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How Longer-Term Futures Perspectives can Fast Track our Collective Sustainability Progress: Towards the Adoption of Transcendental Futures

A Report to the
Sustainable Future Foundation

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About this Report

1 - Purpose

This report is the culmination of a short research project conducted between April and August 2023. The project was co-lead by Principal Investigators (PIs), Dr. Bruce Tonn President³ of Three3 (pronounced ThreeCubed), a US based non-profit research organization which focuses on fostering equitable sustainable futures, and Dr. Chloe Hill,⁴ a strategic sustainability advisor based out of the Netherlands.

The purpose of the research has been to *better understand how the field of futures is currently being applied in the delivery of the UN Sustainable Development Goals across sectors and how an adoption of a more longer-term futures perspective can help to fast track our collective sustainability progress.*

The project has been funded by the Sustainable Future Foundation⁵ in Switzerland.

2 - How the information was collected

To produce this report, both the Principal Investigators conducted a mini-desk review by looking at a combination of institutional documents, web resources, case studies and academic articles to help get a better handle on what was happening in the futures and SDG space already.

Together we also conducted ten virtual interviews with a cross-section of public and private organizations across the globe who are leading efforts towards achieving the SDGs. Our main interests in the interviews were to:

- Learn how the field of futures was being applied within their line of work, if at all;
- Better understand any challenges that are being experienced in the delivery of their sustainability ambitions, including the SDGs, where relevant, and;
- Find what tools these stakeholders might need to foster longer-term future perspectives within their organizations and professional networks that are focused on addressing SDGs.

Interviewees included various representatives, who were mainly already in our networks, from: the Dutch Environment Agency; a Global Coalition based in Washington DC focusing on land and resource rights for Indigenous Peoples, local communities and Afro-descendant Peoples; the Strategic Foresight Unit of the European Commission; a Food Sustainability consultancy in Hong Kong; the Institute of

³ See: <http://www.threecubed.org/bruce-tonns-bio.html>

⁴ See: www.chloejhill.com

⁵ See: <https://sustainablefuturefoundation.org/>

Environmental Management and Assessment in the UK; a private enterprise in South Carolina pioneering sustainable commerce; the Water and Global Change Department at the University of California-Irvine; the Institute of Alternative Futures in the US; and an independent evaluation specialist from the UK.

3 - What's inside

This report is made up of 4 sections:

The first section sets the scene for our paper and makes the case for applying more of a long-term futures approach to SDG delivery.

The second section dives into the field of futures in a bit more detail, specifically in the context of the SDGs, by firstly defining what we mean by futures from the practical and applied standpoint. It then posits the idea of going one step further with a more ethical and philosophical approach that we label as 'transcendental futures' which embraces longer-term futures perspectives in general as well as our obligations to future generations more specifically. We then connect this futures philosophy to the concept of sustainable development more concretely and how, through this alternative lens, we can start to accelerate the delivery and effectiveness of the impact of the sustainability movement, including the SDGs.

The third section provides a high-level review of our findings that we have uncovered from both our rapid desk review and our small number of interviews. We firstly provide a snapshot of what's going in the futures and sustainability space, followed by our observations of what we believe are some of the most major systemic barriers that might be preventing the adoption of longer-term futures perspectives across these various stakeholder groups and sectors. We then present a summary of our insights of how the impact of these barriers are currently being translated when it comes to implementing futures in the sustainability space.

The fourth section considers some ideas, based on our initial findings, of what could come next when it comes to leveraging the futures field, especially from the lens of longer-term futures perspective, that can help to facilitate a more effective delivery of the SDGs and our collective sustainability progress more broadly.

The fifth and final section offers some concluding comments to finish and close our thought piece.

PART I: Setting the Scene

The 17 United Nations Sustainable Development Goals⁶ (see figure 1 below) are laudatory and aspirational. They address ending problems such as poverty and hunger. They envision a world with less pollution and healthier ecosystems. Production is cleaner. Societies are more equitable. The most dire and catastrophic consequences of climate change are avoided. The magnitude of these challenges that are being addressed by the SDGs are already ambitious in their own right. Layer this magnitude with the growing global uncertainty that the world is currently facing, politically, socially, environmentally and economically, the bigger the ambition and, perhaps, the more unattainable the SDGs become.

Figure 1



According to a recent United Nations report from 2022⁷ “cascading and interlinked crises are putting the 2030 Agenda for Sustainable Development in grave danger, along with humanity’s very own survival.” We are placing our attention, time, resources and energies on putting out fires (literally) now rather than working towards achieving something as lofty as the SDGs, which seem way off in the future. We are prioritizing short-termism⁸ over long-term future thinking and by doing so, in its very nature, we are also putting humanity’s survival in jeopardy. We may indeed be facing an array of global crises today, but it doesn’t and shouldn’t mean we give up and abandon these

⁶ See: <https://sdgs.un.org/goals>

⁷ See: <https://unstats.un.org/sdgs/report/2022/>

⁸ “A way of thinking or planning that only considers the advantages or profits you could have now, rather than the effects in the future” - Oxford English Dictionary

goals entirely, nor does it mean we need to slow progress. On the contrary, we must find ways to accomplish if not accelerate their delivery to help safeguard the future of our planet.

Whilst we cannot dismiss the gravity of the ongoing and immediate challenges humanity is currently facing, and in order to systematically ensure humanity's survival on Earth, *we must balance short-term thinking with longer-term futures perspectives, anticipate what is coming so we can make better decisions today that secure our collective tomorrow.* We must therefore prioritize both. The SDG 2030 clock is indeed starting to tick, so how do we fast-track their progress and turn their promise into action?

As the PIs of this research project, and who are experts in sustainability and in the field of futures, we believe that a thorough understanding of the concept of the SDGs within a longer-term futures perspective - with a 50-100 year timeline and beyond - is fundamental for their most effective delivery, as well as for the delivery of further international sustainability goals that will be set over time. If humanity continues, therefore, to choose short-termism and to limit our thinking about SDGs and sustainability more broadly - without a longer-term futures perspective, the PI's argue that our current day institutions will become progressively more ineffective, decision makers will continue to adopt approaches that are biased towards very short-term profit, and leaders will deepen their floundering without a sound philosophical foundation for why we should care about current and importantly the future generations after us.

PART II: Unpacking Futures in the SDG Context

1- What do we mean by “Futures” exactly?

Futures studies, futures research, futurism or futurology is the “systematic, interdisciplinary and holistic study of social/technological advancement, and other environmental trends; often for the purpose of exploring how people will live and work in the future.”⁹ Some of the most commonly used approaches used in the field of futures studies include *Futures Thinking* and (Strategic) *Foresight* - strategic processes that use certain tools to explore possible future scenarios, examine drivers and past historical influences, and generate new ideas that help to create strategies for future-readiness. These more practical futuring approaches are also known as *Applied Futures*. Two of the main tools that are used in applied futures work include trends assessments and scenarios.

Trend assessments focus on understanding changes in key aspects of our reality over time that may have the most influence upon our futures. For example, trends with respect to aging societies and falling fertility rates have major implications for many developed countries. Trend assessments can be done with respect to specific SDGs and their subgoals globally, nationally, regionally, and locally. The assessments can highlight growing areas of concern or areas where progress towards meeting SDGs may be occurring without policy interventions. Trend assessments can also identify changes in society, technology, environment, economics and politics that may fall outside of the purview of a specific SDG but nevertheless may have substantial influence on the SDG moving into the future. System diagrams that synthesize and link trends and SDGs can highlight these relationships.

In the world of futures studies, scenarios are short written descriptions of potential future worlds. They can be written in a way that describes distinct and disparate possible futures. Each scenario would assume the emergence of different sets of driving forces and different but plausible directions for the most important trends. Scenarios should be written to be most useful for the particular user (e.g. global scenarios might be most appropriate for United Nations organizations, regional scenarios might be most appropriate for cities). Strategies to achieve sustainable development goals that work across multiple scenarios would be favored over strategies that are only successful in the business-as-usual scenario.

Other commonly used tools¹⁰ include horizon scanning, cross-impact analysis, futures wheels, and Delphi method. It should also be noted that futurists value working closely with individuals to explore possible future worlds. Thus, also in the futurists’ toolkit are

⁹ See: <https://wfsf.org/about-futures-studies/>

¹⁰ See a comprehensive list of futures tools here: <https://oecd-opsi.org/guide/futures-and-foresight/>

workshops, education, and learning which also includes building capability and skills for imagining diverse and multiple futures, otherwise known as Futures Literacy.¹¹

Beyond its more common and practical applications, futures work can also take on more philosophical and ethical connotations, especially when considering long-term futures. We call this particular focus *Transcendental Futures*, a term which we have formulated for this very paper and which has emerged from a recently published book¹² authored by Dr. Bruce Tonn which considers the philosophical underpinnings, policy foundations, institutional innovations, and deep cultural changes needed to ensure that humanity has the best chance of surviving and flourishing into the very distant future. The concept of transcendental futures is concerned with *why* we should care about future generations and what obligations current generations have to future generations. This facet of futures studies is characterized by very long-term *futures perspectives* which also, but its very nature, encompasses concerns about human extinction. When it comes to the SDGs, transcendental futures enables us to understand why we should care about setting and meeting these goals in the first place. It is this particular aspect which forms one of the more central components of our research along with the power of combining both applied and transcendental futures together to achieve maximum impact.

2 - Linking Transcendental Futures to Sustainable Development

The field of futures and sustainable development are inextricably linked in the seminal definition put forth by the Brundtland Commission in 1987, “*Development that would meet the needs of the present without compromising the ability of future generations to meet their own needs.*” Subsequent definitions of sustainable development have focused on specifying the environmental characteristics of sustainability. For example, Herman Daly,¹³ the founder of Ecological Economics, proposed these three conditions:

- Non-renewable resources should not be depleted at rates higher than the development rate of renewable resources;
- Renewable resources should not be exploited at a rate higher than their regeneration level;
- The absorption and regeneration capacity of the natural environment should not be exceeded.¹⁴

It is notable that time is not explicitly referenced in this definition though implicitly each condition must be perpetually met. For example, from now into the indefinite future, non-renewable resources should not be depleted at rates higher than the

¹¹ See: <https://en.unesco.org/futuresliteracy/about>

¹² Tonn, B. 2021. *Anticipation, Sustainability, Futures and Human Extinction: Ensuring Humanity's Journey into the Distant Future*, Routledge Publishing, London, May.

¹³ See: <https://www.nature.com/articles/s41893-022-01041-0>

¹⁴ Daly, H. 1990. Towards Some Operational Principles of Sustainable Development. *Ecological Economics*, 2, 1, 1-6.

development rate of renewable resources. The everlasting aspects of these conditions must then encompass concern for future generations. In fact, these conditions could be considered as obligations to future generations, which are at the heart of transcendental futures.

Over time, the concept of sustainable development began to also encompass equity considerations. This progression is seen clearly in this definition of sustainable development from Donella Meadows: *“Our rational minds tell us that a sustainable world has to be one in which renewable resources are used no faster than they regenerate; in which pollution is emitted no faster than it can be recycled or rendered harmless; in which population is at least stable, maybe decreasing; in which prices internalize all costs; in which there is no hunger or poverty; in which there is true enduring democracy. But what else?”*¹⁵

The current set of 17 Sustainable Development Goals clearly expands upon Meadow’s vision of a world with no hunger and poverty. The set of 17 also answers the question of ‘what else’ with the inclusion of quality education (#4), gender equality (#5), peace, justice and strong institutions (#16), and partnerships for the goals (#17). One can argue that over one-half of the SDGs represent goals that move beyond strictly energy and environmental concerns. As discussed below, these kinds of equity conditions can also be interpreted as everlasting obligations to future generations.

Roughly coincident with the emergence of sustainable development as a global concept of import, in the 1980s and 1990s the futures studies community introduced and proposed refinements to notions of what current generations might owe to future generations. For the sake of this discussion, we group efforts to understand obligations to future generations under the rubric of transcendental futures. Initially proposed obligations to future generations include:

- Regarding the natural resources of the Earth, present generations have no right to use to the point of depletion or to poison what they did not create;
- There is a prima facie obligation of present generations to ensure that important business is not left unfinished;
- Caring for future generations is ethically defensible;
- Current generations should work to maintain options open to future generations.¹⁶

One observation about our obligations to future generations is that they can overlap with components of definitions of sustainability (see the first bullet above). This can be seen more explicitly in a recently proposed set of 12 obligations to future generations,

¹⁵ Meadows, D. (1994). Envisioning a Sustainable World. Third Biennial Meeting of the International Society for Ecological Economics, San Jose, Costa Rica, October 24-28.

¹⁶ See Bell, W. 1993. Why Should We Care About Future Generations? In Didsbury, H. (Ed.) The Years Ahead: Perils, Problems, and Promises. World Future Society, Washington, DC. 25-41 and Slaughter, R. A. 1994. Why We Should Care for Future Generations Now. Futures, 26, 1077–1085.

renamed as Perpetual Obligations.¹⁷ This new set does make reference to the SDGs but separates those concerned with energy/environment and society/equity into obligations to bequeath future generations sustainable production systems and sustainable societies. Then the set moves beyond the SDGs to include obligations to prevent human and species extinction, and maintain the essentials of nature and humanity in the face of advances in genetic engineering, for example.

In summary, from early on, the concepts of sustainable development and obligations to future generations have shared a common philosophical foundation with respect to equity and environmental concerns. Over time, one can see that the SDGs have become more specific and stated as mid-term while new ideas about obligations to future generations have kept a higher level of abstraction and have expanded to include risks to humanity.

3 - How Futures can better enable the delivery of the SDGs

The field of futures - both from an applied and also from a more philosophical perspective - has an enormous potential to fast-track the achievement of the SDGs and the sustainability movement more broadly. Applied futures can help decision makers craft strategies that are more systemic, take advantage and/or respond better to upcoming trends, as well as more quickly identify barriers and weak strategies for achieving SDGs. Trend assessments, for example, could help identify promising new technologies that could be effectively deployed to hasten achievement of SDGs. Taking the time to develop well-articulated sets of disparate scenarios that push policymakers to think beyond the business-as-usual case could reveal that current SDG strategies may be ineffective in most, if not all, potential futures except the business-as-usual case. In these instances, strategies may need to be rethought to make them more robust across potential futures. Scenario writing is a useful exercise for building a deeper understanding of systems issues around SDGs and improving decision-making for example around longer-term public policy and planning or on broader dialogues and debates on how to reimagine government.

The impacts of transcendental futures on accelerating achievement of SDGs, on the other hand, is less direct but could be *more profound*. Transcendental futures focuses on meeting obligations to future generations over the very long-term. Adopting this futures perspective, one can argue, means that one would also support shorter-term strategies to meet our obligations, such as the SDGs. While there may be debates about the number and identity of SDGs and what the short- to mid-term goals might be, there would not be debate about whether SDGs, in concept, ought to be supported. This would save time in instances where potential stakeholders first need to be convinced that they should support the SDGs.

¹⁷ Tonn, B. 2021. *Anticipation, Sustainability, Futures and Human Extinction: Ensuring Humanity's Journey into the Distant Future*, Routledge Publishing, London, May.

Strong and vital commitments to transcendental futures and the SDGs could also save time and resources over the longer-term. This is because the policies and programs being used to achieve SDGs might be less likely to be reversed or abandoned. A futures perspective also helps to communicate that the setting and achieving of the SDGs is not a one-and-done global exercise. Achieving these goals is actually an unending challenge which will naturally change over time and so the adoption of longer-term futures perspectives can allow the necessary time and space to reconsider and refresh the SDGs as needed.

Lastly, adoption of transcendental futures perspectives can help ensure that all policymaking is made in reference to obligations to future generations. To help explain this benefit, let's introduce the *culture of health* initiative of the U.S. based Robert Wood Johnson Foundation (RWJF).¹⁸ RWJF is dedicated to helping improve the health of Americans. For years, they provided grants to improve in-hospital care. Upon reflection, they found that results of the grants were not as effective as one might hope. Also, the grants did nothing to reduce the flow of patients into hospitals. The culture of health initiative aims to improve the health of Americans so that they do not have to be hospitalized as often. To achieve this goal, RWJF provides grants to communities to help them build health considerations into non-health related policymaking, such as with respect to housing and transportation. The idea is that health could be improved if every housing and transportation policy decision was also made with health in mind. RWJF also provides research grants to build a base of evidence to show how non-health centric programs can actually produce positive health impact. Similar to the premise of RWJF, we therefore believe that in order for the SDGs to be successful, an overarching mission infused with obligations to our future generations is an absolute must.

¹⁸ See: <https://www.rwjf.org/en/building-a-culture-of-health.html>

PART III: Our Findings

1 - A Snapshot of what's already happening in the Futures and Sustainability space

When diving into this research, we discovered that there was quite a lot more happening in the sustainability and general futures space than we had initially anticipated. Below we provide a quick snapshot of some of these works that we have come across in this short research project and what we believe are worthy of mentioning here, particularly when it comes to laying the groundwork for more philosophical considerations for future generations. Please note that this is by no means an exhaustive review of what is out there, and we fully appreciate that there are most likely many more initiatives that exist - from global to local alike. Our purpose here, therefore, is to provide a very broad high-level overview, in order to give you, the reader, a sense of what's going on in this space.

1.1 Internationally

Internationally, organizations such as the United Nations have been notably active in this space, particularly with the production of various futures-related manuals, reports and associated frameworks that help to better inform policies and programs connected to sustainable development.

For example, the United Nations Development Agency (UNDP), the United Nations' lead agency on international development, produced a foresight report in 2018 to assist government agencies with SDG implementation. Through concrete suggestions and examples, the manual provides examples of how and where foresight can be applied in the policy cycle, thereby enabling governments to become more adaptable to emergent issues that they may be facing. At the same time, this particular manual also puts forward the idea of governments becoming 'systems stewards' where they could act as a platform within a wider network, rather than their current 'command and control' role.¹⁹ Also, and more recently, in 2023, the UNDP published a primer on anticipatory government that explores multiple futures in support of risk-informed development²⁰ as well as a separate primer on foresight and alternative futures has also been developed for the UN's Development Assistance Frameworks.²¹ Whilst these reports and frameworks are useful, particularly when it comes to guiding stakeholders around the use of applied futures in the SDG space, there are limited linkages made to longer-term futures perspectives. At the same time,

¹⁹ See:

https://www.undp.org/sites/g/files/zskgke326/files/publications/UNDP_ForesightManual_2018.pdf

²⁰ See:

<https://www.undp.org/publications/dfs-choosing-your-tomorrows-using-foresight-and-anticipatory-governance-explore-multiple-futures-support-risk-informed-development>

²¹ See: <https://unsdg.un.org/sites/default/files/Final-DOCO-foresight-paper.pdf>

we also miss an element of practical roll-out of this guidance which is a lost impact opportunity.

In terms of other futures initiatives - the United Nations Educational, Scientific, and Cultural Organisation (UNESCO) has also been particularly active especially with their global efforts to increase futures literacy i.e. through their future literacy laboratories.²² According to UNESCO, future literacy “is the skill that allows people to better understand the role of the future in what they see and do. Being futures literate empowers the imagination, enhances our ability to prepare, recover and invent as changes occur.”²³ Also, the UN Global Pulse,²⁴ a hub for experimentation to support and advance the UN Charter, uses imagination, information and insight to help prepare the UN for the Future. Layering on the philosophical lens of transcendental futures would only enhance the effectiveness of both these futures literacy efforts and the UN’s futures experimentation. Going one step further, we also see the UN General Assembly’s publication of a “Declaration on Future Generations”,²⁵ which includes, in its recommendations, a *Generational Test* to evaluate decisions and policies against their long-term impact on future generations, as well as the development of an *Intergenerational Sustainability Index*, both of which would help to ensure better political representation for unborn generations.

Another international organization that is also particularly active in the futures and sustainability space is the World Business Council for Sustainable Development,²⁶ a global, CEO-led organization of over 200 leading businesses working together to accelerate the transition to a sustainable world. For the past couple of decades, WBCSD has certainly been infusing a lot of their work with a longer-term futures perspective, at least strategically, in any case. Examples include, the WBCSD Vision 2050; Time To Transform²⁷ which builds on their older Vision 2050 work conceptualized in 2010²⁸ and lays out a new framework to guide business action in the decade ahead. At the heart of this framework are nine transformation pathways – actionable routes for companies to take – covering the areas of business activity that are essential to society: energy; transportation and mobility; living spaces; products and materials; financial products and services; connectivity; health and wellbeing; water and sanitation; and food.

²² Riel Miller, 2018. Transforming the Future: Anticipation in the 21st Century. Routledge, London.

²³ See: <https://en.unesco.org/futuresliteracy/about>

²⁴ See: <https://www.unglobalpulse.org/>

²⁵ See:

<https://www.un.org/pga/77/2023/07/18/letter-from-the-president-of-the-general-assembly-issues-paper-for-the-declaration-on-future-generations/>

²⁶ See: <https://www.wbcasd.org/>

²⁷ See; <https://www.wbcasd.org/Overview/About-us/Vision-2050-Time-to-Transform>

²⁸ See:

https://www.wbcasd.org/Overview/About-us/Vision_2050/Resources/Vision-2050-The-new-agenda-for-business

Another example of how WBCSD has been contributing to the futures and sustainability space is their 2017 guide on how to use futures thinking to help drive corporate resilience and transformational innovation.²⁹ This guide, prepared by the Sustainable Lifestyles Cluster, explores how companies can use futures thinking to help improve strategic business decision-making. Also, and in 2015, WBCSD together with the Global Reporting Initiative³⁰ and UN Global Compact³¹ developed an SDG compass³² to explore how the SDGs and business can align their strategies with the global goals and how they can contribute towards them. Under the UN SDG initiatives, you can also find dedicated SDG hubs,³³ which are various communities of practices which are being replicated across different organizations to facilitate SDGs implementation. Again the addition of a transcendental futures lens could further strengthen these efforts.

One of the most directly relevant international initiatives we have come across in this research is a recently published report to the Club of Rome³⁴ called “Earth for All; A survival guide for Humanity.” Composed of leading economic thinkers, scientists, and advocates, Earth4All is an initiative whose central aim is to accelerate the systems-change needed for an equitable future on a finite planet. The book builds on the well-known “Limits to Growth³⁵ Report to the Club of Rome” published in 1972, which was fundamental in shaping the beginnings of the sustainable development movement.

By using powerful state-of-the-art computer modeling and foresight analysis, the Earth for All book presents two different scenarios 1) Too Little Too Late scenario which mirrors our current trajectory with limited action to our ensuing poly crises and 2) The Giant Leap scenario which assumes societies embark on a new path to a sustainable world by 2050. To achieve the Giant leap scenario, the book reveals *five extraordinary turnarounds* to help us achieve prosperity for all within planetary limits in a single generation. These turnarounds look at how to address poverty and inequality, as well as how to boost women empowerment and both the food and energy transition. The ultimate message from the book is based on the premise that the next ten years must see the fastest economic transformation in history if we want to steer humanity away from social and ecological catastrophe/collapse. For us, this initiative, and what it puts forth, is a true embodiment of the concept of transcendental futures and we are both grateful and impressed that such important and succinct work has already been done in this space that offers clear pathways forward. We are surprised, however, that we are not seeing more of an immediate roll-out of these detailed transformational pathways

²⁹ See: https://docs.wbcsd.org/2017/01/Future_Thinking/1_Futures_Thinking.pdf

³⁰ See: <https://www.globalreporting.org/>

³¹ See: <https://unglobalcompact.org/>

³² See:

https://sdgcompass.org/wp-content/uploads/2015/09/SDG_Compass_Guide_Executive_Summary.pdf

³³ See: <https://sdgs.un.org/partnerships/sdg-hub-global-sdgs-network-innovation-and-impact>

³⁴ See: <https://www.clubofrome.org/>

³⁵ See: <https://www.clubofrome.org/publication/the-limits-to-growth/>

that have been laid out among the varying stakeholders. We therefore believe that this could be an area for important collaboration to help pick up pace, considering the urgency humanity is facing.

1.2 Regionally

Regionally, we point here to valuable work conducted by the European Commission - the European Union's politically independent executive arm - where the Strategic Foresight Programme has implemented a sophisticated process to link SDGs and futures methods.³⁶ This process entailed developing, alongside key stakeholders, a set of scenarios for the future of the EU and then assessing each of the 17 SDGs across each scenario. A visual aid, in the form of a thermometer, was used to indicate the likelihood of achieving the particular SDG in the scenarios. The exercise indicated that achievement of the SDGs was not robust across all scenarios. It is unclear to what extent the outputs of this particular exercise had on EU policymaking. Additionally, it is unclear whether consideration of SDGs at the broader EU level trickles down to nations, states/provinces/cities and municipalities. Whilst this exercise did not link to transcendental futures, we did find it one of the best practical and applied examples of linking futures and SDGs that we have seen in an actual policymaking setting - minus the application of a philosophical lens, which, again would make all these exercises and initiatives so much more powerful - although it is unclear if this work led to anything.

Some other interesting initiatives that have been supported by the European Union include the Futures4Europe Platform,³⁷ a foresight consortium made up of foresight experts, EU policymakers and enthusiastic citizens that collect, host and distribute foresight activities in and about Europe. Another creative project that has been funded by the EU is the Stories from 2050³⁸ which, in 2021, developed a set of thought-provoking narratives and stories around both challenges and opportunities of our collective future. The primary goal of this exploratory project has been to enable its readers, which include policymakers, to imagine futures beyond business-as-usual thinking. What we appreciate here is the enthusiasm and appetite that exists within the EU community to apply futures to improve our collective decision-making around important topics that affect all of us. Whilst the direct link has yet to be fully made to the transcendental futures, the right ingredients - mindsets, vision, creativity - are already there.

1.3 Nationally

Nationally speaking, we found some interesting examples of where futures had been implemented within public institutions policies and initiatives. For example, the Welsh government, since 1999, has recognised its duty to promote sustainable development. Initially, the strategic frameworks that were created to help deliver sustainability

³⁶ European Commission, 2018. Qualitative Foresight Exercise Assessing Progress on the UN Sustainable Development Goals in the European Union.

³⁷ See: <https://www.futures4europe.eu/>

³⁸ See: <https://explore.storiesfrom2050.com/stories#/tab-fourth>

across Wales ran separately to the central government programme and so were not fully embedded, which meant that the results were not as wide-reaching. Over the ensuing years, it became apparent that in order to fully deliver long-lasting sustainability ambitions, something needed to change. It wasn't until 2012 that the Welsh government decided to commit to putting the development planning process at the heart of government and create structures for longer-term decision-making for development amongst short-term timetables.

Building on these initial frameworks and structure, in 2015, the Welsh National Assembly voted in the Well-being of Future Generations (Wales) Act. The Act includes a number of mechanisms that improve long-term decision-making, including regular five-year reporting, community engagement, a Future Generations Commissioner as a statutory function, and 40 indicators that are long-term measures of progress and future trends reporting. It is critical to recognise that this comes in the context of devolution (the Assembly was created in 1998). Wales was engaged in public and cross-party debate about the kind of nation it was, and the kind of values it held. The community of Wales could therefore develop a common view of its purpose, including its responsibility to the rest of the world. There were several factors to the success of this forward-thinking initiative in Wales; firstly there was a strong, activist civil society network at the local and national levels and secondly there was strong political leadership (and especially one senior champion) to drive this approach. At the same time, consultative processes were fundamental in the initiatives' success such as the "world we want" exercise as well as awareness raising and building around why this is important and the purpose behind it. Equally as important was enabling sub-national regions and devolved regions to be able lead on innovative processes.

For us - this example from Wales is extremely important and is a process that could be replicated across many (Western) countries that have the right ingredients to deliver an initiative like this. Whilst our quick cursory review of this example indicates that this futures initiative of the Welsh government does indeed connect the SDGs to the obligations to future generation, there is no reference to transcendental obligations such as preventing human extinction. Having said that, the Welsh example is possibly one of the closest national examples we have found that are on their way to linking to transcendental futures.

Whilst the Welsh example is really quite extraordinary, there are other national examples also worth highlighting here. For example, since 2019, New Zealand has been prioritizing their citizens' quality of life through their now well-known Wellbeing Outlook and Approach³⁹ focus which is also mirrored in the country's Well-being budget.⁴⁰ In support of these endeavors, the New Zealand government makes use of a

³⁹ See: <https://budget.govt.nz/budget/2023/wellbeing/outlook/index.htm>

⁴⁰ See: <https://budget.govt.nz/budget/2023/wellbeing/index.htm>

whole suite of futures tools⁴¹ to enable longer-term decision-making, particularly in policy processes. Other initiatives of interest which we have come across in our research include an initiative from Hawaii launched in 2014 known as the Aloha+ challenge⁴² which is a statewide public-private commitment to achieve Hawaii's social, economic, and environmental goals by 2030. What we particularly like about this initiative is the dashboard which tracks statewide progress and benchmarks data on the Aloha+ SDGs and Hawaii's contribution to the global goals. Also incredibly noteworthy for this report are the efforts being made by Canada⁴³ and Finland⁴⁴ in anticipatory governance where future studies and foresight are being used specifically to improve policy-making and political decision-making processes.

Other national examples that we would like to highlight include Singapore's Green Plan, a nationwide movement launched in 2019 to advance the country's national agenda on sustainable development. The Green Plan charts ambitious and concrete targets over the next 10 years, strengthening Singapore's commitments under the UN's 2030 Sustainable Development Agenda and Paris Agreement, and positioning us to achieve our long-term net zero emissions aspiration by 2050. Whilst there are many nations working towards their 2030 and 2050 commitments, what we particular value about this example is their '30 by 30' initiative,⁴⁵ which features under the Green Plan where the focus is building up their agri-food industry's capability and capacity to sustainably produce 30 per cent of the country's nutritional needs by 2030. For a crowded city with over 5 million inhabitants that imports almost 90 per cent of its food it's needless to say this initiative is ambitious. But with funding set aside and plenty of innovation and technology in use, Singapore is putting its money where its mouth is quite literally and already prioritizing its obligations to future generations. Singapore's Centre for Strategic Futures,⁴⁶ which helps to navigate emerging strategic challenges and harness potential opportunities in an evolving world, also plays a fundamental part in setting the government's priorities, including initiatives like its Green Plan.

And finally, we would also like to make note of the work of the Dutch government, particularly that of their Environment Agency, PBL, which, along with various partners, has developed the GLOBIO⁴⁷ platform. This platform has been designed to inform and support policymakers by quantifying global human impacts on biodiversity and ecosystems. The model is tightly connected to PBL's IMAGE⁴⁸ model, an integrated assessment model that simulates the global environmental consequences of human activities. Over the past years, the IMAGE-GLOBIO framework has been extensively

⁴¹ See: <https://www.dPMC.govt.nz/our-programmes/policy-project/policy-methods-toolbox/futures-thinking>

⁴² See: <https://alohachallenge.hawaii.gov/>

⁴³ See: <https://horizons.gc.ca/en/home/>

⁴⁴ See: <https://vnk.fi/en/foresight/government-foresight-group>

⁴⁵ See: <https://www.ourfoodfuture.gov.sg/30by30/>

⁴⁶ See: <https://www.csf.gov.sg/>

⁴⁷ See: <https://www.globio.info/>

⁴⁸ See: https://models.pbl.nl/image/index.php/Welcome_to_IMAGE_3.2_Documentation

used for environmental assessments, for example for the Convention on Biological Diversity (CBD) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). Whilst there are limited philosophical considerations in these initiatives, we value the data-driven pragmatism of these tools and how they attempt to inform policy and decision-making processes through projections of future changes in biodiversity and ecosystem services.

1.4 Other

Here we highlight some other relevant initiatives as well as organizations who are doing interesting work in the futures and sustainability space. The first one we'd like to draw attention to here is the work of Forum for the Future,⁴⁹ a leading international sustainability non-profit running out of offices in the UK, US, India and Singapore. Founded by Jonathan Porrit, a famous British environmentalist, in 1996, Forum's work has gone from strength to strength over the years when it comes to catalyzing change in key global systems. Building on their already impressive track record of change-making, in 2015 the non-profit set up their Futures Centre,⁵⁰ an open, participatory futures platform which helps track and make sense of change in order to create a more regenerative and just future. The Centre also reports on signals and provides reflective insights on sustainability progress. Whilst philosophical links have yet to be made, it is platforms and initiatives like these that would be well positioned to start articulating these broader narratives around our perpetual obligations to futures generations and linking back to the more practical steps that they already highlight.

We also came across another interesting multi-partner initiative called the Good Life Goals⁵¹ which, through an engaging guide,⁵² personalizes and humanizes the SDGs to enable wider public audiences to recognize and understand the vital role of individual action in achieving the goals. Driven by a UK-based sustainability communications agency, Futerra,⁵³ along with government and institutional partners, this guide offers 85 ways that anyone can contribute towards the huge, planet-changing objectives that sit at the heart of the SDG agenda. We remain curious about the reach and impact of this initiative and if it has indeed helped to raise awareness about our individual roles when it comes to achieving the global goals. No connection to transcendental futures however, which is a missed opportunity.

Another incredibly promising initiative which probably, out of all the other initiatives we have reviewed, is the one which makes the *strongest links to the philosophical connotations of futures* and without necessarily doing futures work themselves, is

⁴⁹ See: <https://www.forumforthefuture.org/>

⁵⁰ See: <https://www.thefuturescentre.org/>

⁵¹ See: <https://sdghub.com/goodlifegoals/>

⁵² See: https://docs.wbcsd.org/2018/09/Good_Life_Goals/Manual.pdf

⁵³ See: <https://www.wearefuterra.com/>

that of the Inner Development Goals (IDGs).⁵⁴ The IDGs is a non-profit organization founded in 2020 which places its attention squarely on improving our individual and our collective inner development. Through researching, collecting and communicating science-based skills and qualities, the IDGs are on a mission to help us live more purposeful, sustainable, and productive lives. At the same time the work of the IDGs also compliments the vision of the SDGs by helping build up our inner capacities to deliver on these ambitions and to support a sustainable future. Whilst the philosophical considerations of why we need to develop our inner capacities to deliver on the SDGs are clear, there seems to be no direct reference being made, from what we have observed, to our obligations to future generations and the prevention of human and species extinction. Applying transcendental futures to the IDG initiative would make for a strong link and important bridge-building exercise between our internal capacities needed to deliver on the SDGs and the actual achievement of the goals themselves.

Turning our attention briefly now to the private sector and whilst, again we fully appreciate that there are many more company initiatives - big and small - that are driving sustainability with a futures lens, we'd like to highlight here the work of a member-lead organization that we came across in South Carolina in the US. Sustain Carolina⁵⁵ is a private organization that connects the sustainability goals of business in South Carolina with local solutions for the benefit of our economy, environment, and people. By facilitating conversations between businesses and local stakeholders, Sustain Carolina is able to encourage more in-state sustainability investments which help to benefit both the state's economic and natural resource infrastructures. Whilst Sustain Carolina are primarily focused on locally meeting the SDG 2030 goals, which is an achievement in itself in South Carolina, the organization has intentions⁵⁶ of going beyond this timeframe and incorporating longer-term perspectives to meet the obligations of future generations. Again there is no concrete link to transcendental futures, but there indeed could be a link made in the future owing to the versatility and already forward-thinking of the organization and its current leadership. An organization to definitely keep an eye on in the US!

Whilst there is quite a hive of activity in the futures and sustainability space being led by the likes of international organizations mentioned above, little reference is made to the more philosophical connotations of transcendental futures, building up a culture of health and wellbeing for both people and planet and on preventing human extinction. Additionally, there are many efforts nationally and regionally that benefit from strategic approaches to SDGs, though it is not clear if many efforts make use of applied futures methods. To spur the use of applied futures methods, the United Nations has supported the development of applied futures methods reports and futures literacy programs, though it is unclear how much influence these investments have had.

⁵⁴ See: <https://www.innerdevelopmentgoals.org/>

⁵⁵ See: <https://www.sustainsouthcarolina.org/>

⁵⁶ Based on information captured with Sustain Carolina representatives in June 2023.

2 - Barriers to adopting futures perspectives within the SDG community

Whilst applied futures may be gaining popularity within the SDG community, there does seem to be limited philosophical consideration and a clear commitment to our obligations to future generations. Here we share our observations of, what we believe, are some of the most major systemic⁵⁷ barriers that are being experienced from within the SDG community i.e. those actors, albeit private or public, who are working towards the achievement of the SDGs, and specifically when it comes to the adoption of longer-term futures perspectives and our obligations towards preventing human and species extinction. For ease, we have grouped our observations under the categories below.

Political

Politics is possibly one of the biggest systemic barriers that may prevent any organization or actor from adopting longer-term futures perspectives. Simply put, if governments around the world are not setting the right regulatory conditions and continue to operate within short timeframes (usually around political cycles), then this makes it difficult for other non-government actors to adopt longer-term futures perspectives. At the same time governments and associated government agencies are often slow to detect the increasing irrelevance of policies, and are inattentive to promising opportunities until they have passed by. This is because in many cases governance models are not yet future ready.

Financial/Economic

Another major barrier is that our economic and financial priorities often overshadow social and environmental priorities. According to a recent EU publication⁵⁸ “the financial gap to reach the SDGs has increased from USD2.5 trillion before the pandemic, to USD3.5 trillion thereafter” which demonstrates, again, the lack of prioritization that is being given to the very item that keeps us alive - the Earth itself. The capitalistic underpinnings of our society and the focus on market-led growth are key culprits for this imbalance.

Cultural

Another barrier to adopting longer-term futures perspectives is culture. Certainly the field of futures has been observed to be used predominantly in Western cultures. Across other regions of the world which are poorer or more unstable, thinking about the future may be viewed as a luxury as their priority is simply surviving in the here and now. They may believe that they are not in a position to think about the needs of future generations and therefore tend to focus more on their immediate needs for

⁵⁷ Problems that affect the whole of a society.

⁵⁸ See:

[https://www.europarl.europa.eu/RegData/etudes/IDAN/2022/702576/EXPO_IDA\(2022\)702576_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/IDAN/2022/702576/EXPO_IDA(2022)702576_EN.pdf)

themselves, their families and communities. This can make the field of futures, to some degree and in some contexts, unrelatable, although, we would argue that it is necessary to both attend to current needs and also consider futures in parallel. We understand that futures that are observed from the more Western perspective can be very different to futures seen by the likes of the Global South as well as the likes of Indigenous communities. This is as expected. Futures models therefore can oftentimes be too global, with a Western lens applied, and not regional enough, where cultural, social, and political differences, for example, need to be taken into consideration.

Organizational

Organizational/company structure and culture can also be a huge barrier - albeit on a smaller scale to the barriers just mentioned - when it comes to adopting longer-term future perspectives. This can often be due to short-sightedness and prioritizing profit and growth over rethinking the purpose of the business where there is an equal balance towards environmental and social priorities. It can also be linked with the leadership and not having the change mindset nor the tools or capabilities to think beyond the here and now. This means that business strategies usually have no more than a 5-10 year timeframe and do not consider longer-term futures perspectives and the role of their business when it comes to crafting the future for future generations.

Social

Across large proportions of society there does seem to be limited awareness of the SDGs and sustainability more broadly. However, the fact that we have now entered into an era of polycrises, these issues are definitely coming home and becoming more and more real for all of us, making it difficult for us to avoid them for much longer. This social barrier can be linked to our individual and collective limiting mindsets and behaviors which can often be linked to a lack of education and/or also our broader system's focus on the market and economics over what kind of vision we want for our society.

Technical/Technological

Another barrier or two that are very interrelated are technical and technological barriers. Here we point to a lack of data available/being collected that measures and tracks SDG progress. For example, across many regions around the world there is a lack of an SDG baseline which makes it difficult for actors concerned to translate the broad SDGs into clear targets and action plans. There is also a lack of technical skills and knowledge in this longer-term futures space, which also blocks progress. On more of a conceptual level there are also many overlapping and competing discourses for sustainable development and sustainability which can make action and change even more challenging. Technologically speaking, we see global disparities where there is an AI race to the bottom occurring in the tech sector whilst public institutions are struggling to keep up with technological innovations which, for example, makes data measurement and management less effective or non-existent.

Psychological/Spiritual

Perhaps the biggest and perhaps most complex barrier of them all, in our eyes, is the psychological and spiritual barrier, which includes the fear of change that plagues most humans and tends to make us avoid bigger issues we don't want to see (head in the sand), and perhaps even the fear of our own demise. It also includes human selfishness, greed and apathy. And it is this barrier which causes us to avoid these issues rather than address them head on. We have, over time, thanks to capitalism, individualism and industrialisation, become more and more disconnected with ourselves and with nature meaning we are not just in a relationship crisis with the planet but also with ourselves. A deep cultural and spiritual transformation is needed to help us realign and make better decisions today to safeguard our tomorrow. Futures - applied and transcendental - can help us do this.

3 - Our high level insights

While the barriers we have outlined above are quite significant, we believe that by starting to further mainstream both applied and transcendental futures, ideally together, there would be more of an incentive to actually move towards a full systems transformation which would put human and planetary wellbeing first. From our snapshot of what is already happening in the futures and sustainability/SDG space and from our observations with regard to the barriers that may be preventing the adoption of longer-term futures perspectives or any kind of futures for that matter, this section provides a summary of our insights of how the impact of these barriers are currently being translated when it comes to implementing futures. By understanding the gaps, we can then provide recommendations (see Section IV below) on how we might be able to bridge these gaps and leverage what is working in order to scale up sustainability impact and encourage the systemic transformation that is required to safeguard the future of life on Earth.

The use of futures is currently significantly disjointed across and within sectors. From our brief research, we observed that there is already quite a fair amount of activity happening across the globe in the sustainability and futures space but not at speed/level/amount to create a fundamental shift. We also observed that these efforts seem significantly disjointed, particularly across and within regions and sectors. This needs to be rectified and calibrated to ensure transformational change. Applied futures is also more in use to mainly guide organizational strategic planning processes and for product and service innovation. Aside from a few emerging examples, the underpinnings of our term transcendental futures is in limited use.

SDGs are currently not being framed with respect to our obligations to future generations/transcendental futures. Our research points to the fact that currently, in most cases, the SDGs are being viewed as a near- to mid-term set of goals that merely *contribute* to our planetary wellbeing rather than a long term transformative pathway

that starts to meet the needs of current and also future generations. Just by simply meeting the SDGs does not mean that we will arrive at an endpoint in humanity's struggles. However, we believe that once we collectively accept that current generations have obligations to future generations, then it can be straightforwardly argued that supporting achievement of SDGs are contributing to meeting a subset of obligations to future generations.

Futures practice has yet to become mainstream. It would seem that those applying futures perspectives and futures tools to guide their strategic decision-making and to help shape their overall direction are still rather niche. Reasons for this could be many that range from a lack of awareness about futures, limited futures literacy and even closed mindsets that still understand futures as unreliable 'crystal ball stuff' rather than an evolving field which can help to map futures pathways. Efforts are needed to explain the benefits of futures studies, which may even reconsider the name of the field.⁵⁹ These benefits include using trends and scenarios as tools to improve strategic planning and affirming that actions to meet obligations to future generations are ethical and moral.

Not knowing where to go or what to do contributes to short termism. Those who are unfamiliar with the field of futures studies may have little to no idea about the resources available to help them think and strategize about the future. They may also have the misapprehension that making decisions and taking actions that are futures-oriented must be quite different from those with very short-term horizons. In fact, there are numerous resources available, though it is unclear whether there is an extensive open source resource of futures resources. Additionally, decisions and actions may not be qualitatively different. Decisions may encompass alternatives that take longer to implement and whose benefits may accrue over longer-time periods. In the short-term, money is still spent to get things done and people are still trained and hired to get those things done.

Futures are currently too embedded into strategic planning without applying philosophical underpinnings. The time horizons for strategic planning are typically limited to five or fewer years which is in part due to the volatile sectors that many of the organizations we interviewed operate in, where they find themselves being reactive rather than proactive with respect to achieving their visions and missions. Many of our interviewees did admit to not using futures methods nor applying futures perspectives and were interested in futures literacy training. Supporting this point, a futurist we interviewed commented that few, if any, professional futurists that they knew were providing services to those involved with SDGs.

⁵⁹ Sardar, Z. 2010. The Namesake: Futures; Futures Studies; Futurology; Futuristic; Foresight. What is in a name? *Futures* 42, 177-184.

Incentives and processes are not in place to support futures. Another observation from our research that became apparent, is the fact that the international community is plagued by a conspiracy of optimism. This means that their programs are designed to succeed in the business-as-usual case and explorations of program success in alternative scenarios almost never happens. We also observed that the outputs from futures exercises are not viewed as credible pieces of evidence by the policymaking community. In other words, the landscape of evidence used by policymakers to make decisions does not include evaluations of policies under different scenarios. It is also unclear whether organizations working in the SDGs space understand how to use the outputs from futures approaches in strategic decision-making processes.

Numerous reports have been written about strategic planning methods and futures studies techniques and have been thrown over the transcom to the SDG community. The desk review identified numerous reports and journal articles that present potentially useful methods and techniques. However, it is very unclear to what extent these tools are being used by organizations that have some stake in helping to meet SDGs. It is also unclear whether the tools are being used appropriately and if the outputs from the tools actually impact policymaking or on-the-ground local efforts. Our small number of interviews suggest that the tools are not widely used at all.

Futures literacy does not seem to be widespread in the sustainability community. The small number of interviews conducted did not reveal that futures literacy is widespread amongst practitioners who do not self-identify as futurists. They may have heard about scenario writing. They may see the need to think longer term but are quite uncertain how best to achieve this. Clearer pathways towards gaining this futures literacy is also needed.

Use of applied futures techniques could accelerate the achievement of SDGs in some circumstances. An interview with a futures leader in the European Commission highlighted how the use of trends and scenarios can potentially accelerate progress towards achieving SDGs.⁶⁰ In this case, several scenarios were developed that posited different political/economic/technological futures. The potential for achieving each of the 17 SDGs was assessed across each scenario. This exercise highlighted that current approaches to achieving SDGs are not robust across scenarios and should be reconsidered. Better thought-out approaches and targets might have increased the probability of SDG achievement.

Scenarios involving achievement of SDGs need to be customized for different policymaking contexts. It may be tempting to create one set of scenarios that can be used by those working in the SDG space across the world. As an example, the IPCC has developed a set emission scenarios to guide greenhouse gas emissions and global

⁶⁰ European Commission Ibid.

climate change modeling. The International Institute for Applied Systems Analysis (IIASA) then used these scenarios to explore pathways to achieving SDGs.⁶¹ The EC exercise on SDGs described above used a completely different set of scenarios. Research on sustainability targets, planetary boundaries and catastrophic risks used yet another separate and distinct set of scenarios.⁶² One may hypothesize that many who may wish to use scenarios may hesitate to do so because the published scenarios are not on point for their needs. In this case, technical assistance to write scenarios that are on point may be a reasonable investment.

Acquiring buy-in from some sectors and leaders is one of the biggest challenges. One of our interviewees indicated that it took several years to convince private sector firms to embrace the idea that sustainable development is both important and could be beneficial for their businesses. This is purely conjecture, but one could hypothesize that, had these firms already been operating with respect to future generations, acceptance of well reasoned SDGs would not have been an issue at all. Thus, adoption of SDGs would have been accelerated and private sector contributions to meeting SDGs might have been more robust.

Very few countries have institutions that act as formal advocates for future generations. One of the most notable is the Future Generations Commissioner in Wales. A report was found that suggests the appointment for a commissioner for the future for the EU.⁶³ If support grows to satisfy obligations to future generations, then support could also grow for the establishment of new institutions. It is then hypothesized that these institutions could then frame efforts to meet some of the obligations through the lens of achieving SDGs. Institutional innovation is needed therefore to satisfy both obligations to future generations and SDGs.

Massive disparities among and within different regions with regard to the interpretation and application of sustainability, SDGs and futures. Our research demonstrates that many European countries are frontrunners when it comes to pioneering both sustainability, SDGs and futures work as well as countries like Wales, and New Zealand. Of course, not all European countries are leveraging future studies and perspectives, so disparities also exist here. Across North America, we see Canada embedding futures much more than the US and particularly when it comes to delivering on the 2030 agenda. Even Dr. Bruce Tonn's US-based non-profit, Three³, which conducts research on energy, housing, and health, has witnessed a lack of framing or linking to SDGs, let alone applying futures to make better-decisions and policies around sustainability issues. In Asia we also see the disparities where, for example, Hong Kong is slow on the uptake when it comes to sustainability and is seemingly focused more on managing the rising costs of today rather than thinking

⁶¹ See: https://pure.iiasa.ac.at/id/eprint/15347/1/TWI2050_Report081118-web-new.pdf

⁶² Tom Cernev, 2022. Global Sustainability Targets: Planetary Boundaries, Global Catastrophic Risk, and Disaster Risk Reduction. *Progress in Disaster Science*, 16, 100264.

⁶³ European Commission Ibid.

about what's coming tomorrow, whereas Singapore, on the other hand, has been leveraging Futures for improved decision-making and strategies for at least the last 15 years, if not more.

The next section looks at how we may be able to remedy some of these gaps we have observed when it comes to translating futures impact in the sustainability space and beyond.

PART IV: What could come next

Based on our high level takeaways these are some ideas of what could come next when it comes to leveraging the futures field, especially the lens of a futures perspective to facilitate a more effective delivery of the SDGs and our collective sustainability progress more broadly. These next potential steps are organized into three categories: those related to the application of applied futures, those that forge a closer bond between transcendental futures and SDGs, and those that can contribute to either or both categories.

Next Steps: Applied Futures

- **Conduct a global survey** - A global survey could be conducted to better ascertain what is happening with respect to futures and SDGs. As noted above, this project was limited to a small number of interviews and a quick review of the literature. Adding in our own experiences, we speculate that applied futures studies tools are not widely used by organizations whose work contributes to meeting SDGs. However, we cannot be certain that this is the case, especially in the international development space. Additionally, we lack knowledge about what assistance and training might be needed in order to effectively apply these tools. Administering a global survey that has a representative sample of organizations from around the world is very challenging. However, costs can be reduced by using an on-line survey that is promoted by leading sustainability organizations around the world.
- **Support scenario development** - This next step entails providing guidance and support for the development of 'appropriate' scenarios for SDG decision-making. The literature review and at least one interview suggest that it is advisable and permissible to use different scenarios for different SDG decision-making contexts. For example, the scenarios developed by the EC to assess challenges to meeting SDGs would not be useful to decision makers in Africa or South America. Global or multinational scenarios probably would not be useful inputs to regional decision makers worried about specific problems related to water quality and supply, for example. On the other hand, it is probably worthwhile for global, multinational, and regional scenarios to be conceptually compatible in some ways. Work here would focus on developing guidance for regional SDG decision makers, especially on how they can develop scenarios that are most appropriate for their decision-making contexts.
- **Build template dashboards to link local/regional/sustainability metrics to SDGs** - As reflected upon above, there are many organizations that work in the sustainable development space that have developed their own metrics to measure their successes, track progress and indicate remaining challenges. One can hypothesize that most, if not the vast majority, of the metrics can be mapped to one or more SDGs. The goal of this work would be to develop a tool to easily allow those organizations to conceptually map their metrics to SDGs and then

provide assessments of their own contributions to meeting SDGs. The tool could also help establish baselines and roadmaps to achieve SDGs, as well as in assisting insights in systems and nexus points.⁶⁴

- **Conduct evaluations of the use of futures tools and achieving SDGs** – Also as noted above, several, if not, numerous reports have been written that provide instruction about how to conduct foresight exercises, and help organizations become more anticipatory. Several well regarded texts exist that provide instruction on futures methods, trend assessment, and scenario writing.⁶⁵ However, little is known about how well futures methods are used in the field to support SDGs in particular and sustainable development more broadly. It is proposed that more work is needed to build our knowledge in this area. Additionally, evaluation of futures methods and outputs is a nascent and under-researched area. Evaluation approaches need considerable improvement and application in this area as well. Lastly for consideration, is the evaluation of SDG programmes through the lens of futures thinking. How well are programs also meeting the goals of transcendental futures and how well can programmes be expected to succeed across numerous and disparate potential futures?
- **Conceptualize a landscape of evidence that includes outputs from futures exercises** – Judges and juries are presented with a broad range of evidence to help them determine innocence and guilt. Different pieces of evidence carry more weight than others. Wise juries use all of the evidence at their disposal. SDG decision makers would be wise to do the same. Unfortunately, from our interviews, it appears that the often qualitative outputs from futures exercises are typically not viewed as credible pieces of evidence to be brought into policy discussions, though few question using highly unreliable but quantitative outputs from forecasting models. The goal of this work is to develop an approach to encompass trend assessments and sets of written scenarios within the larger collections of evidence that policymakers use to make decisions about SDGs.

Next Steps: Transcendental Futures

- **Develop a white paper setting out relationships of our obligations to future generations and SDGs** – The white paper would expand upon the brief discussion found in Part II of this report. Consideration could be given to inviting multiple authors to also provide essays on this topic. These essays could be published in a journal such as *Futures* and could also be widely disseminated among practitioners to start cultivating the necessary dialogue that needs to happen around how to accelerate the sustainability movement.
- **Spearhead a Global Summit on the creation of more futures-orientated national institutions like the one established in Wales** - Other than Wales,

⁶⁴ See: <https://www.mdpi.com/2071-1050/12/23/9797>

⁶⁵ Peter Schwartz, 1996. *The Art of the Long View*. Doubleday, New York. Andy Hines and Peter Bishop (Eds.) 2006. *Thinking About the Future*. Social Technologies, Washington, DC.

there is only a very small number of countries that have codified advocacy for future generations into their constitutions.⁶⁶ The number of countries that codify sustainable development as an issue in their constitutions is higher but a still very small percentage of the world's approximately 200 countries. The purpose of the global summit would be to gather advocates from around the world to brainstorm approaches to codifying both caring for future generations and achieving sustainability goals into their constitutions. The outputs from the Summit could be energetically publicized and also published in a journal such as *Futures*. Next steps with respect to the generational futures perspective would be broader in scope and scale. These might include advocating for the establishment of new institutions that would be advocates for future generations. Projects in this area could also make ties between SDGs and higher level obligations to future generations.

- **Build systems to link obligations to future generations' metrics to SDG metrics**
 - As discussed above, SDGs and obligations to future generations can be conceptually linked, with the former being seen as near- to mid-term strategies for meeting the much longer-term obligations to future generations. The purpose of this work is to map progress towards achieving SDGs to progress towards meeting obligations to future generations. Specifically, the work will map SDG metrics to metrics associated with meeting Perpetual Obligations.⁶⁷ Adding to this task, a global dashboard that shows progress on meeting both SDGs and obligations to future generations could be developed. Dashboards could also be developed for each nation. Tools could be added to assess feedback loops between SDGs and obligations. An aspirational task would be to build a Global Anticipatory Decision Support System that would assist decision makers across the world synthesize and assess interactions among SDG and transcendental futures policies. Merging/blending more systems thinking and futures thinking would be beneficial here as the adoption of futures would provide the foresight to avoid/manage/prevent future shocks and to create disruptive innovations.

Next Steps: Cross-cutting

- **Establish futures literacy training programs for those involved in SDGs** – The interviews suggest that many in the SDG community are unfamiliar with the field of futures studies and common methods used in the field. It is also the case that the typical informed citizen is also mostly unaware of these concepts and ideas. Future literacy training programs will engage participants in immersive environments that address both transcendent and applied futures. Programs could be customized for the business and governmental sectors and for implementation with communities and citizens. Futures literacy training and

⁶⁶ Tonn *ibid*, Chapter 8.

⁶⁷ Tonn 2021 proposed metrics to measure whether humanity is meeting its perpetual obligations to future generations.

engagement in scenario writing could help reduce fears of the unknown/future and build psychological resilience. Dedicated futures-oriented programs can be embedded across both the public and private sectors that can make use of a suite of futures tools, methods and approaches for enhanced decision-making around sustainability.

- **Build a global scenario repository** - The repository could hold both applied futures scenarios and also global scenarios that imagine longer-term, transcendental futures. Some of the scenarios could be labeled as reference scenarios, some as over-the-horizon scenarios. Scenarios could be aspirational or dystopian. Some of the scenarios could be labeled as reference scenarios, others as over-the-horizon scenarios. Organizations that have already developed evocative and policy-relevant scenarios could immediately contribute to the repository.⁶⁸ It is important, though, to allow all voices to contribute to the repository to capture different and powerful narratives of transformation. The narratives themselves could take on many forms, such as future personas, to boost relatability. Tools could be developed to allow mining of the scenario repository to produce inputs for strategic SDG and meeting obligations decision-making.
- **Develop guidance on how to communicate results of futures exercises** – Care and consideration are needed when crafting communications about the results of futures exercises. However, effectively communicating large uncertainties is difficult. Framing in terms of obligations to future generations could be more evocative and emotive and provide more of a solid foundation to create global shared values and mindset, and places sustainable development not as the pinnacle but as a contributor to human civilization’s meeting obligations to future generations. This framework allows sustainable development to share a spotlight with other obligations of concern, such as preventing human extinction, and protecting the nature of humans. This framing also helps to better ground arguments for new institutions (i.e., a commissioner for the future of the EU). Achieving the SDGs will require the classic economy-based narrative ("GDP growth") to be replaced by a future-ready people and planet oriented narrative. Effective leadership will also be necessary to drive this new transformational narrative.
- **Develop a responsible foresight and anticipation (RFA) certification process and program for businesses and governments** – Certification of organizations for RFA practices is an innovative approach to certification.⁶⁹ This would be the first certification that pertains to forward-thinking and accountability rather than certification of past and present practices and products. Certification would be based upon assessment of an organization’s system-of-systems

⁶⁸ One example is the Earth for All initiative, under the Club of Rome, which in 2022 released a publication which outlines 5 transformative pathways for humans to make a “Giant Leap” to a more sustainable and equitable future. See: <https://earth4all.life>

⁶⁹ Bruce Tonn and Dorian Stiefel, 2023. Responsible Foresight and Anticipation: Public Policy and Governance Perspectives (draft).

diagrams, logic models, futures dashboard, and accompanying documents that describe its plans and programs with respect to meeting perpetual obligations, SDGs, other international goals, and various national, state, and local goals.

- **Create guidance documents for public and private sector sustainable development and futures-oriented decision-making** – For many reasons, decision-making regarding SDGs and long-term futures is qualitatively different from routine business and many public policy decisions. The latter tend to rely on benefit/cost analyses and focus on narrowly defined near-term expenditures. Conversely, the former are better framed as multi-attribute decisions under substantial uncertainty that may focus on civilizational-level long-term goals. The guidance documents would be developed in collaborations with stakeholders and would feature several example case studies of long-term decision-making.
- **Conduct deep dive case studies on the conditions that are created to build more forward-thinking societies like Wales and Singapore, described above.** The case studies would be built through interviews with champions and other key stakeholders and a review of documents, media coverage, and other important resources. The case studies will reveal barriers and constraints that may prevent the emergence of forward-thinking societies and describe how these impediments were overcome.
- **Improve leadership programs** – Consideration could be given to improving and/or establishing new programs to engage leaders on the topics of futures and SDGs. One approach would be to model programs that are being offered by the Aspen Institute.⁷⁰ One of the first programs offered by the Aspen Institute had leaders read and discuss books such as *Six Great Ideas* by Mortimer Adler. The purpose is to help develop critical ethical thinking. Adapted for futures and SDGs, participants could engage with critical texts in the areas of transcendental futures and SDGs/environmental ethics. Then, discussions could move to how these types of ethical principles could guide responsible anticipation and effective strategic planning.

⁷⁰ See: <https://www.aspeninstitute.org/>

PART V. Concluding Comments

The SDGs are being implemented in an increasingly volatile, uncertain, complex and ambiguous environment. Globally, governments are experimenting with planning tools that allow for change, complexity and uncertainty. Classical planning methods, with their emphasis on predictable, gradually unfolding, unambiguous change, have been found wanting to deal with the inevitable changes, disruptions and shocks that characterize modern society. One goal of this project was to assess if futures studies methods could help those working in the SDG space become more anticipatory. A second goal was to explore relationships between SDGs and obligations to future generations. Could the application of applied futures methods and transcendental futures concepts accelerate and help sustain SDG achievements?

Our interviews and desk review led to a mixture of observations. One on hand, the concepts of sustainable development and obligations to future generations evolved contemporaneously. Additionally, several reports have been prepared to provide guidance about how to use futures studies tools to support foresight in the general sustainable development space. On the other hand, we found that neither transcendental futures nor applied futures are widely used to support specific SDG efforts. Numerous barriers prevent the application of futures studies approaches to SDGs. These barriers are both societal in scope and more narrowly technical as well.

We do conclude, however, that there are many pathways to overcoming these barriers. For example, a global survey of SDG practitioners could be conducted to ascertain how applied futures methods and transcendental futures concepts could aid their work. Programs to provide training to improve futures literacy and scenario writing could be supported. A global summit could be convened to explore how both transcendental futures and achieving SDGs could be formally codified in national constitutions. And of course the fostering of much-needed collaboration between and among initiatives that is instrumental to help accelerate our collective sustainability progress. These and many other actions, some of which we have laid out in the previous section, would not only help to achieve the SDGs, but also looking beyond these goals, these bold actions would facilitate the creation of more future-ready and resilient societies, catalyze a fundamental and transformative system-wide change and help to safeguard both current and the unborn generations in front of us. Let's not waste any more valuable time. Let's start taking action and making the necessary changes today to secure our collective tomorrow.