The Better Living Challenge 2
runs from 2016 to 2019. It supports the creation of an enabling environment for the incremental upgrades of homes in informal settlements, by surfacing and embracing innovations created in the informal sector.

What is the Better Living Challenge?

The Better Living Challenge (BLC) is designed to surface local innovative solutions to pressing or persistent socio-economic challenges, through stimulating innovative products, services and systems that can catalyse change and bring about better living.

The BLC is a project of the Cape Craft and Design Institute (CCDI) and is funded by the Western Cape Department of Human Settlements (DoHS) and the Western Cape Department of Economic Development and Tourism (DEDAT). It was launched under the Western Cape Government’s 110% Green programme, and consists of a series of challenges.

The BLC ties in with the Western Cape Design Strategy, which aims to facilitate the use of design processes and tools to stimulate increased competitiveness and efficiencies for socio-economic development in our economy.

Basic approaches

The BLC concept is embedded in a framework aimed at learning while testing solutions to solve real-world problems. This practical approach includes the development of methodologies and processes which are replicable and scalable.

The BLC 1 was designed around a competition model. It ran from 2014 to 2016, and focused on creating innovative and sustainable home improvement products. The current BLC 2 uses a cooperative challenge model, and runs from 2016 to 2019. It explores ways of supporting incremental upgrades of homes within informal settlements.
The CCDI’s role in the Better Living Challenge

In 2012, DEDAT collaborated with the CCDI and other key role-players to develop a Western Cape Design Strategy to unlock innovation in the province. The CCDI has been tasked with driving the implementation of the strategy with a wide range of stakeholders.

A first for South Africa, the Western Cape Design Strategy broadly aims to achieve four things:

1) Design-ready businesses;
2) Business-ready design practitioners;
3) Design in the public sector; and
4) Involved citizens.

The BLC is one of the key projects of the CCDI and it is part of the Western Cape Design Strategy.

The aim of the Design Strategy is to unlock innovation through design-led processes and thinking, and the BLC as a flagship project highlights how good design can improve lives.

Innovation using design-led processes and thinking methodologies is a key part of how the CCDI helps people develop solutions. It’s a user-driven approach – focusing on problem-solving and solution finding for systemic change – and the CCDI is pioneering it locally to the benefit of communities through the BLC.

For more information, visit www.ccdi.org.za

Better Living Challenge 1

The first BLC was designed as a competition challenge, and ran from 2014 to 2016. It called upon manufacturers, designers, inventors and entrepreneurs to design innovations to meet the needs and increase the choice of products available to the home improvement market, specifically in low income areas.

The solutions included building materials, low carbon products, water capturing and drainage systems, fire safety products particularly for shack dwellings, and interior items for storage and comfort.

The BLC 1 aimed at facilitating the product to market journey of these solutions from the research and concept stage, through prototyping and production, to marketing and distribution of the finished product.

The higher-level project objectives of the BLC 1 were as follows:

- Increased engagement by designers, manufacturers, retailers and others in the development of products, services and systems for the low-income housing market;
- New and improved products for the market;
- Increased choice of home improvement products, services and systems; and
- Increased sales of local products, services and systems.

The challenge thus went beyond product design, and aimed at addressing the barriers to market uptake, as well as consumer acceptance and financial access. It followed a value chain approach to facilitate the product to market journey.
Outcomes of the 
Better Living Challenge 1

The challenge generated 130 entries (including services, systems and products). With the input from a selection panel of 47 experts, the entries were shortlisted to 22 finalists and 33 exhibitors who participated in the BLC 1 Showcase held at the Cape Town Station Forecourt in November 2014.

The BLC 1 produced two winners in the student category and three overall winners in the three categories (comfortable, connected and structural homes). The winners were chosen through a voting process that included a judging panel, facilitated community votes and public votes.

The three category winners were awarded R500 000 each in support services to help refine their solutions and take them through the next steps to the market.

Figures of reach:

- 38% Comfortable
- 14% Connected
- 48% Structural
- 17% Student
- 5% Corporate
- 78% Professional
- 22% Existing
- 78% New

The BLC 1 Showcase at the Cape Town Station Forecourt in November 2014.
**Better Living Challenge 1 Category Winners**

**Structural Home**

*Rambrick (Compressed Earth Blocks)*

An innovative process developed by USE-It. It uses a 30% blend of waste builder’s rubble and available clay-bearing soils to manufacture compressed earth blocks that compare well with other bricks and that can be made on location after basic training.

**Connected Home**

*City Spec* – An open source mobile inspection tool that helps civil society organisations and community workers monitor and administer basic service delivery in informal settlements.

**Comfortable Home**

*Lumkani* (Khusela) – The Lumkani fire detector is a low-cost, battery-operated unit. It is networked with other units to create the mesh of an early-warning fire alert system, and forms an integrated fire alert service.

*For more information about BLC 1: please visit www.betterlivingchallenge.co.za*
In October 2015, the CCDI and the Western Cape departments of Economic Development and Tourism, and of Human Settlements initiated a second round of the Better Living Challenge.

The finalists and winners of BLC 1 produced innovative and applicable design solutions for the informal sector. However, while it surfaced many innovative ideas, products and solutions, most of the finalists and winners emerged from the formal sector. The competition timeframe and platform became barriers to entry for many aspiring innovators.

BLC’s strategic goals aim to address the social and economic complexity of bringing together a diverse range of stakeholders to discover and create shared value. The team therefore reviewed and analysed the process framing (putting into a framework or context) and model used for BLC 1.

Specifically, the question posed was whether a challenge-based model was the most appropriate mechanism to deliver on the core aims of the programme, since research has shown that a cooperative and participatory approach to ambiguous, complex challenges presents far greater advantages than a competition-based approach.

For this reason, and also because there is a growing need for households to play a central and direct role in the development and improvement of their own living conditions and that of their communities, it became important to shape an appropriate, cooperative BLC 2.

BLC 2’s aim became to have greater impact on the lives of people living in informal settlements and be based on end user needs, while embracing the notion of ‘dweller as designer’. It explores the abundance gaps within the informal housing sector, offers an opportunity to innovators, entrepreneurs and enterprises located within informal settlements, and makes the most of new collaborative possibilities between sectors.

Although it is still a challenge aimed at implementing innovative solutions, the concept behind BLC 2 therefore diverges from that of its predecessor.

The challenge is now to find different ways of being or doing, and to identify, support and test existing innovative solutions.
Developing a new approach

In order to get to the point where the new approach was adopted, research was conducted into different challenge framing models.

The research aimed at determining the following:

- The framing process: the areas of concern for the challenge; and
- The challenge model: the delivery and implementation model for BLC 2.

Three approaches guided the research:

- Use BLC 1 as a baseline for a critical/situational analysis to improve the challenge framing process and implementation model;
- Integrate the design thinking methodology and social innovation principles into fine-tuning the framing process and model; and
- Conducting a literature review analysis of models relevant to the BLC’s aims and objectives.

For more information about the research conducted into different challenge framing models: please visit www.betterlivingchallenge.co.za

“The most powerful lever is sharing knowledge.”
Developing the Better Living Challenge 2 - why research?

BLC 2 follows a design thinking and problem-solving process based on understanding end users’ needs, co-creating solutions, and bringing together people from diverse disciplines to find new ways of tackling tough problems.

The approach requires a clear understanding of end user needs, challenges and aspirations. It also requires interdisciplinary teams to collaborate through a series of divergent and convergent thinking processes.

Importantly, the end user research process for BLC 2 followed a cycle of continuous iteration – an approach similar to the design thinking framework. The researchers continuously reflected on their engagement with stakeholders by creating opportunities for sharing and feedback.

Design thinking is a theoretical and practical framework for tackling complex challenges. The framework takes practitioners through six stages of exploring (diverging) and refining (converging), and includes engaging, immersing, defining, ideating, prototyping and testing.

Research process

The research process followed an iterative, and collaborative approach based on data sharing and integration between the work done by the different research streams.

It was also important to recognise the need for end users to be involved in the research process that lead to the adjusted approach. Throughout the research and data analysis period, the team prioritised an ethos of inclusivity by inviting informal settlement residents and experienced sector practitioners to audit the research approach and findings.

“How might we understand the needs of informal settlements residents?”

Research streams

Four research streams were initiated to gain a better understanding of the true needs of informal settlement residents.

“What are the needs, aspirations and challenges of people living in informal settlements and how might these be incorporated into the challenge model?”
Data collection

The data collection included primary research (field work) and secondary research (desktop research). Data collection methods used included stakeholder mapping, informal dialogue interviews, formal stakeholder interviews, stakeholder workshops, and audio-visual recordings.

The research team put considerable effort into ensuring that the interpreted findings correctly reflected the actual needs of those living in informal settlements. Several opportunities were created for findings to be sense-checked by informal settlement residents and sector practitioners. This included informal and formal feedback workshops with the different communities and practitioners. Workshop processes included appreciative inquiry sessions, World Café sessions and dialogue circles in order to engage with participants in a meaningful and relaxed manner and observe participants and obtain data in different settings and ways.

Key stakeholders

Through a stakeholder mapping exercise, the team identified which key players had a high influence on and interest in the BLC 2.

Key stakeholders included civil society organisations, community-based organisations, targeted industries, informal and formal traders, financial service providers, design institutions and research organisations. They became the focus of initial engagement, to identify priority areas of intervention, and to understand relevant politics. It also helped to guide local engagement activities.

Understanding the end users’ needs

Action research principles guided the BLC 2 research approach, and the two primary dimensions of action research – collaborative and cyclical – were incorporated throughout.

The aim of the action research approach was to generate knowledge through a snowballing effect of data collection, reflection and iteration. Informants were consulted during the data collection and analysis steps, making them active participants during the needs analysis phase.

In line with the design thinking methodology and action research approach, the team conducted most of the research in the end users’ context covering the greater Cape Town area. In line with the BLC 2 objectives, the sample size was weighted towards informal settlement residents, which ensured that a wide spectrum of experiences, perspectives and expertise were taken into consideration.
End user findings

Four overlapping themes emerged from the end user needs analysis research and synthesis process, conducted in three rounds (iterations).

These themes emerged through an integrated approach, and considered the most pressing needs raised by end users, and according to priorities identified by sector experts.

The themes are merely representative in nature and were intended as exploratory areas of inquiry, and to help guide action for the BLC 2.

**Need for correct & accessible information**

**Need for skills development & capacity building**

**Upgrading process (know-how continuum)**

**Place-making is essential**

The core focus was to explore and prioritise the needs, challenges and aspirations uncovered through the data collection phase.

The information gathered in the desktop research, stakeholder interviews and stakeholder workshop engagements was condensed into a needs analysis document.

For more information about the research into end user needs: please visit www.betterlivingchallenge.co.za
Theme 1
Need for correct & accessible information

- Information about policy affecting residents’ upgrading decisions.
- Information for contractors to increase work opportunities.
- Information about innovative financing options for residents.

Theme 2
Need for skills development & capacity building

- Enable residents to acquire ‘do it yourself’ skills, so that they can do home maintenance and make their homes safer and more comfortable.
- Build contractors’ understanding of passive design, and empower them with entrepreneurial skills in order to support their enterprises.
- Work with community leaders, and train them, so that they can address community controversies or tensions, and also motivate and mobilise communities to participate in home upgrade projects.

Theme 3
Upgrading process (know-how continuum)

- Placing emphasis on the process of upgrading - among others by fostering community buy-in and utilising bottom-up approaches.
- Leveraging the lessons learnt through best practice – through horizontal learning, community exchanges and showcasing success stories, including those that do not feature in the mass media.
- Understanding the ‘upgrading continuum’. Convey to home owners the fact that there is not necessarily a clear beginning and end to the home upgrading process. Also stress that there are diverse stakeholders involved in the process.

Theme 4
Place-making is essential

- Creating quality and dignified living spaces of which residents would be proud owners.
- Designing living environments through building community resources and local economies.
- Moving beyond (only) ownership: find ways of creating a sense of permanence or security of tenure through usage rights and other certificate of residence measures.
Understanding the financial options available to end users

What are the informal housing financing options and how might these be incorporated into the challenge model?

The purpose of research into innovative informal housing finance was to get a sense of the market profile, obtain information on available financial products, create a stakeholder ecosystem map and conduct analysis of the potential implications for the BLC 2 framing.

Methods included statistical analysis (collating and filtering relevant data from Stats SA\(^1\) in particular), desktop research into the available financial products for the informal sector, and interviews with housing finance experts.

“What financial mechanisms, both formal and informal are affordable and accessible for people living in informal settlements and backyard dwellings?”

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\(^1\) Based on Stats SA (2011 Census, 2015 General Household Survey, National Credit Regulator data, Old Mutual 2015 Savings and Investment Survey, FinScope research, W. Cape Provincial Human Settlement Demand Profile 2015, City of Cape Town report, ISN map)

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The market profile\(^1\)

Over 300,000 households are currently living in informal dwellings in the Western Cape.

Of these, 35% are living in backyard informal dwellings\(^2\) and 65% within informal settlements. In terms of location, among informal dwellings, 74% are located in the Cape Metro, and 95% of these households have incomes of below R6 400 per month.

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\(^2\) This includes informal backyard dwellings on City rental properties, as well as those within RDP developments and established townships. Experts speculate that the high growth rate of informal backyard dwellings has been partly due to the desire to access services, as well as the need for low income RDP house owners to supplement their incomes, among others to afford rates and taxes.
Most microfinance applications require formal employment payslips and bank income records. This is a likely reason why fewer than 40% of these households (less than 100 000 households) are eligible for direct formal housing microfinance.
**Alternative Finance Example**

**Formal Incremental Financing:**

**KixiCrédito Incremental Housing, Angola**

Housing microfinance attempts to fill the gap between government subsidy programmes and the traditional sector by adapting the principles of micro-enterprise finance.

Angola’s first non-bank Micro-Finance Institution KixiCrédito (Micro-Credit) was launched to serve poor clients who do not have access to commercial banks.

KixiCrédito services more than 15,000 clients, 62% of them women. In 2012 they were giving out loans through a network of over 1000 solidarity groups and 17 branches in 14 of Angola’s 18 provinces, lending over $30 Million.

KixiCasa is a re-launch of KixiCrédito’s housing product and offers its clients loans for improving their homes or for phased up-grading over several loan cycles.

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**Saving Groups, Peer-To-Peer Lending:**

**Community Mortgage Programme, Philippines**

Initially, the Philippines government tried to promote mortgage lending to private lending institutions. However, this scheme went bankrupt due to failure to collect loan repayments from borrowers who were granted housing with little vetting from private institutions who did not carry any risks.

The government then instituted the Community Mortgage Programme to allow informal settlement residents to acquire the land that they were living on (legally or illegally) through a community loan scheme.

This group loan scheme is used mainly for the purchase of a piece of land and lasts for 25 years. The size of the group (the community association) can be between 9 and 300 households and a financial track record is not required for each household.

Funding is also available for site development and improvements. The scheme is still federally funded, but loans are repaid by community associations, which act as borrowers.

*For more alternative finance examples and case study information: please visit www.betterlivingchallenge.co.za*
Overview of upgrading models

The eleven upgrading models identified during this research stream include:

- Material innovation;
- Top structures;
- Site and service/core services;
- Self-help build and mutual aid projects;
- Re-blocking/in-situ upgrading;
- Transitional housing/post-disaster units;
- Community facilitation/development;
- Community-led finance facilities;
- Public infrastructure;
- Tenure provision; and
- Multi-scale interventions.

Strategic framework

The Western Cape Department of Human Settlements is currently developing the Informal Settlement Support Plan (ISSP) as a strategic framework. The purpose of the ISSP is to broaden the understanding of what constitutes informal settlement upgrading, and will consider the following to guide municipal intervention relating to informal settlement upgrading in various circumstances:

- Settlement planning and design;
- Tenure security;
- Services and infrastructure;
- Facilities; and
- Housing consolidation.

What are the various different models of upgrading informal settlements and how might we learn from these different approaches?

Stakeholders – including government officials, NGOs and CBOs providing upgrading assistance, and individuals living within informal settlements – often don’t know what can be done or what has been done to upgrade dwellings within informal settlements.

This research stream asked the fundamental question ‘What are the various different models of upgrading informal settlements, and how might we learn from these different approaches?’

This research aimed to go beyond the typical precedent, drawing from the many opinions, academic research and unbuilt projects which are often - and easily - forgotten.

It explored different models and concepts (upgrading, typologies, built forms, participatory planning processes, conceptual approaches etc.) relating to the upgrading of informal settlements in local and international contexts, and how one might apply best practices to the South African context. The research methods included desktop research, interviews with different industry stakeholders, and field work (visiting local case study projects).

It was found that people often apply ideas and lessons learnt without considering the contexts of those projects. Often the same ‘sexy’ precedent and case studies are prioritised and keep resurfacing. This propensity for wanting to take precedent and replicate or upscale elsewhere is, however, not necessarily the right strategy to follow. Research and engagement with different NGOs working within this sector has shown that replication and upscaling often lead to problems or failure.

However, there does seem to be a real desire for precedent and case studies presented in easily understandable best-practice toolkits. Such a tool and examples could elicit ideas and stimulate debate within organisations, government and communities.
Key observations resulting from research into upgrading approaches

• Policy is shifting away from supporting dwelling-centric provision towards a settlement-wide focus and approach. A related idea is that there should be an investment in community facilities and services first, and that improving individual dwellings should happen thereafter.

• Access to well-located land and economic opportunities are key considerations for the target market.

• A complete buy-in by government across all levels is required, together with effective communication. Sustained messages are important, and city-wide upgrading/improvement processes should be promoted.

• Infrastructure and service provided by government at a community level can be catalytic within communities in terms of community-wide upgrading plans and initiatives.

• Building trust is critical to anything happening, and therefore proper engagement is key.

**Government bodies should work with existing social structures within communities to build and strengthen those. It is not just about providing and constructing infrastructure, but also about constructing opportunities for sustainable livelihoods.**

• Prototypes can be very useful and instrumental in communicating ideas and convincing sceptics.

• For any real change to occur, security of tenure should be emphasised. However, it should also be kept in mind that incremental tenure processes can be arduous, costly and time-consuming, from both the administrative and the financial points of view.
**Upgrading Example**

**iShack Project**

*Enkanini, Stellenbosch, Cape Town, South Africa*

The iShack Project was established as a social enterprise following a number of years of applied research by students and academics at the Sustainability Institute and Stellenbosch University.

The iShack Project uses solar electricity to demonstrate how ‘green’ technologies can be used appropriately to incrementally upgrade informal settlements and at the same time build local enterprise capacity and resilience within the community. This enterprise development model recognises the significant existing social, human and physical capital in these communities which can be leveraged for sustainable development.

The off-grid utility provides households with electricity to power lights, television and other small media appliances. The energy capacity of the service is somewhat higher than what is typically deployed in rural off-grid electricity projects elsewhere in the world.

By April 2015, over 800 shacks were electrified, meaning approximately 2500 citizens are accessing clean and safe electricity in their homes for the first time. The project has created local jobs for residents of the community and trained residents in a range of skills including solar electricity installations, maintenance, marketing, and administrative systems.

**Upgrading Example**

**Table House Project**

*Philippi, Cape Town, South Africa*

The Table House is part of the UrbanXchanger Project, a Deutsche Bank initiative. Four teams of Urban Practitioners, including architects, partnered with local organisations from each of the four cities that were part of the Deutsche Bank Urban Age Program, to find solutions to local problems.

The problem addressed by the Table House is the housing crisis. The uncertainty of informal living for residents living in poor areas of Cape Town is further exacerbated by unstable buildings, lack of tenure and questions over basic services.

The Table House is therefore an expression of stability. The structure is comprised of four PVC pipes filled with concrete as posts as the table legs and steel beams and a deck as the table top. The deck can be a roof or a first floor, a solid base from which to start building the rest of the structure. The designers/architects (Noero Architects) of the basic structure have not dictated the conditions, the aesthetics or the lifestyle but have simply provided a sturdy structure for the inhabitants to occupy and develop incrementally themselves. The process imparts valuable experience and the work itself helps to build trust and cooperation.

For more information on these projects and other case studies: please visit www.betterlivingchallenge.co.za
Better Living Challenge 2

research conclusions and recommendations going forward

The findings and opportunity areas identified by the various research streams, as well as priority areas reported by broader sector research and experts, were integrated into preliminary recommendations for BLC 2.

The following opportunity areas tie into the overarching vision for the BLC and address the Western Cape provincial funding partners’ mandate to enable incremental upgrading of informal dwellings:

• Expand home-owners’ capacity to upgrade homes through DIY (information-sharing and capacity building);
• Enable informal contractors to expand their income potential by including them in the process;
• Understand and assist systems in the second-hand construction material value chain;
• Improve access to finance and thus help to make it more affordable for owners to build and upgrade their homes; and
• Focus on the development continuum (supplementary processes relevant to projects).

Vision and objectives for Better Living Challenge 2

“How might we support the creation of an enabling environment for the incremental upgrades of homes in informal settlements?”

The BLC team used the integrated research findings to develop a vision for BLC 2:

In order to achieve this overarching vision, while also bearing in mind the core competencies of the CCDI, four objectives were formulated:

01 Discovering and defining the landscape of incremental upgrading
02 Identifying opportunity areas, and defining an approach to implementation and developing partnerships
03 Implementing and testing the ways of complimenting and enhancing existing projects and innovations (through collaboration, co-creation and partnerships), and
04 Establishing mechanisms to showcase learnings in the public domain.
Better Living Challenge 2 principles and approach

Over the next two years, the BLC 2 will host and run a series of projects and key activities to support its main objectives.

- These activities and projects are considered to be pilot projects. This implies to appropriately collate necessary base contextual information, form partnerships/collaborations for implementation, rapidly prototype and test innovations with partners and communities.
- Iterate if possible, and reflect and document the learnings (creating a meaningful learn and share environment) through various knowledge sharing platforms.

Therefore, in the development phase the BLC will collaborate with the network of community-based organisations (CBOs) and NGOs who were consulted during the research process, and who are dedicated to better living, to add value to projects and processes.

The approach is not to validate preconceived solutions or suggestions. The intention is that the activities will:

- Build on lessons learnt during the research phase;
- Help participants learn something new from each iterative cycle;
- Allow ‘on the ground’ experiences to inform responses and programme design;
- Unearth insights that will shape and frame activities, so that outcomes will actively address user needs; and
- Act as a springboard for systemic catalytic change through co-creation.

“Problem solving that keeps the end user at the core of the process is the key to unlocking innovation.”

The BLC 2 process and projects

“How might we support the creation of an enabling environment for the incremental upgrades of homes in informal settlements?”

Developing a new co-operative challenge model

“How might we understand the needs of informal settlement residents?”

Conduct primary end user research

End user research  +  Innovative informal housing finance research  +  Informal settlement upgrading model research

Research recommendations

Expand homeowners’ capacity to upgrade  Enable informal contractors to expand income capacity  Understand and assist systems in the second-hand construction material value chain  Improve access to finance  Focus on supplementary processes and projects

BLC 2 Key Projects & Activities

See page 36 for more information about BLC 2 key projects and activities
The Better Living Challenge: “We need to establish the value we want to create, and design for that”.

The anticipated outputs of the BLC 2 key projects and activities are:

- **A needs analysis resource** in order to better understand the existing needs of people living in informal settlements, in relation to incremental upgrading of informal homes.

- **Eco-system mapping of the second hand building material journey and supply chain, customer journey mapping of the upgrading process and the mapping of micro-finance options.** These exercises will contribute to a better understanding of the different opportunities and challenges that exist in each ecosystem, as well as establish mechanisms for learning in order to inform future projects related to incremental upgrading of informal housing.

- **Toolkits (for visual and spatial literacy and passive design)** for upgrading stakeholders to effectively communicate to end users about what they can do to upgrade and also how they can go about doing this.

- **Prototyping a design and building skills development incubation programme** for design and building service providers that service the informal settlement upgrading sector who want to be equipped with adequate business or design skills.

- **Toolkits or ‘how-to guides’** to explore the different ways of upgrading homes: targeted towards home-dwellers as builders.

- **A Better Living Resource** as a legacy of the BLC, and a knowledge sharing platform (including an interactive website and critical knowledge exchange events).

In parallel, there will be **ongoing stakeholder engagement** with contractors, material providers, all those with an incentive to increase availability of housing finance, CBOs and NGOs, relevant government officials, and the broader community of informal home dwellers.
Do you want more information or want to get involved?

For more information about the Better Living Challenge, the research process and detailed research findings, relevant case studies and projects, or to get involved with any of the projects described in this document, please visit our website at:

www.betterlivingchallenge.co.za

Tel +27 (0)21 461 1488

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