DISRUPTORS AND ENABLERS OF RESEARCH FOR DEVELOPMENT (R4D): EXPLORING FUTURES

STELLENBOSCH FORUM REPORT

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1. Introduction and background

This report contains the synthesised output of the CST / IDRC Forum on Foresight for Research for Development (R4D) that was held at Stellenbosch Institute for Advanced Study in Stellenbosch from 6 to 7 March 2024.

The forum served as a culmination the [CST/IDRC Research for Development (R4D) Foresight project](#) run by the UNESCO Chair in Complex Systems and Transformative African Futures at Stellenbosch University and the [Science Policy Research Unit](#) at University of Sussex which brings together a team of R4D experts and foresight practitioners who use research and strategic foresight to assist funders, and R4D institutions and stakeholders to better prepare for the long-term. This involves not only anticipating risks, shocks and emerging challenges, but better identifying opportunities in the shape of enablers and catalysers that can be leveraged for positive development change.

The project, which is global in scope, aims to use strategic foresight to assist R4D actors and stakeholders, e.g., funders, relevant research institutions, and other supporters, to be better prepared for the longer-term future[1]. Within a volatile, uncertain, complex, and ambiguous (VUCA) context, R4D strategies, policies and innovations need more contextually relevant approaches to inform decision-making. Strategic foresight is one such new way of working.

R4D itself is in flux and there are various fundamental ongoing dialogues about its issues, challenges, need for transformation, and more.

This project is focused on developing and providing a systematic way of using ideas about the future of R4D and its operating environment to better anticipate, shape and prepare for change. This capability of exploring and 'using' the future will enable **R4D actors to identify strategic options to better prepare for future risks to leverage opportunities and take actions and decisions that will ultimately contribute to a transformative R4D system that is resilient and responsive in a VUCA world.**

The objectives of the project are to:

- Generate structured and systematic future-focused ideas for R4D, centred on influential STEEP-V change drivers.
- Examine the consequences of these disruptors and enablers on R4D stakeholders.
- Use strategic foresight to broaden perspectives and address persistent R4D challenges, contributing to transformative improvements.
- Create a set of strategic options derived from future R4D ideas, leading to robust strategies in VUCA conditions.
- Produce forward-looking R4D knowledge for enhanced strategy, organisational resilience, and clarity amid evolving challenges and opportunities.

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[1] By "long-term future," we refer to a horizon extending beyond conventional planning and economic cycles, typically spanning at least 10+ years but not exceeding 30+ years, in order to maintain a sensible and actionable perspective.

The Stellenbosch Forum aimed to engage participants (see Appendix A) in a dynamic and innovative manner that leads to the sharing of tangible insights, transformative strategies, and a shared commitment to supporting a preferred future for transformative R4D.

The specific objectives of the forum were to:

- Share the results from the CST/IDRC Research for Development (R4D) Foresight project.
- Demonstrate the utility and promise of foresight as an approach that opens up new possibilities and ways of changing R4D support practice
- Provide a space for R4D stakeholders to share/showcase work they are doing to transform R4D practice.
- Forge an action agenda for change.

The forum (see Appendix B for the agenda) commenced with a welcome address by Prof. Sibusiso Moyo, Vice-Chancellor Research, Innovation and Postgraduate Studies, Stellenbosch University, and two brief presentations. The first, by Tanja Hichert, provided an overview of basic foresight concepts, such as the futures cone (diagram in Appendix C), and the project with some of its current findings (download a copy of the slides here), and the other on transformative R4D as the foresight framing for the project by Fiona Marshall (download a copy of the slides here)

The benefits of utilising a futures/foresight approach for a complex topic like R4D include being able to:

- Challenge deeply held assumptions and think more openly and in a non-biased way.
- Improve awareness of the changing external environment and anticipate change.
- Create a platform for new thinking about strategy, policy, and innovation, leading to more creative, broader, and deeper insights.
- Better understand the whole system, patterns of change, and complexity within it.
- Focus on asking the 'right' questions and problems more clearly and be more aware of assumptions and mental models.
- Identify a wider range of opportunities and options and prioritise and make better, more robust decisions.
- Construct pathways from the present to the future that enable rehearsing and avoid surprise.

2. Engaging around different R4D futures/foresight applications

Participants were introduced to the foresight framework[2] that the project utilised for a structured and systemised application of foresight to the complex topic of R4D.

This framework approaches strategic foresight as a broad sequence of 'knowledge-seeking activities' that moves through 'phases'. These phases are best considered as over-lapping 'foci of activity' rather than rigidly separated 'steps'.

The foresight process framework's phases, as illustrated in Fig 1., range from intelligence gathering (foresight framing and horizon scanning) to foresight processes (futuring methods such as Futures Wheels, morphological scenarios, and Three Horizons Framework), which is the critical Interpretation of the intelligence gathering, to the actual generation of 'forward views' or 'images of the future'— what is sometimes called 'Prospection'— and then to the generation of specific outputs in the form of options, actions and recommendations. These in turn may themselves become inputs to further strategy-creation, product development, analyses and/or planning processes.

The aim was to invite participants to sample and experience 'futuring' for themselves, and at the same time generate unique content around transformative R4D by letting participants engage with the respective tools and methods.

This was accomplished by allocating participants to five random groups that circulated between 'stations' comprising:

1. Foresight framing,
2. Horizon scanning,
3. Futures Wheels with example disruptor and enabler,
4. Morphological scenarios (of alternative contextual environment futures), and
5. Three Horizons Framework (preferred future, systemic change and 'seeds' of change that exist in the present).

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[2] Based on the work of Voros: Voros, Joseph. "A generic foresight process framework." foresight 5, no. 3 (2003): 10-21.
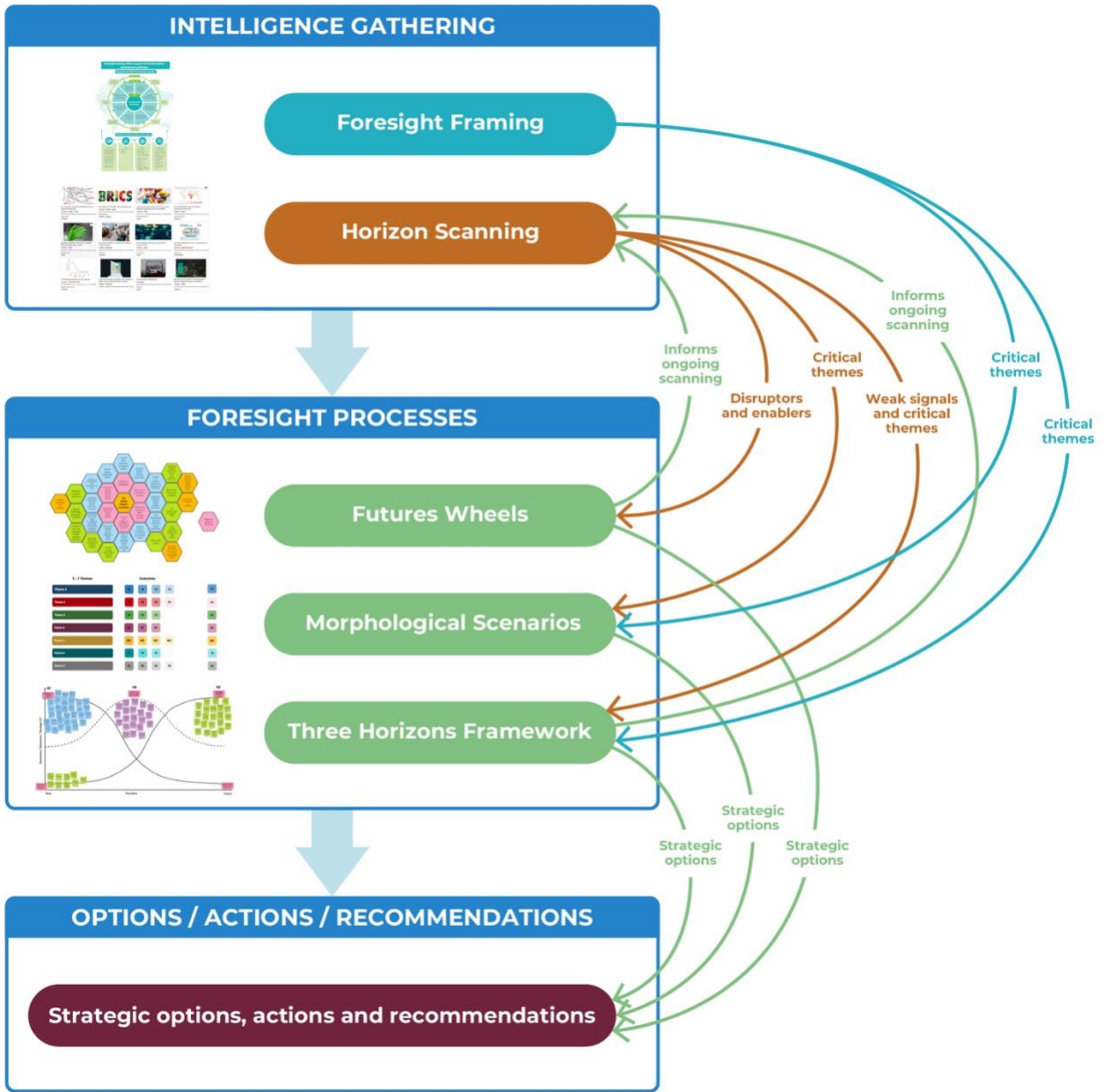
Fig. 1: Foresight framework employed to guide the processes for engaging participants in practical and applied futuring for transformative R4D outcomes.

Input, feedback, and content from the participants around the different futures/foresight applications are as follows:

Foresight framing

The foresight framing summary diagram (Fig. 2. and download a high resolution image here) provided the focal point for deliberations. The structure and key issues represented in the

foresight framing diagram were briefly reintroduced and discussed at the start of the session with each small breakout group. We reviewed how the framework attempts to distil and articulate a range of current perspectives on:

1. Current challenges in research for development systems,

2. what a transformative research for development system needs to achieve in terms of processes and outcomes (addressing persistent challenges; being resilience and responsive; nurturing areas of innovative activity/seeds of change),

3. ways of thinking and doing in the present which are supporting progress towards transformative processes and goals, and

4. attributes that are necessary to achieve systemic and transformative R4D processes and outcomes.
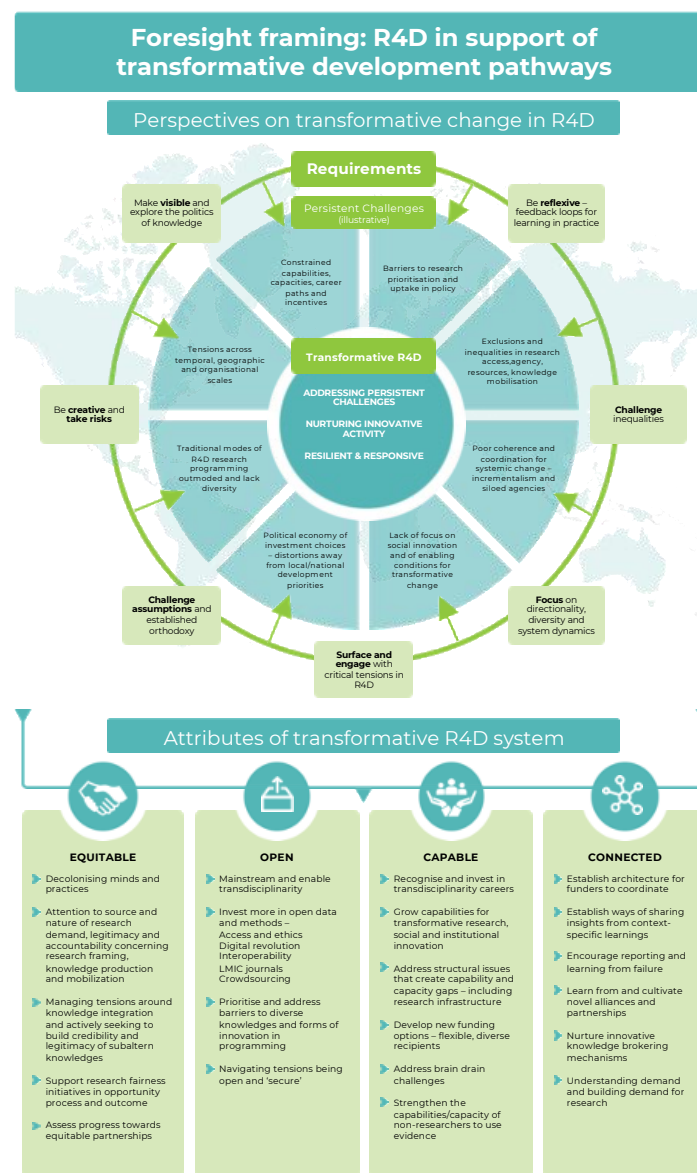

Fig. 2: Diagram depicting foresight framing with issues across the R4D landscape.

Participants were then asked to engage with the issues represented in the foresight framing diagram, first through quiet individual reflection and the addition of written comments, and then through a group brainstorming which resulted in lively debate and further comments and additions to the diagram.

The foresight framing diagram was recognised as a way of summarising and engaging with the key debates in R4D in academia, researcher, and donor communities; in surfacing and highlighting key challenges, and in considering where there is innovative activity and progress that could be built upon. It has potential to help highlight areas of weakness, strength, and opportunity and to explore system wide potential to support futures activities. It could also be adapted to support other strategic planning and evaluation initiatives at various scales. However, a wide range of important considerations, and potential additions and adaptations were raised.

This summary aims to capture the essence of comments and contributions made in three thematic areas.

World views and perspectives included in the foresight framing.

There was discussion about *'whose R4D?'* we are engaging and the importance of acknowledging that stakeholders outside the formal academic and donor world would likely not recognise the term 'research for development'. Associated issues raised included the following:

> **Box 1: Foresight framing**
>
> A foresight framing, also known as 'domain mapping', maps the R4D landscape 'issues' -- including key opportunities, challenges, ideas, and debates. In line with the overall project goals, the R4D issues selected for the foresight framing were also connected to perspectives on transformative change, and on how change happens.
>
> A framing diagram, based on the original mapping process. was developed to organize these issues into domains and to highlight interactions between them across the R4D system.

- Could we co-create a name for this field that emerges from a collective process?
- What might the foresight framing look like from very different value system perspectives? Could multiple different foresight framings support futures activities and associated action plans?
- Even with significant emphasis on co-production and transdisciplinarity – the framing is more focussed on researchers and funders who engage with practitioners rather than directly from the perspective of practitioners.

These comments were all important reminders that before 'stepping into' the details of the foresight framing it is important to 'step back' and acknowledge that it emphasises particular world views on what is a multifaceted multi-system set of issues.

Persistent challenges in R4D systems

All groups also discussed persistent R4D challenges areas that could be added to the foresight framing or should be further emphasised; examples as follows:

- Structural inequalities persist: There was much discussion around the emphasis in the framing diagram on structural inequalities in R4D systems and the importance of highlighting and engaging deeply with this. Comments included the following:

- Challenges faced in R4D are the result of the underpinning global moral fabric

- Structural inequalities tend to be perpetuated even through initiatives aimed at strengthening southern science systems. For example, there is need to decolonise research assurance – senior researchers in the global south are perpetuating elite power dynamics for agenda setting

- There is still a perceived superiority of conventional science

- There is a need for greater honesty and safe spaces to speak about power dynamics

- Need to embed African priorities for assigning value to research – playing in a global system doesn't extenuate success. Need to recognise that there is an 'obsession with predictability'. This speaks to the emphasis in the foresight framing on the need to be able to 'take risks and be creative' as a core issue underpinning transformative change.

- Research can be competitive whilst development requires effective collaboration: Are there tensions to address here? (linking with emphasis on surfacing tensions in the foresight framing).

- Reframing how challenges are presented. Should we help redefine priorities for development agencies; to focus on the expected future (positive) rather than on the perceived present (always very negative)?

Progress towards transformative R4D (TR4D) and the attributes of a TR4D system

Contributions relating to the overall focus on R4D transformation included the following:

- Is the transformative focus too rosy? Should there perhaps be more emphasis on learning to 'die' and/or on creative destruction?.

- Terms such as 'success' and 'failure' may not be helpful in supporting dialogue and action towards TR4D.

- Focus on a caring R4D system and on mutual respect seem to speak to all of the four attributes in the diagram (open, equitable, capable and connected)

- The centrality of values: Transformative R4D systems will need to reflect deeply on how aspects of research for development are valued and prioritised in different contexts; and in how we value the conduct, actions and outputs of researchers.

Specific suggestions for additions/areas of emphasis within the existing four attribute areas (open, equitable, capable, and connected) of the foresight framing:

- Capable R4D and transformative researchers: What incentivises transformative research and how researchers can be rewarded to be 'good scientific citizens' not just good researchers – what do they leave behind when they engage with communities?

i.e. what are researchers changing in their environment other than publications and other standard measures.

- Building Capability to 'retool' research practice (linked to point above)
- Reconfigure Connections – e.g.
    I. Connecting to redefine research excellence according to fundamentally different world views and consider alternatives to standard measures.
    II. recognising that there is need for a more integrated development approach despite competition between development blocks. Can we develop constructive practical connections despite geopolitical boundaries?
- Openness to vulnerability and openness to being tolerant as key additions to the 'open' attribute in the framework.

The foresight framing diagram (and/or underpinning records) will be updated to reflect the comments and contributions during the workshop.

Horizon scanning

We are living in a time of major change and upheaval. The scale of change is such that some would argue that our whole "civilizational stack"[3] is in the process of being reconfigured. A lot of what we thought we understood about how the world works is shifting. This is destabilising, and makes it hard to make sense of what is happening.

The horizon scanning part of this project attempts to start making sense of the external or contextual environment for R4D, by considering what is shifting and how we can start thinking about what is next.

We consider questions like:

- What are major driving forces of the changes we are experiencing?
- What are some of the shocks or disruptors that could surprise us, and how are they connected?
- Where are signs of a new reality or different way of doing things? Are there any sources of inspiration and hope?
- And what are some of the enablers of a desirable future?

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[3] The idea of a civilizational or societal stack borrows from the field of technology, where a "tech stack" refers to the combination of technologies a company uses to build and run an application or project. For examples of thinkers using the idea of a civilizational or societal stack, see for example:

- Michalski, J. 2022. "Designing from Trust in the Never Normal", an interview with Peter Hinssen. Available here: https://www.peterhinssen.com/blog/designing-from-trust-in-the-never-normal
- Burja, S. 2021. "The End of Industrial Society", in Palladium. Available here: https://www.palladiummag.com/2021/03/24/the-end-of-industrial-society/

The horizon scanning station at the R4D Forum aimed at giving participants a taste of this process. We printed out a small selection of horizon scanning "hits" on cards (illustrated in Fig. 3., and download them here) from the 260+ on the horizon scanning database (illustrated in Fig. 4., and accessible here)

These hits were specifically selected to cover a range of different drivers, weak signals, enablers and disruptors across the STEEP-V[4] domains.
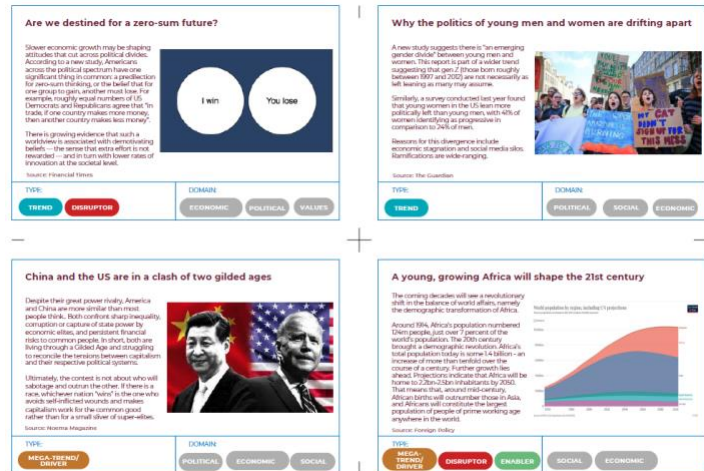

Fig. 3. Examples of the horizon scanning 'hit' cards

Participants were encouraged to pick a handful of cards – either ones that piqued their interest or randomly – to serve as the starting point for discussion. Prompts included: "What piqued your interest in these cards?", "Are there any connections between the cards you chose, or between your cards and those of fellow participants?" (potentially illustrating the interconnected nature of issues facing R4D and, in the case of megatrends and disruptors, the nature of the so-called "polycrisis" the world is facing).

By way of illustration, some (definitely not all!) of the issues raised include:

- The wide-ranging impacts of demographic shifts across the world, from aging populations in Europe, to a young and growing Africa. Discussions ranged from the shifts in values that a demographic shift should trigger (including valuing youth and the elderly respectively, as well as the value attached to something like care work), to how demographic shifts may serve as an entry-point for a more productive discussion on migration.
  As with many of the other issues, participants highlighted how demographic shifts can be both a

Box 2: Horizon scanning

Horizon scanning focuses on surfacing early signs of potentially important developments through both exploratory research and a systematic examination of potentialities -- positive and negative in scope.

By systematically exploring the external (aka contextual) Environment of R4D, horizon scanning helps us to better understand the nature and pace of change, and to identify potential opportunities, challenges, and likely future developments relevant to the field or topic under consideration.

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[4] Social, Technological, Environmental, Economic, Political and Values.

disruptor and an enabler and that, often, this lies in the eyes of the beholder. The importance of narrative and framing was emphasised. For example, a large population of African youth is still too often framed as a threat rather than an opportunity.

- The crucial role of the social sciences, arts and imagination in reimagining and shaping a different world.

- Trust (and distrust) as a cross-cutting issue. This included, for instance, discussion of a study that showed that business and scientists are among the few actors trusted by many. How can scientists and researchers make the most of this trust? The discussion also touched on high levels of polarisation in society, misinformation and its impact on the media, distrust in government (including in government interference in science).

- Technological developments, including both opportunities (e.g. using data science to promote the uptake of research) and risks (e.g. governance of AI still lacking).

- Participants expressed a desire to not focus only on the negative i.e. to ensure that the database includes enough examples of enablers and positive "seeds" or signs of change.

- A couple of gaps were also identified, including an absence of focus on the future of education as well as the lack of an overt focus on power relations.
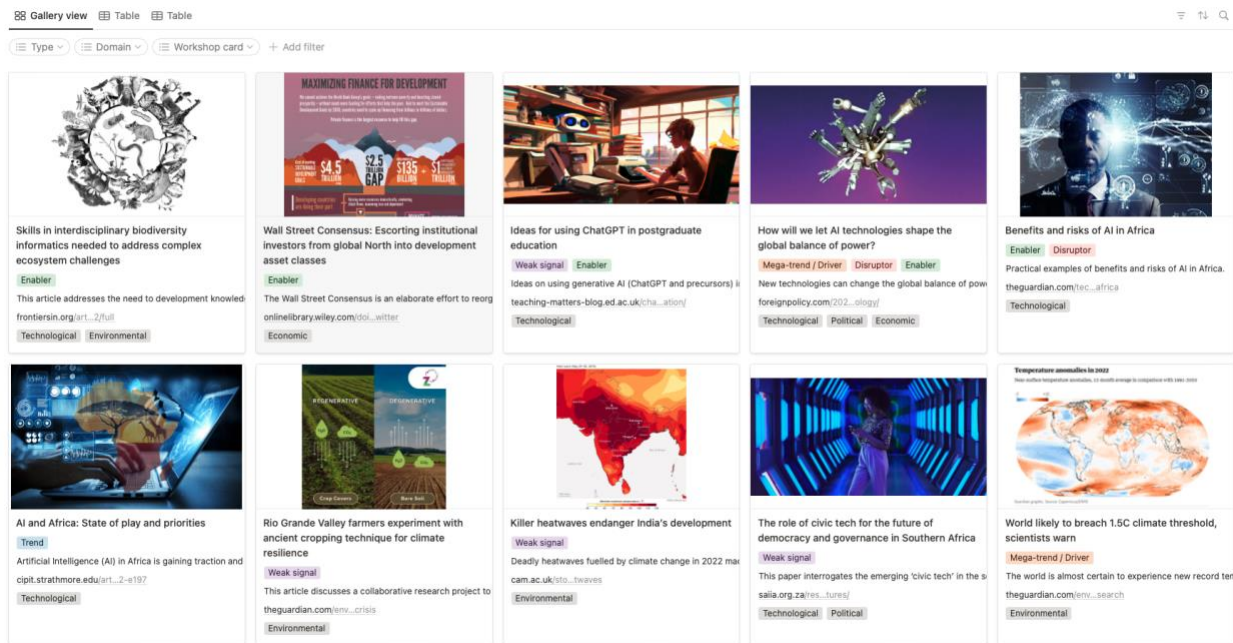

Fig. 4. A screenshot of the horizon scanning database built for the R4D Disruptors and Enablers: Exploring Futures project. This database contains all of the disruptors and enablers identified for the project categorised as weak signals, trends, and mega-trend/drivers. Access the database here.

Futures Wheels

Participants populated two Illustrative Futures Wheels at one of the foresight processes sampling stations. One starting off with an enabler: "Social innovation above tech innovation", and one a disruptor: "Breakdown of international rules-based system". These two were chosen by participants at the start of the day from a prior list of prioritised enablers and disruptors, all of which are contained in the horizon scanning database.

Futures Wheels is a brainstorming method that explores and maps multiple levels of consequences of trends, events, emerging issues and/or future possible decisions. It is a graphic visualization of direct and indirect, positive, and negative future consequences of a particular change or development that may affect R4D.

The Future Wheels methodology is of particular importance to this project because it produces cascading waves of change emanating from disruptors and enablers – in other words the consequences of the consequences, the impacts of the impacts. The second and third order consequences often produce noteworthy insights emanating from initial change conditions, whether they be positive or negative to start off with. Other than generating rich, strategically valuable content this tool also focusses attention on our blind spots and cognitive biases.

Figures 5. and 6. show the populated Futures Wheels which can also be accessed via this Miro Board link for high resolution versions.

Fig. 5.: Futures Wheel with content generated from the "Social innovation above tech innovation" enabler.

Fig. 6: Futures Wheel with content generate from the "Breakdown of international rules-based system" disruptor.

Morphological scenarios

The morphological scenarios futures processes sampling station, using a Miro Board (Fig. 7.) began with an explanation of the process. Participants were often stuck between an outcome they wanted for the future versus an outcome that seemed most plausible. With this exercise being focused more on going through the process of working with morphological scenarios rather than on the outcomes of the scenarios, participants were encouraged to simply choose three options and move forward. Still, groups often spent time engaging with the outcomes individually before moving on to considering them together. Most often, after some deliberation, someone would note that they either feel optimistic or pessimistic and then select an outcome from a theme.

Once a group had chosen three outcomes, it often took a bit of discussion before concrete concepts emerged that could be put on the board. As the teams became more comfortable with formulating responses as to what R4D would look like in this world, direct concise comments were added.

> **Box 3: Morphological scenarios**
>
> This is an inductive scenarios construction method (as opposed to the more common deductive 2x2 uncertainty matrix method).
>
> It focuses on identification and analysis of the most significant drivers of change for R4D and its operating system over the next ~10 - 20 years and utilises a structured framework.
>
> It is a technical method, as opposed to a more intuitive one, and it works well for complex systems.

The groups' scenarios – and the impact of these scenarios on R4D – can be accessed via this Miro Board link (*Please do not delete anything on here. If an editable personal copy is needed, just copy the board content and work from there preserving the original board for everyone else.*)
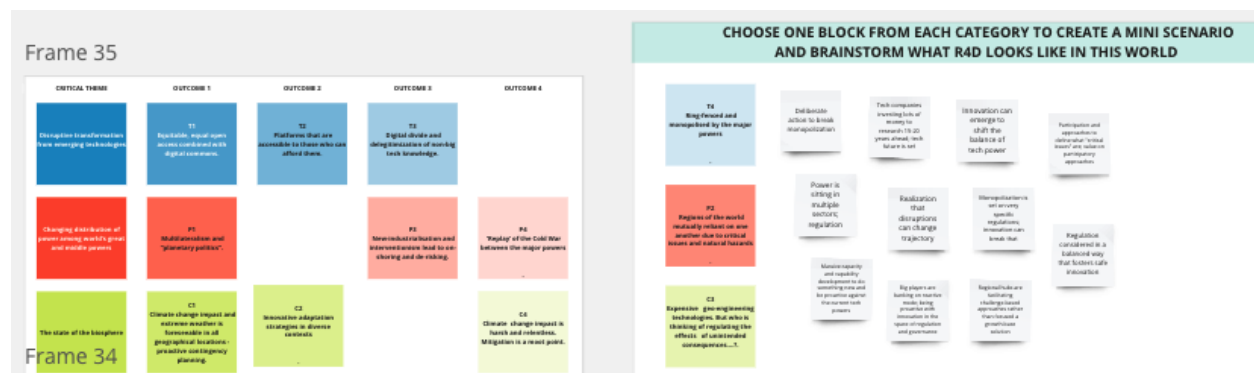

Fig. 7: Screenshot illustrating one of the group's content after choosing a combination of critical issues representing a future contextual scenario for R4D.

Three Horizons Framework

The Three Horizons Framework futures process sampling station helped stimulate structured strategic conversation about systemic change, preferred futures and the interventions needed to shift systems.

Fig. 8. shows the populated Three Horizons Framework with the text below -- derived from asking a LLM (large language model) to convert the statements on stickies in H3 (top right in the diagram) into a narrative -- describing a preferred future for R4D.

In a preferred future for R4D the notion of "research impact" is transformed to prioritize local contexts, ensuring that the definitions and metrics are created and valued at the community level. This localization fosters adaptable and responsive research practices, tuned finely to the ever-evolving global landscape.

In this future, research funders have moved away from a one-size-fits-all approach to assessing research impact. Instead, they support a variety of models that appreciate diverse, localized, and distributed methodologies for evaluating the consequences and reach of research activities. This approach nurtures globally competitive human capital, drawing from a broad spectrum of cultural and intellectual traditions.

Key learnings from R4D are continuously captured and integrated into future initiatives, driving cycles of improvement and innovation. Reflexivity becomes a cornerstone of research practices, particularly in collaborative projects, where it's recognized and valued as a critical skill. This reflexivity ensures that research processes and outcomes are consistently scrutinized and adapted to meet local needs effectively. In such a setting, gender parity is achieved, reflecting an equitable distribution of opportunities and benefits within research and development sectors.

> **Box 4: Three Horizons Framework**
>
> Three Horizons is a graphical approach developed to explore the change in importance of issues over time and connect the future to the present.
>
> At its most basic it is a systems model about the way things change over time. It is particularly good for working with complexity, developing future consciousness, and recognising transformative change, whilst exploring how to manage transitions. It is also used specifically to generate options (potential interventions) for how to 'transition' from the 1st horizon present to the preferred future 3rd horizon.

Innovation ecosystems in this future are not only functional but transformative, catalysing significant changes across technological, social, and economic domains. The knowledge economy is fully realized, supported by a pluriversal knowledge ecosystem that honours multiple ways of knowing and learning.

Investments in R4D are driven by local priorities, ensuring that funding and resources align with the specific needs and aspirations of communities. This alignment maximizes the relevance and impact of research, leading to tangible improvements in the quality of life and wellbeing of people.

In sum, this future envisions a landscape where R4D is inherently community-focused, reflexive, and transformative, laying the groundwork for sustained, inclusive progress. This future is juxtaposed again the present described by orange stickies notes in H1 in the top left of the diagram.

Several weak signals in H1 aka **"seeds" or "pockets of the future in the present"** that are non-dominant, niche, and marginal, already point to the possibility of the described preferred future and are linked to that future in the sense that scaling and growing these can become potential pathways to a preferred future. They include:

- Happenings at microlevel of relationships of care - not institutions or projects, but people
- Embedding / institutionalising community engagements and involvement in research process
- Increasing acknowledgement of traditional & indigenous knowledge systems
- Participatory methodologies gaining space / legitimacy in 'traditional' spaces
- National Constitutions
- Social accounting processes maintain their political 'edge' (CEGGS, CPNAH)
- Skills need forecasts. Digitalisation & digitisations. Artificial Intelligence
- Open access funds for researchers in the South
- Research granting expenses that recognise the care responsibilities of researchers
- Local communities
- National Development Planning. Research funding & grants. Strategic Planning models
- Calling out gender backlash - money going to confront it, global health 50/50
- The Africa Charter for Transformative Research

H2 contains **strategic options** to shift the system of H1 in the present to a preferred H3 future: These are grouped into overarching categories based on their focus and objectives

Community and Inclusivity Enhancements

- Trust building
- Open spaces for more people to be seen and heard
- Intersectionality as research priority
- Create spaces for cross-pollination of ideas
- Lived experience formalisation
- Strengthening/funding of women's organizations
- Collaborative mentorship, sharing, activating peacebuilding
- Building & strengthening new generation of research leaders

- Mentorship of young researchers
- Research activism: Instil/mentor the sense of core in younger scholars/researchers

Innovative Research Approaches and Models

- Adopt experimenting as normal
- New models of development well-being based
- Stronger links between research & practice
- Recognise and truly acknowledge current failures
- Activate for greater risk-taking
- Measuring & valuing the contributions that research does outside of academic incentives
- Re-educate/redefine the reasons for searching for finer knowledge - link to global survival within finite boundaries
- Open science platform for knowledge sharing

Technology and Knowledge Management

- Harness AI for language education and intercultural education
- Increased sharing of information & resources
- Open science platform for knowledge sharing

Economic and Financial Innovations

- Reparation finance starting with climate change
- Alternatives to GDP
- Stokvel (community funding) models for funding

Policy and Strategic Alignment

- Stronger links between research & practice
- Bridgetown ++
- Prioritise studies in peace within school curricula & as objective in research aims
- Inter-ministerial collaborations to align science & research support to developmental challenges
- AU Agenda 2063 strengthening
- Demographic dividend

Ethical and Cultural Shifts

- Greater academic and societal activism
- Promote ethics among the societal 'gatekeepers' of systems that order societal welfare
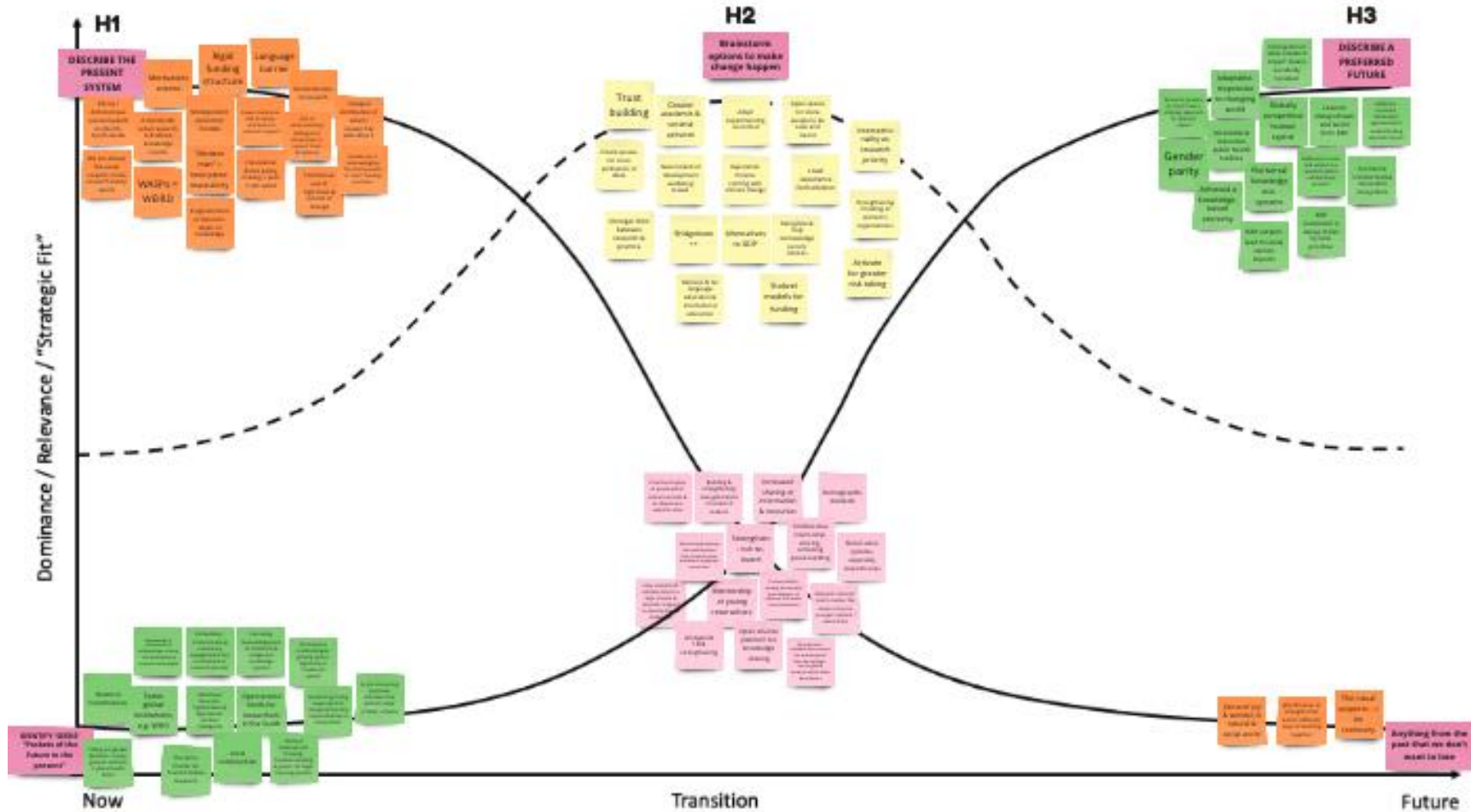- Revise value systems, especially research ones

Fig. 8: Three Horizons Framework showing a preferred R4D future as a dominant system in top right (H3), present day dominant system, top left (H1), and the strategic options to shift the system in the middle in H2. Weak signals, aka "seeds" that point to a preferred but, but already exist in the present, though marginal and niche are in the bottom left.

3. Feedback and reflection after engaging with futures / foresight methods

The bulleted list below contains participants' feedback and reflections after engaging with the futures / foresight methods:

- It is stimulating and thought provoking.
- It enables bringing in opposing voices.
- The realization that context is all important.
- The issues raised lead to realizing the importance of ethics, social justice and collaboration.
- There is a wide opening up of ideas.
- A powerful method of stimulating quick thinking around very wide range of important topics.
- It helps you think outside of your bubble.
- "Perhaps we should all become futures activists".
- It creates new ways of finding new concepts.
- The method and structure presented to us brought the project to life and created an understanding of the foresight process.
- It helps us to communicate and curate a complex topic
- Working in a structured and systematic manner helps us' get' to why a futures approach is useful.
- The foresight approach helped illustrate the global commonality of some issues.
- It enabled having a group of diverse people to have a good, constructive conversation.
- This is an example of doing research differently.
- Futures/ foresight created a' safe space' to talk about things that you wouldn't otherwise.

4. Foresight informed action: Strategic options

After engaging with the foresight methods participants took turns to:

1. Generate strategic options to make change happen (based on all the foresight tools not just the Three Horizons Framework), and

2. worked with existing strategic options that originated form prior project work by placing them on a Feasibility / Attractiveness matrix taking into consideration that context matters.

Participants were also introduced to the work of Donella Meadows'[5] which provides valuable insight of how to intervene strategically in a system. Meadows originally listed 12 different ways to intervene in a system in increasing order of effectiveness, from weak to strong. Her original jargon heavy systems language has been adapted to make use of five categories of intervention in increasing order of strength as shown in Fig. 9.
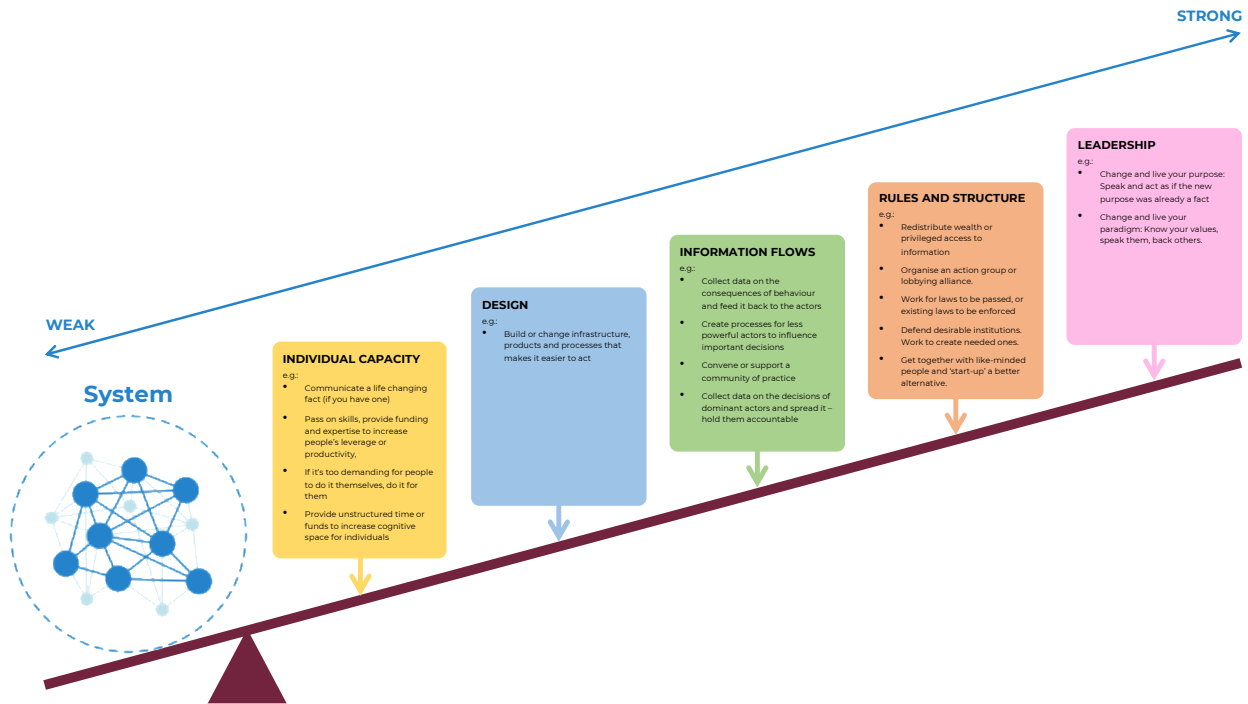
Fig. 9: Places to intervene in a system based on increasing order of strength.

Participants generated the following strategic options which have been clustered into broad thematic areas based on their primary focus and objectives.:

Research Practices and Methodologies

- Develop eco-systemic learning agenda on key issues and questions for R4D.
- Revisit and renew monitoring, evaluation, and learning practices and cultures.
- Examiners to broaden research criteria, e.g., practitioners, action research.
- Create impact measures that link to real change in practice.

- Instil "social responsibility" of research mindset in universities and research organizations.
- Enable risk taking in terms of different ideas, actions versus "safe" projects.
- Include Gen-Z in research design, development, and implementation.
- Make user-generated research and funding questions integral to the process.
- Acknowledge non-conventional systems of research and measurement.

Incentives and Career Progression

- Widen the circle of incentives/rewards/career progression for academics beyond peer-reviewed journals.
- Put in place more cross-border incentives to enable the free flow of researchers.

Funding Models and Structures

- Question what is not working in how funding decisions are made.
- Engage with and understand the role of emerging funders and collaborators, e.g., China, India.
- Reinforce funding practices that enable training up of young researchers.
- Rethink funding models for social research.
- Fund several big social science research projects on a large scale.
- Promote/ drive industry-based research for MSMME start-ups through innovation funding.
- Provide sufficient funding for interregional/African collaborations.

Collaboration and Engagement

- Ask "who is not here that should be here" when planning conversations.
- Replicate foresight exercises with policymakers, grassroots, media, NGOs, unions, and other non-usual suspects.
- Conduct high stakeholder engagement- awareness- capacity building- continuous engagement.
- Collaborate, empathize, tolerate, share, circulate, support, translate, pause.
- Leverage the influence of intermediaries joining the dots between different actors.
- Coordinate like-minded initiatives.
- Develop intra- and inter-regional mobility programs for policymakers and researchers.

Cultural and Institutional Change

- Raise concerns about power dynamics when building partnerships.
- Build more time in the granting cycle for consultation.

- Create a certification for government agencies that use knowledge to inform policy.
- Eliminate gatekeeper systems in research funding agencies.
- Dismantle traditional funding decision-making practices.
- Acknowledge and support the emotional work involved in doing truly transformative research.

Communication and Knowledge Sharing

- Translate Stellenbosch Forum's framework into a set of slides for use in research projects.
- Broaden the conversation using international fora.
- Promote science communication in graduate research training programs.
- Recognize art and storytelling as transformative knowledge.
- Invest in creating enabling supportive spaces of collective memory, including alternative archives, taking a restorative justice approach.
- Fund a creativity work stream to share stories that depict the value of R4D.

A prioritised and clustered list of existing strategic options that originated from a workshop held in Kenya in November 2023, and preceding online workshops, is presented below. Readers are encouraged to place these on a Feasibility / Attractiveness matrix in Miro using this [link](#) where they can take their own unique contexts, stakeholders, perspectives, and priorities into consideration. (*If someone has already started using a matrix, please start a new one, and don't delete anything you didn't create yourself*.)

> **Box 5: Strategic options**
>
> Strategic options are literally that -- some of the things that *can* be done (either immediately, or over the longer term) to move towards a preferred R4D future and mitigate against less-preferred futures. Options can also serve as contingency plans. Options that are turned into measurable ACTIONS and OBJECTIVES in essence become the strategy going forward.
>
> Options are converted into strategic actions and activities when they are made feasible and become implementable, e.g. by allocating resources – human, time, money, energy – to them, and/or making the strategic decision to turn them into special projects. Timing is also important because of the strategic advantage of being 'pro-active' vs. reactive.

Funding and Support

- Insist on southern led equitable partnerships for all research funding.
- Create alliances of funders committed to transformative research.
- Redirect funding from traditional, elite centres to diverse and inclusive institutions.
- Establish funding schemes for high-risk projects and/or traditionally excluded groups.

Education and Capacity Building

- Integrate indigenous knowledge in research and education.
- Build systems thinking and transdisciplinary research capacities.
- Enhance online learning with accredited stackable credits.

Impact and Evaluation

- Reframe research impact understanding and measurement (move beyond narrow definitions of impact).
- Connect researchers, funders, and investors for innovative solutions.
- Evaluate the impact of research and funding on institutions and systems.
- Provide continuous support for knowledge sharing and application.

Diversity, Equity, and International Cooperation

- Recognize diverse forms of expertise and mastery.
- Formulate strategies for regional collaboration and funding.
- Address academic barriers and make research careers in the Global South attractive.

Knowledge Translation

- Provide translation services for global research spaces.
- Create inclusive spaces for co-creating research.
- Make open access publishing more rewarding.
- Remove barriers to Global South's access to research and innovation.

Innovation and Entrepreneurship

- Celebrate and fund unconventional researchers.
- Create a global research market with responsive funding supply.
- Design research with interdisciplinary and transdisciplinary collaboration.

Policy, Governance, and Ethical Considerations

- Develop policies for regional cooperation and funding mobilisation.
- Ensure transparency and public accountability in research funding.
- Establish guidelines for equitable research methods balance.

Build networks for research implementation.

- Highlight alternative research methods and platforms.
- Educate funders on investing in research infrastructure.

Systemic Transformation

- Re-evaluate 'development studies' as an academic field.

- Support leadership development in social innovation and system thinking.
- Develop a transformative research framework and hold stakeholders accountable.

5. Feedback, reflection, and insight about the content generated during Day 1

The first day of the forum ended with participants reflecting and sharing about their experience and the rich content generated as a group.

- History is critically important, and the futures cone does not acknowledge history and/or the paths not taken. Where we come from matters and the contributions we can make depend on this.

- The leverage points diagram is very useful in that it acknowledges entrenched patterns and the challenges that exist in changing these entrenched patterns.

- All participants felt that all of the strategic options in the Feasibility/Attractiveness matrix were attractive -- this means that context and prioritization and the role of different stakeholders become all important. Acknowledging history enables a re-evaluation of what is feasible, and this is linked to agency.

- A suggestion was made that it would be useful to devise some iterations in thinking about path dependencies -- taking all of this work, and its complexities, to develop pathways to preferred futures and then seeing what they are dependent on, and how they are dependent on one another.

- The question was posed whether this futures / foresight approach, and adding a transformative, necessary change lens is actually research. In response it was mentioned that a foresight process enables diverse groups of people to communicate across domains and disciplines, and, amongst others, brings implicit knowledge to the fore.

- This work is -- and should be -- fun!

- The issue of where agency for change lies was raised. "Who will do the change making?" And whose voice is being heard?

- A participant who identified as a funder initially felt annoyed but was challenged to listen deeply and to open up to more voices -- a space for them was opened to accept different views. This space allowed for them to feel they could change their perspective and sit with uncomfortable truth. They mentioned that they felt this change as bodily, and it was remarked that bodily wisdom, as opposed to heart or head wisdom can be a really valuable notion.

- The futures/ foresight approach and its content were felt to be electrifying. "We had to rethink, rewrite, and reword -- the moving around allowed us to move things around and internalize it."

- Feasibility [of strategic options] is not easy to define, and these are contextually relevant -- context matters!.

- The issue of personal tensions was raised, articulated as we tend to articulate ideas in specific domains versus our lived experience : We need to allow for integration.
- The notion of' transition literature' was raised posing the question whether it applies to the African context. The transition theory and its literature speaks of having a landscape (a set of things that are overarching), a regime, which is the status quo, and niches together with niche management -- these are the alternatives. The question/ challenge then becomes how do you accelerate the niches, either by shielding/ protecting, nurturing, and/ or empowering. There is critique about transition theory and its literature from the so-called global South because so many parallel regimes and niches exist raising the issue of which are the ones to then focus on and/or prioritize.
- It was noted that IDRC does a lot of work on scaling [of niches].
- A central issue was deemed to be how this futures / foresight approach to transformative research for development can be used.
- A participant mentioned that they need to change the system, however there is lots to be processed, and they would love to translate the forums methods and content into practice, leading to the question of: "Is there a community of practice?"
- It is not only funders that are able to implement actions to change, all persons wear many hats and have different functions and experiences, all these approaches and elements are valid towards making change to transformative research for development systems happen.

6. Examples of existing transformative work

At the start of Day 2 several participants (Peggy Oti-Boateng, Puleng Segalo & Divine Fuh, Maggy Heintz, Judy Omumbo, Vanesa Weyrauch, Erica Nelson, and Johan Hattingh) gave 15-minute talks to share and showcase the work they/their organisations are doing in terms of transforming research systems. Download the presentations from here

This content was incorporated into, and supplemented, that which was generated the previous day, and provided rich material for further conversation.

7. Immersive experience on exploring attributes towards transformative R4D systems

Participants visited the Stellenbosch University Museum and were given the opportunity to experience the space and view exhibits individually. Afterwards they gathered in the courtyard at a replica of Nelson Mandela's Robben Island cell and heard about the work of Stellenbosch University's Centre for the Study of the Afterlife of Violence and the Reparative Quest (AVReQ) from Prof. Pumla Gobodo-Madikizela, Research Chair for Historical Trauma

and Transformation, and the South African National Research Chair (SARChI) in Violent Histories and Transgenerational Trauma in the Faculty of Arts and Social Sciences.

In an annex to the museum participants met Drs Miche Fabre Lewin and Flora Gathorne-Hardy from [Living Justice](#) and the [Centre for Agroecology, Water and Resilience (CAWR) at Coventry University](#) for an immersive experience exploring attributes towards transformative R4D systems, namely; equitable, open, capable and connected.

By means of practice-based research, transdisciplinary arts-based methodologies, and facilitating collective knowledge-making, Living Justice practice, share and cultivate ways of being and knowing which are in a continuum of exchange with the matter of life. They integrate art and life as a radical ethics of care, and together, in solidarity enliven our capacity for embodying a daily ethics of care that respects the integrity of each other and our sentient habitats.

The immersive learning experience described provides participants with a profound opportunity to embody and internalize the attributes of transformative research, such as equity, open systems, capability, and connectedness.

The immersive experience curated by Living Justice showcased how collaboration can thrive in safe spaces that acknowledge and transform institutional differences and cultural trauma. Through rituals, listening circles, mark-making, and nature-culture shrines, participants were invited to embrace an ethics of care that respects the integrity of individuals and their environments.

8. Reflecting on transformative work in academic institutions

After the immersive experience participants heard from, and engaged with, [Nina Callaghan](#), Deputy Director of the Centre for Sustainability Transitions at Stellenbosch University.

In her presentation, Nina Callaghan articulated a perspective on sustainability research that diverges from a conventional risk-return profile. She emphasized that this approach invites uncertainty and prioritizes relationships, enabling researchers to cultivate partnerships and sustain meaningful conversations rather than fitting activities into a rigid logframe. She underscored the prevalence of neoliberal paradigms in shaping value creation processes, while highlighting the real-world challenges researchers encounter, including resistance, political ideologies, and trauma among stakeholders. Despite these hurdles, sustainability entails the capacity to hold space for divergent perspectives.

Nina advocated for a more embodied approach to research, acknowledging the vulnerability and resilience inherent in human bodies. She acknowledged the difficulties of transformative work within institutions like Stellenbosch, which have histories of violence, yet advocated for researchers to engage with vulnerability, empathy, and bravery to challenge institutional norms from within. Transformative research, she argued, is about broadening the

conversation rather than aiming solely for tangible impacts, urging humility in setting research goals.

Feedback on Nina's perspective highlighted the notion that transformation may necessitate the demise of certain structures to allow for the emergence of new ones. This could involve institutions relinquishing their privileged access to resources and knowledge. Nina concluded by expressing her disinterest in the future of the academy as it currently exists, viewing it not as a demise but as an opportunity for radical transformation. She posed a critical question: can transformative research thrive in the absence of a transformative academy?

9. Ideas, suggestions, and recommendation for making change happen towards transformative R4D

The forum culminated in a brainstorming session where participants shared what they and/or their institutions and organisations could do to help shift systems towards transformative R4D. This included:

- Working at an individual level [within organizations and institutions], and following up on individual level initiatives and endeavours is much easier.

- As a collective - from the forum participants' perspective -- it may make more sense to be part of a community of practice – this being a reflective space for how foresight practices and applied futuring could work. It could be a peer-reviewed space for co-learning. This will, however, need to be organized and resourced with time, money and 'love'.

- Produce case studies to grow capacity.

- Create a southern coalition to refresh the field of research for development, plus identify who to do it.

- Develop a new agenda for how knowledge- and policy-making is renewed acknowledging that knowledge creation is contextual.

- Recognition for research practitioners who do this work.

- Incorporate and leverage networks of networks.

- Create mechanisms to grow a pool of competencies.

- With regard to promoting futures / foresight consider 'non-traditional' practices such as online games and incorporating it into PhD tracks so that it can spread more widely.

- Incorporate embodiment as this is a way how we can change collaboration - by embodying collaboration - it is an inner condition that can be recognized, and no budget is needed.

- Make small changes all over, e.g. by engaging co-PI's in science where calls for funding make this a requisite, include and support more time to talk and share, e.g. build the value of good conversations and bridging into funding proposals.
- Sometimes we need less -- it may be worthwhile to take some time and figure out what less is.
- There is a need for certification, e.g. to be part of the community of practice.
- Curriculum development is a must!

This report serves as a working document that can be used on its own or incorporated into other relevant material.

10. APPENDIX A: Agenda

Day 1 Wednesday 6 March	
09:00	**Welcome, introductions and ice-breaker:** – *Prof Sibusiso Moyo, Deputy Vice-Chancellor Research, Innovation and Postgraduate Studies, Stellenbosch University* – *Colleen Duggan, Team Leader Sustainable Inclusive Economies, International Development Research Centre (IDRC)* – *Tanja Hichert, UNESCO Chair in Complex Systems and Transformative African Futures, Centre for Sustainability Transitions, Stellenbosch University*
09:30	**Foresight for R4D project background and its outputs** – *Prof Fiona Marshall, Science Policy Research Unit, University of Sussex Business School* – *Prof Rika Preiser, UNESCO Chair in Complex Systems and Transformative African Futures, Centre for Sustainability Transitions, Stellenbosch University*
10:30	**Tea / coffee connectivity break**
11:00	**Engage around different R4D futures/foresight applications** SCOPING – Foresight framing – Horizon scanning | Disruptors & enablers IMAGINING – Impacts & implications – Alternative contextual futures – Preferred futures and systemic change
13:00	**LUNCH**
14:00	FORESIGHT INFORMED ACTION – Strategic options – Recommendations
15:00	**Insights and contributions based on exploring the future.**
15:30	**Tea / coffee connectivity break**
16:00	**Levers of change based on exploring the future**

18:30	**Pre-dinner speaker on the change scenarios can make, Clem Sunter** https://www.clemsunter.co.za/ **Dinner at Guardian Peak Restaurant** https://www.guardianpeak.com/

Day 2: Thursday 7 March	
09:00	**Participants share/showcase the work they are doing in terms of transforming research systems.** **Together identifying "pockets of the future in the present".**
11:00	**Tea / coffee connectivity break**
11:30	**Immersive experience on exploring attributes towards transforming research practices**
13:00	**LUNCH**
14:00	**Co-creating a living agenda and call to action for transformative R4D change**
16:00	**General discussion**
16:30	**Knowledge sharing plans**
16:45	**Workshop close and next steps** *Colleen & Tanja*
18:30	**Private dinner in central Stellenbosch within easy walking distance from the hotel**

11. APPENDIX B: Alphabetical list of participants

Alinah	Segobye	CEO, HRDC (Human Resources Development Council of Botswana)
Brigid	Cakouros	Yale
Colleen	Duggan	IDRC
Divine	Fuh	HUMA, University of Cape Town
Dorothy	Ngila	National Research Foundation South Africa
Erica	Nelson	The Institute of Development Studies
Erika	Kraemer Mbula	University of Johannesburg
Fiona	Marshall	Science Policy Research Unit, University of Sussex
Johan	Hattingh	Philosophy, Stellenbosch University
Judy	Omumbo	Science for Africa Foundation
Leanne	Jones	UK Foreign, Commonwealth and Development Office (FCDO)
Louise	Shaxson	Freelance consultant (UK-based)
Maggy	Heintz	UK Collaborative on Development Research
Mari-Lise	Du Preez	Freelance consultant (South Africa based)
Matthews Lebogang	Phiri	HRDC Botswana
Oabona Enock	Nthebolang	Human Resource Development Council of Botswana
Peggy	Oti-Boateng	African Academy of Sciences
Puleng	Segalo	University of South Africa
Rhona	Mijumbi	The Center for Rapid Evidence Synthesis
Stephanie	Draper	Involve/ Independent
Vanesa	Weyrauch	Purpose & Ideas

12.   Appendix C: Futures cone

Now ————————————————→ Future

Preposterous futures
"impossible", "won't ever happen"
Futures judged to be "ridiculous" (i.e., cannot be imagined as possible with current understanding and imagination across societies) (Section 4).

Possible futures
"might happen"
Futures that might be possible but are not considered plausible because we do not have the necessary knowledge. An increasing focus of critical futures-thinking over several recent decades (Sections 5.2 and 6).

Plausible futures
"could happen"
Futures based on current understanding. A common focus of futures-thinking. These futures sometimes envision transformational change, but more often incremental change within existing systems (Section 5.2).

The projected future
"default", "extrapolated baseline", "business as usual"
A single future based on continuation of the present and, therefore, frequently perceived as the most probable future before critical futures-thinking is applied. Often different from preferable futures (Section 7.2).

Probable futures
"likely to happen"
Futures thought to be likely. Many studies, consciously or not, assume a level of predictability, which can be influenced strongly by underlying perceptions, worldviews, and societies' myths and narratives (Sections 3.2, 4, and 7.4).

Preferable futures
"want to happen", "should happen"
Futures reflecting norms, based on diverse histories, contexts, and plurality of values and knowledge among human societies. Normative futures-thinking has emerged slowly but has been a focus in the past decade, as it has become clear that the Anthropocene will drive hard decisions that might involve trade-offs between values and desires (Sections 6.6 and 7.1). Multiple versions are shown, reflecting diverse histories, contexts, and plurality of values and knowledge among human societies.

Multiple pathways toward different preferable futuresi

Cork S, et al. 2023
Annu. Rev. Environ. Resour. 48:25–54

Fig. 10: The futures cone depicting the concept of multiple alternative futures ranging from 'preposterous' to 'projected', including the notion of 'preferable futures' and how actions and decisions, (even small ones) in the present can initiate pathways to a preferred future.