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forest research

Influencing People's Uptake of Sustainability in Housing (CON 1)

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A Report prepared for
BEACON PATHWAY Ltd
by *Forest Research*

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1 Overview

Beacon's consumer uptake objective is to have 90% of houses in New Zealand reaching a high standard of sustainability by 2012. The aim of this project is to confirm whether the programme of research initially identified by Beacon will achieve this objective and whether it is consistent with international best practice. Part of the brief was to identify at least one alternative approach that might deliver the required result more quickly.

1.1 High-Level Knowledge of Consumer Change Programmes

Accordingly, we conducted a comprehensive, high-level review of knowledge about, and approaches to, social change. The most salient points are:

o   Beacon's consumer uptake objective is unrealistic. Large-scale social change programmes (worldwide) typically achieve a single-figure annual rate of change.

o   There are numerous examples of sustainable housing projects worldwide, but very little information about the impact they (either generically or individually) have had in terms of changing behaviour, i.e., increasing demand for sustainable housing.

o   There are also many examples of social change activity. However, very few (about 5%) have planned, researched, and monitored their desired behavioural changes to the point that they can provide well-documented evidence of change. The pool of concrete examples from which Beacon can learn is correspondingly small and important examples are discussed in this report.

o   Enduring change is generally slow to eventuate, and the only way for Beacon to achieve its target more quickly would be to revise its target, its standards or its intervention strategies. Rapid and enforced change is vulnerable to the changing whims of consumers, open to attack from marketers of rival products/ solutions, and is easily undermined when governments change.

o   Regulation should be seen as an important component of a consumer solutions package, rather than the ultimate weapon. The evidence indicates that regulation alone will not achieve the 90% target, and rapid regulation will result in a consumer and industry backlashes.

Our research indicates that consumer intervention programmes that use environmental impact as a primary aim (i.e. programmes based on a Naturalistic sustainability framework) appear to be the most successful in effecting significant social change.

1.2 Four Research-Intervention Alternatives

We have arrived at four possible research-intervention alternatives, two of these incorporating the Naturalistic stance and systemic approaches. The four resulting approaches are:

1.   <u>Rationalistic</u>. This is a bottom-up approach targeted at households/consumers and aimed at *changing **what** people consume* using sustainable solutions, incentives, an evaluation service, a rating scheme, and branded communications. The approach is of the "quick fix" variety and is not likely to have long-term stability.

2.   <u>Humanistic</u>. The focus of this approach is *changing **how** people consume* using such measures as community-based programmes, changes in the building code, a sustainable housing website, and national communications campaigns. Changes of this nature are slower to eventuate but more stable in the long term if communities become self-regulating.

3. <u>Naturalistic</u>. This is a top-down approach aimed at ***re-designing** consumption* to minimise the impact of housing on the natural environment. The main targets are change agents and government agencies. Measures to create responsible consumption alternatives might include national identity campaigns (e.g., clean, green, and intending to stay that way), regulation, and multi-agency sustainable housing programmes. It can take longer to achieve results with this type of approach, but the results are much more stable and pervasive.

4. <u>Integrated</u>. This is an integration of the other three alternatives and is centered on defining a sustainable housing system and identifying how to influence it in ways that achieve Beacon's aims. The approach has *multiple targets* (consumers, opinion leaders, change agents, and government agencies) and is more complex in implementation than the other alternatives. The benefits are likely to be greater in that it manages change effectively and ensures stable outcomes.

1.3   Key Conclusions and Recommendations

<u>Change Targets</u>. Whilst it is important to set a significant challenge to ensure full commitment to change, a more realistic target for Beacon might be 1–3% uptake per year, or 8–24% uptake between 2005 and 2012. This is still a significant challenge and worthwhile pursuing.

We recommend revision of Beacon's overall target for change and/ or further assessment of what changes in houses qualify as sustainability improvements.

<u>Programme Design</u>. The best-designed, most successful programmes internationally are based in Naturalistic sustainability frameworks and are systemic in their approach to social change interventions. (This does not prevent them from using interventions sourced from non-systemic approaches).

We recommend Beacon endorses a Naturalistic sustainability framework and pursues systemic interventions (to ensure complexities of change are fully managed over time).

<u>Alternatives.</u> We believe the fourth alternative, the Integrated, offers Beacon the greater leverage and range of options for generating change in consumer demand for sustainability in houses.

We recommend Beacon consider the Integrated alternative as the most effective for achieving its aims through a social change programme.

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2   Executive Summary

This section summarises study findings in terms of the specific deliverables requested in the RFP.

2.1   The RFP

Beacon has defined an initial programme of research for consumers, and now requires confirmation of this programme. The project confirmation phase (PCP) is designed to confirm that the initial approach is well-informed regarding initiatives worldwide, and can provide viable alternatives if Beacon's priorities shift.

Beacon intends to evaluate the resulting research alternatives by determining the likely magnitude, timing and impact of these programmes towards achieving its aims.

We understand a core requirement of the brief is to detail 'approaches to developing strategy' in consumer change programmes so that Beacon's executive/ Board can access strategic programme decision-making tools.

The deliverables Beacon requires of this project are:

o   A high-level summary of relevant knowledge from around the world, including success factors
o   At least one alternative approach to consumer research/ change, that delivers the result more quickly - alternatives must be described and costed
o   An estimate of the likely impact of each alternative: the alternatives must specify the number of houses the programme will change (to fit with Beacon's Optimization Tool)

The report that follows delivers to these requirements.

2.2   What is the consumer uptake objective?

The overall consumer uptake objective is to have 90% of houses in New Zealand reaching a high standard of sustainability by 2012.

This is may not be a realistic objective. For example, WWF's 'One Million Sustainable Homes' programme aims to convert about 3% (or about one million UK houses) to sustainable houses by 2012[1]. The campaign is well resourced and has the support of a number of high-profile individuals. A single-figure annual rate of change is typical across large-scale social change programmes in New Zealand and worldwide. Having said this, we also believe it is important to set a significant challenge to ensure commitment to innovative and/ or cost-effective approaches to change.

2.3   What is a high-level summary of the relevant knowledge worldwide?

There are many different approaches to social change research and interventions worldwide. These can be summarised in three broad groups, each with a characteristic worldview and approach to change.

2.3.1   Commercial Approaches

The most common initiatives aim to influence what people consume (such as energy-efficient products) and are usually based in conventional market research and marketing management approaches. They work to influence individual attitudes

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[1]   See WWF web page www.wwf.org.uk/sustainablehomes/reports

and behaviours in favour of a branded solution (product or service). They are strongly based in the individualist, rational economic paradigm of consuming and sustainability, and so are equated with 'weak' sustainable development models.

Commercial examples vary considerably but the more successful can demonstrate significant shifts in uptake within a period of a few years. However, there are two qualifying factors. First, the success of such initiatives depends on maintaining commercial support for the solutions in competitive markets. Second, success also depends on fitting in with the status quo of consuming in a market: where the patterns of consuming themselves are at issue, the success of this approach may be severely limited.

2.3.2   Social Approaches

Another group of initiatives work to build community values and resources, aiming to influence how people consume in their lifestyles, and working to encourage household or community self-regulation, sometimes supported by legislation. These initiatives most commonly occur in approaches to social issues (such as health), where the initiating agency has no commercial remit, where the aim is to prevent unsustainable activity and where change can be driven through a group/ community. The community consultation, action research, and (community-based) social marketing paradigms are typical here. These initiatives are based in social paradigms of consuming, as they prioritise social improvement, social capital, and equity.

Examples of social initiatives typically show significant changes over decades and with multi-million dollar budgets (such as those targeting diet, exercise, smoking, drinking and driving, and child abuse). But note that many such initiatives only last a few years, due to management and funding issues, and so changes are unstable. Surprisingly, in some cases data exist to demonstrate exactly this.

2.3.3   Environmental Approaches

Another group of initiatives work to build life meanings, social identities and values to create new ways of consuming and alternatives to the unsustainable. Of all the approaches, they are most closely aligned with Naturalistic ('strong') models of sustainable development, being geared to de- and re-constructing life meanings, social structures and the fundamentals of consuming. While these seem the most radical, in practice they may piggy-back on existing social trends (such as the broad acceptance of 'green' issues).

These tend to be high-level interventions, and can be found in industry or national identity, strategic planning and policy development initiatives. Some of the social approaches mentioned above deploy similar strategies (such as LTSA's work on re-configuring masculinity in relation to drinking and driving). This work typically involves formative/ generative research, may be based in recent social science theory and/ or deploys holistic methods such as scenario building and road mapping approaches.

Examples of these initiatives typically show significant change, again over long time spans, if the initiatives are continued. Some pass into national or industry identities, institutional missions or regulation/ enforcement and lend themselves to powerful communications campaigns. Some involve complex partnerships between government, industry and commercial organisations, so achieving results by diverse (& less measurable) means.

Note these three broad approaches move in emphasis from operational to strategic, from weak to strong definitions of sustainability, and from fitting with existing systems of consuming to generating new ones.

2.3.4   Success Factors

A key success factor across both interventions and research programmes is simply quality of design and management. This includes well-defined objectives, clear strategic thinking, good use of research, a well-organised development process, well-executed marketing management, and well-designed monitoring of specific impacts.

While there is considerable social change activity worldwide, we estimate that about 5% of initiatives have planned, researched, and monitored their desired behavioural changes to the point that they can provide well-documented evidence of

change. While many claim success, there is considerable difficulty assessing claims, both in relation to the initiative themselves and in relation to their impacts.

We have reviewed a range of interventions in the social change literature and have found a common core, but note these are used in diverse ways with a range of effects. That is, aims, design, deployment and impacts vary considerably, and as noted, the critical success factor is the quality of programme/ research-intervention design and management. This means there is no simple approach to assessing the cost-effectiveness of specific interventions for Beacon.

Overall, our broad assessment is that Beacon can realistically expect single-figure consumer uptake in the first decade of intervention[2]. Uptake may double year-by-year in subsequent decades in a second phase of social change, and slow down in the final phase. Note that after this, there is some evidence suggesting an inter-generational backlash is possible, as is the case for 'green' interventions in Germany.

Note that regulation in itself will not dramatically increase uptake by 2012, and, on its own, is not regarded as a key intervention in this report. That is, regulation in itself has an uptake curve, requiring careful management to ensure well-designed regulations implemented consistently nationwide.

Rapidly-imposed regulations, of the scale Beacon would need to consider, have the effect of amplifying resistance and 'bad behaviour', especially when not preceded by a significant communications campaign. In terms of regulation for sustainable housing, such a campaign will need to achieve a major shift in householder/ consumer expectations of housing – a significant task in itself – to provide a rationale for change, build full buy-in to new regulations, and prevent 'backward step' revisions of regulations in years to come.

2.4   What is the existing programme to meet this objective?

The original programme was in six stages and is outlined below.

Table 1: Existing Programme

Existing Programme: Customer Research Consumers	
Step	**Methods**
Consumer Meanings	Desk and key informant research to identify consumer meanings regarding sustainability – the language, symbols and imagery, and indications of consumer response. The timetable for this study is 3 months and the budget is $40,000.
Change Strategies	Desk and key informant research to identify international change strategies regarding consumer behaviour in the RBE, evidence of their success or otherwise. The timetable for this study is 6 months and the budget is $100,000.
Scenario Development	Qualitative research to identify the drivers of societal change which influence consumer choice regarding sustainability, incorporating STEEPV analysis and scenario planning. The timetable for this study is 12 months and the budget is $140,000
Attitudes of NZ Consumers	Quantitative research based on N=100 households to identify the range, conflicts and rigidity of attitudes of NZ consumers to sustainability. The timetable for this study is 6 months and the budget is $150,000.
Strategy development	Development of consumer demand strategy for improved sustainability in the New Zealand RBE, using formative evaluation in a focus group setting with identified segments of consumers. The timetable for this study is 12 months and the budget is $100,000.
Strategy testing	Qualitative and quantitative process evaluation of pilot interventions to test and review consumer demand generation strategy. The timetable for this study is 6 months and the budget is $200,000.

The overall timetable was 3 years, nine months, and the total budget was $730,000.

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[2] Generic uptake curves (BASS curves) suggest 20 – 30 years to achieve the 90% target under normal social and/ or market conditions.

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2.5   What are the alternative approaches to meeting the objective?

In this study the research team developed a design tool – a way of designing strategies and alternatives in the consumer housing market. This is summarised in the diagram below.

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Table 2: Design Tool

Research-Intervention Design Tool					
Sustainability Model	**Worldview**	**Consumer Paradigm**	**Research Types**	**Interventions**	**Anticipated Impacts**
Weak	Rationalistic	Decision-Maker	Market Research	Operational	Increase in sustainable solution consumption, decrease in use of unsustainable solutions
Weak	Humanistic	Citizen	Social Research	Managerial	Increase in community self-regulation and activities supporting sustainability
Strong	Naturalistic	Participant	Identity Research	Intentional	Shift in identity and core life meanings towards sustainability

To use this tool we move from left to right, working through the options provided at each step (the options can take us into considerable detail) to identify viable research-interventions. Note that the nature of background evidence does not allow us to quantify the specific impacts of many options.

Our review of social change research-intervention programmes worldwide indicated that strong, Naturalistic worldviews appear to offer the best leverage for achieving social change, especially when linked with generative research (oriented to meeting desired future outcomes) and intentional interventions (oriented to shifting people's core mindsets, identities and life values). These became our primary design criteria.

Note these did not prevent us designing alternatives based in other criteria, and so we targeted different worldviews and modes of research-intervention. Through this approach we were able to develop a fourth 'integrated' approach.

The diagram below summarises the four research-intervention alternatives arising from our use of the design tool.

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Table 3: Summary of Alternatives

Summarising Alternatives				
Alternative	**Original and Rationalistic**	**Humanistic**	**Naturalistic**	**Integrated**
Strategy	o Bottom-up/ Operational	o Opinion Leaders/ Intermediary	o Top-down/ Intentional	o Integrated/ Systemic
Targets	o Households/ Consumers	o Opinion Leaders/ Communities (including business)	o Change Agents/ Government agencies	o Multiple Targets
Consumer System Interventions	o Changing what people consume using sustainable solutions, incentives, an evaluation service, a rating scheme, branded communications	o Changing how people consume using community-based programmes, changes in building code, sustainable housing website, national communications campaigns	o Creating new alternatives for consuming responsibly using national identity campaigns, regulation, multi-agency sustainable housing programmes	o Multiple interventions combining those at left
Research Framework	o Market research and marketing management to develop sustainable solutions	o Action research and social marketing approaches to develop change programmes communities can use themselves	o Scenario building and identity development approaches to leverage change at high levels	o Key research elements of each
Outputs	o Commercial solutions	o Community-based programmes	o Identity programmes	o Integrated interventions
Opportunity	o Effective development of sustainability within consumer status quo	o Build on existing urgency among opinion leaders	o Build on existing efforts among change agents	o Build on combined efforts
Limits	o Need to target all householders o Most householders resistant o Requires ongoing commercial support o Difficult to shift the way people consume	o Need to target very diverse communities o Difficult to achieve change on short-term basis	o Need to work effectively at political level o Difficult to achieve change on short-term basis	o Need to work systemically across diverse groups and tasks o Need to evolve systemic approach
Gains	o Rapid consumer uptake of solutions	o Community ownership of sustainable housing development plus wider context, with shifts in social norms	o Core housing identity re-constructed around sustainability, plus wider context, with shifts in national/ local identity	o Rapid, sustainable change in housing consumption system
Expectations	o Quick impact but not stable – requires ongoing commercial support	o Slower impact but stable if self-regulating communities are achieved	o Slower impact but stable and pervasive if core meanings are shifted	o Rapid impact but high level of complexity required to achieve it

The impacts of these alternatives are detailed below.

2.6   What is the likely impact of each alternative approach?

This section summarises the estimated impacts: note that the impacts are in terms of what can realistically be achieved by 2012.

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The table below presents the assessed impacts of the four research-intervention alternatives in their strategic context, and links them to Beacon's Optimisation Tool.

Table 4: Impact Assessment

Impact Assessment					
Alternative	**Original**	**Rationalistic**	**Humanistic**	**Naturalistic**	**Integrated**
Timetable - To Research Completion (2005) - To Impact (2012)[1]	3 8	3 8	3 8	3 8	4 7
Research Budget	$ 730,000	$ 650,000	$ 650,000	$ 650,000	$800,000
Likely Spend for Beacon Partners [2]	$11,930,000	$11,930,000	$7,915,000	$11,195,000	$10,850,000
Dependencies	Industry capacity, Beacon solutions, commercial partners	Industry capacity, Beacon solutions, commercial partners	Community partners	Institutional partners	Multiple (as at left)
IP/ Returns	Solution IP	Solution IP	Programme, Brand IP	Programme, Brand IP	Solution/ Programme IP
Likely Impact by 2012	15%	15%	10%	5%	20%
Likely Success	50%	50%	60%	75%	90%

1   Including research timetable
2   Per annum for Beacon partners, to achieve Beacon goals via each alternative

Further detail on these assessments can be found in the final section of this report.

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3   Conclusions

This study has identified ways the original proposal can be improved. In particular, a number of very insightful sustainability thinkers and practitioners were identified. These re-oriented our approach and enabled development of a strategy design tool, which was used to develop four alternative approaches and their likely impacts.

The evidence from this study strongly suggests that none of the alternatives is likely to meet Beacon's aim of improving the sustainability of 90% of New Zealand houses by 2012, unless Beacon revises the 90% target or the types/ levels of sustainability qualifying as an improvement to a house.

Three major reasons can be identified:

1. Our best estimate is that about 5% of New Zealanders are proactively practicing forms of sustainable living (whether defined as green or ethical consumerism): the uptake of consumption alternatives is in its very earliest phase
2. The impact of large-scale social change programmes is in the order of 10% - 20% in the first decade, including those deploying regulatory approaches to enforce operational/ behavioural changes
3. Many examples lose their momentum after the first few years due to problems with the level of strategic thinking, quality of programme design, quality of programme management, and funding appropriate to a national change programme (that is, the sustainability of change programmes is a significant issue in itself)

The programmes with higher levels of success and stability are systemic in their approach. That is, they deploy multiple interventions across multiple sites of change and target groups, over differing phases. Such an 'integrated' approach achieves greater impact than many simpler approaches can on their own, though this also requires more complex research-intervention strategies, larger budgets, and to ensure stability, longer timeframes.

Our review of the social change literature and research-intervention programmes worldwide indicates that interventions oriented primarily to changing the impacts of consuming on the environment (as their key outcome) offer the best leverage for achieving social change (these have been called the strong/ Naturalistic approaches in this report).

That is, the strong model of sustainability and the Naturalistic framework generate more innovative, systemic approaches and are more systematic in their management of change. Key features are an orientation to meeting desired future outcomes and shifting people's core mindsets, identities and life values (as well as deploying other interventions such as regulation).

The advantages for Beacon are research and intervention programmes that are fully able to deal with the complexities and timescales of significant social change, by providing depth of understanding, frameworks for designing appropriate interventions and organising change, and management tools for ensuring success.

In summary, our conclusions are:

Change Targets. Whilst it is important to set a significant challenge to ensure full commitment to change, a more realistic target for Beacon might be 1–3% uptake per year, or 8–24% uptake between 2005 and 2012. This is still a significant challenge and worthwhile pursuing.

Programme Design. The best-designed programmes internationally are based in Naturalistic sustainability frameworks and are systemic in their approach to social change interventions. (This does not prevent them from using interventions sourced from non-systemic approaches).

Alternatives. We believe the fourth alternative, the Integrated, offers Beacon the greater leverage and range of options for generating change in consumer demand for sustainability in houses.

4   Recommendations

In summary, our recommendations are:

1. We recommend revision of Beacon's overall target for change and/ or further assessment of what changes qualify as sustainability improvements in houses.

2. We recommend Beacon endorses a Naturalistic sustainability framework and pursues systemic interventions (to ensure complexities of change are fully managed over time).

3. We recommend Beacon consider the Integrated alternative as the most effective for achieving its aims.

5   Background

Beacon Pathway Ltd (Beacon) is a research consortium funded by shareholders and the Foundation for Research Science and Technology to carry out research into the uptake of greater levels of sustainability in the residential built environment.

Beacon's aim is to establish a sustainability standard for New Zealand homes, and inform a programme of interventions that will bring about uptake of sustainability in housing. Beacon's aim is that 90% of houses meet the standard by 2012.

Among other research activities, Beacon plans to undertake ongoing research into generating consumer demand for greater levels of sustainability in both new and used homes.

5.1   Project Brief

Beacon has defined an initial programme of research for consumers, and now requires confirmation of this programme. The project confirmation phase (PCP) is designed to confirm that the initial approach is well-informed regarding initiatives worldwide, and can provide viable alternatives if Beacon's priorities shift.

Beacon intends to evaluate the resulting research alternatives by determining the likely magnitude, timing and impact of these programmes towards achieving its aims.

We understand a core requirement of the brief is to detail 'approaches to developing strategy' in consumer change programmes so that Beacon's executive/ Board can access strategic programme decision-making tools.

The deliverables Beacon requires of this project are:

o   A high-level summary of relevant knowledge from around the world, including success factors
o   At least one alternative approach to consumer research/ change, that delivers the result more quickly - alternatives must be described and costed
o   An estimate of the likely impact of each alternative: the alternatives must specify the number of houses the programme will change (to fit with Beacon's Optimization Tool)

The report that follows delivers to these requirements.

5.2   Initial Project Proposal

Forest Research (Fran Maplesden, Karen Bayne, Susan Bates), Stand Ltd (Paul Moran) and QZONE (Stephen McKernon) proposed an initial approach to this work. The initial programme is outlined below.

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Table 5: Initial Proposal

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Initial Proposal: Consumer Research	
Step	**Methods**
Consumer Meanings	Desk and key informant research to identify consumer meanings regarding sustainability – the language, symbols and imagery, and indications of consumer response. The timetable for this study is 3 months and the budget is $40,000.
Change Strategies	Desk and key informant research to identify international change strategies regarding consumer behaviour in the RBE, evidence of their success or otherwise. The timetable for this study is 6 months and the budget is $100,000.
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Strategy testing	Qualitative and quantitative process evaluation of pilot interventions to test and review consumer demand generation strategy. The timetable for this study is 6 months and the budget is $200,000.

The overall timetable is 3 years nine months and the total budget is $730,000.

6   High-Level Worldwide Knowledge

Our high-level review of worldwide social change initiatives relevant to Beacon's aims suggests considerable diversity in research and interventions.

We have identified three broad approaches in research and intervention of relevance to sustainable development (SD), as shown in the diagram below. These approaches are consistent with other high level findings in this study and provide a robust framework for communicating complex issues in a simple way.

Table 6: Research-Interventions

The diagram at right indicates there are two broad directions in research. Evaluation typically aims to understand a problem and develop a resolution (process and outcome evaluations). Generation aims to identify desired outcomes and design alternatives for achieving them (also known as formative research).

Within these directions lie research-intervention initiatives oriented to primarily commercial, social, or environmental outcomes.

Note the three approaches move in emphasis from operational to strategic, from non-systemic to systemic, and from fitting with existing systems to generating new ones. Each offers different strengths and difficulties to Beacon's aims: it is important to bear in mind that some or all may be deployed.

Research-Intervention Approaches

These approaches are detailed in the sections below.

6.1   The Commercial Approach

Commercial initiatives aim to influence what people consume, typically seeking to substitute one branded offering (product, service, experience) for another one, and in competitive contexts, generally work to enlarge the choices available to consumers. This typically requires evaluation of the opportunity and some generation of offering features.

In sustainable development, the parallel aim is to substitute sustainable branded offerings for less sustainable ones, as summarised in the table below. Sustainability offerings need not identify themselves as such, and it may be easier for a brand to achieve rapid uptake by not doing so if it offers higher quality and/ or other interesting features. That is, overt claims to sustainability can be taken as a challenge to prevailing market values or as an attempt to target greenies (a small group in most markets). On the other hand, the rise of 'ethical' products and services (such as The Body Shop's personal products range) can be taken as an indication of their increasing commercial value.

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Table 7: Commercial Approach

The Commercial Approach					
Approach	**Aim**	**Target**	**Research-Intervention**	**Examples & Industries**	**Successes**
Commercial	To improve quality of consumer choices by substituting sustainable brands/ solutions for less sustainable ones	Individual consumers, with uptake assessed by aggregating individuals in market	Technology Innovations, Marketing Management, Market Research	Foods, beverages, personal products (health, cosmetics), clothing, household products (cleaners, gardening), energy products	Can achieve rapid success if in line with consumer trends and if integrated marketing strategies are used and well-executed

Note that detailed data are generally difficult to obtain (for commercial reasons), but examples of the success of the marketing management approach are plentiful. Programmes are likely to use measures of market share (such as brand uptake or switching) and sales figures as key indicators. In sustainable development contexts these may serve as proxies for sustainability-related changes.

One key aspect of the commercial approach is the drive to fit with or exploit mainstream consumption patterns, simply changing what people consume without seeking to change how consumption takes place. No significant change is required of the consumer other than a subtle shift in brand/ offering loyalties.

For example, Australia promotes energy efficient appliances nationwide through Star Rating labels and product subsidies, ultimately as a means of mitigating climate change[3]. A study of the promotional programme showed increased market shares for Star-rated appliances from 1993 to 2000, with an overall increase in appliance energy consumption. Incremental innovations and design improvements resulted in 2% - 6% per annum gains in Star Ratings across a range of whiteware appliances. Supplier and retailer integration were also important to the programme.

A 2001 Californian energy-efficiency assessment estimated that more than 100 million ordinary bulbs were used in the state, and an energy efficiency programme was set up to substitute these with energy efficient CFL bulbs (as well as to increase the market share of Energy Star-rated appliances). The programme increased CFL bulb market share from about 0% to 6%, and doubled the share of Energy Star-rated appliances over a three-year period. A mix of technological innovation, price rebates, and supplier/ retailer co-operation were critical to the success of the programme[4]. In a related study of four tactical interventions, the authors conclude,

> *"In summary, one program alone will not be effective in meeting a range of objectives. Offering a portfolio of programs that relies on multiple delivery mechanisms may be the best strategy for meeting several program objectives at a reasonable cost."[5]*

In parallel, Winstone Wallboards Living Solutions programme used a systemic, integrated, multiple-mechanism and multiple-target approach to meet its growth aims. Its core consumer objective was to build householder demand for healthier and more comfortable homes.

Its programme used TV advertising to reposition the GIB® brand, an 0800 number to generate leads, a campaign to educate the trade, field sales teams to support the trade, a Call Centre to support homeowners and convert leads, and training for builders. In addition, Winstone Wallboards used partner show homes, education of distributors, placing of display stands in home ideas centers, and parallel promotions through partners. The programme generated a 7% growth in sales within the

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[3] Greening Whitegoods. National Appliance and Energy Efficiency Programme. A Report into the Energy Efficiency trends of Major Household Appliances in Australia from 1993 to 2000, revised and updated with 2004 data. The National Appliance and Equipment Energy Efficiency Committee.
[4] KEMA - XENERGY (2002). Phase 4: Market Effects Study of California Residential Lighting and Appliance Program.
[5] Rasmussen, T., Gaffney, K. (2003). CFL Programs that Work: SEP Case Study, California. US Department of Energy State Energy Program. See http://eeredev.nrel.gov/state_energy_program/case_study_detail_info.cfm?cs_id=8

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first two years, and the Living Solutions share of the market has continued to grow through a market maintenance programme.[6]

Limits to the commercial approach are:

o Uptake depends very much on effective marketing management and related disciplines
o Ongoing technological innovation is central to ongoing success – consumer interest must be maintained and competitors resisted
o Multiple approaches are necessary to achieve rapid and substantial change
o Maintenance programmes are necessary to ensure changes remain stable in competitive markets
o Uptake of sustainability elements may require dumbing-down where complexity, unfamiliarity or overt 'green-ness' threaten uptake – the result may be considerable softening of the sustainability message

One important issue for Commercial programmes is that rapid switching to sustainability-oriented solutions may by followed by equally rapid switching to (less sustainable) competitor offerings. Linked issues include the 'green-washing' of less sustainable offerings, or alternately, the dumbing-down, 'consumer-ising' of sustainable ones (see section 5.3 The Environmental Approach, page 25). In this respect, uptake depends on the careful social positioning of the (sustainable) brand – requiring careful balancing of appeal against performance.

6.2   The Social Approach

Social initiatives aim to influence how people consume, and typically try to substitute better knowledge, lifestyles and social norms for problematic ones. This typically involves programmes in trying to alter socio-culturally grounded identities, lifestyles and behaviours. Social approaches prioritise outputs such as social capital, equity, and improvements to quality of life, as summarised in the table below.

Table 8: Social Approach

The Social Approach					
Approach	**Aim**	**Target**	**Research-Intervention**	**Examples & Industries**	**Successes**
Social	To improve quality of life by substituting more sustainable knowledge, lifestyles and norms for the less sustainable	Consumer groups with shared issues, norms and/ or interests, such as work and school communities	Social Innovations, Action/ Evaluation/ Social Research, Social marketing[7]/ Public Health Promotion	Smoking, drinking and driving, exercise, commuting, energy efficiency solutions	Major social issues addressed but change can be (very) slow

Social approaches demonstrate high levels of success if well-planned and -executed, but note that expectations of change generally invoke greater complexity and longer timeframes than the commercial.

For example, over 10% of drivers drive in excess of 110 km per hour on the open road, in spite of long-established road rules, enforcement activities and media campaigns. The Land Transport Safety Authority (LTSA) has reduced the proportion of these speeding drivers by about 50% (from about 20% to about 10%) in the last five years – one of New Zealand's most successful social change programmes. Its current spend – in campaigns to reduce the number of speeding drivers, educate new drivers, and keep the rest behaving safely – is about $25 million per year[8].

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[6] Info provided by Bob Batenburg, Marketing Manager, Winstone Wallboards.
[7] Especially Community-Based Social Marketing, an increasingly popular approach due to its combination of rigour and ease of use. See McKenzie-Mohr, D., Smith, W. (1999). Fostering Sustainable Behaviour. New Society Publishers, Gabriola Island, Canada.
[8] See www.ltsa.co.nz research on driver behaviours and funding data in annual reports

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Part of the issue is that new young male drivers appear on the roads every year. In a culture where drinking, driving and masculinity are embedded, changes inevitably require attention to the cultural background – a task that might realistically take generations and/ or need to be re-invented for each generation. For example, nations (such as Germany) that were Early Adopters of green values are now experiencing a backlash among younger generations: as a case in point, formerly successful Eco-banks have been struggling to gain younger customers in recent years[9].

In parallel, smoking cessation regulation, programmes and communications campaigns achieved cessation by 2% of smokers over the 1990s. By the early 2000s, about $11 million per year was spent on programmes for Maori smokers alone (as 1 in 3 Maori deaths are now smoking-related)[10]. The recent results of more sophisticated programmes suggest cessation rates of 1% per year might be achievable using a mix of media messages, support programmes including counseling, and chemical treatments (see examples in section 5.4 Success Evidence and Factors on page 27 below).

The limits to this approach are:

o   Social issues are embedded in social systems, so change mechanisms are often necessarily complex and expansive (beyond the specific problem)
o   Changes may be resisted by both consumers and related commercial interests, because they may represent changes in the way people see themselves and how they want to live
o   Social change is relatively slow: while changes in awareness and knowledge may be rapid, changes in the way people consume may lag by years and even decades (such as acceptance of the anti-smoking message)
o   Social change programmes are expensive

That is, a community or culture may resist change, to the extent that expectations of change must be framed in terms of generations, rather than years.

6.3   The Environmental Approach

A general aim of the Environmental approach is to change how people consume. But more importantly, a key challenge is to provide reasons why people should consume (more) sustainability and to create ways to do so. This typically involves programmes in considering problems arising from underlying mindsets and socio-cultural values. The table below summarises this approach.

Table 9: Environmental Approach

The Environmental Approach					
Approach	**Aim**	**Target**	**Research-Intervention**	**Examples & Industries**	**Successes**
Naturalistic ('Strong' sustainability framework)	To generate (new) sustainable meanings for living and strategies for living	People open to evolving new ways of living/ doing ordinary activities in consumer society	Academic/ Policy/ Generative Research, Scenario Planning/ Road Mapping/ Identity Change Programmes	Central/ Local Government and Industry	Major environmental issues addressed but slow change achieved

Environmental approaches also demonstrate high levels of success when well executed. While we might expect many to have long timeframes and aim to generate new mindsets, identities and life values, the reality is that most are short-term behavioural interventions. A recent review of 19 countries strongly committed to sustainable development indicates even

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[9] "German companies facing ecological economic crisis". *Franfurter Allgemeine Zeitung*. 2 July 2001.
[10] Laugesen, M. (2000). Tobacco Statistics. Cancer Foundation, New Zealand.

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these are only in the early stages of learning how to construct national sustainable development strategies. Effective, proven, large scale national change programmes are still in their infancy, despite decades of progress in this area[11].

One key reason for this is that Environmental interventions often run counter to the prevailing norms of consuming and of communities/ cultures, much as social interventions do. But in Environmental approaches, the benefits of change lie outside the specific social issues/ systems in question, and accrue in the environment, where benefits may be neither immediate nor tangible. In this context, it is much easier to target people with existing concerns (and give them something to do) than to try to change the remainders' mindsets.

For example, the Climate Change Office has the aim of engaging New Zealand in the challenges of climate change. One key task is changing the nation's rather blasé mindset, which at best might be described as 'concerned but not worried', since climate change is such an abstract issue[12]. One part of the Office's communications strategy is to dramatise the threats climate change poses to our 'clean, green' island identity, and another part is to focus on 'taking action'[13]. These tactics work to make climate change mitigation accessible to the public, allowing people to engage with abstract issues at a tangible, real, day-to-day level. But note that the call to action is more symbolic than real.

An unintended consequence is to transform a major, global, systemic problem into a 'consumable' by dramatising tangible threats and engaging people in symbolic actions. The result is to dumb-down the intervention's real intent and its impacts on the real problem – the way the production-consumption system itself is organised in relation to the environment. Social theorists argue that sustainable development may have become just another consumption experience, and as such, offers limited or no actual resolutions to the problems of an unsustainable production-consumption system[14].

By way of comparison, the 'Like Minds' mental health campaign attempts to change the public mindset towards mental illness, build a rationale for alternative views, and construct a positive identity for mentally unwell people. Over the two years to 2002, 'Like Minds' media activity increased the level of positive beliefs by up to 17 percentage points, a great success in many respects. But note that it also exacerbated resistance and negative beliefs by a similar amount[15]: it effectively entrenched the bigotries it set out to address.

A parallel issue may be demonstrated by Auckland Regional Council's Big Clean Up (BCU) campaign. Campaign promotions emphasised the need to protect Auckland's natural environs and invited people to register their support by becoming BCU campaign 'members'. Over three years, 44,000 Aucklanders have registered, about 6% of Auckland region households. The campaign mails out information on sustainable urban living practices and Auckland environmental issues. However, there is no use of the member database other than for these mailouts: the 44,000 are interacting with the campaign but have no specific social identity or call to action – the group itself is a sadly under-utilised social change resource.

In these cases, it may be more difficult, but more productive, to address the core problems systemically (across mindsets, behaviours and the contexts they arise in). This might mean adding calls for specific behavioural changes in contexts where negative views materialise. It might mean a mix of intervention mechanisms, giving people multiple points at which to access and address the issues, also allowing for socially-mediated influence strategies. It might also mean adding ways people can re-configure personal identities by joining campaign-based community action groups16. That is, addressing why people consume and creating alternatives requires carefully-designed, systemic approaches right down to the individual level.

Features and limits of the Environmental approach in consumer contexts are:

o Initiatives need to address underlying mindsets, deeper social values, and the consumption system itself, though these can be high-level, complex and difficult points of intervention

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[11] Swanson, D. et al. (2004). Sustainable Development and National Government Actions. IISD Commentary. International Institute for Sustainable Development.

[12] UMR Insight. Awareness of and Attitudes to Climate Change. 2002 . Study for Climate Change Office.

[13] See www.climatechange.govt.nz and 'Take Action' section

[14] Blohdorn, I. (2002) Unsustainability as a Frame of Mind and How We Disguise It. The Trumpeter. Vol. 18, No. 1. See http://trumpeter.athabascau.ca/content/v18.1/bluhdorn.html. The base argument comes from Baudrillard's 1970 work The Consumer Society, which argues that simulation of realities has become the mode of both cultural expression and economic transaction.

[15] Akroyd, S., Wylie, A. (2002). Impacts of National Media Campaign to Counter Stigma and Discrimination associated with Mental Illness: Survey 4. Phoenix Research/ Ministry of Health. See page 28 for figures relating to comments above.

[16] And it might mean more reliable forms of evaluation than self-reported changes in attitude.

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o Initiatives need to establish links with parallel programmes in other industries, and with government and industry partners and allies
o Interventions may be 'consumer-ised' and dumbed-down, so limiting impact on underlying problems
o Shifts in mindset, when achieved, may not occur uniformly, nor translate directly into uptake
o Unintended consequences are a real part of the changes that occur within the system, so maintenance of changes and management of resistance are significant tasks in themselves

The next section assesses the success evidence and contributing factors of these approaches.

6.4 Success Evidence and Factors

We should begin our assessment of success factors with an overview of generic social change timeframes and dynamics. The diagram below gives a general adoption curve for large-scale social initiatives.

First, it is important to be aware of the distinction between diffusion (spreading of ideas and information) and adoption (uptake of a service, product or intervention). For example, it is commonplace to find people aware of and in favour of 'green' products (i.e. high diffusion) but not actually buying them or engaging in 'green' lifestyles (i.e. low adoption).

Our best estimate of proactive involvement in green/ eco/ ethical consumerism or sustainable lifestyles is about 5% of the adult New Zealand population, though interest in the issues is significantly higher[17]. From Beacon's perspective, this means that uptake (adoption) is in its very earliest phase of social change, among the groups of people known as Innovators – people willing to reflect on their own lives and make significant identity, values and behavioural changes.

Table 10: Uptake Curve (Bass Diffusion-Adoption Curve)

Note that the timeframe for large scale social change is measured in terms of decades – ostensibly a generation to achieve change across the majority of the population[18].

Note that the rate of uptake goes through three phases – a low initial rate, a high intermediate range and a low terminal rate. The highest rate of change is in the middle decade.

In managing large-scale change it is tempting to look for 'silver-bullets', such as legislation/ regulation, on the assumption that this will effect rapid change.

Generic Uptake Curve

(y-axis: Number of Households; x-axis: Years)

Labels on curve: Change Agents, Opinion Leaders, Early Adopters, Early Majority, Late Majority, Laggards

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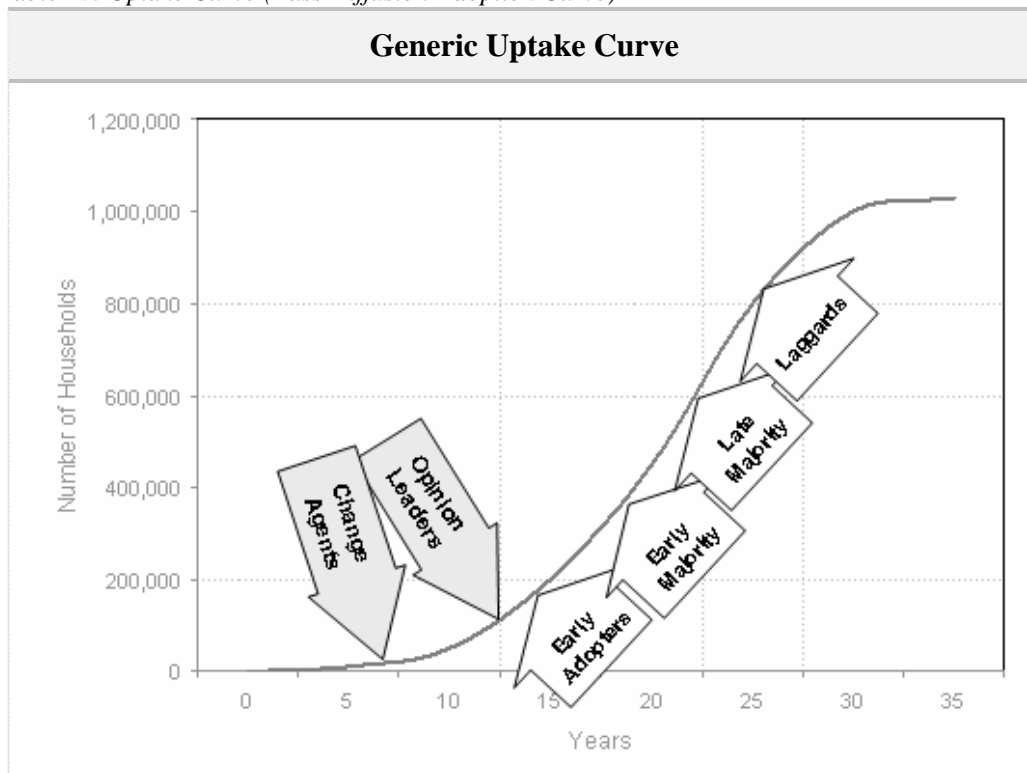
[17] Based on New Zealand research conducted by TNS Gobal, UMR Insight, and overseas research by MORI.
[18] Rogers, E. (2004) Diffusion of Innovations. 6th Edition. Roger's classic work is comprised of empirical studies of diffusion of innovations, both material and social. It is not a theory of change but provides the founding body of knowledge about social change programmes for a number of major disciplines including consumer/ mass marketing, social marketing, and public health promotion.

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However, note that regulation in itself has an uptake curve, and rapidly imposed regulations have the effect of amplifying resistance and 'bad behaviour', especially when not preceded by a significant communications campaign. In terms of regulation for sustainable housing, such a campaign will need to achieve a major shift in householder/ consumer expectations of housing – a significant task in itself. Having said this, regulation is clearly one way of effecting rapid change.

There are three broad groups of people that can be targeted to accelerate social change.

o Change agents are social agencies with significant ability to re-structure and regulate, such as government and local bodies. Specific examples might be government departments and agencies, the media, TLAs and local councils (city) and service suppliers (such as energy, water, phone and waste disposal), and in some cases social institutions such as churches and iwi. Use of personal networks and contact with key people within these agencies is influential.

o Opinion leaders are agencies and individuals with great influence over community norms and activities. Examples are opinion leaders of communities, such as households (the smallest of communities), through to neighbourhood groups, churches, iwi, schools, clubs (such as Rotary), the businesses community, media, local community/ interest groups and again, service suppliers (such as energy, water, phone and waste disposal). Use of personal networks and personalised media (mail, email, web-based applications, bills) is influential.

o Early adopters are individuals who uptake quickly (and may move on just as quickly). They are generically well-educated, well-off and risk-averse (not conservative in their outlook). Use of highly targeted media (such as lifestyle and personal interest magazines or TV shows) is influential.

Accelerated social change programmes need to work carefully with each of these groups to ensure that high uptake of the concept in one group leads to appropriate activity, as well as a subsequent increase in uptake in the next group. For example, rapid uptake by the early majority depends largely on a well-designed context for change, including regulation, media, and services/ products, media and word-of-mouth endorsement by opinion leaders and early adopters. That is, change programmes are complex and are best approached with a clear understanding of the social system, and careful planning across diverse phases, target groups and activities. As noted elsewhere, maintaining the change is then a critical task, and may be required from one generation to the next.

To put this another way, our estimate is that less than 5% of NZ households are actively engaged with green or sustainable lifestyles. These are people 'naturally' predisposed to pursue sustainability. We have to find ways of persuading the remainder to take on sustainability as a life orientation at some level, not because regulation can't make most of them behave appropriately, but because regulations can easily be changed where they don't suit economic, social or political agendas. That is, we also need to seek 'sustainable' interventions.

In their review of 50-odd social change initiatives worldwide, Greer at al. (2001)[19] note that:

o Only a few initiatives (perhaps 5%) were fully planned, researched, marketed, managed and monitored
o Less than 10 (20%) interventions had a theoretical framework, applied prior research findings, or benchmarked their target market, and only a few employed market segmentation or targeted research and interventions. Only 10% contributed new knowledge.
o About 39 (78%) evaluated their results, but less than 25 tried to discover what behaviour change had taken place
o Two-thirds of the projects were one-offs and did not lead to ongoing activities (so any changes would be unstable).
o About 38 (75%) of the projects showed some positive results, though it was not clear what their success criteria were
o Aside from this, the authors detail the relative success of different media and communications methods across the 50-odd programmes

That is, about 5% of initiatives document enough planning, research, execution, and evidence of changes to meet Beacon's needs for this project. A primary success factor is simply having a disciplined, professional, well-considered, and well-executed approach to both research-interventions.

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[19] Greer, H. et al. (2001). The Guide to Change: Energy-related Behaviour. Aeneas. Netherlands.

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To help assess a range of initiatives, we have developed a high-level evaluation framework (derived in part from the work by Greer et al.), as outlined below.

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Table 11: Evaluation Frame

Evaluation Frame					
Example	**Number in Target (N)**	**People Aware (%)**	**People Interacting (%)**	**People Changing (%)**	**Cost per Change $NZ**
① We source examples that provide appropriate data (and add intelligent assumptions where data are missing)	② How many people are targeted?	③ How many people are made aware of the intervention?	④ How many people interact with the intervention?	⑤ How many people change as a direct result of the intervention?	⑥ How much did it cost per person to achieve this number of changes?

The frame does not detail research or intervention methods, nor change timeframes: it simply assesses uptake/change outputs[20]. The table below summarises median[21] uptake figures for interaction and change in Commercial, Social and Environmental initiatives. Most of the Environmental cases derive from a unique community-based social marketing database[22].

Table 12: Programme Evaluations

Evaluation of Programmes				
Programme Approach	**Number in Target**	**Households Interacting**	**Households Changing**	**Cost per Change $NZ [1]**
All Cases (54 cases)	122,095	20%	7%	$167
Max	*11,364,149*	*100%*	*90%*	*$3,641*
Min	*1,200*	*0.1%*	*0.03%*	*$1*
Commercial (6 cases)	250,000	50%	8%	$254
Social (7 cases)	1,270,674	60%	11%	$341
Environmental (41 cases)	90,000	13%	6%	$51

1 Overseas budgets were converted to current NZ dollars, irrespective of exchange rates at the time of intervention – so these figures are indicative of the magnitude of spend required to achieve the change in NZ terms

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[20] As we note elsewhere, the evidence suggests significant social change takes decades, but many programmes wind down or cease after 2 – 3 years due to lack of longer term management and funding supports.

[21] The distribution of results is strongly skewed, hence use of medians – see Appendix Two giving data summaries.

[22] See Tools of Change website, Case studies page under http://www.toolsofchange.com/English/firstsplit.asp

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Note that figures are indicative of key patterns overall and within samples only, as differences between sub-samples are difficult to judge due to statistical sampling error[23].

The information in this table suggests:

o On balance, we can expect programmes to achieve single-figure rates of change over a few years (at a rate of a few percent per year)
o The median change for programmes targeting 1 million people or more (i.e. equivalent to most households in New Zealand) is about 1% per year
o Less than half the people who interact with an intervention can be expected to change
o Analysis of the best and worst programmes suggests planning and execution elements (i.e. expertise and discipline of programme) is central to success
o Environmental initiatives may require lower expectations of relative proportions of people interacting and changing, though overall change rates may be similar
o There is some correlation (R= 0.5) between number of people interacting with a programme and the number who change their behaviour, though there is no correlation between budget per person changed, or target group size and persons changed

The table below provides instructive examples, with an emphasis on successful New Zealand programmes to illustrate their scale and impact in their context of operation. Comments made regarding the table above apply here also.

Table 13: Programme Examples

Programme Examples					
Example	**Target (N)**	**Aware [1] (%)**	**Interacting (%)**	**Changing (%)**	**Budget per Change ($NZ)**
Winstone Wallboards, NZ (over 2 years)	200,000 (New build and renovation households)	80%	47%	7% (3.5% p.a.)	$254
Waitakere Eco-Friendly Home, NZ (over six months)	55,000 (Residents)	80%	10%	5% (>5% p.a.)	$40
Me Mutu Quit Smoking, NZ (over 1 year)	722,000 (NZers smoking, especially heavier smokers)	80%	14%	7%	$409
Push Play Exercise, NZ (over 3 years)	1,270,000 (NZers needing to exercise more)	80%	70%	9% (3% p.a.)	$341
LTSA, NZ (per year)	1,158,462 (Car drivers)	95%	85%	85% [2]	$28

1 Awareness figures are similar as awareness measures are all based on television exposure.

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[23] These figures give the best evidence available and relevant to Beacon's aims. They are NOT representative of all interventions, as available evidence is limited. We are not trying to compare studies across a standardised time frame, as we are interested in the overall impact of each programme in its context, but most of the studies examined provide data for 1 – 2 years (and most lasted no longer). Where data is lacking, we have made educated guesses based on other cases and studies of effectiveness. Budget figures cover the total cost of the programme required to achieve the results indicated, which in some cases includes a wide range of supporting activities.

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2 The 85% figure is drivers who obey the speed limit: many of whom will already have been obeying and so will not have changed their behaviour. In this sense, the LTSA's budget will actually be minimal for these people (as behavioural maintenance activity is relatively low key), and much higher for the 15% that don't. Much of the LTSA's behavioural change activity is effectively targeted at the latter, but figures for this specific group are not available to this study and cannot be estimated accurately. For the groups that do speed, it is possible that enforcement has a greater effect on compliance than communications programmes. That is, in fact LTSA's change management strategy must be considered as a whole, including enforcement.

These examples are detailed below.

Table 14: Cases

Case Details	
Case	**Details**
Winstone Wallboards, NZ	*Living Solutions marketing campaign, first two years, late 1990s.* This programme provided a new range of GIB® boards designed to enhance the health and comfort of the home, integrating homeowner and trades person in an overall approach. The programme was based on research and used TV advertising to reposition the GIB® brand, an 0800 number to generate leads, a database campaign to educate trade, field sales teams to support trade, a Call Centre to support homeowners and convert leads, training for builders, use of partner show homes, distributor education, display stands in home ideas centers, and parallel promotions through marketing partners. The programme generated a significant upturn in sales within a year and subsequently won a New Zealand Marketing Awards prize. About 7% of houses used GIB® Living Solutions in the two years, or about 3.5% per year (and note the percent of houses using Living Solutions per year has increased since.) [24]
Waitakere City, NZ	*Waitakere Eco-Friendly Home, Waitakere, NZ, six-month programme, early 2000s.* This project built and publicised a home among the residents of Waitakere City. The programme used media and advertising, a website providing a guide brochure, hard copy guide booklets, other education materials, and trained staff at the house. Seminars and tours were held for different target groups. Households could then choose to make changes according to design features and product features they saw in the home (though this aspect was not emphasised, as it aimed to demonstrate the eco-friendly housing concept itself). The Home received about 5,000 visitors in six months.[25]
Me Mutu Quit Smoking, NZ	*Me Mutu Quit Smoking programme, NZ, annual programme, results from early 2000s.* This programme offers a mix of information, counselling, nicotine substitution (such as patches and gum) and ongoing phone-based support. Smokers phone in and register for the interventions and follow-up calls. The 2001 figures show the programme received about 100,000 callers per year and registered about 40,000 callers. Available evidence now suggests about 7% of callers per year stop as a result of the programme. Recent increases in registrations may lead to increases in smokers stopping. The overall national quitting rate is about 1% per year.[26]
Hillary Commission/ Sport and Recreation (SPARC)	*Push Play exercise programme, NZ, three year programme, results from early 2000s.* The programme targets the 1/3 of New Zealanders who don't exercise enough to support a healthy lifestyle. It uses a range of interventions (including television commercials, a website, the Academy of Sport, and sponsored expeditions), plus links with 23 government agencies and diverse education, health and sporting groups nationwide to promote exercise and fund exercise initiatives. A 2003 review suggests a change of about 9% (or 3% per annum) among target groups over a three year period.[27]

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[24] Info provided by Bob Batenburg, Marketing Manager, Winstone Wallboards.

[25] Info provided by Katja Lietz, Project Manager – Sustainability Projects, Waitakere City Council.

[26] Info from Smoking and Tobacco Fast Sheet/ Te Tomi Me te Tuupeka He Purongo Meka. (2004). The Quit Group Te Roopu Me Mutu.

[27] Info from Physical Activity Taskforce Report (1998). The Hilary Commission, and SPARC website research reports – see www.sparc.org.nz/research/

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	Case Details continued…
LTSA, NZ	*Road Safety Programme, New Zealand.* The LTSA's road safety programme is apparently one of the most successful social change initiatives in New Zealand's history, halving the number of speeding drivers between 2002 and 2004. The programme uses a wide range of media and an ongoing mix of education campaigns, site promotions (such as in bars), school programmes, information campaigns via its driver licensing offices and so on. The figures given cover the effort required to maintain 85% of drivers at legal speeds, plus effort required to target high-risk drivers (15% of drivers still exceed the urban and open road speed limits by 10km per hour or more). The figures do not include the cost of enforcement.[28]

One of the most well-designed and effective programmes we have encountered is the EcoRecycle Waste Wise Schools Program from Victoria, Australia (though we have no data on their budget).

This is summarised in the table overleaf.

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[28] Info from LTSA website research sections and annual reports – see www.ltsa.govt.nz/research/

Table 15: EcoRecycle Waste Wise Schools

EcoRecycle Waste Wise Schools Program, Victoria, Australia

The Waste Wise Program has been fully operational in Victoria, Australia since 1998/99. The aim of the program is to facilitate lasting behaviour change for sustainability by drawing on a wide range of disciplines including communications, formal education, psychology, knowledge management, change management, marketing and community development.

The selected methods are integrated into a comprehensive change program, designed to include all main sectors of society and to use the many different ways in which people learn and change. In essence, the program is about promoting a cultural change about an important environmental issue (waste, litter, and resource consumption) within a whole school community and encouraging schools to become environmental leaders. Since the program began:

o   Schools have diverted an estimated 10,000 tonnes of waste from landfill
o   Some schools have reduced waste going to landfill by up to 95%
o   Over 80% of the original 1998 Waste Wise Schools have paper recycling, and over half of these are composting
o   Environmentally friendly purchasing practices, such as buying recycled paper, have increased dramatically
o   Many schools (77%) have developed programs in other areas of sustainability
o   Case studies have shown that attitudes and behaviour have changed in regard to waste and litter reduction
o   The programs appear to be embedded in the school culture and continue even when the teacher that first attended a workshop is no longer involved in the program
o   Schools with active waste wise programs have moved on to other areas of sustainability

The success of the program has been attributed to a range of factors. Traditionally, environmental education has focused on raising awareness, providing knowledge and skills, changing attitudes and values and then taking action, expecting that behaviour change will follow. However, evidence suggests that such a linear approach is not an effective means of bringing about a change in behaviour.

The Waste Wise Schools program instead uses a systemic and cognitive approach — the program helps teachers and students to identify issues, set targets and take actions to achieve these targets. It is learner-centered and engages people emotionally. Furthermore, the program can be customised to suit the needs of different schools and comes with a package of resources that teachers can select from, rather than a single, prescriptive approach.

In addition, the program is a strategically planned, statewide system of support for those driving local change, and is based on stable, long-term funding and inclusive (rather than adversarial/competitive) relationships. The focus is on empowering as many people as possible within the school community to help lead the change process. The program departs from the "doom and gloom" associated with some environmental education programs and focuses on the positive.

The program offers schools one core module: *Becoming a Sustainable School*, and a choice of four resource modules: *Waste*, *Energy and Air Quality*, *Water*, and *Biodiversity and Natural Resources*.[29]

Further programmes are discussed in Section 10, Appendix One: High-Level Knowledge of Key Change Programmes, on page 64.

6.5   Issues for Evolving Research-Intervention Alternatives

A set of requirements for consumer-oriented research-intervention programmes can be deduced from this high level review of evidence and cases, as below.

o   A framework for conceptualising approaches to developing strategy in consumer change programmes – the evidence suggests these issues are only rarely approached explicitly

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[29] Armstrong, P. at al. (2004). 'Educating for Sustainability' in Responsible Marketing: Sustainability, quality of life and commercial success. ESOMAR.

o A framework for conceptualising social/ consumer change – the evidence suggests multiple-delivery (systemic) approaches are advisable for any of the approaches

o A way to understand and construct approaches that connect with Beacon's sustainability framework stance – the evidence again suggests systemic approaches are critical, as is careful attention to the dynamics of both consumption and intervention systems

o A more detailed study of highly successful interventions will be required for future projects within Commercial, Social and/ or Environmental approaches (depending on the mix Beacon requires of future consumer research)

o A systematic way of assessing the strengths of diverse consumer research-intervention approaches if the approaches above are mixed

o A framework for constructing and assessing consumer research-intervention alternatives for Beacon

o A way of ensuring any alternatives connect with Beacon's Optimisation Tool, as well as other research-intervention streams

The sections that follow evolve (or begin to evolve) appropriate frameworks using the three forms of sustainability identified in Beacon's Sustainability Framework document and deployed to analyse existing knowledge.

7 Evolving Consumer Change Knowledge

We begin to address the issues identified in the previous section by evolving a systemic framework for organising our knowledge.

The sections that follow discuss sustainability concepts in the context of New Zealand, housing and consumer research-interventions. They continue by exploring the implications further towards designing research-intervention alternatives.

7.1 Sustainability Concepts

The notion of sustainability recognises the need to balance the environment with human society. This is implicitly systemic and focuses on the dynamic relationship between the two over time. The most oft-quoted definition of sustainability comes from the Bruntland report (OECD 1987), in which sustainable development is:

> *'...meeting the needs of the present without compromising the ability of future generations to meet their own needs.'*

Sustainable development must:

o   Be designed to pass the test of time (i.e. what is appropriate for today may be different to what is appropriate in future)
o   Be bounded by the limits of the earth (there are finite non-renewable resources to consider)
o   Ensure equity between generations (no generation has priority of resource use/ standard of living)
o   Take into account personal expectations/ needs (cultural and individual aspects)

This implies a fifth aspect. Namely, any development must:

o   Consider linkages and interactions between society, economy, cultures and environment

The concept of sustainability aims to align human and natural systems to ensure quality of life for all over time.

New Zealand's Parliamentary Commissioner for the Environment (PCE) prioritises environmental systems over all others[30], the 'strong' position. The PCE believe this approach best '*represents the limits within which the economy and society must operate if we are to function in a sustainable way*'. A sustainable way is defined as '*not exceeding the capacity of the biosphere to absorb the effects of human activities*'.

The PCE suggests that sustainable development will require different attitudes and ways of thinking, and that shifts in values, cultural and ethical frameworks will be needed to underpin implementation of sustainable development in NZ. Behaviour modification towards sustainability traditionally involves government economic incentives, but the PCE recognises that a systemic '*package of measures needs to be considered, including economic instruments, education for sustainable development and voluntary codes of practice*'.

In the context of housing, Chiu[31] outlines three differing approaches to sustainable development:

1.   Equating social sustainability with ecological sustainability – emphasises the barriers and constraints limiting individual uptake of sustainable development initiatives. The need to change individual values and behaviours is paramount for achieving sustainable development.

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[30] Taylor, B. et al., (2002). Creating Our Future: Sustainable Development for New Zealand. Parliamentary Commissioner for the Environment.

[31] Chiu, R.(2001). Sustainable Development: A New Perspective for Housing Development. Paper gNational Housing Conference, Sheraton Hotel, Brisbane, Australia. 24-26 October, 2001.

2. Maintaining or improving the well-being of people, both now and in future – refers to the need for social and housing institutions to ensure the equitable distribution of resources over time, as well as the requirement for an acceptable standard of housing / quality of lifestyle to be provided as a norm.

3. Recognising the social preconditions necessary to support ecological sustainability – means being fully environment-focused and requires that collective social values and norms be changed. This also recognises that harmonious social relationships need to exist as a precursor to uptake.

The availability of differing approaches and the emphasis on the strong/ Naturalistic position, with its challenges, is a consistent feature for the New Zealand context.

It is also highly likely that New Zealand's future Building Code will endorse, if not explicitly require, sustainability in materials and practices[32]. How and when this translates into local body regulations, procedures and assessment activities, and how these impact on households nationwide, is a moot point.

7.1.1 Beacon's Sustainability Framework

Beacon's Sustainability Framework document (p. 5) outlines three major sustainable development frameworks. These are summarised in the table below.

Table 16: Sustainability Worldviews

Sustainability Worldviews		
Sustainability Model	**Sustainability Framework**	**Worldviews**
Weak	Rationalistic	*"The focus is on resource efficiency, resource productivity, eco-efficiency, etc. That is, the Rationalistic approach emphasises economic gains against social and natural constraints."* This orientation aligns with the Commercial research-interventions noted in the review of worldwide knowledge.
Weak	Humanistic	*"The focus is on stewardship and responsibility, support and preservation of life, meaning and purpose, etc. The Humanistic approach emphasises social gains against economic and natural constraints."* This orientation aligns with the Social research-interventions discussed in previous sections.
Strong	Naturalistic	*"The focus is on flows of materials within larger natural systems, biomimicry, cradle to cradle (C2C), etc. The Naturalistic approach emphasises environmental gains against social and economic constraints. In its strongest form, it prioritises environmental over social and economic systems, on the assumption that the latter two depend on the first. In context, the latter two may need also to sacrifice gains in the interest of ensuring the environment remains healthy."* This orientation aligns with the Environmental research-interventions discussed in previous sections.

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[32] Chris Kane, BRANZ, personal communication.

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Beacon's Sustainability Framework authors argue that the Strong/ Naturalistic worldview has the clearest fit with Beacon's aims. We also support this view in line with other NZ policy and regulatory initiatives above, though acknowledging significant challenges in developing Naturalistic approaches for national consumer change programmes.

7.2   Paradigms of Consuming

This section traces three different paradigms (theoretical and practical platforms) of consuming. Each brings a different perspective to the dynamics of change in a consumer society and their resolution.

7.2.1   Sustainable Consuming

The notion of 'sustainable consuming' is a recent feature of sustainable development programmes. Three definitions of sustainable consuming are used:

o   Consuming less – an historically common feature of change programmes, though perhaps declining in use
o   Consuming differently – often found in the Humanistic worldview and programmes
o   Consuming responsibly – linked with the Naturalistic worldview and programmes

The current consensus supports consuming differently, which tends to mean producing and consuming more sustainable products and services – switching from less sustainable ones. This can be problematic where the production-consumptions system in a market is itself at issue. For example, the housing market tends to lock people into choices based on lowest first cost (economic considerations) rather than quality of life (social considerations) or ecological impact (environmental considerations). It takes considerable personal determination and expense for a consumer to step outside this.

The parallel notion of 'reflexivity' is important to understanding change dynamics within sustainable consuming. Reflexivity denotes a person's or organisation's ability to reflect on and change values and behaviours. This typically involves consciously developing a story about oneself as sustainable, with a revised social identity to match[33]. Sustainable consuming approaches encourage questioning of consumerism (linked to questioning of social norms, and the workings of consumer marketing), linked with ways of achieving reflexive, and self-initiated, grass-roots change.

People working within this approach conclude there is little evidence for success of consumer change through regulation. The consensus view is that government can best *facilitate* change by helping shift social norms, rather than by imposing regulatory controls.

7.2.2   Consumption Paradigms

Shove[34] points out that most approaches to sustainable development take consuming itself as a given and do not open the consumption system itself to change. She argues that consuming in itself is a socio-historical system that may be added to, altered, or significantly re-designed. Exploring paradigms that open consumption itself to interventions is a central task.

The paradigms are summarised in the table overleaf.

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[33] Jackson, T., Michaelis, L. (2003). Policies for Sustainable Consumption. Report for Sustainable Development Commission, UK.
[34] Shove, E. (2003). Changing human behaviour and lifestyle: a challenge for sustainable consumption? Unpublished paper? **

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Table 17: Consumption Paradigms

<table>
<tr><th colspan="3">Consumption Paradigms</th></tr>
<tr><th>Paradigm (Based on Shove)</th><th>Linked Worldview</th><th>Characteristics</th></tr>
<tr>
<td>Decision-Maker</td>
<td>Rationalistic</td>
<td>The consumer is an individual, relatively passive decision-maker in the economic system.

Sustainable development aims to switch consumers to sustainable solutions and maintain their loyalty by deploying conventional economic/ market strategies (loosely defined within the marketing management discipline).

Example: People choosing Phoenix Cola (a sustainable NZ drink) over Coca-Cola.</td>
</tr>
<tr>
<td>Citizen</td>
<td>Humanistic</td>
<td>The consumer is an active agent in the socio-political system.

Sustainable development arises from collective efforts of people to improve their socio-economic and cultural conditions, and to ensure broader access and equity. A looser range of democratic, community mobilisation and activist approaches are deployed here.

Example: The Point Chevalier community forming an interest group to maintain Auckland's Meola Reef.</td>
</tr>
<tr>
<td>Participant</td>
<td>Naturalistic</td>
<td>The consumer is a proactive participant in the combined human-environment system.

Sustainable development arises from various forms of 'regime change', driven by close attention to the environmental impacts of the consumption system and arrived at by envisioning, designing, and managing future consumption.

Example: Waitakere City's sustainability identity and strategies.</td>
</tr>
</table>

These paradigms are covered in more detail below.

7.2.2.1 The Decision-Maker

The generic view of consuming views the consumer as an individual, passive (responsive), rational decision-maker. This refers to the tenet that, in consumer society, people make decisions about which product to consume.

This profile is referred to in marketing literature as the Sovereign Consumer. The underlying worldview is economic, in which the individual is the basic unit of economic consumption, and aggregates of individual behaviours produce markets and economies. In parallel, conventional research and marketing argue that offerings (products, services, companies) succeed by a two-tiered process of addressing consumer needs and ensuring brand-specific decisions.

Basic approaches (including institutional and commercial marketing) assume that consumer decision-making is entirely rational and is influenced largely by providing appropriate information. Approaches that are more sophisticated include irrational elements in decision-making (such as self-esteem, aspirations and emotionality) in developing branded offerings.

Applied to sustainable consuming, the rationale is that (more) sustainable offerings can be added to or replace less- or un-sustainable ones. The key issue is then overcoming consumer resistance to sustainable offerings and deriving business models that help ensure relative advantage over less sustainable competitors. This is achieved through subsidies, innovative offerings and by offering better quality and/ or by managing other aspects of the offer (rational and irrational).

In Beacon's context, this worldview would fit with development of consumer IP (product and service offerings). This also happens to be the dominant approach to sustainable development worldwide as well as in the building industry.

The limit to this approach, of course, is that it achieves individual/ ad hoc examples of sustainable consuming within a larger, unsustainable consumption system. Opportunities to shift the status quo are very limited in this approach as change is at the level of individual product consumption, aggregated to the level if category or market. That is, there is aggregated change (represented by share of market) but not structural change.

7.2.2.2   The Citizen
The less common view regards the consumer as a citizen: (politically) active, behaving collectively, rational and powerful at the grass roots level. In this worldview, consumers can also make decisions about how and when to consume.

Because of the contrast with the Sovereign Consumer paradigm, the Citizen tends to be represented in the marketing literature as the anti-marketing consumer and the related activist movements (such as those portrayed in Naomi Klein's *No Logo*). But note that newer forms of research and marketing, such as co-branding, relationship, social and community-based social marketing[35], are strongly oriented to this worldview.

The underlying worldview is essentially Humanistic: people form collectives to take up responsibilities to improve their social and cultural conditions, often where they feel institutions and corporations have failed or ignored deeper inequities. These approaches also assume that consumers are rational, with the addition that they will act collectively for the common good. They hold that groups of people will exercise their rights and responsibilities as consumers from localized, independent, 'activist' positions, or if appropriately informed and resourced, to effect changes that are more broadly desired.

Applied to sustainable consuming, the rationale is that community values and behaviours can change from grassroots levels if people have the motive, collective will, and resources to do so. The key is therefore to mobilise and resource groups of people around their own major issues, enabling appropriate research and interventions to occur as appropriate. Alternately, it may enable communities to work towards fundamental lifestyle changes, such as Waitakere's Earthsong community. This is encouraged by offering innovative community moblisation concepts, tools, services, and other forms of assistance[36].

In Beacon's context, this worldview would fit with development of community action programmes to develop each community's use of sustainable housing knowledge and resources, including businesses. Note for example that Canada's most successful residential energy efficiency programme (REEP, Waterloo) was based on this approach, and used community-based social marketing as its theoretical and practical framework.

The limit to this approach is that it relies on community response to issues, and so depends on their ability to engage and mobilise themselves effectively. It is not capable of re-configuring or designing consumption systems as a whole.

7.2.2.3   The Participant
The least common view regards the consumer as a proactive participant in socio-environmental systems as a whole. In this worldview, consumers may also design and make decisions about whether to consume, and why. That is, they may opt in and out of consumption, or may also invent new ways of consuming.

The underlying worldview in this context is essentially Naturalistic and flavoured by communal views of social engagement. People consume in close participation with the environment: impacts on the environment are immediate considerations. An important task is therefore to critique and re-structure the status quo to make it sustainable, or failing that, to develop viable alternatives. This is 'regime change' (to quote Shove) within consuming.

This view of consumers is somewhat alien to conventional marketing. Concepts of sustainability in consuming and marketing have only recently emerged in relation to the knowledge economy and specialisations such as services, permission, and internet marketing.

However, various approaches can be found outside marketing. For example, Kahane[37] describes the use of scenario planning to re-envision national identities, goals, and activities including consumptions practices. This may involve working alongside policy makers, community leaders, and 'change agents' (people who have major influence in communities,

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[35] McKenzie-Mohr, D., Smith, W. (1999). IBID.
[36] The strength of the community-based social marketing framework (ibid) rests in part on providing communities with tools for designing their own research and interventions. It teaches communities how to design and manage effective interventions!
[37] Kahane, A. (2002). Civic scenarios as a tool for societal change. Strategy & Leadership. 30(1): 32-37

industries, and other social groups). But it also requires active participation of the broader community to ensure ownership, engagement, and lasting effects.

Applied to sustainable consuming, the rationale is that whole societies can change themselves in substantial ways by evaluating and re-designing their futures, identities, core values, capabilities and so on. The key is first to engage in purposeful and expert dialogue about these issues (be it at individual, community and/ or national levels), to build synergies and consensus, and to help translate this into national policy and strategic activities.

In Beacon's context, this worldview would fit with an initiative to re-design the housing system or New Zealand as a nation, based on the ideal of sustainable consuming (perhaps re-designing the flag, and hopefully re-interpreting 'clean and green' along the way). This might involve Beacon in sourcing and providing expertise in sustainable design and development of housing, and in time, whole nations.

The limit to this approach is its dependence on accurate knowledge about environmental impacts, and on change agents and social innovators – people with relatively radical views of social institutions and change – to build change.

The table below summarises the discussion so far.

Table 18: Interim Summary

Progress Summary			
Sustainability Model	**Sustainability Framework**	**Consumer Paradigm**	**Characteristics**
Weak	Rationalistic	Decision-Maker	Passive, dependent on innovative marketers to provide sustainability choices within an economic system
Intermediate	Humanistic	Citizen	Active, dependent on community willingness and mobilisation to achieve sustainability lifestyle changes within the social system
Strong	Naturalistic	Participant	Proactive, dependent on knowledge of environmental impacts and social innovators to design appropriate ways of living in relation to the environment

In effect, Shove's analysis traces three differing modes of action within the human-environment system. The next section explores the interventions that align with these modes.

7.3 Levels of Intervention

This section outlines 'levels' of intervention. By levels, we mean the type of influence within a system – from changing tangible, operational details through to changing the abstract mindset or aims of the system itself. This discussion is based on the generic concepts of 'logical levels' and 'levels of intervention' found in systems thinking.

Firstly, systems thinking uses three generic levels to interpret and configure systems[38]. These are:

o   Intentional – the identity, intentions and goals that frame a social system's stability, values and self-regulation
o   Managerial – the structure and processes of a social system that translate intentions into operations and vice versa
o   Operational – the activities and their parameters of a social system – its behaviours

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[38] The proliferation of threes should not be taken as a worldview in itself, but as a device to communicate complex ideas and relationships in a simple, high-level way. That is, the aim is to start deeper explorations from a systemic, simple, shared understanding (rather than limit it).

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Secondly, it follows that there are three corresponding levels/ types of intervention:

o Intentional – changing the intentions and goals
o Managerial – changing the structure and processes
o Operational – changing activities and their parameters

The next section provides examples in more detail.

7.3.1 Different Types of Intervention by Level

Meadows[39] details nine levels of systemic interventions to illustrate the broader levels above. She comments that the easiest interventions are often the operational ones – and suggests seeking out small, easy changes that have significant social impacts. The table below gives the levels with examples relevant to Beacon's goals.

Table 19: Intervention Levels

Levels and Different Interventions		
Level	**Intervention**	**Examples**
Intentional (Why people consume)	Intentions, mindsets, meanings	o Our housing system might seek to become 'clean, green and long lasting' (i.e. committed to Naturalistic sustainability) right to its core, expressing this in well-designed and implemented regulation o Iwi might seek to build parallels between Maori cultural meanings and sustainability o A national education/ communications campaign might a build positive, compelling, simple social identity and rationale for householders
	Goals and plans	o The housing system might set out to achieve specific sustainability goals by 2012, with a road map requiring specific deliverables by specific dates o Regional and local authorities might develop policy and strategies to articulate local goals for sustainable housing o New businesses might set out to communicate and convince householders that sustainable houses/ solutions make for a far better investment
Managerial (How/ when people consume)	Self-organisation	o The government might endorse re-structuring of the industry to support sustainability o Companies in the industry might self-organise into a sustainable building collective that would resource members and facilitate rapid change o Householders might form sustainable housing interest groups, setting up websites and community-based activities
	Rules	o The building code might be changed to support sustainable building inputs, procedures and outputs o Local authorities might develop policies and regulations to require higher levels of sustainability o Real estate agents might be required to state the sustainability rating of a house on listing
	New information flows	o The government might regularly monitor and publish information on the environmental impacts of housing, including reductions in energy use, greenhouse gasses and so on o Local authorities might provide sustainability information on

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[39] Meadows, D. (1997). Places to Intervene in a System. Whole Earth Reader.

		o neighbourhoods and houses o A house sustainability rating scheme might inform people about the sustainability of their house or a house on the market
	Enhanced feedback loops	o A national research programme might analyse the links between house sustainability and quality of life, including health impacts o People might be given tools for assessing the environmental impact of ordinary household features, appliances and activities (as well as suggestions for managing these) o Electricity and water meters might be installed inside houses so people can easily monitor and control consumption

Levels and Different Interventions continued…		
Operational (What/ how much people consume)	Using feedback loops	o Construction companies might be given tax incentives for providing information on the sustainability of new/ renovation/ retrofit projects o Consents might be required to include information on sustainability features o People might use indoor household power meters to help regulate their own energy use
	Material stocks and flows	o National campaigns may be developed specifically to generate householder demand for sustainability items o Sustainability solution/ feature production might be incentivised/ subsidised to increase the volume available o The number of sustainability-qualified builders and trades people might be increased through industry collaboration
	Numbers	o The government might support an industry innovation initiative to help increase the variety of sustainability solutions under development o Ratings (e.g. r values) in existing clauses of the building code might be changed to support sustainability o People who are already pre-disposed to sustainability solutions might be motivated to act by providing tax incentives for a limited period of time

The table below uses sustainability frameworks and levels of intervention to give examples of consumer interventions in New Zealand.

Table 20: Intervention Options

Intervention Options			
Level	Rationalistic	Humanistic	Naturalistic
Intentional	Design of sustainable consuming and marketing systems	Design of specific agencies e.g. Suicide Prevention	Sustainable goals and identities e.g. Waitakere City
Managerial	Consumer community groups e.g. Green Exchange	Sustainable ways of living & working e.g. Hillary Commission/ SPARC	Alternative lifestyles e.g. Earthsong
Operational	Sustainability solutions e.g. CFL bulbs	Specific behaviours e.g. Push Play exercise, eating	Specific behaviours e.g. Tele-working
Contexts	Commercial markets, competing with existing solutions	Health markets, competing with existing lifestyles	Life or work markets, competing with existing life identities and values

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This provides us a framework for understanding potential interventions. However, when we look at existing interventions, the general trend among the examples we have studied is to aim for operational-level interventions, such as changing behaviours or attitudes (i.e. on the assumption that substituting one attitude/ behaviour for another will achieve the desired change).

8 Designing Research-Intervention Alternatives

We understand a part of Beacon's brief requires us to provide an *approach to designing strategy* that provides alternatives, including intervention options, and assigns cost-effectiveness measures (such as impacts and costs) to each.

We have developed an approach to designing strategy that can provide a wide range of alternatives, and we have developed four alternatives to meet the requirements of this project.

8.1 Exploring Cost-Effectiveness

But we have found the requirement to provide measures of cost-effectiveness for individual intervention options a significant task beyond the scope of the initial brief and the capability of a high-level review. The issue in part is simply paucity of data, and where available, the issue is then transferring it effectively to Beacon's context[40]. We suggest a separate, dedicated project is required for the task of a process for designing strategy that delivers research-design alternatives.

There are a number of issues to be aware of in approaching this task.

o   Greer et al. demonstrate that the quality of programme design and management is as/ more important than specific interventions used. That is, many interventions are generic in structure (such as an info brochure) and the key success factor is the specific match between target group, content and delivery mechanism (its qualitative design and management attributes). That is, quality of management might account for a significant proportion of programme success.

o   Costs and impacts of interventions are extremely variable and again, dependent on a range of factors including aims, target group size, duration, quality of execution and synergies with other interventions in context. For example, it is common to find the same type of intervention used in very different ways across different programmes, resulting in considerable variability both in strategic use and impacts/ costs.

o   Interventions within a well-designed programme are interdependent, as well as dependent on context. Changing or removing one intervention may impact negatively on the success of the others, but more importantly, it may prevent others from working at all. That is, a well-designed programme offers few significant trade-offs.

o   Sometimes the interactions between interventions can be counter-intuitive: for example, a programme may depend on an advisory service for its success, so additional programme interventions are simply there to bring people to the advisory service. Increasing or decreasing supporting interventions will have no effect, or negative effects, on the success of the advisory service. The key way to improve the service is to evolve the capabilities and qualities of the service itself.

o   Some examples of approaches to designing strategy already exist, such as Community-based Social Marketing, which exists on the web as a free design service[41]. The strength of this example is in opening the disciplines of social marketing to community use, and there are many examples of well-executed programmes. Its weakness is that issues in the design of community-based social marketing itself are amplified in a wide range of programmes (such as the absence of branding strategies). Beacon would need to consider and develop the theoretical platform for such a service. It would also need to balance the trade-offs between providing a design service, and providing the results of intervention-oriented research, as the former will directly undermine the latter.

o   Many examples of such a service also exist in the consulting work of research and marketing/ change management experts. Beacon might need to consider its core reason for developing an approach to designing strategy (that provides

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[40] Appendix Two indicates lack of correlation between gross measures of success, suggesting that more detailed assessments of interventions would have equal difficulty in developing evidence-based guides and costings for specific interventions. As mentioned, our observation of the data is that the design-and-management of programmes is the single greatest cause of variability in the data, rather than the types of interventions chosen per se.
[41] See http://www.toolsofchange.com/English/firstsplit.asp

alternatives and assigns cost-effectiveness measures to each) when professional services already provide parallel expertise.

o While the activity of designing an effective strategy can be described in documented knowledge and/ or procedures, the 'real' design task is creative, not mechanistic (and many examples in the Social Marketing service above demonstrate this). Design of strategies and programmes requires considerable 'tacit' knowledge – knowledge vested in experts and arising from long experience. Detailing expertise (as a procedure, for example) does not transfer the expertise or creativity itself, and there is an inevitable dilution of design capability, and amplification of weaknesses, in formalized procedures and/ or a design service.

When these various types of issues are resolved, significant value might arise from registering the service and releasing it commercially (such as via web-based software). Its appeal to marketing and social change programme developers could be significant, if appropriately designed and delivered.

These kinds of issues are not unique to this project, are found across programmes worldwide, and are part of the effort to develop more robust consumer change management disciplines. That is, at some time the issues above might be addressed and integrated in a change management design service. But as mentioned elsewhere in this report, the closest we can get to 'real' design knowledge is through systemic studies of examples close to the context and issue/ aim in question. By building systemic models/ simulations, we may be able to experiment and derive meaningful answers.

8.2   A Menu-Driven Approach to Design of Strategies

The sections that follow outline a menu-driven design approach to strategy design appropriate to consumer change programmes. The content is based on previous sections in this report, and so we avoid examples for the sake of clarity and brevity.

The sections that follow trace our approach to the design of research-intervention alternatives for Beacon, and Beacon may follow this approach to generate other alternatives if required. The framework we provide is a guide only and not intended to be prescriptive. Further, for the sake of clarity we provide the robust, high-level options only. That is, providing more detailed 'menus' leads us into levels of complexity we cannot address in this report.

8.2.1   Worldviews

The choice of principles or worldviews is a basic and major step. Beacon is developing a Sustainability Framework to formalize its sustainable development definitions, to direct future activities and to ground its detailed assessments of success. The three frameworks Beacon is considering are:

o Rationalistic – emphasising economic impacts (underpinned by relevant principles, approaches and criteria) – a weak view of sustainable development
o Humanistic – emphasising social impacts – a weak view of sustainable development
o Naturalistic – emphasising environmental impacts – a strong view of sustainable development

Note that the worldviews are also organised in two ways:

o Equivalence – when all three values are treated as equal, the areas where values intersect are also the areas where programmes try to leverage change. This is termed a 'weak' worldview in sustainable development.
o Hierarchy – when one value takes precedence over the others, such as the prioritizing of the environment over social and economic values in sustainable development. These result in a 'strong' worldview in sustainable development.

In general terms, this gives a secondary grid of six options, comprised of three Sustainability worldviews and their equivalence/ hierarchy options. But note that the equivalences are in fact one single mutual equivalence, so in effect there are four key choices, as in the diagram below.

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Table 21: Hierarchies

<table>
<tr><th colspan="4">Design Grid: Worldviews Equivalence and Hierarchies</th></tr>
<tr><th>Sustainability Model</th><th>Worldview</th><th>Equivalent</th><th>Hierarchical</th></tr>
<tr><td>Weak</td><td>Rationalistic</td><td rowspan="3">o Economic
o Social
o Environmental</td><td>1. Economic
2. Social
3. Environmental</td></tr>
<tr><td>Weak</td><td>Humanistic</td><td>1. Social
2. Economic
3. Environmental</td></tr>
<tr><td>Strong</td><td>Naturalistic</td><td>1. Environmental
2. Social
3. Economic</td></tr>
</table>

The weight of argument about sustainable development in consumer change contexts favours the Naturalistic and Hierarchical approach, as these in combination provide a far wider range of leverage points and types of intervention across socio-cultural, political and economic domains.

But note that neither equivalent nor hierarchical approaches preclude us from working from one worldview to influence the others: in fact, this is the ultimate aim for a Naturalistic and hierarchical approach especially. Obviously persuasion is central to social change programmes, and so potentially persuasive interventions may include those available through other worldviews, as long as they can be aligned with the Naturalistic (or primary worldview).

8.2.2 Consumer Options

The next step is to assess consumer paradigms. We have identified three broad paradigms, noting that each is already aligned with a worldview:

o Decision-maker – consumers as passive economic consumption units – aligned with the Rationalistic view
o Citizen – consumers as socio-politically active agents – aligned with the Humanistic view
o Participant – consumers as proactive agents in a larger socio-economic-ecological system – aligned with the Naturalistic view in sustainable development contexts

As these views are aligned with the worldviews, they do not add full options to Beacon's design choices. However, they are critical in understanding how different research and intervention approaches have emerged and what their strengths are.

8.2.3 Research Options

There are two broad orientations in research, reflecting the programme orientations cited above.

o Past-oriented – research identifying a problem, studying its nature (from past examples) and so developing ways of resolving it. These approaches tend to become operationally focused. We have called these 'evaluation' approaches.
o Future-oriented – research identifying the desired future outcomes, then working backwards to the present to develop alternative ways forward. These approaches tend to focus on more systemic issues (re-designing system intentions and managing alternatives accordingly). We have called these 'generative' approaches.

Of the two approaches, the latter tends to be the more systemic and is the approach preferred in this report. These tend to be mutually exclusive, so choice of one typically precludes use of the other.

These approaches interact closely with the worldviews and consumer paradigms already noted, and so do not really add to Beacon's design choices.

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They do give us three main strands of research, namely market research (oriented to Rationalistic worldviews and the decision-maker), social research (oriented to Humanist worldviews and the citizen), and identity research (oriented to Naturalistic worldviews and the participant). This provides the nine different design options below.

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Table 22: Research

<table>
<tr><th colspan="4">Design Grid: Research Types</th></tr>
<tr><th>Sustainability Model</th><th>Worldview</th><th>Past-Oriented</th><th>Future-Oriented</th></tr>
<tr><td>Weak</td><td>Rationalistic</td><td>Market Research-Evaluative</td><td>Market Research-Generative</td></tr>
<tr><td>Weak</td><td>Humanistic</td><td>Social Research-Evaluative</td><td>Social Research-Generative</td></tr>
<tr><td>Strong</td><td>Naturalistic</td><td>Identity Research-Evaluative</td><td>Identity Research-Generative</td></tr>
</table>

On balance this report is oriented to the range of Future approaches to enable design of appropriate interventions.

8.2.4 Intervention Options

A key step is to identify intervention options. A general system view would suggest top-down versus bottom-up options, the latter being the easier types of change to implement, and the less stable. But a more specific view suggests three design options:

o   Intentional – changing the intentions and goals of a system
o   Managerial – changing the structure and processes
o   Operational – changing activities and their parameters

This gives us a grid of nine intervention designs aligned with the worldviews, as below.

Table 23: Interventions

<table>
<tr><th colspan="5">Design Grid: Intervention Types</th></tr>
<tr><th>Sustainability Model</th><th>Worldview</th><th>Operational</th><th>Managerial</th><th>Intentional</th></tr>
<tr><td>Weak</td><td>Rationalistic</td><td>Rationalistic-Operational</td><td>Rationalistic-Managerial</td><td>Rationalistic-Intentional</td></tr>
<tr><td>Weak</td><td>Humanistic</td><td>Humanistic-Operational</td><td>Humanistic- Managerial</td><td>Humanistic- Intentional</td></tr>
<tr><td>Strong</td><td>Naturalistic</td><td>Naturalistic-Operational</td><td>Naturalistic- Managerial</td><td>Naturalistic- Intentional</td></tr>
</table>

In social change programmes Rationalistic and Humanistic approaches are commonplace, while sustainable development provides the Naturalistic programmes per se.

Note that many programmes do not have a clear rationale for intervention design, so interventions tend to emphasise the operational as the easiest to impact. Having said this, most of these interventions do not define specific operational outputs/ outcomes, resulting in vagueness all round. The better-designed and executive interventions reflect a systemic approach (an appreciation for the complexity of social change interventions) and so integrate interventions at two or more levels.

We used this grid to identify and further develop three high-value research-intervention spaces.

8.3   Design Summary

The design approach outlined above provides a series of choices for informed design of social change research-interventions. The sum is three streams of research-intervention equating to three worldviews. This does not preclude us from developing research-intervention approaches across these streams. The table below summarises the design framework.

Table 24: Design Tool

Research-Intervention Design Tool					
Sustainability Model	Worldview	Consumer Paradigm	Research Types	Interventions	Anticipated Impacts
Weak	Rationalistic	Decision-Maker	Market Research	Operational	Increase in sustainable solution consumption, decrease in use of unsustainable solutions
Weak	Humanistic	Citizen	Social Research	Managerial	Increase in community self-regulation and activities supporting sustainability
Strong	Naturalistic	Participant	Identity Research	Intentional	Shift in identity and core life meanings towards sustainability

The final step is to consolidate the choices made throughout the process in specific research-design alternatives in order to meet Beacon's brief.

8.4   Research-Intervention Design Criteria

Our review of social change research-intervention programmes worldwide indicated that strong, Naturalistic worldviews appear to offer the best leverage for achieving social change, especially when oriented to generative research and intentional interventions. These became our primary design criteria.

These did not preclude us from designing alternatives oriented to other criteria, and we developed three alternatives to address economic, social and environmental domains in different ways, using different modes of research-intervention. Through this approach it then becomes possible to develop a fourth 'integrated' approach.

As far as specific interventions go, we identified the three broad research-intervention approaches and the types of interventions used within each (see Section 6, High-Level Worldwide Knowledge). We then applied this information to the research-intervention alternatives developed, detailing the research methods and interventions appropriate to each.

8.5   Research-Intervention Alternatives

The table below provides an overview of the final research-intervention space developed in this report. Note that there are nine possible options, of which we chose three for development into full alternatives to meet Beacon's brief.

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Table 25: Key Alternatives

	Research-Intervention Alternatives			
Sustainability Model	**Worldview**	**Operational**	**Managerial**	**Intentional**
Weak	Rationalistic	Market research to develop (commercial) sustainable house solutions e.g. research to develop branded sustainability solutions	Rationalistic-Managerial	Rationalistic-Intentional
Weak	Humanistic	Humanistic-Operational	Social research to develop sustainable gains from better (sustainable) ways of living e.g. research to develop a community sustainability change programme	Humanistic- Intentional
Strong	Naturalistic	Naturalistic-Operational	Naturalistic- Managerial	Scenario planning approaches to develop sustainable goals, identities and values for householders e.g. research to develop a national education programme

These are used in subsequent sections to evolve the three alternatives in detail, and as mentioned, to develop the possibility of a fourth 'integrated' alternative spanning all three.

9 Research-Intervention Alternatives

This section outlines four research alternatives consistent with our provisional research-intervention framework. It begins with discussion of the alternative approaches to developing research-intervention strategy.

The budget estimates in the sections that follow are indicative and have been designed to serve as a relative comparison between alternative research approaches based on the experience of the research team. A more detailed costing will be obtained from researchers tendering for the research strategy chosen by Beacon. We do, however, consider that the costings are reasonable and that, realistically, tenders should not be significantly different from those indicated here.

9.1 Common Steps

We recommend a number of steps across all three alternatives. The first two are simply best practice and the third is necessary, given the limits of this initial study. The common steps prior to each of the alternatives are as follows.

9.1.1 Household Sustainability Benchmarking

A benchmark survey assesses current household orientations to sustainability, sustainable development and commitment to sustainable housing. We propose to conduct telephone interviews with a random stratified sample of N=1,000 households[42]. The survey aims to profile household knowledge of and commitment to sustainability, and to test and develop specific question formats (including evolving the New Environmental Paradigm[43] questions for Beacon's purposes). The approximate timetable for this work is three months and the budget is $100,000. Details are: Personnel $95,000 and Survey administration $5,000.

9.1.2 Environmental Monitor Development ('Footprinting')

Ultimately, housing sustainability interventions need to be assessed in terms of their impacts on the environment. Measures are needed to link environmental impacts with house sustainability and household lifestyles, to ensure sustainability is actually delivered (especially where sustainability interventions depend on household behaviours). This monitor or house/ household environmental 'footprint' provides a way of measuring change in environmental impact (noting that a number of well-known consumer 'footprint' assessment tools are provided in the web). It develops key measures and then benchmarks existing levels of sustainability in relation to real houses. The approximate timetable for this work is six months and the budget is $100,000. Details are: Personnel $95,000, travel $4,000 and administration $1,000.

9.1.3 Detailed Success Review

Once Beacon decides which alternative (below) it wishes to pursue, it will be important to identify and review key examples of success using that approach in the fullest detail. Aims are to identify the key factors of success, best practice guides and the relevant champions who might assist Beacon. This should include developing systemic models/ simulations of cases and experimentation to identity likely points of leverage and interventions. The approximate timetable for this work is three months and the budget $50,000. Details are: Personnel $49,000, and purchase of documentation $1,000.

The alternatives are summarised below.

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[42] The sample sizes suggested throughout this section of the report balance statistical reliability with budget i.e. they are our estimate of the most cost-effective sample size given the specific needs of the study.
[43] The New Environmental Paradigm is a very basic set of survey questions used to assess consumer uptake of sustainability. It would have to be evolved, both in sophistication and in application, for effective use by Beacon.

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9.2 The Rationalistic Alternative

The Rationalistic alternative is an evolution of the initial proposal. Its core question is 'what can we provide to build uptake of sustainability for houses?' It aims to identify and develop solutions (branded products, services and other interventions) that help people improve their house's sustainability rating. This is essentially a grass-roots, 'bottom-up' strategy.

We assume people will have minimal knowledge of sustainability in housing and so orient the study towards innovative products and services that attract people's interest and may be readily adopted. This may provide Beacon with IP opportunities, but note that this approach is dependent on Beacon's ability to align industry capability, retrofit solutions and rating scheme (etc) to leverage consumer uptake.

This alternative is based on the generic marketing development strategy known as 'STP' ('segment, target, position'). This guides marketers through a process that matches existing brands to existing markets. We are adapting this with the insertion of a step to develop interventions after target markets have been profiled: this enables us to develop interventions that match specific consumer targets for greatest effect. We call this 'STIP' (segment, target, innovate interventions, position).

Table 26: Detailed Rationalistic Alternative

The Rationalistic Alternative	
Step	**Methods**
Household Consumption Segments	A qualitative segmentation study based on N=100 households nationwide, to identify key consuming patterns, develop core demographic and psychographic segments, and identify segment interventions, with likely barriers and impacts. The timetable for this study is six months and the budget is $100,000. Details are: Travel $4,000, Study administration $6,000, and Personnel $90,000.
Household Targets	A quantitative survey to profile and prioritise targets, to study key trade-offs within household, sustainability and housing-related decision-making, and to assess likely barriers and impacts. The timetable for this study is six months and the budget $100,000. Details are: Travel $4,000, Survey administration $6,000, and Personnel $90,000.
Solution Development	Up to five qualitative ad hoc studies (assuming five distinct interventions) to design and finalise innovation/ intervention features and delivery characteristics. The timetable for these is six months and the budget is up to $100,000. Details are: Personnel $20,000 per study.
Positioning	Up to five qualitative or quantitative brand and communication positioning studies to design and finalise branding, communications and other media positioning elements of interventions. The timetable for these is six months and the budget is up to $100,000. Details are: Personnel $20,000 per study.
Aligned Interventions Resulting	Sustainable innovations (products and services), incentives and subsidies to install sustainable innovations (or carry out retrofits), a house (un-) sustainability evaluation service, a rating scheme to express performance and branded communications to associate these interventions with significant life gains.

The overall timetable is three years and the total budget is $650,000 (including benchmarking, developing of an appropriate environmental monitor and a detailed success review).

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9.3 The Humanistic Alternative

The Humanistic alternative's core question is 'how can we change the way people consume?' It is essentially an approach designed to re-configure how communities and organisations relate to the issues, both in managing the issues facing their own members and in generating demand for change at higher levels.

This adapts action research to help communities understand how to re-configure community and household norms/ values, and to build interventions that help communities shape and respond to sustainability issues. In relation to housing, it helps communities assess the economic, social and environmental issues and design programmes to manage these in an integrated and effective manner.

The specific target is community opinion leaders of communities, such as households (the smallest of communities), through to neighbourhood groups, churches, iwi, schools, clubs (such as Rotary), local community/ interest groups and local government agencies. We assume these leaders will have some awareness of sustainability issues (even if their language for it does not feature sustainability per se). The Humanistic alternative might link with Beacon's Neighbourhood Sustainability framework, but is not dependent on it.

This alternative explores how households and communities currently consume, then assesses how we might create gaps between current and desired (sustainable) lifestyles, and designs change initiatives people can manage for themselves. The research approach is applies Soft Systems methodologies (to understand how consuming systems work), Social Capital or Network analyses (to understand how best to intervene), and Community-Based Social marketing (to develop a community-based social change programme). This requires research and design of a core programme that Beacon might operate itself, and/ or identify as IP and license to others, or aim to establish as a self-operating community approach.

Table 27: Detailed Humanistic Alternative

The Humanistic Alternative	
Step	**Methods**
Consumption Systems	A qualitative study based on N=100 households nationwide, to identify key household and community consumption systems, along with the issues and barriers that arise for sustainable consuming. We then explore and evolve a generic sustainable consuming system that connects with households and communities at a practical level. The timetable is six months and the budget is $100,000. Details are: Travel $4,000, Survey administration $6,000, and Personnel $90,000.
Programme Development	The above information is used to develop a research-based community social change programme that connects with households and communities and provides a process for managing change towards desired outcomes. The timetable for this is six months and the budget $100,000. Details are: Personnel $90,000, and Administration $10,000.
Programme Piloting	The programme is piloted with a community and process/ outcomes measures are taken. This requires twelve months and the budget is $100,000. Note the initial timetable brings the pilot project to initial results, and it may continue beyond this timeframe at a much lower operating budget. Details are: Personnel $90,000, and Administration $10,000.
Programme Refinement	The programme is fully implemented with partners, including research of programme performance and outputs/ outcomes and subsequent refinement to ensure it can be easily adapted to different partners. This requires six months at a budget of $100,000, beyond which time partners may take over and/ or Beacon may license the programme for a return. Details are: Travel $4,000, Survey administration $6,000, and Personnel $90,000.
Aligned Interventions Resulting	Nationwide delivery of a community-based sustainable development programme (this may be licensed), new clauses in the building code (e.g. requiring double glazing), a national communications campaign on sustainable home life, and a sustainable housing service (including website) providing leadership,

	information and tools.

The overall timetable is three years and the total budget is $650,000 (including benchmarking, developing of an appropriate environmental monitor and a detailed success review).

9.4 The Naturalistic Alternative

The Naturalistic alternative's core question is 'how can we re-design the meaning of consuming houses to have minimal impact on the natural environment?' It is essentially a top-down approach, using government programmes to provide new meanings and re-shape people's expectations. The approach also shifts the social and regulatory context for individual householder's decisions about their homes in favour of sustainable housing. This alternative integrates approaches from scenario planning and policy development disciplines, using consumer information to leverage the high-level change.

The aim is to re-build the goals people have for their homes and to provide a 'sustainable house/ householder' socio-political identity that provides appropriate emotional and symbolic reinforcements. This involves generating alternate consumer housing identities, values and capabilities for living in a home. The next step is to provide this as input into national social and housing policy and legislation.

The specific target is change agents such as government departments and agencies, influential social institutions (churches, schools, and iwi), TLAs and local councils (city) and service suppliers (such as energy, water and waste disposal). We assume these people will have a reasonable awareness of sustainability issues and their impacts on housing.

This alternative works with households and communities to identify the practical outcomes and qualities of a sustainable life that has minimal impacts on the environment (as its primary criterion for sustainability). It then identifies the gaps between the present and the desired, and looks at ways the difference can be managed effectively.

Table 28: Detailed Naturalistic Alternative

The Naturalistic Alternative	
Step	**Methods**
Consumer Systems and Outcomes	A qualitative desired outcomes study based on N=100 households nationwide, to identify current systems and desired outcomes, aspirations and values, then explore the gaps and scope interventions, barriers to success and likely impacts. The timetable for this study is six months and the budget is $100,000. Details are: Travel $4,000, Survey administration $6,000, and Personnel $90,000.
Household Targets	A quantitative survey to profile the desired outcomes above and prioritise intervention strategies, barriers and impacts. The timetable for this study is six months and the budget $100,000. Details are: Travel $4,000, Survey administration $6,000, and Personnel $90,000.
Systemic Scenario Development	The segment and target information above is then used to develop householder-based scenarios for residential building sustainability uptake in New Zealand. These integrate political, social, technological, cultural, and economic information to build a number of robust backcasting scenarios on consuming and interventions. The timetable for this is six months and the budget $100,000. Details are: Administration $6,000, Travel $6,000, and Personnel $88,000.
Programme Design	The above scenarios are then used with change agents in consultative research to help design national housing identity and policy initiatives for sustainable development. This requires twelve months and the budget is $100,000. Details are: Programme Administration $6,000, Travel $6,000, and Personnel $88,000.
Aligned Interventions	National identity campaigns that build New Zealand's sustainability profile, media campaigns that

Resulting	build a new set of consumer meanings for housing, policies and strategies (including regulation and 'enforcement') that re-structure what people expect of their houses, multi-agency programmes (such as a combined government agency, bank and real estate agency programme) that shift the housing consumption system towards seeking increased sustainability.

The overall timetable is three years and the total budget is $650,000 (including benchmarking, developing of an appropriate environmental monitor and a detailed success review).

9.5   The Integrated Alternative

The Integrated alternative is an evolution of the three approaches outlined above. It is systemic in design and its core questions are 'what is a sustainable housing consumption system and how do we influence it in ways that achieve Beacon's aims?' This approach aims to evolve an alternative, sustainable system for housing consumption.

We assume we will have to work across householders, opinion leaders and change agents to identify an optimal configuration and the means to achieve it. This will provide Beacon with IP opportunities, but note that this approach is also dependent on Beacon's industry capability, retrofit, and rating scheme research streams. The option takes longer and costs more because it is more complex in design and in subsequent management of interventions.

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Table 29: Detailed Integrated Alternative

The Integrated Alternative	
Step	**Methods**
Consumption Systems	A qualitative study based on N=100 households nationwide, to identify key household and community consumption systems, along with the issues and barriers that arise for sustainable consuming. We then explore and evolve a generic sustainable consuming system that connects with households and communities at a practical level. The timetable is six months and the budget is $100,000. Details are: Travel $4,000, Study administration $6,000, and Personnel $90,000.
Household Targets	A quantitative survey to profile and prioritise targets, to study key trade-offs within household, sustainability, and housing-related decision-making, and to assess likely barriers and impacts. The timetable for this study is six months and the budget $100,000. Details are: Travel $4,000, Survey administration $6,000, and Personnel $90,000.
Solution Development	Up to five qualitative ad hoc studies (assuming five distinct interventions) to design and finalise innovation/ intervention features and delivery characteristics. The timetable for these is six months and the budget is up to $100,000. Details are: Personnel $20,000 per study.
Programme Development	A research-based community social change programme is developed, to connect with households and communities and provide a process for managing change towards desired outcomes. The timetable for this is six months and the budget $100,000. Details are: Travel $4,000, Administration $6,000, and Personnel $90,000.
Systemic Scenario Development	The segment and target information above is then used to develop householder-based scenarios for a sustainable New Zealand. These are integrated with political, social, technological, cultural, and economic information to build a number of robust scenarios for consumer societies. The timetable for this is six months and the budget $100,000. Details are: Travel $4,000, Administration $6,000, and Personnel $90,000.
Integration Plan Development	The above information is then used with change agents and opinion leaders to help design national housing identity and policy initiatives, with community- and industry-based programmes, for sustainable development. This requires six months and the budget is $50,000. Details are: Personnel $50,000.
Aligned Interventions Resulting	A range across sustainable solutions, community programmes and national education planning and communications activities.

The overall timetable is four years and the total budget is $800,000 (including benchmarking, developing of an appropriate environmental monitor and a detailed success review).

9.6   Evaluating Impacts

This section looks at the potential impacts of the different approaches.

9.6.1   Research Activities, Timetable and Budgets

The table below assesses the timetable for the three research alternatives.

Table 30: Research Design

Research Timetable					
Alternative	**2005**	**2006**	**2007**	**2008**	**Total**
Rationalistic	$ 250,000	$ 200,000	$ 200,000		**$ 650,000**
Household Sustainability Benchmarking					
Environmental Monitor Benchmarking					
Detailed Success Review				*Completion of Research*	
Household Consumption Segments					
Household Targets					
Solution Development					
Positioning					
Humanistic	$ 250,000	$ 200,000	$ 200,000		**$ 650,000**
Household Sustainability Benchmarking					
Environmental Monitor Benchmarking					
Detailed Success Review				*Completion of Research*	
Consumption Systems					
Programme Development					
Programme Piloting					
Programme Implementing					
Naturalistic	$ 250,000	$ 200,000	$ 200,000		**$ 650,000**
Household Sustainability Benchmarking					
Environmental Monitor Benchmarking					
Detailed Success Review				*Completion of Research*	
Consumer Systems and Outcomes					
Household Targets					
Systemic Scenario Development					
Implementation					
Integrated	$ 250,000	$ 200,000	$ 200,000	$ 150,000	**$ 800,000**
Household Sustainability Benchmarking					
Environmental Monitor Benchmarking					
Detailed Success Review					
Consumption Systems					
Household Targets					
Solution Development					
Programme Development					
Systemic Scenario Development					
Programme Integration					

9.6.2 Intervention Activities, Timetable and Budgets

The table below develops an intervention scenario for each alternative to enable full use of Beacon's Optimisation Tool, noting that there are many potential intervention strategies/ tactics, and both their combination and execution are critical to success[44]. Note that we assume some intervention components will start before finalising of research programmes to ensure rapid hand-over.

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[44] The figures below are suggested to show how interventions link with research. Generic budgets provide an indication of scale using information developed by M3 Integrated to scope marketing strategies for the NOW Home. Note that budgets are an estimate of the total budget for the programme, including partner efforts, but for direct costs only. Overall, the table must be considered a useful fiction only.

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Table 31: Intervention Design

Implementation Timetable						
Alternative	**2008**	**2009**	**2010**	**2011**	**2012**	**Total**
Rationalistic	$3,280,000	$ 1,730,000	$ 1,730,000	$ 1,730,000	$ 1,730,000	$ 11,930,000
Brand launch						
Solution launch						
Evaluation service launch						
Rating scheme launch						
Building Code update						
Other communications						
Ongoing delivery & maintenance						
Humanistic	$2,615,000	$1,060,000	$1,060,000	$1,060,000	$1,060,000	$7,915,000
Brand launch						
Community Programme launch						
Other communications						
Ongoing delivery & maintenance						
Naturalistic	$2,920,000	$1,655,000	$1,655,000	$1,655,000	$1,655,000	$11,195,000
Brand launch						
Identity Programme launch						
Communications campaign launch						
Service/ website launch						
Other communications						
Ongoing delivery & maintenance						
Integrated		$3,510,000	$1,835,000	$1,835,000	$1,835,000	$10,850,000
Brand launch						
Solution launch						
Community Programme launch						
Identity Programme launch	Completion of Research					
Evaluation service launch						
Rating scheme launch						
Building Code update						
Communications campaign launch						
Service/ website launch						
Other communications						
Ongoing delivery & maintenance						

The table below assesses the impacts of the three broad research/ intervention alternatives in their strategic context and links them to Beacon's Optimisation Tool.

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Table 32: Impact Assessment

Impact Assessment					
Alternative	**Original**	**Rationalistic**	**Humanistic**	**Naturalistic**	**Integrated**
Timetable - To Research Completion (2005) - To Impact (2012)[1]	3 8	3 8	3 8	3 8	4 7
Research Budget	$ 730,000	$ 650,000	$ 650,000	$ 650,000	$800,000
Likely Spend for Beacon Partners [3]	$11,930,000	$11,930,000	$7,915,000	$11,195,000	$10,850,000
Dependencies	Industry capacity, Beacon solutions, commercial partners	Industry capacity, Beacon solutions, commercial partners	Community partners	Institutional partners	Multiple (as at left)
IP/ Returns	Solution IP	Solution IP	Programme, Brand IP	Programme, Brand IP	Solution/ Programme IP
Likely Impact by 2012	15%	15%	10%	5%	20%
Likely Success	50%	50%	60%	75%	90%

1	Including research timetable
2	Per annum for Beacon partners
3	To achieve Beacon goals via each alternative

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10 Appendix One: High-Level Knowledge of Key Change Programmes

This section reviews the key theorists and case studies used to develop the report.

10.1 Case studies

10.1.1 KIA campaign

KIA[45]'s campaign in the UK centered on urging people not to use cars for short journeys. They provided a mountain bike with every new car purchased and helped organise walking buses. The message was that in order for people to enjoy driving and the freedom their cars provide, traffic congestion needed to be reduced significantly. The campaign appeared to be aimed at the "thinking car owner". Newcarnet magazine (www.newcarnet.co.uk) published an article in April 2003 talking about the success of the walking bus campaign, estimating that 100,000 driver miles were being saved every week as nearly 10,000 children and parents were leaving the car at home and walking to school.

10.1.2 European Washright campaign

The European Washright campaign arose from the AISE[46] Code of Good Environmental Practice — a voluntary initiative agreed upon by laundry detergent manufacturers across Europe. The intention was to provide information on the washing process to help consumers get the best results (i.e., emphasising the benefits to clothes) while minimising environmental burden. Subscribers to the Code committed to four quantitative targets over a 5-year period:

o   a 10% reduction per capita product tonnage consumption;
o   a 10% reduction per capita packaging material tonnage consumption;
o   a 10% reduction per capita tonnage consumption of organic materials which are poorly biodegradable;
o   a 5% reduction in the energy consumed in the wash process as measured by decreased average washing temperature.

The campaign began in 1998 and has contributed to sustainable consumption of household laundry detergents through TV campaigns, a website (www.washright.com) and on-pack messages.

According to AISE's *Final report to the European Commission*, a total of 168 companies representing nearly 90% of the European Union market were committed to the code by 2001. Consumption of household laundry detergents across 15 European countries dropped by 7.9% between 1996 and 2001, packaging was reduced by 6.7% during the same period, PBOs[47] were reduced by 23.7% and energy use dropped by 6.4%.

10.1.3 EcoRecycle Waste Wise Schools Program

The Waste Wise Program has been fully operational in Victoria, Australia since 1998/99. The aim of the program is to facilitate lasting behaviour change for sustainability by drawing on a wide range of disciplines including communications, formal education, psychology, knowledge management, change management, marketing and community development. The selected methods are integrated into a comprehensive change program, designed to include all main sectors of society and to use the many different ways in which people learn and change. In essence, the program is about promoting a cultural change about an important environmental issue (waste, litter, and resource consumption) within a whole school community and encouraging schools to become environmental leaders. Since the program began:

o   schools have diverted an estimated 10,000 tonnes of waste from landfill;
o   some schools have reduced waste going to landfill by up to 95%;
o   over 80% of the original 1998 Waste Wise Schools have paper recycling, and over half of these are composting;
o   environmentally friendly purchasing practices, such as buying recycled paper, have increased dramatically;

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[45] Korean car manufacturer.
[46] International Association for Soaps, Detergents and Maintenance Products.
[47] Poorly Biodegradable Organics.

o   many schools (77%) have developed programs in other areas of sustainability;
o   case studies have shown that attitudes and behaviour have changed in regard to waste and litter reduction;
o   the programs appear to be embedded in the school culture and continue even when the teacher that first attended a workshop is no longer involved in the program;
o   schools with active waste wise programs have moved on to other areas of sustainability.

The success of the program has been attributed to a range of factors. Traditionally, environmental education has focussed on raising awareness, providing knowledge and skills, changing attitudes and values and then taking action, expecting that behaviour change will follow. However, evidence suggests that such a linear approach is not an effective means of bringing about a change in behaviour. The Waste Wise Schools program instead uses a cognitive approach — the program helps teachers and students to identify issues, set targets and take actions to achieve these targets. It is learner centered and engages people emotionally. Furthermore, the program can be customised to suit the needs of different schools and comes with a package of resources that teachers can select from, rather than a single, prescriptive approach.

In addition, the program is a strategically planned, statewide system of support for those driving local change, and is based on stable, long-term funding and inclusive (rather than adversarial/competitive) relationships. The focus is on empowering as many people as possible within the school community to help lead the change process.

The program departs from the "doom and gloom" associated with some environmental education programs (NB parallels with UNEP approach) and focuses on the positive.

The program offers schools one core module: *Becoming a Sustainable School*, and a choice of four resource modules: *Waste*, *Energy and Air Quality*, *Water*, and *Biodiversity and Natural Resources*. Depending on the modules chosen by a school, the program assists schools to achieve at least one of the following measurable outcomes in the first year and others over subsequent years:

o   reduce waste to landfill by 50%;
o   reduce litter in the schoolyard by 50%;
o   reduce water use in the school by 20%;
o   reduce energy use in the school by 15%;
o   decrease greenhouse gas emissions from the school by 15%;
o   increase biodiversity in the school grounds by 50%.

10.2 Examples of current/recent projects

10.2.1 UNEP

UNEP has taken a pragmatic approach to sustainable consumption and has been promoting the message that clean and green is cool. In February 2003 Klaus Toepfer, Executive Director of UNEP, said: "Messages from governments, exhorting people to drive their cars less or admonishing them for buying products that cause environmental damage, appear not to be working. People are simply not listening. Making people feel guilty about their lifestyles and purchasing habits is achieving only limited success".

UNEP officials are looking for ways to help governments find another tone in their messages by linking them to positive, life-enriching things. To achieve this aim, UNEP has been working with psychologists and behavioural scientists to understand what makes consumers tick. This work is being carried out as part of UNEP's Sustainable Consumption Programme and Life Cycle Initiative. It may be that Marie-Claire Segger's work[48] has been influential here — she suggested that young people's preoccupation with becoming part of a group may be an important lever for sustainable consumption initiatives, in that young adults may be able to make sustainable consumption fashionable.

The UNEP YouthXChange programme provides case studies of youth organisations that have made a real difference in achieving sustainable purchasing patterns. UNEP appears to work with a definition of sustainable consumption that is not about consuming less, but "about consuming differently, consuming efficiently, and having an improved quality of life".

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[48] SEGGER, M. 1999: Sustainable consumption: the challenge for the coming generation. *UNEP Industry and Environment*, 22 (4): 35-37.

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10.2.1.1.1.1 Tracking Progress: Implementing sustainable consumption policies

UNEP did a survey of 52 countries, in collaboration with Consumers International. They found that many countries are trying to promote sustainable consumption through a variety of measures including public awareness campaigns and "green taxes" that favour environmentally friendly goods. This is the first global governmental study of the status of implementation of the sustainable consumption section of the UN Guidelines for Consumer Protection. The Foreword of the report states that: "Protecting consumers from impending environmental and social catastrophes is an integral responsibility of governments all around the world. Ever since the expansion of the United Nations Guidelines for Consumer Protection in 1999 to include elements on sustainable consumption, governments have had at their disposal a valuable framework of policies designed to reorient consumption patterns towards sustainability".

Three-quarters of governments surveyed said that they had started to implement policies in line with the need for sustainable government practices, and just over half said that they had promoted research on consumer behaviour to identify ways to make consumption patterns more sustainable.

Whilst the report goes into some detail about the types of programmes used to promote sustainable consumption in eight of the countries surveyed, the information is of limited use to us as it does not provide an insight into how effective any of the individual measures were in effecting changes in behaviour. Generic progress towards sustainable consumption is measured in some of the countries surveyed.

10.2.1.1.1.2 Shopping for a better world: sustainability and retailing

As part of the effort to promote more sustainable production and consumption, UNEP has stepped up its activities with the $7 trillion global retail sector, whose role lies particularly in helping change consumption patterns through its influence on producers, suppliers, and customers. A number of conclusions can be drawn from the various initiatives undertaken in the retail sector to support sustainable consumption and production patterns:

o   there is a latent demand for ethical and green products, which is not always reflected in consumers' purchasing decisions;
o   retailers need to insist on open and continuous information from manufacturers on production processes with respect to energy consumption, raw materials use, and pollution;
o   there is a limit to retailers' ability to include environmental concerns in their terms of reference;
o   there is a limit to individual companies' ability to fix the environmental agenda, and retailers cannot replace government action;
o   there is a time for legislators to assume their responsibilities for authorising, prohibiting or establishing conditions for the sale of certain types of products and for ensuring proper enforcement through adequate controls;
o   success will require coordinated worldwide political willingness and action, coordinated consumer education, and acceptance of responsibility by each sector at its own level.

10.2.2 WWF One Million Sustainable Homes campaign

At the World Summit on Sustainable Development in Johannesburg in August 2002, WWF launched its groundbreaking campaign to bring sustainable homes from the fringes of the housing sector to the mainstream. WWF is working with government, industry, and consumers to ensure that One Million Sustainable Homes are developed across the UK by 2012, including refurbished as well as new homes.

It would be useful for the Beacon team to follow the progress of this campaign because there are significant parallels with Beacon's goals and a lot of the background work has already been done. As it is a relatively recent initiative it is difficult to say how successful it has been at this stage.

Over a period of nine months, WWF conducted an independently facilitated stakeholder consultation to identify the barriers to sustainable homes and ways to overcome them. Six key barriers were identified:

o   a lack of fiscal incentives;
o   current planning and building regulations not facilitating sustainable homes;
o   a perceived lack of investor support;
o   a perception of extra cost;

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o   a lack of consensus around the definition of a sustainable home;
o   a perceived lack of consumer demand.

WWF is now working with a range of key partners (the Sustainable Homes Task Force) to implement strategies to overcome these barriers. Most of the strategies appear to be sensible/ obvious, for example, working with Treasury on suitable economic instruments, lobbying the government about building regulations and sitting on the new Sustainable Buildings Task Group, and offering developers practical means of reducing the cost of key products and materials required for sustainable homes. The British government does appear to be taking the issue seriously: in the 2004 budget, landlords were offered tax relief on capital expenditure for loft and cavity wall installations, and the Secure and Sustainable Buildings Bill received the royal assent on 16 September 2004. The success of this Act has huge implications for sustainable homes. It will enable the building regulations — the core regulatory mechanism that defines how houses are built and refurbished — to address environmental issues for the first time.

However, in regard to building consumer awareness of and demand for sustainable homes, the response has been to launch a Sustainable New Homes Award, which recognises and rewards examples of best practice in the new homes market. The underlying assumption appears to be that provided the homes meet a particular set of criteria, then people will buy them. Maybe it really is this simple! Research carried out earlier this year for the government quango Cabe (Commission for Architecture and the Built Environment), the Halifax bank and WWF suggests that it might be. A total of 912 would-be home buyers took part in an online survey conducted by Mulholland Research and Consulting, and the results showed that buyers place a much higher priority on environmental issues than had previously been assumed. Of those polled, 87% of buyers wanted to know whether their homes were environmentally friendly, 84% said they would pay 2% extra on the purchase price for an eco home and 66% said they were not given adequate information about the technical specifications of a new home. Top of the list of eco-friendly assets buyers consider important are:

o   improved levels of energy efficiency;
o   lower running costs;
o   enhanced air quality and daylight;
o   use of low allergy and environmentally friendly material;
o   water efficiency.

10.2.3 Road map to sustainable consumption

A "road map" to sustainable consumption will be prepared as a result of a workshop by the Japanese Institute of Advanced Industrial Science and Technology held in March 2003.

10.2.4 Inspiring change for sustainability

This report, prepared jointly by Dacorum Borough Council and Forum for the Future on "Inspiring Change for Sustainability" aims to provide an outline of the different ways in which local authorities have sought to inspire the general public to change for sustainability. The initiatives in question take the form of seminars, roadshows, youth conferences, green awards and grants schemes, farmers markets, and magazines. Indicators used to measure impact include number of leaflets handed out, number of questionnaires completed, measuring recognition of a campaign through telephone surveys or market research, membership of local groups, and attendance numbers at open days. None of these indicators offer any insight into actual changes in consumer behaviour, and as such are of limited value.

10.2.5 The GreenSmart Concept

This is a 5-year-old Australian initiative that focuses on educating builders, designers, product manufacturers, and consumers about the benefits of environmentally friendly housing. GreenSmart is a package of practical measures that emphasises environmental and affordability considerations at the same time by focusing on the full cost of constructing, owning and running a home. Building the GreenSmart way involves:

o   improving energy efficiency;
o   improving water efficiency;
o   waste management and recycling;

o   improving overall site management.

GreenSmart is an HIA registered brand. Homebuilders have to do a 16-hour course to qualify as a GreenSmart professional, and their customers qualify for a GreenSmart home loan.

HIA GreenSmart includes a range of actions to achieve its aims:

o   **HIA GreenSmart Partners** — companies and organisations committed to embracing environmental leadership in partnership with HIA through the GreenSmart Code of Practice;
o   **HIA GreenSmart Professionals/Training** — environmental training and accreditation for the residential building and land development industry;
o   **HIA GreenSmart Estates, Display Villages and Homes** — showcasing GreenSmart design and building initiatives in practice on the ground;
o   **HIA GreenSmart Awards** — giving recognition to the tremendous achievements by building and land development professionals in environmental design and construction excellence throughout Australia ;
o   **HIA GreenSmart Forums & Exhibitions** — networking opportunities to foster affordable, sustainable and clever house design and construction;
o   **HIA GreenSmart Newsletters & Fact Sheets** — providing technical and consumer information on latest developments, products, design solutions and initiatives for sustainable housing and land development;
o   **HIA GreenSmart Loans** — providing consumers with an attractive housing loan as an incentive reward when purchasing an accredited HIA GreenSmart home;
o   **www.greensmart.com.au** — promoting HIA GreenSmart to the world and demonstrating HIA GreenSmart practices to clients and the community.

10.2.6 Mortgage products

There are a number of examples of lenders offering mortgage products to the environmentally aware consumer. In the US, Countrywide Home Loans (a national leader in residential finance) and Fannie Mae (the nation's largest source of financing for home mortgages) have joined forces to offer the Energy Efficient Mortgage (EEM) and MyCommunityMortgage™ Energy Efficient Mortgage, two products that recognise the savings value of energy conservation in the loan evaluation process. Utility and manufacturer rebates can be applied towards the transaction, and monthly projected energy savings are added to borrower income in the qualification calculation. Both EEM products can be used for one-unit, single-family, owner-occupied principal residence, and condominiums. The homes may be new construction or existing housing and must have a Home Energy Rating System report to evaluate the home's energy efficiency in its current state or to identify opportunities for cost-effective energy efficient upgrades.

SmartCommute™ is a related product that allows borrowers to recognise the transportation savings that can be realised by purchasing a home that is located in a community served by efficient public transportation.

10.2.7 Year of the Built Environment 2004

The goal of this Australian initiative is to encourage the community to appreciate and achieve built environments that are sustainable, practical, and enable an improved lifestyle. The focus is on outcomes for the community and the need to address the challenges of achieving sustainable development, energy efficiency and public amenity. It is seen as an opportunity to explore buildings and the way they are used, how people travel between them, and how almost every aspect of the urban lifestyle impacts on the natural environment.

The Australian government has committed $24.2 m on a package to improve understanding of environmental pollutants and to develop standards that minimise the impact of buildings and some household appliances. The package includes a national water efficiency labelling scheme and minimum performance standards for appliances and household fittings to reduce urban water consumption. These measures should make it easier for householders to choose more efficient water appliances, such as toilets, showerheads and dishwashers.

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Energy efficiency measures have already been introduced into the building code (January 2003), and new homeowners and renovators are also being encouraged to adopt best practice in environmentally sustainable housing through the Australian government's award winning Your Home suite of good residential design guides.

A new green buildings program is planned. This will include the National Australian Buildings Environmental Ratings Scheme to ensure that future building projects are more environmentally friendly.

10.2.8 Photovoltaic rebate scheme

On 1 January 2000 the Commonwealth Government, through the Australian Greenhouse Office, introduced the Photovoltaic Rebate Program (PVRP) to encourage the long-term use of photovoltaic technology. The Program covers both residential and community buildings. The scheme offers cash rebates to householders who install grid-connected or stand-alone photovoltaic systems. The rebates payable start from a minimum of $2,475 for 450W capacity to a maximum of $8,250 (1.5kW system). In Queensland, households not connected to the electricity grid can add this rebate to their RAPS rebate for up to $15,750 in total.

10.2.9 Sustainable design scorecard

The City of Port Phillip has introduced a mandatory sustainable design scorecard. The scorecard is a simple way of judging proposed buildings or extensions against minimum environmental standards in energy, water, stormwater, building material and transportation energy and an optional sixth category of environmental sustainable development (ESD) excellence. The scorecard requires evidence of a First-Rate assessment and the energy efficiency of hot water, space heaters and other appliances. Brand details are also required. The Council provides a $50 rebate to applicants who undertake First Rate energy assessments required by the scorecard. A range of tools, such as waste minimisation plans and guides to energy-efficient appliances, are supplied for applicants. Air quality indicators have been added to the optional section for environmental excellence. www.portphillip.vic.gov.au/sustainable_design

10.2.10 ResCode

ResCode is a mandatory package of provisions for residential development introduced through the planning and building systems in late 2001 in Victoria. ResCode aims to protect neighbourhood character and amenity and to help ensure environmentally sustainable residential development. It introduced new environmental standards including a four star energy rating for multi-unit development, a permeability standard to reduce stormwater runoff, and a standard to protect solar access to north-facing windows of existing buildings. For more information contact the Department of Sustainability and Environment www.dse.vic.gov.au.

10.2.11 Sustainable housing projects

There are numerous examples of sustainable housing projects worldwide but very little information about the impact they (either generically or individually) have had in terms of changing behaviour, i.e., increasing demand for sustainable housing. Given that the WWF has a campaign under way (One Million Sustainable Homes) to move sustainable homes from fringe to mainstream, it would be reasonable to assume that the real impact of these projects has been small.

Two of the more prominent examples of sustainable housing projects are outlined below.

10.2.11.1 BedZED
The Beddington Zero Energy Development (BedZED) is a carbon-neutral mix of housing and work space in south London demonstrating innovative and practical measures of energy efficiency from passive solar design and super-insulation levels to the incorporation of solar photovoltaic panels on the roofs. BedZED is the first large-scale carbon-neutral community. Key BedZED features include:

o building materials selected from natural, renewable or recycled sources and wherever possible brought from within a 35-mile radius of the site;

o   a combined heat and power unit able to produce all the development's heat and electricity from tree waste (which would otherwise go to landfill);
o   energy-efficient design, with houses facing south to make the most of the heat from the sun, excellent insulation and triple-glazed windows;
o   a water strategy able to cut mains consumption by one-third — including installing water-saving appliances and making the most of rain and recycled water;
o   a green transport plan which aims to reduce reliance on the car by cutting the need for travel (e.g., through internet shopping links and on-site facilities) and providing alternatives to driving such as car pool;
o   recycling bins in every home.

Pooran Desai, director of the BioRegional Development Group (a partner in BedZED), observed that "it's usually easier for people to choose the less environmentally friendly option". Part of the brief for BedZED was to design and build homes that make it easy, affordable, and attractive to live and work in a sustainable way. Recent press releases convey the message that the residents of the UK's first sustainable housing development are more taken with the look of their new homes than with the environmental benefits. One resident was quoted as saying that "there's no need to compromise on lifestyle or comfort in order to live in a more sustainable way".

10.2.11.2 Hockerton Housing Project

The Hockerton Housing Project (HHP) is the UK's first earth-sheltered, self-sufficient ecological housing development. Project members live a holistic way of life in harmony with the environment, in which all ecological impacts have been considered and accounted for. The houses are built into a south-facing hill and the project is reckoned to be the most energy-efficient purpose-built development in Europe. The residents generate their own clean energy using a wind turbine, harvest their own water, recycle waste materials via a floating reed bed (also a recreational lake and wildlife habitat), and cause no pollution or CO_2 emissions.

But perhaps the most remarkable feature of Hockerton is the fact that it completely dispenses with the need for space heating. The south facing side of the house consists of a triple-glazed conservatory which collects heat from the sun. This is stored in the heavily insulated concrete fabric and is released as the temperature in the rooms drops below that of the concrete. The same method provides hot water via an air-to-water heat pump in the conservatory.

Hockerton has been carefully monitored by boffins from the DETR, who concluded that the "energy consumption is 75% lower than for a conventional house." Because of the earth-covering and the use of heavy thermal insulation, temperatures in winter averaged about 17C (Hockerton say 18–20 is more accurate), while summer temperatures were typically about 24C.

In the summer months the houses are ventilated through a large opening light which keeps everything comfortably cool; and in winter a heat exchanger ensures warm air from the bathroom, kitchen and utility room is redistributed throughout the house.

By March 2003 the HHP was receiving over 100 enquiries per month and over 1000 visitors a year. However, the numbers of visitors to HHP has been restricted due to lack of suitable facilities so that it has been unable to meet the growing interest from schools, colleges and other interest groups. As the interest has grown in HHP and more generally in environmental issues the need for a dedicated **Sustainable Resource Centre** on the site seems ever more apparent.

10.2.12 Living the eco-way: what's hot and what's not

Sustainable Homes[49] and the BRE[50] carried out a survey of residents living in innovative and green housing. Eight housing associations and one local authority took part in the survey. Views were gathered from over 150 residents through individual interviews and focus groups. Everyone in the survey was asked what they thought about seven features that could

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[49] UK-based Sustainable Homes promotes awareness of sustainable development issues for housing associations. It encourages the adoption of sustainable and environmental policies and practices. www.sustainablehomes.co.uk

[50] Building Research Establishment

help save energy, water, waste, and pollution. The survey showed what they were and were not keen on, as highlighted below:

o Dual flush toilets and solar hot water panels received a positive response. Reasons given included saving the environment, lower bills, and ease of use.
o Greywater systems were less popular, possibly as a result of poor communication between residents and the association. One resident assumed their greywater system contaminated the drinking water. Another thought they had to run the bath in order to benefit from the system.
o Several measures got the thumbs up with a few caveats. Low-energy light fittings were welcomed, but limited the choice of lampshade. The segregated recycling bins were popular as long as they did not take up too much kitchen space. The passive ventilation system was a good idea though some found it "draughty".
o There was only one universally condemned feature in the study: housing with reduced/no car parking. Residents stated that this would not influence their decision as to whether or not to buy a car

10.3 Research and opinions relating to sustainable consumption

10.3.1 Changing human behaviour and lifestyle: a challenge for sustainable consumption?

This paper was written by Elizabeth Shove, Department of Sociology, University of Lancaster. If you read only one paper from the bibliography that accompanies this summary, then choose this one because it offers an excellent overview of the broader issues relating to sustainable consumption and raises serious questions about BPL's goals. Furthermore, Shove's work on consumption paradigms has influenced our approach to the consumer research objective, and the references she uses will be useful source material in future incarnations of CON1. In a nutshell, Shove argues that the challenge of sustainable consumption is not a question of fretting about prices and barriers or of searching for levers that might be pulled to re-engineer consumer decision making. Rather, it is about changing dominant ways of thinking about human behaviour and lifestyle.

Shove's analysis of the literature on environmental consumption classifies consumers as:

1) decision-makers exercising environmental choice;
2) citizens influencing the range of environmental options on offer;
3) practitioners involved in reproducing variously resource-intensive ways of life.

The three positions are compared in the table below. The first two positions suppose that lifestyles can be changed by force of political, moral, and environmental commitment, or through economic and other forms of persuasion. In contrast, the third position understands changing lifestyles to be the result of collective, contingent and emergent processes of socio-technical co-evolution — in other words, (society and technology evolve together, bringing values and lifestyles with them).

Shove somewhat dismissively states that national governments and international agencies routinely adopt the theoretical baggage of the first and sometimes second paradigms, thereby assuming that consumption is a given and not open to change. Needless to say, the vast majority of the information and examples available fall into categories (1) and (2).

Shove points to two important reasons why this representation of consumption and behaviour should be challenged. First, efforts to persuade people to buy environmentally friendly goods and services may legitimise potentially unsustainable conventions and expectations. Second, by focusing so exclusively on the behaviour of individual consumers, policy makers have no way of detecting, let alone influencing, longer-term transformations of technology, culture, and practice. As a result, large reaches of social environmental change quite simply disappear from view.

This means that currently popular policy tools designed to encourage more sustainable forms of consumer behaviour are likely to prove ineffective, if not counterproductive by legitimising the standardisation of unsustainable habits and expectations.

The table overleaf summarises Shove's discussion.

	Representation of consumers and consumption	Conditions of sustainable consumption	Relevant forms of policy intervention	Appropriate measures of sustainable consumption
1 Consumers as decision-makers	Consumers are viewed as autonomous decision-makers motivated by 'rational' economic or psychological (symbolic or positional) 'factors'.	Consumers decide to make 'green' their brand of choice. They do so because of new forms of ecological-economic valuation, and/or new interpretations of symbolic significance.	Develop and promote more resource-efficient products and technologies. Persuade consumers to adopt them by means of information, advice and price.	Ecological footprints and other measures of per-capita consumption.
2 Consumers as citizens.	Recognise that consumers' choices are structured and that as citizens they have a hand in determining options on offer.	Ecologically committed citizens will be actively involved in shaping the options on offer and in formulating new or modified institutions and modes of provision.	Develop and promote more efficient products and technologies. Respond to consumer pressure to develop new institutional forms through which to fulfil existing 'needs'.	Ecological footprints and other measures of per-capita consumption together with an assessment of the ecological modernisation of infrastructures, systems and modes of provision.
3 Consumers as practitioners.	Consumption is viewed as consequence of practice and analysed as such.	The reconfiguration of normal practice and the social, symbolic and technical co-evolution of taken-for-granted routines, habits, and expectations of everyday life.	Influencing understandings of normal practice, perhaps by 'steering' socio-technical systems in transition, promoting diversity or trying to foster socio-technical configurations that work (for the environment).	The specification of normal standards, conventions and expectations of service and the character of entire (socio-technical) systems of provision.

10.3.2 Youth, sustainable consumption patterns and lifestyles.

This report reflects the results of a UNESCO/UNEP project launched in March 2000. The project was framed around a survey on the consumption patterns of young people in 24 countries. A workshop was subsequently held to discuss the development of a strategy for UNEP and UNESCO to promote sustainable consumption patterns among youth. The underlying belief was that youth deserve special attention when considering consumption patterns. Young people are an important target group on the demand side in this consumer society and play a determinant role in future consumption patterns.

Some of the key findings were:

o   a belief that the environmental impact of consumption is linked to the use of products and the recycling process, rather than to shopping behaviour;
o   a lack of flexibility when it comes to changing habits that are essential in defining the individual;
o   a willingness to "look more closely at how we live and where our things come from";
o   the social aspects of consumption are crucial to young people in many parts of the world;
o   the implications of consumption on both environment and society are well understood, even if this does not necessarily lead to action.

10.3.3 The Green Challenge — the market for eco-friendly products

This 1995 report by Professor Paul Stoneman, Dr Veronica Wong and William Turner of the Warwick Business School, deals with the curious paradox that so many green products have not achieved a level of market success commensurate with the high level of pro-green attitudes. Some of the key findings were that consumers are not prepared to trade off performance or price to buy green — they want products which are green, good value and which work too, and that legislation is usually needed to kick-start the launch of new green products and generate consumer demand. Free market forces tend to fuel momentum subsequently. Two products were contrasted by way of illustration: sales of unleaded petrol, which has been the subject of government legislation, rose from zero in 1986 to reach 55% of total sales just 8 years later; whereas green detergents, which have been around for a similar length of time but whose market share had reached only 2% in the relevant period, were not subject to legislation.

10.3.4 Green choice: what choice?

This 2003 report summarises National Consumer Council[51] research into consumer attitudes to sustainable consumption. The research was both qualitative and quantitative. The qualitative part consisted of eight focus groups designed and conducted by MORI and co-ordinated by the NCC and Futerra. The qualitative work was accompanied by a few quantitative survey questions carried out by RSGB for the NCC, sampling 2000 adults. The Oslo Symposium definition of sustainable consumption was used: "the use of goods and services that respond to basic needs and bring a better quality of life, while minimising the use of natural resources, toxic materials and emissions of waste and pollutants over the lifecycle, so as not to jeopardise the needs of future generations".

The research found that consumers have a positive, but passive, view of sustainable consumption. They are generally "happy to do their bit" towards sustainable consumption — to be responsible — but convenience in pressured daily lives takes precedence. The key findings were:

o   everyone has more immediate and pressing concerns than sustainable consumption;
o   habit is seen as a barrier to change — this perception often leads to people overestimating the inconvenience of behaving sustainably;
o   cost often masks other barriers of inconvenience and lack of awareness;
o   consumers appear to have little awareness of the effect of their daily lives on the environment, and of sustainable consumption policies, facilities, and products.

Consumers view sustainable consumption primarily as the responsibility of national and local government. Industry, business, parents, schools and, particularly, individuals are seen to play a comparatively minor role.

10.3.5 Policies for sustainable consumption

This 2003 report was written for the Sustainable Development Commission by Tim Jackson from the University of Surrey and Laurie Michaelis from Oxford University. The intention was to assist the Sustainable Development Commission in its bid to influence government policy on sustainable consumption by providing a guide to the complexity of the sustainable consumption debate, an overview of the extensive literatures on consumer behaviour and lifestyle change, and an analysis of the policy opportunities suggested by these literatures. The report is very well written and provides a useful overview of the sustainable consumption debate and consumer behaviour in general.

In their summary of the sustainable consumption debate, the authors echo some of Shove's comments when they say that:

> *"The current institutional consensus[52] has tended to settle for a position which implies consuming differently rather than consuming less, and … this is to be achieved primarily by the production and sale of more sustainable products. This position…fails to address important questions about the scale of consumption, the nature of consumer behaviour and the relevance of lifestyle change.*

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[51] The National Consumer Council is a UK-based independent consumer expert, championing the consumer interest to bring about change for the benefit of all consumers. They are independent of government and all other interests.

[52] The institutional consensus on sustainable consumption is perhaps most aptly summed up by the UNEP definition: "sustainable consumption is not about consuming less, it is about consuming differently and consuming efficiently.

> *Institutional reticence to address these latter issues appears to hinge on three concerns. In the first place, addressing them properly would involve questioning fundamental assumptions about the way modern society functions. In the second place, any attempt to address consumption quickly becomes reflexive and challenges us at the level of personal change. Finally, questioning consumption appears to threaten a wide variety of vested interests."*

Further parallels with Shove's work can be seen in their analysis of cultural types and the "three voices in the consumption debate" (*see* p. 45 of the report). Three of Shove's papers are cited in their extensive bibliography.

Jackson and Michaelis identify the growth in reflexivity as one of the main sources of hope for a shift towards a sustainable society. Society is becoming post-traditional, with increasing self-questioning of institutions, reflecting on and discussing cultural assumptions and norms. Discourse and narrative are central to reflexivity and provide a bridge from collective culture to individual psychology. In a post-traditional society, the role of government changes from one of direction and control to one of "change management".

In the light of their earlier comments, it is no surprise that the authors conclude that "conventional policy measures are unlikely to achieve the scale or pace of consumption change needed to move towards a sustainable society". The conventional measures "tend to underestimate the complexity of underlying motivations, and ignore the diversity of ways in which government can engage in the processes that shape consumption".

Jackson and Michaelis propose a strategic approach to sustainable consumption policy based on the identification of six key policy lessons derived from the literature and research they reviewed. The lessons are:

1. Current government policy misconstrues the relationship between material commodities and quality of life. A shift in government policy would be justified to place more emphasis on other contributors to quality of life, such as health, community engagement and meaningful work.
2. Current thinking suggests that it would be infeasible for government to change individual consumer behaviours. Research does not support this presumption. Government plays a vital role in shaping the cultural context within which individual choice is negotiated through its influence on technology, market design, institutional structures, the media, and the moral framing of social goods.
3. Current government policy assumes that the market offers consumers the freedom to choose the lifestyle that best reflects their needs and desires. Research does not support this presumption. Consumers often find themselves "locked in" to unsustainable consumption. Government intervention is vital to facilitate change.
4. A variety of movements and networks have developed in Britain, in which small groups learn about environmental and social issues, explore lifestyle options and take collective action. Their scope to demonstrate sustainable lifestyles would be greatly increased by government policies to establish a more supportive context.
5. The government role in our post-traditional society is shifting from control to a "change management" approach, encouraging learning. Successful leadership requires government to listen to others and question its own assumptions and practices.
6. To develop an effective strategy for sustainable consumption, the government will need to work on a collaborative basis with stakeholders to develop congruent visions, strategies, practical actions, and evaluation processes.

10.3.6 Unsustainability as a frame of mind and how we disguise it

Ingolfur Blohdorn has tackled the sustainable consumption debate by re-analysing the currently dominant mindset and investigating the foundations on which environmental educators might build. His guiding principle is that effective education depends on a solid understanding of the learner's underlying mindset and situation. Blohdorn's hypothesis is that

> *"the unsustainability of the contemporary frame of mind is not just one of its curable faults, but an essential feature…the contemporary frame of mind has no genuine appreciation for the ecologist goals of social justice and ecological integrity, and … the discourse of sustainability may have to be interpreted as a strategy to disguise an unsustainability late modern societies neither can, nor really want to, remove".*

Blohdorn begins by arguing that Inglehart's theory of post-materialism (*see* Post-materialism p. 76) has become outdated since the 1990s, and that what is emerging is a post-ecologist mindset, "whose arrival is signalled, for example, by the

glaring neo-materialism that commands late-modern societies". The shift from the ecologist to the post-ecologist mindset not only implies the emergence of a new phase of *hyper-materialism*, but, of equal importance, this new materialism is egoistic and exclusive. Other indicators of the post-ecologist mindset are the integration of environmental issues into other fields of politics, the re-formulation of ecological issues as economic issues and issues of efficiency, and the emergence of an overwhelming optimism replacing the traditional eco-pessimism. The comparatively recent concept of sustainable development is quite different from earlier ecologist ideals, this concept might itself be regarded as a post-ecologist invention. Ergo, Beacon's goal of improving the sustainability features of 90% of New Zealand houses by 2012 is a case in point!

Blohdorn suggests that neo-materialist value priorities develop in response to new economic uncertainties, and that only material values seem to provide a reasonably solid foundation for social consensus. The metaphysics of the market or the religion of competitiveness (and the moral superiority of western liberal democracy) offer a degree of certainty in the same way that the fundamental ideologies of ethnicity, nationality, religion, and ecology might.

The inevitable conclusion is that unsustainability is, therefore, here to stay and the fundamental challenge for late-modern society is the management of unsustainability and its implications, rather than its removal. Then Blohdorn appears to have a change of heart towards the end of his dissertation, when he says "obviously, the late-modern condition is not the end of history. Neither is environmental education pointless, nor can policies of social and environmental sustainability simply be given up". The purpose of the article, then, is to emphasise the fundamental problems and obstacles environmental educators must confront.

10.4 Overview of high-level trends and drivers

10.4.1 Caveat

This is not an exhaustive summary of social trends. Rather, it is a western world-based overview of the consumer-specific trends that are likely to be most relevant to Beacon's consumer uptake objective — namely, to ensure that 90% of housing in New Zealand reaches a high standard of sustainability by 2012.

10.4.2 Luxury fever

Marketers say luxury fever, first identified in the United States and the topic of a book by the same name by Robert H. Frank, is the defining retail trend for 2004 as consumers link their identity to possessions, and use bricks and mortar to trumpet their success. Young and Rubicam Group chief strategy officer Mike Morrison says luxury fever is part of a broader trend, which the advertising agency has dubbed "taking care of me".

According to Clive Hamilton, director of the Australia Institute and author of a report titled *Overconsumption in Australia: the Rise of the Middle Class Battler*, "the desire to emulate the lifestyles of the very rich has led to booming sales of trophy homes, luxury cars, pleasure craft, cosmetic surgery, and professional-quality home equipment". The scaling up of "needs" often outpaces the growth of incomes so that many people who are wealthy by any historical or international standard actually feel poor. The effect has been dubbed "affluenza", the "bloated, sluggish and unfulfilled feeling that results from efforts to keep up with the Joneses". The spread of affluenza suggests that consumption in general has taken on a pathological character. Consumption behaviour has become central to the construction of personal identity.

10.4.3 Downshifting

A small tide of people are turning their back on consumerism and choosing to downshift — to trade in their big homes for smaller abodes, move to fringe areas where housing is cheaper, and demand workplace flexibility to meet their new lifestyle.

Families with children are much more likely to downshift to win more time together and those without children are keen for a healthier, more balanced lifestyle.

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The mainstreaming of sustainable consumption has been identified by the RAND corporation as one of three current trends that appear to be having a significant impact on consumer decisions in the marketplace. Amid an age of plenty, at least in the US and other industrialised nations, there is growing interest in the simple question "How much is enough?". Notably, the debate has extended beyond a small corps of alternative lifestylers to more mainstream people who, for a variety of reasons, are beginning to question the linkages between quantity of possessions and quality of life. Voluntary simplicity courses are now being taught in schools and even inside companies, and growing attention is being paid each year to "Buy Nothing Day".

According to RAND, this is no mere recasting of the green consumer movement, as environmental impact is only part of the sustainable consumption equation. Sustainable consumption is decidedly more complex, grappling with the gaps between the "haves" and "have nots" in both the developed and developing worlds. It has to do with satisfying basic human needs and with spiritual, moral, and ethical matters. And it involves addressing the problem of underconsumption that characterises a significant percentage of the world's populace.

10.4.4 Post-materialism

One of the social revolutions identified by the Open University's Millennium Project is post-materialism, which takes as its starting point the fact that many individuals have now reached satiation in terms of the goods they own. The focus of their purchases therefore shifts to the non-material. Society is certainly moving away from the acquisition of goods as the prime source of demand. This is reflected in the shift in patterns of employment to meet the rapidly increasing demand from the service sector.

The original proponent of the theory was Ronald Inglehart[53], who argued that the values climate (at the aggregate or national level) changes gradually in time due to the process of social metabolism (i.e., generation replacement): older generations die off and are replaced by newer (younger) generations who hold different value orientations because of historically different socio-economic conditions in which they are raised. Inglehart referred to Maslow's individual motivation theory to distinguish between lower-order needs of a physiological nature (material) and higher-order or self-actualisation needs (post-material).

The Millennium Project team suggest that the post-materialism trend, which is "barely discernible" at present, is likely to escalate rapidly through the first decades of the 21st century to become a major driver of extended consumer purchasing patterns. However, other commentators (such as Moors[54]) have emphasised that post-materialism should be differentiated from anti-materialism, insofar as post-materialism reflects values beyond materialism rather than a refusal of materialism per se. Consumers still require a certain level of material and physical security.

Ingolfur Blohdorn asserts that individual autonomy and the right to unrestricted personal development and benefit are non-negotiable features of modern society, and that opportunity and self-realisation are understood primarily in terms of material accumulation and consumption. Collectivity and community are seen as obstacles in the way of personal fulfilment, such that late-modern society "lives in a state of permanent pressure towards dismantling all collective interference". Blohdorn refers to the silent counter-revolution as a much more comprehensive process than the terminological reference to Inglehart seems to suggest, a process that dismantles the ecologist frame of mind right down to its very foundations.

10.4.5 Individualism

The communications revolution, which is dramatically enhancing powers of individual communication, and the move to the information society with the parallel move to service work, means that the individual — using his or her intelligence flexibly — has become the prime generator of added value. This is rapidly becoming a worldwide phenomenon.

The rise of the individual does not, however, render the community obsolete. Many of the needs of the individual can only be met by the community. The market is not equipped to provide these services. A new relationship needs to be developed between the community and the individuals it contains. This relationship will have to be much more sophisticated than it has been. Each individual can now, in theory, have a unique relationship with the community to which he or she belongs.

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[53] INGLEHART, R. 1971: The silent revolution in Europe: intergenerational change in post-industrial societies. *American Political Science Review*, 75, 880-900.
[54] MOORS, G. 2003: The two faces of (post) materialism: a decomposition approach. *International Journal of Public Opinion Research 15 (4)*. 396-412.

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For the first time, in the case of the great majority, each individual has the right and the practical means to fulfil his or her own life in the specific way that he or she wishes.

It is likely that the individual's traditional links to geographical communities will continue to diminish in importance. The groups to which individuals belong will, on the other hand, grow in number and in physical separation, as contact increasingly moves to cyberspace.

10.4.6 Egonomics

In a depersonalised society, where everything is mass produced, customisation will be an enormous part of the future market place. The growing market in body piercing and tattoos is linked to the human need to identify ourselves as individuals. It has been said that in the world of e-commerce, the distinctly personal preferences of the no-longer-humble consumer will be central to how it all works. "Me-commerce" marks the end of the mass market. Instead, the Internet is about millions (or even billions) of individuals having a lot more clout than ever before. Technology makes it feasible to alter products to fit different personal requirements.

10.4.7 Anti-globalisation

Seattle, Washington, London, Melbourne, Prague, and Genoa have all been at the scene of anti-globalisation protests. McDonald's outlets — a symbol of global capitalism — all over the world have also been subjected to smaller attacks.

The protesters represent a diverse set of groups — environmentalists, feminists, anarchists, neo-communists, trade unionists, church people, ordinary people. All they have in common is a loathing of the established political and economic processes, represented by such institutions as the IMF, the World Bank and the WTO. The protests should not be dismissed lightly — things have already changed as a result of them. For example:

o   In 1998, the OECD's planned Multilateral Agreement on Investment was scuttled.
o   The November 1999 launch of global trade talks in Seattle was aborted.
o   Starbucks has bowed to pressure to sell "fair trade" coffee beans in its cafés.
o   "Anti sweat-shop" campaigns in America run by a coalition of NGOs, student groups and UNITE (the textile workers' union) have sued clothing importers, including Kalvin Klein and Gap, over working conditions in third-world factories.
o   A World Bank project in China, which involved moving poor ethnic Chinese into lands that were traditionally Tibetan, was abandoned after a political furore led by a small group of pro-Tibetan activists.

This success could be attributed to the fact that many of the issues raised by the protesters reflect popular concern about the less desirable aspects of globalisation — leaving the poor behind, harming the environment, putting profits before people, releasing dubious genetically modified foods, etc.

10.4.8 Anti-brand

Naomi Klein, a young Canadian woman, asserts in her book *No Logo* that branding has become the real business of the developed world. Manufacturing is contracted out to Third World sweatshops. Thus Nike sells not sportswear but heroism, MTV sells not music but cool, the Body Shop sells not toiletries but integrity.

Klein anticipates a revolt against corporate power by younger people seeking brand-free space.

The Economis[55]*t* (not surprisingly) takes a different stance, claiming that brands are not as powerful as their opponents allege, nor is the public as easily manipulated. Consumers of every age group have become more fickle, and many of the world's biggest brands are struggling.

Brands are evolving a growing social dimension, which has made them — and the multinationals that are increasingly identified with them — not more powerful, but more vulnerable. Consumers will not tolerate a lousy product for far longer than they will tolerate a lousy lifestyle.

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[55] "Who's wearing the trousers?", *The Economist*, 6 September 2001.

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Consumers are bombarded with choices, but, far from being gullible and easily manipulated, they are cynical about marketing and less responsive to entreaties to buy. Consumers are also harder to reach because they are busier, more distracted, and have more media to choose from. It has never been harder to develop or sustain a brand. These difficulties are compounded by the fact that marketing is stuck in the past, still using old-fashioned market research methods such as focus groups.

The *No Logo* proponents are correct that brands are a conduit through which influence flows between companies and consumers. Far more often, it is consumers that dictate to companies and ultimately decide their fate.

Brands of the future will have to stand not only for product quality and a desirable image. The next big thing is social responsibility.

Which means that brands will then have come full circle. The founders of some of the world's oldest — Hershey, Disney, Cadbury and Boots — devoted their lives and company profits to social improvements. The difference in the future will be that it will be consumers, not philanthropists, who will dictate the social agenda.

10.4.9 Anti-corporation

Noreena Hertz[56] postulates that people have lost faith in politics because they no longer know what governments are good for. Thanks to the steady withdrawal of the state from the public sphere over the past 20 years, it is corporations, not governments, that increasingly define the public realm.

Because governments can no longer be relied on to protect the people's interests, it is left to consumers, through individual action, to take the lead. When provoked, corporations respond. Delivering a quality product at a reasonable cost is not all that is now demanded of corporations. The key to customer satisfaction is not only how well a company treats its customers, but increasingly whether it is seen to be taking its responsibilities to society seriously. However, trusting the market to regulate may not ultimately be in our interest because:

o Consumer and shareholder activism is a form of protest that favours the middle classes.
o Social investment and social justice will never become the core activity of corporations. Indeed, if the move by Western corporations towards greater responsibility and care is predicated solely on the continuing strength of the global economy, on the fact that philanthropic acts are essentially tax write-offs against balance sheets firmly in the black, is it not likely to be reversed when times are difficult once again?
o Business interests may not always coincide with society's.

All over the world, people are beginning to lash out against corporations, governments and international organisations alike (*see* anti-globalisation). But protest has its limitations:

o Commonality of interests often centres on a shared general disillusionment, rather than specific concerns or proffered solutions.
o Pressure groups need to play to the media, which usually results in a massive over-simplification of issues and the choosing of fashionable rather than difficult causes.

10.4.10 The commodification of human time and experience

The market economy has been the core institution of the industrial age. Now we are making the transition into what economists call an "experience economy". A growing chunk of production in the modern economy is in the form of intangibles, based on the exploitation of ideas rather than material things: a weightless economy. The top one-fifth of the world's population (in terms of wealth) already spends as much time accessing cultural experiences as buying manufactured goods and basic services. Intellectual capital is the driving force of the new era. Concepts, ideas, and images are the real items of value.

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[56] HERTZ, N. 2001: The Silent Takeover: Global Capitalism and the Death of Democracy. William Heinemann.

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In the Internet age, exchanging goods will be a thing of the past, writes Jeremy Rifkin in his book *The Age of Access*. Rifkin's argument is that in the hypercapitalist economy, characterised by continuous innovation and dizzying speed of change, buying things in markets and owning property becomes an outdated idea, while "just in time" access to virtually every kind of service becomes the norm. Markets give way to networks, property rights become secondary to access rights and the exchange of goods becomes less important than the commodification of human time and culture. Suppliers hold on to property and lease, rent or charge for its use. For example:

o   Ford would prefer never to sell a car again. Instead, they would rather lease the car and have the client pay for the time he or she uses the vehicle. The client then becomes fully embedded in the Ford network.
o   Nike owns no factories and has few physical assets. Its shoes are produced by anonymous subcontractors in southeast Asia. Nike is a design studio with a powerful brand and marketing distribution network.

Physical and intellectual property are more likely to be accessed by businesses than exchanged. Businesses are already well along the road towards the transition from ownership to access. They are selling off property holdings, shrinking inventories, leasing equipment and outsourcing.

Rifkin asks us to imagine a world where virtually every activity outside the confines of family relations is a paid-for experience. A world where traditional reciprocal obligations and expectations, mediated by feelings of faith, empathy and solidarity, are replaced by contractual ones in the form of paid memberships, subscriptions, admission charges and fees. All time is commercial time because everyone is embedded in commercial networks.

10.4.11 The influence of women

At least one recent successful New Zealand-based marketing campaign was conceived on the premise that women are the major decision makers in housing-related purchases. Many international commentators, Faith Popcorn among them, agree that: "you cannot succeed in business or successfully start one without understanding how to market to women".

Ad agency Young and Rubicam produced a study last year called "The Single Female Consumer". Here are some of their findings:

o   professional and well-educated single women are becoming the biggest consumers in the Western world;
o   women living alone comprise the biggest consumer block, in the same way as the yuppies did in the 1980s;
o   the majority of single women are not twenty-somethings waiting to settle down and get married;
o   <u>a growing number of women delay marriage or avoid it completely — nearly one-third of Australian women aged 30–34 are single, the percentage of single Japanese women has risen 50% over the past 15 years;</u>
o   in addition, women are better educated than they used to be, have better career opportunities and are healthier;
o   more women are having babies out of wedlock;
o   single women have three main characteristics from a marketing perspective: (1) they are info-savvy; (2) they are relationship seekers who remain loyal to trusted brands; (3) they are strongly influenced by their friends;
o   women have different spending habits from men in that they tend to invest for long-term security, stability and lower risk;
o   they have money to spend on big-ticket items such as cars and houses, and are fuelling the DIY boom in Europe;
o   companies such as Ace Hardware in the USA are customising their products for women by providing more detailed instructions and tools that are lighter and easier to handle, thus appealing to women's aspirations of freedom and independence.

<u>This is a worldwide phenomenon</u> — despite their diversity, a global culture of young, single females is emerging.

One of Faith Popcorn's recent books handles the topic of marketing to women. Some of her observations are:

o   Women-owned businesses employ more than the *Fortune* 500 combined: 18.5 million workers. They do $2.3 trillion in annual sales.
o   Women own 8 million businesses in the U.S., or one-third of all U.S. firms. And by the way this figure has risen 78% since '87.
o   A woman opens a new business every 60 seconds. Women are leaving corporate America at twice the rate of men.

- o By 2005, 40% of all firms will be female-owned (*not sure whether this just refers to the US*).
- o Four out of five Japanese small business owners are women.
- o As for women's consumer power, they control 80% of household spending.
- o Women purchase 75% of all over-the-counter drugs.
- o Last year women bought 50% of all PCs, and have reached parity in the on-line community.
- o Women influence 90% of all car purchases.
- o Women own 53% of all stocks.

10.4.12 Ethical investment

Ethical or socially responsible investing has gone from niche to mainstream overseas, though not yet in New Zealand, where the options available are still limited. The demand for ethical investment funds is coming from the consumer. A report by KPMG in Australia pointed to a renewal of basic values amongst the public. KPMG found that 69% of people would consider investing their superannuation in a socially responsible fund. Business ethics now form part of many business school programmes and consumers are increasingly taking ethical factors into account.

More than £4 billion is managed by ethical funds in the UK. The growth rate has not been linear — it took 12 years to get to reach the £1 billion mark in 1996.

Research in Britain carried out in 2000 revealed that:

- o 41% of the public felt the corporate social responsibility (CSR) was very important to their purchasing;
- o nine in ten wanted companies to communicate CSR;
- o 40% of consumers felt that they could make a difference to how a company behaves;
- o only 5% of consumers were actively practising true ethical consumerism.

Conclusion: MORI Research suggests increasing expectations of companies and increased consumer ethical behaviour. Cost and quality remain key to the large majority, and there is a need for independent, trustworthy information.

10.4.13 Spiritual awakening

Faith Popcorn has said that because "the future will be so radically different from anything we've known,…having a spiritual connection will become more profoundly important than ever before. Spirituality and religion, however, will become much more self-defined".

- o People are looking beyond Western traditions to alternative spirituality and healing.
- o A study by the MacArthur Foundation in Chicago found that seven out of ten Americans say they are religious or consider spirituality to be an important part of their lives.
- o A survey by Britain's Channel 4 found that almost three-quarters of the population claim to have some religious or spiritual belief. Approximately 45% believed in God, 16% in a spirit or soul and 13% in a life force.
- o A Massey University study found that the majority of New Zealanders believed in reincarnation and nearly one-third believed in astrology. Only 30% of 1000 respondents said they accepted Darwin's theory of evolution.
- o A number of commentators suggest that the Baby Boomers are embarking on a belated spiritual quest, as it suddenly dawns on them that they will eventually die. Winifred Gallagher argues that the Great Boomer Awakening will further weaken institutional religion by spawning more and more "spiritualities" which will compete against each other to satisfy the boomers' demand for choice and self-validation. Salt argues that both the spiritual eclecticism and the reform of existing religious institutions may be stages in a transition to something quite different. He believes the boomers are ripe for something they call "spirituality', rather than religion.
- o A variety of new websites, discussion groups and cyberapostles allow people to explore or practice religion with a few keystrokes. Steven Waldman, founder of Beliefnet says "People can customise their experiences so they can effectively have a 'devout' experience one day and a 'seeker' experience the next".
- o A 1998 Barna Research Associates survey found that 12% of adults had used the Net for religious purposes and that 1 in 6 teens plan to make it their sole religious outlet within 5 years.

o No single demographic describes those engaged in the search for religion, meaning, or comfort on the Internet. In some cases it is the only spiritual sanctuary available — Beliefnet receives more visitors from China than any other country apart from the US.
o Even though so many people are declaring themselves to be spiritual beings, established churches are struggling. In 1900 one-third of the British public was a member of a church. Now the figure is less than one-tenth. Christianity is still the world's biggest religion, with 2 billion followers. There are 1.2 billion Muslims and 800 million Hindus.

Spirituality could be becoming another aspect of consumerism. Possible reasons are:

o A disillusionment with the established Christian Church as an organisation. Spirituality is associated with a personal search and finding purpose and meaning in one's existence.
o A disillusionment with figures of authority. A University of Leeds survey of 8000 Britons found that less than one-fifth of people felt they had leaders they could respect. Respondents were also wary of scientists.
o A growing trend towards individualism and the accompanying demand for self-fulfilment. The logical end of self-fulfilment may be the development of inner power, a goal which characterises Eastern religions.
o An awareness of ecology and the environment, coupled with a growing search for wholeness, or a recognition of how human beings fit into the rest of the natural world.
o New Zealand has a strong history of alternative belief systems.
o Mainstream religions are perceived by many to be out of step with modern lives, e.g., homosexuality, the empowerment of women.

People at the centre of organised religions are reacting to the morphing of traditional religious practices and denominations by **becoming more fundamentalist**. Christian fundamentalism is being reborn in America and the fundamentalist, Bible-believing, Pentecostal or charismatic end of Christianity's spectrum is growing in New Zealand. Destiny Church is a case in point. In answer to the question "why now?" a Pentecostal would say that we are witnessing the outpouring of spirit that God promised in the last days. Others link the trend to the music, song, dance, private revelations, visions and speaking in tongues.

In the political context, fundamentalism, especially that espoused by some fanatical Islamic groups, can perhaps be seen as a reaction against the inequalities arising from Western imperialism. It may spread unless the developed nations address the disease of inequality rather than the symptoms of the jihad it provokes.

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Note: it would be inappropriate to include a comprehensive list of every document consulted. This is a summary of the most useful ones and/or those that are cited directly. Please contact the authors if the reference you are seeking is not listed here.

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11 Appendix Two: Evidence of Performance

The table below outlines the studies reviewed during this project in summary form. We regard these studies as indicative only, given the known limits of both the range and quality of studies available. Note that most achieved high levels of awareness through variously targeted or indiscriminate use of TV and other broadcast media. As a result, this measure is probably of low value in assessing programme success, though many use it as a key indicator.

Evaluation of Evidence

| Programme	Target	Aware	Interacting	Changed	$/ Change
Economic	250,000	85%	50%	8%	$254
Autoshare, Toronto, 3 yrs	1,464,945	0.68%	0.07%	0.03%	$500
Solar Industries Assn, NZ, ongoing	1,357,983	30%	2%	0.1%	$63
GIB Living Solutions, NZ, 2 yrs	200,000	80%	46.5%	6.5%	$254
AT & T Teleworking, 4 yrs	65,500	100%	53.4%	10%	
U-Pass, Washington Universtiy, 10 yrs	50,000	90%	71%	12.0%	$449
Auto$mart, Canada, 4 yrs	300,000	100%	90%	90.0%	$116
Humanistic	1,270,674	80%	60%	11%	$341
OGCA, Ontario, 1 yr	4,219,410	80%	0.1%	0.1%	
Me Mutu Quit Smoking, NZ, 1 yr	722,384	80%	14%	0.9%	$409
Push Play, NZ, 3 yrs	1,270,674	80%	69.8%	8.5%	$341
Like Minds Like Mine, NZ, 3 yrs	3,125,140	90%	60.0%	11.0%	
Active Safe Routes to School, Toronto, 2 yrs	943,080	80%	40.0%	16.5%	
SIDs, Canada, 1 yr	24,347	100%	66%	25.00%	
LTSA Road Safety, NZ, 1 yr	1,900,000	100%	100.0%	85.0%	$219
Naturalistic	90,000	80%	13%	6%	$51
Better Buildings, Toronto, Pilot	943,080	?	0.05%	0.03%	
BikeBusters, Arhus, Denmark, R&D, 1 yr	300,000	60%	1%	0.1%	
Total Green, Ontario, 1 yr	4,219,410	80%	0.1%	0.1%	
HBA, Nova Scotia, 1 yr	360,020	80%	0.1%	0.1%	
Energuide Energy Evaluations, Canada, 1 yr	11,364,149	30%	0.20%	0.2%	$433
Commuter Challenge, Calgary, 1 yr	900,000	80%	2%	0.7%	$10
MB Building, Alberta, 1 yr	1,104,100	80%	1.2%	0.9%	
Cambie Corridor Transport, Vancouver, 10 yrs	25,000	80%	85.0%	1.6%	$3,641
Energy Star, Wisconsin, 1 yr	2,386,848	80%	2.5%	2.0%	$1,672
YHC, Yukon, 1 yr	11,365	60%	2.8%	2.2%	
Green$aver Energy Evaluations, Toronto, 5 yrs	943,080	53%	3.5%	2.5%	$300
0800 Smokey, Auckland, 15 weeks	368,583	80%	6.2%	2.8%	$15
Ozone Action, Detroit, 4 yrs	4,800,000	88%	88.0%	4.0%	$8
Energy Star Evaluations, Long Island, 1 yr	980,474	80%	5.0%	4.0%	
CES, Christchurch, 1 yr	60,000	80%	8.3%	4.2%	$5
Eco-House, Waitakere, 6 mnths	55,000	80%	9.1%	4.5%	$40
CEC, Chicago, 1 yr	136,456	28%	5.8%	4.6%	$267
Water Conservation, Oshawa, Ontario, 1 yr	39,300	80%	6.4%	5.3%	$1,672
Big Clean Up, Auckland, 2 yrs	389,658	90%	11.3%	5.6%	$41
Guelph Home Visits, Ontario, 3 yrs	35,203	80%	9.4%	6.1%	
REEP, Waterloo, Canada, 5 yrs	64,000	80%	7.8%	6.3%	$237
Commuter Challenge, Canada, 1 yr	90,000	90%	50.00%	7%	
Rockhampton, Australia, R&D	5,000	80%	10.0%	8.0%	$592
Go Boulder, Colorado, 3 yrs	79,192	80%	30.00%	8%	$1,587
TIS, Christchurch, 1 yr	12,000	65%	16.7%	8.3%	$5
Nortel Green Commute, Ottowa, 2 yrs	8000	96%	73.0%	9.8%	$296
In Concert Eco-Education, USA, 5 yrs	100,000	80%	13.2%	10.3%	
Bert the Salmon, King Country, Canada, 4 yrs	244,000	80%	60%	13.20%	$50
Toxic Challenge, Toronto, 2 yrs	5,809	100%	20%	14.5%	$51
IEA, Kansas City, 1 yr	11,100	80%	20.0%	16.0%	$7
Club Millezinc Eco-Ed, Quebec, 1 yr	20,000	60%	45.6%	20.4%	$8
Wise Waste, Victoria, 4 yrs	3,310	80%	26%	21.1%	
Get in the Loop Recycling, Washington, 1 yr	4,598,584	80%	49.4%	21.7%	$1
Quinte Waste Solutions, Ontario, 6 yrs	95,000	100%	100.0%	31.0%	$47
Barrie Water Conservation, 2 yrs	33,333	80%	60%	34.50%	$373
Coalition against Pesticides, Quebec, 1 yr	10,000	80%	41.0%	38.0%	
Jasper Energy Efficiency, Alberta, 1 yr	1,200	80%	75.0%	38.0%	$875
Spare The Air, San Francisco Bay, 2 yrs	6,100,000	97%	60.0%	50.0%	$1
Climate Change Workshops, Ontario, 1 yr	3,500	95%	90%	70.0%	
Earth Works Composting, Port Colborne, 2 yr	7,143	99%	90.00%	80%	$59

| Halifax Pesticide Law, Nova Scotia, 4 yrs | 107,733 | 92% | 90.0% | 90.0% | $2 |

The chart below illustrates the distribution curve for the proportion of people changed in the above studies (which are ranked in order from those achieving the lowest to the highest levels of change).
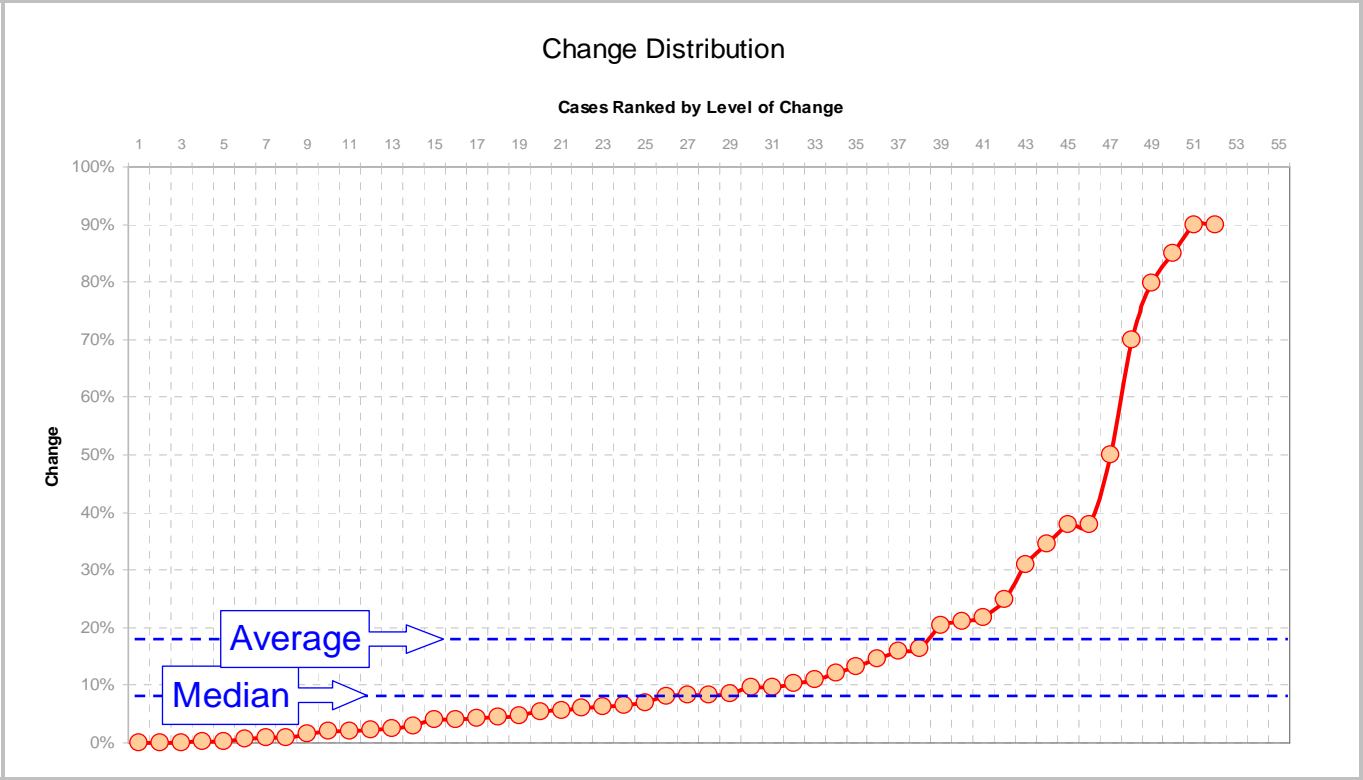

The chart below (on a log scale to clarify the full range of data) illustrates the correlation between people changing and people interacting with an intervention.

Interacting by Changed

$y = 0.51x - 0.0097$
$R^2 = 0.506$
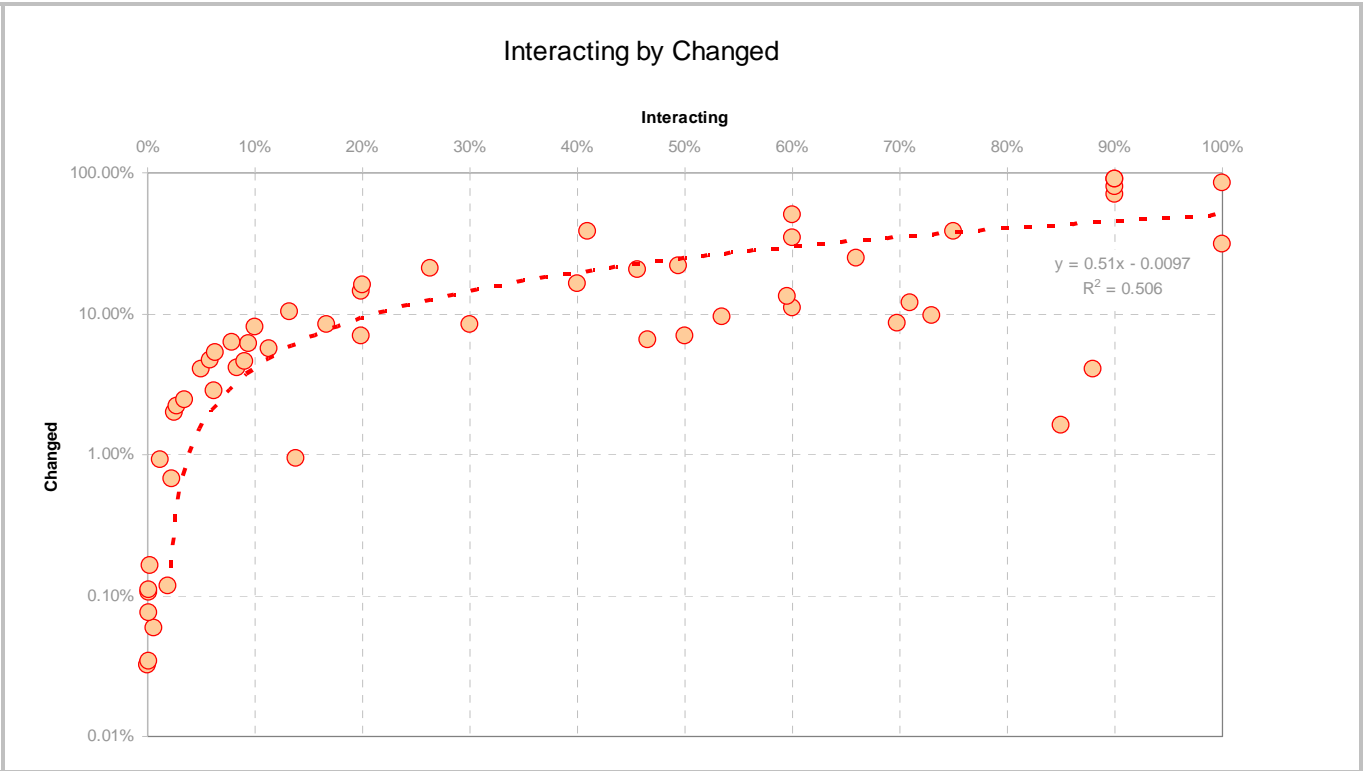
The next chart illustrates the lack of correlation between change and budget (on a log scale) per person changed. If anything, it suggests greater variance in performance for larger budget projects.

Changed by Budget
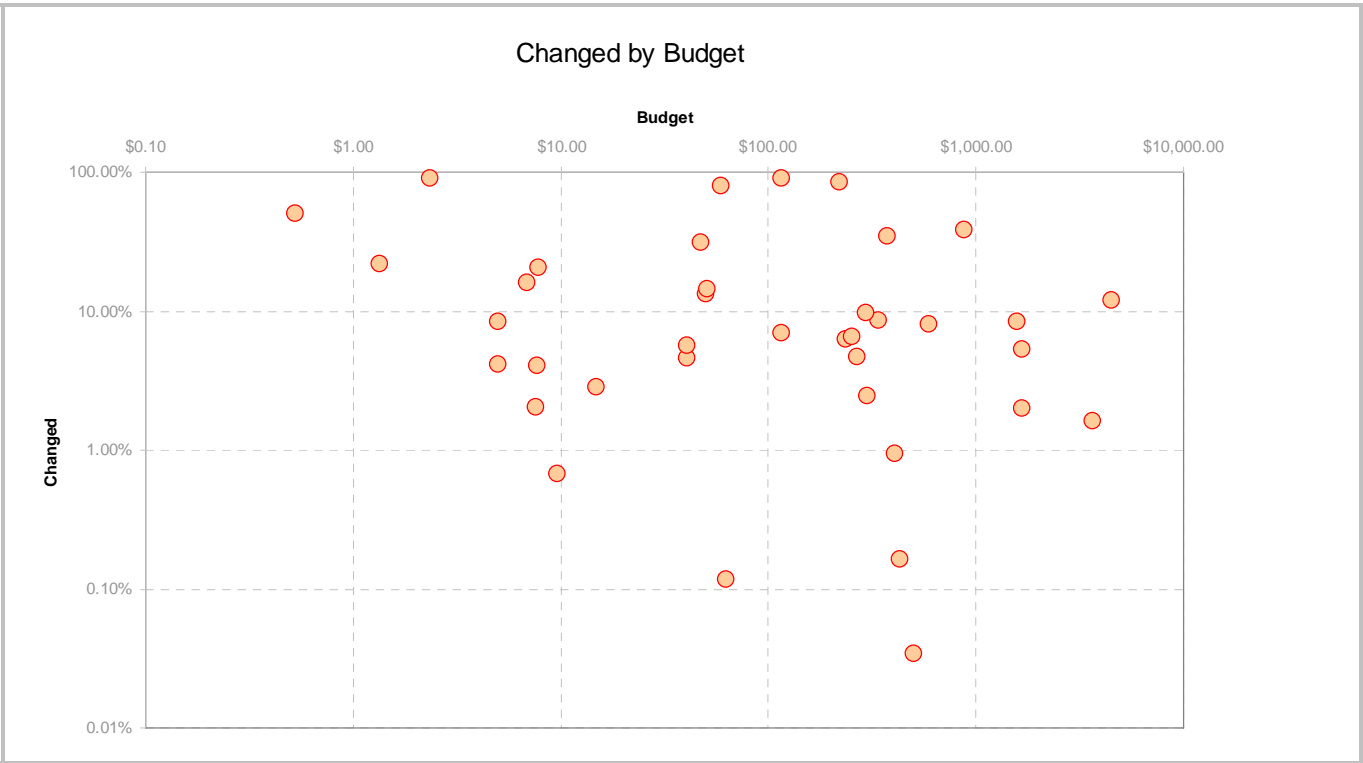
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The chart below indicates no correlation between the size of the target group (on a log scale) and change. If anything, it suggests greater variance in performance for larger target projects.