mathbf{P} . Small values of Z indicate that \mathbf{Q} is close to \mathbf{P} .

(4) By definition Z can be used as a measure of the goodness of fit between the observed strategic profile and that of each ideal CV group type. Logically the lowest Z value indicates which of the ideal types that the \mathbf{Q} strategic profile is closest to. The prose descriptions, typical attributes and main pitfalls of this closest profile, derived from the Campbell *et al*/paper, can be utilised to define in more detail what the CV group will.

(5) In order to understand whether the profile \mathbf{Q} is “significantly close” to one of the ideal types a Monte-Carlo test of goodness of fit is proposed. The approach closely follows that of Ripley (1987).

In the following an observed (or proposed) strategic profile, \mathbf{Q} say, is compared with a reference model, \mathbf{P} .

Following the approach of Ripley (1987) one now needs to be able to simulate a sequence of strategic profiles, \mathbf{T} , under the null hypothesis to be tested. In statistical jargon a null hypothesis is simply a statement that there is no effect. In the current case the appropriate null hypothesis is that the strategic profile \mathbf{Q} is no different from a typical, or average, profile. One way to probe what a typical profile would be is to generate one by a random process. Therefore a series of m strategic profiles, $\mathbf{T}_1, \dots, \mathbf{T}_m$ can be simulated, with each dimension in the particular profile \mathbf{T}_i selected using a uniform random number.

Now simulate $m=99$ strategic profiles, T_i , and for each one calculate the distance between this simulated profile and P . This algorithm will generate a sequence of m goodness of fit values Z_1, \dots, Z_m calculated from the simulations and one goodness of fit value, Z_Q , calculated as the distance between the strategic profile Q and P .

These $m+1$ Z values are now placed in rank order, small to large. For a conventional 5% significance level test if Z_Q is the 5th smallest Z value or smaller then the null hypothesis is rejected.

It should be noted that the statistical power of such a test is less than a conventional one would be if one was available. However, Ripley (1987) shows that for $m=99$ simulations at a 5% significance level the relative power of the Monte-Carlo test is 95.6% that of a conventional one. He concludes that “unless one takes a very rigid approach to significance testing $m=99$ is usually sufficient”.

If the null hypothesis is rejected at the 5% significance level, it is reasonable to conclude that the strategic profile Q has not arisen by chance and is “significantly” close to the ideal type P .

(6) The above scheme can be repeated for a given structural profile. The steps 2- 5 above can be repeated but using a comparison between the 8 dimensions of structural profile and the ideal types. If the observed structural profile is mismatched with the observed strategic profile this will provide some diagnostic insight into how to either (a) revisit strategic goals and re-check assumptions or (b) restructure structural profile of the CV group.

2.7 Worked example of tools – Volvo Technology Transfer AB

The Volvo Technology Transfer AB fund (www.volvo.com) is used below as a worked example of how the design tools described above can be used to analyse and visualise the important aspects of a corporate venture groups strategic profile.

Volvo TT AB is the corporate venturing activity of the Volvo group (note that the Volvo Group does not include Volvo cars which is owned by Ford). Volvo TT has a mission to, “create value for the Volvo shareholder by developing and supporting new businesses with relevance for the Volvo group”. It claims to be involved in 3 tasks;

- Bring Volvo closer to new technologies – by investing in companies and or projects.
- To support businesses based on Volvo technology.
- Support development of a more entrepreneurial and innovative culture in Volvo.

The fund was established in late 1990's and has several hundred million euros under investment. The team is led by the CEO Anders Brännström and has about 10 staff. The staff is rewarded in line with corporate salary and performance related pay norms.

The following ratings have been assigned based on the information obtained from the Volvo Technology Transfer AB website and a seminar in Chalmers University on 6th December 2006 at which Anders Brännström explained the approach of VTT to corporate venturing. Based on the above information the following assignments of the 6 dimensions of the strategic profile were made.

Focus on Internal Ideas - 3/7 – This is not VTT's main interest but they state strategically that it is of interest and give examples of taking internal ideas out of Volvo group.

Focus on External Ideas - 6/7 – There is a strategic focus on technology from outside Volvo and the fund has a number of relationships with VC's external to group to generate deal flow.

Organic Growth - 4/5 – VTT is explicitly not interested in quick IPO hits.

Importance of Spin outs - 4/5 - Heavy focus on helping spin-outs be successful.

Learning from Spin-Outs - 3/5 – This is a stated aim but little evidence that this is happening on an ongoing basis.

Importance of Financial gain - 3/5 – This is not the major driver. The CEO described the way the fund was set up with 5 year + investment horizon and long term success of Volvo group as primary aim.

Visualisation of this data is shown in Exhibit 2.11.

The smallest goodness of fit value is between the Volvo strategic profile and that of the Ecosystem Venturing type (goodness of fit, Z , of 0.755). Best in class funds of this type include Intel Capital and Johnson & Johnson Development Corporation (JJDC). Campbell *et al.* describes the appropriate use of such a fund as follows, "Ecosystem venturing is appropriate when an existing business depends on the vibrancy of a community of complementary businesses and the entrepreneurs in the community do not have sufficient support from existing suppliers of venture capital. This normally occurs when an area is so new that the venture capital industry has yet to focus on it". One could argue that this is true for Volvo Group. Many of their traditional heavy industrial products will be transformed by radical technological discontinuities (e.g. fuel cells, hybrid powertrain drives, cleantech for fuel burning, nanostructured surface coatings etc) that may not be as well served by traditional VC firms.

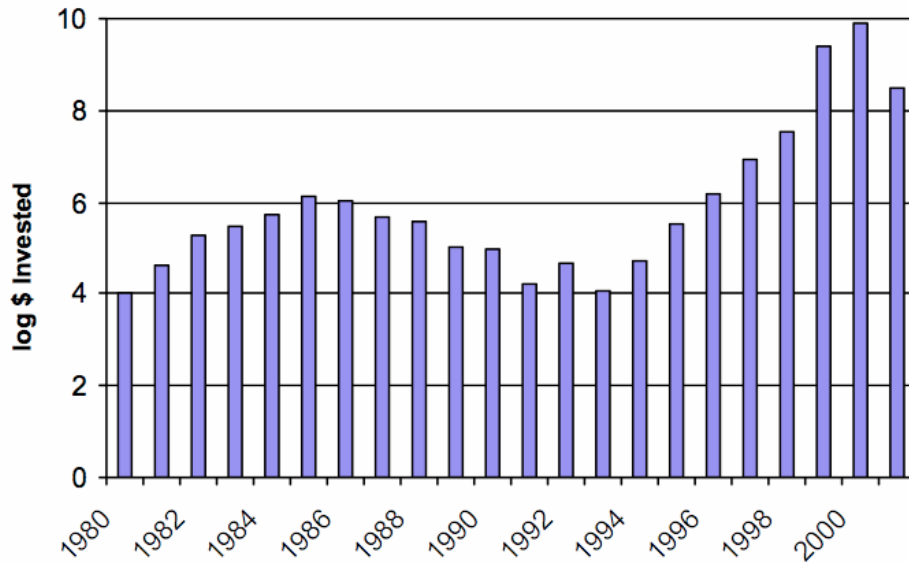
The main pitfall that this type of fund can fall foul of is "The Loss of Focus Pitfall". If this occurs the fund managers end up making too wide a range of investments and are too autonomous. The managers end up becoming too like a traditional VC where doing a great deal is the primary driver. For an ecosystem fund each investment must have a strategic rationale. Again Campbell *et al.* describe the overall motivation of such a fund, "Financial returns are necessary because the venture unit has to justify its existence to

sceptical colleagues, but the unit's real raison d'être is to benefit the existing businesses" (emphasis added by this author).

By applying the Monte-Carlo approach of step 5 it becomes clear that although the Volvo TT strategic profile was closest to the Ecosystem types this closeness is not sufficient to reject the null hypothesis at the 5% significance level (the observed goodness of fit is 16th largest of the 100 values, 99 simulated plus one observed value, this means that if a conventional 5% significance level is used the null hypothesis cannot be rejected). This result indicates that although the Volvo Technology Transfer fund is closest to the Ecosystem strategic profile there is a real discrepancy in strategic profile.

In fact the three strategic aims stated above indicate that the fund has a high level intent to do two or three different things at the same time. However, it was clear from the presentation by Anders Brännström that in practice the first of the three aims was overwhelmingly what he focused on. Thus, although the stated aims at a strategic level are threefold, in practice Volvo TT acts as a classic Ecosystem venture fund. It suggests that if there was a stronger drive from the Volvo group to get Volvo TT to really pursue items 2 and 3 with a corporate ventures approach (Harvest Venturing and Innovation Venturing respectively) then the learning's from the Campbell *et al* study are clear. It would be best to do these 3 different types of corporate venturing in 3 organisationally distinct venture groups. The Väva design tools above could help to design these three funds.

Exhibit 2.1 – Evidence of cyclicality in CVC activity 1981-2001



The logarithm of CVC invested dollars per year from 1980 to 2001, taken from Chesbrough & Tucci (2002).

Exhibit 2.2 – Burgelman model of Corporate Venture categories

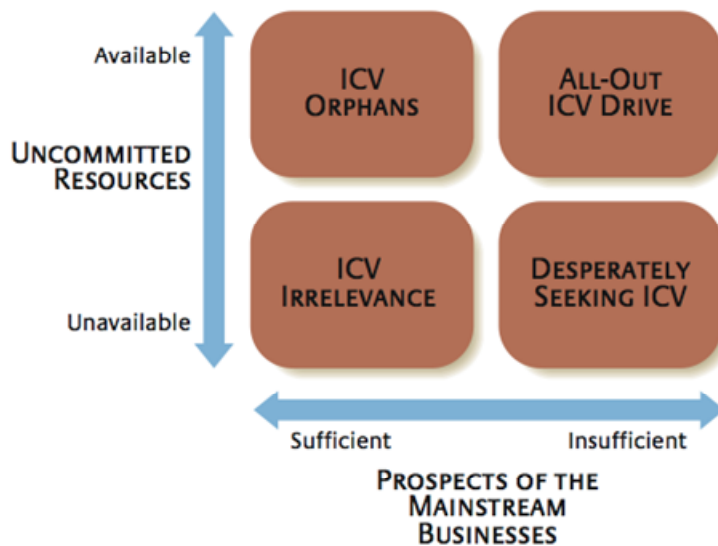
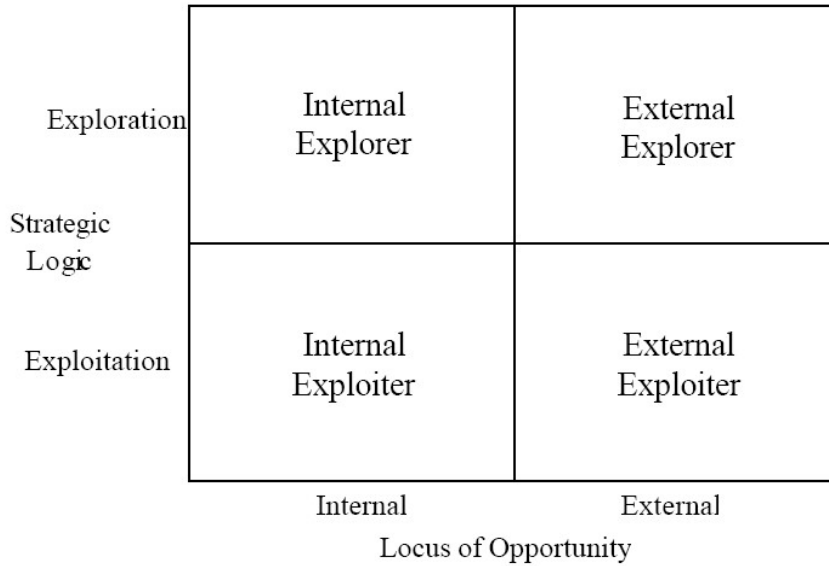


Exhibit 2.3 – Campbell *et al.* Model of Corporate Venture group types

	Focus	Main Pitfall
Ecosystem	Take minority stakes in suppliers, customers and/or complementors to improve prospects of existing businesses. Generate value through commercial links with investee firms.	The Loss of Focus Pitfall: Investing too idly and seeking too much autonomy.
Innovation	Use venturing techniques as a more effective means of performing (part of) an existing functional activity. Often, but not exclusively, this applies to R&D.	The Culture Change Pitfall: Aiming for a broad impact on culture change rather than focusing on improving part of a function.
Harvest	Generate cash from harvesting spare resources, and eschew support to existing businesses and “new leg” ideas.	The New Legs Pitfall: Seeking to develop new growth platforms in addition to harvesting.
Private Equity	Take advantage of a unique deal flow and relevant, non-tradeable assets to participate directly in the venture capital/private equity industry.	The Anyone-Can-Do-This Pitfall: Believing that it is easy because others are having success.
New Leg	On back of slow growing core business and unattractive prospects in adjacent businesses search more widely to set up significant new businesses (20% of core sale or \$1Bn in value).	Campbell’s research suggests this is not a sustainable model for CV.

Exhibit 2.4 – Birkinshaw and Hill Corporate Venture group typology



Extracted from Birkinshaw & Hill (2005)

Exhibit 2.5 – The Väva model of Corporate Venture group type.

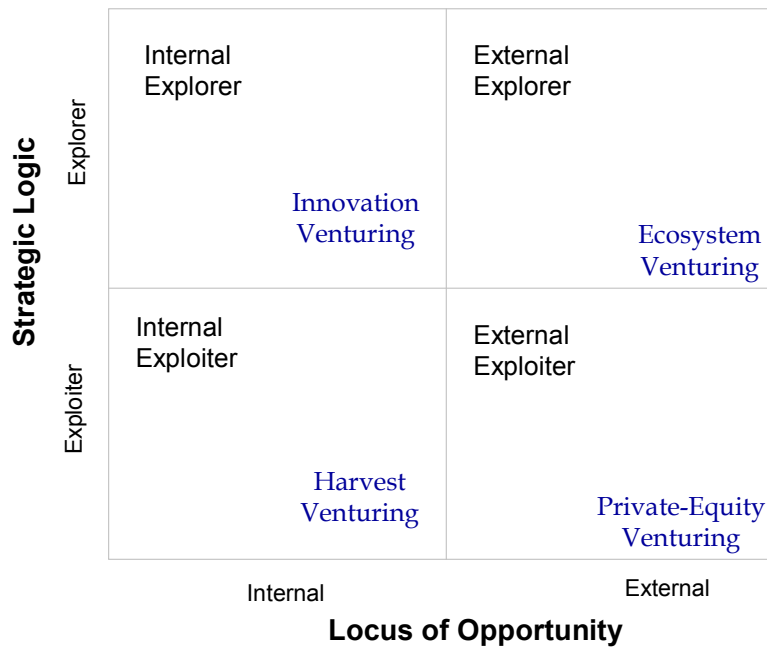


Exhibit 2.6 – Parameters of Corporate Venture Unit Strategic Fit (Birkinshaw & Hill 2005).

Parameter	Scale
Focus on Internal Ideas	1-7
Focus on External Ideas	1-7
Importance of Organic Growth	1-5
Importance of spin outs	1-5
Importance of learning from spin-outs	1-5
Importance of financial gain from spin-outs	1-5

Exhibit 2.7 – Parameters of Corporate Venture Unit structural profile (Birkinshaw & Hill 2005).

Activity	Parameter	Scale
Governance Structure	(a) Operating autonomy with respect to parent company	1-3
	(b) Extent of involvement in syndicated investments	1-4
Activities	(a) Selecting and exiting ventures	1-5
	(b) Building and nurturing ventures in the portfolio	1-5
Network of relationships	(a) Links to VC firms for deal flow and ideas	1-5
	(b) Links to executives in the parent firm	1-5
Management systems	(a) Focus on measures of financial performance	1-7
	(b) Equity based compensation for venture unit managers	1-5

Exhibit 2.8 – Strategic Profile of each of the 4 Ideal types in the Väva model.

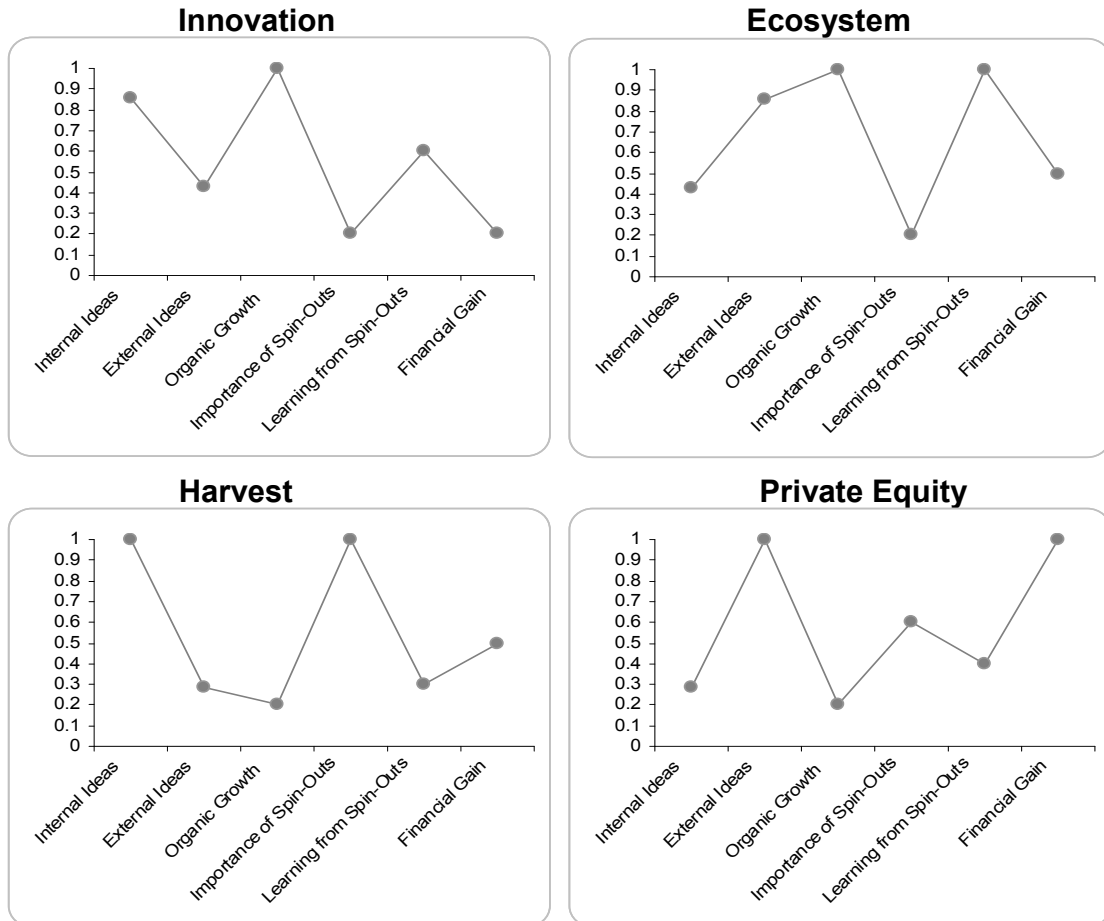


Exhibit 2.9 – Structural Profiles for each of the 4 Ideal types in the Väva model.

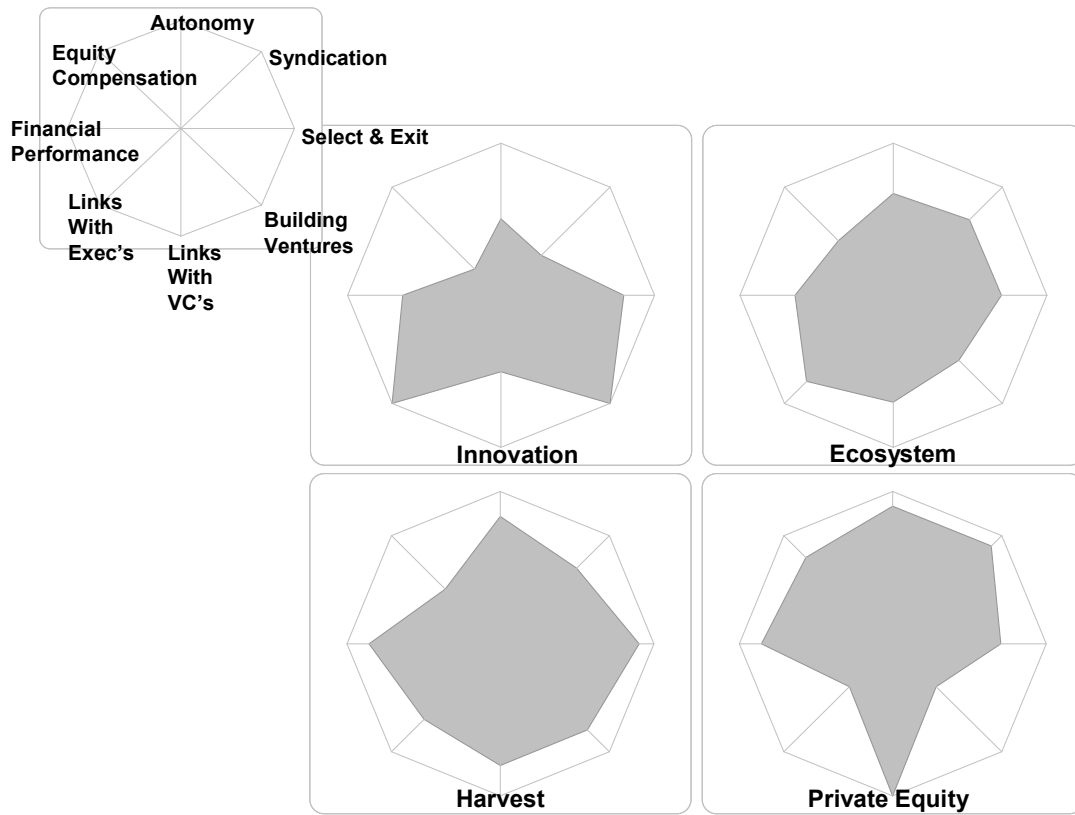


Exhibit 2.10 – Visualisation of 4 ideal Väva Corporate Venture group types versus Strategic requirement for Financial Gain.

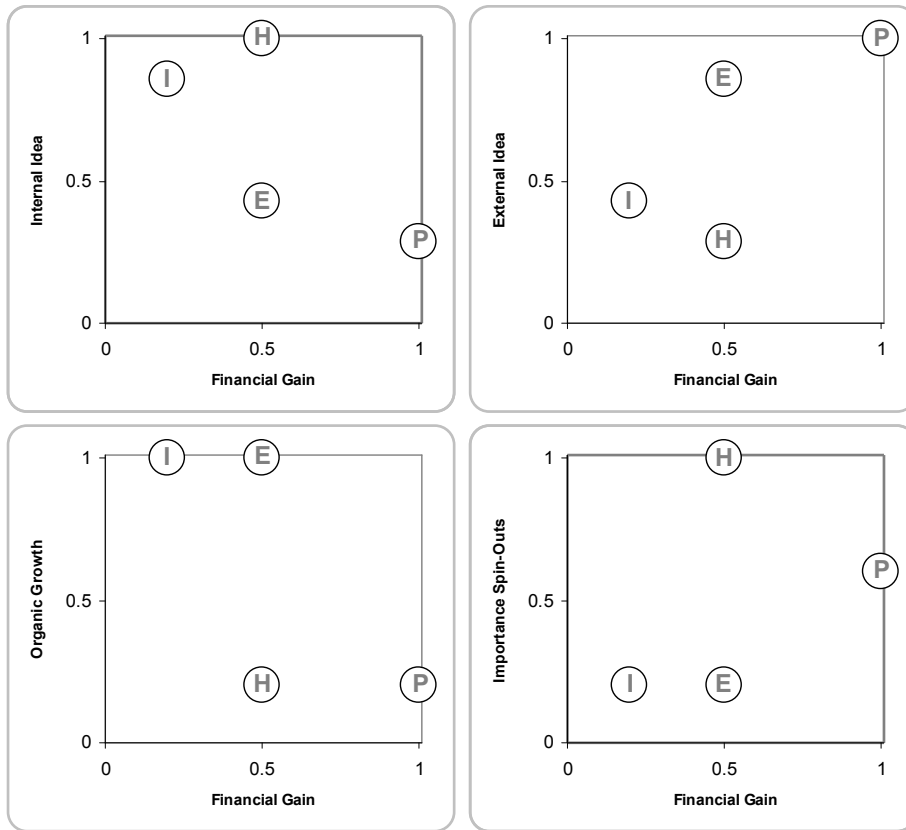
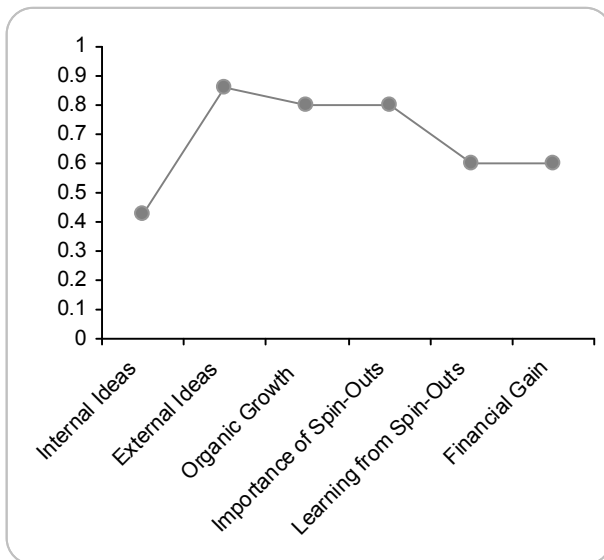


Exhibit 2.11 – Analysis of Volvo Technology Transfer Inc

Strategic profile

Parameter	Rating
Focus on Internal Ideas	3
Focus on External Ideas	6
Importance of Organic Growth	4
Importance of spin outs	4
Importance of learning from spin-outs	3
Importance of financial gain from spin-outs	3



The misfit between this profile and each of the “ideal” types was estimated as below

Väva Model Ideal Type	Distance (Z) between Volvo TT & Ideal type
Harvest	1.074
Ecosystem	0.755
Innovation	0.963
Private Equity	0.874

Chapter 3 – The foundation of the Unilever Corporate Ventures Group

The remainder of the thesis will focus on the corporate venturing activity that Unilever has been engaged in since about 2000. The way that Unilever set up its corporate venturing activity is important to understand as it sets the original context for the activity and describes the initial ambitions and expectations of the activity. In order to do this the setting up of the Unilever Corporate Ventures Group is described in some detail and some analysis provided of the experiments in new business creation that immediately preceded it. The chapter also provides an introduction to the three separate Unilever Corporate venture funds. The chapter ends with an initial comparison between the Burgelman and Campbell models described in Chapter 2 and the Unilever CVC activity at its foundation and its stated strategic aims.

3.1 Unilever service and Internet businesses

During the late 1990's Unilever created a number of new service or internet based businesses. These included a chain of Lipton tea shops under the Ch'a brand, a barbershop in London's West End under the Lynx male grooming brand, a cleaning business in the South East of London called MyHome PLC and two significant, but short-lived lifestyle websites, Wowgo and iVillage. In all of these new business creation experiments the investments did not lead to financial success for Unilever. However, the experience that Unilever gained with these unsuccessful business ventures did serve to galvanise senior Unilever executives to consider how to deal with new business creation in a corporation that was highly skilled at mergers and acquisitions and had strengths in corporate management, brand building and marketing.

Ch'a Tea

The Lipton Ch'a tea business was an attempt to bring the cool style of espresso machine made coffee to the traditional British pastime of tea drinking. A number of veteran Unilever marketers and tea buyers started the business and patented a "T-Bird" tea brewing system that claims to give a highly theatrical way to make a cup of great tasting fresh tea for their customers. The T-Bird is manufactured by Fracino under licence to Unilever. The concept continues and forms a subset of Unilever Foodsolutions, Unilever's out of home food service division, further details can be found on their website (www.chatea.co.uk). Currently there are more than 20 Ch'a sites in the UK and further sites in France, China, Japan and UAE. The product was designed by Design Stream in association with the Unilever tea business. Exhibit 3.1 shows the T-Bird and some of the Ch'a brand extension visuals.

Lynx Barbershop

Lynx barbershops were conceived as a way to capitalize on the high brand equity that the Lynx deodorant brand had built in the UK amongst 14-21 year old males, at the time Lynx controlled 32 per cent of the UK male toiletries market. Niall FitzGerald, Unilever's co-chairman, said: "If you are 17 years old then you have two choices when it comes to hair: you can go to a traditional barbershop like the one your Dad goes to, or you can go to a unisex salon. Neither option is particularly appealing."

The first store was opened amid a blaze of PR in August 2000 (see Exhibit 3.2 for some photos of the Oxford Road premises). The design was ultra-modern and Lynx ditched the traditional UK barber image of a red and white pole and replaced it with neon lights, Sony PlayStations and funky music. The brand extension followed on a launch the previous year of Unilever's first razor under the Lynx name, aimed at taking market share away from the leaders, Gillette and Wilkinson Sword.

However, despite the stunning visual design, initial press coverage and a Unilever press release in February 2001 that claimed the concept was likely to be rolled out to a UK wide chain of stores, it was disbanded in December 2001. The Lynx barbershop concept has recently been slated by Haig (2005) who rates it as number 36 in his top 100, "Biggest branding mistakes of all time".

WowGo

In February 2000 a new internet based company called WowGo was launched. The concept had been researched by Unilever and Durlacher for 2 years and it was styled as a "pan-European digital community, designed exclusively for the teenage girl market". The company secured £6 million development and launch funding from Unilever PLC, Durlacher Corporation PLC and the Eureka Interactive Fund. By November 2000 Wowgo had ceased trading and by February 2001 its assets were acquired by mykindaplace.com, a rival teen girl website backed by BskyB, FreeServe and ThinkVentures. Mykindaplace.com acquired the Wowgo URL and its subscriber base following its closure. By April 2001 Unilever appeared unbowed – it signed an 18 month sponsorship deal with mykindaplace.com from its Impulse girl's deodorant brand. It is worth noting that Unilever was in good company with its failure to build a web presence with teenage girls – the Proctor and Gamble backed competitor to WowGo, Swizzle.com, had also ceased trading at the same time.

iVillage

Even more ambitious than the WowGo investment was the establishment by Unilever and iVillage of a 50/50 joint venture company, Cooperate Beauty Ventures LLC, in February 2000. This coincided with the launch of a new website, Substance.com, that provided independent beauty advice for subscribers to the iVillage online community. The press release claimed at the time that the company had \$200M of assets at its disposal. The joint venture allowed Unilever access to the dominant online position that

iVillage had developed. Launched in 1995 it was the dominant “womens only” online community and website. It had a significant amount of original content that dealt with women's issues and interests. Its number of page views for the 4th quarters of 2000, 2001 and 2002 had shown a steady increase of 214 million, 343 million and 410 million respectively. Of these page views independent statistics showed that it had more than 11 million unique users a month.

By 2002 iVillage had a revenue of \$59 million per annum and more than 250 employees. It derived over 80% of its revenue from advertising and sponsorships. During 2001 and 2002 iVillage made acquisitions of its rival site Women.com for \$47 million and Web-based promotions and marketing company Promotions.com. Also according to its 10-K filing it had by April 2001 also gained majority control of Cooperate Beauty Ventures, LLC by paying \$1.5 million in cash for an additional 30.1 percent stake. The buyout gave iVillage an 80.1 percent majority stake in Substance.com which it said it would fund its ongoing business and operations with an additional \$7 million. The buyout released Unilever of any further funding obligations. By March 2006 the long-term relationship with NBC was finally consummated when iVillage announced in its 10K filing a merger with NBC.

MyHome

The MyHome concept was developed by Unilever in late 1999 and was part of a larger plan to create service outlets across the UK. These outlets were meant to provide a range of home services, including residential cleaning, dry-cleaning and carpet care. The business concept was originally set up as a trial in South West London. MyHome acquired a number of smaller local players, Palace Laundry and Mrs McMopp, and took about £4M to develop. The first CEO of MyHome was David Ball, who was a 15 year veteran of Unilever's finance function and financial director of Unilever's Port Sunlight laboratory. The company was seen as a way for Unilever to gain first-hand intelligence on consumer preferences in home cleaning. This approach was driven by Unilever's belief that its cleaning products were a means to an end. “Busy people want clean homes, and they have less time to think about the details of how they get that way,” said David Ball at the time of the MyHome launch. “This is a way for us to extend Unilever's brands in ways we haven't yet explored, to bring people services they appreciate.”

Between the start of trials for the Myhome service in London in March 2000, and the time the trials finished at the start of 2001, Myhome had signed up about 1,600 customers in southwest London. At launch, Unilever aimed to have 20% of the estimated £4 billion domestic cleaning market by 2004. However, by October 2001, Unilever had sold 91% of its stake in the Myhome business to the Chores Group for £325,000 and share options. Unilever retains a 4.5% shareholding in the company. At the time Chores, which was an established domestic cleaning service business, already had four offices and were looking to expand. The acquisition of Myhome provided a 120-line call centre, customised service software, existing contract commitments and the

customer database relating to Myhome, staff, intellectual property and higher levels of training. The Chores PLC CEO, Russell O'Connell, claimed that the acquisition had “put expansion plans ahead by two years”.

MyHome was floated on OFEX in January 2002 and has successfully built a franchise business model as a way of expanding its geographical reach. It has also acquired a number of other home service companies and now offers gardening and specialized cleaning (e.g. degreasing cookers) as well as the MyHome services that Unilever had developed. It is worth noting that almost 6 years after the initial foundation of MyHome it still trades on the fact that the company was originally set up by Unilever.

The MyHome experiment was broadly covered in the financial and general press. For example, David Lang, an analyst at Investec Henderson Crosthwaite, stated at the time that, “It's vital that they (Unilever) look at future forms of distribution - they've got to get ahead of the consumer and consumer demand. If they're just going to stick in grocery channels, they're going to die.” This sentiment was echoed by the MyHome CEO David Ball who noted that Unilever had to take a radical step to prove themselves attractive to the markets, and that their strength lay in their brands and not their manufacturing expertise. “...being more solid and more profitable won't make it (Unilever) more adventurous”.

3.2 From isolated experiments to Corporate Venturing

The business experiments described above give a good picture of the situation in Unilever between 1999 and 2001 when there was a strong desire within the marketing leadership of Unilever to go beyond their existing businesses. Although these activities do not appear to have been well coordinated in each case there was significant resource required, both internally and with external partners, to design, plan and execute the businesses. With the exception of the Ch'a teasops the businesses either no longer exist or have been sold on. When all of these experiments are analysed together it is clear that the desire to grow within Unilever was widespread and a large number of senior managers had the energy and enthusiasm to build support for each of these projects. On face value and with the benefit of hindsight many of these business ideas were of high quality and it is surprising that they were not successful. For example, the Lynx barbershop concept certainly had a key insight, that for young men getting their hair cut either means going to their Mums unisex salon or their Dads old-fashioned barbers.

However, the decentralised nature of Unilever becomes apparent in hindsight. There appeared to be no central function that was able to evaluate the business plans of these potentially lucrative experiments and no centralised pool of staff that could fund or staff them. They arose from the most entrepreneurially minded mainstream Unilever managers who nevertheless had been experienced as managers of existing businesses not start-ups. It is notable that no Unilever product category launched more than one experiment. Skin (iVillage), Deo/grooming (Lynx), HHC (MyHome), beverages (Ch'a).

Thus the learning derived from, for example, the collapse of the Lynx barbershops was not used as the basis for building a more successful follow on in one of the other product categories.

To their credit after a couple of years of these experiments the main board of Unilever did draw the conclusion that the disconnected brand extension experiments were not a great way to build new businesses. They therefore asked Iain Ferguson (SVP Corporate Development) to come up with a better approach. This process is described in more detail in Exhibit 3.2. This exhibit is written from the viewpoint of the consultancy group, Webb Partnership, who were involved in the design of the Unilever Corporate ventures group. The Webb partnership is led by Geoff Webb an ex-Unilever senior manager.

At the same time as marketers in Unilever were thinking of new ways of building businesses senior staff in the R&D function were trying to build new ways of taking breakthrough innovations to market. These included the UniSpark laundry innovation incubator led by Jan Harley and the Colworth / Port Sunlight Incubator activities led by the Colworth finance director David Mann and senior R&D management. This activity is described in more detail in Chapter 7.

Shortly after Ferguson's project reported back to the main board Unilever moved rapidly to establish a Corporate Ventures Group. It was formally set up in September 2002 and was originally led by Iain Ferguson. However, by May 2003 Ferguson had left Unilever, to become CEO of Tate and Lyle, and Nick Allen was appointed as head of the Unilever Corporate Ventures Group. Allen was a Unilever finance high-flier who had extensive experience in senior finance roles in Unilever. He had joined Unilever in 1970 and prior to his role in the Corporate Ventures Group had been CFO of Unilever Bestfoods in the UK. The CVG also effectively incorporated the UniSpark and Incubator activities as part of the newly formed Unilever Ventures Ltd.

3.3 Langholm Capital

Langholm Capital describes itself as “an independently owned and managed mid-market private equity firm”. It manages a fund of almost €250M. Along with Unilever its corporate investors include Rabobank, Fortis ASR, Access Capital Partners and the Partners Group. Its investment focus is mid-market private companies, capitalised at between €20M and €200M in high-growth consumer sectors in Western Europe, mainly UK, France, Benelux, Germany, Spain and the Nordic region. Langholm claims that it is unique “in that it combines private equity techniques with an added value approach by leveraging the sector expertise, local market presence, credentials and other resources of its investors”.

3.4 Unilever Ventures

Unilever Ventures has invested in a number of both technology and consumer facing

companies since its incorporation. Its earliest investments include Rocket Lifestyle (a fresh meal outlet originally based in 3 London stations and 2 city banks), Persil services (Persil brand dry-cleaning in Sainsbury's stores), Rituals (personalised cosmetic lifestyle outfit) and Fariba (a fresh wrap business based in Milton Keynes, Basingstoke and Nottingham, UK). These investments were similar in that they had no obvious Intellectual Property or proprietary technology position and were strongly consumer focused. Many of the later UV investments have had a heavier emphasis on exploiting Unilever owned Intellectual Property.

3.5 Unilever Technology Ventures

Unilever describes its UTV activity as “scanning the horizon” and it has an interaction with Unilever R&D. It has a secondee program where it has placed a number of Unilever R&D staff for 6 months a time into the UTV offices in Santa Barbara (and more recently San Francisco). These secondees take a particular “HotSpot’ in science or potential growth area and scout the area. They generate a list of companies (generally US based) that either provide an investment opportunity or a link to the Unilever R&D community. It has two managing directors. Dion Madsen an experienced non-Unilever VC and Phil Giesler an experienced Unilever R&D manager. UTV has a management/advisory board composed of senior R&D staff (SVP level from both Foods and HPC side) and Unilever Corporate staff.

3.6 Unilever-Henley Review of Global Corporate Venture Groups

By 2004 the Unilever main board was keen to evaluate the early successes, or otherwise, of the Unilever Corporate Venturing Group. To provide an international benchmark Nick Allen commissioned the Henley Incubator (a spin-out from Henley management college) to review a number of global Corporate venture groups. The main conclusion of the executive summary, Gaule and Moore (2004), echoing both the Webb Partnership case study and the Campbell *et al.* (2003) paper described above, was that clear strategic and financial goals were needed to ensure that the focus of the CV did not wander. In particular the review concluded that one of the best ways of achieving this focus was by setting up organizationally distinct and operationally independent groups to administer funds with different investment and return criteria.

3.7 The Unilever CVG

The material presented in this chapter show that the Unilever board had looked hard at its patchy experiences of ‘venturing’ between 1999 and 2001 and had concluded that although it was committed to venturing as a way of extending its business and investing for long-term growth, it had better put in place a cross-Unilever and multi-functional way of doing this. Since its inception the CVG has had close access to the most senior levels in the company and a clear strategy and operational model. Each of the three funds has

been operating largely independently and with distinct approaches and priorities. The original temporal remit of the CVG is coming to an end and one of the issues that Unilever will tackle in the next year is a decision on if and how it will extend its corporate ventures activity.

Exhibit 3.1 – Unilever Brand Extension (1) Ch'a Tea Shops



The brand focuses on the dual benefits of tea - relaxation and revival. Unlike coffee which can only lay claim to reviving consumers, tea is the universal panacea for today's hectic lifestyle. Our high street outlets reflect the duality concept in their design by offering two distinct zones. Consumers can choose their environment - 'relax' areas have carpets, comfortable seating and ambient lighting; 'revive' areas feature hard flooring, stylish wooden furniture and are brightly lit.



© Lipton UK Limited, all rights reserved 

Exhibit 3.2 – Unilever Brand Extension (2) Lynx Barbershops



Exhibit 3.3 – The formation of Unilever Corporate venturing group from Webb Partnership Case Study 2002

Background

Unilever is facing the challenge of how to manage its continued evolution into new markets, new products and services and new geographies. The most recent initiative has been its Path to Growth strategy – a clear set of financial and growth metrics, which have stimulated an aggressive concentration of the global portfolio of brands and operations.

Unilever has also been in the process of re-aligning its sights towards the growth of services amongst important consumer groups. Its 'Foresight' activity has seen the rapid development of new spending priorities in hotspots of vitality, wellbeing, eating-on-the-go and at-home, and service innovation for busy people. However to reach many of these opportunities Unilever would need to find new ways to build businesses in unfamiliar categories and channels, where it would not be possible to simply make one or two large acquisitions.

The Need for a New Approach

To start to get into these new opportunity areas, Unilever has already piloted a range of businesses over the last four years e.g. MyHome (cleaning, laundry) and Lynx Barbershops which has given them an insight to the complexities of building early stage businesses. To ascertain the next steps, the Board of Unilever asked two senior executives, Paul Garwood and Iain Ferguson, to propose how Unilever should approach the development of new business systems and more innovative opportunities as a serious contributor to future growth. By the summer of 2001 they had secured board approval to use a corporate venturing model, rather than continue to create isolated experimental operations in the core business.

To assess the best approach to venture-led innovation Iain Ferguson approached The Webb Partnership – Geoff Webb and his team had strong practical experience of venturing implementations and business-building as well as people from the sharp end of brand diversification, private equity and venture capital. The team soon realised that what they were looking for was a fusion of the uncluttered and proven money-making and business-building skills of private equity with the strategic and financial goals of a corporate investor. The right combination of proven elements would build a successful venture model for Unilever.

The Next-Generation of Venturing/Business-Building

Hard experience from a wide range of sectors over many years indicated that the path to success required four key ingredients:

1. A dedicated team of private-equity professionals who had an exemplary record of delivering financial returns and an interventionist approach to building businesses. A team was needed which could create proven concepts and stitch/ build/ accelerate successful consumer businesses (or cut losses) highly effectively.

2. The venture needed a scope of investment and business-build activities, which was squarely on Unilever's strategic flight-path (health and wellbeing, etc.) but which would attract other external investors to ensure that the team could demonstrate purely economic targets. Broadly selected areas of high growth in consumer spend would be the glue which tied everyone's objectives together. This agreement on scope was really the secret ingredient to avoiding Unilever having to apply day-to-day control or to require special investor terms.

3. A unique governance structure for the independent fund would ensure shared objectives and operational independence – with a range of corporate assets/ advantages which the managing partners might choose to use e.g. in leveraging Unilever's brands, market knowledge and a level playing field for exits – no pre-emption rights, no first refusal for Unilever, no influence in decision-making once the fund was set up.

4. The independent private-equity team would need a two-way bridge into Unilever. This would involve the creation of the Corporate Venturing Group within Unilever, comprising an early stage but wholly owned seed-venturing business, built upon private equity lines - Unilever Ventures. They would handle smaller early stage ideas and investing in proving new concepts. The independent private equity fund would build the larger deals. Unilever Ventures was key to supporting earlier stage initiatives, which have too high an initial risk profile for a fully independent operation.

Designing and Building the Corporate Ventures Group

The Webb Partnership assembled a tailored team of practitioners with private equity, venture capital, entrepreneurial and corporate innovation experience. The team developed a detailed structure for this next-generation venturing model, which would avoid all of the primary reasons for failure of the old generation of incubators and corporate venturing across the sectors (we have fifteen years of hit and miss to learn from).

Once Ferguson and his senior colleagues were happy that the outline structure would work the combined team embarked on a search for the private-equity titans who would have the skills and the experience to operate in these consumer growth areas.

The Formation of Langholm Capital and Unilever Ventures

At any time there are always a small number of highly successful private-equity people looking to set up a first fund – having built their reputations in a group like Apax, 3i, Warburg Pincus, GE Capital etc. Unilever were lucky to meet two such teams and very

quickly developed an excellent rapport and meeting of minds with the teams led by Bert Wiegman, Andrew Beaton and Christian Lorenzen (who had previously been at EAC, GE and IK). They brought an exceptional pedigree of building high value consumer businesses and they added an important level of insight, quality and confidence to what Unilever were planning to do.

Unilever decided to invest in Beaton, Wiegman and Lorenzen - providing bridging finance from the beginning of 2002. By August Langholm Capital had been formed, the full team had been recruited and first closing achieved with an initial €200m commitment (€100m from Unilever and €75m from Rabobank and €25m from Whitbread close behind). Given the state of the markets in 2002 this was a remarkable achievement – and a testament to the logic and potential of the construct.

Unilever seconded two senior and highly experienced Managers to the new entity to help manage the relationship with Unilever. Unilever Ventures was set up to work on private-equity principles, but be wholly owned by Unilever and with a mix of internal and external staff – (led by John Coombs – a Unilever marketing high flyer).

What will success look like?

This is the first of the next-generation of venturing which is built upon the exceptional track-record over the last 20 years of private-equity in building businesses such as Starbucks, SoBe, Amazon, Pret a Manger...

Unilever expect to see at least two or three highly attractive businesses, which can be central to their strategic future over the next four/five years. Given the nature of the consumer growth fund's structure and their investment they will effectively already have a 30% economic interest in businesses which Langholm have acquired and grown into the €100m+ position – so Unilever will be happy to bid fully in the open 'exit' market for businesses it likes the look of. These businesses will have proven concepts and fully developed go-to-market approaches which Unilever can scale to the billion-plus position.

This targeted business-building approach starts to address the fragmentation of the most interesting growth areas and ensures that both sides are working hard to achieve the same results – lucrative and tailored exits which provide Unilever and other companies with opportunities to build value far better than a range of small acquisitions.

Earlier stage initiatives will be handled by Unilever Ventures – who will invest in proving concepts before larger-scale investments are made. Unilever Ventures will also be developing a range of brand diversification and proof-of-concept plays, so success for UV will be in creating four to five successes which may feed into Langholm Capital or straight back into Unilever scale-ups or joint ventures with partners.

Insights and Learnings

The eighteen-month journey has revealed a great deal about the way that large businesses are likely to grow in the future, and the way that marriages of skills can be very powerful.

Unilever have recognised that:

- Early stage financial success is absolutely key to long-term success of any business. Private-equity/venture capital has known this for fifteen years.
- Growth in the future may need to be a succession of three-legged races, as well as individual marathons. Specialist partners who know new sectors, new brands or are experienced in new business development approaches will be key to any future growth plan, particularly where it relies upon tracking where consumers are changing.
- The pace of innovation, organisational change and competition will accelerate in the future faster than in the past. The old approaches we have always used will not be agile or effective enough on their own.
- Increasingly the core business needs to focus on producing exceptional results and driving organic growth, whilst more far-reaching innovation and growth may be initiated via alliances and venturing relationships.
- The ideas for innovation and growth must be able to flow from every part of the business. However a hobbyist and part-time approach to execution can be avoided by restricting implementation and development to where there are dedicated skills, resources and experience. Everyone in the internal business can create ideas but dedicated experience must be used to accelerate the best internal or external opportunities.
- We must not confuse financial and strategic objectives when venturing operations are constructed. It is important to separate the skills out so that private-equity or entrepreneurial teams do what they are good at (and with the right focus of deals) and the corporate players deliver their skills in applying market insight and corporate leverage.
- A side benefit to all of this is that Unilever gets to see new businesses they wouldn't normally see and is right up close with a very efficient and aggressive form of business building, which has delivered outstanding results over twenty years.

In Our View

Unilever has realised that the consumer brands of the future will include many exceptional product brands, but there will also be an evolution of strong consumer-centric services and brands, which touch more of a target consumer's life. Unilever intends to use corporate venturing, traditional M&A and adventurous organic growth as important tools to shape the efficiency with which consumer brands and services are built. They will work hard at ensuring that they will keep evolving and learning and can integrate these new businesses back into their core products and international businesses.

Chapter 4 - Unilever Technology Ventures

Unilever Technology Ventures (UTV) refers collectively to a Dutch investment vehicle known as Unilever Technology Ventures Fund BV and Unilever Technology Ventures Advisory Company LLC (UTV Advisory Company). The UTV Advisory Company is currently located in San Francisco, California (previously Santa Barbara). The US based company provides investment advisory and administrative services to the Dutch Fund. According to its blurb, “The Fund has been formed to access new technologies that may enhance the scope and quality of the branded goods and services of Unilever and facilitate new opportunities for Unilever”.

UTV made two initial investments in external VC funds, NGEN partners, who specialise in material science investments, and Burrill & Co for life science deal flow. These investments were made to establish the fledgling fund in the West Coast VC community and provide an initial, and ongoing, deal flow. The fund originally started in Santa Barbara, better to exploit synergy with the NGEN office and Unilever’s senior science advisor Prof. Tony Cheetham who was then also head of the Materials Research lab at UCSB.

4.1 UTV structure and strategy

In 2005 the UTV office was moved from Santa Barbara to San Francisco. This move signalled the increasing maturity of the UTV operation and a move to the centre of gravity of the West Coast VC markets. In addition the UTV executive team was re-structured by the appointment of Dion Madsen, an experienced life science VC executive and Phil Giesler, a Unilever R&D executive, as twin managing directors of the fund.

Currently the UTV Advisory Board is composed of

- Nick Allen [CEO of Unilever Corporate Venturing group]
- Tony Cheetham [Scientific Advisor to Unilever]
- David Duncan [SVP Home Personal Care R&D]
- CV Natraj [SVP Corporate Research]
- Richard Rivers [Unilever Chief of Staff]
- Emmo Meijer [SVP Foods R&D]
- Jan Weststrate [Director of Unilever Vlaardingen and VP Foods Research]

UTV has a clear set of investment criteria for its operation. Typically it will invest at an early stage, usually after an initial seed funding round but before expansion rounds. It has limited its investment size to a maximum of about \$2 - \$2.5 million per company. UTV, due to its size and relative newness as a fund tends to be a strategic co-investor rather than a lead investor. It often seeks to syndicate its investments with reputable VC or industry partners. The investment is linked to the ability of UTV, or an associate in

Unilever R&D to get technology access. The investment to equity valuations are based on the normal US VC industry valuation benchmarks.

UTV was set up in California so that it immersed itself into the key global VC market. The historical development of the VC industry in California has had an impact on the way technology in the US is researched, developed and commercialised. For example, VC backed companies spend about twice as much on R&D as non-VC backed companies. The decision by Unilever to build UTV on the US West Coast means implicitly that UTV is almost exclusively a technology investment fund.

The executive team of UTV now comprises the following staff;

Phil Giesler [Managing Director] – Previously head of one of Unilever's Global technology centres in Italy. Over 20 years experience in Unilever R&D and Supply Chain organisations.

Dion Madsen [Managing Director] – Executive level positions in 3 biotech start-ups and more than 5 years experience with RBC Capital Partners.

Min Berbon [Principal] – More than 10 years experience of business development in technology/R&D based companies. Links to mainland China VC community.

Michael lee [Principal] – More than 10 years experience with Unilever/UTV. Recently graduated as a Kaufmann fellow and begun building an East Coast presence for UTV.

4.2 Way of working

UTV sees itself as one of the key elements of Unilever's move towards Open Innovation. It has undertaken 10 reviews of technology areas which help structure the investment portfolio and alert core Unilever R&D communities about technology trends and specific start-ups based on technology. To date over 200 of these screened technology opportunities have been passed to the R&D community.

One of the distinctive aspects of the UTV approach is the use of a small permanent staff supplemented by visiting associates from various parts of the Unilever R&D organisation. These associates stay with UTV for a 6 month period during which they scout an area that is of mutual interest. They acquire experience in venture capital methods and build a portfolio of possible investee companies. The companies that they have identified as being of interest to Unilever, and/ or a potential investment opportunity are summarised in a quarterly bulletin which is sent to a broad network of Unilever R&D staff. The bulletin provides a framework for structured teleconferences between the UTV office and the lead R&D teams in HPC, Corporate and Foods. In total about 100 Unilever staff have been involved with UTV process, either as associates or providing link between start-ups and Unilever product categories or as technical/market due diligence resource.

Over the past 3 years the visiting associates have included the following R&D staff;
Leo Abrahamse (July - December 2004) – an expert in gut physiology and nutrient bioavailability.

Louise Brown (July 04 - Jan 05) - background in molecular biology transcriptional regulation, early vertebrate development and angiogenesis.

Albert van der Wal (Jan - Aug 2004) – background in Physical and colloid Chemistry and Microbiology.

Dan Thorn-Leeson (January - July 2004) - expert in skin measurement science and protein biophysics.

Suresh Nadakatti (July 2003 - February 2004) – Chemical engineer and Scientist in Unilever Research Laboratory, Bangalore, India.

Mark Nicmanis (July - December 2003) - Chemical engineer and Unilever scientist.

In addition to the visiting associate networks there have been in depth visits from the leadership teams of the Corporate Research and Foods Research laboratories. There has been an active involvement of the most senior R&D executives of the three Unilever R&D divisions have played an active role in investment reviews and technology reviews. These Senior Vice President level executives provide UTV with a strategic context for their investments and high level sponsors for their interactions with R&D.

To date UTV has made 8 investments. These investments, either directly or via syndication and investments in other VC funds are distributed roughly as 50% biotechnology, 20% materials science, 12% consumer understanding and 4% CleanTech. The first investments in NGEN and Burrill have given UTV access to more than 25% of the deals in its areas of investment interest in the US as a whole.

One of the key aspects of the UTV way of working has been its need to build a Chinese Wall for confidential information disclosed to UTV so that this does not diffuse into mainstream Unilever R&D or the remainder of the company. This need to separate UTV activities from core R&D remains one of the areas that causes some issues at the interface.

4.3 UTV Investment Portfolio (August 2006)

Burrill & Company

Burrill Life Sciences Capital Fund is the fifth in a series of Burrill venture capital funds and invests across a spectrum of life sciences, including biotechnology, pharmaceuticals, diagnostics, devices, human healthcare and related medical technologies, wellness and nutraceuticals, agbio, and industrial biotechnology. The Fund is highly regarded in the Life sciences sector. Its portfolio is well managed and diversified with respect to both stage of company investment and life sciences sub-sector. The fund closed in 2004 and is capitalized at about \$211 million. During its active investment phase the fund managers

were making investments between \$1 and \$15 million. The fund has a strong geographic preference for North American and European businesses. The Burrill fund is large in comparison with UTV and has a team of more than 50 active investment professionals.

Burrill is a key strategic partner for UTV. It offers access to its whole deal flow for its limited partners. This provides a unique resource for Unilever as it allows active technology scouting in the life sciences sector in a way that mainstream Unilever R&D cannot hope to compete with. UTV is never likely to be large enough to independently attract the substantial quality and quantity of deals that Burrill can attract. The leader of Burrill, Steven Burrill, is widely acknowledged as a “biotech visionary”.

UTV’s investment in Burrill gives it access to more than 600 deals per annum. This is a substantial proportion of all of the USA’s early stage life science investment opportunities.

NGEN

NGEN partners, LLC is a specialist materials venture capital fund. It is based in Santa Barbara, California and has an active management that seeks to identify, invest in and support emerging businesses that provide technology solutions in the New Materials and Cleantech sectors. The fund is well placed to exploit growing and sustainable market demands. It has a very strong scientific advisory board (including a Nobel laureate) and one of the fund principals is Prof Tony Cheetham, who also acts as a senior scientific advisor to the Unilever main board of directors.

NGEN invests in post-prototype, early and mid-stage rounds of financing, typically as the lead investor.

Fields of interest for NGEN investments include:

- Sustainable Energy Technologies
- Water Purification, Re-Use and Monitoring
- Pollution Abatement and Hazardous Waste
- Solid State Lighting
- Green Buildings
- Batteries and Fuel Cells
- Clean Coal
- Biomaterials

NGEN has an innovative structure whereby it provides privileged access to its deal flow for its corporate strategic limited partners. These include Air Products, Bayer, Boeing, BASF, Du Pont, DSM, Henkel, Honda, Bekaert, Schott, Canon, Asahi Glass Co, Siemens and Saint-Gobain. NGEN deal flow is of the order of 200-400 per annum.

As of February 2006 NGEN fund I was fully invested, it had made about 20 investments with more than \$30M under management. In September 2006 NGEN announced that had closed their second fund of \$180M.

Perlegen

Perlegen Sciences, Inc. is working to provide safe and effective medicines to patients worldwide. The company analyzes millions of unique genetic variations in clinical trial participants to develop genetically targeted, late stage therapeutics and diagnostics. Perlegen is actively licensing and developing its own portfolio of medicines. Further detail on Perlegen is provided below.

Kreido Labs

Kreido Laboratories have pioneered a break-through system for the manufacturing of biopharmaceuticals, other biological products and chemicals. Kreido have a patent protected Spinning Tube-in-Tube (STT™) production process that produces time and cost savings over more traditional volume production processes. They claim that their technology can increase the rate of some chemical reactions by 3 orders of magnitude. They are working with commercial partners to apply their systems to the manufacturing of biodiesel, biopharmaceuticals and a number of commercially important chemicals.

Chromatin

Chromatin's has a patented mini-chromosome technology that enables the development of new seed products and the delivery of multiple genetic traits. The technology was spun out of the University of Chicago and claims to have advantages over current technologies. In particular it claims to have advantages in reducing speed to market and overall cost of product development.

Chromatin have recently restructured their senior management team and raised an additional round of fund raising in early 2006.

Impinj

Impinj Inc. is a fabless semiconductor company which has a patented Self-Adaptive Silicon® technology. It has two synergistic business lines: high performance RFID products and innovative semiconductor intellectual property (IP). Impinj was founded in May 2000, it is currently privately owned and has raised over \$75 Million in funding.

Impinj recently signed a licensing agreement with Sandisk, the world's leading supplier of flash memory products.

Unilever has a strategic interest in how RFID tags may impact on supply chain and retail operations. It is highly likely that one, or a small number, of the competing RFID technologies will become dominant. The use of these tags promise to impact on the traceability of individual pallets and products. Once the infrastructure is in place it is likely that RFID will facilitate novel marketing possibilities and “individualised” product distribution.

Impinj is now a leading player in the GEN2 RFID standard activity and has established partnerships with major suppliers and distributors.

Merrimack Pharma

Merrimack Pharmaceuticals is an integrated, biopharmaceutical company committed to the innovation of life-enhancing medicines for the treatment of autoimmune disease and cancer. Merrimack Pharmaceuticals recently completed enrolment for its Phase 2 trial of MM-093 in patients with psoriasis. The company was launched in the Cambridge Massachusetts area in 2000 based on technology and staff from Harvard & MIT. They have a broad technology platform that allows entire protein interaction networks to be mapped, profiles, modelled and screened.

The company has developed and has IPR on Alpha-Feto-Protein which has high potential as an auto-immune therapy (e.g. Multiple Sclerosis, Rheumatoid arthritis etc).

Pionetics

Pionetics develops innovative water purification products that improve water quality for residential, commercial and industrial applications. Pionetics has developed a proprietary ion-exchange membrane technology utilizing clean, efficient electricity for regeneration using simple electrochemical cells. The core of the product line - a replaceable cartridge containing the proprietary membrane - is manufactured at the company's headquarters in San Carlos, California. The company's products selectively remove priority pollutants in drinking water such as arsenic, nitrate, chromate and other harmful chemical ions, softening water without the addition of salt. Compared to existing technologies used today, Pionetics' systems use much less water to produce clean water and eliminate the need for hazardous chemicals (or salt) for regeneration. The company has signed an initial development and distribution agreement with a recognized leader in the residential water treatment market and is targeting additional OEM manufacturers of water treatment equipment.

Pionetics, Inc. is set to launch its water purification product in China in 2006/2007.

Surface Logix

Surface Logix was spun out of Harvard University by George Whitesides. It has a number of platform technologies for the selective modification of drug scaffolds to enhance their pharmacokinetic and dynamic properties. Their business model revolves around the rational modification of known drug molecules (or those from failed clinical trials or off patent). Its development pipeline is aimed at NCE's that respond to different physiological environments within the body. The company focuses its drug development activity in the areas of cardiovascular disease, oncology and metabolic disorders. Surface Logix is a winner of the annual "Red Herring 100 North America" award by Red Herring magazine. This list of 100 privately held companies in North America recognizes those that play a leading role in innovating technology businesses.

Textronics

Textronics is a pioneer in the field of textile electronics. It is a spin-out of INVISTA (formerly part of DuPont) a global leader in fibre technology. Textronics has set itself the ambition of being a leader in "fabric or textile systems that can conduct, warm, illuminate or sense". The convergence of high-tech fibre science with electronics and optics is at an early stage but has the potential to revolutionize fabrics from clothing to industrial textiles and significantly impact other textile sectors in the next decade. The company mission is to explore and exploit the market opportunities this will create. Textronics has a number of technology streams under development that bridge the divide between the two sectors and will enable energy-active fabric systems to deliver entirely new kinds of functional benefit.

Textronics has launched two product lines; one is a jogging bra that sense heart rate and respiration. The other is a conductive substrate suitable for making wiring harnesses for sports clothing.

4.4 The Perlegen Investment

Perhaps one of UTV's most interesting investments to date is its investment in Perlegen Sciences Inc. Perlegen is a biotech company based in California that has developed strong relationships with a number of the big pharma and biotech companies, it also undertakes research collaborations with NIH and it has its own research program seeking to develop a pipeline of proprietary pharmaceutical compounds.

Perlegen was spun out of Affymetrix, one of the leading manufacturers of DNA "chips". Initially Affymetrix founded Perlegen as a wholly owned subsidiary in 2000 and it was then spun out as a privately held company in 2001. Since then the funding for the company has been generated in 4 rounds;

First Round (Q2 2001)

In April 2001 Perlegen raised \$100M. At the time it had 48 employees. The investors included Alejandro Zaffaroni (also founder and investor in Alza Inc a \$2Bn pharma company as well as a string of other biotech start-ups including Affymetrix).

Second Round (Q1 2003)

Perlegen raised a further \$30 million in a second round of financing. The investment was led by Maverick Capital. New investors included Unilever Technology Ventures, Eli Lilly & Co., Biofrontier Partners and CSK Venture Capital. Previous investors Vulcan Ventures, BioMedical Sciences Investment Fund, CMEA Ventures, SB Life Science Ventures and Alejandro Zaffaroni also participated.

Third Round (Q2 2005)

In 2005 Perlegen raised finance in two rounds. The first tranche of \$74M was raised in Q2 2005, the investment was led CSK Venture Capital. New investors included Brookside Capital, Mizuho Securities, Glynn Capital Management, Cape Securities and several other US and European institutional investors. Previous investors also participating in the financing included Dr. Alex Zaffaroni, Maverick Capital, Lombard Odier Darier Hentsch & Cie, Zesiger Capital, Sano Ventures, BSI SA, MPM BioEquities, SB Life Sciences, Unilever Technology Ventures, Biofrontier Partners, Private Life Biomed, CMEA Ventures and Affymetrix.

Fourth Round (Q4 2005)

At the end of 2005 the global pharma company Pfizer also made a \$50 million equity investment in Perlegen acquiring a 12% stake in the company. Pfizer negotiated a contract such that they had an option to purchase up to an additional \$25 million of Perlegen preferred stock if Perlegen conducted an IPO in 2006.

Company Profile

Perlegen was founded to conduct genetics research and develop therapeutic and diagnostic solutions. Perlegen's strategy is to identify and then validate millions of genetic variations in humans using a proprietary version of the Affymetrix high density microarray technology. The variations occur in less than 0.2% of the base pair sequence that comprises human DNA. They are known as single nucleotide polymorphisms, or SNPs (pronounced "snips"). SNPs and groups of related SNPs that are known as haplotypes may also be responsible for an individual's response, or lack of response, to a drug. This information can be used to filter out patients that may experience adverse side-effects during drug trials. Perlegen has adapted Affymetrix's technology to create chips each containing a collection of 60 million fragments of DNA strands. The entire human genome fits on 200 of these chips.

SNPs do not cause disease, however, their presence can be used to predict the likelihood that someone will develop a particular disease. The promise that Perlegen and related companies are exploiting is the idea of personalised medicine. This would allow MD's to choose medications that had a high probability of being successful for an individual's genetic make-up. This personalised approach promises to increase the drugs clinical efficacy and to reduce the probability, and severity, of adverse reactions.

Perlegen has developed a number of its own genetically targeted drugs. These have focused on two disease areas, Type II diabetes and a cholesterol-fat imbalance known as dyslipidemia. Currently, Perlegen has two drug candidates in Phase II clinical testing. One of these had been the subject of a licensing agreement with Johnson & Johnson but they pulled out the agreement after Phase II studies.

Perlegen has collaborations with AstraZeneca, Eli Lilly, GlaxoSmithKline, Johnson & Johnson, Merck, Genentech and Unilever. It also has a host of collaborations with a number of US government and not for profit organizations.

Unilever – Perlegen research agreement

In addition to the investment that UTV made in Perlegen Q1 2003, Unilever also entered into a multi-year research agreement with Perlegen in February 2003. The agreement covered a number of whole genome association studies, the aim of which was to develop new consumer products. The research agreement included “research funding of at least \$8.5 million, incremental research success payments and royalties on consumer product sales”, Unilever retained the exclusive rights to develop consumer products based on the research results but Perlegen had the chance to obtain rights to develop potential therapeutic products from the work. The parties completed the first whole genome study in early 2005 and Perlegen received \$1.0 million in success fees (beyond the research funding) by “successfully identifying and validating genetic loci associated with the first trait of interest”. The research program required Perlegen to scan more than 1.5 million SNPs in the DNA samples.

Perlegen files for IPO

In April 2006 it was announced that Perlegen Sciences Inc. had filed papers with the Securities & Exchange Commission in the US for an initial public offering (IPO) of stock in the company. The company intends to sell about 25% of the company for up to \$115 million; this would give it a market capitalization of between \$400 million and \$500 million. Perlegen are not profitable, indeed from their SEC prospectus they state “we have incurred \$153.1 million in cumulative net losses since our inception in 2001, and we expect losses to continue for the foreseeable future.” In its filing, Perlegen said that it had a 2005 net loss of \$21.9 million, on revenue of \$40.5 million.

According to the SEC filing Affymetrix retains a 25.4% equity stake, with Pfizer Inc. owning 13.3% and Maverick Capital 8.1%.

It is an interesting time for Perlegen to file for IPO as the current market for biotech IPO's is tough. According to Burrill & Co, 20% of the biotech companies that have filed for an IPO since 2003 have pulled out prior to the IPO date or withdrawn its offer altogether. In addition the average amount raised per biotech IPO since 2003 has steadily decreased. In 2003 7 biotech IPO's netted an average of \$63M per company; 2004 29 IPO's led to an average of \$53M per company and in 2005 10 IPO's got an average of \$47M per company. The VC funders of many of these companies are keen to get an IPO (or trade sale) in order to liquidate their equity investments. However for a biotech company like Perlegen, that is involved with drug discovery and FDA regulatory clinical trials 6 or 8 years from start up to IPO is not unusual (see Kaplan *et al.* 2005)short time.

One of the major reasons that biotech stocks are not currently highly valued is the length and costs of the compliance process required as a drug moves through three clinical trial phases before it gets U.S. FDA approval. Recently the FDA has raised the hurdle to regulatory approval somewhat by asking for more data from companies running the clinical trials. The highly publicised litigation surrounding the heart medicine Vioxx has also had an impact on investor confidence in the drug-development sector.

4.5 Analysis of UTV

The UTV portfolio reflects both the geographical location of its head office and the areas of science that are currently emerging from the US scientific research base. For example, the UTV deal flow in 2003 was composed of 103 shortlisted companies ; 33% were from California, 31% the rest of North America, 14% UK and 7% Sweden.. Deal flow directly from the UTV network was 63 opportunities (generated by 3-5 staff), compared with comparable deal flows of NGEN 180 opportunities and Burrill of 570.

Exhibit 4.1 shows the strategic profile of UTV, derived from conversations with the funds management and several of the visiting associates over the past few years. It is closest to the Ecosystem Venturing type of the Väva model and the null hypothesis has been rejected at 5% significance level. The fund has set itself up to be one of Unilever's primary "windows" into the world of fast moving technology based companies. It made a conscious decision to base itself in the heartlands of the US VC community and this decision has paid off. In addition to its own deal flow it has access to nearly 1000 deals per annum via its investments in NGEN and Burrill. UTV has benefited from high level R&D and Corporate sponsorship from Unilever. Although many of the investments are some distance from the current business of the core Unilever product categories many of them are close to the longer range strategic priorities of Unilever.

The description of Ecosystem venturing given by Campbell *et al.* (2003) is rather broad. It describes how a corporations Ecosystem can comprise a wide range of other

companies (suppliers, agents, distributors, franchisees, technology entrepreneurs and makers of complementary products). Ecosystem venturing seeks to make investments in this community in particular if the community is underserved by existing suppliers of venture capital. Although this is not true for the companies that UTV invests in, it is clearly an Ecosystem fund. The investments it makes are rather small and are, by design, wholly within the high-tech sector, but the companies certainly provide Unilever's, "...existing businesses with a window on new technologies" (Campbell *et al.* 2003).

In Chapter 8 this issue is re-discussed and the possibility is raised of Unilever building a broader view of what constitutes an Ecosystem fund.

Within its current scope there appear to be a number of opportunities for UTV to further develop its way of working and impact in Unilever.

(1) The visiting associates who come from Unilever R&D tend to be at a rather junior level in the organisation. Undoubtedly the experience the associates gain from working in UTV for six months has a big impact on their own skill set. However, if the associates were at a more senior level it is probable that the potential for culture change in the core Unilever R&D organisation will be higher and that the UTV-R&D network would move to a higher level of integration.

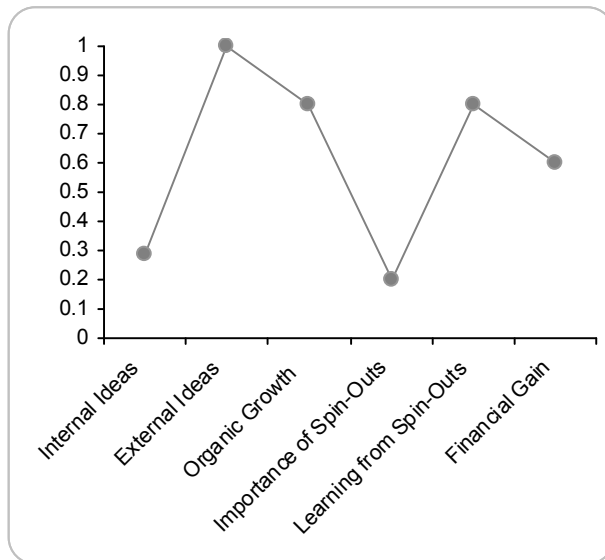
(2) Although it was entirely right for UTV to begin activities on the US West-Coast (and more recently begin task of building East coast operation) it now seems timely to consider the establishment of UTV operations in Europe and/or Asia.

(3) The significant deal flow provided by the NGEN and Burrill investments are screened primarily on investment criteria. Yet there exists an opportunity for this rich dataset of deal flows, perhaps with share price and investment sensitive information removed, to act as a primary input for the Unilever Open Innovation community. For example, the combined list of company directors and scientific advisory boards of the companies within this dataset (probably consisting of >10,000 people) and the other companies, investors and academic groups these people relate to may well represent some of the most interesting Open Innovation leads for Unilever in years to come. BY definition it would be appropriate for Unilever (in the guise of UTV) to contact and build relationships with individuals in this network.

Exhibit 4.1 –Unilever Technology Ventures Strategic Profile

The following ratings have been assigned based on information obtained from the UTV website and conversations with UTV secondees.

Parameter	Rating
Focus on Internal Ideas	2
Focus on External Ideas	7
Importance of Organic Growth	4
Importance of spin outs	1
Importance of learning from spin-outs	4
Importance of financial gain from spin-outs	3



The misfit between this profile and each of the “ideal” types was estimated as below

Väva Model Ideal Type	Distance (Z) between UTV & Ideal type
Harvest	1.51
Ecosystem	0.36*
Innovation	0.95
Private Equity	0.92

* Indicates null hypothesis has been rejected at 5% significance level.

Chapter 5 – Langholm Venture Partners

5.1 Langholm Strategy

Langholm Capital Partners LLP is an independent private equity firm that was founded in January 2002. The Langholm principals, Bert Wiegman, Andrew Beaton and Christian Lorenzen were able to use the promise of £100M of funding from Unilever to build an initial fund closing of £225M. According to its initial press release in September 2002 the fund, “will focus on acquiring majority or influential minority stakes in private UK and Continental European companies valued at between £20 and £200 million and demonstrating above-average medium term growth prospects”.

The fund explicitly saw that changes taking place in Western European demographics and consumer segments would lead to growth opportunities in a number of consumer goods sectors. They highlight three demographic drivers for this; ageing of the population, increases in disposable income, and changes in lifestyles and priorities. These drivers have also motivated Unilever’s launch of a “Vitality” mission in 2004.

Langholm were looking to make less than 20 investments over the 4 years of its existence and were uninterested in either seed corn or early-stage investments. Indeed the experience of the fund principals had been in private equity investing and Langholm aimed to invest in buyouts, buy-ins, re-capitalisations, and acquisition and expansion. At the outset although Langholm was keen to vigorously proclaim its operational independence it also claimed that it would access the worldwide network, market knowledge, global expertise and resources of its major sponsors such as Unilever.

5.2 The Structure and operation of Langholm Venture Partners

At its inception Langholm sought to establish a governance structure that guaranteed operational independence of the partners in terms of investment and divestment decisions whilst also allowing some strategic input from its main sponsors. In order to allow an informal way of interacting with sponsors they set up the “Langholm Business Council”. This was for, “the exchange of views on investment proposals” and initially included Iain Ferguson (Senior Vice President, Corporate Development, Unilever) and Berend du Pon (Managing Director, Corporate Development, Rabobank International).

This issue of independence is vital to Langholms success. When they invest the managers of the investee companies have to believe that Langholm will act in their best interests. This particularly becomes an issue at divestment. Langholm try to stress this and make much of their “independence”. However, they also make much of their ability to call upon Unilever’s management and marketing resources for the investee companies. Their solution was to have Unilever secondees working at Langholm as investment directors. As of June 2005 they had Sharon Gardner (who had been a business director for Walls

and Birdseye) and Steve Dixon (a financial director in Unilever foods). These secondees remain employees of Unilever but they adhere to the non-disclosure and confidentiality policies of Langholm and are operationally Langholm staff.

By 2006 Langholm had settled as a team of 10 investment executives based in the UK. It has £65 million funds invested in 3 companies out of a total fund of £168 million. The average current investment size is £15.5 million.

5.3 Langholm Investment Portfolio – July 2006

Lumene Group

A Finnish company that is a leading local manufacturer of skin care and cosmetic products with a strong market position in Finland as the number one player in the 'masstige' segment. 40% of sales come from exports to countries in the Baltic region. Products feature a combination of unique natural Nordic ingredients and innovation. Distribution through department stores, specialist shops and, to some degree, supermarkets. Lumene had sales of €127 million in 2004 and €136 million in 2005 it has about 1,200 employees.

Langholm have about 34% equity in Lumene obtained by an investment made in December 2003. In 2005 Lumene acquired a Russian company, Multilink Trading LLC, that had been its long time distribution and operations partner in Russia. In February 2006 Lumene set up a US subsidiary headed by Joe Pastorovich, who had previously worked at Beiersdorf and Kao. The company will build on an existing cooperation with the leading US drugstore chain CVS/pharmacy who have more than 6,000 pharmacy stores operating across the US.

Within the Nordic countries, and more recently Russia and the US, the Lumene brand has built a high level of brand awareness based on its claims to protect the fairest skin in the harshest of climates. It makes considerable capital of its combination of wild Finnish ingredients and cutting edge skin care technologies.

Just Retirement Ltd.

Just retirement is based in Surrey, UK. It is a UK financial services organisation focused purely on the needs of those in and approaching retirement. Achieved £117M in sales in 2005. Investment of £25M made by Langholm in August 2004. Langholm lead investor. This is an attractive financial investment by Langholm but is more closely aligned with Rabobank one of the corporate co-investors in Langholm.

In early December 2006 Just Retirement Ltd successfully completed an IPO on AIM that gave the company a valuation of £581 million. After the flotation Langholm had a diluted stake of 61% making its equity holding worth £360 million. This single flotation has

probably justified, from a financial point of view, the whole of the corporate venture Groups activity over the past 4 years.

(http://www.langholm.com/uk/news/jr_ipo_1_dec_2006_final.pdf).

Dorset Cereals Ltd

A UK based manufacturer of branded and own label healthy cereals products with a strong reputation for quality and taste. The products have a high proportion of fruits and seeds. The company has experienced a CAGR of 32% since 2002. The company was acquired in April 2005 in a Management Buy-In. Distribution is through all major UK supermarkets and exports to 60 countries. Sales of £8.5 million (2004).

Undisclosed investment size made in April 2005. Langholm lead investor. In 2005 sales grew by about 30%. Dorset cereals is both profitable and growing and manufactures a range of cereal products claiming to deliver healthy eating for the luxury end of the cereals market.

Langholm's investment will be used to develop Dorset cereal's consumer communication package. Although the cereal market in the UK is both competitive and dominated by the major players (Kelloggs 29%, Cereal Partners 12%, Weetabix 12%) there are opportunities for niche, "healthy" cereal products to become significant generators of both growth and margin.

Physcience

Physcience is a French company making dietary supplements. At the time of acquisition by Langholm in June 2003, Physcience was the number two French dietary supplements company. Their products range from general wellbeing, through female health products to slimming ingredients. The company has headquarters in Paris and distributes its natural ingredient and herbal based products to pharmacies. The company had a CAGR of 40% for 3 years 2000-2003 and sales of £30 million in 2003. Langholm took a controlling stake (75% equity) in Physcience in June 2003. No further information regarding the outcome of this investment was available at time of writing this thesis, though there is still a Physcience presence on the internet.

Elvi

Langholm announced in October 2006 that it had acquired Elvi, a UK based "plus size" Women's fashion retailer. The UK market for Women's clothing of size 16 or above is worth nearly £5Bn per annum and has an annual growth rate of 6% that is twice the growth rate of the total Women's clothing market. Elvi was acquired by Langholm in a Management Buy-In and Buy-Out.

Elvi retails its own branded ladies fashion wear and accessories in 25 of its own outlets and 57 concessions in major department stores. In 2006 it had sales of £20 million. The company is part of a subsector of the retail trade that has stronger than average growth driven by consumer trends towards larger dress sizes and an ageing population.

The company has plans to build on its strong retail platform and develop an internet based direct to consumer outlet. channel (internet).

5.4 Analysis of Langholm

It was clear from the outset that the primary aim of the Langholm fund was to deliver good financial returns. It appears to have been able to balance the need to operate efficiently and independently of Unilever and at the same time target its investments in areas that are close to areas of interest for Unilever. Indeed the Langholm portfolio bears the marks of its two major investees – most of the investments are related to Unilever market segments and the Just Retirement investment to RaboBank interests. The strong previous experience of the funds principal investment managers is reflected in the financial strength of the portfolio as of December 2006. The Just Retirement IPO on its own has probably justified to the Unilever Exec and shareholders the wisdom of setting up the Corporate ventures Group. It must increase the probability that the Unilever Exec will re-commit, perhaps with even larger investment, to the activities of the Corporate ventures Group.

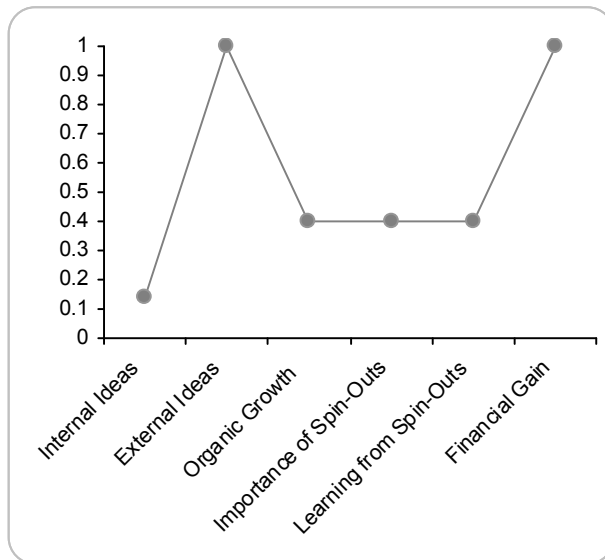
Of the other investments Lumene is perhaps the most interesting investment yet. One could argue that Lumene is a classic Unilever acquisition target. It has strong local brand position and commercial activity and fits pretty well into Unilever's Vitality framework (beauty benefits of Nordic natural ingredients). In addition it appears to have significant potential for extracting much more value from its unique branding position and heritage. Perhaps Unilever is utilising this investment as an experiment in brand and business development. It is at the same time closely guided by Unilever's strategic interests but Unilever does not have to deal immediately with integration of Lumene into the mainstream of Unilever. If this is a conscious and successful strategy, it would signal the beginning of a new way of Unilever building its corporate reach and ambition.

It is clear from material available on the Langholm website that it is a classic Private Equity investment fund. This is borne out by applying the strategic profile metrics and visualisation (Exhibit 5.1). It is also borne out by the investments the Langholm have made in Elvi and Just Retirement which are clearly non-strategic to Unilever's core business interests. However, in contrast both the Dorset Cereals and Lumene investments offer a tantalising glimpse of what could be strategic investments in which the long term financial impact for Unilever is not delivered via an IPO in 3-7 years but by incorporation of the companies either as component parts of the ongoing Unilever "Ecosystem" or even as integral parts of the corporation. These issues will be re-considered in Chapter 8.

Exhibit 5.1 – Langholm Venture Partners Strategic Profile

The following ratings have been assigned based on the information obtained from the Langholm website and other public domain information from financial news websites.

Parameter	Rating
Focus on Internal Ideas	1
Focus on External Ideas	7
Importance of Organic Growth	2
Importance of spin outs	2
Importance of learning from spin-outs	2
Importance of financial gain from spin-outs	5



The misfit between this profile and each of the “ideal” types was estimated as below

Väva Model Ideal Type	Distance (Z) between Langholm & Ideal type
Harvest	1.38
Ecosystem	1.05
Innovation	1.38
Private Equity	0.32*

* Indicates null hypothesis has been rejected at 5% significance level.

Chapter 6 – Unilever Ventures

The next two chapters focus on the UK based Unilever Ventures investment vehicle. This fund has made a number of service based and IP based investments in UK, US and Netherlands. In addition it has provided an investment vehicle for a UTV identified investment opportunity in a US west coast based Foods venture fund/incubator. UV has tried as far as it can to adopt the methods of an independent venture capital fund. However, because it focuses on early stage companies, many based on Unilever IP and staff, it has also had to develop incubator and early stage business support skills. UV does not make investments directly but acts as an advisory company to Unilever PLC for venture investments, this is primarily to minimize ongoing tax liabilities for Unilever. UV has a staff composed of experienced VC professionals and seasoned Unilever staff.

6.1 Unilever Ventures early investments

The earliest investments made by Unilever Ventures were service based companies, Rocket, Fariba, Persil Services and Rituals. The first three companies originated in the London metropolitan area and sought ways of directly selling to consumers.

Rocket Meal Kits

Rocket had a business built on the concept of a take-home meal kit in which all the ingredients were included to make a fresh and high quality meal at home. The company was launched in 2001 and had a number of kiosks in London train stations (Waterloo, Liverpool St and Wimbledon) and two large city banks. The demographic the company was aiming at were “the busy commuter, the hassled businessman and woman and the intrepid traveler”. The meals for one were £6-7 and the meals for two £11-12. They were competing against a similar company called Leaping Salmon who had no kiosks but courier delivered same day or overnight. Leaping Salmon closed down in July 2003 when it was sold to, or taken over by Threshers. Apparently Rocket bought out Leaping Salmon and axed the kiosks in favor of supply deals with retailers, including Somerfield, the Co-operative Group and Whistlestop. Owner Unilever Ventures finally pulled the plug in June 2004, deeming it not "scaleable by Unilever standards".

Recently a Swedish company called Gooh! has announced that it will bring its gourmet meal kit concept to London, thanks to its use of innovative MicVac technology packaging. The company has been running in Sweden since Sept 2005 and is a joint venture between distributor LantmAnnen and the Nobis restaurant chain, which includes the Michelin-starred OperakAllaren in Stockholm.

Fariba Wraps

Fariba wraps were a fast food outlet business operated by Megatop Food Services Limited. The Unilever ventures investment was made in Megatop in 2001 and was used

to expand and develop Megatop's wrap restaurant concept. The business began looking for 25 locations in the south and Midlands for a new chain of Fariba Wraps fast food kiosks. The company had three restaurants in Milton Keynes, Basingstoke and Nottingham. By the end of 2004 the company was no longer trading.

Rituals

This was a personalised cosmetic business developed by a Unilever marketing high-flier Raymond Cloosterman. At the time Rituals was established Cloosterman was working for Unilever Foods as SVP New Business.

Cloosterman, described his Rituals products as “small, affordable luxuries”, and the range ran to more than 175 home and body care products. The products claimed to combine technology with knowledge of ancient rituals (even including a Samurai Secret shaving cream). Cloosterman claimed that, “...people nowadays are forgetting how to enjoy the small pleasures of life. Rituals is changing that by taking a new look at everyday products.”

The company has a head office and 14 stores in the Netherlands and lists shops in UK, Belgium, Germany, Luxemburg, Kuwait and UAE. There continues to be a live Rituals website (<http://www.rituals.nl/>) most recent news May 2006.

Persil services

Persil Services provides high quality dry cleaning, laundry and photo processing services. The company began in 2002 in eight Sainsbury's trial stores. By the end of 2003, it had grown into a business with 34 stores, over 250 employees and an annualised turnover of circa £5 million.

In December 2003, Persil Services completed a multi-million pound deal with Uberior Equity Ltd, the venture capital arm of Bank of Scotland. The funds were being used to finance the roll-out of the business across Sainsbury's stores (<http://www.persilservice.com>).

6.2 Unilever ventures Investment Portfolio (August 2006)

Alatheia

Alatheia Limited was established in 2004, it has a vision to develop innovative solutions to the problems of data acquisition in medical imaging environments, specifically in functional magnetic resonance imaging (fMRI). The company was spun out of the Consumer Science Insight group at Port Sunlight following one of the UV Ideation

sessions. Its first product fEEG allows EEG (electro encephalography) to be performed whilst a patient is being imaged within an fMRI scanner. This combination of techniques is unique to Alatheia and will allow brain researchers and clinicians the chance to understand temporal and spatial aspects of brain structure and function. The technology was invented by an electronics engineer Dr Ross Dunseath (University of Virginia) and uses active noise cancellation techniques to eliminate MR scanner noise at the source.

Applications are expected in neurology, neuroscience and psychology. Although this is a niche market it is one in which there is significant interest from academic, clinical and commercial researchers. The technology is patent protected and the scientific team behind the company has credibility in both the electronics design and the clinical exploitation of the technology.

Allegra

Allegra foods limited are a UK based company that has commercialized a portfolio of technologies invented at Vlaardingen in Holland. Allegra claims to have the ability to make is the world's best tasting whole egg alternative. Allegra aims to do to the egg market what margarine did to the butter market.

The global market for eggs within the food service and manufacturing sectors is about \$20 billion per annum. The manufactured food sector includes applications in baked products, dressings and set egg products such as quiche. This market sector is sensitive to consumer concerns over food safety (salmonella, avian flu etc).

Allegra has a technology platform, based on robust granted patent portfolio, on which it can build dry egg bases. The product includes soy protein and is cholesterol free, cholesterol lowering and has less saturated fat than real eggs. It is extremely convenient and compact (ships dry).

Allegra has a strong and experienced management team and retains the services of one of the key inventors of the technology. Allegra has made a good start in niche egg replacement markets and has sales in UK, Europe, Middle East and Asia. It is currently putting in place significant licence deals and has its ingredient incorporated within cakes sold in most major UK supermarket chains.

The Bio Affinity Company

Initially launched in 1995, BAC is a spin-out from Unilever which provides affinity purification solutions and custom manufacturing services for microbial production. BAC's proprietary affinity products are sold to the life science research, biotherapeutic manufacturing and healthcare markets where they enable customers to develop bespoke purification processes for novel biotherapeutics, reduce the number of purification steps in existing processes, increase yield, improve product purity and decrease costs.

The company employs about 25 staff and has state of the art manufacturing and lab facilities in the Netherlands. The technology base of the company comes from long term R&D carried out in Unilever into Llama antibodies. The technology is used in the critical purification step of biotherapeutics. This purification step is becoming increasingly important both in the economics of biotherapeutic production and in quality control of batch purity.

BAC has raised a number of rounds of external VC funding, most recently in 2005. It has an experienced management team, some based in the key US market and highly credible technical teams and advisors.

BrainJuicer

BrainJuicer was set up in 2001 by the current MD John Kearon. The company has developed a patent protected market research model that turns proven psychological questioning techniques into automated results tools. BrainJuicer enables companies to capture both the depth of insight achieved in focus groups and the quantitative breadth of conventional surveys. The BrainJuicer software uses word-association technology to gauge a panelist's opinion on subjects. It then asks 'intelligent' questions based on the reply. The output is an automatically generated PowerPoint analysis.

Founded in January 2000 BrainJuicer now operates in 25 countries, with a client list that includes Nike, Renault, Allied Domecq, Publicis, Diageo, and Whitbread. Brainjuicer is well placed to exploit the shift now occurring in market research from offline to online solutions. It has a high profile client list and is already revenue and profit generating.

CreaVite™/Magnum Frozen Desserts

CreaVite is a fast setting dairy base that promises to save time and money for chefs. It is a unique preparation base for chefs and is used to make a wide range of dishes including cheesecakes, mousses, quiches, and similar products that require setting. The product helps chefs and food service organisations save time and money without compromising quality.

The CreaVite business was spun out of Colworth in 2003 by Renoo Blindt and Bronwyn Elliott. The product is quick-setting dairy product for the food industry. CreaVite Fraiche can be used to make desserts and quiches and claims to save chefs time and money. The idea for the product emerged in 1999 and after three years trying to interest a Unilever category was entered into a Unilever Ventures funding stream.

Magnum Chilled Desserts Ltd was set up in 2006 to bring a CreaVite based product to market using one of Unilevers well known ice cream brands. The product is a chilled dessert (not frozen) and makes use of the unique properties of CreaVite to allow a

chilled dessert with a chocolate coating. The technology also maintains the quality of the natural flavourings used within the product (raspberry, caramel, strawberry etc) and limits the diffusion of flavours between the different components of the dessert.

The companies have an overlapped experienced management team and strong technical background. The Magnum products have been rolled out in the UK.

Insense

Insense was originally spun out of Colworth to use bees as sensitive detectors of ultra low concentrations of volatile materials (explosives, narcotics etc). It is currently pursuing another opportunity based on a patent protected technology platform for wound healing.

The first products are wound dressings that use hydrogel immobilization of ingredients to deliver oxygen and iodine *in situ*. The dressings have a self-sterilisation property that reduces the amount of nursing time required for management of chronic wounds (e.g. diabetic ulcers). Clinical trials in 2005 gave strong positive indications.

The company has about 10 employees with a strong management team. The CSO, Paul Davis, was one of the key inventors of the “ClearBlue” pregnancy test commercialized by UniPath.

Iota Nanosolutions

Iota NanoSolutions have a broad technology platform that allows a very wide range of water insoluble products to be formed into quasi-soluble nano dispersions. The range of possible applications is very diverse including agro-chemicals, pharmaceuticals, paints/pigments, foods, cosmetics, nutraceuticals etc. Their novel process technologies allow the rapid formulation of poorly soluble materials into a variety of aqueous systems. The technology has potential to be applied on a large scale and is an example of a rare class of “organic nanomaterials”.

Iota have access to a strong Unilever patent portfolio, originally obtained from University of Liverpool, and then built with a number of Unilever Corporate and HPC research projects. It was spun out of Port Sunlight in 2005. It recently established a lab in a bioscience incubator at the University of Liverpool and has about 5 employees. The company has recently recruited an experienced CEO to help drive the development of the business model. It retains the services of the CSO, Prof Steve Rannard, and a small team of scientists at Port Sunlight.

Persil Service

Persil Service is a business located within Sainsbury’s supermarkets that provides Persil branded laundry services and Fujifilm branded photo processing. There are currently

more than 70 branches open across the UK. 2005 sales were approaching £20m. The business has cleverly blended the brand positions of Persil, Fuji and Sainsburys and market research rates it as a top quality service.

The company has healthy ongoing business and a number of options for growth. The executive team includes staff with extensive experience in KFC, Boots photographic and BP.

PharmaKodex

PharmaKodex Ltd is a specialty pharmaceuticals company exploiting proprietary oral and transdermal drug delivery technologies to develop a pipeline of improved medicinal products. PharmaKodex focuses on neurology with an emphasis on treatments for the young and elderly where special delivery can provide significant benefits such as ease of medication for patients and care-givers, rapid action onset and improved treatment outcomes. Investment and technology licenses. Patent protected and linked to Iota.

Ponds Institute

Pond's is a leading international skin care brand, with a rich heritage and established market position in Spain. The first Beauty Centre was established in Madrid in October 2000, and there are now seven spa outlets with further openings planned. Demographic analysis by Ponds suggests that there is potential for about ten times as many outlets across Spain.

The business has given Unilever key insights into building profitable unit based operational model in the service sector. Many of the learning's obtained from building this business are being exploited in the Dove spas recently launched in the UK.

Rahu Catalytics

The Rahu Catalytics Ltd business model, established as a spin-off from Unilever Vlaardingen R&D in 2006, is to commercialize new applications for catalysts originally developed for use in Unilever HPC products. The catalysts are the results of significant and long term Unilever R&D investments and there is an extensive patent portfolio. Rahu's team is currently in discussions with major industrial cotton pre-treatment additive suppliers to take the first of a series of "Dragon" catalysts to market. Applications and markets identified to date indicate potential in excess of £500m. The company was set up in 2006 and has a small team of experienced staff led by MD Paul Smith who has 30 years international industrial experience in a number of global chemical companies.

UniFusion

Unifusion seeks to commercialise Unilever's MicroBinder technology which binds high value active chemicals to a variety of surfaces. The technology has applications in specialty chemical and pharmaceutical products. Exploitation of Unilever Llama antibody technology from Colworth. Patent protected.

Dove Spa

Launched in April 2006 (<http://www.dovespa.co.uk/>). A Guilford based spa company Serve Health and Beauty Ltd operates this Dove brand spa as well as its own re-aqua brand of spas and beauty therapy salons. The company was established in 2000 and now has 29 salons and spas across the UK. The 2004 Unilever annual report already mentioned an investment from Unilever Ventures in re-aqua. It is not clear how much equity Unilever owns in Serve Health and beauty Ltd.

Dove spa is an extension of the Dove brand from a mass market supermarket sold competitor for Nivea to an exclusive spa treatment competitor to high end beauty treatments such as Clarins and Shisheido.

The Dove Spa business has involved a UV investment and license of Dove brand for use in the Spa sector. It also has a range of Dove skincare and beauty products specifically developed for sale via its Spa outlets.

6.3 Unilever Venture investment in the US – Brand New Brands

One of the interesting developments in 2005 for Unilever's corporate venturing activity has been the establishment of a specialist functional foods business incubator in California called "Brand New Brands". The Mill Valley, California based incubator has also attracted investment from Burrill and Company, Great Spirit Ventures and Prolog ventures. The CEO of BNB is Will Rosenzweig and technical lead in product development is Pete Mattson (further biographic detail in Exhibit 6.1). The self-styled "venture incubator" raised \$15 million and their ambition is to bring four high-potential brands to market within two years. In this context "high potential" is defined as \$200M within 10 years.

Brand New Brands (BNB) was established formally in February 2005. By December 2006 it had launched four functional foods businesses.

- LightFull foods which makes a "satiety smoothie" (<http://www.lightfullfoods.com/>).
- Corazonas cholesterol lowering nachos (<http://www.corazonas.com/>).
- Attune makes a wellness bar that claims to have 5x the number of beneficial probiotics found in yoghurt (<http://www.attunefoods.com/>).
- Dreamerzfoods champions the importance of healthy sleep and stress reduction by creating great-tasting, all natural products. (<http://www.dreamerzfoods.com/>).

These companies are closely linked and based on a similar philosophy. Rosenzweig claims he had spent a year developing the concepts and products. They are aimed at the most pressing health issues shown up in databases, such as NIH, and are matched with ingredient innovations and clinical trial generated scientific understanding. Rosenzweig aims to build strong brands that could be potential acquisitions for a major food industry player. These two first companies illustrate an interesting platform approach that BNB claims it is adopting to building innovative new functional foods businesses.

LightFull Foods

The intellectual property behind the Lightfull smoothie is based on the work of Dr Barbara Rolls at the University of Pennsylvania, a leading researcher on satiety. The CEO Rosenweig says that “Satiety is created by eating foods high in fibre and protein, and in a thick delivery form so that you eat them slowly”. The Lightfull smoothie formulation also contains EGCG [a green tea extract] which is claimed has a boosting effect on energy metabolism. The smoothie is high in protein and fibre but low in calories. The smoothies are currently stocked by Wegmanns, a mainstream retailer in the North West USA.

Corazonas

Corazonas are corn based tortilla chips containing soya derived phytosterols. The ingredients claims are based on academic work from Brandeis University. In addition to phytosterols the ingredient list also includes oats and beta glucan, all of which have been studied extensively for their cholesterol-lowering properties. The chips are being test marketed in the San Francisco Bay area.

Attune & Dreamerz Foods, Inc.

These are Brand New Brands latest ventures, set up in the past two months, and show how aggressively Brand New Brands is pursuing its policy of launching great brand ideas the parcel key “Vitality” ingredients and concepts in products that are attractive to consumers. The rapidity of the launch schedule of these products indicates that Brand New Brands has a portfolio approach. Several of these companies/brands will develop and grow into bigger opportunities, several will die and new ones will take their place.

6.4 Analysis of Unilever Ventures

Unilever Ventures makes early stage investments in start up companies based on either brands or technology. Its strategic goals include the exploitation of current Unilever assets to deliver a financial return and also to provide future strategic options for Unilever. The fund has been actively investing for more than four years and now has a portfolio of companies at various stages of development. This portfolio is visualised on the Väva model in Exhibit 6.1.

Strictly speaking visualising the individual investments of a fund on this frame is inappropriate. The Väva model, and the Campbell *et al.* and Birkinshaw & Hill models that underlie it, describes the strategic aims and operational activities of the venture group. The model seeks to delineate and clarify the aims that underlie the existence of the fund and try and highlight some of the key strategic differences in approach that a corporation can employ when establishing and managing a particular venture group activity and the type of portfolio that would result. Inevitably at the level of individual investments these clear distinctions will rarely be as clear cut. For example, many of the Harvest type investments that UV has made consist of the combination of an internally derived technology idea or branding opportunity with a key external actor (experienced CEO, existing business, synergistic technology base etc). For example, the Dove Spa business is essentially a Harvest activity because the lead asset is the Dove brand and a unique set of products. However, the UV funds were not needed to buy these assets but rather to buy into an existing chain of operational spas so that the combination can develop.

Nevertheless the vast majority of UV investments can be described as “Internal Exploiter” or Harvest investments. These investments seek to commercialise either a Unilever patent protected technology or a Unilever brand. The portfolio has evolved since the original investments, which were in consumer facing business experiments not unlike the pre-Ventures brand extension and service businesses described in Chapter 3. Many of the later investments in technology companies have arisen as a consequence of UV Ideation interactions with the Unilever R&D labs in the UK and Netherlands (Port Sunlight, Colworth and Vlaardingen).

Although at first sight these two investment types appear different the expertise required to assess the investment suitability of a nascent brand led business and one based on technical assets (usually a couple of passionate scientists with a clutch of patents) is surprisingly similar and venture capital selection criteria can be applied to almost any business opportunity and management team (entertainingly illustrated by the success of the Dragons Den TV program in the UK).

Brand Investments

These are businesses that are able to take existing Unilever brand equity and extend it into new areas. Examples include Persil Services, Dove Spa and Ponds Institute Beauty centres. They are all service based and built on exploitation of an insight regarding the outer edges of the markets that Unilever is already working in. Potentially these companies could also have access to Unilever technology, but even if they do it is unlikely that technical differentiation will be a major feature of their marketing. In terms of growth prospects these businesses are built by physical occupation of space and direct-to-consumer relationship building. Criteria for success include the operational strength of the management team, access to high calibre marketing skills, early successful trial

activity and then access to relatively large amounts of cash for roll-out. Possible issues include friction between the new venture funded activity and in-house Unilever business (particularly acute for brand extension businesses) and also issues of scale. Two related and very real issues for these brand led investments are timing and stamina. Having a great product idea and launching too early for the market is fatal unless you have the resources to stick at the business. In fact many of the UV investee companies have had, or have, great business ideas. However, if they cannot be made successful in the short time span set by resource limitations they die.

One could argue that brand building is a long term activity and that customers need time to get comfortable with a new brand or a radical brand extension. These long term bets may well best be evaluated by UV for an initial investment which can be used for concept development and trial marketing and then a follow-on investment for scale up and roll-out sought from within the Unilever category structure. The Unilever brand extension businesses that need to seek outside venture funds after trial marketing and concept development must face particular issues. An external investor may well ask themselves the question “If Unilever does not want to invest in extending its Dove brand into Spa’s then perhaps there is a good reason?”

Technology Investments

These businesses are classic spin-out companies with a patent portfolio and technical staff derived from the Unilever research labs. Typically they are differentiated from a typical University spin-out by the commercial sensibilities of the leading staff and the fact that the patents will often be granted and based on extensive experimental work. Often the business model will include a B2B element, with a strong technical component in both marketing and in the ongoing sales activity. Examples, from the UV portfolio include Iota and BAC. The PharmaKodex investment is related as it leverages two distinct Unilever technology platforms. The growth prospects of these companies are dependent on making strategic decisions about key customers and how their proprietary IP is packaged and delivered e.g. in the form of licenses, services or scaled up technologies. They are almost always relatively long term bets on exploitation of a platform technology in technical areas outside that of original Unilever interest area (e.g. Rahu and UniFusion). This type of investment is relatively high risk and long term, for example, Kaplan *et al* (2005) show that the average length of time between start-up and successful exit (e.g. IPO or trade sale) for venture funded businesses is about 6 years.

Other Investments

Unilever Ventures has also invested in Brainjuicer, Brand New Brands and PharmaCodex. These investments are all in ideas arising from outside Unilever and therefore occupy the External Locus of Opportunity column of the Väva model. Whether they can best be classified as Ecosystem or Private Equity is a point of discussion. In the case of PharmaKodex UV has acted more like a Private-Equity investor

than an Ecosystem investor (though the relationship includes the licensing of Unilever technology to PharmaKodex). The BrainJuicer investment is also more like a Private Equity investment though one could argue that Unilever is investing in its Ecosystem by building new market research capability in an external company that it may well call upon as a corporation in the future.

The Brand New Brands investment is more clearly an example of an Ecosystem investment. It arose from the relationship that UTV has with Burrill and is operating in a similar product space as Unilever core Foods businesses.

Analysis

The Unilever Ventures strategic profile has been plotted in Exhibit 6.3. The goodness of fit indicates that it is closest to the Harvest profile, and that the null hypothesis has been rejected. However, the goodness of fit is not as small (and the rejection of the null hypothesis less emphatic) than for the UTV and Langholm analyses. This result reflects the fact that UV has a broader view of its strategic role than either UTV or Langholm. It also reflects the spread of its portfolio into 2 of the 4 boxes in the Väva model (the Brand New Brands investment should more properly be thought of as a UTV investment). Based on the arguments in Campbell *et al* (2003) and Birkinshaw & Hill (2005) this more diffuse set of strategic aims can lead to problems. This point will be picked up for discussion in Chapter 8.

Exhibit 6.1 – Brand New Brands – Vision, Values & Bio’s

We aspire to improve and enhance the lives of adults and children by introducing the next generation of foods designed specifically to promote health and support the prevention of disease.

Brand New Brands uses a portfolio-based incubator model to develop and market the highest potential new functional food business opportunities for the U.S. marketplace. Core to our approach is the commitment to create food and beverage products that are efficacious (by medical standards), honest and transparent in their claims, and satisfying to eat or drink. By vetting and assessing the potential of scores of new product concepts, we take the most promising opportunities and fuse them with talented, passionate and proven entrepreneurial teams who turn ideas into thriving new ventures.

We focus our efforts and resources by innovating “category-creating” brand platforms that are capable of crossing over from niche markets to the mainstream in three to five years. We only pursue opportunities where we can claim distinct competitive advantages over large food companies through IP, brand creation or non-traditional distribution. Our strategy is to take the most promising new nutritional technologies and deliver them to the marketplace through great-tasting products with engaging “lifestyle” brands that educate and attract loyal customers and progressive retail partners. We take opportunities to market that are likely to scale quickly due to the convergence of scientific advances, consumer readiness and media attention.

We Define Success By

1. Thrilling our customers while serving their health needs and
2. Creating and capturing value by rapidly growing high-performance businesses that offer long-term potential to strategic buyers.

Our Core Values

- Impact and Innovation – Our products delight our customers and fulfil the unmet health needs of large and expanding populations.
- High Performance Teams – We foster a communicative, coordinated and collaborative “green light” culture that values initiative, personal responsibility and mutual respect.
- Ownership – We initiate and act with the passion, commitment and accountability of owners. We strive to create value for all of our stakeholders by creating valuable, profitable new businesses.
- Product Excellence – Brand New Brands develops breakthrough products of the highest quality, taste, convenience and efficacy. Product platforms are backed by scientific rigor, intellectual property and tangible health benefits. Brands exude

creativity and charisma. We guarantee the safety and integrity of everything we do and are forthright and accurate in our claims.

- Entrepreneurial Leadership – We are highly resourceful and strive for leverage, scale and speed to market. We pursue ambitious visions creatively, with rigorous execution.

William Rosenzweig, CEO

Will is a seasoned entrepreneur with demonstrated success in the functional food and beverage industry. In 1990, Will co-founded and served as President and CEO of The Republic of Tea, an award-winning specialty tea business and is co-author of the best selling business book *The Republic of Tea: How an Idea Becomes a Business*. (Doubleday 1992) In his corporate career, he served as Senior Vice President for Odwalla, Inc., the nation's leading super-premium juice brand that was acquired by Coca Cola in 2001. Will has been involved in starting and growing a wide variety of entrepreneurial ventures. In 1998, he was one of the founders of Venture Strategy Partners, a \$25 million venture capital investment fund which was the first institutional investor in Stonyfield Farms before it was sold to Danone. He has also been an active contributor, director or advisor to Trinity Springs Water, Whole Foods Markets, Jamba Juice and Ben & Jerry's Homemade, and was the founder of the Build Brand Value Conference. Will has been on the faculty of the Haas School of Business at UC Berkeley since 1999 and teaches the MBA course in Social Entrepreneurship.

Peter Mattson, Product Development

Pete is a 40-year veteran of the food industry and founder/chairman of Mattson & Company, the leading new product development company in the food and beverage industry. He and his company are responsible for developing Starbucks Frappuccino, Mrs. Fields Cookies, Orville Redenbacher Popcorn, Del Monte Orchard Select and Boca Burger. Mattson & Company's current clients include all of the major North American food & beverage companies including: Kraft, Nestlé, Best Foods (Unilever), ConAgra, Cargill, Kellogg and Campbell's. Mattson & Company also serves foodservice operators as well as key mid-size food companies and foodservice operators. Brand New Brands leverages Mattson & Company's product development services and consumer concept and organoleptic testing capabilities at its Foster City, California facilities to create its portfolio of great-tasting and healthful functional foods and beverages.

[Downloaded 9/11/2006 from <http://www.brandnewbrandsinc.com>].

Exhibit 6.2 – Visualisation of UV portfolio on Väva Model




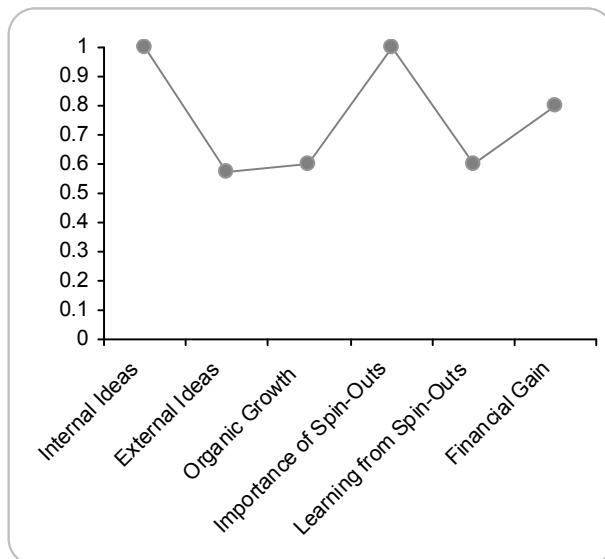
Internal Explorer	Innovation Venturing	External Explorer	Ecosystem Venturing
Internal Exploiter	Harvest Venturing		 

Exhibit 6.3 –Unilever Ventures Strategic Profile

The following ratings have been assigned based on the information obtained from the Unilever Ventures website and personal contacts.

Parameter	Rating
Focus on Internal Ideas	7
Focus on External Ideas	4
Importance of Organic Growth	3
Importance of spin outs	5
Importance of learning from spin-outs	3
Importance of financial gain from spin-outs	4



The misfit between this profile and each of the “ideal” types was estimated as below

Väva Model Ideal Type	Distance (Z) between Unilever Ventures & Ideal type
Harvest	0.65*
Ecosystem	1.22
Innovation	1.10
Private Equity	1.05

* Indicates null hypothesis has been rejected at 5% significance level.

Chapter 7 – Unilever Ventures Operations

This chapter touches upon some of the key operational activities that UV has been involved in over the past 4-5 years. It also attempts to describe the structural profile of Unilever Ventures within the framework shown in Exhibits 2.7 and 2.9.

7.1 Unilever Technology IP

One of the strategic goals of UV is to exploit, or harvest, Unilever intellectual assets and properties. For technology spin-outs it is vital that intellectual property, usually in the form of collections of granted patents, can be cleanly exploited and that they are linked to both experienced commercial management (usually CEO and CFO) and credible technical leadership (CTO and team). Unless the putative technology based business has this combination of management and clear IP it will find it difficult to secure additional external venture funding or establish barriers to entry for competitors.

It is hard to say *a priori* whether Unilever has a significant amount of unused or under used intellectual assets. Even the assets that are unused may be so for good reasons (poor quality filings, little commercial value or because the future life of granted patent is too short to provide an investor a reasonable period over which they can extract value). Perhaps the IP is in good shape but a key inventor has left the company or moved to another role that effectively removes them from consideration as a key asset for the new business. Even more fraught is the issue of how in general UV can establish that a patent portfolio is indeed unused and available for exploitation outside the confines of the Unilever organisation.

Exhibit 7.1 shows a thematic presentation of the Unilever patent portfolio of most interest to venture investors¹. The map shows a very high level of technology clustering around the historical and ongoing priorities of the product categories. Although no organisational information was fed into the visualisation package the map closely mirrors the underlying product category organisational structure of Unilever and Unilever R&D. These product categories (e.g. Ice Cream, Tea, Deo and Hair shown on Exhibit 7.1) share common underlying technology families. At a first level of analysis there are no terms shown in Exhibit 7.1 that would suggest a large cluster of non-core IP. For example, many of the terms are directly related to current Unilever product categories or underlying process or packaging technologies used by Unilever. This suggests that any underused IP that exists within this view of the Unilever portfolio is rather tangled up with the IP that the core categories are keen to exploit. For example, at this level of analysis there doesn't appear to be obvious portfolios of IP that could be cleanly excised

¹ For the purposes of this thesis the database used for analysis consisted of granted US, EP or DE patents assigned to Unilever or its subsidiaries that were filed between 1995 and 2005. After removing duplicate filings there were 1799 patents. These patents are “live” in the sense that they have a potential residual value for a venture investor seeking to spin out an IP protected technology business.

(e.g. there are no large chunks of IP labelled “Analysis Instrumentation”, “Nanotechnology” or “Genetic Fingerprinting” etc).

In order to dig down another layer into the Unilever portfolio the 1799 patents were inspected individually at next level of detail. The information available for each patent included information that was used to estimate an impact factor the patent. The impact factor for each patent was calculated using the following algorithm;

$$I = \frac{\# \text{Times Cited}}{1 + \# \text{Citations}} \times \# \text{Years left},$$

where #Times Cited is the number of citations that other patents have made to this patent (up to Dec2005), #Citations is the number of other patents that are cited in the patent application and #Years left is the number of years from Jan 2007 to the estimated expiry date of the patent. This calculation gives an “impact” factor, *I*, that gives a crude balance between the amount of time left to exploit this patent application, the uniqueness of the concept (reflected in the number of patents cited) and the patents wider visibility outside Unilever (reflected in the number of times cited). The 1799 patents were then placed in rank order of their impact factor *I* (top 20 of these are shown in Exhibit 7.2). For example, the patent at the top of the table (EP0674898B1 – Shampoo Composition) has been cited by 24 other patents, has 8 years until expiry date and cited zero other patents in the patent application. Thus *I* for this patent is

$$I = \frac{24}{1 + 0} \times 8 = 192.$$

The vast majority of the top 20 highest impact patents appear to be of continuing interest to core Unilever product categories and therefore are either difficult or impossible to use in a venture funded spin-out. Three of the patents refer to dry cleaning fabrics with carbon dioxide and these are outside any obvious interest for a Unilever product category. In fact there is a clear patent family around CO₂ dry cleaning existing within the database and one of the core patents for this family (US5935596) is shown in Exhibit 7.1.

There are a number of ways to further interrogate this database. One further method illustrated here is a patent citation analysis. This type of analysis can proceed in a number of directions. For example, one can enumerate all ‘forward’ citations that have been generated by a particular patent i.e. all those later patents that have cited the original patent. The number of forward citations a patent receives provides a relatively objective way of measuring the interest that other inventors have in the original patent. A forward citation analysis can also be extended by a number of ‘generations’. That is it can be used to indicate not only the patents which cite the patent directly (first generation of citations) but also all those patents that cite the first generation patents. In this way it is easy to visualise where an individual patent is positioned in a complex patent space.

As an illustration Exhibit 7.3 shows how the Unilever 1799 patent database as a whole is cited. The patents that cite the 1799 database are overwhelmingly from Unilever itself, direct competitors (P&G, Colgate, Henkel, Nestle, Beiersdorf, L'Oreal) or suppliers (Kao, BASF, Cognis, National Starch). This is inevitable as within a particular product or technology domain there is a high level of structure corresponding to the competitive landscape of the industry.

One can further refine this approach and search for those individual patents that had the highest number of citations per year. Although there may be no relation between the citation impact of a patent and the financial impact a patent has within Unilever this analysis will tend to highlight patents that have a large potential impact external to Unilever's current business. Of the remaining highly cited patents one was selected for further citation analysis;

US5676705 -Method of dry cleaning fabrics using densified carbon dioxide.

A method of dry cleaning fabrics using a dry cleaning system is described. The system comprises densified CO₂ and a surfactant in the densified CO₂.

Application date 6/3/1995, Publication date 14/10/1997.

Cites 16 patents. Cited by 90.

It was assumed from prior knowledge of Unilever current business that the subject matter of this patent put it outside Unilever core technology areas (Exhibit 7.1).

The next stage of the analysis was to map the forward citations that this patent had generated. Aureka presents these relationships in the form of a parabolic "family tree". The second generation family tree for the US5676705 patent is shown in Exhibit 7.4. In this visualisation the patent under consideration is linked directly to patents that cite it and a second layer is added of patents that cite these patents.

It should be noted that the analysis summarised here was performed on public domain information, its extension to the unpublished internal Unilever report database would be very interesting but has not been carried out here. This extension would provide a way to assess the intellectual asset base of Unilever that may or may not be patent protected.

7.2 UV Ideation process

Unilever Ventures has made great efforts to apply VC norms to its business creation process. This reflects a belief that the approach usually adopted within Unilever R&D, to fund projects, is not ideal for launching new ventures. The VC approach is particularly evident in its stated deal flow which is shown schematically in Exhibit 7.5. However, one of the methods that UV uses to bring in the 250 target opportunities is quite distinct from normal independent VC funds. This activity is known by UV as Ideation. This is a series of intense business creation campaigns carried out within the main Unilever R&D labs. The aim of each campaign is to generate between 30 and 50 opportunities and take

a smaller number, between 5 and 10 per campaign, onto the next stages of the process. Ultimately the investment board of UV would like 2-3 businesses founded as an outcome of each of the campaigns. It should be noted that this is not the only route for UV to have access to business opportunities and there are a number of examples of Unilever R&D scientists, and external businesses, going directly to UV to pitch an idea. The “Ideation” process that is now applied is distinctive and is focused on harvesting underused or unused Intellectual property (largely patents and know-how). It seeks to use traditional Unilever strength in science and technology with the sharp business focusing methods of private equity and VC fund managers.

The ideation process is a descendent of a pre-UV “Incubation” process that was experimented with at Colworth and Port Sunlight in 2000 and 2001 respectively (Exhibit 7.6).

Following the creation of Unilever Ventures there have been 4 lab based Ideation programs; Colworth (2002), Vlaardingen (2003), Port Sunlight (2003) and Vlaardingen (Jan 2005). In total the Ideation process takes 4-5 months, it uses the toll gate structure shown in Exhibit 7.5 and the pre Tollgate 1 activity in the lab is an initial 12 weeks of intense activity.

Up to Tollgate 0

The process is begun with open meeting and poster campaigns within the labs to generate a “buzz” amongst the scientists within the lab. After an official launch, usually with keynote talks from most senior lab management, scientist teams are encouraged to write brief business case ideas. In this period open workshops are run to help in the process of market size assessment, business plan writing and discussion, intellectual property strategies etc. after submission about 20-35 of the ideas are selected to give a 30 minute pitch to the UV panel. After the panel has decided on which projects to take forward written feedback to all teams is given and all “inventors” are invited to a celebratory “community of Inventors” dinner. Teams that pass Tollgate 0 are then given more UV input.

Up to Tollgate 1

The process between Tollgate 0 and Tollgate 1 is a 12 week stretch to refine the business plan proposal, with support from UV and MBA students. Any potential post-Tollgate 1 human resource issues are explored. An in principle release form of the technology and access to relevant IP is obtained from senior R&D/business stakeholders. The issue of IP ownership is explicitly addressed by (re-)confirming IP assignments. The time that scientists use in this phase is either in own free time or in agreement with individual line managers.

Post Toll Gate 1

Any business proposition that passes Tollgate 1 now receives a serious level of funding from UV. Post Toll Gate 1 UV projects are essentially fully funded by UV. Typically the principal staff driving the projects will be on a 2/3 days per week basis for UV account. Founder's equity is allocated by the UV board at this stage. Teams will be involved with confirming the technology, confirming customer demand, building the management team and developing the financial and business plan.

Tollgate 2 & 3

These stages involve formation of a separate company, recruitment of management team (especially Managing Director), set up own premises and raising more (none UV) funding.

Investment Criteria

When UV as a fund interacts with Unilever R&D it is explicitly trying to leverage Unilever IP by taking a proprietary technology to the market. The aim of the investment is to build on the knowledge of the individual and the team and in particular seeking either lateral thinking in application to other industries or to provide step-change cost savings for existing businesses. Unilever Ventures seeks to invest in two broad classes of business opportunity.

The investment that UV makes is typically between £200k - £3m over the life of an investment. This will often be in several rounds of investment with clear performance targets associated with each tranche of funding. Geographically UV seeks businesses that are based in Europe, but with potential to carry out business world-wide.

The UV investment board uses following list of criteria to evaluate the business propositions that are pitched by R&D science teams.

- (i) A clear and compelling proposition
- (ii) Big market opportunity
- (iii) A customer who is willing to pay
- (iv) Competitive Advantage, ideally patent protection
- (v) Deliverable technology (Not a research program)
- (vi) The potential to make a lot of money:
- (vii) Expert Scientists

Business Creation model

In all cases UV is seeking to build spin-out companies that the Unilever Group has equity in. The companies are expected to have potential either to generate future capital gains or significant licensing revenues. The equity allocation scheme for the spin-out companies is now fairly well defined. Founder's equity is awarded to project founders and these staff are not required to leave Unilever to receive this. The idea is that the founders get a reward for getting a good idea to the external funding stage. Management equity on the other hand is only awarded for employees who leave Unilever to join the business or non-Unilever recruits who join the management team at an early stage. The equity distribution for these early stage managers is in-line with VC norms, i.e. is significant but dilutable.

Intellectual Property position

The current UV Ideation process has made it a more explicit requirement for business teams that they formally sign up to the fact that Unilever is the owner of the IP they are exploiting in their business proposals. This clears up one aspect of the IP situation but there are a number of other IP issues that are resolved on a case by case basis. In some cases the IP portfolio required to back up a business idea will be substantial and one of the major issues is how to segment the IP required for the business from core Unilever usage. Another issue is how to ensure that the nascent business does not file patents that "prior art" the core Unilever research groups. This aspect of the UV process is complex and as yet not fully resolved.

The three Ideation campaigns carried out in 2002 and 2003 gave rise to a total of 20 business ideas at the post Tollgate 0 stage.

The UV Ideation process is a professionally run method for bringing a venture capital business creation ethic into Unilever's European research laboratories. The UV organisation has learnt many of the lessons from the earlier, pre UV, Incubator campaigns at Colworth and Port Sunlight and issues regarding personal activity, equity and IP are explicitly addressed prior to teams building business plans and product concepts.

However, there is still a fundamental contradiction built into the UV Ideation concept that has yet to be resolved.

From the point of view of Unilever Ventures the primary requirement is to maximise the probability of success of any new company. If this requires one or more key technical staff to leave Unilever R&D to join a fledgling start-up then this is unfortunate for Unilever R&D but necessary. Unfortunately, from the point of view of senior research management this can often mean the loss of some of their most gifted and entrepreneurial scientists and research managers. When seeking early stage external funding after initial UV investment then having a CTO who is also the original inventor of the technology can help raise the valuation of the company and the probability of

investment. However, for the senior management of R&D the loss of their most gifted and entrepreneurial staff is a cause for some concern.

In addition to this contradiction is the fact that if a genuine “platform technology” is used for a spin-out it is extremely difficult to write an overall IP transfer agreement that at the same time protects the fledgling company’s interests and is future proof for mainstream Unilever applications. For companies that are based on a well defined and relatively smaller piece of technology the task is much easier (Alleggra is a good example).

Unilever Ventures management has learnt a great deal from the Ideation campaigns run from 2002 to 2005 ;

- Most successful ideas involved taking existing scientific or marketing competencies into either new application areas or for new customers.
- Some strong technology/market combinations were identified by the research scientist teams which were not being pushed by the research or marketing leadership of the product categories.
- Many of the ideas were considered to be none-core or not sizeable enough for categories to launch within mainstream Unilever framework. This is an example of the “threshold” effect that large corporations suffer from. The cost of launching a new product is substantial (one estimate is that it costs a minimum of \$50M for Unilever to launch a new product in the US market). Some of these “small” opportunities for Unilever’s mainstream businesses are substantial and in many business environments would be considered as worth pushing.
- Unilever Ventures provides a real chance for a “go-to-market” opportunity and has the added effect of getting opportunities back into the core Unilever business groups (though this causes some issues for the teams involved).

The Ideation campaigns provide a high degree of staff participation for short bursts, for example over 400 people attended the kick off meetings in Vlaardingen & Colworth and about 200 people took part in the development of opportunities.

7.3 Unilever Ventures Structural Profile

The paper by Birkinshaw & Hill (2005) described 8 metrics that in combination define the structural profile of a corporate venture group (Exhibit 2.). These metrics relate to the governance structure, day to day activities, network of relationships and management systems of the venture group. Based on knowledge of the UV business creation process and activities the following assessment have been made, and visualised in Exhibit 7.7.

Autonomy. UV is not a separate fund but an investment vehicle for Unilever (largely structured in this way for tax purposes). However, on an operational level the fund seems to enjoy a large degree of autonomy with respect to Unilever as a corporation. Rating 2/3.

Involvement in Syndicated Investments. Although UV does not use external funds for its initial Tollgate 1 and 2 investments it actively seeks external partners for investment at Tollgate 3. Rating 3/4.

Selecting & Exiting Ventures. UV has an investment board that evaluates whether to invest in a particular venture or not. It has also made decisions to exit ventures either by drive to IPO/trade sale or to discontinue operations. Rating 4/5.

Building & Nurturing Ventures in the portfolio. UV has spent a great deal of effort in both of these activities and probably more than an independent VC would undertake. This reflects the fact that UV gets involved in the process of company formation earlier than many VC's would be comfortable with. Rating 4/5.

Links to VC firms for deal flow and Ideas. UV has a good network into the private equity and VC community, helped by institutional relationships with Langholm and UTV via the head of Unilever Corporate ventures group Nick Allen. Nevertheless, a large component of the deal flow is still from internal Unilever channels (e.g. Ideation and other ideas garnered from internal stakeholders). Rating 3/5.

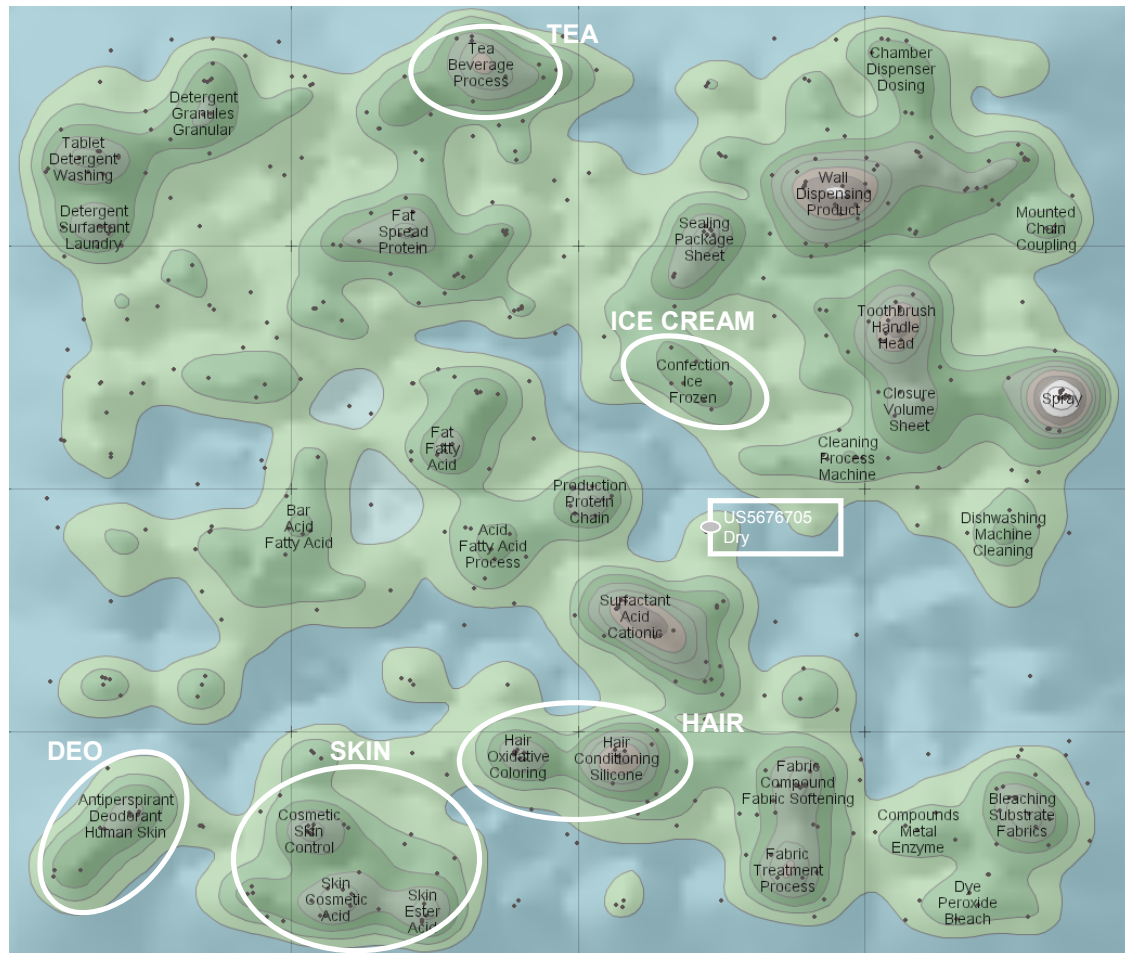
Links to executives in the Parent firm. UV has a well developed network into mainstream Unilever. This is based on the career profiles of both Nick Allen (Head of CVG) and John Coombs. It is also aided by the strong cultural characteristic of Unilever senior managers who have built their career by multiple assignments in different business units and functions. Organisationally the Corporate ventures group is close to the Unilever Executive. Rating 4/5.

Focus on measures of financial performance. The leadership of UV in the form of John Coombs and the finance director (Mark Muth) have a strong focus on the financial performance of UV. They operate the fund as a vehicle for financial return to Unilever and not an internal project fund source. Rating 6/7.

Equity based compensation for venture unit managers. At time of writing this thesis I had no information available on this parameter. A non-committal rating of 2/5 has been given.

Comparing the structural profile of UV (Exhibit 7.7) with the structural profiles of the Väva ideal VC group types shown in Exhibit 2.9 shows there is a close similarity between UV and the Harvest Venturing type.

Exhibit 7.1 A visualization of Unilever's live patent portfolio derived from public domain patent records December 2005.



The above visualisation was generated in the ThemeScape facility in Aureka (<http://scientific.thomson.com/products/aureka/>). ThemeScape uses three main algorithms to analyse the words used in patents, and to identify themes and relationships between documents. Documents with topics in common are clustered more closely than those where topics are not related. These closely related documents are then clustered around a central coordinate and represented on a two-dimensional, ThemeScape map. The visualisation produces a contoured patent landscape. The Unilever product categories (Tea, Ice-Cream, Deo, Hair and Skin) have been added manually but are clearly well represented by the technology peaks.

The individual patent identified is US5676705 which describes a method of dry cleaning fabrics using densified carbon dioxide with a surfactant in the densified CO₂ (Application 6/3/1995, Publication date 14/10/1997). The patent cites 16 patents and is cited by 90.

Exhibit 7.2 Unilever's Highest Impact patents

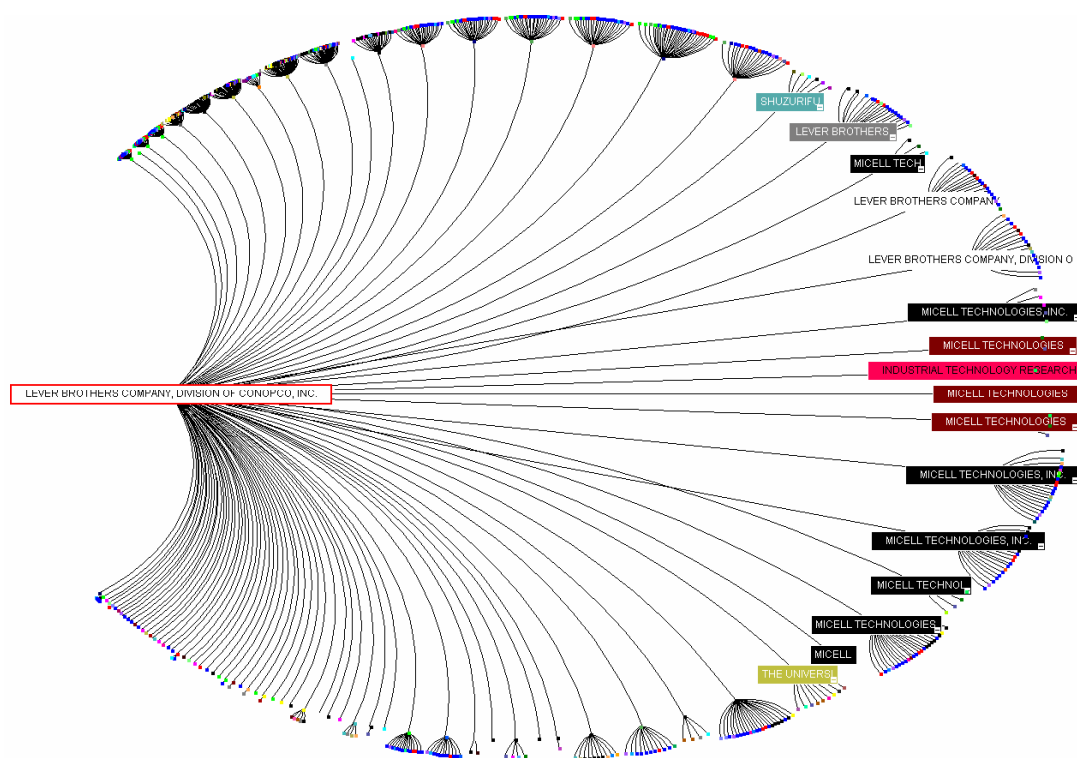
Patent Number	Years to Go	Cited By	/	Document Title
EP0674898B1	8	24	192	Shampoo composition
US6280708B1	12	11	132	Stable peroxide dental compositions
US5520840A	8	42	112	Detergent bars comprising water soluble starches
US6313079B1	13	15	97	Heterocyclic dry-cleaning surfactant and method for using the same
US5609854A	8	19	76	Thickened and stabilized cosmetic emulsion compositions
US5785960A	10	21	52	Method and system for customizing dermatological foundation products
US6288022B1	12	4	48	Treatment for fabrics
US5665367A	9	26	47	Skin care compositions containing naringenin and/or quercetin and a retinoid
US5977045A	11	34	47	Dry cleaning system using densified carbon dioxide and a surfactant adjunct
US5696278A	7	13	46	Degumming of crude glyceride oils not exposed to prior enzymatic activity
US5801226A	9	5	45	Oral care compositions
US5676705A	8	90	42	Method of dry cleaning fabrics using densified carbon dioxide
EP0711827B1	8	63	42	Tablet detergent compositions
EP0838519B1	10	31	39	Water-softening and detergent compositions
US5756109A	9	12	36	Skin care compositions containing geranyl geraniol and retinol or retinyl esters
USD415021S	11	18	33	Dispenser
USD410787S	10	16	32	Toothbrush handle
US5631217A	4	16	32	Detergent compositions comprising a modified subtilisin
US5580550A	8	8	32	Cosmetic composition comprising particles of polyisobutylene resin and process for the preparation of same
US5880076A	10	19	32	Compositions comprising glycarbamate and glycaurea compounds
US5965501A	10	28	31	Personal washing bar compositions comprising emollient rich phase/stripe
US5486352A	8	19	30	Sunscreen compositions
US5998641A	10	6	30	Debittering of olive oil
US6635300B2	14	2	28	Aerated frozen product
US5481775A	8	39	26	Toothbrush with movable head

EP0717983B1	8	13	26	Cosmetics containing betulinic acid
-------------	---	----	----	-------------------------------------

Exhibit 7.3 Number of patents citing Unilever 1799 Patent database

Patent Assignee	Number Citing Unilever Patents
UNILEVER & AFFILIATES	603
PROCTER&GAMBLE	337
COLGATE-PALMOLIVE COMPANY	168
L'OREAL	91
BEIERSDORF AG	80
ECOLAB INC.	56
HENKEL AG	42
GENERAL ELECTRIC COMPANY	41
THE GILLETTE COMPANY	41
NESTLE/NESTEC S.A.	37
KAO CORPORATION	32
KIMBERLY-CLARK WORLDWIDE, INC.	24
JOHNSON & JOHNSON INC.	23
MICELL TECHNOLOGIES, INC.	21
AVON PRODUCTS, INC.	18
REVLON CONSUMER PRODUCTS CORP	17
MCNEIL-PPC, INC.	16
QUEST INTERNATIONAL B.V.	16
COGNIS GMBH	16
FWJ PLASTIC PACKAGING, INC.	15
PLAYTEX PRODUCTS, INC.	14
S. C. JOHNSON & SON, INC.	14
GENENCOR INTERNATIONAL, INC.	13
KRAFT FOODS, INC.	13
3M INNOVATIVE PROPERTIES COMPANY	12
THE DIAL CORPORATION	12
BASF AG	11
RECKITT BENCKISER N.V.	11
ELIZABETH ARDEN CO.	10
OWENS-ILLINOIS CLOSURE INC.	10
COLOR ACCESS, INC.	9
GENERAL MILLS, INC.	9
NATIONAL STARCH AND CHEMICAL	9
CIBA SPECIALTY CHEMICALS CORP	8

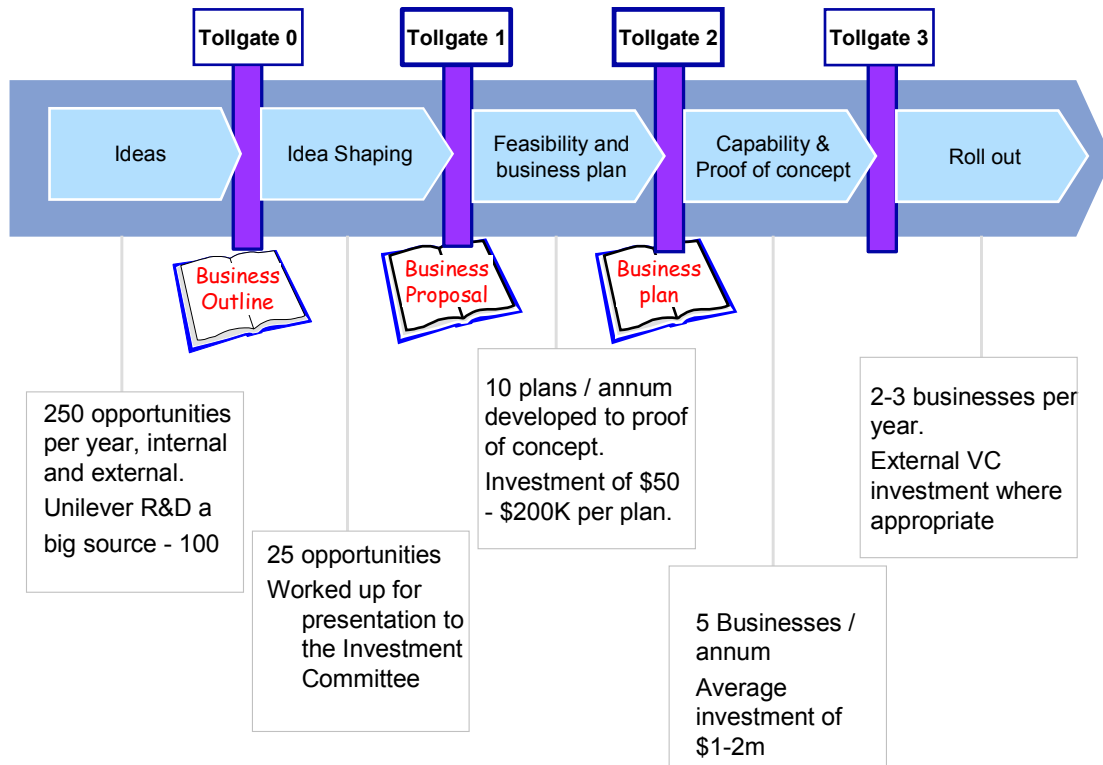
Exhibit 7.4 Second generation forward citations for US5676705



From this citation visualisation it appears that US5676705 is fairly important within this technology space with many primary **and** secondary citations. In particular there appears to be a strong relationship between the patent portfolio owned by Micell technologies and this single Unilever patent. Micell is based in Raleigh North Carolina and sells cleaning systems based on polymer and surfactant enriched CO₂. Their technology portfolio was generated by the founders whilst at Universities in North Carolina and by acquisition from Batelle Memorial Institute. The company continues to have partnerships with University of North Carolina, North Carolina State University, Batelle Memorial Institute and Pacifica Northwest National Lab. When one factors in patents in this family also coming from these institutes there are 77 citations in total.

Micell have been very successful at commercialising their CO₂ cleaning technology. They set up a wholly owned subsidiary Hangers Cleaners to get their dry cleaning technology into the 35,000 dry cleaners within the US. Their brand emphasised the minimal environmental impact of the CO₂ process, compared with traditional dry-cleaning methods, the superior cleaning ability and higher operator health and safety. Micell sold off the Hangers subsidiary in 2002 at which time they had 62 franchisers, each generating about \$1M in revenue. Micell have gone on to found other subsidiaries focusing on the application of CO₂ cleaning for industrial cleaning applications in the semiconductor sector.

Exhibit 7.5 Unilever Ventures Deal flow model (January 2005)



Copyright Unilever Ventures 2005

The Unilever Ventures deal flow model for generating businesses for investment. The ratio of 250 opportunities at input to 3 businesses at output per annum is typical of Venture investment norms. The combination of limited investment resources (determined by the overall size of the UV fund) and a large number of business opportunities ensures that only the best opportunities are progressed. A key driver in the UV process is to get syndicated investments from external sources for the “roll-Out” phase. This approach acts as an external quality control metric and allows UV to invest in more opportunities than it would otherwise be able to if it relied solely on internal funds.

Exhibit 7.6 The Unilever R&D “Business Incubator” Port Sunlight 2001

In February 2001, the senior management team at Unilever Research Port Sunlight expressed a desire to repeat the “business incubation” process, which had been enthusiastically piloted in Colworth House in 2000. This process was championed by the Colworth House Finance Director, David Mann, and a number of people who later became involved in Unilever Ventures (e.g. Jan Harley).

The stated objectives of the incubation exercise at Port Sunlight in 2001 were:

“To identify a portfolio of valuable ideas in Port Sunlight and to advance those through phase I of the incubation process (‘Concept’) and to encourage an ‘enterprise culture’ in Port Sunlight “

The Phase I of the process was conducted at Port Sunlight by a joint Unilever / Accenture incubation team over an intensive month long period in May 2001. The Concept phase was aimed at energising the R&D community within Port Sunlight to bring forward ideas for businesses. This initial phase caused quite a flurry of activity within Port Sunlight. It was initiated by a lab wide open meeting in which expectations for the process were set high by the Head of Lab (Dr Alan Evenson) as he sought to make “millionaire scientists” a normal part of the labs population.

Over the month long concept phase an Incubation Team comprising Unilever and Accenture personnel were based at Port Sunlight to implement the following steps:

1. An initial meeting and presentation to employees at Port Sunlight to introduce the incubator concept and to encourage participation
2. A series of evaluative workshops held by the incubation team to identify the most promising of the ideas
3. Development by idea owners, supported by the incubation team, of a robust “elevator pitch” for idea owners to present to venture capitalists
4. Preliminary market and technological research and patent searching to establish the clear value proposition behind each business idea
5. Peer review with Chief Scientist, Prof. Dominic Tildesley and other Unilever scientific personnel

Many of the research scientists at Port Sunlight responded very enthusiastically and in small teams of between 1 and 4 staff generated about 30 business concepts. A number of open workshops were run to help the scientist teams to formulate proto-business plans.

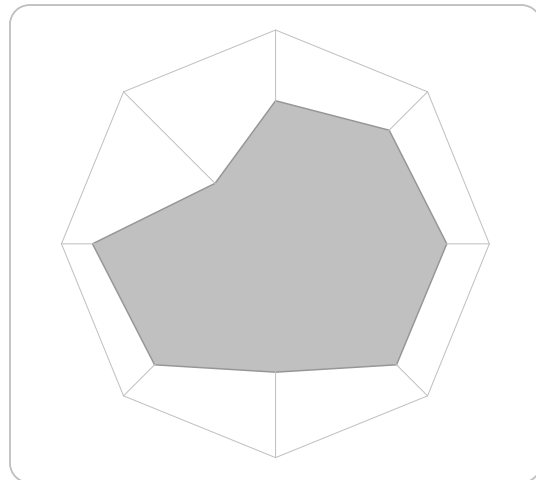
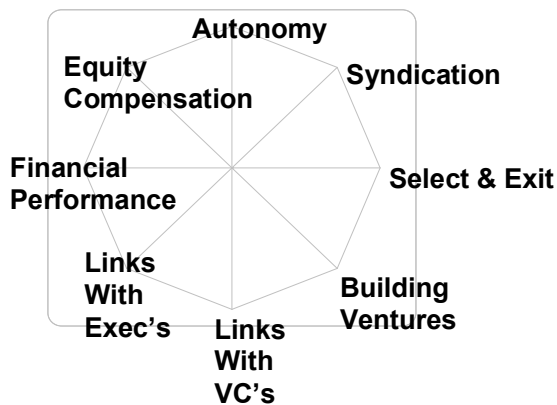
These initial ideas were whittled down from the 30 ideas into a shortlist of 7. These ideas were then further developed into VC style elevator pitches with input from experienced BBC journalists and Accenture consultants. Each pitch had an initial business proposition including educated guesses on IP, market size, business model, exit strategy etc.

The 7 business ideas were pitched by the scientist teams to an “investment board” that included external venture capitalists (3i, Accenture Technology Ventures and The Technology Partnership) on August 2nd 2001. These elevator pitches were the outcome of the initial phase May-June 2001 and represented work by the teams proposing the ideas and some input, particularly on potential routes to market and valuations, from a team of Accenture consultants. After the venture capital board met on August 2nd 2001 the teams were given feedback in terms of the VC’s opinions about the strength of the idea, potential issues and also how attractive they were as investment opportunities.

Due to the imminent set up of Unilever Ventures none of the business ideas was immediately followed up. Some of the teams left to pursue the ideas with no further Unilever backing and several ideas were picked up again by Unilever Ventures when it was formally founded in January 2002.

Exhibit 7.7 The Unilever Ventures Structural Profile

Parameter	Rating for UV
Operating autonomy with respect to parent company	2 (3)
Extent of involvement in syndicated investments	3(4)
Selecting and exiting ventures	4(5)
Building and nurturing ventures in the portfolio	4(5)
Links to VC firms for deal flow and ideas	3(5)
Links to executives in the parent firm	4(5)
Focus on measures of financial performance	6(7)
Equity based compensation for venture unit managers	2(5)



Chapter 8 – Discussion

8.1 Unilever's current business environment

On Sunday May 7th 2006 the deputy business editor of the Sunday Observer used the stark headline “Investors call for break-up of Unilever” to describe some of the issues that he believed Unilever faces. These include;

mediocre performance- “a dismal set of financial results showed that sales were stagnating in Europe”.

corporate culture – “the forces of conservatism are too powerful in this company”

corporate structure – “...including demerging the food and personal care divisions. There aren't many synergies between the two divisions”.

There is not much in the article that makes for positive reading particularly after 6 years of a “Path to Growth” strategy and 2 years after the launch of Unilever's Vitality mission. For one of Europe's largest fast moving consumer goods (FMCG) companies this is a difficult evaluation.

In the next section some of the structural and business issues facing Unilever as a corporation are introduced. The underlying issues combine with a significant pressure from stakeholders for long term profitable growth.

8.2 The Unilever value chain

Although Unilever is one of the Worlds largest consumer goods company's, its shareholders continue to exert pressure for continuous underlying sales growth of 5-10% per annum. This is expected to be achieved without erosion of the historically high profit margins on these increased turnovers. However, these pressures come at a time of unprecedented challenges to a company like Unilever. There are a number of socioeconomic forces that are conspiring to make it harder than ever to make decent profits on high volume turnover goods.

Firstly, the delicate balance of power that exists between a primary manufacturer of branded goods and the supermarkets has swung over the past 10 years heavily in favour of the largest supermarkets. These powerful and sophisticated mega-retailers (Wal-Mart, Tesco, Carrefour etc) control the interface to millions of shoppers. They systematically exploit a keen understanding of demographics and local knowledge of geographical store location to position themselves in almost exactly the right place to provide convenient shopping. In addition their scale allows them considerable bargaining power when

negotiating purchase prices with both primary producers of fresh goods and producers of branded goods.

Secondly, Unilever finds itself in a situation where it finances the development and production of products, the building of brand positions, conducting market and consumer research, advertising and distributing products and then in the end relies on a retailer (and in many cases competitor) to manage sales, final distribution and consumer interfacing.

Thirdly, there are significant changes underway in the way consumer products are marketed and advertised. Until the early 1990's the TV landscape in most Western countries was predictable. A relatively small number of commercial TV stations controlled the vast majority of "eyeball" access for advertisers. Things today could hardly be more different. A recent study by the Association of National Advertisers and Forrester research carried out in March 2006 notes "that four in five marketers believe that TV commercials are less effective than they were just two years ago. Sixty percent of the respondents say that they will spend less on conventional TV advertising in the next three years".

Home and personal care products are generally aqueous based formulations of surfactants, polymers and low concentrations of active chemical species. The raw material source for many of the ingredients derives from the petrochemical industry. This value chain is U shaped. Both the oil exploration and production companies and the mega-retailers dwarf the FMCG manufacturers such as Unilever, Colgate and P&G. The scale of these raw material suppliers and end customers explains why Unilever has a relatively weak negotiating position compared with the past. It is highly likely that as oil reserves become scarcer and oil prices rise the power of the oil producers will continue to grow. At the same time the dominance of the retailers will continue as fierce price competition ensures that only the most efficient supply chains and innovation mechanisms survive. Unilever and its peer group in home and personal care products will be caught in a squeeze for value unless they grow or acquire their way out of this 'piggy in the middle' position. It is likely that as the retailers consolidate it will become increasingly important for an FMCG manufacturer to dominate a product category just to ensure shelf space for products. It could well be that one of the major battlegrounds between FMCG companies in the future will be over who will be the preferred supplier and category manager to the mega retailers. This battle may well be decided by the ability of FMCG companies to leverage the competitive advantage of global brands, compositions, packaging and manufacture.

In the Foods value chain there are similar trends. The very large raw material suppliers such as Conagra, Cargill and Bunge are trying to move downstream in the value chain (into manufacture and branding) in a search for higher margins (7.7% versus 2.7%). This is facilitated by their strengths in both technology and large scale manufacturing. At the same time the retailers are moving upstream by building compelling and segmented brand positions (Tesco in the UK has been very successful at this) and exploiting their

first-hand, intimate relationship of trust with individual consumers. By combining these with geographic growth, acquisitions and improved marketing they also seek to get bigger margins on their growth rates.

All in all the challenge for Unilever is significant. With the structural realities outlined above, high shareholder expectation and a relatively complex corporate structure, sustained growth is not automatic. Nevertheless, growth is back on the agenda for Unilever, and the launch of its CVG at an early stage in its “Path to Growth” strategy can be seen as signalling an explicit link between its establishment and the Unilever growth agenda. Unilever was in good company, in the late 1990’s when more than three-quarters of companies in the Fortune 100 and an equivalent number of FTSE 100 companies set up corporate venturing units as part of their search for growth.

8.3 The application of existing literature models to Unilever situation

The academic business studies literature is replete with “models’ trying to rationalise some aspect of the complex reality of business life. Many of these are rather arbitrarily set up as having 2 dimensions, on each of which there are two possible values, the famous 2 x 2 models of the business school. However, as already stated in Chapter 2 a model should be more than a 2 x 2 matrix. In fact *a priori* the following are reasonable desiderata for an academic model of a business situation;

- (a) The model is able to explain many, if not all, of the current empirical observations (Explanatory).
- (b) The model covers the whole space of the possible theoretical “states” of the studied phenomena (Comprehensive) and
- (c) The model is capable of generating insights and opportunities for action - i.e. more comes out of the model than was put into it (Emergent).

Burgelman and Välikangas (2005)

As stated in Chapter 2 the Burgelman and Välikangas (2005) model is primarily explanatory. It tries to provide a number of categories, what I prefer to term “pathologies”, which help diagnose where in the cycle of Corporate Venturing a particular corporation finds itself. One can certainly walk through the development of Unilever during the period 1995-2005 and “apply” the model to that period. The raw data are shown in Exhibit 1.2 and graphically in Exhibit 8.1. Over this period Unilever had a fairly steady turnover of about £35 – £40 Billion per annum. During the period 1995-1999 Unilever had quite substantial financial resources available, evidenced by the closing net funds and also in 1995-1998 strong, but not spectacular underlying sales growth of 3.7 to 5 percent.

If one applies the Burgelman classification this would place Unilever in that period as an ICV Orphan. In this mode the top management of the company is uninterested in actively

supporting corporate venturing, however, as the authors note a number of entrepreneurial projects are likely to be launched. In the case of Unilever it was precisely during this period, 1999-2001, that the series of entrepreneurial experiments described in Chapter 3 (MyHome, Ch'a tea shops, Lynx Barbershops Wowgo and iVillage) were either conceived of, or launched. One could speculate about why there was a flurry of Orphan corporate venture activity in 1998-2001. Perhaps one reason was the Foresight activity that Unilever had launched in 1998². In this a multi-functional team of high potential managers from across Unilever were asked to carry out a series of scenario exercises. These "Foresight" activities ultimately led to the mainstream Unilever vitality mission launched in 2004, but in the late 1990's it could well have been the Foresight activity that led to many of what could be considered "orphan" corporate ventures. Notably these ventures in and of themselves look sensible. Yet because they were from isolated business groups and did not have an overall strategic rationale they failed to set down roots within the mainstream organisation.

In retrospect one can see the period 2000-2002 as a transition period for Unilever. Following a period of relatively abundant corporate resources Unilever undertook a takeover of the US based company BestFoods in 2000 that not only used up virtually all free resources but also required Unilever to run up a huge debt (closing net funds in 2000 were £26.5 billion in the red). This acquisition led to a short term increase in turnover and sale growth but this was not sustained. In addition it remained the case that Unilever was losing market share in a number of its historically strongest geographies and categories. At this stage (and later) it is clear that despite shortage of funds the underlying sales growth is poor (3 years in a row at sub 1.5 percent). In 2002 the Unilever Corporate Venturing group was launched (three funds as explained above).

In Burgelman's model the combination of factors found in Unilever 2000-2002 would put it into the "Desperately seeking ICV" category. Burgelman warns that "given the limited choice of ICV projects that executives face in this situation and the substantial uncertainty associated with any ICV project, the likelihood of failure is high". It is a testament to the open mindedness of the Unilever board that the CV proposal they sought and implemented was well founded on some of the best thinking on CV that was available at the time.

Nevertheless, neat though it may be to retro-fit Unilever's historical development over the past 10 years onto the Burgelman model the problem is that the model does not give any guide to action. What if Unilever was "desperately seeking ICV" in 2001? Or what about today? The paper does not give a compelling set of tools for diagnosing which

² Foresight began on Feb 8th 1998, it comprised 20 Unilever managers. It was a multinational group of 14 males and 6 females with an average age of 32 and average of 8 years experience with Unilever. They were given 3 months to "develop a compelling and inspirational view of the future that will unleash Unilever's potential to achieve global leadership in 2010". They conducted 118 interviews with external experts, 92 company visits, read 67 books, spent 1900 hours on the internet, visited 44 Unilever sites and consulted 220 Unilever managers. The project concluded that 6 trends would drive the future; Better Health, Solutions for Individuals, Bruising the Planet, Transformation of Traditional Structures, Instant Availability and Getting Connected. This project and these six themes were explicitly referred to in a speech by Ralph Kugler (President Unilever HPC) in Barcelona May 2006.

CV pathology the corporation may be suffering from, nor is there a design tool to help improve the CV activity ongoing, or design a new activity.

In fact the one clear message that Burgelman does deliver is that in large corporations there are always senior managers engaged in activities that could be considered as “Venturing”. He suggests that the best solution for a corporation is not to fight this, but rather to formalise it and build a professional cadre of senior staff capable of managing it for long-term shareholder value creation.

Campbell *et al.* (2003) and Birkinshaw & Hill (2005).

The models developed by Campbell *et al.* (2003) and Birkinshaw & Hill (2005) operate at a different level to that of Burgelman and Välikangas (2005). The authors pre-suppose that the Corporation has decided to invest money in a CV activity and that the corporate wants this activity to be successful. Both papers end up describing four different types of CV fund. They also argue strongly that New-Leg venturing is historically unsuccessful and that having mixed approaches in a single fund is also likely to lead to failure (see also Campbell & Birkinshaw 2004).

It is interesting to speculate how much Unilever had anticipated these issues at the outset of its Corporate venturing activity. In a public statement made by Unilever Chairman Anthony Burgmans in 2002 the intention of Unilever was to do the following:

- “creating options for growth, by either taking stakes in interesting companies or creating new businesses, which could take Unilever or its brands into new areas” [Langholm Capital undertaking Private Equity Venturing]
- “accessing emerging technology by investing in technology start-ups” [Unilever Technology Ventures undertaking Ecosystem Venturing]
- “exploiting Unilever IP by creating new businesses for spin-out” [Unilever Ventures undertaking Harvest Venturing]

On the foundation of the Unilever Corporate Ventures group Iain Ferguson was quoted as saying; “There are a lot of venture groups that got into trouble with strategic goals. We’ve created groups with unambiguous goals. You can’t ask people to do two things at once.” Langholm’s job was to “make money” and build two or three businesses over five to eight years that Unilever may want to buy; Unilever Technology Ventures’ is to provide access to technology. And Unilever Ventures’ remit – the most challenging, according to Ferguson – “is to turn over internal ideas and test whether they work or not as businesses. We want them to have two or three ideas a year ready to be funded externally.” (D’Amico 2002).

It is not clear whether the model developed by Campbell *et al.* (2003) was explicitly used as a template by Iain Ferguson and his confidantes when Unilever were designing their corporate venturing activity. However, it is at least plausible that they could have used it. Indeed the ideas contained within the 2003 paper were publicly available at least in

September 2002 (Campbell 2002) and Birkinshaw *et al.* (2002a) and Birkinshaw *et al.* (2002b). Given the usual publication delay that exists between drafting of an academic paper and its final publication it is hard to believe that the Birkinshaw-Campbell group were not discussing these ideas at an earlier stage. Given the geographical proximity of this group of thinkers with Ferguson and the Webb partnership one could infer that Unilever picked up directly on some of the best thinking in the area and set up in 2002 three out of the four Corporate Venturing models that Campbell *et al.* described a little later in 2003.

Despite being prompted by a corporate level driver classified by Burgelman as “desperate”, by the end of 2001 Unilever had made a clear decision that its overall CV activity would be 3 differently managed and independent organisations. This structure nicely anticipates the Corporate Venturing model and learning, proposed by Campbell *et al.* in 2003 and Birkinshaw & Hill (2005).

8.4 The development of the Väva model

As a consequence of trying, in sequence, to apply the above literature models to Unilever it became clear that although the Burgelman and Välikangas (2005) model was of limited utility the Campbell *et al.* (2003) paper was extremely interesting. In an earlier version of this thesis I concluded that the Campbell *et al.* model was the “state of the art”. However, when judged against the desiderata above it appears that although it is a strong explanatory model, there is nothing within the model that convinces one that it is comprehensive or has an emergent property. The paper was based on abstracting numerous observations of 95 CV groups. The prose descriptions provide motivating verbal descriptions of what each CV type should do, its approach and potential pitfalls. Of itself however the paper does not convince the reader that the model covers, in a comprehensive manner, the phenomena of corporate venturing.

Prompted by an intuitive feeling that there could be more to the Campbell *et al.* model I began an extensive Web search, in particular for papers or articles by the lead authors Andrew Campbell and Julian Birkinshaw. As a consequence of this search I found the working paper by Birkinshaw & Hill (2005). This model uses two axes that are essentially orthogonal and cover the state space in a convincing manner. The axes are binary in nature and therefore the combination of two binary axes gives rise to 4 discrete possibilities. Unfortunately, Birkinshaw & Hill use a very clumsy nomenclature for these 4 Corporate Venture group types (Internal-Explorer, Internal-Exploiter etc.) that do not communicate well.

However, the key insight provided by the Birkinshaw & Hill (2003) paper is that a theoretically inspired typology (as opposed to the empirically derived taxonomy of e.g. Campbell *et al.*) can lead to a comprehensive model. It can explain why there are only a limited number of possible successful corporate venture group types.

The key insight described in this thesis is that the two models described by Campbell *et al.* and Birkinshaw & Hill are essentially the same model. Perhaps this is trivial. The papers have an overlapping authorship (common author is Julian Birkinshaw) and they are based on exactly the same research programme looking at >95 Corporate venture groups in US and Europe of different types and ages.

I have tried to weave together these two models to form a single model that has combines both theoretical strength (typology of Birkinshaw & Hill) and the excellent empirically derived prose descriptions given by Campbell *et al.* For clarity, and to indicate the merging required, I have referred to this model as the Väva Model (from the Swedish word for weave). I believe that the Väva model is both Explanatory and Comprehensive.

The Väva model is not simply a 2 x 2 matrix for describing some possible approaches to corporate venturing. It also uses the data and approach of Birkinshaw & Hill to build a number of analysis, visualisation and design tools. These are presented to help practitioners put the model to work. They seek to help one cut through the possible confusions that exists in the literature and allow a particular Corporate Venture fund to be dissected and understood in relation to the Väva archetypes. An example of the application of the tools to Volvo Technology Transfer AB is given. The data collection for such an application is easy and a simple Excel spreadsheet is enough to carry out the visualisation, goodness of fit calculations and Monte-Carlo statistical tests. The conclusions are a guide to action. They can be taken back to the architects of the corporate venture activity and used to question whether the stated aims of the activity are honestly stated and accurate, or appropriate.

8.5 The application of the Väva model to Unilever

Chapter 3 describes the establishment of the Unilever Corporate Venture activity. It seeks to set down some of the historical background for the current Unilever activity. In particular it establishes that, at least from 2002, Unilever had a very detailed corporate view on how it could operate separate corporate venture groups, each seeking to deliver different financial and strategic targets. It has spent the past four years realising this original clear vision.

Chapters 4, 5 and 6 describe in a fairly uncritical manner the three Unilever Corporate Venture organisations and their investment portfolios. In addition in each chapter a first attempt at applying the Väva model to the Unilever funds is presented. The results of this application of the Väva model are summarised graphically in Exhibits 8.2 and 8.3 and in the table below.

Unilever Corporate Venture Unit	Goodness of fit (Z) with closest Ideal type	Goodness of fit (Z) with next closest
---------------------------------------	--	--

Unilever Ventures	0.65* (Harvest)	1.05 (Private Equity)
Langholm	0.32* (Private Equity)	1.05 (Ecosystem)
UTV	0.36* (Ecosystem)	0.95 (Innovation)

The table shows that for each of the Unilever funds the goodness of fit between the strategic profile of the Unilever group and the nearest Väva archetype are all significant at 5% significance level. This indicates an impressive discipline in the design and operation of these funds. After four years they still communicate a strategic profile that is in consonance with one of the four “Ideal” Corporate Venture activities proposed in the Väva model

Furthermore, in each case the goodness of fit with the next nearest is **not significant**. This conclusion supports the graphical analysis – for each of the Unilever strategic profiles there is a Väva ideal structural profile which it is closer too than any other and that this similarity is not accounted for by chance.

If in addition if the goodness of fit between each pair of Unilever funds is calculated (table below) then one concludes that the Unilever funds are less like each other than they are to one of the ideal types.

	UV	UTV	Langholm
UV	0	1.286	1.199
UTV	1.286	0	0.735
Langholm	1.199	0.735	0

In conclusion, if one applies the Väva model of corporate venture group type to Unilever the 3 Unilever venture capital group strategic profiles are found to be closer to one of the Väva archetypes than they are to any of the other profiles or to each other. This is a significant result. The architects of the Corporate Venture activity in Unilever have built three different funds that are very close, in strategic terms at least, to ideal versions of the funds.

8.6 The Väva model re-considered

The Väva model meets the desiderata of being both Explanatory and Comprehensive because it is based on the firm foundations of the empirical and theoretical work in the Campbell *et al.* and Birkinshaw & Hill papers. The synthesis provides a satisfying merging of a theoretically derived model with a well described explanatory model. On the basis of this synthesis I have developed a number of visualisation and numerical tools to evaluate particular manifestations of CV group and compare with the Väva model.

Does the model meet the third desiderate of being Emergent? To try and answer this

perhaps one of the most interesting issues posed implicitly by applying the Väva model to Unilever is the following. If Unilever has done such a great job of building three of four “Ideal” Corporate Venturing activities why doesn’t Unilever “complete the set” and begin an Innovation Venturing activity?

Innovation venturing uses venturing techniques as a more effective means of performing part of an existing R&D activity. As Campbell *et al.* describe it, “typically, managers set up a separate unit alongside the existing function. The unit rewards people for value created, invests in many projects to spread risk, uses joint ventures and links with the venture capital industry, and sets stage-gate targets to help assess progress”.

But why would an established R&D activity require such an additional approach? Typically Innovation Venturing is proposed when an existing R&D function is perceived as “underperforming” but that it has a latent entrepreneurship within the function that can be tapped by unleashing “intrapreneurs” and connecting with external entrepreneurs. Campbell *et al.* conclude that, “...by providing the right conditions, internal or external managers with entrepreneurial instincts will take more risks and invest more energy in developing new technologies or new ways of working. This involves an acceptance of entrepreneurial behaviour, financial support for entrepreneurial projects and rewards for their successes”. Birkinshaw & Hill (2005) describe the purpose of this type of activity, “...to invest in opportunities that arise inside the parent firm, and to actively nurture and grow them so that over time they become sources of growth for the firm”.

Is this approach appropriate for Unilever?

Certainly the early experience of the “Incubator” activities at Colworth House and Port Sunlight, described in brief in Chapter 7, indicates that there is considerable entrepreneurial talent amongst R&D scientists within Unilever. Much of this talent is not utilised currently as there is a very strong marketing led short term R&D program operated within the Foods and HPC laboratories. These activities are strongly managed top down and are closely aligned with global strategic priorities. The key skills required include the ability to deliver “on time and in full” (OTIF) to well planned and agreed programs. In contrast the Corporate Research activity at Colworth House generally allows scientists to be more entrepreneurial and some of the programs have employed their own marketing staff in order to build direct connections between the R&D projects and internal business customers or external funding sources (including Unilever Ventures).

The reality of the R&D programs within the HPC and Foods laboratories reflect the competitive challenges Unilever faces and the scale of the Unilever businesses. Unilever has a dozen Billion dollar brands and successfully deploying these brands in a global context involves balancing the need for quickly implemented innovations with the need to protect the huge brand equity built up over many years. Launching a high-risk, technically led, innovation as part of, for example, the Dove product portfolio is a high stakes game. In addition to risk management the cost of launching a new global product

as part of a billion dollar brand is considerable (upwards of \$50 million just for US launch). The current reality is that for product and technology ideas developed within Unilever R&D the default route to market is via existing Unilever marketing, sales and supply chain organisations.

Deploying a percentage of R&D spend to unleash the entrepreneurial talent within Unilever R&D would allow Unilever to build a new portfolio of technology, product and business model options. These options can be evaluated in the same manner as an external VC would. Indeed VC investors have a highly effective way to stop projects if they are not able to make a link between raw technical idea and route to market. Explicitly these ideas would not need to have a Unilever route to market as a default. Unilever could invest small sums of money to explore how new technology ideas and product concepts pan out before committing large amounts of money to them. In principle this is what Unilever R&D should already be doing. In reality it happens too rarely.

Using the Väva model the strategic profile required for an ideal Innovation Venturing activity is shown in Exhibit 8.4. This is clearly not the same as the current Unilever Ventures activity. The goodness of fit between Unilever Ventures and the closest Väva type (Harvest venturing) is 0.65 and to the Innovation Venturing type I.II. Thus the strategic profile of Unilever Ventures is twice as far from an Innovation Venturing strategic profile as it is to a Harvest profile. In particular on the dimensions “Importance of Organic growth” and “Importance of Spin-Outs” the two activities are mirror images.

Thus the reality is that Unilever does not have an Innovation Venturing activity hidden within Unilever Ventures (or UTV and Langholm for that matter). Furthermore, one of the major lessons highlighted by both Campbell *et al.* and Birkinshaw & Hill is that trying to pursue different strategic goals within a single venturing activity leads to a low probability of success. For this reason if Unilever did want to build an Innovation Venturing activity it would be a mistake to try and morph the current Unilever Ventures activities to include Innovation Venturing.

One of the highest profile Innovation Venturing activities is the Shell “GameChanger” program. GameChanger seeks to deliver process, technology, product and business innovations across all of the business groups within Shell (E&P, trading & transport, chemicals, Gas & Power, Global Solutions, Downstream, Renewable & Hydrogen). Its stated aims include the following;

- Identify and generate cross business opportunities.
- Provide Shell a portfolio of options for the future.
- Create a supportive environment for Innovation.
- Act as an Angel Investor for Juvenile ideas.
- Provide an Intellectual home for Innovators.

The program was begun in 1996 and there are now 30 full time GameChanger staff with a total of 70 involved in the supporting “Innovation Coalition”. There are about 120 ideas funded year on year amounting to a total of \$45M spend. Shell estimate that this 0.7% of its R&D program has generated \$2Bn option value in its portfolio. Each dollar in GameChanger leads to \$35 of wealth creation potential. To date Shell GameChanger has generated nearly 500 opportunities, of these over 30 new technologies have been commercialised with 3 new businesses established.

Assuming that Unilever were to set up an Innovation venturing fund it should probably be managed by an independent senior manager from within the innovation community, with long term targets for value and option development. Rather than sitting in the Corporate Ventures group the activity could be anchored into Unilever via the Unilever Exec’s Science advisor (currently Prof Tony Cheetham). This would allow intimate access to both the senior levels of Unilever and a high profile position within the broader innovation community.

8.7 The Unilever Ventures approach to Harvest venturing

Unilever Ventures has done a great job in the last four years of forging a distinctive Unilever approach to Harvest Venturing. Some of the investments are technology based and make use of some of the entrepreneurial R&D talent mentioned above. However, despite the successes there are two ongoing issues for UV that are inherent in its operating model. The first is Intellectual Property (IP) the second use of R&D staff.

As explained in Chapter 7 Unilever has an IP portfolio that heavily shadows its ongoing product category business. From a top-down analysis there does not appear to be large swathes of its IP portfolio that are non-core and ripe for exploitation. It is a testament to the creativity of the scientist teams in the labs that there are dozens of ideas generated in each Ideation session for exploitation of Unilever IP in some business model or other. Often one of the biggest issues is how to balance the need for the new UV funded business to be independent enough to operate and raise external finance and also to guarantee that core Unilever interests are not threatened by the nascent enterprise. Clearly for the Unilever product categories the easiest, default, position is to actively or passively limit access to their IP portfolio. This is aided and abetted organisationally by the position of the Patents Function within Unilever (it reports to a Unilever Chief Counsel who seeks to minimise Unilever legal exposure and not to a Chief Technology Officer or President of Innovation who is responsible for deployment of the patents as a business generation tool). For a genuine platform technology, such as the Iota Nanotechnology patents, that can have dozens of different applications it is particularly difficult to write an IP transfer document that allows free reign for Iota business development and the possibility in the future for a core Unilever product category to pick up and exploit that IP. Compare this approach with that of the New Ventures Partners (NVP) organisation who have in principle access to the whole patent database

of Lucent, British Telecom and Phillips. NVP do not make an investment before the IP portfolio is identified and packaged in a contractually binding IP transfer document.

The second issue is also related to Intellectual Assets, but now in the form of the R&D staff that engages with the Ideation process and imagine a business opportunity that they subsequently pitch to the UV investment board. Assuming that they are successful and raise initial UV investment these staff must face a key decision. Whether to stay within mainstream Unilever and accept “Founders Equity” or leave and play a key role in the nascent company and receive “Management Equity”? Clearly from the UV point of view if these staff are of the right calibre then having them leave Unilever R&D to join the company will have a significant positive impact on the new business, valuation, ability to attract other staff, funding etc. Unfortunately, from the R&D leadership point of view it is highly probable that these self-same staff are likely to be amongst the most energetic and creative of their leading or potentially leading staff. Having them leave to join a new start-up (whether funded by UV or another VC) is a cause for concern. Having another part of the Unilever organisation actively encouraging them to leave is a cause for even more concern.

One possible way to resolve these issues is for UV to rely on its own resources, or hire in specialists from e.g. NVP, to generate business opportunities from the Unilever portfolio in a top-down manner. This approach would allow a clinical separation of both the IP and staff issues to be made. In some cases it may well still be appropriate for a key member of staff to be moved into the new business. In addition if the Innovation Venturing approach above was adopted there would be avenues for the most entrepreneurial R&D scientists to be taken out of the mainstream Unilever R&D projects to engage in business model driven technology innovation with no issue of leaving Unilever being raised, either at all, or perhaps only after a considerable internal investment.

8.8 Relation of the Väva model to other literature models

As described in section 2.2. the research for this thesis did not set out to perform a systematic survey of the extensive literature on corporate venturing. This was dictated both by time constraints and also by a methodological bias of the author. Therefore only three literature models have been considered, and re-considered, in any real depth. Inevitably this means that there are potential holes in the thesis.

Immediately prior to writing up the thesis a number of other key literature sources were re-read to see if the Väva model developed and applied here could be related in any manner to other well founded literature models. These other models suggest a number of leads for further development and in particular, Chesbrough (2002) discusses a number of approaches to corporate venturing activities that **exclude** the funding of internal ventures. He defines a 2 x 2 model which describes 4 types of corporate venture activity. He uses axes labelled “Corporate Investment Objective” (differentiated into

Strategic & Financial) and “Link to Operational Ability” (differentiated into Tight and Loose). In this framework he describes four models

Driving (Strategic+Tight) – “advances strategy of existing business” – examples Agilent & Microsoft. Also referred to as “promoting a standard”.

Enabling (Strategic + Loose) – “complements strategy of current business” – example Intel Capital. Also referred to as “stimulating demand”

Emergent (Financial + Tight) – “allows exploration of potential new businesses” – example Lucent technologies. Also referred to as “leveraging underutilized technology”.

Passive (Financial + Loose) – “provides financial returns only” – example Dell Ventures.

At first sight this framework does not map closely to that of the Väva model described in this thesis. However, if one analyses the concepts, descriptions and examples given in the Chesbrough paper one can make a rough translation table linking his model to the one described here in the following manner;

Chesbrough (2002) Model	Väva Model
Tight	Internal
Loose	External
Strategic	No obvious Match
Financial	Exploit
Driving	No obvious match.
Emergent	Harvest Venturing
Passive	Private Equity Venturing
Enabling	No obvious match.
No obvious match.	Ecosystem Venturing
No obvious match.	Innovation Venturing

Based on these approximate translations one can make a number of relatively crude assumptions that allow the models to be brought into overlap;

Assume that the “Locus of Opportunity” dimension of the Väva model is operationally equivalent to the “Link to operational Capability” dimension of the Chesbrough model.

Assume that on these dimensions Internal \approx Tight and External \approx Loose.

Assume that “Exploit” on the “Strategic Logic” axis of the Väva model is operationally equivalent to “Financial” on the “Corporate Investment Objective” of the Chesbrough model.

These assumptions mean that following concept pairs have been approximately equated; Financial \approx Exploit, Tight \approx Internal and Loose \approx External.

This merging is shown graphically in the three panels of Exhibit 8.4.

The axis now called “Locus of Opportunity” continues to have just two possible options Internal (this can be strictly internal or just a tight link to operational capabilities as defined by Chesbrough) and External (this can be strictly external or merely a looser link to operational capabilities. This may well include activities considered to be Open Innovation).

A number of direct overlaps follow on from these proposed equations. The venture type pairs Private Equity-Passive and Harvest –Emergent need to be essentially equivalent for the proposed merger to be robust. In fact the descriptions of these investments types are very similar in all three source papers. Therefore the “Strategic Logic” dimension collapses and has only three distinct options.

Financial – this parameter refers to exploiting existing firm resources for financial returns that are “positive, proximate and predictable” (Birkinshaw & Hill 2005).

Strategic – this refers to investments that are “primarily to increase the sales and profits of the corporation’s own businesses” (Chesbrough 2002). This is related to core business.

Explore – this refers to “experimentation with new alternatives” and provides options and adaptability for an organisation. This is not core business but is also not for immediate gain.

Although it is beyond the scope of this thesis to explore this possibility fully a number of speculative observations based on this merged model are made here and in the next section.

One of the immediate consequences of this proposed merging is related to the “Ecosystem/Enabling” venture group type described by all three papers. In fact one of the nagging problems in the Väva model (and its component papers) is that this activity is very broad. It can range from small equity investments in technology companies as, “a window on new technology”, through to major investments in established revenue companies that can potentially help build an entire enabling ecosystem around the core strategic goals of a business (the paradigm example of this is Intel Capital). The first type of “ecosystem” investing is very exploratory, the second much more strategic. The merged model now has two distinct slots for these two types of activities;

Window Venturing - Exploring opportunities external to the firm by investing in small, and often technology based start-ups.

Enabling Venturing - External investments in companies that build an ecosystem around a company's strategic growth agenda. These companies will very likely be larger and include both technology based and non-technology firms.

These distinct activities are shown in the bottom panel of Exhibit 8.4.

This merged model is tentative and presented here as an interesting possibility. However, it suggests a number of interesting lines of enquiry.

Both of the investment activities along the "Explorative" row happen to be the most heavily related to technology. An Innovation Venturing fund is closely related to Corporate R&D and a Window Venturing fund invests almost exclusively in tech/IP based start-ups. All of the other investment activities may or may not be in technology based companies. The skill sets used to evaluate the technical/IP and commercial prospects of these two investment types are probably overlapped and could be provided by a common corporate skill bases in e.g. Technology Scouting or Open Innovation.

Further work could be carried out to describe the appropriate strategic profiles for the Driving and Enabling venture types.

In addition one can ask the question is a Unilever "Enabling Venture" fund an interesting opportunity?

8.9 A Unilever Enabling Venture Fund

If one returns to the prose descriptions provided by Campbell *et al*/ for their idea of an Ecosystem venture unit they explain that;

"Some companies depend on the vibrancy of a community of connected businesses for their success. The community may comprise suppliers, agents, distributors, franchisees, technology entrepreneurs or makers of complementary products. Often this community does not need support from the company other than through normal trading relationships. Sometimes, however, a company can improve the vibrancy of its ecosystem by providing venture-capital support to its entrepreneurs".

They then describe the role that Intel Capital played over a long period building a vibrant network of suppliers to Intel and then as normal VC money was invested in that sector the shift to investments in software vendors who were trying to maximise the usage of Intel chip based hardware. In Chesbrough (2002), and the merged model above, this investment activity is described as "Enabling" – it is external to the core of the corporation but exactly on the strategic direction.

Although the analysis presented in Chapter 4 shows that the strategic goals of UTV indicate it is close to the strategic profile of the Ecosystem venturing type when re-visited using the merged model of the previous section one could re-conceptualise UTV as a classic Window Venturing activity. That is, it seeks to make investments in technology start-ups that offer a “window on new technology”. Its location in San Francisco (previously Santa Barbara) underlines the technology “window” focus of its investment strategy. Chapter 4 shows that it is indeed making this type of investment, it is performing the role that it was designed for, and it is a classic Window fund.

However, consideration of Exhibit 8.4 motivates the following question. Can Unilever make external venture investments that help build directly on its strategic goals? Can Unilever fruitfully set up an Enabling Venture fund?

An Enabling Venture fund would be entirely new to Unilever. Currently one could argue that all three of the corporate venturing activities in Unilever are reasonably separated from the demands of the Unilever product categories (Unilever’s term for Strategic Business Units). Each of the funds, for their own reasons, needs a certain degree of autonomy to operate successfully. However, this distance from the day-to-day activities of the Strategic Business Units underlines the fact that they are not strategic. They explicitly make investments to achieve Financial aims (UV and Langholm) or to Explore (UTV). Even if Unilever established an Innovation venturing activity, as suggested in section 8.6, this also would not be strategic.

Perhaps the closest that Unilever has come so far to making an Enabling investment is in the Brand New Brands incubator described in Chapter 6. This incubator has already launched four products (Lightfull satiety smoothie, Corazonas phytosterol fortified tortilla chips, Attune probiotic bar and Dreamerz chocolate sleep helping beverages). All four of these products are close to the strategic growth areas that Unilever is aiming at with its own foods business (weight control, cardio-vascular health, gut health and restful sleep respectively) but are aiming at a different demographic – the diet and health obsessed of California. Given the approach that Brand New Brands have taken so far one could imagine over the next two years they might launch another 3-5 new brands. These could well include their own versions of other Unilever “Vitality” foods e.g. Knorr Vie (fruit and vegetable minidrinks containing equivalent of ½ RDA) or AdeS (Soy protein based fruit drinks).

In addition to the Brand New Brands investment the Langholm investments in Dorset Cereals and Lumene could be considered as proto-Enabling investments. They are clearly both along the strategic lines of core Unilever product categories but are not tightly integrated into Unilever supply chain or marketing practices.

A Unilever Enabling Ventures fund would allow the Unilever product categories the chance to make significant investments in markets, technologies and business models that have the chance to strategically impact Unilever’s bottom line. Steering away from New Leg activity but seeking to drive significant bottom and top line growth this could be a

significant new strategic activity. In the Unilever context an Enabling venturing activity would be about performing investment experiments that provided options for corporate re-invention without running the risk of destroying the momentum of the existing businesses.

In order to ensure that it operated in close concord with strategy the fund would need to be operated by the global product categories themselves **not** the regional/national operating companies. This would fit exactly the role that the product categories have in Unilever. They are responsible for the long term health of brands and categories (i.e. specific brands such as Becel and the whole margarine/spreads category). They are responsible for global investment in brand level marketing and innovation.

In order to ensure that Venturing investments were indeed made the activity could be operated under the leadership of the Unilever Corporate Ventures Group with the funds available for venture investment ring-fenced and not available for sequestration by ongoing category marketing or innovation requirements.

An Enabling Venture fund in Unilever could make well thought out equity investments in companies that would provide a wider palette of options than currently exist within the Unilever framework. It would be genuine “Open Innovation” within Unilever – but now not seen as an R&D led or technology led activity but a much richer set of strategically important experiments. The fund could invest in companies that are suppliers or potential suppliers to Unilever at an ingredient or product level, supply chain solution, IT enabled activity, distribution channel etc – and it would avoid, until absolutely necessary, the very risky process of merger or full acquisition. For example, rather than building a new capability within Unilever to have web-enabled sales it may better invest in a company that already has this capability but not try and merge it into Unilever (with all issues of cultural mismatch etc).

In order to expand on this possibility if one looks at the Foods arena there are 3 factors that are conspiring to make an Enabling venturing approach an attractive one for Unilever;

- (1) The recently launched Vitality mission from Unilever with at least a 5-10 year horizon.
- (2) Pressure from mega-retailers, and in particular Wal-Mart, for Unilever to become a supplier of Organic products packaged in recyclable and bio-degradable packaging.
- (3) Consumer and society pressure to increase the amount of ethically sourced and sustainable raw materials in food products.

It is not the right place here to rehearse all of the arguments leading to these 3 factors but in brief;

Vitality via Foods and dietary changes; Obesity alone accounts for a huge portion of the burden of health expenditure with over 300 million adults and 40 million children obese. Nearly 180 million people are affected by diabetes, with nearly 2/3 living in the developing world. Every year 12 million people die cardio-vascular related disorders (primarily heart attacks and strokes). The food industry has now woken up to the challenges and opportunities inherent in providing good quality, affordable food products.

Organic pressure from retailers; Already in the US there has been a lively debate on the move by many retailers and producers to move to mass scale organic production of food products. For example, Silk, the best-selling branded soy milk, is a product from Dean Foods the \$10 billion supplier of most of the milk in the US. Similarly Cascadian Farms, which makes organic cereal, frozen fruits, and other products, is a brand of General Mills, and Kraft already owns Boca Burgers. The CEO of Wal-Mart, Lee Scott, stated at the last AGM, "We know that customers at all ends of the income spectrum want organic and natural foods," he intends supplying them.

Sustainability; This is a broadly defined area, yet it will impact massively. Unilever as one of the biggest global users of both tea and tomatoes is in a position to be challenged by NGO's and consumer organisations. For example, simply moving Unilever's tea sourcing from its current position to a dual supply chain (one for those who will pay extra for sustainable and one for commodity tea) would require a huge shift in the reality of Unilever as a commercial organisation.

These three challenges will impact on the whole of the foods value chain. As explained in 8.1 Unilever and its close competitors face a bleak future if trends within the Foods supply chain continue. However, it seems unlikely that Unilever could or should make a series of massive acquisitions to change the landscape of its supply chain. Instead by making minority stake equity investments in key suppliers and technology providers the opportunity exists for a suitable Unilever Corporate Venture fund to act as a catalyst. It could help build a vibrant and economically viable "Vitality foods ecosystem". Its competitors are already engaged to some extent in this For example, Nestlé have recently announced a series of collaboration agreements with dairy processors indicating a move to networked supply chain building, retaining asset control with minority stakes.

When one drills down into the concept of Vitality and Foods there appear to be many linked opportunities in areas such as

- None GMO Soy protein as a healthy alternative to milk or animal protein.
- Businesses exploiting Traditional Chinese Medicine and Ayurvedic as sources of novel non-pharma vitality ingredients.
- Challenge of building large scale and economically viable organic produce sourcing operations.
- Utilisation of bacteria and other ingredients that affect gut micro flora regulated nutrient uptake.
- Reduce the amount of non-sustainable packaging used in Unilever products.

- Application of Cleantech processes in food manufacture.
- Drive to reduce number of “food kilometres” for meals and the subsequent impact on supply chain design and logistics.
- Carbon balanced food production.
- Low energy manufacture.
- Low environmental and health impact healthy preservation technologies.
- Food for healthy aged population.
- Zero Polyethylene packaging.

At first sight many of these areas are difficult to access simply by using Unilever’s existing business models and technology base. Yet all potentially offer opportunities for Enabling Venture type investments in order to build the new ecosystem that Unilever will need to be part of for a successful future.

8.10 Evaluation of Unilever CVG operations 2002-2006

On the whole Unilever has learnt wisely from the experiences of previous generations of corporate venture investing. At the time of inception the Unilever Executive made clear decisions about defining three separate funds, each with distinct management styles, offices, reward structures, funds and strategic aims. The aims of these different funds were communicated clearly to external investors by the Unilever Executive leadership.

In this thesis I have shown that Unilever’s overall approach to Corporate Venturing compares favourably to some of the best available literature models of Corporate Venturing activity. In particular when numerically compared with each other, and the four ideal types described in the Väva model it is clear that each one of the Unilever funds is closer to one of the ideal Venture group types than either each other or any other type. Below are some specific comments on each fund.

Unilever Ventures – This activity now has an impressive investment portfolio covering mainly “Harvest Venturing” activity. It has utilised a number of high profile Unilever R&D laboratory based “Ideation” activities to generate its portfolio of tech based companies. There are still some inherent contradictions in its operational model that other Harvest funds (such as New Venture Partners) seem to have avoided. Specifically these refer to “in principle” release of IP portfolios prior to initial investment and the issue of extracting IP without dealing with issues of staff transfer. It will be interesting to see how the Iota Nanosolutions investment proceeds as this epitomises both of these issues.

Unilever Technology Ventures – This activity has improved in both its fund management expertise and connection with Unilever R&D over the past year. It has an investment portfolio of fascinating start-ups in a range of areas of the life and materials sciences that will provide considerable opportunities for learning over the next few years. It has recently begun to diversify its investment approach and increase its geographical scope. This fund represents an archetypal “Window Venturing” fund.

Langholm Venture Partners – This activity is a classic “Private Equity” or “Passive” investment vehicle. If one applies the merged Chesbrough/Väva model shown in Exhibit 8.5 it is clearly ideal for financial exploitation of External ideas. It is not on the strategic roadmap of Unilever’s major product categories. Chesbrough (2002) would argue that this type of VC investment is the hardest to defend as a useful way to build shareholder value. In fact he takes the view that, “...shareholders have plenty of other ways to invest in early-stage companies...companies can justify VC investments if they add value for their shareholders in ways that shareholders cannot do for themselves”. Nevertheless the recent news that one of the Langholm fund investment companies has managed a successful IPO, giving a post float Langholm shareholding of £360 million, will perhaps justify from a financial point of view the complete Corporate venture Groups activities over the past 4 years.

There are a number of opportunities that have been identified as a consequence of applying the models to the Unilever experience;

(1) Establish an “Enabling Venturing” as described in section 8.8. This would allow Unilever the opportunity of making strategically relevant investments that help build the new “Vitality” ingredient, product, supply chain and business model ecosystem that it needs to engage in to fully exploit this mission. These investments should be under the close guidance of the most senior executives in each product category/brand to ensure close strategic alignment and high level buy in. This approach would represent “Open Innovation” for Unilever at the level of its strategic business units and not simply within the R&D community.

(2) In addition to the above, Unilever also has an opportunity to found an Innovation Venturing activity similar in scope and intent as the Shell GameChanger program. This should be driven by a senior R&D professional, perhaps seconded to the corporate ventures group or the “office of the Science advisor”, with high level support from both the Unilever R&D leadership and Executive. This approach could potentially make significant changes in the culture of Unilever R&D and unleash some of the most entrepreneurial scientists Unilever has to work on really innovative technology, product and business model ideas.

(3) UTV and Unilever R&D can further strengthen their mutual connections. These can help facilitate the continuing alignment of UTV investment priorities with the longer term technology vision of Unilever Foods and HPC businesses. UTV could also consider spreading its geographical footprint to Asia and/or Europe.

8.11 Conclusions and Recommendations

The research methodology of this thesis has resembled that of a scientific study. A small number of literature models have been studied and used to experimentally test whether they fit the experience of Unilever. The models were not extensively de-constructed

prior to application and were applied to the Unilever situation as much as possible without prejudice. As the learning from each sequential set of experiments was acquired progressively more comprehensive models were formulated.

The four papers used in the thesis have yielded the following insights;

Burgelman & Välikangas (2005) – In a large corporation venturing activities are ongoing all the time. Learn how to manage them and make Corporate Venturing a strategic management and leadership skill within the corporation.

Campbell, Birkinshaw, Morrison & van Basten Batenburg (2003) – There are four sustainable types of corporate venture activity. Keep them as separate as possible in order to avoid the common pitfall of confusion of purpose. There is no evidence that a corporation can build a significant New Leg (\$1Bn PA or >20% turnover of parent) by venturing activity.

Birkinshaw & Hill (2005) – From a theoretical approach show that there are four distinct types of CV activity, differentiated by their strategic logic and internal/external focus. All can be valuable in corporate terms but for success they should not be mixed. Also define a number of metrics for CV type strategic and structural profiles. The one-to-one correspondence between the CV types described by Campbell *et al*/ and Birkinshaw & Hill motivated the synthesis of the Väva model, and associated analysis, visualisation and design tools.

Chesbrough (2002) – Corporate venturing can also include investments that are strategic to the corporation (i.e. seek to deliver strategic agenda of corporation) as well as the Financial (Exploit) and Explorative invest types described in the Väva model. Passive Venture investing may best be avoided so that shareholders can diversify their investments themselves, outside of the framework of the corporation.

A tentative attempt is made in Chapter 8 to bring together the model of Chesbrough (2002) and the Väva model. This model allows one to split the Ecosystem Venturing type described in the Väva model into two distinct activities, called here Window Venturing and Enabling Venturing. On the basis of this insight I propose that Unilever could fruitfully explore the establishment of an Enabling Venture activity (it already has a Window Venturing activity in the Unilever Technology Ventures fund).

In conclusion, Unilever started well in 2002 when it set up three structurally independent funds with distinct and clearly communicated strategic goals;

- Unilever Ventures was set up as a Harvest venturing activity.
- Unilever Technology Ventures was set up as a small technology focused Ecosystem venture unit.
- Langholm was established as a Private Equity venture fund.

At the outset the strategic aims of the funds, and their strict separation, reflected some of the best academic thinking of the time about what makes for successful and sustainable corporate venturing. The statistical analysis carried out here indicates that the strategic aims and profile of the three funds are not only close to the “ideal” for each fund type but also that the three Unilever funds continue to be well separated and distinct.

By December 2006 it is clear that the original architects and current leadership of Unilever Corporate venturing activities have successfully built a highly appropriate and professional approach to Venturing that meets the needs of, and respects the historical strengths of, Unilever as a corporation. It would be a shame if this fascinating and successful move by Unilever into Corporate Venturing were now to be stopped or reduced. Hopefully the recent successful IPO of Just Retirement Ltd will give fresh impetus to the Unilever Executive to both reinvest in its ongoing Corporate Venturing and to consider developing the new opportunities highlighted in this thesis for Unilever to expand the scope and scale of its corporate venturing Group.

Exhibit 8.1 – Unilever performance 1995-2005

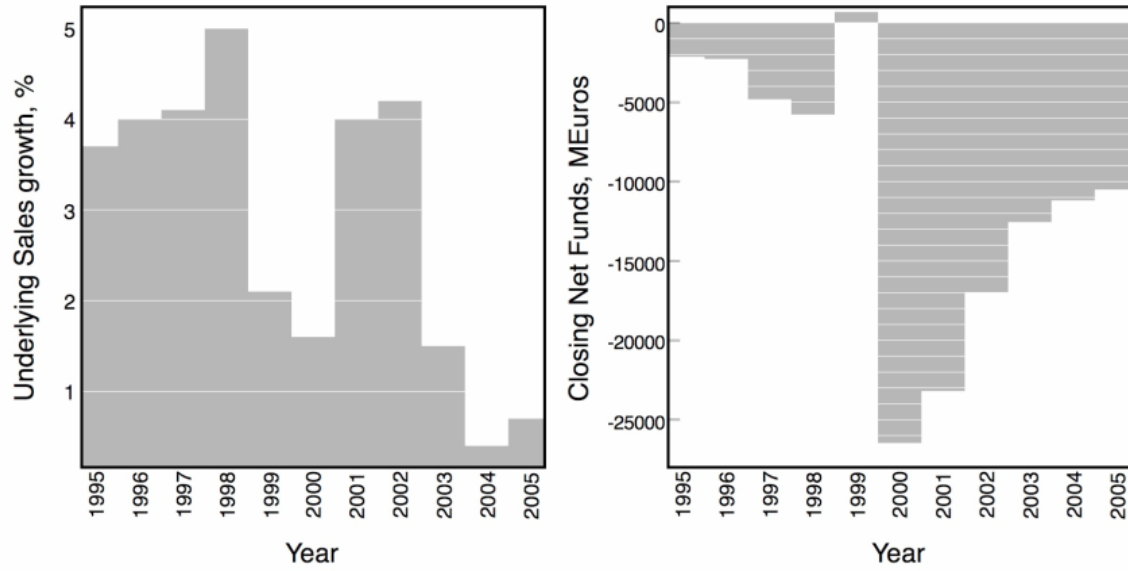


Exhibit 8.2 – Unilever Corporate ventures Groups compared with 4 Ideal types from Väva

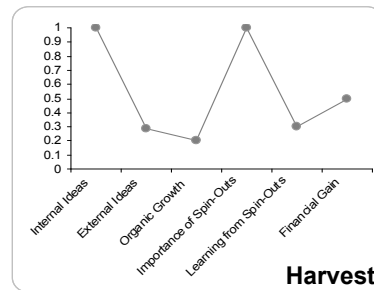
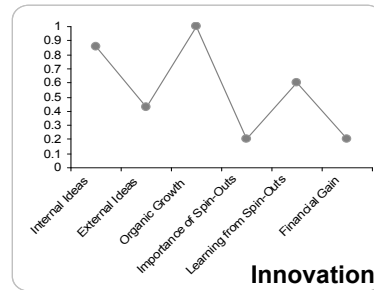
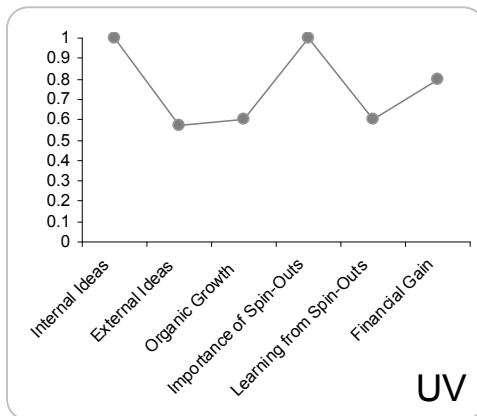
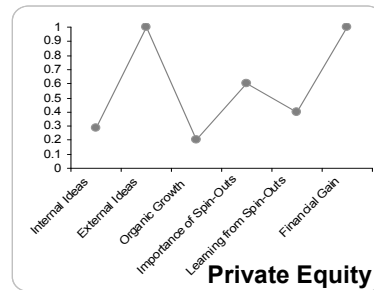
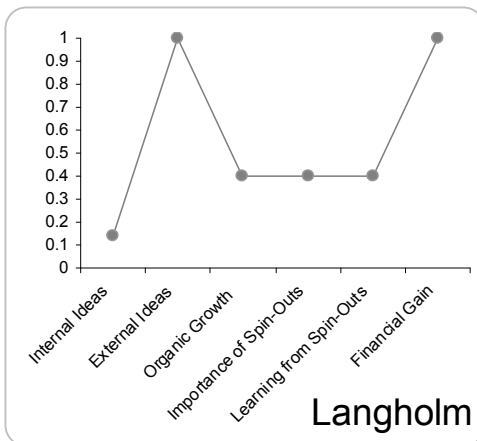
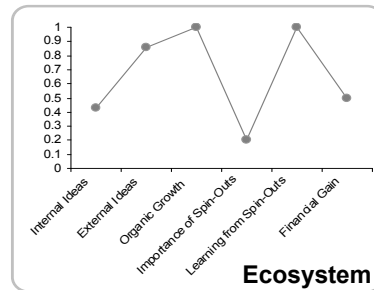
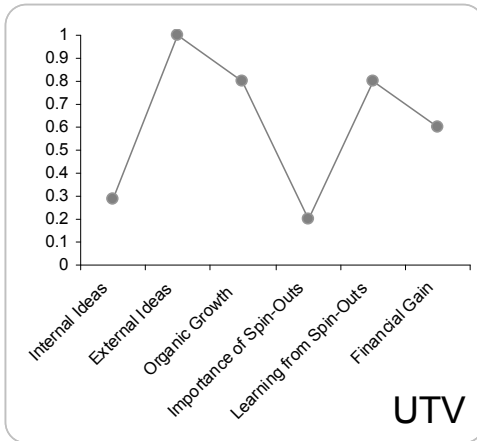


Exhibit 8.3 – Unilever Corporate ventures Groups compared with four Ideal types from Väva model

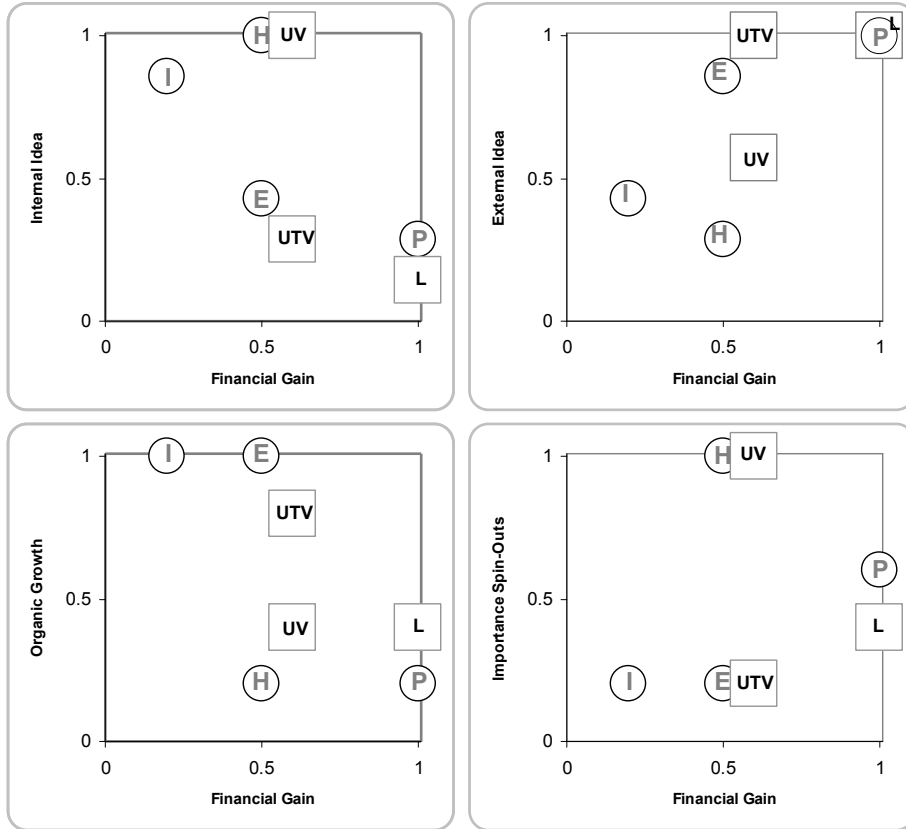


Exhibit 8.4 – An Innovation Venturing Group Strategic Profile

The following ratings are taken from table 2 of Birkinshaw & Hill (2005).

Parameter	Rating
Focus on Internal Ideas	6
Focus on External Ideas	3
Importance of Organic Growth	5
Importance of spin outs	1
Importance of learning from spin-outs	3
Importance of financial gain from spin-outs	1

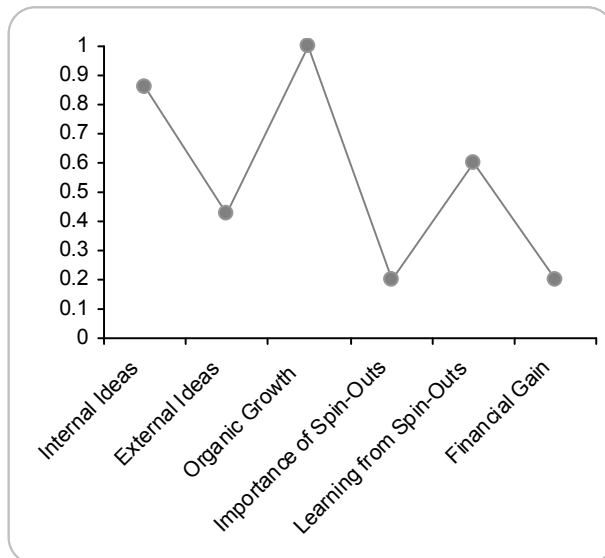


Exhibit 8.5 – Proposed overlap of Chesbrough (2002) & Väva models

	Internal	External
Explore	Innovation	Ecosystem
Exploit	Harvest	Private Equity
Financial	Emergent	Passive
Strategic	Driving	Enabling
	Tight	Loose

Corporate Investment Objective	Explorative	Innovation	Window
	Financial	Harvest	Passive
	Strategic	Driving	Enabling
		Internal	External
		Locus of Opportunity	

References and Bibliography

- Birkinshaw, J., Murray, G. and van Basten-Batenburg, R. (2002), *Corporate Venturing: The State of the Art and the Prospects for the Future*. Working Paper of the London Business School.
- Birkinshaw, J., van Basten-Batenburg, R. and Murray, G. (2002). Venturing to Succeed. *Business Strategy Review*. **13**, p10.
- Birkinshaw, J and Hill, S. (2005). *A typology of corporate venture units: Exploration, exploitation and locus of opportunity*. Working Paper London Business School.
- Block, Z. and Macmillan, I. (1993). *Corporate Venturing: Creating New Businesses Within the Firm*. HBS Press, Cambridge MA.
- Burgelman, R.A. (1983). Corporate Entrepreneurship and Strategic Management: Insights From a Process Study. *Management Science* **29** (12), pp1349-1365.
- Burgelman, R.A. and Välikangas, L. (2005). Managing internal Corporate Venturing cycles. *MIT Sloan Management Review*. Vol **46** (4).
- Campbell, A. (2002). *The Future of Corporate Venturing*. London Business School/Ashridge Conference, Corporate Venturing, September 2002.
- Campbell, A. and Morrison, A. (2003). Choosing the right venturing model, *Corporate Venturing*, Issue 2, June 2003
- Campbell, A., Birkinshaw, J., Morrison, A. and van Basten Batenburg, R. (2003). The Future of Corporate Venturing. *MIT Sloan Management Review* Vol **45** (1).
- Campbell, A. and Birkinshaw, J. (2004a). Corporate venturing in its place. *Ashridge Journal* Autumn 2004.
- Campbell, A. and Birkinshaw, J. (2004b). Know the limits of Corporate venturing. *Financial Times* August 9th 2004.
- Chesbrough, H. (2000). *Intel Capital: The Berkeley Networks Investment*. HBS case #9-600-0069.
- Chesbrough, H. (2002). Making sense of Corporate Venture Capital. *Harvard Business Review*, Vol **80** (3) pp 90-99.
- Chesbrough, H. and Tucci, C.L. (2005). Corporate Venture Capital in the context of corporate innovation. CSI-REPORT-2005-001. École Polytechnique Fédérale Lausanne.

D' Amico, M.L. (2002). *The Last of the Corporate Venturers?* Real Deals magazine. <http://www.realdeals.eu.com>.

Diggle, P.J.(2003) *Statistical analysis of Spatial Point Patterns*. (2nd Edition). Arnold, London.

Gaule, A. and Moore, M. (2004). *Review of Leading Global Corporate Venture Units*. Henley Incubator Report

Ginsberg, A. (2001). Blue-chip entrepreneurs: Corporate Venturing and creative destruction. *STERNBusiness*. Fall/Winter 12-17.

Gompers, P. and Lerner, J. (1998). The determinants of Corporate Venture Capital Success: Organisation Structure, Incentives and Complementarities. HBS ??????

Gould, S.J. (1983). *Worm for a century and All seasons*. In *Hens Teeth and Horses Toes*. Penguin Books, Middlesex.

Haig, M. (2005). *Brand Failure; The Truth About the 100 Biggest Branding Mistakes of All Time*. Kogan Page Ltd.

Jones, G. (2005) *Renewing Unilever: Transformation and Tradition*. OUP, Oxford.

Kaplan, S.N., Sensoy, B.A. Strömberg, P. (2005). What Are Firms? Evolution from Birth to Public Companies. *NBER Working Paper 11581*. National Bureau of Economic Research, US.

Levitt, S.D. and Dubner, S.J. (2006). *Freakonomics*. Penguin, London.

March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, B(1): pp71-87.

Markham, S.K., Gentry, S.T., Hume, D., Ramachandran, R. and Kingon, A.I. (2005). Strategies and tactics for External Corporate venturing. *Research Technology Management*. **48** (2). p49.

Parhankangas, A. and Arenius, P. (2003). From a corporate venture to an independent company: a base for a taxonomy for corporate spin-off firms *Research Policy* **32** pp463–481.

Petrusson, U. (2005). *Intellectual Property & Entrepreneurship: Creating Wealth in an Intellectual Value Chain*. CIP Studies, Göteborg.

Polya, G. (1954). *Mathematics and Plausible Reasoning. Vol 1. Induction and Analogy in Mathematics*. Princeton, University Press, Princeton, NJ.

Ripley, B.D. (1987). *Stochastic Simulation*. John Wiley, New York.

Sykes, H.B. (1986). The anatomy of a corporate venturing program: Factors influencing success. *Journal Business Venturing*. 5 pp 37-47.

Thompson, A.A. (2002). Case 22: Unilever's Acquisitions of SlimFast, Ben & Jerry's, and Bestfoods. In Thompson-Strickland: *Strategic Management: Concepts and Cases*, 13th Edition. McGraw-Hill

Verloop, J. (2004) *Insight in Innovation*. London Reed-Elsevier.