



Annual Report FY22

Our mission is to help people, businesses, and governments to operate within the planet's limits - because we believe that living well requires a healthy planet.

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MESSAGE FROM THE CHAIRMAN



There is nothing more important or urgent for humanity than restoring our global environment to within the Planetary Boundaries.

When the Planetary Accounting Network (PAN) was established in 2019, we were already exceeding four of the nine Planetary Boundaries – critical global environmental limits. By the end of FY22 we were exceeding at least five, and since then scientists have confirmed we have exceeded a sixth. I would love to believe that we were all leaving COVID-19 behind and refocusing ourselves to the far larger challenge of learning how to live within the boundaries of our planet, but that seems far from reality.

Despite urgent warnings from scientists that the window of opportunity to avoid irreversible and catastrophic change is diminishing rapidly, and a temporary reduction in environmental pressure in 2020 due to the global COVID-19 lockdowns, 2021 saw a dramatic rebound in impacts with alarming statistics including:

- Energy related CO₂ emissions reached their highest ever level;
- Over 17 million tonnes of plastic were released into the ocean;
- More than 10 million hectares of forest was cut down; and
- Approximately 40,000 species are now listed at risk of extinction.

However, I do believe that there are a lot of positives and parallels that can be taken from the pandemic response through to the environmental crisis including;

- People will listen to science and data in times of crisis.
- People will do the 'right thing' when this is made clear and actionable (even if that means drastic changes and sacrifices to their own lifestyle)
- Change can happen very quickly in times of crisis.

I believe that in the context of the environmental crisis, Planetary Accounting is a key enabler of the first two points above because **Planetary Accounting is about turning global environmental science into clear, actionable targets at the scales we operate so that people can make the decisions needed to return us to the safe operating space of the Planetary Boundaries.**

The third bullet point is important to maintain the confidence that we are not too late. To that end, it has been a huge year for PAN, with substantial advancement in our FY21 workstreams, and the establishment of a new programme of works around product sustainability, continued growth of our network, and enormous growth in our reach through projects, talks, and written content, all of which give me confidence and hope for our future.

I am looking forward to the upcoming year with PAN. Given our current trajectory and momentum I have no doubt that this coming year is going to see the most significant development and growth yet. On behalf of PAN's board of trustees, I would like to thank everyone who has and does support PAN as an organisation, your support is paramount to PAN's ability to deliver on our vision; to enable and inspire every person to play their role as guardians for our planet.

Andrew Cowie, Chairman

A handwritten signature in black ink, appearing to read 'Andrew Cowie', written in a cursive style.

MESSAGE FROM THE FOUNDER / CEO



As I worked with the team to pull this report together, I was struck by how far we have come since PAN's conception.

The first inkling of PAN was a conversation with my university supervisor, Dist. Prof. Peter Newman, who said, "This framework has incredible potential. Once you've finished your thesis you are going to have to set up an organisation to help people use it". Establishing PAN had never been part of my plan but over the 12 months that followed that conversation, as I dragged my draft framework, two pre-schoolers, and husband around Europe in a caravan to get feedback on the framework from experts from all over the world, Peter's words really stuck with me. When I moved back to New Zealand at the end of the "caravan year" I decided he was right, and convinced three incredible friends/allies to join me as trustees on this journey (including our current Chair – Andrew).

Four years on PAN is still a young organisation and our purpose – to help people, businesses, and governments to operate within the planet's limits – can often feel daunting! However, looking back at what we have achieved to date, I feel confident that we are already making a tangible difference, and that we are on a pathway that will drive significant change in the years to come.

When COVID-19 hit in 2020 it put so much of our work and progress to date on hold that I was not sure we would make it. However, despite the ongoing health and economic disruptions and challenges since, FY22 has been a year of incredible growth for PAN. We piloted our Planetary Science-Based Targets programme (driving change at the corporate scale), we launched our Planetary Facts programme of works (focussing on the impacts of products and consumption); our team grew to 4 volunteers and two paid staff; we established strategic Delivery Partnerships within our network to expand our resource and

skills base, and we were invited to talk about Planetary Accounting at many high profile events including TEDx, for a the National Business Review video article, and on the AM Show. By the end of FY22 it was clear to me that the time had come to leave my "day job" (as the Sustainability Director at Beca – a role that I loved, and an organisation that I continue to work closely with) to put my full focus into PAN.

As I write this note we are well into FY23, and I am already excited to imagine what I will be writing in our annual report this time next year. To give you a sneak peak, our team has hit the double digits, our existing programmes of work continue to grow, our PARCs programme (a cities and regions focus) has begun, we are doing more work to support others to use Planetary Accounting for their own applications, and we are starting to participate more actively within the global community – joining international collaborations to accelerate change. Our plans for the coming 12-18 months will see another significant step-change in our scale for FY23 and beyond.

I am incredibly grateful to the team, our advisors, the incredible organisations who are part of the PAN network, and our many other supporters for making PAN what it is today. I am both excited and hopeful about the impact PAN plans to lead towards a future within the planet's limits.

Kate Meyer, Founder/CEO

THE CHALLENGE



Human activity is pushing our global environment beyond critical Planetary Boundaries. Without urgent action at every scale, we risk irreversibly and catastrophically changing the state of the planet.

However, most people, businesses, and governments do not understand the full perspective of planetary limits.

Those that do – don't know what to do.

- **Individuals** need education and data to inform lifestyle decisions.
- **Businesses** need robust mechanisms to manage risks.
- **Governments** need a framework to underpin prioritisation of investment.

OUR SOLUTION

Planetary Accounting is a framework that enables science-based decision making, beyond carbon, at any scale.

Planetary Accounting enables action by quantifying what we need to do at different scales to return to and remain within globally critical environmental limits - the Planetary Boundaries.

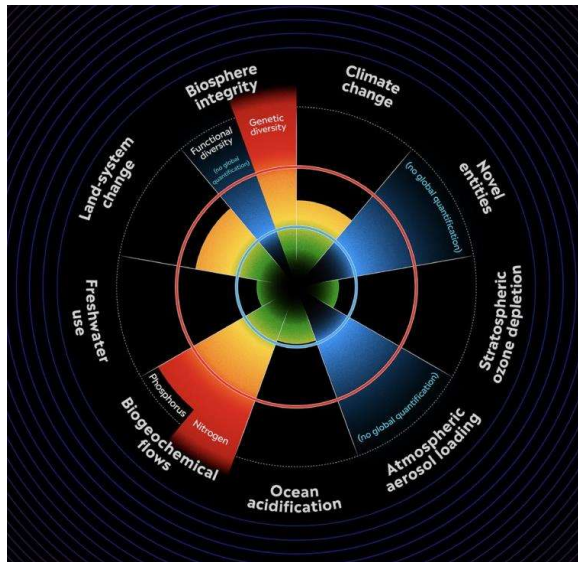
“ I read your article about planetary accounting and the first time in years I feel heard - Einhorn, Germany



ABOUT PLANETARY ACCOUNTING

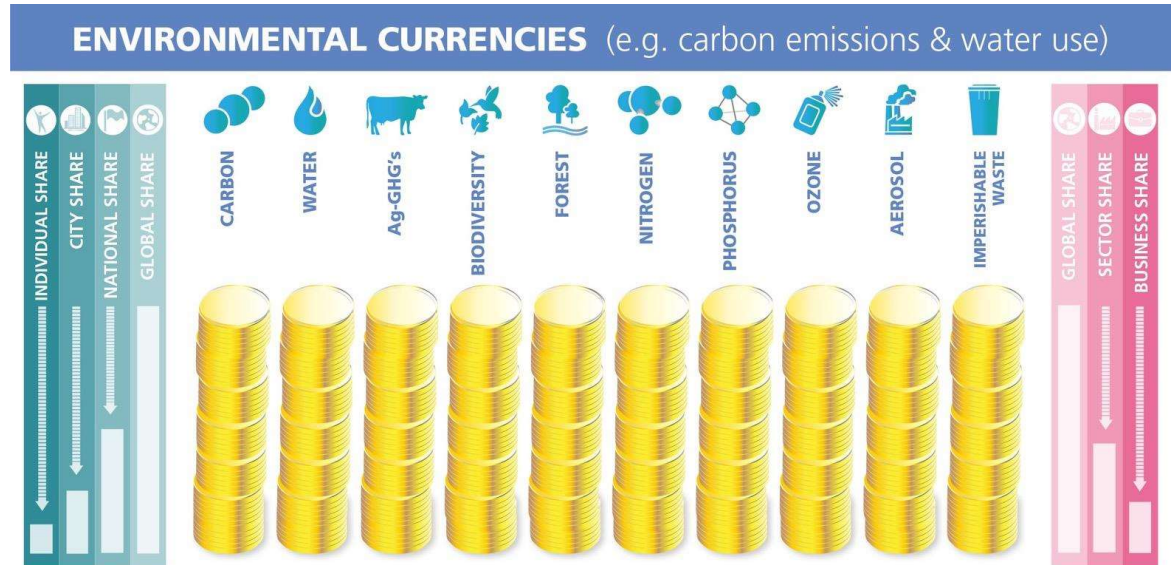
Planetary Accounting translates global environmental limits, the Planetary Boundaries, into actionable budgets.

The Planetary Boundaries provide the basis for a health check for the planet.



The Planetary Boundaries define the “safe operating space for humankind”. They are the critical global environmental limits we need to stay within to avoid irreversible change (e.g. Climate Change, Biosphere Integrity, and Land-System Change).

Planetary Accounting provides the basis for action; a prescription for a healthy planet



Planetary Accounting translates the Planetary Boundaries into global budgets in “environmental currencies” (e.g. carbon emissions, and waste productions) that can be used to inform decision making and action at any scale.

For more information about Planetary Accounting see the TEDx Talk [here](#).

OUR MISSION



The Planetary Accounting Network (PAN) was incorporated on the 3rd January 2019 as a registered charity (CC56788).

Purpose:

To help people, businesses, and governments to operate within the planet's environmental limits.

Our Vision:

To enable and inspire every person to play their role as guardians for our planet.

Our Mission:

To make Planetary Accounting easy to access, easy to understand, and easy to use.

... because living well requires a healthy planet.

WHAT WE DO

At PAN our charitable purposes are to:

- Educate organisations and communities about Planetary Accounting to show what they can do to operate within the planet's limits.
- Undertake research to improve linkages between the scientific understanding of environmental limits and policy, behaviour, and business applications.
- Develop tools and mechanisms to help society transition to living within the planet's limits; and
- Encourage through workshops, seminars, and training, the use of Planetary Accounting principles and other sound environmental techniques for the overall benefit of mankind

In FY22 our efforts and outputs grew across all four of our purposes, as demonstrated in our Statement of Performance. Our focus areas for the development of tools and mechanisms were:



Planetary Science-Based Targets (P-SBTs)

Planetary Accounting at the Corporate Scale

In response to the corporate movement towards a science-basis for decarbonisation efforts, we have established a method that enables organisations to set science-based targets across all of the Planetary Boundaries, measure associated footprints, and establish roadmaps to operating within a “fair share” of global environmental limits.



Planetary Facts

Planetary Accounting at the Product Scale

Inspired by dietary food labels and with our vision in mind to “enable and inspire people to live within the planet's limits” this programme of work responds to the demand for robust and transparent environmental product data beyond carbon and with scientific context.

OUR OPERATIONS

Main Source of Cash and Resources

In FY22 PAN received \$205k of financial and donated resources, a 350% increase compared to FY21. Of this, approximately 40% was cash revenue, 40% in-kind time donated by Delivery partners, and 20% volunteered time. Of the cash revenue, 54% was for consultancy works, 32% was direct funding of initiatives, and the remainder was from membership fees, donations, and grants.

73% of our expenditure was used for the delivery of PAN's charitable purposes. The remaining expenditure was used to deliver Planetary Accounting consultancy projects (14%) and for general and administrative tasks and expenses (13%). We also increased PAN's cash reserves by more than 800%.

Our consultancy work is important to our operations as it provides a significant lever to support our purpose (to help people operate within the planet's limits) and because it creates a key funding stream that supports our overhead costs so that donations, grants, and sponsorship can be directly used for our charitable activities.

Fundraising Activities

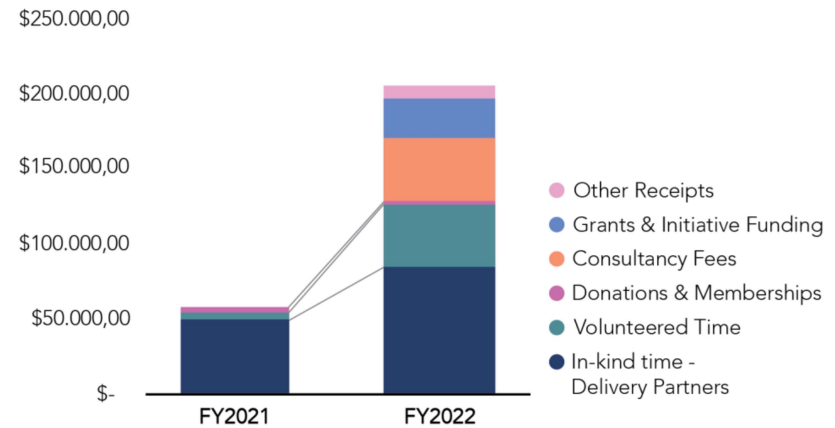
The majority of our funds raised came via our Network – through initiative funding, consultancy projects, grants, and donations. Key activities to support this included presenting at conferences and webinars, and proactive engagement with market leaders.

Reliance on Volunteers and Donated Goods & Services

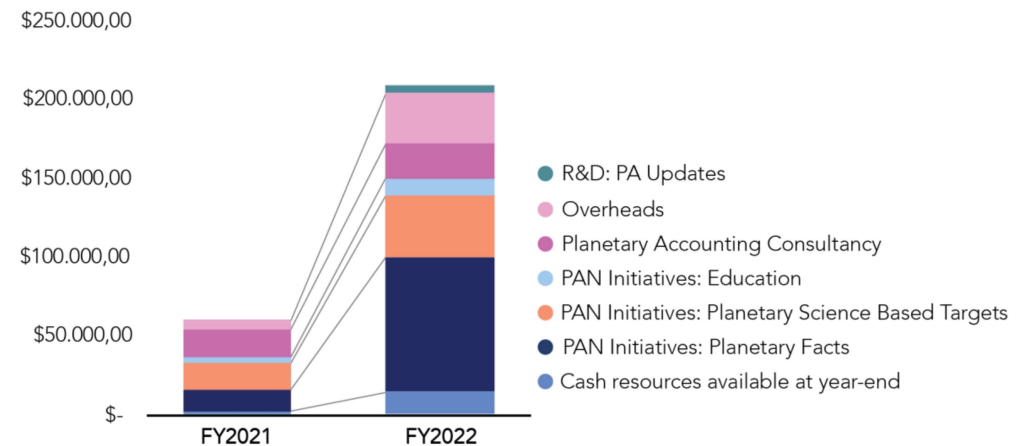
In FY22 our gross volunteered and donated resources grew from \$55k to \$125K, an increase of approximately 225%. However, our total reliance on donated resources decreased, with our cash resources increasing from 5% of our total revenue in FY21 to 40% of our total revenue in FY22.

In FY23 we are working towards continued growth of our gross cash revenue, and of our cash revenue as a percentage of our total resources, thus further decreasing our reliance on in-kind and volunteered time.

Where our resources came from



How we used our resources:



OUR WHANAU: TEAM

Entity Structure:

Our people are the ones who make it all happen. PAN is governed by a Board of Trustees and our operations are led by a team of contractors, secondees (donated time via Delivery Partners), and volunteers. PAN as an organisation has grown significantly over the last year and it has been great to see the increased capacity, capability and teamwork of our employees, contract staff and of course our fantastic volunteers. We asked some of the team about their work at PAN and this is what they said:



ANDREW COWIE
Chairman



KATE MEYER
Founding Director / CEO



BRIDGET KELLY
Trustee Secretary



BREE LORNIE
Treasurer



CAROLINE HOPE
Volunteer



YVONNE LARCHER
European
Coordinator



LEE MAIER
Communications
Lead



RACHEL DANCE
Graphic
Designer



AMY IRVINE
Volunteer

Why do you work for PAN?

I am very concerned about the trajectory we are on as for the first time in Earth's history humans have changed and continue to change the planet's geology and ecosystem. I wanted to do something about this. I believe PAN has one of the solutions to ensure Earth remains a hospitable planet to us. - **Yvonne Larcher**

What do you do outside work towards this future?

I am finishing up my studies in Law and Global Studies where I am learning about the structures of power in society that must be shaped to reach a future within the planet's limits. - **Amy Irvine**

What does a future within the planet's limits look like to you?

What does a future within the planet's limits look like to you?

I like David Attenborough's definition "A future where we have avoided destabilisation and secured a thriving future, with healthy systems that support life." I personally think a strong sense of community and connection to the environment will be really important to help us get there; a fostering of the understanding that biodiversity underpins our ability to survive, will in turn lead to more intentional action.

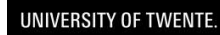
- **Caroline Hope**

What is your vision for PAN for the next 5 years?

PAN will be a household name. It will be a framework for the health of our planet. - **Rachel Dance**

OUR WHANAU: NETWORK

PAN is a membership based organisation. Our network comprises Members, Sponsors, and Delivery Partners who have joined us to learn how to use Planetary Accounting to support their decision making and to endorse, test, and support our work



Entity Information

"We joined the network to learn from other professionals in the field of Sustainability, and to support the work PAN is pioneering in labelling and transparency."

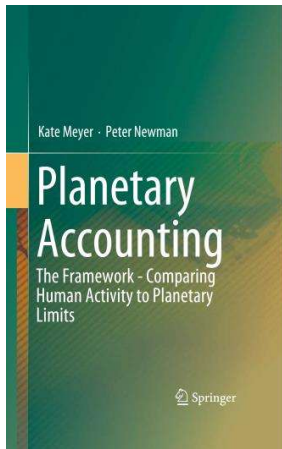
Lorieta Bahr, Sustainability Advisor | Lion

"We're big fans of using simple, clear language to help people understand sustainability – and take action! Planetary Accounting does this."

- Jeff Vickers, Technical Director | thinkstep-anz

OUR WHANAU: ADVISORS

PAN's work is underpinned by a scientifically peer reviewed framework called Planetary Accounting that translates the Planetary Boundaries into action. Planetary Accounting and PAN are well supported by internationally acclaimed scientists and leaders including:



Emeritus Prof. Will Steffen
Lead Author
Planetary Boundaries



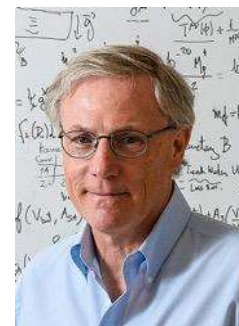
Emeritus Prof. Jorgen Randers
Ex-Deputy Director General
World Wildlife Fund



Distinguished Prof. Peter Newman (AO)
Lead Author
IPCC



Prof. Jose Viegas
Secretary-General
OECD Transport Forum

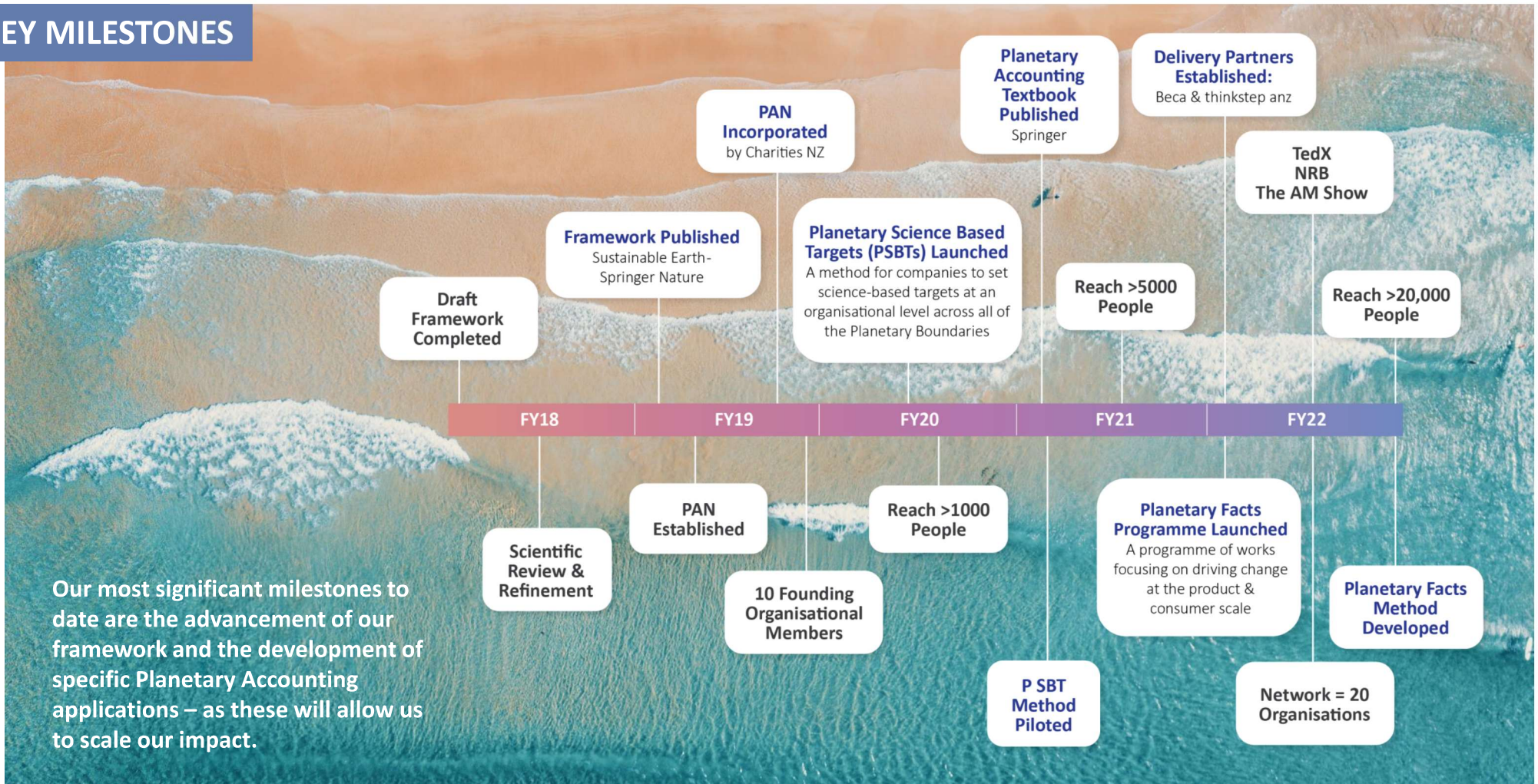


Prof. Orfeu Bertolami
Theoretical Physicist
Earth System Science



Prof. Sarah McLaren
Director
NZ Life Cycle Management Centre

KEY MILESTONES



APPLICATION 1: PLANETARY SBTs

Over 100 New Zealand companies are now signatories of the Climate Leaders Coalition, committing to adopting science-based carbon targets that align with limiting global warming to 1.5°C. However, to avoid catastrophic global change this level of action and commitment is needed across ALL of the planet's limits. So, PAN has developed an approach we call Planetary Science-Based Targets (or P-SBTs) that enables companies to do just that!

This programme of works started in FY21 with the development of the methodology which was piloted in FY22

The team at PAN are excited about this approach because it allows decision makers within businesses to:

- Demonstrate a commitment to absolute sustainability;
- Shift from incremental to transformational change by focussing on the end goal;
- Mitigate risks by highlighting the likely magnitude and direction of market and regulatory pressures; and
- Use a holistic environmental lens for decision making.

We asked one of the organisations who have adopted Planetary Science-Based Targets, why they chose Planetary Accounting. This is what they said:

“We chose Planetary Accounting because it was independent, external, objective. It helped us move from can we do that - to how.”

– Head of Risk and Sustainability, Energy Sector - NZ

“The science-basis of Planetary Accounting was very important to us. If a sustainability strategy is wishy-washy, people start to poke holes – so we wanted to avoid that. Planetary Accounting gave us robust numbers.”

– Value & Business Architect, Energy Sector, NZ

At PAN, our goal is to make it easy and affordable to set P-SBTs so that companies can direct their efforts into action.



APPLICATION 2: PLANETARY FACTS



Imagine if it was easy for businesses to access and understand the data they need to design environmentally sustainable products and services that consumers and corporate customers want to buy.

Imagine if there was a robust way for consumers to understand the environmental performance of their products that was underpinned by credible science.

Our Planetary Facts programme is focussed on making this a reality!

Inspired by Nutritional Facts Labels on food products PAN launched the first phase of our Planetary Facts programme in August 2021 with support from strategic partners including the Warehouse Group, Massey University, Beca, and thinkstep-anz to develop the Planetary Facts calculation methodology and co-design labels and an associated education strategy with real consumers.

By listening to our partners and consumers **we learned that Planetary Facts provide strategic value to businesses because our approach provides the granular data and scientific context they need to make informed decisions** about their products and helps them to manage supply chain data gaps.

We also learned that consumers want broad environmental data that is independently certified and can be understood at a glance. We are excited about our new eco-labels which preliminary consumer feedback confirms does just that!

In FY23 we are launching Phase 2, during which we are piloting the method on real products, and testing our next-generation eco-labels on-shelf (and online) with real consumers.

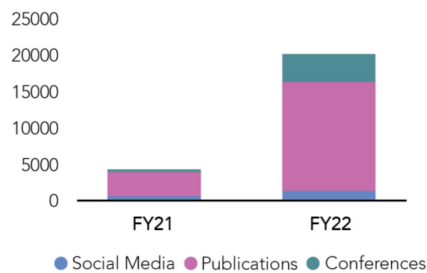
KEY PERFORMANCE INDICATORS

We measure our performance across several key performance indicators:

- Reach: The number of individuals we have educated about Planetary Accounting through speaking events and written collateral;
- Network: The number of organisations in our network
- Publications, Contributions & Citations: The number of publications and contributions to research, and associated citations
- Team: The number of team members.

In FY22, our reach increased by 375%, predominantly from our publications and speaking events. The number of organisations in our Network increased by 67%; our team quadrupled, and our publications, contributions, and associated citations continued to increase.

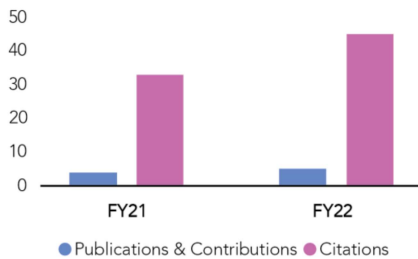
Reach



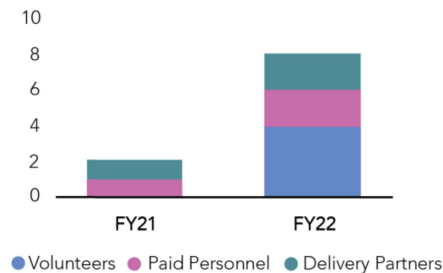
Network



Research Contributions



Team



Statement of Service Performance

We were also very proud to have our work shared through several high impact forums including:

- TEDx Auckland
- National Business Review
- The AM Show

Our Founder and CEO, Kate Meyer, was also selected as **University of Auckland's 40 Under 40** under the Disruptors and Innovators category for her work on Planetary Accounting.

OUR HANDPRINT

At PAN, our greatest outcomes occur by enabling and empowering others to reduce their environmental impacts to align with the planet's environmental limits – we call this our “Planetary Handprint”.

This means that through our network and other touch points we can significantly leverage our effort to make a much greater positive impact on the planet than we could directly. This also means that measuring our handprint accurately is difficult – particularly at this early stage when many of our tools are still under development.

Underpinning decision making with robust data and scientifically valid processes is one of PAN's core foundations. It is important to us to quantify the impacts of our work so that we can track and communicate our performance in a way that helps us, and other stakeholders, make better decisions.

However, the climate will not wait for perfect data, so at PAN we believe that a pragmatic approach is sometimes needed to enable and prioritise action. As such, we have taken a high-level, pragmatic approach to estimating our Planetary Handprint. We have endeavoured to take a conservative approach and are committed to improving the accuracy of this estimate as PAN grows through improved data quantity, accuracy and granularity.

The approach we have taken is outlined below;

- First, we estimated our “Economic Reach”, i.e., how big are the combined purse strings of those we have connected with through our projects, network, talks, and written material.
- Next, we researched how much influence knowledge and information has on behaviour and action and found results ranging from 1% - 10%,.
- Finally, we took 1% of our Economic Reach (as a conservative estimate) over global GDP and used this to estimate our Planetary Handprint



These outcomes are small play in context of the global challenge we are facing. However, they indicate that **for every \$100 contributed to PAN in FY22 we influenced others to take action that resulted in approximately:**

- ✓ **10 tonnes of avoided greenhouse gas emissions**
- ✓ **25m² of reforestation**
- ✓ **12 kg of avoided nitrogen runoff**
- ✓ **280kg of avoided waste**

PLANETARY FOOTPRINT



Despite PAN's focus on measuring environmental impact, we chose not to prioritise measuring our own Planetary Footprints (the impacts we have on the planet through our operations) for FY22. This is because at our current scale we felt that PAN's limited bandwidth would be better directed at growing our initiatives.

However, walking the walk is important to us. While we have not undertaken a detailed assessment, we have taken the time to identify that the biggest contributor to our environmental footprint is our work travel. As such, we have taken the following initiatives to minimize these impacts:

- We propose online options for workshops and presentations as a priority
- When we do travel, we aim to cluster meetings and workshops to limit the number of trips
- All our travel is offset

We also consider the impacts of our supply chain. For example, **we chose to use Kiwibank for our banking because of their sustainability commitments.** In particular, it was important to us that Kiwibank will not provide banking services to entities that are directly involved in the extraction, production and manufacturing of coal, oil and gas or their manufacture and production.

PAN does not have offices; our personnel are spread across New Zealand and beyond and all work from home. This means the electricity used to power our equipment and for heating home offices does not fall under PAN's control. However, our team are committed to minimizing their personal environmental impacts – including those related to working for PAN. For example, Kate, our CEO, purchases her electricity from Ecotricity - who only purchase renewable and carbon-zero certified electricity.

As we grow, we will continue to formalize our sustainability approach, and when our scale is appropriate to undertaking formal assessments we will measure and disclose our Planetary Footprints, associated Science-Based Targets, and our plans to meet these.



Our mission is to help people, businesses, and governments to operate within the planets limits - because we believe that living well requires a healthy planet.
