



# **Building Research Levy**

# Investment Portfolio Statement

**2019-2020**



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# Introduction

This Levy Investment Portfolio Statement [LIPs] covers investment of the Building Research Levy which will be allocated in 2019/2020.

The investment supports excellent research and knowledge dissemination to generate accessible, actionable knowledge to improve the performance of the building and construction industry.

BRANZ is the steward of the Building Research Levy and invests it through mechanisms which include:

- Investments which target work initiated and contracted with BRANZ Ltd (this can include sub-contracts with external providers);
- Investments which target work initiated and contracted with external providers (this can include sub-contracts with BRANZ Ltd);
- Scholarships to support the next generation of researchers and help support tertiary capability elsewhere in New Zealand;
- Strategic initiatives that invest in significant activities above and beyond BRANZ's baseline of research investment;
- Agile investments that are able to respond to urgent issues or take advantage of opportunities that may emerge outside of programmed investment rounds.

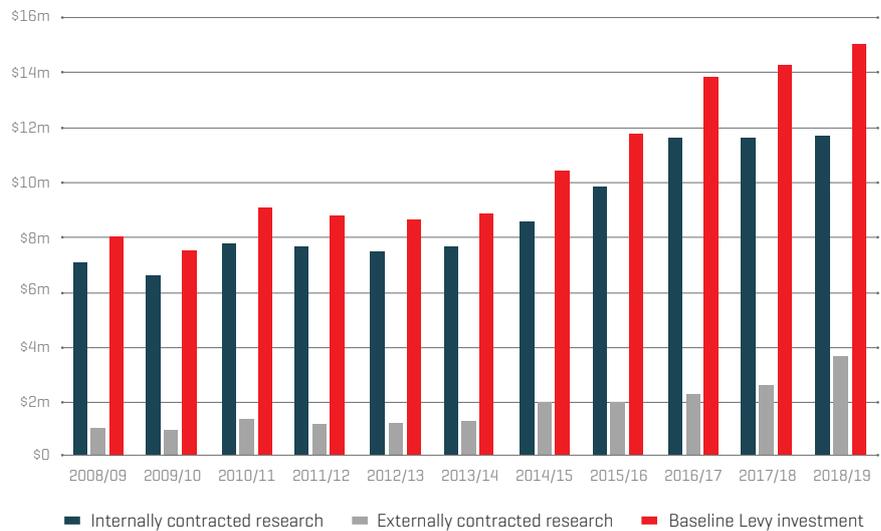
# Wise **Levy Stewardship** underpins our portfolio

Income from the Building Research Levy, government science funds and commercial services make up BRANZ's annual income.

Total income for 2018/19 was \$40.00 million:

- \$21.53 million from the Building Research Levy to fund industry research and knowledge transfer
- \$8.21 million from commercial services
- \$9.22 million to fund Building Better Homes, Towns and Cities: National Science Challenge research
- \$1.04 million of other income.

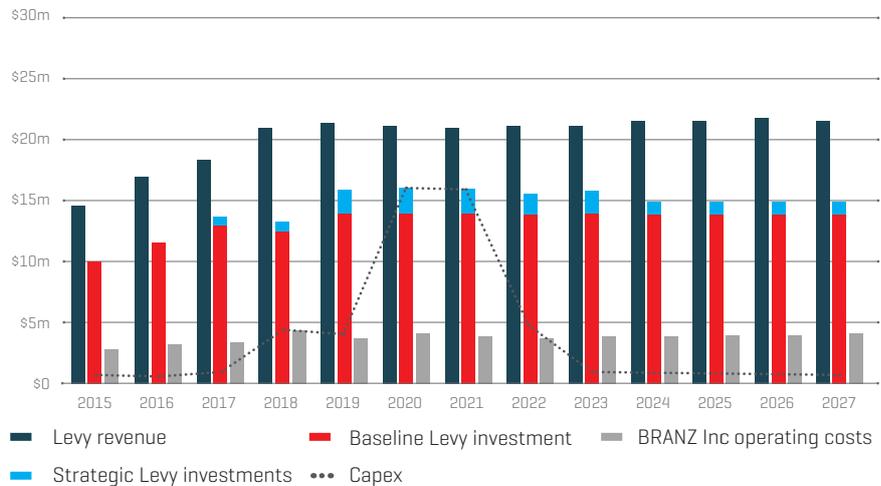
Wise stewardship of the Building Research Levy is a core responsibility of BRANZ. With the steady increase in Levy receipts since 2010/11 we have been able to lift investment in research from \$8 million 10 years ago to \$15 million in 2018/19.



## Long term **investment** planning

BRANZ has a long-term Levy utilisation policy in place to manage the cyclical nature of Levy income. We use a 10-year model to create a stable, sustainable platform for BRANZ to invest effectively. This means when Levy income increases, BRANZ is prudent around expanding its investment. Consequently when Levy income decreases, we do not have to make drastic cuts to significant research programmes.

A Campus and Asset Management Plan has been adopted to ensure our facilities will meet industry research and testing needs for the future. In the next two to five years, around \$40-45 million of investment in this plan will be required.



This investment statement should be read in conjunction with:

- **Levy in Action.** This document provides information about BRANZ's existing research activities.
- **Industry Insight Report 2019.** This document provides insights from the latest BRANZ survey of industry issues and needs.
- **2019/20 Prospectus.** BRANZ also issues a Prospectus document for proposals led by external to BRANZ providers. This document contains research questions reflecting the priorities contained in this investment statement. It is focused on seeking proposals from external providers.

These documents can be found on the BRANZ website. [www.branz.co.nz](http://www.branz.co.nz)

# BRANZ's portfolio

This Levy Investment Portfolio Statement is focused on securing contributions in to BRANZ's portfolio.

Building and construction impact New Zealand's economy, environment and peoples' wellbeing. BRANZ, along with other research organisations, carries out research to better understand the nature of particular issues and how they interact in order to inspire the industry to provide better buildings for New Zealanders.

The graphic below sets out key areas in which BRANZ undertakes research and its relative strengths (red shading), the depth of research effort across New Zealand (red and grey shading) and areas where research has opportunity for increased effort.



# Existing portfolio overview

COMPONENTS SHAPED BY LEVY INVESTMENT PORTFOLIO STATEMENT (LIPS)

(Indicative examples)	2019/20	2020/21	2021/22	2022+
<b>MEDIUM-DENSITY HOUSING</b> 	Technical gaps around MDH confirmed	Technical solutions developed	Quality of MDH buildings is on the rise	New Zealand is benefiting from high quality, affordable, medium density housing as part of our market
<b>EXCEEDING THE MINIMUM</b> 	Tools to lift minimum developed	Better-informed consumers and industry practice	Research feeds into systematic improvements in codes and standards	New Zealand is benefiting from a lift in the performance of our building stock from pre-programme levels
<b>ELIMINATING QUALITY ISSUES</b> 	Priority problems tackled through new focus and tools	New types of knowledge transfer leading to a lift in performance	Research provides evidence that quality problems are being addressed	Quality issues are being addressed as new information around quality issues is taken up and as new tools around quality assurance take hold
<b>WARMER, DRIER, HEALTHIER BUILDINGS</b> 	Key insights support shift in quality of existing rental housing stock	Solutions to lift the quality of indoor environments in high density living in place	Solutions around retrofitting existing housing rolled out	Evidence from this programme has led to policy changes lifting the quality of both new and existing housing stock
<b>LOW-CARBON TRANSITION</b> 	Programme of action launched	New solutions being scoped and piloted	Tools to support low carbon building are becoming mainstreamed	Low carbon construction has become mainstreamed as a core element of New Zealand's building system
<b>KEEPING SAFE FROM FIRES</b> 	Key partners brought together to identify action around high density living	First projects from new programme begin	New solutions developed	Shift in construction practices around fire safety begins on back of new insights driven by the programme
<b>INVESTMENT ON EMERGING ISSUES</b> 	Urgent work to address retrofit gap around pre-cast concrete flooring systems	BRANZ is able to act quickly and decisively on urgent issues as they emerge		
<b>DISTINCT, STANDALONE PROJECTS</b> 	eg: Over framing of timber buildings, material performance in geothermal areas	Projects initiated by both researchers and end users		
<b>SCHOLARSHIPS</b> 	Helping ensure that New Zealand has strong research capability in core STEM and building science areas			
<b>INDUSTRY TRANSFORMATION</b> 	Industry Transformation Agenda development and evolution	Projects developed that tackle root cause challenges faced by building systems	Project solutions trialled, refined and rolled out	Shift in industry performance can be measured against baseline established at start of Industry Transformation Agenda

## Core activities that make our research and knowledge accessible and actionable

Publications	Services	Long term studies	Tools
<ul style="list-style-type: none"> <li>Build</li> <li>Builder's Mate</li> <li>Guideline</li> <li>Bulletins</li> </ul>	<ul style="list-style-type: none"> <li>Seminars</li> <li>Live webinars</li> <li>E-Learning modules</li> <li>Building controls</li> <li>Information management</li> <li>Advisory services</li> </ul>	<ul style="list-style-type: none"> <li>Durability verification database</li> <li>Weathering site</li> <li>Levy forecast</li> <li>House condition survey</li> </ul>	<ul style="list-style-type: none"> <li>BRANZ Find</li> <li>B-RISK User Support</li> <li>Level</li> </ul>

Details on all BRANZ projects are published annually in our [Levy in Action](#).

# Investment Signals for 2019/20

This section sets out Levy Investment Signals that have been prioritized by BRANZ Inc. for 2019/20.

Through these investment signals BRANZ is inviting proposals seeking support from the Building Research Levy investment. Investments will be contracted to predominately begin in the 2020/21 financial year.

The signals highlight areas that are considered key to addressing key contributions of the building industry to the future prosperity and well-being of New Zealand and New Zealanders.

There are two types of signals provided.

- **General signals** which reflect high-level expectations across years; and
- **Specific signals** that set out the areas where BRANZ is inviting proposals in the 2019/20 investment cycle.

## General Signals

Proposals should:

- Demonstrate clear need[s] confirmed by end users and key stakeholders, including where appropriate drawing on insights from the 2019 BRANZ Industry Insights Report;
- Have a commitment to excellence in research;
- Show a coordinated approach to research, notably use of strong multi-disciplinary teams that demonstrate appropriate inter-organizational collaboration;
- Set out clear pathways to deliver impact, including evidence of how end users have been involved in research design and how they are committed to the work;
- State clearly what the intended impact aims to be and how this might be measured in future;
- Leverage and co-ordinate with other investments and knowledge developed in New Zealand and overseas. A summary of key national science investments on the built environment is included in this document to support this signal.

## Specific Investment Signals 2019/20

**1. Existing programmes:** Over the past four years investment in four flagship programmes has been a priority for BRANZ. These existing programmes are:

- **Medium-density housing**
- **Exceeding the minimum**
- **Eliminating quality issues**
- **Warmer, drier, healthier buildings**

In 19/20:

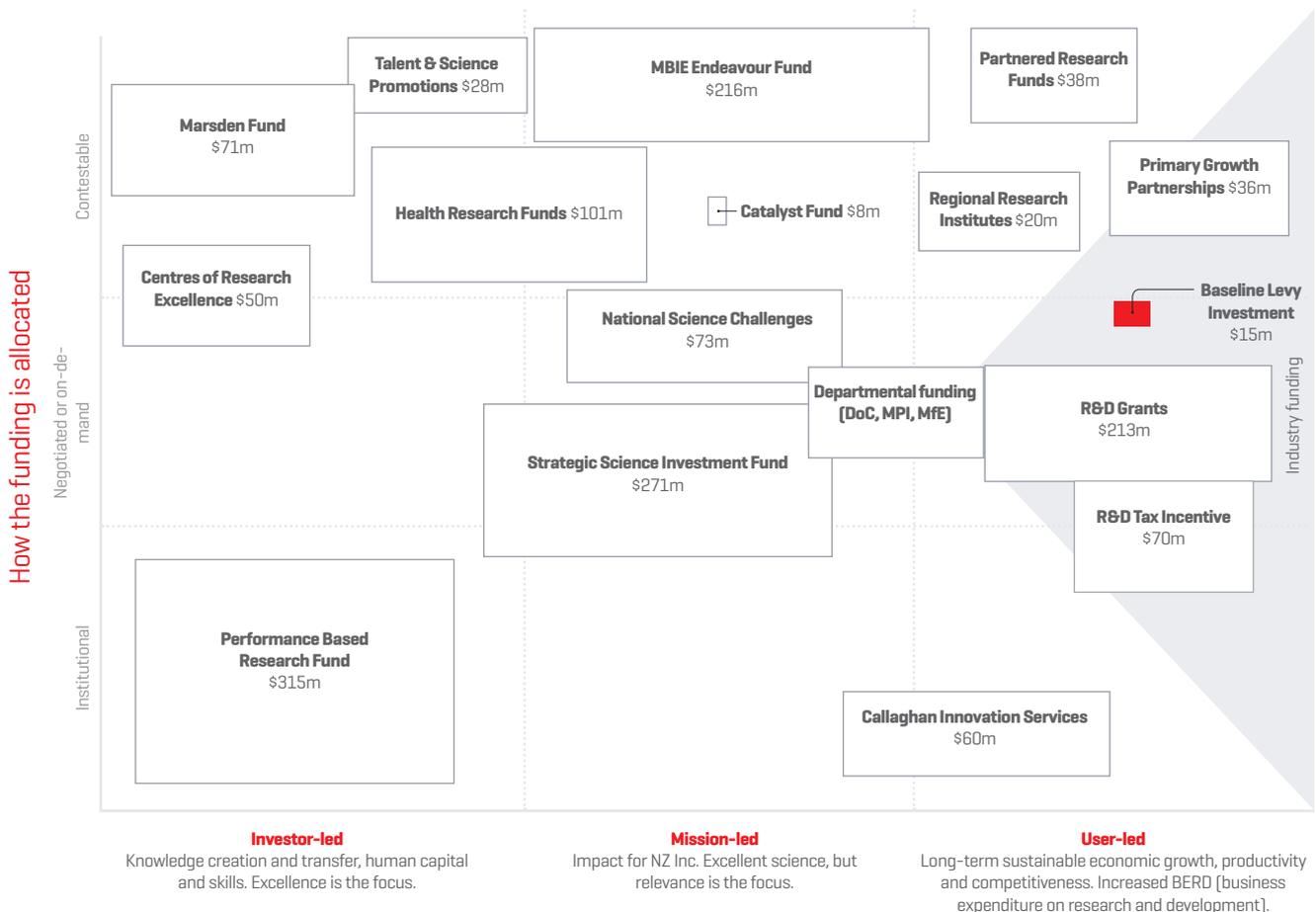
- We are seeking reviews from each programme, reporting on what they have achieved so far, how they propose to refresh or change and what work may be required to deliver on remaining goals. These reviews should set out clear feedback from Programme Advisory Groups and other key stakeholders.
- We invite specific proposals to advance programme goals, address remaining research questions and progress work to achieve critical success factors.
- We invite proposals detailing any new requirements to support uptake and usage as research findings continue to emerge.

- 2. New Transition to a low carbon economy programme:** There is urgency around accelerating measures to support New Zealand to move to a low-carbon economy. The building and construction industry has identified that it has an important role to play in reducing emissions through low-carbon construction, retrofitting and building use. Work in developing a whole of New Zealand low carbon programme for the built environment has been under way since 2018. In 19/20:
- We invite submission of the proposed programme of work. This should include indications around the levels of investment from BRANZ Inc that will be sought to deliver this over future years.
  - We also wish BRANZ Ltd to set out whether (and how) an acceleration and expansion of this programme of work could be achieved.
  - We invite specific proposals for research to be progressed under the programme.
- 3. New Keeping people and buildings safe from fire programme.** Work in developing a programme of work around fire safety in high-density buildings has been under way since 2018. This reflects not only concerns that have emerged since the Grenfell fire disaster, but also New Zealand's increasing requirement for higher-density living. In 19/20:
- We invite submission of the proposed programme of work. This should include indications around the levels of investment from BRANZ Inc that will be sought to deliver this over future years.
  - Where such proposals are put forward, these should be explicit in confirming alignment with the new MBIE Building Code Delivery Framework and work programme
- 4. Researcher initiated proposals:** Researchers have strong relationships with stakeholders that surfaces industry needs. They also have subject matter expertise and domestic and international networks that can provide important insights. We recognize this as a valuable source of potential proposals. Stand-alone research that addresses distinct industry issues is a key part of our investment of the Levy. In 19/20:
- We invite new proposals initiated by researchers that identify and address distinct, stand-alone industry issues.
  - We note the publication of the 2019 Industry Insights report as a new source of information to support researcher-initiated proposals.
- 5. Knowledge transfer activities:** BRANZ is committed to turning research findings into actionable knowledge that responds to defined industry needs. BRANZ uses multiple channels to ensure that this knowledge is widely accessible. Current examples include BUILD and seminars. In 19/20:
- We invite proposals for knowledge transfer activities. For existing activities (such as those funded as "Evergreens") proposals should clearly demonstrate the ongoing value for supporting the initiative. This should include evidence around ongoing or changing needs, use or demand. This should include self-assessment against agreed targets.
  - We invite these proposals to also consider (and where appropriate, demonstrate) how BRANZ's commitment to moving to "digital-first" is being progressed.
- 6. Support for key enabling activities:** BRANZ invests in a number of long-term enabling activities such as Levy forecasts and weathering sites. In 19/20:
- We invite proposals for enabling activities. For existing activities (such as those funded as "Evergreens") proposals should clearly demonstrate the ongoing value for supporting the initiative. This should include evidence around ongoing or changing needs, use or demand. This should include self-assessment against agreed targets.
- 7. Investment in research testing:** Under its Campus and Asset Management plan BRANZ is investing in a major upgrade of its research facilities. This includes new fire testing and structures testing facilities. As part of these campus works, it has been identified that a number of existing research testing projects are likely to be affected. It is recognized that additional support for these projects may be required. In 19/20:
- We invite proposals setting out any investment required to manage the implications of these re-developments on existing research projects.
  - We invite any such proposals to explicitly consider whether there are opportunities for better meeting (current and future) testing needs than those currently in place.
- 8. Input in to the development of the Building Code and New Zealand Standards:** In 2018 MBIE introduced a new approach to developing, maintaining and updating the New Zealand Building Code and associated regulatory framework. This is a significant shift. BRANZ recognizes the importance of impartial evidence and research in supporting this work. BRANZ wishes to signal its support for this approach. Building on engagement with MBIE about these changes we wish to be clear about expectations for alignment of research in to this process. In 19/20:
- We invite proposals aligned to the development of New Zealand's Building Code (for example work supporting development of Code requirements or feeding in to an Acceptable Solution).
  - Where such proposals are put forward, these should be explicit in confirming alignment with the new MBIE Building Code Delivery Framework and work programme
- 9. Industry Transformation Agenda:** In 2018/19 industry and government re-confirmed their support and commitment to an Industry Transformation Agenda. Work on this is ongoing, taking in to account other developments such as progress around a New Zealand Construction Industry Accord. BRANZ wishes to signal its ongoing support and commitment to this key national initiative. In 19/20:
- We will continue to invest in the Industry Transformation Agenda. This investment will be additional to the baseline investment that BRANZ Inc. makes available for research and knowledge transfer activities carried out by BRANZ Ltd and external providers.

# Wider **New Zealand built environment** science investments

The Building Research Levy is the largest dedicated research fund in New Zealand focussed on the built environment. This diagram indicates how the Business Research Levy is situated in relation to government-funded science and innovation investments, by allocation method and type of investment.

In order to maximise the impact the investment the Building Research Levy can make, we include a general signal seeking coordination with other science investments in New Zealand. The following information is provided to support this coordination.



Adapted from MBIE, National Statement of Science Intent, 2018

## Other significant key built environment science investments

- He Kainga Oranga: Translating housing research to practice for children's health [\$4.9m, University of Otago, HRC] 🧑🏫
- Quake Centre of Research Excellence [QuakeCORE] [\$4.1m, University of Canterbury, TEC] 🏠
- Building Innovation: Infrastructure Systems Engineered for Improved Value and Resilience [\$5m, QuakeCentre, University of Canterbury, MBIE] 🏠
- Building Damage-Avoidance Seismic Technology Using a Novel Resilient Slip Friction Joint [\$3.95m, University of Auckland, MBIE] 🏠
- Ending homelessness in NZ: Housing First [\$2.91m, University of Otago, MBIE] 🧑🏫
- Building Better Homes, Towns and Cities: National Science Challenge [\$47.9m to 2024, BRANZ, MBIE] 🏠
- Resilience to Nature's Challenges: National Science Challenge [contains some built environment research, GNS, MBIE] 🏠
- Ageing Well: National Science Challenge [contains some built environment research, University of Otago, MBIE] 🧑🏫
- Deep South: National Science Challenge [contains some built environment research, NIWA, MBIE] 🌍

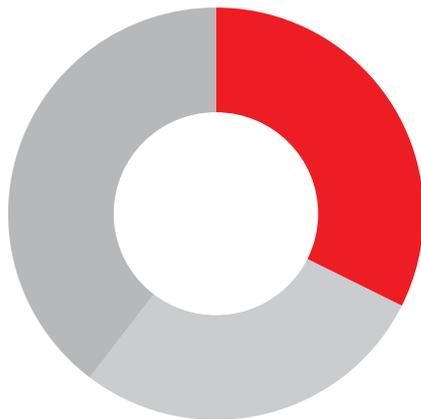
# Indicative **Building Research Levy** funding

The level of investment available for research and knowledge dissemination activities is set by the BRANZ Inc Board in keeping with its long-term Levy utilization policy.

The following information is provided to help inform the level of funding sought by proposals responding to this statement.

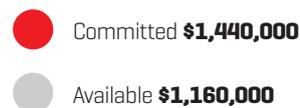
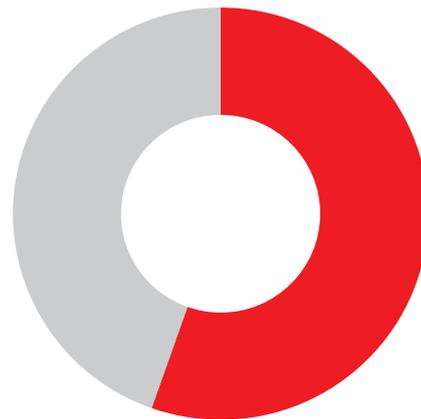
## BRANZ Ltd.

### Indicative Funding



## External providers

### Indicative Funding



## Forward years

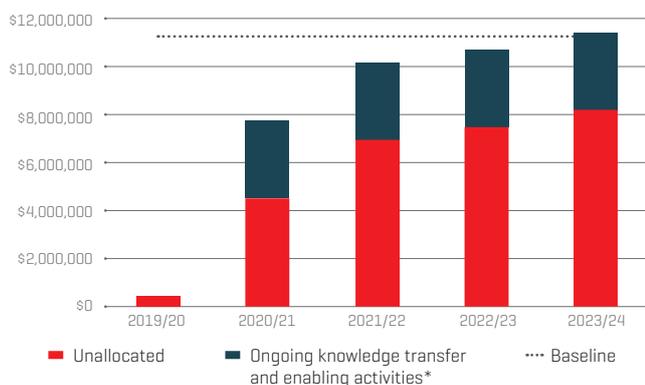
Under our current approach to research investment, most investments made by BRANZ Inc are multi-year. As an investment approach we wish to ensure that sufficient investment remains unallocated in future years. This is so that we can have confidence that there is sufficient head room for new ideas and new knowledge to meet developing or unknown industry needs.

Using our new business systems BRANZ Inc has a much clearer view around the level of investment that is currently unallocated in future years.

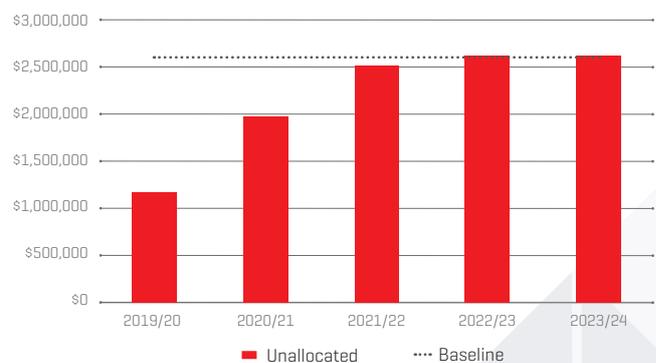
## Forward unallocated investments

based on 19/20 baselines and subject to change

BRANZ Ltd. - unallocated



External providers - unallocated



We do not wish to set levels or parameters for unallocated investment for future years. Rather, we wish to share this information to support providers in their own planning. BRANZ Inc will actively manage unallocated baseline funding, noting this investment is spread across multiple providers.

\* Refers to potential Evergreen investments outlined in specific signals 5 and 6.



For more information, please get in touch:

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