May 2022

# The Health Benefits of Gardening

BORD BIA
Thinking House

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# Why we did it

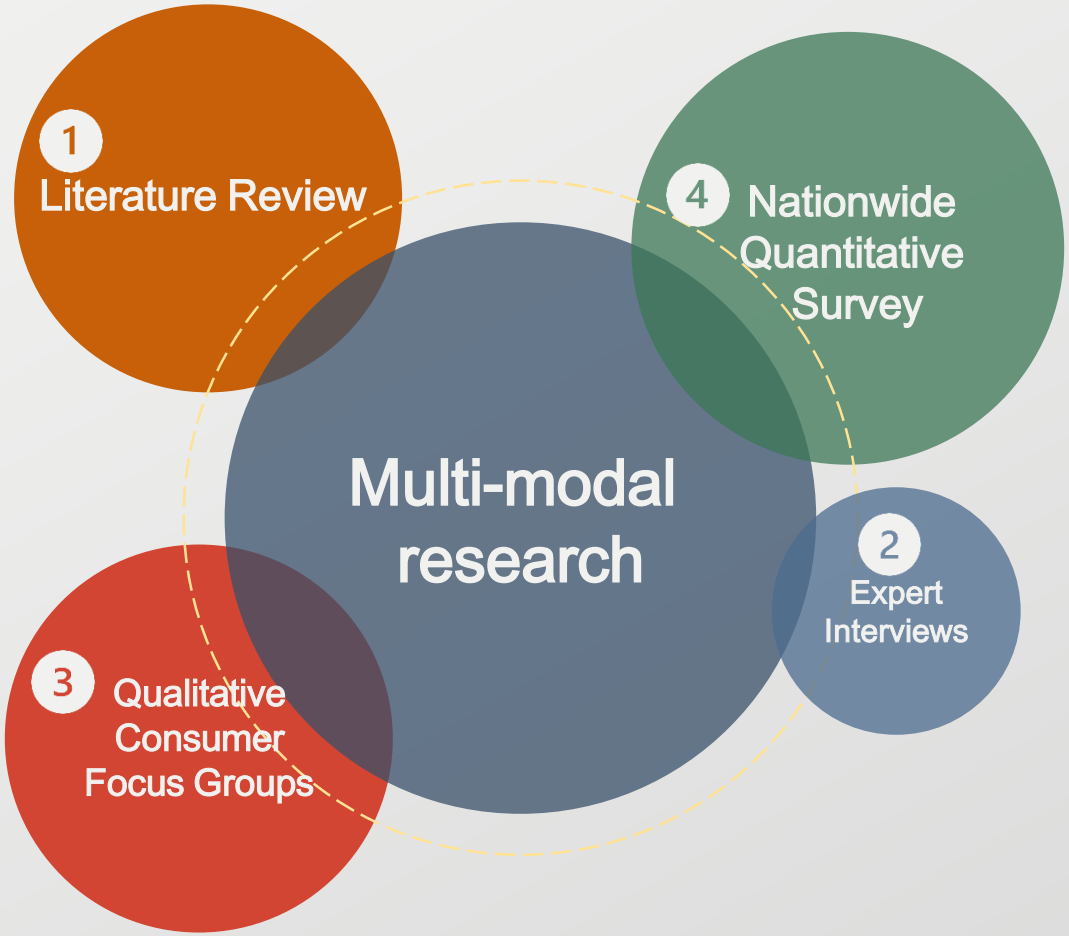
Bord Bia have commissioned a research project with Opinions on the area of **understanding and validating health and sustainability claims on the Irish gardener to understand how we can better encourage interest and engagement with amenity horticulture throughout the year, and at Bord Bia Bloom.**

To support this consumer feedback was required in relation to:

- Explore how the perceived health benefits of green spaces and perceived **mental & health benefits** of gardening are experienced across the full gamut of gardeners.
- Explore **sustainability claims** around gardening and discover which claims could encourage more gardening and attendance at Bloom.

# What we did

An overview of our approach to this research




## Literature Review

A comprehensive **review of 49 academic articles** to explore the mental and physical benefits associated with gardening.

## Expert Interviews

We spoke with **three experts** in the areas of **Education**, **Landscape Architecture and Environmental policy,** and with a psychologist who specialises in **Natural Environments and Health** to frame our thinking at the outset of the research.

## Qualitative Consumer Focus Groups

We conducted **4 x 90-minute focus group sessions** across the gamut of active gardeners to explore attitudes towards gardening generally and examine which **health and sustainability claims encourage more gardening and attendance at Bloom,**

## Nationwide Survey

A comprehensive online survey of 1,010 active gardeners which included **concept screening of propositions & attitudes and message resonance testing for Bloom.**

# Uncovering the Benefits of Gardening

The first phase of the research involved reviewing academic literature to explore the mental, physical and sustainability benefits associated with gardening.

In total, we reviewed 50 academic publications across the spheres of medicine, psychology and social sciences.

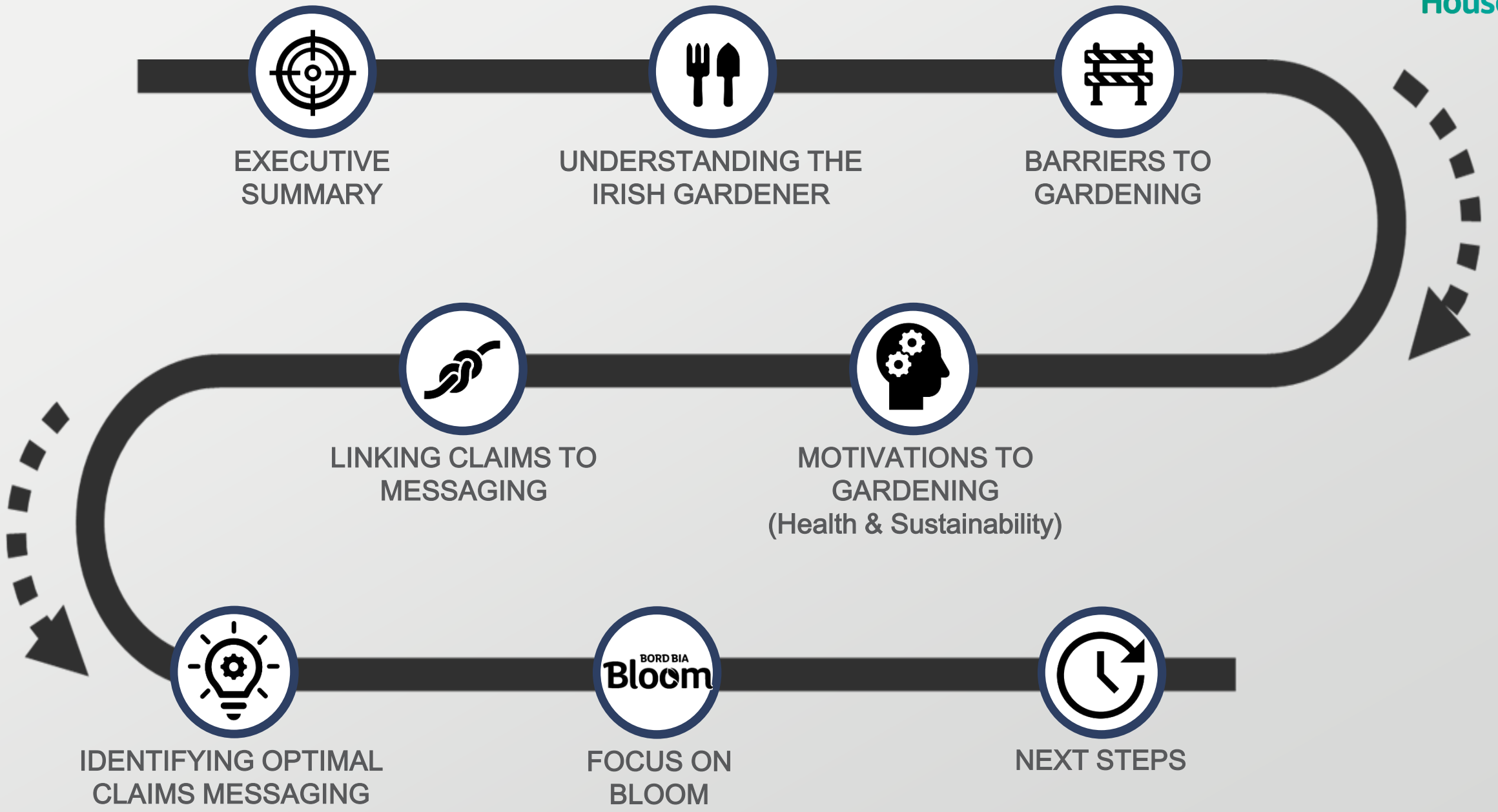
From the literature review, we developed a model of gardening motivators based on three platforms; ***My Mind, My Body and My World.***

We now outline each of these platforms in greater detail…



Photo by cottonbro from Pexels/

# Report Structure



# Executive Summary

Gardening experienced a stratospheric rise in popularity during the COVID-19 pandemic and this trend is set to continue with gardeners of all experience levels claiming that they will do more gardening in the next 12 months.

The gardening centre is the most popular source of gardening related information and inspiration however a trip to the garden centre is usually pre-empted by an online Google search.

A general lack of knowledge is the biggest barrier to preventing more gardening in the Irish population. Addressing this knowledge gap will be key to driving growth in the Amenity Horticulture Sector.

The benefits associated with gardening are multifaceted but can be categorised into three platforms; My Mind, My Body, My World. Claims associated with My Mind & My World (mental health and sustainability) are most effective at encouraging gardening overall.

The most effective claims to encourage more gardening vary depending on family life stage/ experience level however, the following specific claims are most effective to peak interest and drive further gardening activity (spanning the My Mind and My World platforms)…

1. *Just 30 mins of gardening improves your mood*
2. *Enhance your garden with a nature friendly space*
3. *Grow your own to help the environment*



Photo by Annie Spratt on Unsplash

# Executive Summary

**From the research it is clear to see that leveraging health and sustainability claims from a gardening perspective has the potential to encourage more gardening activity across all segments of gardeners in the Rep. of Ireland.**

- ✓ With **Mental Health** an increasingly universal challenge for people, **developing messaging around 'mood enhancement'** claims not only peaks interest but is highly likely to **encourage more gardening activity among those in family and post family life-stages** (correlating with the more active gardener segment).

- ✓ From a **Physical Health** perspective, helping with **regular physical exercise** is a claim where messaging **resonates strongly with post family life-stage** and more **active gardeners**. Getting a **better nights sleep** is a claim where messaging **can generate significant interest** given the challenge of a good night's sleep is something many can relate to. And while in itself it may not encourage significant gardening activity, it is a message that can attract interest among those in the family life-stage.

- ✓ Developing **nature friendly spaces** in their own gardens and the **environmental benefit of growing your own** claims resonate strongly from a Sustainability perspective. Messaging around these claims have potential to **engage the less active gardeners and pre family life-stage** in particular.

From here more strategic actions will be taken post the workshop session planned immediately after the Bloom festival in June 2022.



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# Understanding the Irish Gardener



Photo by Jonathan Kemper on Unsplash

# Introducing The Segments

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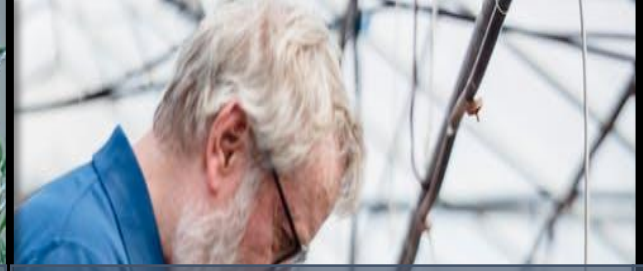
Photo by Karolina Grabowska from Pexels



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# Enthusiast

N=280

*"I am a keen gardener who regularly gardens and I love it"*

**Most likely to be:**

- Female
- Use their **local garden centre** as the main source to help with their gardening activity

# Active

N=278

*"I am a keen gardener who regularly gardens and I quite like it"*

**Most likely to be:**

- Male or Female
- As likely to use **a general google search** as their **local garden centre** as sources to help with their gardening activity

# Developer

N=404

*"I have some interest in gardening and sometimes garden"*

**Most likely to be:**

- Female
- Aged 30+
- As likely to use **a general google search** as their **local garden centre** as sources to help with their gardening activity

# Fledgling

N=48

*"I am new to gardening and keen to learn"*

**Most likely to be:**

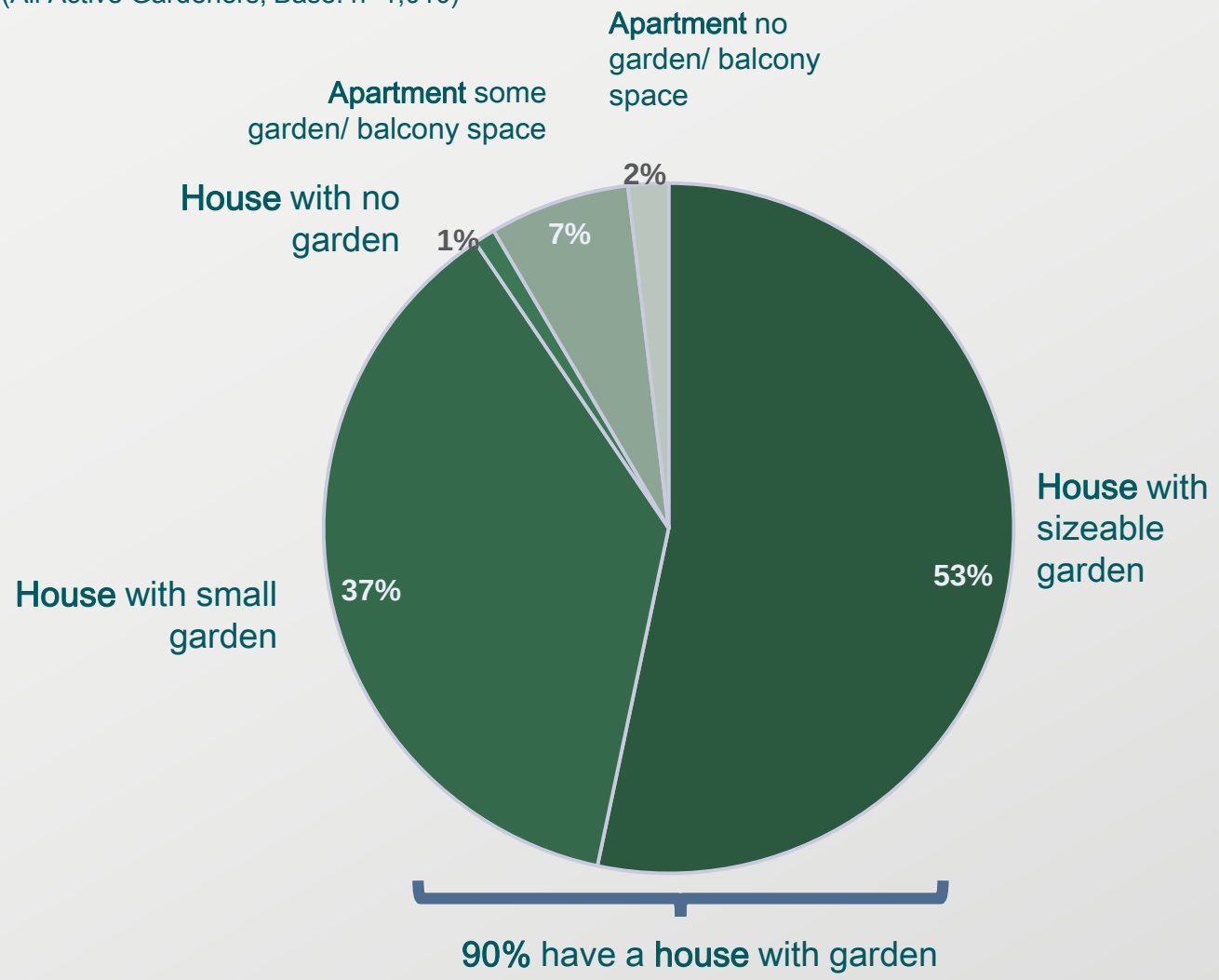
- Female
- Aged 18-44
- More likely Living in an apartment
- More likely to use **Google** as the main source to help with their gardening activity

**Most Likely to Be Family or Post Family Life stage**

**Most Likely to Be Pre- Family Life stage**

# Where do they Live?

(All Active Gardeners, Base: n=1,010)




| | Enthusiast *(n=280)* | Active *(n=278)* | Developer *(n=404)* | Fledgling *(n=48*)* |
|---|---|---|---|---|
| House + sizeable garden | 61% | 59% | 46% | 29% |
| House + small garden | 34% | 34% | 41% | 33% |
| House + no garden | 1% | 1% | 1% | 4% |
| Apartment/ Other | 4% | 5% | 8% | 19% |

*Which of the following best describe your current dwelling?*

90% of participants have a house with a garden. We see that Developers and Fledglings are more likely to live in apartments compared to Enthusiasts & Actives.

# The Rise Of Gardening

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Photo by Igor Son on Unsplash

# The Rise of the Garden as a Space, and of Gardening as an Activity

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*During Covid- 19, participants reported spending more time in the garden socialising due to safety concerns. So much so that the gardening is viewed among more experienced gardeners as an **extension to the house**. They also spent more time engaged in the activity of gardening due to having **more free time**.*

*''You were using it as a meeting place, when your friends came over, instead of coming into the house they would come into the garden. So everything was done in the garden for a year''*

Enthusiast

*'You had more time to do it and spend more time in the garden over lockdown. With the whole Covid thing with the anxiety that's out there it is a great release to get out there and get your hands dirty and go back to basics ''*

Active

Photo by Jonathan Kemper on Unsplash

# And the Rise in Popularity is reflected in the Commercial Data ..

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**51%**

**INCREASE…**

… in spend on **outdoor and flowering plants** in 2020 vs. 2018. Valued at €251 million

**48%**

**INCREASE…**

… in the value of **indoor potted plan market** in 2020 vs. 2018. Valued at €37 million

**42%**

**INCREASE…**

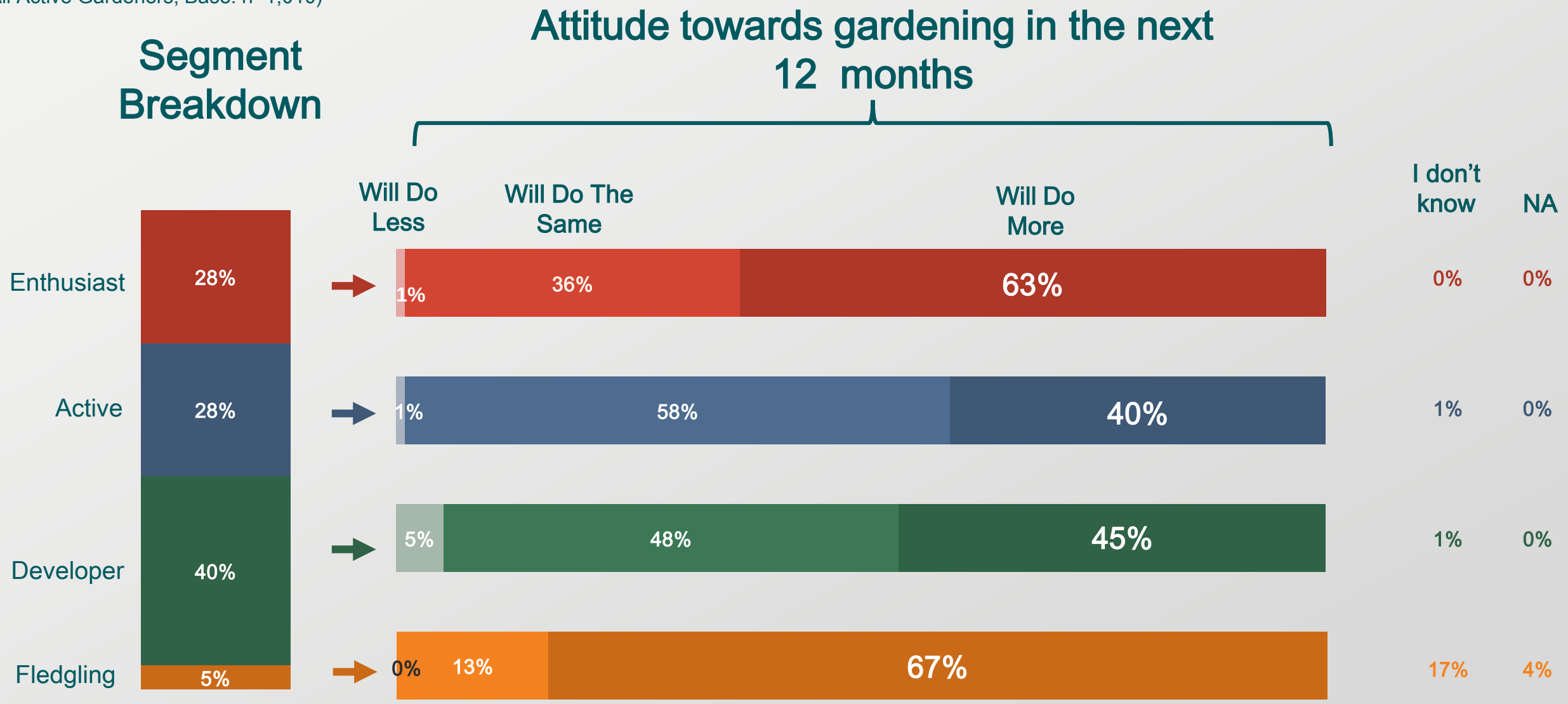
… in the **spend on herbs, fruit and vegetables for growing yourself** in 2020 vs. 2018. Valued at €26 million.

Source: Bord Bia Value of the Garden Market 2020

Photo by Kampus Production from Pexels

# Segments Momentum for Gardening

(All Active Gardeners, Base: n=1,010)




Momentum set to continue with claimed behaviour indicating that all segments intend to do more gardening in the next 12 months.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Information & Inspiration
Photo by Mohamed Nohassi on Unsplash

# Where are they getting their Information and Inspiration?

Across the gardener segments **generic online searches** emerged as a key channel to gather **information** and **inspiration** on gardening, which for many respondents we talked to takes place before a visit to a physical store. However, all levels of gardeners tended to align that the **local garden centre** is the most influential channel to garner the information they need, while being able to interact with an expert **de-risks the purchase and creates a sense of reassurance.**

Consumers felt TV didn't have the same level of engagement as it used to with various references to programmes that tend not to be on air any more. Social media (notably Instagram) was used as a source of inspiration by some – especially within the Fledgling and Developer Segments.

*'I would go to a garden centre to get their expert advice. Either that or online'*

Fledgling

*'I go to garden centres because they are very helpful and I can bounce ideas off them '*

Enthusiast

Horkan's, Mr Middleton and Plant Life are among the physical retail outlets that were top of mind among participants, although many refer generically to their 'local centre'. Mr Middleton post customers their brochure so that they can keep up with the latest listings and trends.

# The Return of the Local Garden Centre



**54%**

Of gardeners use their local garden centre as the source to help with their gardening activity.

This makes the local garden centre the **most used source** to help with gardening activity.

Source: Opinions, 2022

# And where are they getting Informed and Inspired Online?

Outside of generic google searches, it took probing to elicit the specific online/ social channels that consumers engage with. Pinterest and Instagram achieved the greatest traction (especially among less experienced gardeners), while some references to Garden.ie also emerged.

Google

Pinterest

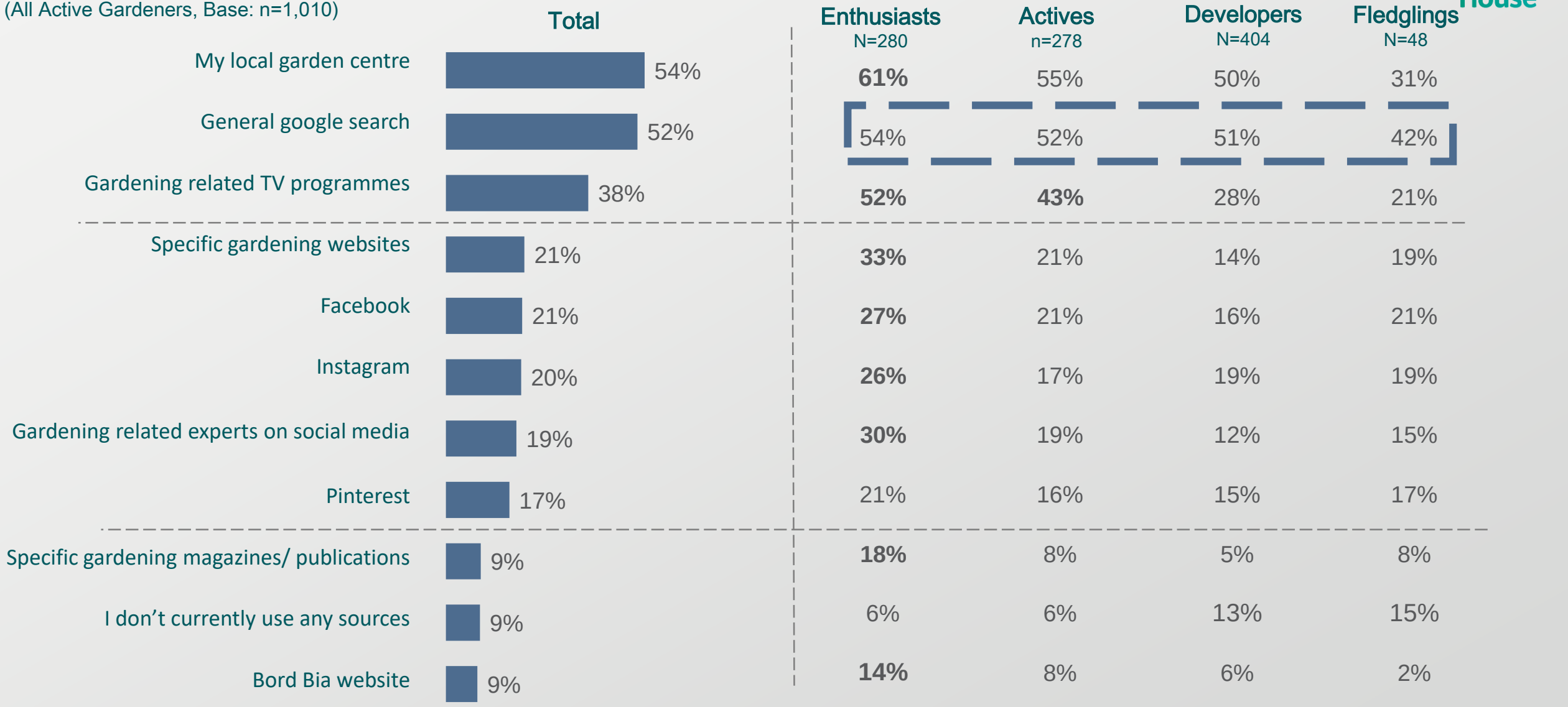
Instagram

IRELAND'S GARDENING COMMUNITY
Garden.ie

However there is no silver bullet in terms of an online partner that attracts a mass gardening audience

# Sources Used to Help with Gardening Activity

(All Active Gardeners, Base: n=1,010)




Outside of the local garden centre, a general Google search is the next highly prevalent source for helping with gardening activity – evident across all segments.



# Barriers to Gardening

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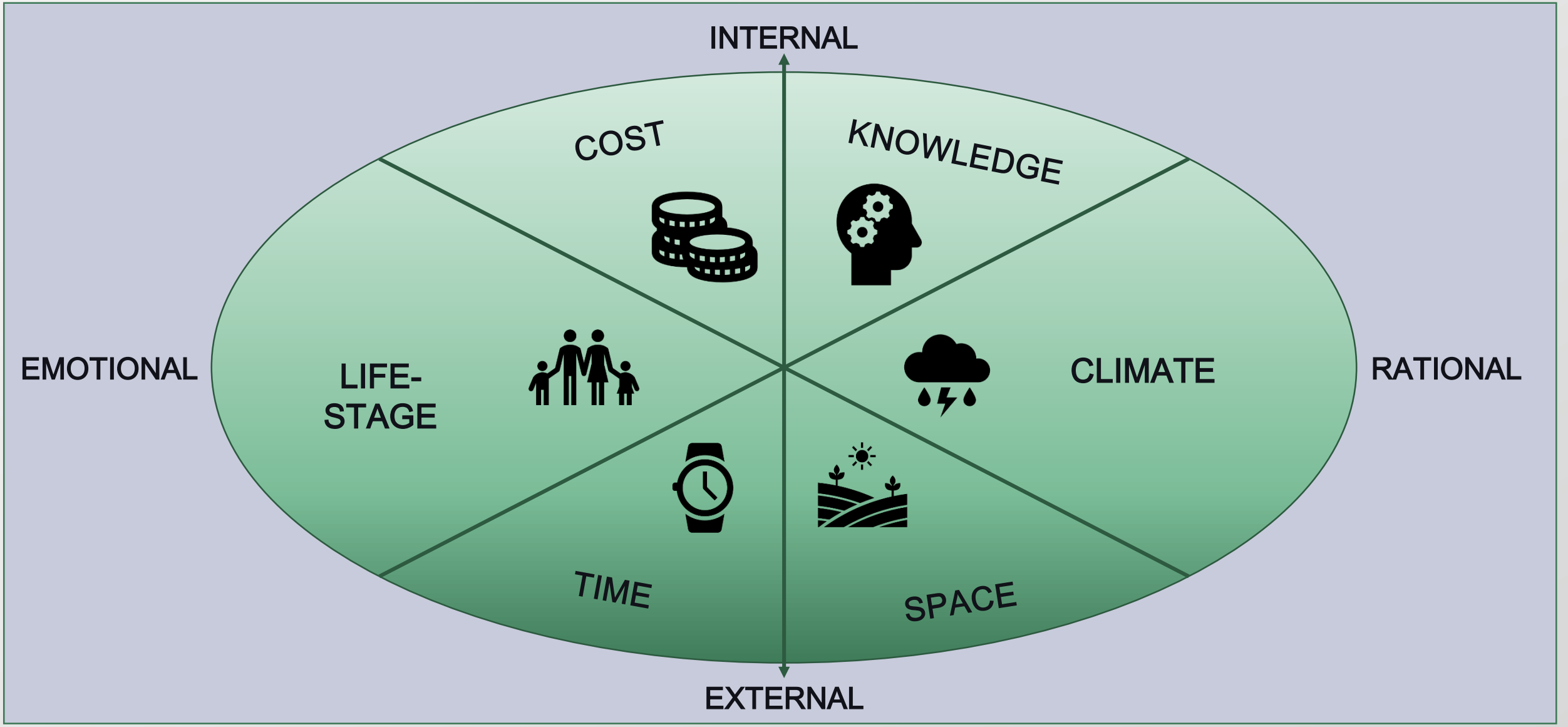
Photo by Travis Saylor from Pexels

# Macro Barriers Source: Qualitative Consumer Interviews

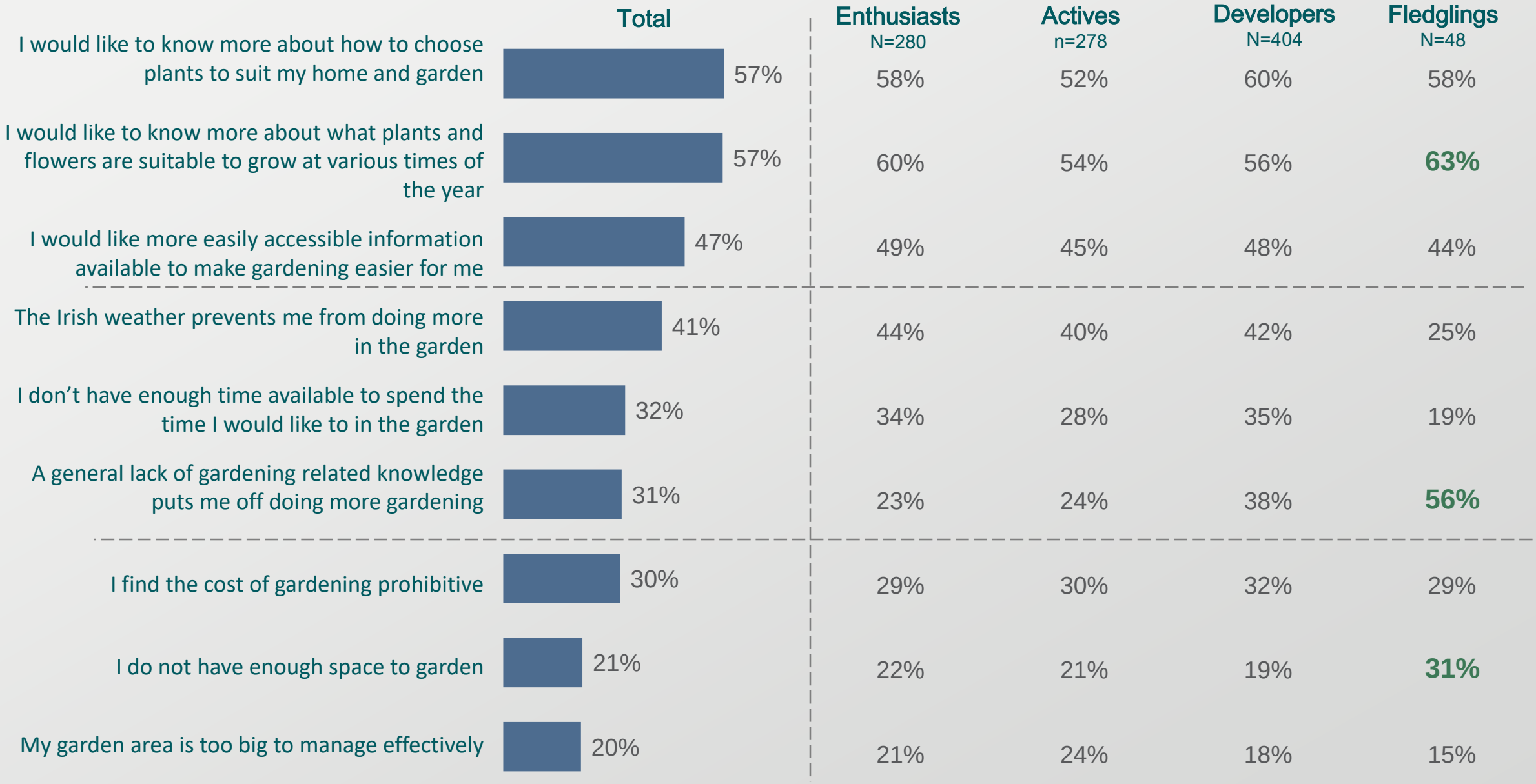


# Barriers to Doing More Gardening

(All Active Gardeners, Base: n=1,010)

*To what extent do each of the following represent you in terms of preventing you gardening more, if at all?*

(% Represents Me Well)



# Thirst For Knowledge

(* Based on % Represents Me Well)

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The desire for knowledge in the gardening area can be broken down in n=4 distinct aspects… each of which has greater resonance with specific gardener segments…

## DOMESTIC SUITABILITY

**57%**

of gardeners would like to know more about how to choose plants to **suit their home and garden**

Key For:

- Enthusiasts
- Developers
- Fledglings

## SEASONAL SUITABILITY

**57%**

of gardeners would like to know more about what plants and flowers are **suitable to grow at various times of the year**

Key For:

- Enthusiasts
- Fledglings

## KNOWLEDGE ACCESS

**47%**

of gardeners would like **more easily accessible information** available to make gardening easier for them

Key For:

- Enthusiasts
- Actives

## GENERAL KNOWLEDGE

**31%**

of gardeners would like **more easily accessible information** available to make gardening easier for them

Key For:

- Developers
- Fledglings

Photo by Tingey Injury Law Firm on Unsplash

# Lack of Time

## 32%

don't have enough time available to spend the time they would like in the garden

Key For:

- Enthusiasts
- Developers

## What Consumers said…

Unsurprisingly a Lack of time - due to busy lives - was referenced as a key barrier to gardening.

Consequently many are planting varieties that are low maintenance driven by the lack of time available to support the garden development.

*'We try and not do too much of the high maintenance shrubs'*

Enthusiast

*'The maintenance sure it's work, but it's worth it'*

Enthusiast

*'I've really only ever really done the very basics because both lack of time and lack of knowledge'*

Fledgling

Photo by Lukas Blazek on Unsplash

# Cost

**30%**

of gardeners find the cost of gardening prohibitive

Key For:

- All Segments

## What Consumers said…

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Cost also emerged as a key prohibitor across many of the segments.

Promoting broader 'Value' orientated benefits will be key to encourage those less engaged to participate more with their green space (e.g. health/ sustainability elements)

*'With the price of everything going up, people wouldn't have the disposable income to spend on the garden or those types of things'*

Fledgling

*'I think this year we won't be going on holiday so we'll invest what we would have spent on the garden'*

Fledgling

Photo by Visual Stories || Micheile on Unsplash

# Space – Too little!

What Consumers said…

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**21%**

of gardeners say they do not have enough space to garden

Key For:

- Fledglings

Positively – those with more limited space from a green space perspective were keen to try to enhance this space as best they can, be it balconies or just small back garden spaces.

Two particular aspects emerged as what is most prevalent for growing where space is at a premium…

*POTTED PLANTS*



*HERBS/ SMALL VEG*



Photo by RODNAE Productions from Pexels

# Case Study- Removing Lack of Space as a Barrier

BBC RADIO · THE SCOTSMAN · Belfast Telegraph · The Herald · Evening Standard Homes&Property

## Easy, Homegrown & Sustainable

Meet the GrowPod from AllotMe. The most sustainable way to grow your own vegetables from any sunny window sill. Making it easy to start seeing the benefits of growing your own food when you don't have a lot of space.

Get everything you need to start growing your own food at home using 90% less water than traditional methods, without the need for artificial lighting. The GrowPod is a Hydroponic growing method that uses a body of water instead of soil to efficiently help your plants to grow big and often.




£32.00 Add to Cart

*The Growpod by Allotme makes it easy to see the benefits of growing food when you don't have a lot of space.*

# Space – Too much!

## What Consumers said…

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**20%**

of gardeners say their garden area is too big to manage effectively

Key For:

- Enthusiasts
- Actives

We often focus on not having sufficient space as being a key barrier to gardening, but some gardeners felt having too much space can be a deterrent to more active engagement with gardening. The consensus was that its about maintenance as opposed to development currently – but the desire is there to do more.

*'It's a big garden, almost too big for one person to be trying to maintain all the time.'*

Active

*'We're currently living on about half an acre and have we have a lot of grass. We're thinking about investing in a ride on lawn mower because the steps are getting a bit tiring to be honest'*

Enthusiast

Photo by RODNAE Productions from Pexels

# Lifestage

While not a barrier in the more general scheme of things, it emerged from talking to consumers that that an individuals life stage hampers various elements that can encourage more gardening activity. Various barriers are more prevalent depending on where a person is in their lives…

**PRE FAMILY**
→ Time, knowledge, interest, space (renting)

**YOUNG FAMILIES**
→ Time, knowledge, cost

**MATURE FAMILIES**
→ Time, assistance, space

**POST FAMILY**
→ Assistance, physical effort, cost

*'The teenagers have absolutely no interest in doing anything with the garden other than sitting out there in the patio with the heater'*

Enthusiast

*'As people get older, they may not be able to look after the garden as well as they would like due to age or decline in health, this can lead to a sense of frustration'*

Expert Interview

Photo by Ekaterina Shakharova on Unsplash


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The Motivators
Photo by Xan Griffin on Unsplash

# Motivators for Gardening

*A review of the literature highlighted that motivators for gardening are multifaceted and include physical, mental and health aspects.*

Some individuals who garden acknowledge benefits to **physical fitness** (Ashton-Shaeffer & Constant, 2006), and others (Lewis et al., 2018; McFarland et al., 2018) reference **health/ nutrition** and **therapeutic aspects** as promoting factors. When comparing motivations for gardening across countries and cultures, Home and Vieli (2020) established that **(restoration from stress)** was the most compelling motivating factor in both Switzerland and Chile.

Growing food in the garden is associated with better **nutritional health** as well as other aspects such as **pleasure**, the promotion of **environmental protection** and **access to affordable and fresh food** (Kirkpatrick & Davison, 2018). Except for providing **resources and habitat for wildlife** (Salisbury et al., 2017) and as a means of **alternative food production** (Beavers et al., 2020), there are few other urban environmental ecosystem services that have been cited in previous research as strong motivating factors (Chalmin-Pui et al., 2021).





# Perceived Benefits of Green Spaces

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# Affect of Green Spaces

**Exposure to nature** benefits **psychological health, wellbeing, and quality of life** (Cox & Gaston, 2016; Dean et al., 2018) (Maller et al., 2006) ; White et al., 2019). According to Markevych et al (2017), potential **pathways linking greenspace to health are presented in three domains**, which emphasize three general functions of greenspace: **reducing harm** (e.g., reducing exposure to air pollution, noise and heat), **restoring capacities** (e.g., attention restoration and physiological stress recovery) and **building capacities** e.g., encouraging physical activity and facilitating social cohesion)

Research conducted by Cox et al, (2017) highlighted that of five neighbourhood characteristics tested, **vegetation cover and the abundance of birds in the afternoon** were positively associated with lower **prevalence of stress, depression and anxiety.**

In a study of green areas in urban spaces by Kondo et al, (2018), they found a consistent **negative association between exposure to urban green space and mortality, heart rate and violence while conversely discovered a positive association with attention, mood and levels of physical activity.**




Photo by S Migaj from Pexels

# Health Benefits Across Life-stages

Engagement in gardening activities has been demonstrated to foster and promote **family cohesion, social connection, mental and emotional wellbeing, stress moderation, depression and anxiety reduction** and improving **educational and cognitive outcomes in adolescents** Waliczek et al., 2001; Chawla., 2007; Ohly et al., 2016).

With regard to other **benefits for children**, other effects include **sense of accomplishment, satisfaction and pride** associated with nurturing plants, **feelings of mastery** among children who may struggle in the traditional academic setting, **improved self esteem** and **increased confidence** (Ohly et al., 2016).

Gardening has been demonstrated to have positive benefits on adult wellbeing and mental health with improvements in **life satisfaction, vigour, psychological wellbeing, positive affect, quality of life** (Gigliotti et al., 2004; Wakefield et al., 2007; Wood et al., 2016) and **reductions in stress, anger, fatigue, depression and anxiety** (Wood et al., 2016; Van den Berg & Custers, 2011; Wilson & Christensen., 2011).

Participation in gardening has been demonstrated to have both **long term and immediate benefits for mental health outcomes**. Gardening for several hours has shown to have instantaneous reductions in symptoms of depression and anxiety while also being associated with **reductions in stress and increased life satisfaction** (Soga et al., 2017).



Photo by Isaac Quesada on Unsplash

# Potential Claims Areas for Motivators of Gardening

Typologised based on academic research and utilised to develop claim areas

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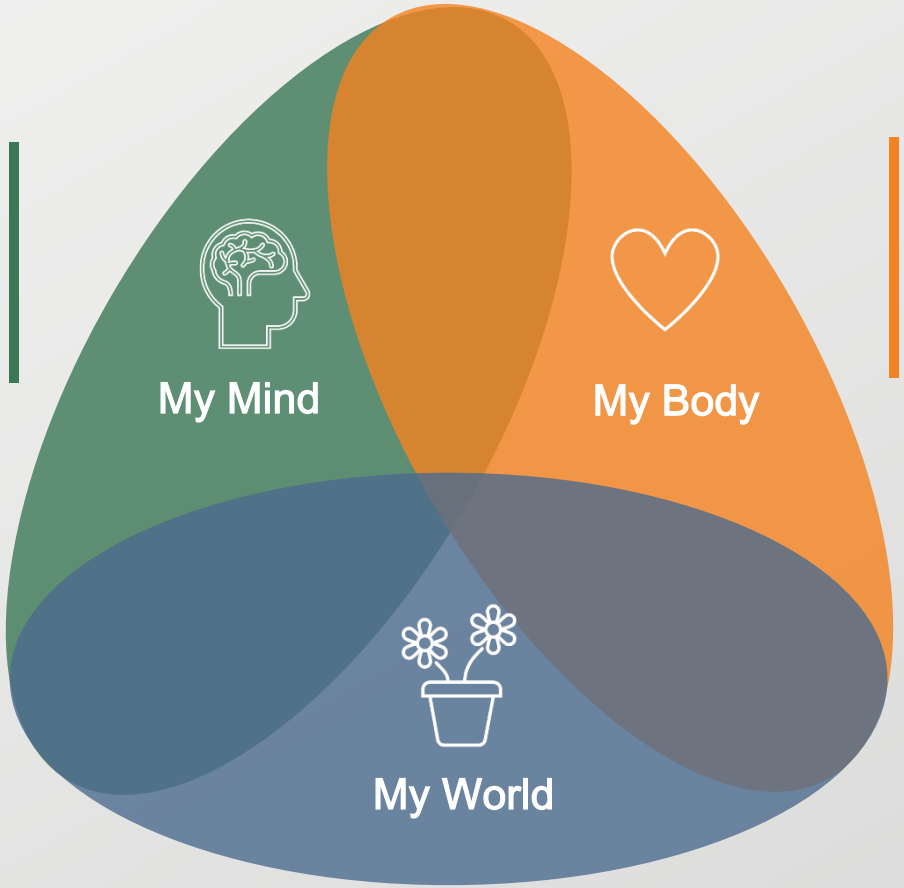
This refers to the **mental health benefits** that are associated with gardening




This refers to the **physical health benefits** that are associated with gardening

This refers to the motivators that are associated with the **development and improvement of the external environment** that is the garden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Mental Health Benefits

# Overview- Mental Health Benefits



# Significant associations were found between **improvements in well-being, perceived stress and physical activity** and more frequent gardening.

A study conducted in the UK found that for someone who **gardened daily**, compared to an individual who did not garden at all, **well-being scores were 1.84 times higher** (Chalmin-Pui et al., 2021).

The study by Chalmin-Pui et al., is the first piece of research to report a **'dose response'** with respect to **frequency of gardening** improving resident's well-being. Increments on self-reported health were clearly evident as gardening increased to 2–3 times a week, and then again when frequency increased to daily.

Numerous international studies have demonstrated that gardens **prevent stress** and contribute to **stress reduction** in participants while supporting the capacity to support **stress regulation** (Cohen et al., 2012, Thoits, 2010, Stigsdotter & Grahn, 2004, Adevi & Mårtensson, 2013; Cervinka et al., 2016; Young et al., 2020)

An American study highlighted that gardening may lead to a reduction in the incidence of **depression** in long-term care Residents (Rappe & Kivela, 2005).

A meta- analysis of twenty- two case studies by Soga et al, (2017) which comprised 76 comparisons between control and treatment groups showed reductions in **depression and anxiety symptoms** through participation in gardening



# Gardening increases measures of **cognitive functioning and improves mood**




A meta- analysis of twenty- two case studies by Soga et al, (2017) which comprised 76 comparisons between control and treatment groups showed an **increase in cognitive function** as a result of gardening.

A study conducted by (Van den Berg & Custers, 2011) demonstrated that after being subjected to a stressful task and then being assigned to **30 minutes of outdoor gardening**, a **decrease in salivary cortisol levels** were measured along with **full restoration of positive mood.**

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**79%**

of Irish gardeners are interested in finding out more about plants that can be used to promote health

Source: Opinions 2022

Photo by cottonbro from

# Gardening fosters **community spirit and feelings of involvement**




Multiple studies conducted in the US demonstrate the effectiveness of community conservation and gardening programs for revitalizing and strengthening neighbourhoods including **fostering neighbourhood social ties and interaction, neighbourhood pride, community involvement and feelings of safety and adjustment** (Armstrong, 2000; Glover, 2004; Glover, Shinew, & Parry, 2005; Hung, 2004; Saldivar-Tanaka & Krasny, 2004).

It has been reported that the **social interactions** provided by communal and therapeutic gardens can **delay the symptoms of dementia** (an effect that might be partly due to the beneficial effects of exercise (Simons et al., 2006).




Photo by Anna Shvets from Pexels

# What Gardeners think…




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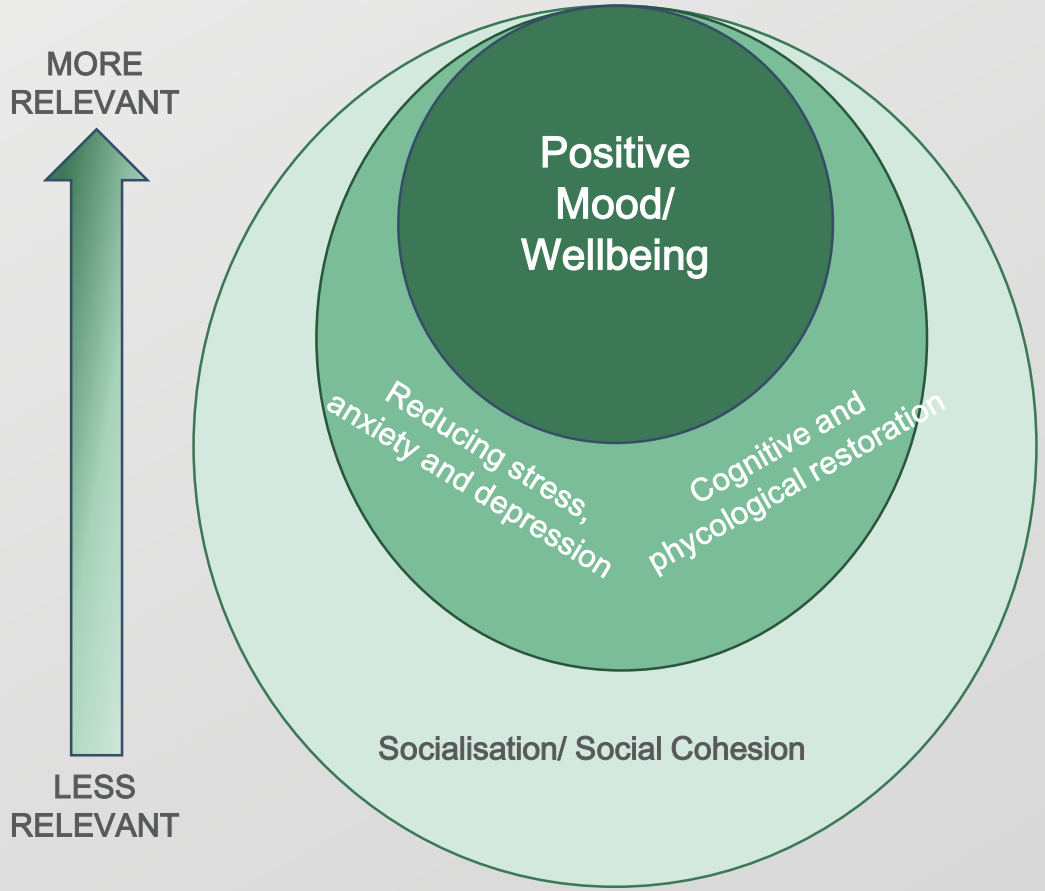
- **Positive mental health associations** with gardening very **top of mind** with consumers, driven by a general sense of **positive wellbeing** and **mood enhancement.**

- Aspects around reduced **symptoms of stress, anxiety and depression** as well as psychological restoration tend to be **sub-components** of an overall mental wellbeing/ mood benefit to gardening activity.

- The use of the garden as an **environment to connect with family and friends** rose to the fore during the Covid- 19 lockdowns as a safer space to socialise. Gardeners view the garden as an **extension to the home** that allows family and friends to connect in an environment that is considered to be more natural than indoors.




*'I call it my happy place'*

Enthusiast

*'It's therapeutic'*

Fledgling

*'We got a greenhouse during lockdown. We have teenagers and they sit with their friends out there. It's like a brand new room'*

Active

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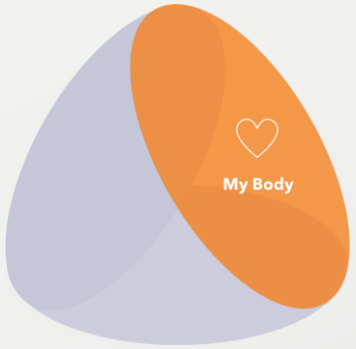
# Physical Health Benefits



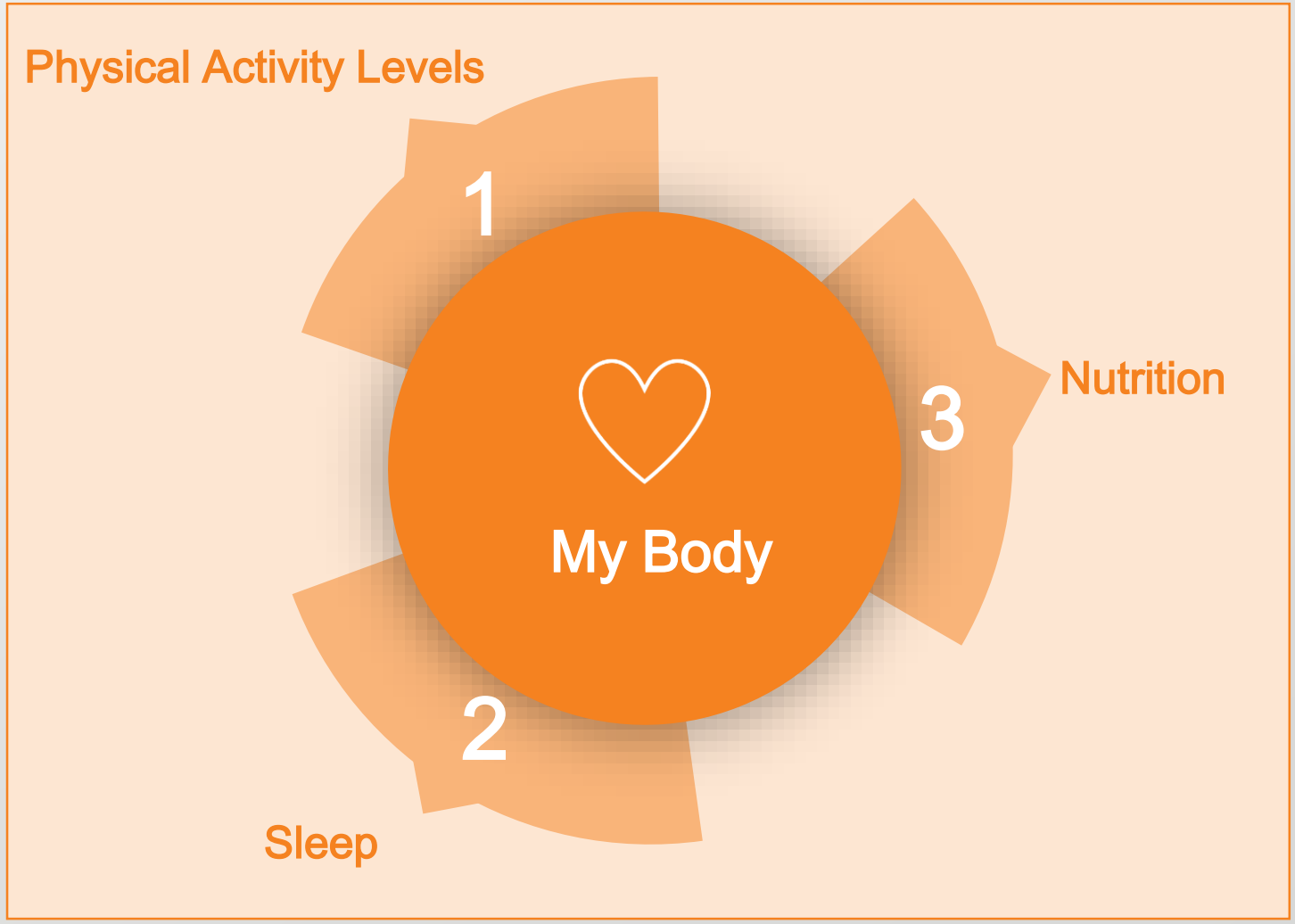
Photo by Marcus Aurelius from

# Motivating Platforms – My Body




*The physical health benefits and associated motivators of gardening*

The physical health benefits associated with gardening are less numerous than the mental health benefits but are diverse in their range with a number of key potential messages within this platform.



# Gardening can meet daily exercise requirements

According to research conducted by  Park et al, (2014) gardening tasks performed by adults are moderate- to high-intensity physical activities which **can meet daily exercise requirements.**

A meta- analysis of twenty- two case studies by Soga et al,  (2017) which comprised 76 comparisons between control and treatment groups showed **increase in physical activity levels** as a result of gardening.

This finding is echoed by a study conducted by Corley et al. (2021) of older adults in the UK which observed an association of **better self-reported physical health** with more garden use.

Increased physical activity associated with gardening promotes **physical strength, fitness and flexibility** levels as well as offering a myriad of psychological health benefits (Wang & MacMillan, 2013).

Regular physical activity contributes to **healthy aging** and also **reduces the risk of a number of chronic diseases** (Leskinen et al., 2018).

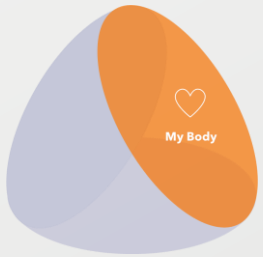
A meta- analysis of twenty- two case studies by Soga et al,  (2017) which comprised 76 comparisons between control and treatment groups showed **reductions in BMI**.

This was also backed up by a review of the scientific literature by Schmutz et., al. (2014) highlighted that **increase overall levels of physical activity and fitness**, **burn more calories** and hence contribute to **healthy weight management** and **reducing the risk of obesity.**




Photo by Anna Shvets from Pexels

# Gardening improves sleep quality and quantity




A study conducted by Corley et al. (2021) of older adults in the UK which observed an association of **better self-reported sleep quality** with more garden use.

This finding is supported by numerous studies which have found that **exposure to the natural environment** is a critical factor for both **sleep quality and quantity** in adults (Grigsby-Toussaint et al., 2015), (Shin et al. 2020) and older people specifically (>60 years) (Sia et al., 2020).

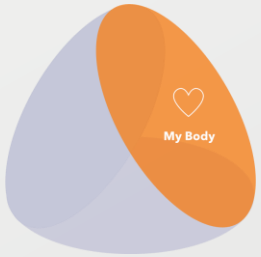
**82%**

of gardeners would like to improve the quality and quantity of their sleep

Source: Opinions, 2022

Photo by sergio souza from Pexels

# Gardeners eat more fruit and vegetables (and their children do too)




A review of the scientific literature by Schmutz et., al. (2014) highlighted that **regular involvement in gardening or community food growing projects**, or formal horticultural therapy, can **increase healthy fruit and vegetable consumption**, **for adults** that grow food, **and among schoolchildren** participating in food-growing activities at school – as well as **improving young people's attitudes to healthy eating.**

These findings were backed up by a study conducted by Sommerfeld et al. (2010) who found that **gardeners were more likely to consume vegetables than non- gardeners.**




Photo by RF._.studio from Pexels

# What Gardeners think?

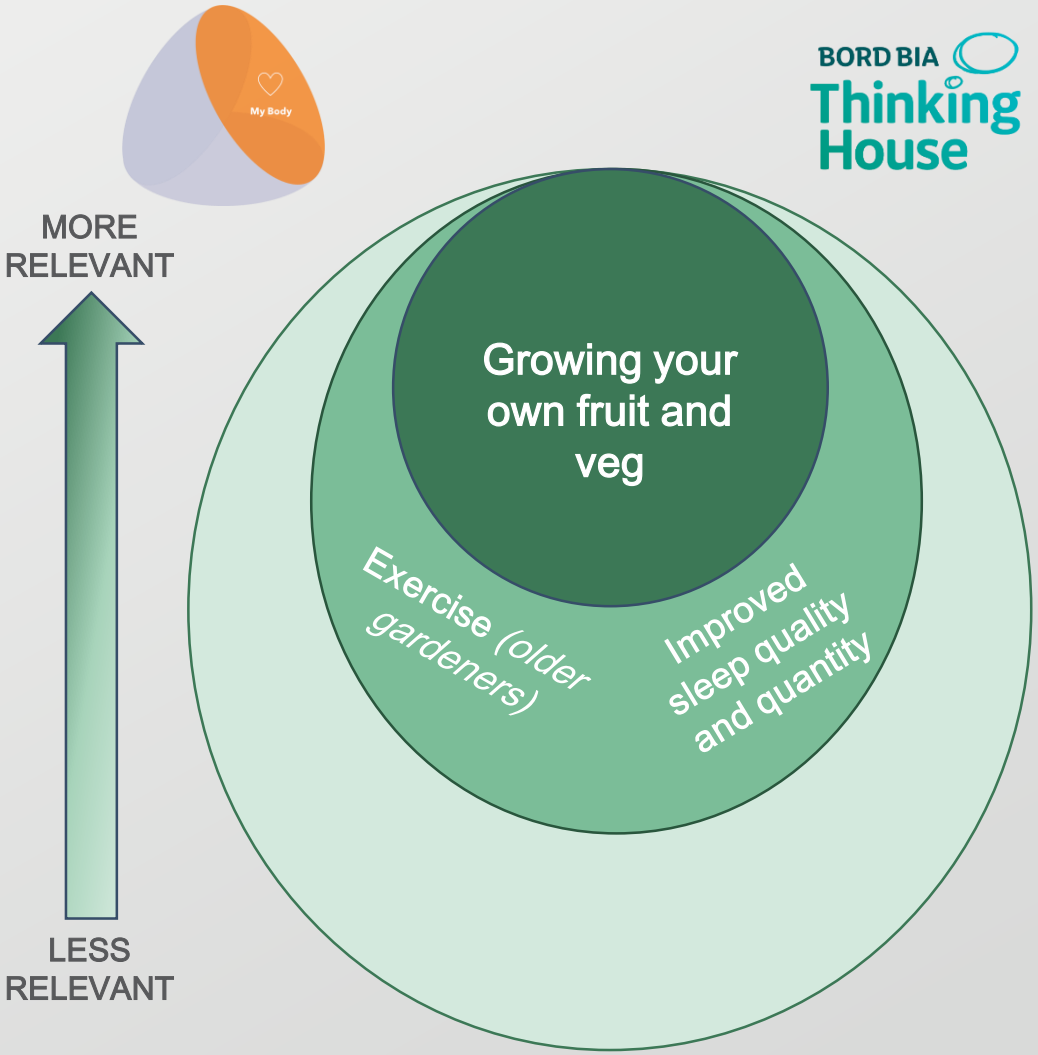
Consumers tended to have a **mixed reaction to the actual physical health benefits** of gardening…

- There is a universal acceptance that being outdoors doing some manual work such as digging and mowing will of course be beneficial for health.

- However a **polarising view exists based on exercise requirements** and weight loss… older (more active gardeners) cohorts tended to engage with this benefit better than younger (less active gardeners) who are sceptical that gardening activity meets their requirements.

- All consumers tended to agree that **growing their own fruit & veg would encourage more consumption of this produce**, especially among those in family life-stages where vegetable consumption in particular is a challenge. Consumers believed that growing their own produce in this space **means it is tastier and more nutritious** than what they would buy in the supermarket.

- While certainly not a top of mind physical health benefit, **improved sleep was something that made them stop and think**, and an acceptance that gardening would help with this challenge many respondents claimed to have.




*'During Covid-19, I reached 40,000 steps because I was out in the garden all day'.*

Enthusiast

*'The fruit and veg that you grow tastes totally different from the stuff you buy in the shops, it's so much better'.*

Enthusiast

# Sustainability Benefits

*There are limited sources of information relating to the sustainability-related benefits of gardening. Therefore, our sources are taken from qualitative consumer and expert interviews.*

Photo by Kelly L from Pexels

# Motivating Platforms – My World




*The motivators associated with the development of the physical space that is the garden*

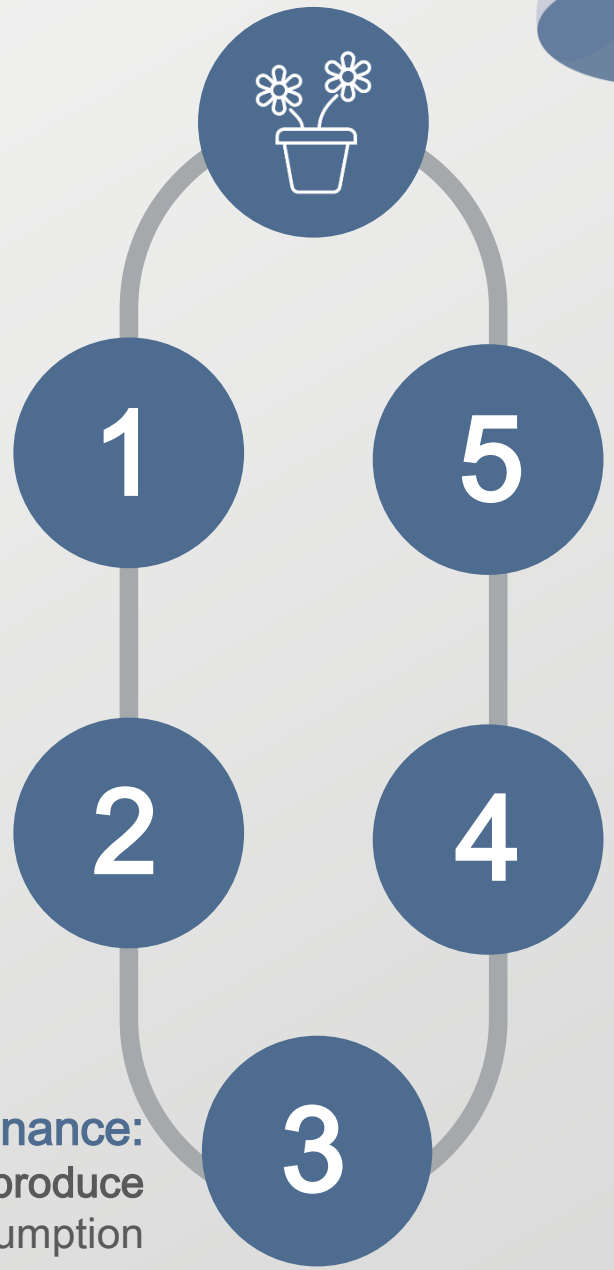
The motivators for the development of a garden space are multifaceted and range from frivolous to functionally motivated while also being either internally or externally focussed. A series of sustainability based angles are represented in this space.



# Motivating Platforms – My World




BORD BIA Thinking House



**Impress:**
**Creating a space that wows** family, friends and neighbours

**Eco:**
A space that **protects and promotes the health of the environment** and the creatures within it

**Sustenance:**
A space that is used to **produce natural edibles** for consumption

**Escape:**
A space that allows you to **disconnect from the hustle bustle** of modern life

**Social:**
A space that is used to **facilitate connection and bonding** with your nearest and dearest

# A Focus on the Eco Motivations




Consumer conversations highlighted that the eco motivations related to gardening are relevant and compelling for most gardeners- Biodiversity elements for all cohorts and the environmental benefits from Grow it yourself among younger gardeners. From our expert interviews we identified n=5 specific eco motivation territories…

1. Biodiversity
2. Water Capture
3. Waste Reduction
4. GIY- Reducing Carbon
5. GIY- Reducing Packaging

*'It might be cheesy but each one of us can make a difference'*

Fledgling

*'I do think gardening is becoming cooler and hipper because of the environment'*

Fledgling

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**82%**

of Irish gardeners would like to do more at home to help the environment

Source: Opinions, 2022

Photo by Louis Maniquet on Unsplash

# Biodiversity




Aspects around Biodiversity were very top of mind among consumers – with some actively leaving a ‘nature-friendly’ space in their gardens and others conscious of seeing these spaces more and more in their communities. Many felt this is something that could actively encourage their children to spend more time in the garden given they are being educated around wildlife and pollinators. However despite the growing popularity of this trend, there is a sense of a knowledge gap in terms of how gardeners should approach incorporating a nature friendly space into their garden.

*‘The next generation do believe that they are going to save the world’*

Fledgling

*‘The kids are big into the environment, probably through school. They understand the importance of the bees’*

Active

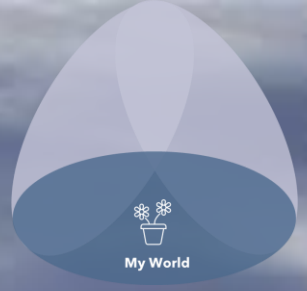
**65%**

of Irish gardeners in families would like their children to learn more about sustainability

Source: Opinions, 2022

Photo by Michael Hodgins from Pexels

# Moving Towards Balance

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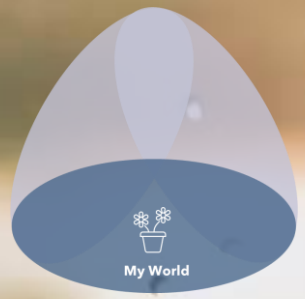
Some gardeners we spoke to leave a space in the garden ‘wild’ while continuing to manage the rest of the garden. This trend towards balance is driven by the motivation to promote biodiversity within their own green space as another element to ‘impress’. Many consumers without these natural spaces felt they could visualise the appeal of this in their own garden space, but again are unsure about how to transition to this state of balance within their garden.

*‘A lot of businesses in town have dedicated their front space to gardens and I thought that doesn’t look half bad at all’*

Active

Photo by Pille Kirsi from Pexels

# Water Capture

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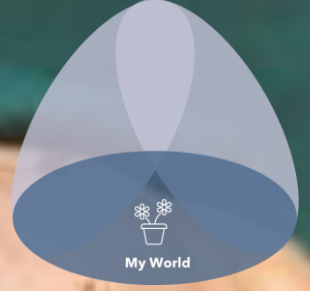
Consumers consciously understand the benefit of water capture in their garden from a sustainability perspective, but tended to be viewed as more of a ‘nice to have’ than a ‘need to have’ than a ‘would love to have’ in terms of providing a sustainability benefit.

Photo by Amritanshu Sikdar on Unsplash

# Waste Reduction

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Gardeners reported that composting is the natural association for waste reduction when it comes to gardening. While this practice engages many, only few are currently doing this and the practice is more frequent among those with larger green spaces.

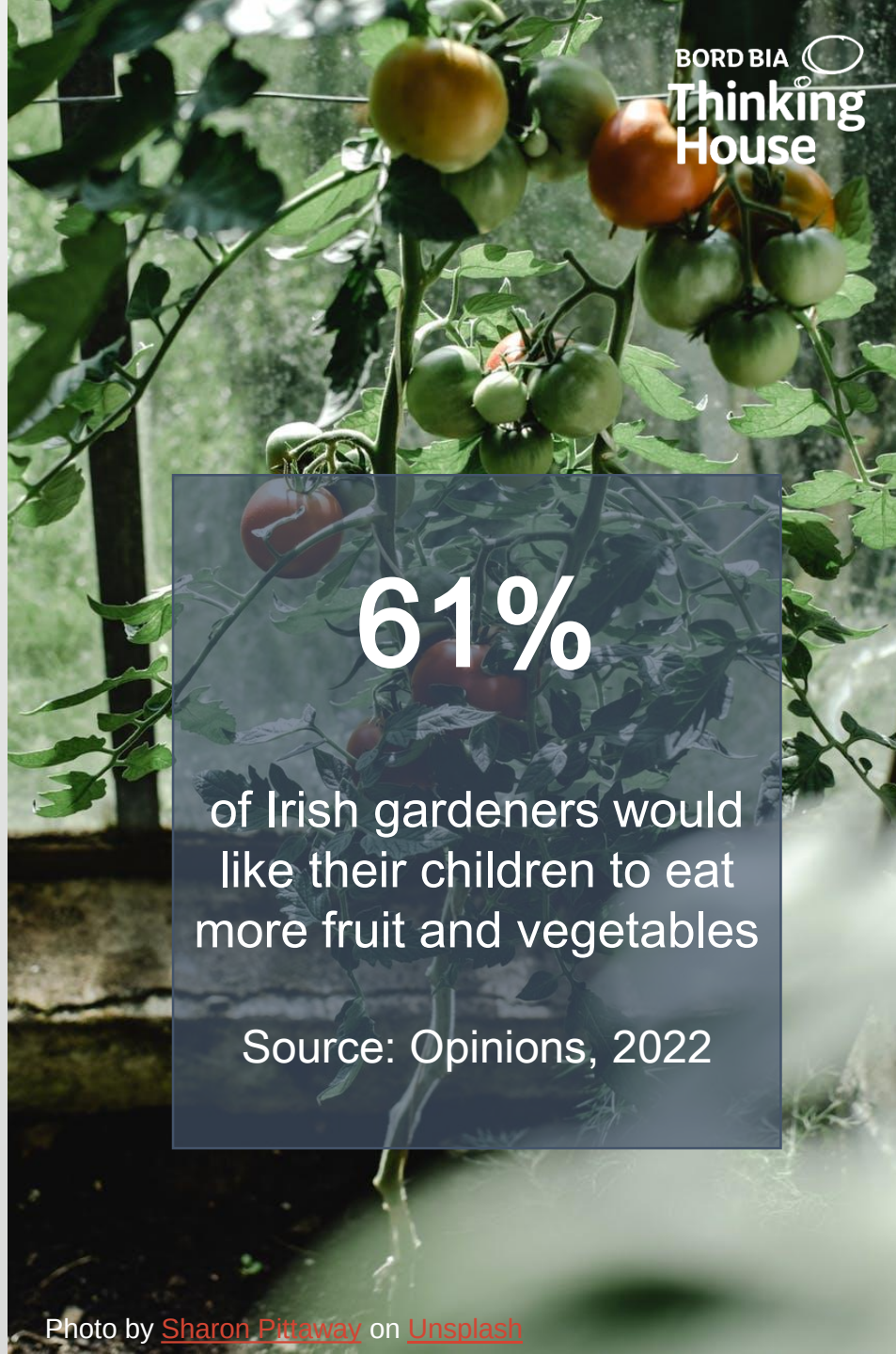
# The compelling nature of “Grow Your Own”




Given its prevalence in terms of engagement with the gardeners across all groups, “Grow your Own” crosses both the health and sustainability divide in terms of potential messaging to engage the market.

The perceived benefits associated with growing one’s own fruit and vegetables are plentiful;

1. Reducing your carbon footprint
2. Reducing food waste
3. Growing food pesticide free
4. Reducing use of plastics
5. Great taste
6. Natural nutrition
7. Encourage greater vegetable uptake in families



# The Power of Community to Improve Locality

Gardening with neighbours and the community was referenced by consumers as a way that they improve their local area. As well as the improvements that this creates for the locality it also strengthens social cohesion and feelings of connection in the community.

And while some respondents currently engage in local community gardening initiatives, many again reported a lack of knowledge of particular groups in their locality in this space while again the lack of time for many was a key obstacle to investigating this further.

‘You meet people that you wouldn’t usually bump into through helping clean up and improve the local area. It can be a very social activity ’

**Active**

‘It’s brought the community together’

**Active**



Photo by Shane Rounce on Unsplash

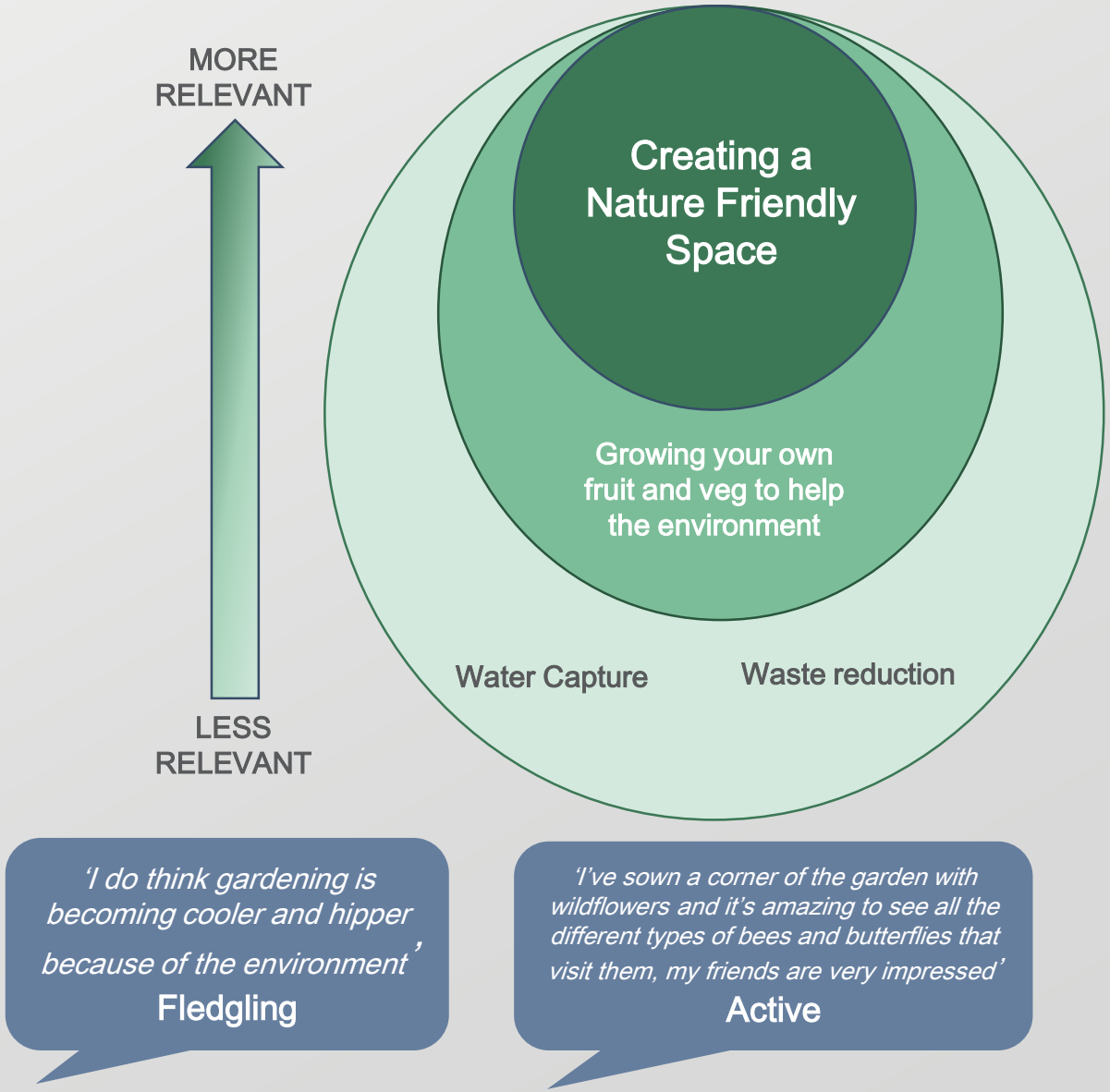
# What Gardeners think?

Enhancing the biodiversity of the garden or 'leaving space for nature' and growing fruit and vegetables to help the environment resonated most among the 'My World' claims. The traction of these claims among gardeners reveal a 'creating a better future' theme that is most relevant and compelling among younger, less experienced gardeners.

Among gardeners in family life-stages, the garden is used as a sanctuary to escape from the stresses of modern day life.

Gardeners reported that gardening with the community can be used as a means to improve their local area while fostering social connection (see My Mind claims).

The garden as a means for the collection of water and of food waste reduction was less top of mind among gardeners and also less compelling as a motivator to encourage more gardening.



From the various data sources collected, we then developed a series of potential messages for each of the motivational pillars to take through to quantitative testing to identify the optimal performers for development.

# Claims to Potential Messages - My Mind

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| Attribute | Specific claim | Potential Message | Target Audience | Proof Points |
|---|---|---|---|---|
| **Wellbeing** | 30 mins of gardening improves mood | Just 30 mins of gardening improves **mood** | Focus on those with busy lives | • Chalmin-Pui et al., 2021<br>• '*When you're out in the garden, you're releasing endorphins which make you feel good*' Enthusiast |
| **Stress** | Stress Reduction | Get into the garden and **out of your head** | All | • Chalmin-Pui et al., 2021<br>• Ambrose et al. 2020<br>• '*It's therapeutic*' Fledgling |
| **Cognitive Restoration** | Gardening provides cognitive restoration | Get into the garden and **reset** | All | • Van den Berg & Custers, 2011. |
| **Wellbeing** | Higher well-being scores associated with the cultivation of vegetables over ornamentals, and attributed this to a strong sense of purpose linked to growing one's own food. | Grow you own and **harvest with pride** | All | • Ambrose et al. 2020<br>• 'I*f I cut flowers and greenery from the garden and leave them on the table, I say that's really nice, I didn't have to buy those*' Enthusisast |
| **Social connection** | Gardening fosters social ties and interaction | **Connect** with friends and community through gardening | All | • Armstrong, 2000<br>• Glover, 2004<br>• Glover, Shinew, & Parry, 2005;<br>• Hung, 2004; Saldivar-Tanaka & Krasny, 2004<br>• '*Three of the neighbours came over and helped him over a weekend. They're good friends now.*' Active<br>• '*It's a nice way to hang out with the twelve year old.*' Active |

# What We Developed… Mental Health Related

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## Just 30 mins of gardening improves your mood

Research shows that just 30 mins of gardening improves your mood, releasing natural endorphins and hor
associated with being happ

*So let your garden enha
mental wellbein*







## Get into the garden and reset

Studies indicate that gardening is an effective way of restoring a clear head and improving your mood

*Reset your mind by escap
garden.*



## Grow your own and harvest with pride

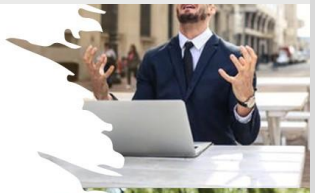
Studies show higher well-being scores and a strong sense of purpose is linked to growing one's own fruit and vegetables.

*So grow your own and harvest with pride.*

## Get into the garden and out of your head

Numerous international studies show gardening is proven to reduce levels of cortisol in our bodies (the stress hormone) – a natural way to ease the pressures of our lives.

*So let your garden restore your mental wellbeing.*





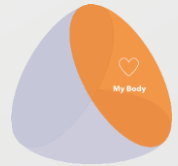
## Connect with friends and community through gardening

Many studies demonstrate the effectiveness of community gardening programs for fostering social interaction, neighbourhood pride, and feelings of safety and adjustment.

*So reconnect through gardening.*



# Claims to Potential Messages - My Body




BORD BIA Thinking House

| Attribute | Specific claim | Potential Message | Target Audience | Proof Points |
|---|---|---|---|---|
| **Grow Your Own – Children** | Regular involvement in gardening or community food growing projects, or formal horticultural therapy, can increase healthy fruit and vegetable consumption among schoolchildren participating in food-growing activities at school – as well as improving young people's attitudes to healthy eating. | Want your **kids to eat more veg**? Let them grow it themselves. | Families | • Schmutz et., al. 2014<br>• Sommerfeld et al. (2010) |
| **Physical Health** | **Gardeners experience better self-reported physical health** | **Improve your physical health** with gardening | Mature Family, Empty nesters | • Corley et al. (2021) |
| **Grow Your Own - Taste** | Homegrown fruit and veg tastes better | Grow in season and reap the **natural taste benefits** that Irish produce brings | All | • 'The taste of your own veg is totally different from anything you buy in the supermarket' Enthusiast |
| **Physical Activity** | Gardening is a low impact, highly rewarding form of physical exercise | Get **regular physical exercise** through gardening | Mature Family, Empty nesters | • Soga et al, 2017<br>• Schmutz et., al. (2014)<br>• 'During Covid I reached 40,000 steps because I was out in the garden all day'. Enthusiast |
| **Sleep** | Improves both sleep quality and quantity | Get into the garden and get a better nights **sleep** | All | • Corley et al. (2021)<br>• Grigsby-Toussaint et al., 2015<br>• Shin et al. 2020<br>• Sia et al., 2020 |

# What We Developed… Physical Health Related

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## *Want your kids to eat more veg?* Let them grow it themselves

Regular involvement in gardening, community food growing projects, or food-growing activities at school can increase healthy fruit and vegetable consumption among schoolchildren – as improving young people's a healthy eating.

*Nurturing goodness the rig*

## Improve your physical health with gardening

Studies show that regular gardening activity can help decrease blood pressure and cholesterol levels as well as lower your risk for diabetes and slow osteoporosis.

*Gardening – a natural way to improve your physical health.*





## Get regular physical exercise through gardening

Gardening is a low impact, highly rewarding form of physical exercise – 30 minutes daily will help increase flexibility, strengthen joints and burn calories.

*Get active – get gardening.*





## Grow in season and reap the natural taste benefits that fresh produce brings

Ireland is famous for its climate and the natural produce that is grown all year round. Growing in season lets you benefit from the ripest natural tasting fruit and veg from your own garden space.

*Taste the goodness of home-grown seasonal produce.*









## Get into the garden to help with a better night's sleep

Studies have shown an association of better self-reported sleep quality with more gardening activity. Exposure to the natural environment is a critical factor for both sleep quality and quantity in adults.

*Gardening – a natural way to a restful night's sleep.*

# Claims to Potential Messages - My World



| Attribute | Specific claim | Potential Message | Target Audience | Proof Points |
|---|---|---|---|---|
| **Biodiversity** | Taking some simple actions will help to provide much needed food and shelter for our pollinating insects while creating a unique garden space packed with the beauty of nature. | Enhance your garden with a nature friendly wild space | All – focus on Families | • Schmutz et., al. 2014<br>• Sommerfeld et al. (2010) |
| **GIY** | Growing your own veg is super easy and can reduce your carbon footprint by not using plastics | Grow your own to help the environment | All | • Workshop outputs |
| **Nature Friendly Space** | Creating an area that promotes biodiversity in your garden can educate children about gardening and the environment | Get children excited with nature friendly wild spaces | All – focus on Families | • Workshop outputs |

# What We Developed… Sustainability Related

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## Enhance your garden with a nature friendly space

Taking some simple actions by creating a nature friendly space in your garden will help provide much needed food and shelter for our pollinating insects while creating a unique garden space packed with the beauty of nature.

*Bring the beauty of nature into your garden.*





## Get children excited about the garden with nature friendly spaces

With children learning more and more about the environment and biodiversity, creating a nature friendly space in your garden will bring this learni
them see our pollinators in
beauty of flowers in their ga

*Growing minds with nature
spaces*

## Grow your own to help the environment





Flowers, fruits and vegetables you buy in the supermarket come from all over the world, possibly with high food miles and plastic packaging. Growing your own fruit, veg and flowers can help contribute to solving some of these environmental challenges.

*Better for you and better for the environment.*



# Gardening Association with Claims

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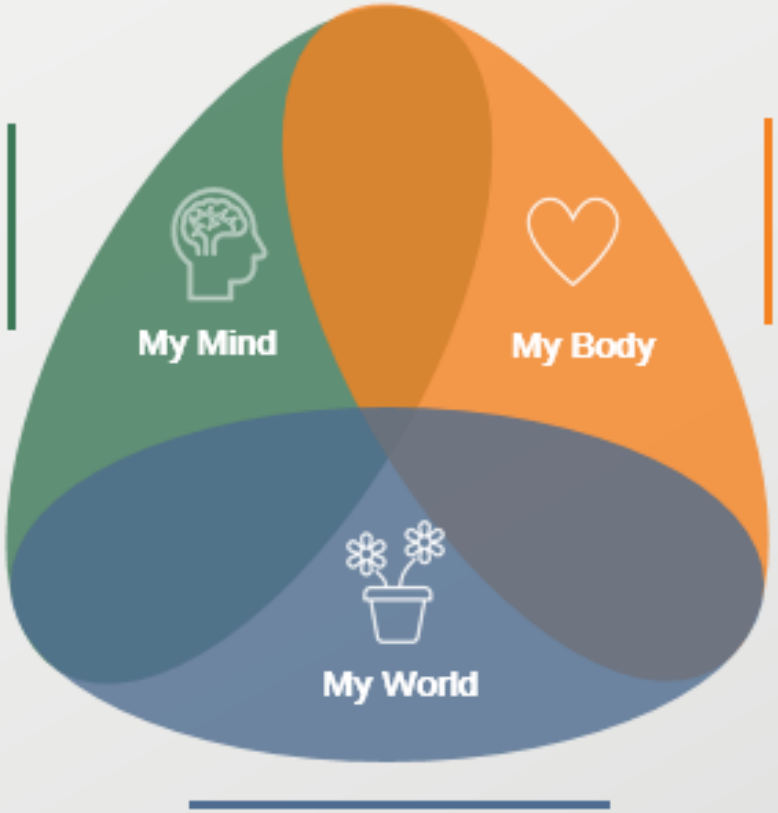
Photo by Lisa Fotios from Pexels

# Gardening Association with Claims




When asked about the strength of association of gardening with health and sustainability claims, overall there is the strongest association with the **My World** and **My Mind** Claims territories however, **My Body** Claims resonate more strongly with the Enthusiast & Active segments, coinciding with older life-stages.

# Gardening Association with Claims (% Strongly Agree)

(All Active Gardeners, Base: n=1,010)

My World / My Body / My Mind

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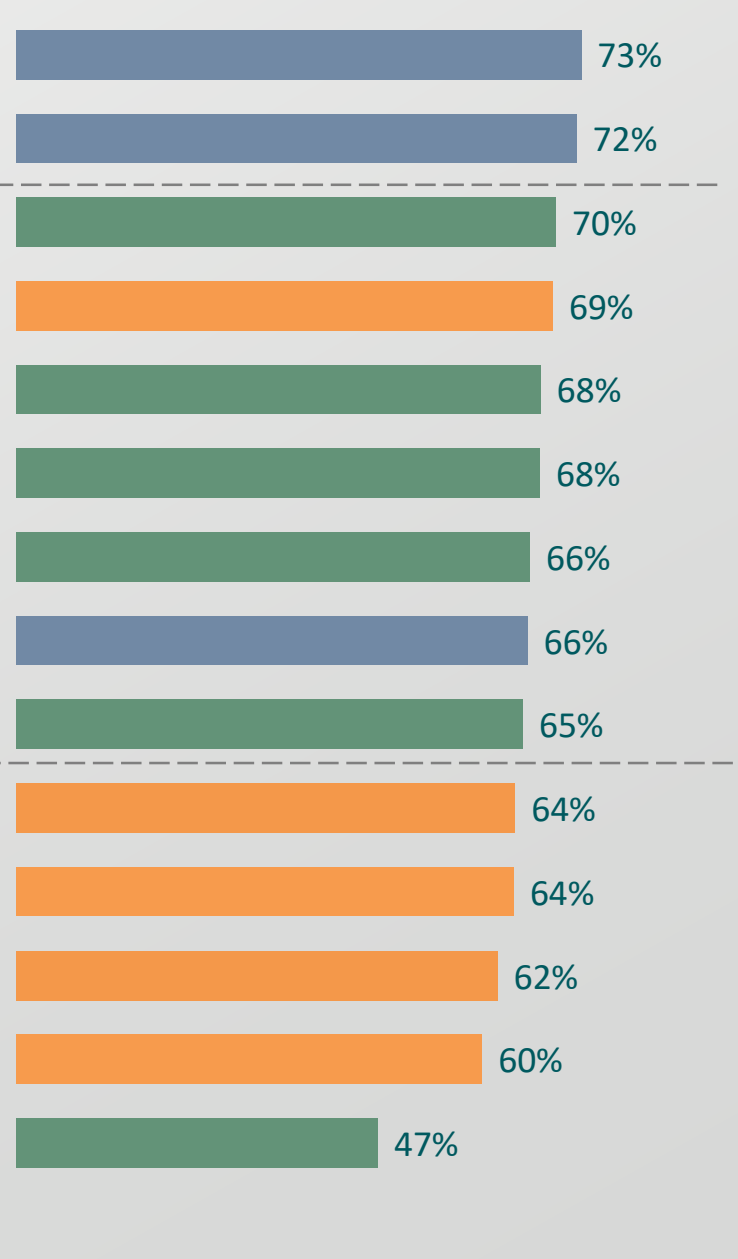

# Gardening Association with Sustainability Claims

My World

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(All Active Gardeners, Base: n=1,010)

Below details how well each sustainability related claim performed in terms of positive endorsement among the sample.

| | Total N=1010 | Enthusiasts N=280 | Actives n=278 | Developers N=404 | Fledglings N=48 |
|---|---|---|---|---|---|
| Growing your own fruit and vegetables helps reduce food miles and plastic packaging | 73% | 80% | 73% | 68% | 75% |
| Creating a nature friendly space in your garden helps provide food and shelter for our pollinating insects | 72% | 81% | 72% | 68% | 60% |
| Creating a nature friendly space in your garden helps children learn about insects and the environment | 66% | 77% | 67% | 58% | 65% |

# Gardening Association with Mental Health Claims

(All Active Gardeners, Base: n=1,010)

My Mind

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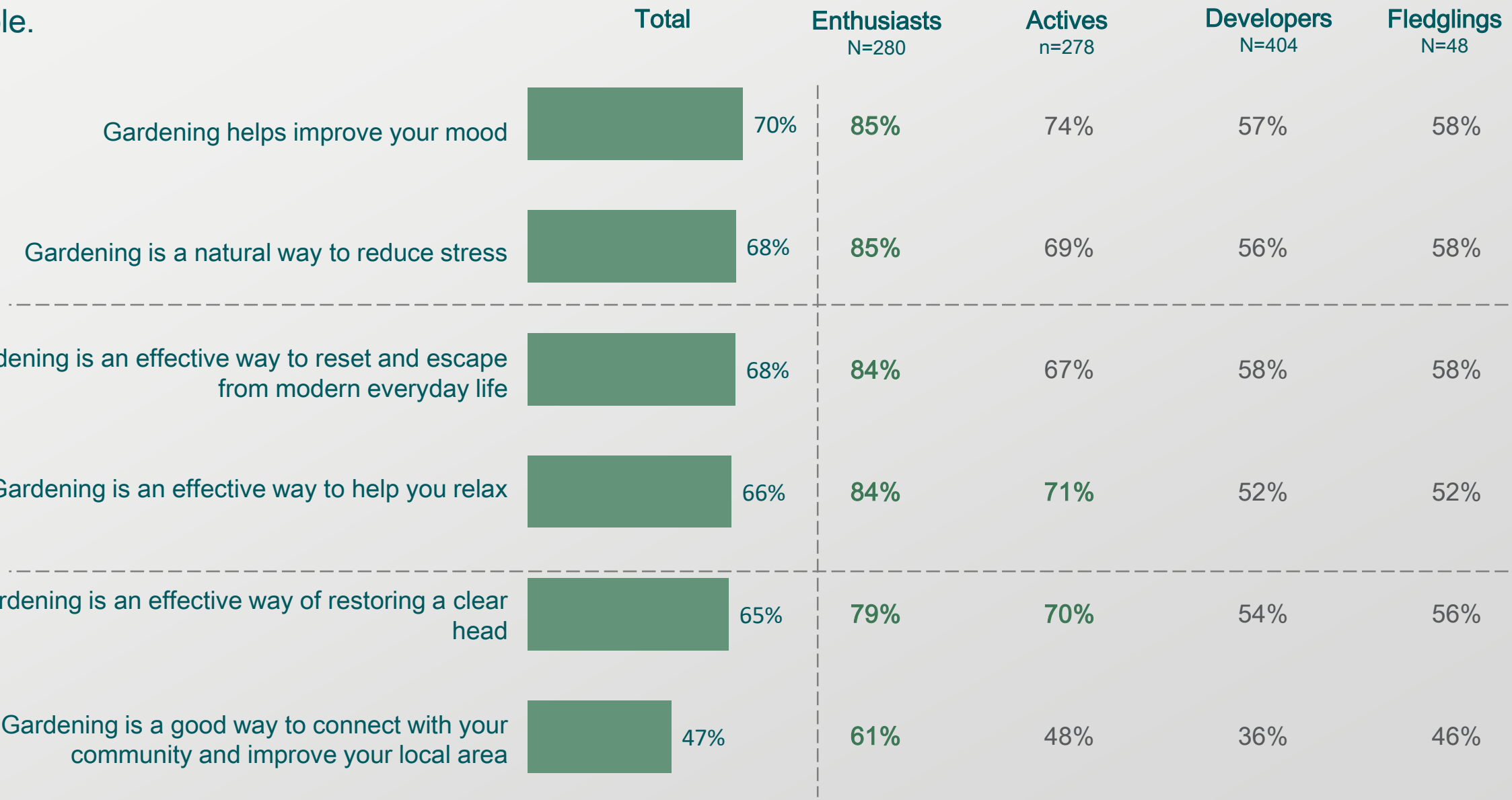
Below details how well each mental health related claim performed in terms of positive endorsement among the sample.



# Gardening Association with Physical Health Claims

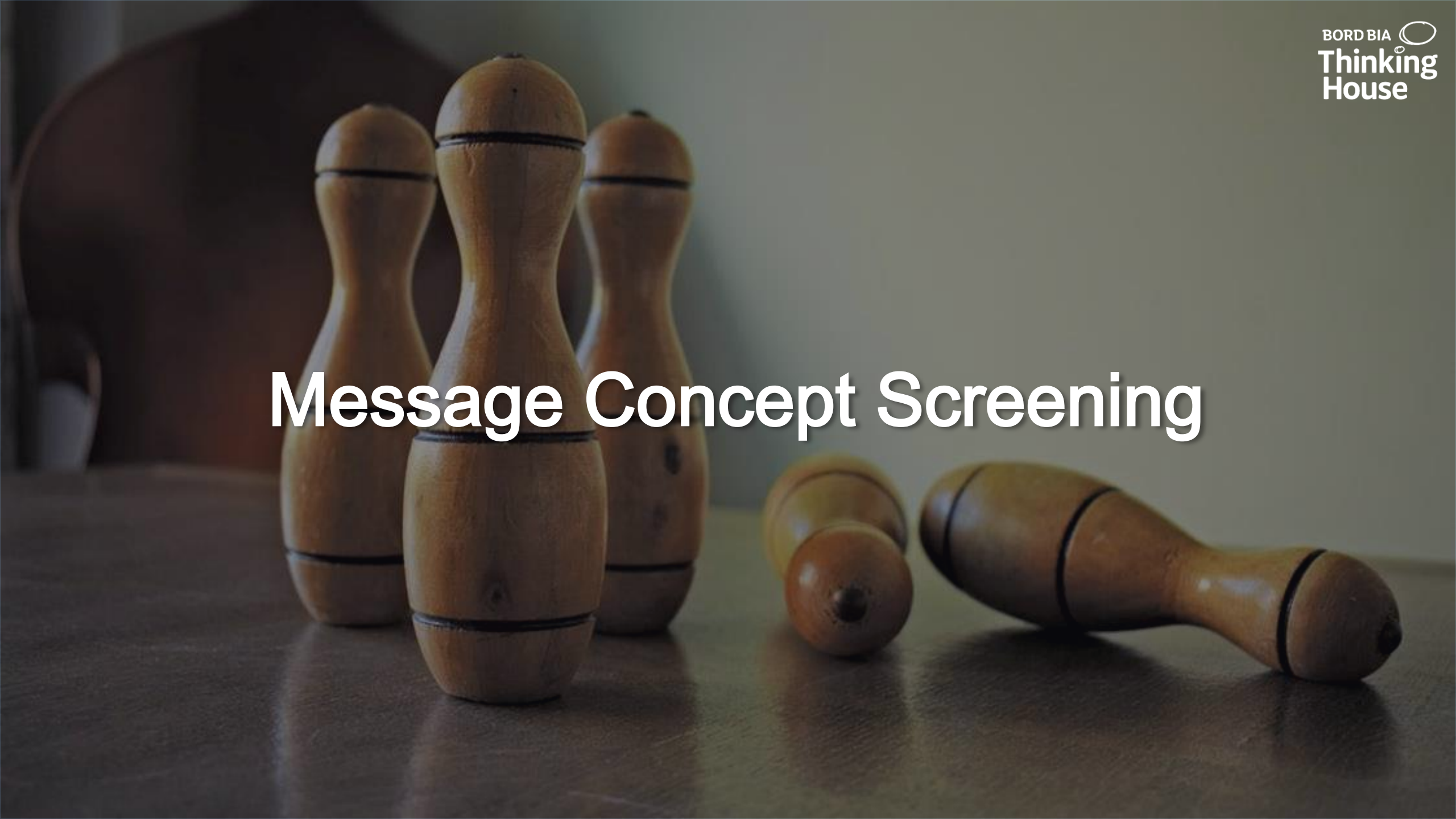
(All Active Gardeners, Base: n=1,010)

My Body

BORD BIA Thinking House

Below details how well each physical health related claim performed in terms of positive endorsement among the sample.

| | Total | Enthusiasts N=280 | Actives n=278 | Developers N=404 | Fledglings N=48 |
|---|---|---|---|---|---|
| Growing your own fruit and vegetables in season gives natural taste benefits | 69% | 77% | 66% | 66% | 67% |
| Gardening helps increase flexibility, strengthen joints, and burn calories | 64% | 79% | 68% | 53% | 50% |
| Regular gardening helps decrease blood pressure, cholesterol levels and lowers your risk for diabetes and osteoporosis | 64% | 80% | 67% | 53% | 50% |
| Gardening activity leads to a better night's sleep | 62% | 78% | 63% | 53% | 42% |
| Children in households that grow their own vegetables are more likely to eat more healthily | 60% | 71% | 59% | 53% | 56% |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Thinking
House
Message Concept Screening

# Prioritising the Concepts

Here we plot each concepts performance on the Interest metric and the extent it would encourage more gardening behaviour metric and its position is plotted within the performance grid below.

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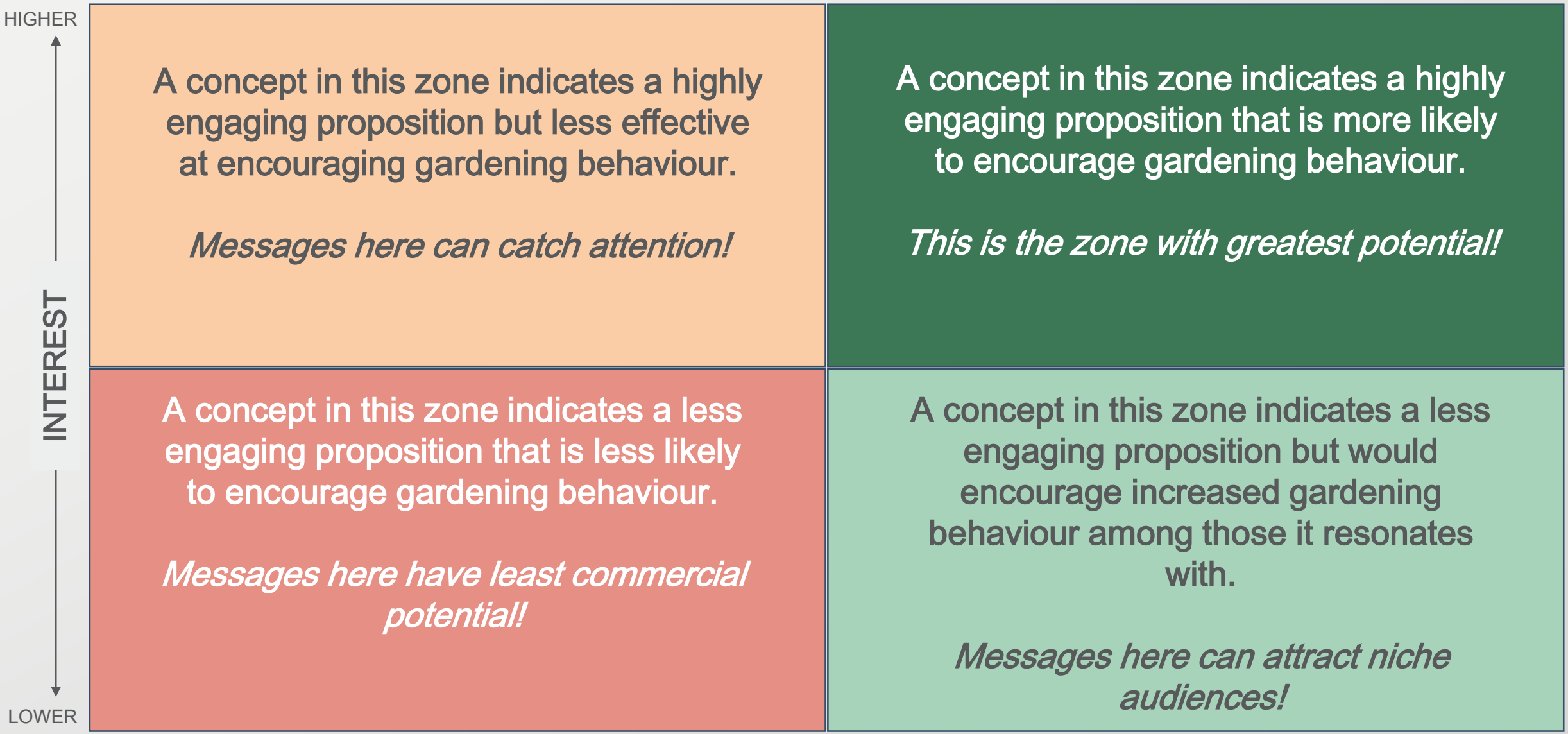

# All Respondents

N=235 per concept

The optimal claims areas centre around **Mental Health (mood) and Sustainability (nature friendly space and the environmental angle to growing your own).** Physical Health (regular exercise) cuts through but not to the same extent as the others.

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# Pre-Family Life-Stage

N=55 per concept

**Most Likely to Be Developers or Fledglings**

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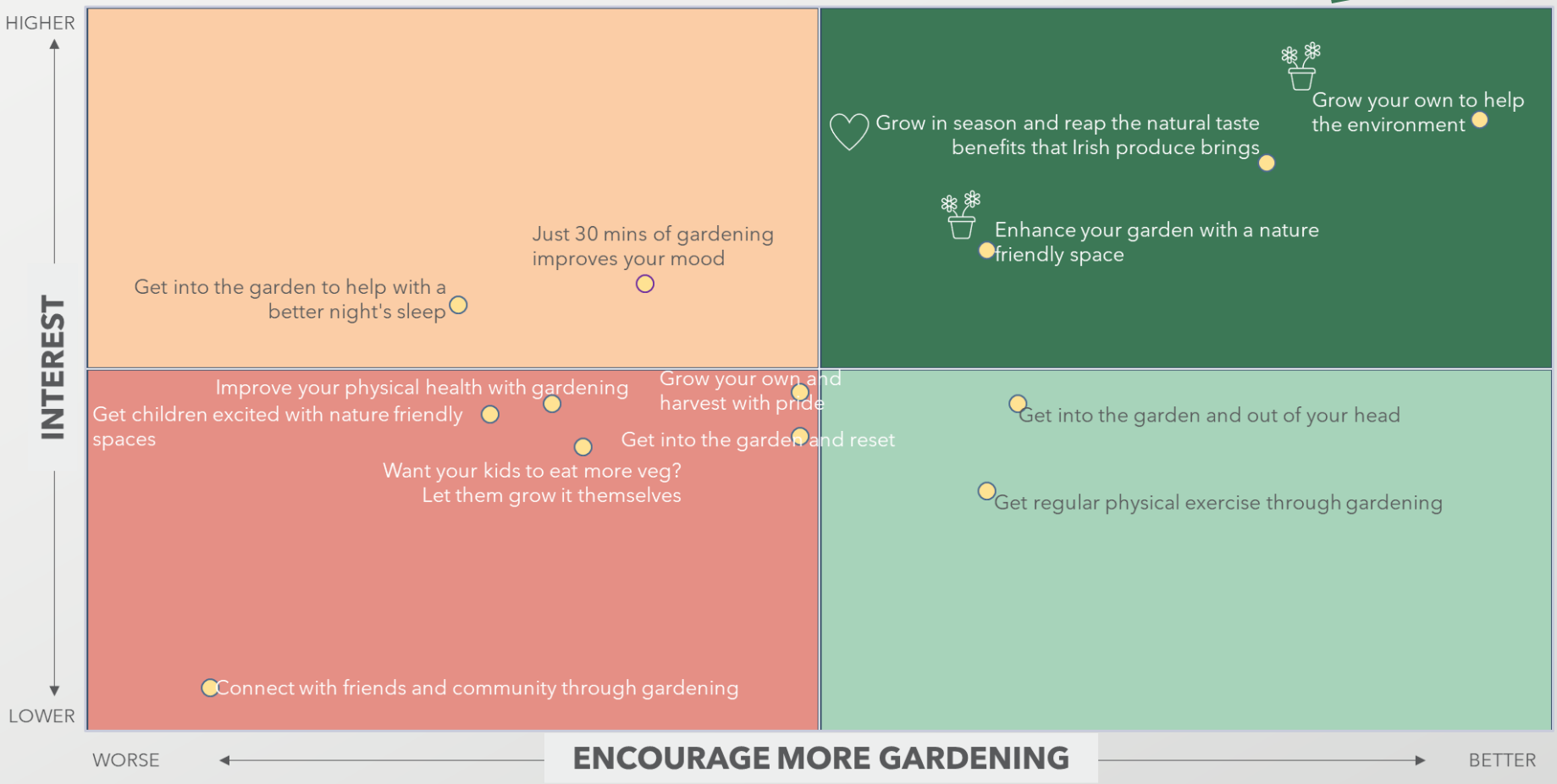


A **'Nurturing a Better Future'** theme emerges from the claims that resonate most among gardeners within the **pre-family life stage.**



Photo by Anna Shvets from Pexels

Mental health messaging less likely to engage pre-family gardeners compared to grow your own and the nature friendly space messaging.

# Family Life-Stage

N=105 per concept

**Most Likely to Be Enthusiasts or Actives**

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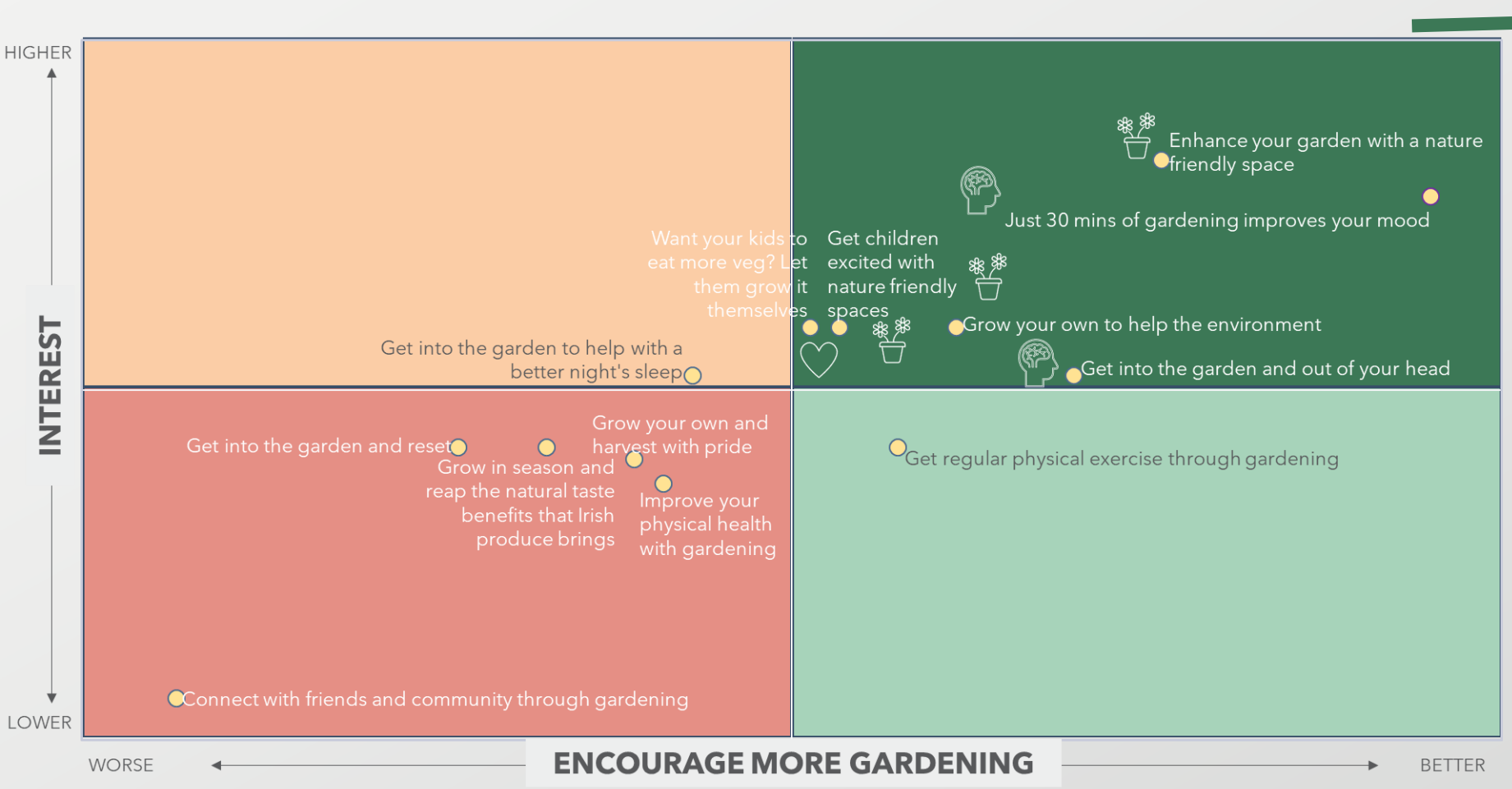


The **'Garden as a Refuge'** theme emerges from the claims that resonate most with the gardeners within the **family life stage**



Photo by Jonathan Borba on Unsplash

Mental health messaging around mood improvement much more relevant to those in families along with the prospect of wild spaces to engage their children. Grow your own also an area the resonates with this cohort.

# Post-Family Life-Stage

N=80 per concept

**Most Likely to Be Enthusiasts or Actives**

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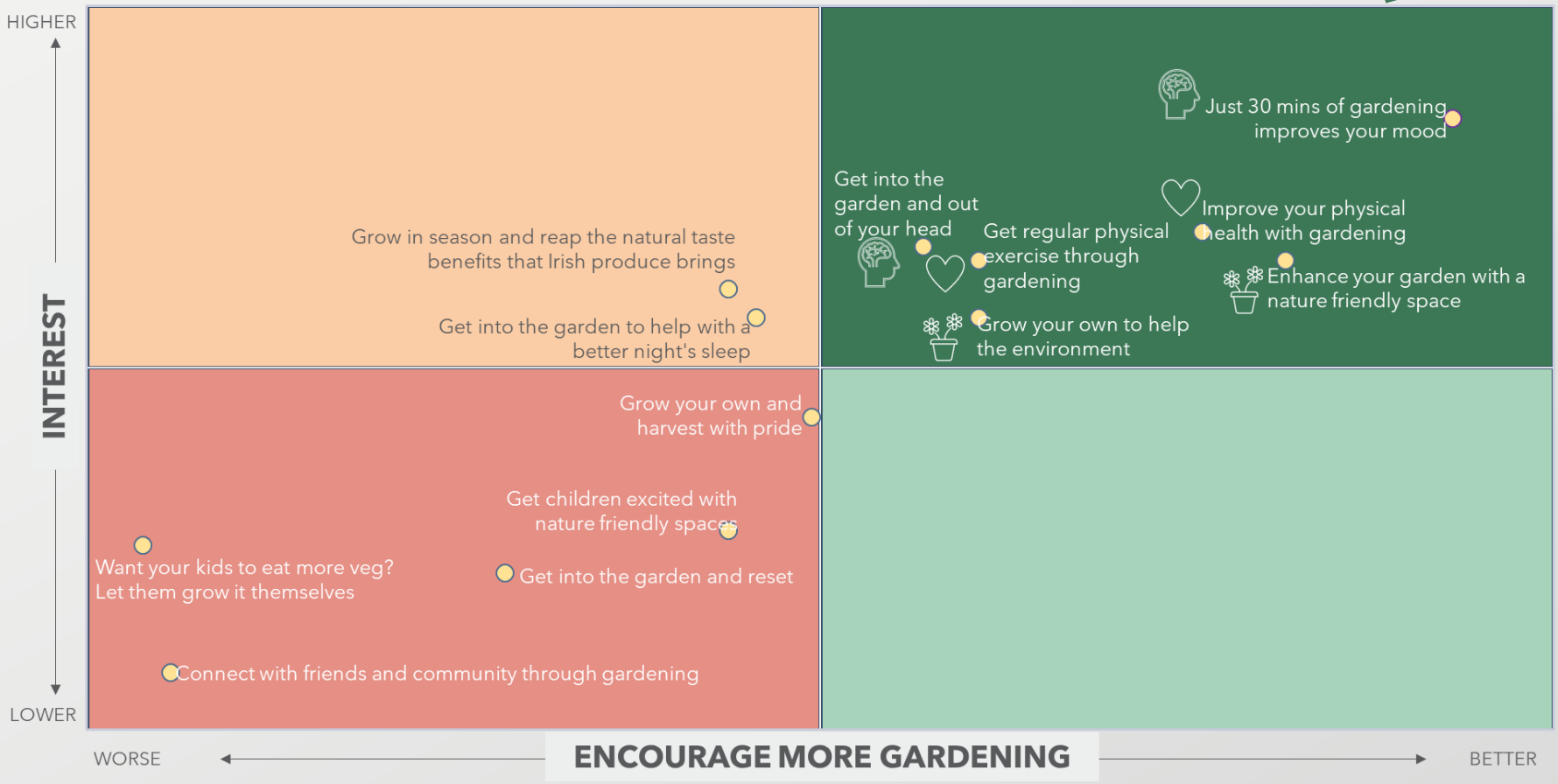


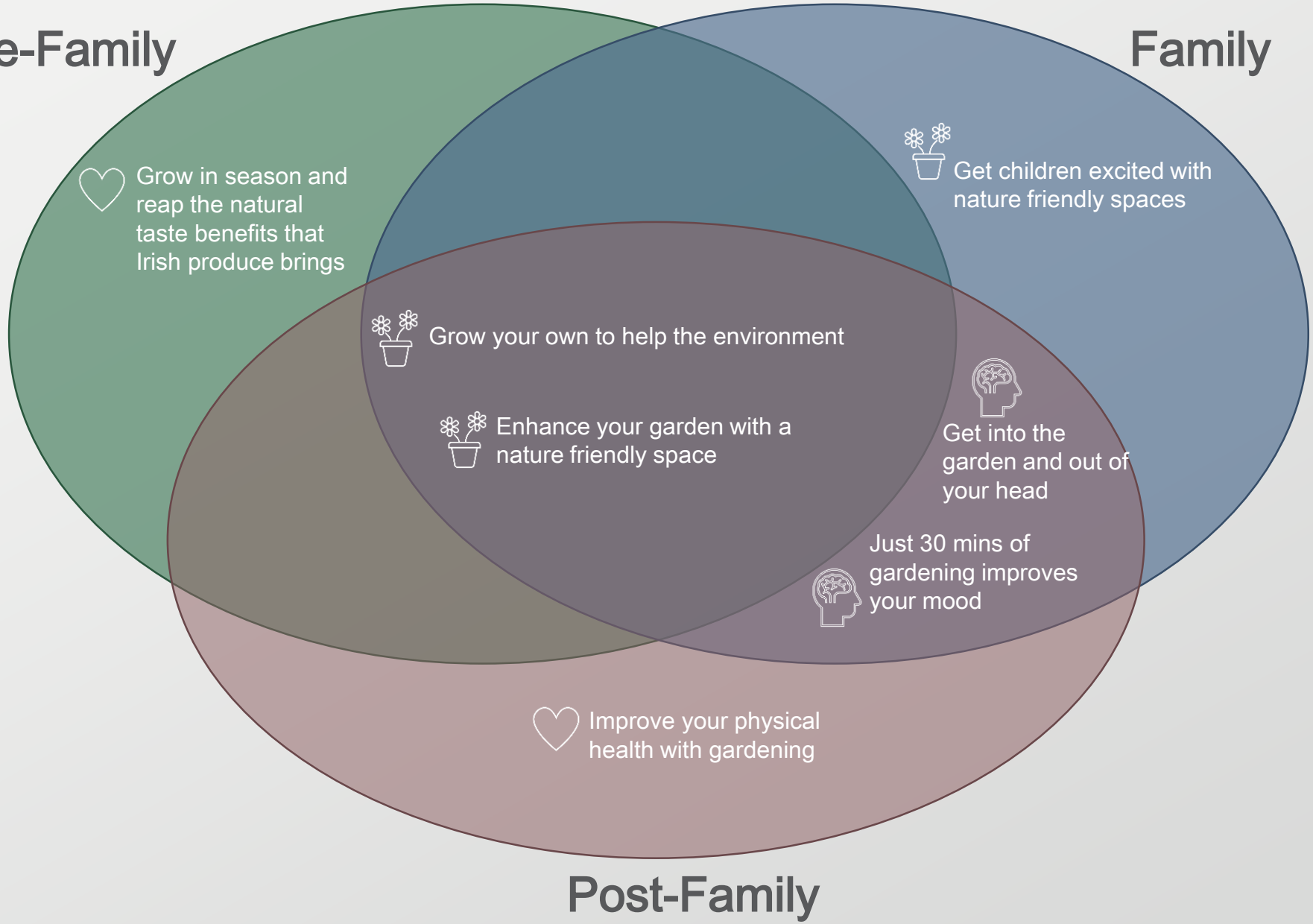

A **'Creating Balance'** theme emerges from the claims that resonate most among gardeners within the **post-family life stage.**



Photo by Greta Hoffman from Pexels

Mental health and physical health messaging both resonate strongly among those in post family life-stage with wild spaces also compelling in terms of encouraging more gardening behaviour.

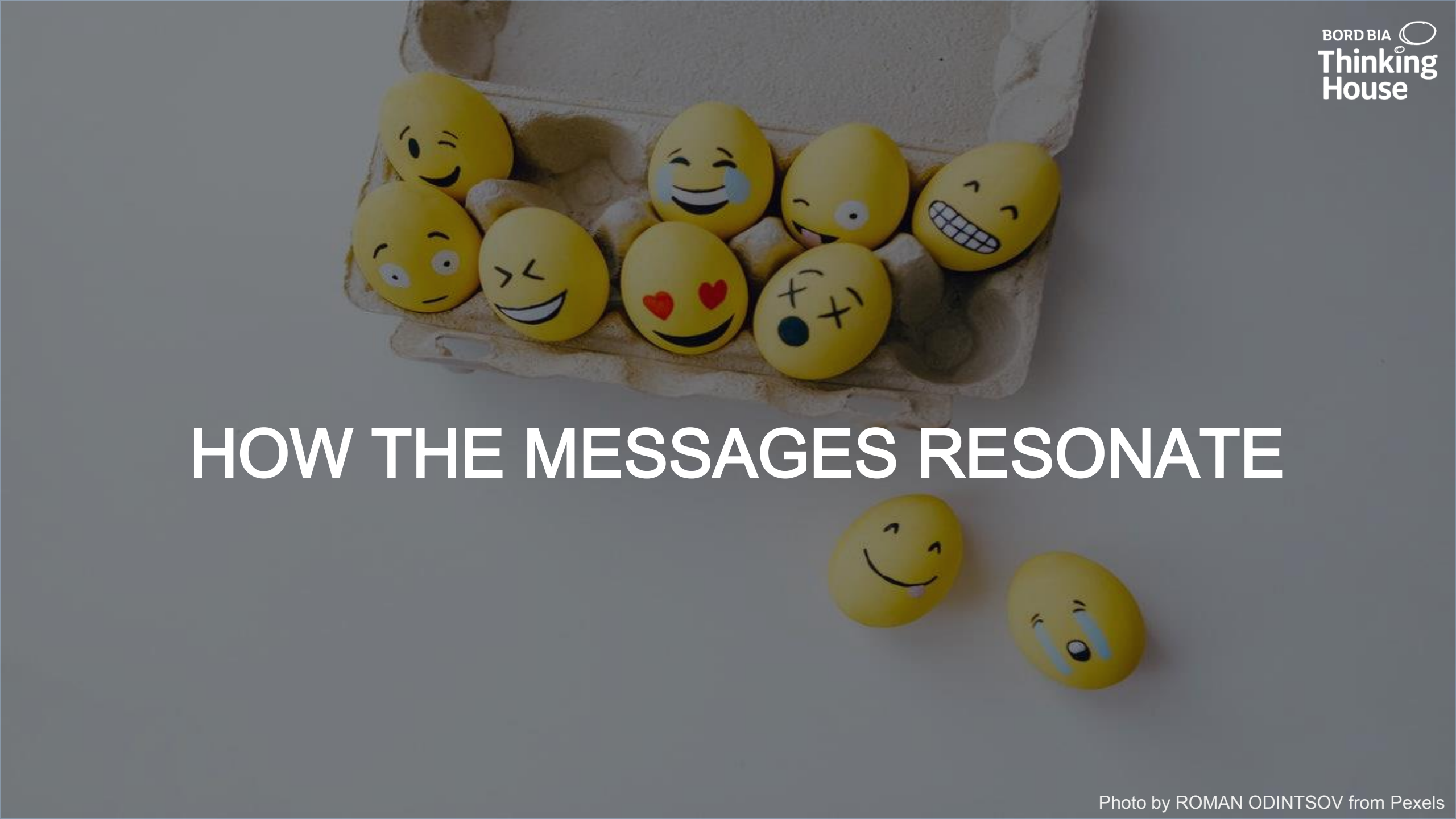
# Optimal Messaging by Life-Stage




Sustainability messaging compel across all life-stages (grow your own from environmental benefit perspective and nature friendly spaces).

Mental Health messaging prominent for families and post-families with physical health messaging resonating with post families.

Wild spaces have potential to resonate strongly among families to better engage children with gardening, while growing in season has traction with those in pre-family life-stage.



# HOW THE MESSAGES RESONATE

Photo by ROMAN ODINTSOV from Pexels

# How we did it?

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- In order to shed light on why the most engaging claims resonate with respondents, we evaluate each concept on each of the following measures…
  - *This would resonate with **people like me***
  - *Would make me **think differently** about the **benefits of gardening***
  - *I find this message **believable and credible***
  - *It's the type of thing I would **talk about or share** with others*
  - *This helps **solve an issue** I have*
  - *This message would **motivate me** to do more gardening*
  - *I would be interested to know **which plants would be best to grow** to get the most out of this message*

- Each of the aspects above are asked on a 7 point scale from ***Disagree Strongly*** to ***Agree Strongly***.

- To identify the aspects where the concepts engage best, we use a **NET score** on the scale above (% scoring 6 or 7 (strongly agree) - % scoring 1 or 2 (strongly disagree)).

- The NET scoring procedure creates a 1 number score that removes the level of negative association from the positive association to allow for more discrimination between the findings.

# All Respondents

N=235 per concept

BORD BIA Thinking House



My Mind



My Body



My World

| | Resonate with people like me | Think differently benefits of gardening | Believable & credible | Talk/ share with others |
|---|---|---|---|---|
| Just 30 mins of gardening improves your mood | 46% 2 | 41% 3 | 58% 2 | 39% 1 |
| Get into the garden and out of your head | 37% | 40% | 51% | 27% |
| Get into the garden and reset | 36% | 31% | 45% | 19% |
| Grow your own and harvest with pride | 32% | 31% | 45% | 20% |
| Connect with friends and community through gardening | 22% | 21% | 43% | 18% |
| Want your kids to eat more veg? Grow it themselves | 27% | 25% | 51% | 20% |
| Grow in season & reap the natural taste benefits Irish brings | 32% | 35% | 52% | 27% |
| Improve your physical health with gardening | 38% | 38% | 47% | 23% |
| Get regular physical exercise through gardening | 39% 3 | 39% | 53% | 22% |
| Get into the garden to help with a better night's sleep | 34% | 41% 3 | 48% | 27% |
| Enhance your garden with a nature friendly space | 54% 1 | 43% 2 | 65% 1 | 34% 2 |
| Get children excited with nature friendly spaces | 35% | 38% | 55% 3 | 26% |
| Grow your own to help the environment | 46% 2 | 44% 1 | 58% 2 | 32% 3 |

# All Respondents

N=235 per concept

BORD BIA Thinking House



**My Mind**



**My Body**



**My World**



# So what do we see? Best Performers at Total Sample Level

BORD BIA Thinking House

| | MOST COMPELLING CLAIM | HOW IT ENGAGES? |
|---|---|---|
|  **My Mind** | Just 30 mins of gardening improves your mood | ✓ Strongest performer at encouraging talk-ability (word of mouth) while also helping solve an issue many people have.<br>✓ Viewed a highly credible relative to other claims and has the potential to prompt re-appraisal around the benefits of gardening. |
|  **My World** | Enhance your garden with a nature friendly space | ✓ Viewed as highly credible and relevant with the market as well as likely to promote talk-ability.<br>✓ Likely to have positive commercial impact given the high interest in the types of plants that would be best to grow. |
| | Grow your own to help the environment | ✓ Again a highly credible claim and one that can tap into the more emotive connection we have with doing our bit for the environment.<br>✓ Also likely to have positive commercial impact for growers given the interest in the types of product that would be best to grow. |
|  **My Body** | Get regular physical exercise through gardening | ✓ While most compelling among Active gardeners and Post-Family life-stages, it has the potential to connect emotionally to an issue this cohort and thus be a motivating factor to encourage more gardening. |
| | Get into the garden to help with a better night's sleep | ✓ A potentially strong secondary message given it is an issue many people have and can prompt re-appraisal of the benefits of gardening to those it resonates with. |

# So what do we see?

BORD BIA Thinking House

| Group | Total Sample | Pre- Family | Family | Post- Family |
|---|---|---|---|---|
| Top 2 Claims | 1 Just 30 mins of gardening improves your mood<br>2 Enhance your garden with a nature friendly space | 1 Grow your own to help the environment<br>2 Grow in season and reap the natural taste benefits that Irish produce brings | 1 Enhance your garden with a nature friendly space<br>2 Just 30 mins of gardening improves your mood | 1 Just 30 mins of gardening improves your mood<br>2 Improve your physical health with gardening |
| Most Effective Channel to Promote These Claims | 1 TV Advertising<br>2 Garden Centres | 1 Garden Centres<br>2 Instagram | 1 Garden Centres<br>2 TV Advertising | 1 Garden Centres<br>2 Publications/ Websites |

# Appendix



Photo by Aaron Burden on Unsplash

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