Transformative Innovation Policy: Perspectives from South Africa 2021

Colloquium Report

The 2021 Colloquium themed '**Transformative Innovation Policy: Perspectives from South Africa**' was hosted over three days, 13th-15th of October. The Colloquium aimed to build a community of practice in the South African context and identify a common language for the use and implementation of Transformative Innovation Policy.

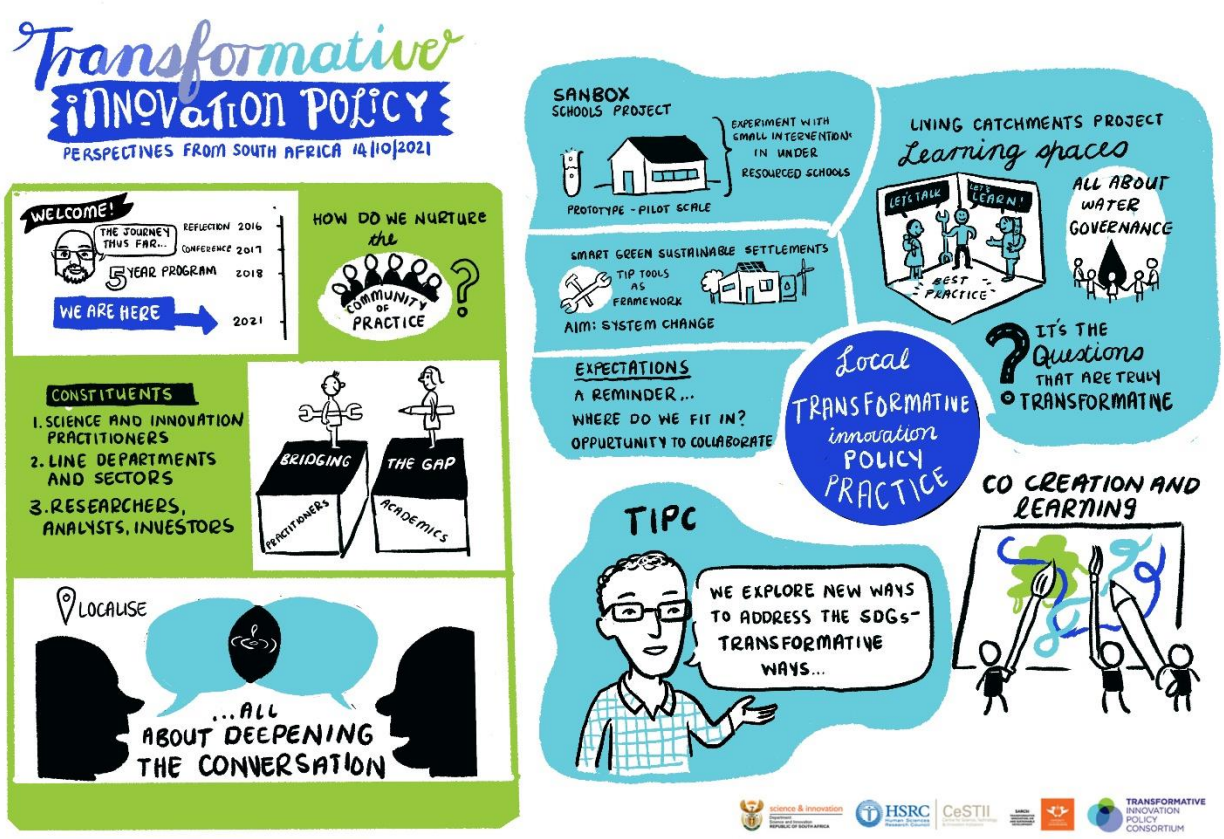
It kicked off with a public lecture by Prof. Alejandra Boni (Deputy director of INGENIO) on '*Transforming socio-technical systems through evaluation: Insights from TIPC experimental policy engagements'.* Prof. Boni paid particular attention to Formative Evaluation (FE), describing 'transformative evaluation' as a network of people interested in and working toward transforming the evaluation field within sustainability matters. Moreover, TIP evaluation ought to be custom-built. Prof. Boni highlighted two main challenges surrounding evaluation: a) how can we assess the longer-term systemic consequences of limited TIP experiments? And b) evaluation practices should be consistent with the TIP emphasis on inclusive, participatory processes, directionality, deep learning and systemic change. In addition, the Formative Evaluation (FE) aims at improving the design and implementation of an intervention, involves changes in routines, believes and seeks first and second-order learning.

Prof. Boni concluded her presentation by providing advice on engagements of evaluators for a transformative direction:

- Learning and reflexivity are a way to transform.
- Importance of understanding people's context and being ready to listen.
- Give value to the power of reframing failures.
- Balancing planning and desired results without locking into predetermined results.
- Continue to develop and test different transformation theories.
- The bricolage of methods is a way of 'discovering together' pathways towards transformation.

The 14th of October was a closed session. Participants from various policy experiments, TIPC Global and policymakers were invited to engage. The day began with a keynote from Mr Imraan Patel (Deputy Director-General of the Department of Science and Innovation). Mr Patel unpacked the journey of TIP in South Africa and the partnerships that have been formed to transform science

and innovation in the country, which began in 2016 with an 18-month pilot. Following a sequence of engagements within the TIPC Global Network, South Africa was invited to join the consultation team to co-create and think about how innovation policy can be shaped. In 2017, South Africa hosted the finale for the pilot programme. Key outcomes included participant reflections on the value of understanding how partnerships between the research community and practitioners emerge. A full-scale 5-year programme was launched in April 2018 and ends in March 2023. In parallel, there was the development of a White Paper on Science, Technology and Innovation in South Africa. Mr Patel noted that currently, South Africa is working on facilitating a process of transformation terminology alignment and disaggregation. Prof. Erika Kraemer-Mbula (Chair of UJ's DST/NRF/Newton Fund Trilateral Chair in Transformative Innovation, the Fourth Industrial Revolution and Sustainable Development) outlined the proceedings of the Colloquium and the objectives of the respective days. The overall objective of the Colloquium was to host interactive engagement sessions in an attempt to build a community of practice by deepening and broadening the conversation around transformative innovation policy in South Africa. The 14th of October set out to engage with projects that have applied transformative innovation policy methodology. The 15th of October sought to bring together individuals and projects with similar interests and occupations but not necessarily utilising the same language. Below, an illustration highlights the key points of Mr Patel's address:



Nicolene Louw, Fine Line Illustrations (2021)

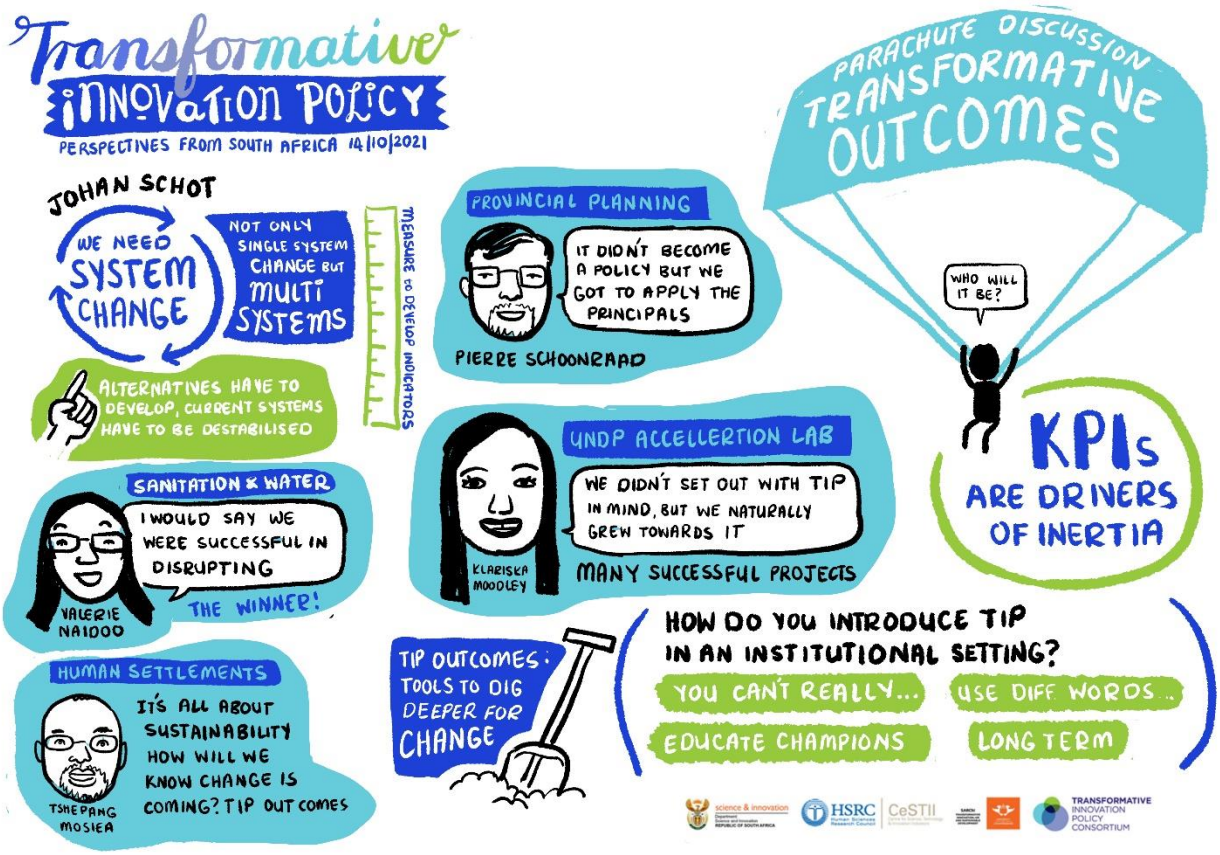
The 14th of October consisted of an introductory session facilitated by Mr Nazeem Mustapha (Human Sciences Research Council), where participants introduced themselves and provided an overview of their policy experiments. The policy participants included Shirley Eadie from the Sandbox Schools project[1], Tshepang Mosiea of the Sustainable Human Settlements project[2], Tanya Layne, Mahloudi Tau, Alex Marsh and Shanna Nienaber of the Living Catchments project.[3]The day consisted of three sessions focused on three think pieces sent out before the Colloquium. These sessions were entitled: '***Transformative Outcomes****, a 'Compass' towards transitions and transformative change'; Developing a context-dependent* ***Theory of Change*** *that sets out why and how a project or policy experiment will achieve the desired change',* and *Accelerating transitions by* ***unlocking path dependencies***

Session one, '***Transformative Outcomes****, a 'Compass' towards transitions and transformative change',* began with a conceptualisation of the Transformative Outcomes by Prof. Johan Schot (Transformative Innovation Policy Consortium), followed by a parachute debate with teams involved in four policy experiments presented an argument around the question: 'do transformative outcomes provide a useful compass to guide, broaden and deepen the goals of your policy intervention towards the transformative change you want to see?'Participants included Valerie Naidoo(Sanitation Transformation Initiative), Klariska Moodley (United Nations Development Programme); Pierre Schoonraad (Centre for Public Service Innovation); and Tshepang Mosiea (DSI). An overview of the session is depicted below:

[1] The Sandbox Schools Project is a research and development project of the EdHub within the National Education Collaboration Trust. It serves as an experimentation hub, with an experimentation space termed as a 'live-learning laboratory.' Small scale interventions are prototyped within 11 under-resourced schools in South Africa, drawing on the 12 transformative outcomes.

[2] The Sustainable Human Settlements project sets out to to define a transition plan for sustainable human settlements to fast track the uptake and the scaling up of technologies and innovations to achieve smart, green and sustainable human settlements.

[3] The Living Catchments Project is a collaborative project centred around enabling collaboration, core learning, connecting science, policy and practice. The project creates spaces for learning and collaboration by bringing in scientists, researchers, practitioners, policy practitioners, communities and traditional leaders, focusing on strengthening water governance to overcome fragmentation and collapse governance silos.



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Session two, *Developing a context-dependent* ***Theory of Change*** *that sets out why and how a project or policy experiment will achieve the desired change',* was an interview conducted by Prof. Rebecca Hanlin (UJ TRCTI) and Garth Williams (TIA), with Mahlodi Tau, Tanya Layne and Shanna Nienaber from the Living Catchments Project. The participants were posed three questions: a) how does the transformative ToC model differ from other ToC models you are familiar with?; b) which features of the transformative ToC model would be more valuable or useful than the logic model shared here? And c) which features of the transformative ToC model do you think might be challenging to implement, and how might these be overcome?

Recollections from the interview are depicted below:

Nicolene Louw, Fine Line Illustrations (2021)

Session three was facilitated by Dr Blanche Ting and focused on '*Accelerating* ***transitions*** *by unlocking path dependencies*.' Dr Ting unpacked a thinkpiece and invited discussants, Ms Mapula Tshangela and Prof. David Walwyn, to provide their input. Ms Tshangela's presentation focused on accelerating transitions policy implementation by unlocking path dependences and using the institutional strategy of policy layering and emphasised that multilevel governance needs to be unlocked to address vertical integration. Horizontal integration is also crucial as many issues are cross-sectoral.

Prof. Walwyn accounted for his lived experiences on regime resistance, highlighting the importance of being confrontational without jeopardising relationships that you are dependent on. Some recommendations from the session included: 1) radical change demands radical re-alignment of power and significant mobilisation; 2) glass ceilings and windows of opportunity should be considered when designing processes to destabilise regimes; and 3) political relationships and power and the political economy should not be ignored. Highlights from the session are illustrated below:

Nicolene Louw (Fine Lined Illustrations, 2021)

The day was concluded by Dr Glenda Kruss and Mr Imraan Patel. Dr Kruss highlighted that a language translation exercise should be conducted to find more useful terms for key TIP concepts. The language utilised requires more thinking and acknowledging that there is the need to create evidence for the TIP to become a tool for persuasion. Mr Patel emphasised the importance of building a community of practice moving forward and building a broad constituency beyond the issues of transformative change to avoid facing the same challenges raised during the Colloquium. He stated that we should prioritise collaborations between academics and practitioners in the future and develop a more nuanced approach by learning from different experiences.

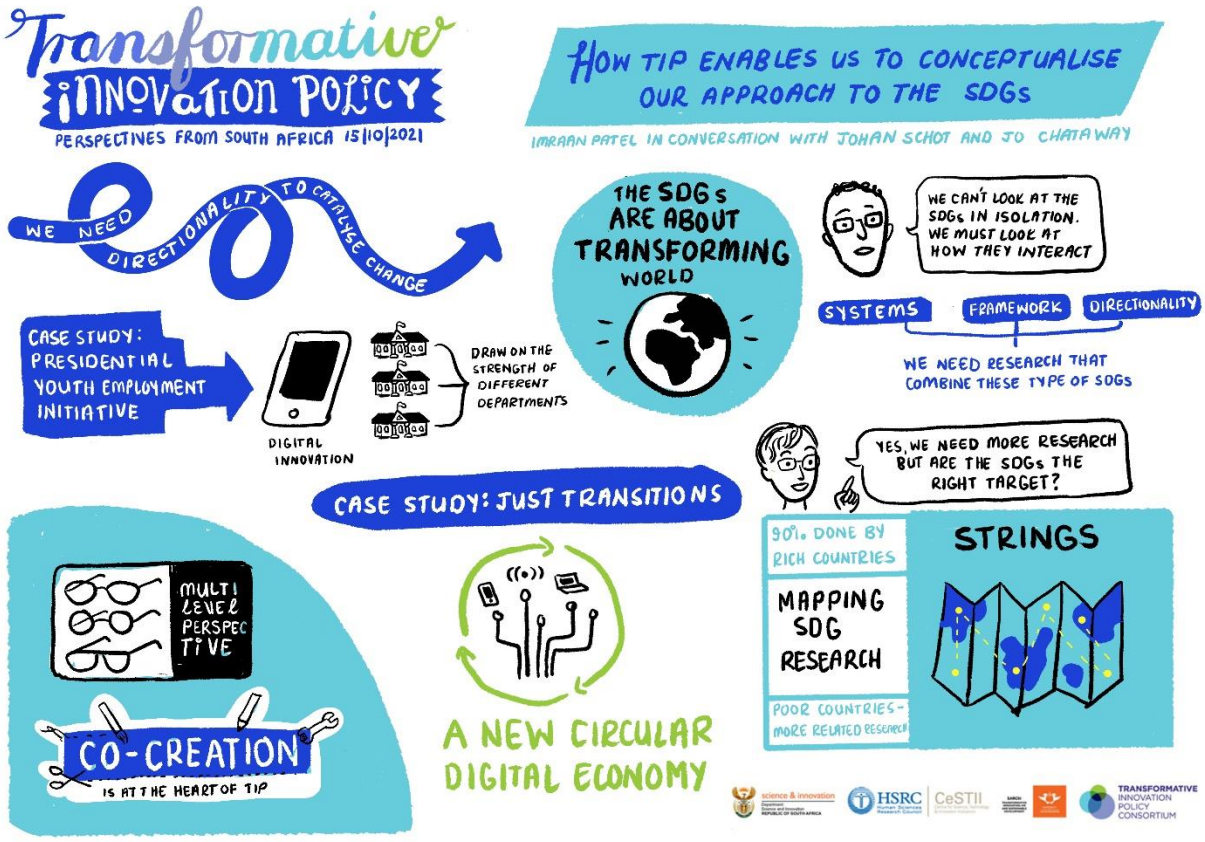
On the 15th of October, Prof. Rebecca Hanlin welcomed individuals from different organisations, projects, and sectors. Prof. Kraemer-Mbula highlighted the purpose of the Colloquium and explained the importance of prioritising transformative change. A keynote address themed '*How Transformative Innovation Policy enables us to conceptualise our approach to the Sustainable Development Goals'* kickstarted the day. The main speaker included Mr Imraan Patel and discussants, Prof. Johan Schot [4]and Prof. Joanna Chataway[5]. Prof Schot unpacked the Sustainable

[4] Prof Johan Schot is Professor of Global History and Sustainability Transitions at the Utrecht University Centre for Global Challenges. He is Academic Director of the Transformative Innovation Policy Consortium (TIPC) and the Deep Transitions research project coordinated from the Science Policy Research Unit at the University of Sussex Business School.

[5] Prof Joanna Chataway is is Head of Department of the Science, Technology, Engineering and Public Policy (STEaPP) in the Faculty of Engineering Sciences at University College London (UCL). She is a leader in the field of

Development Goals (SDGs), explaining that it can be grouped into three types: transversal directions, framework conditions, and socio-technical and application areas. Prof Chataway discussed STRINGS (a research project working to improve our understanding of how STI contributes, or not, to meeting the SDGs), critically analysing a global mapping of research on the SDGs to unpack if research is contributing to the SDGs. Prof Chataway highlighted that most research is unrelated to the SDGs.

The session is summarised below:



Nicolene Louw (Fine Line Illustrations, 2021)

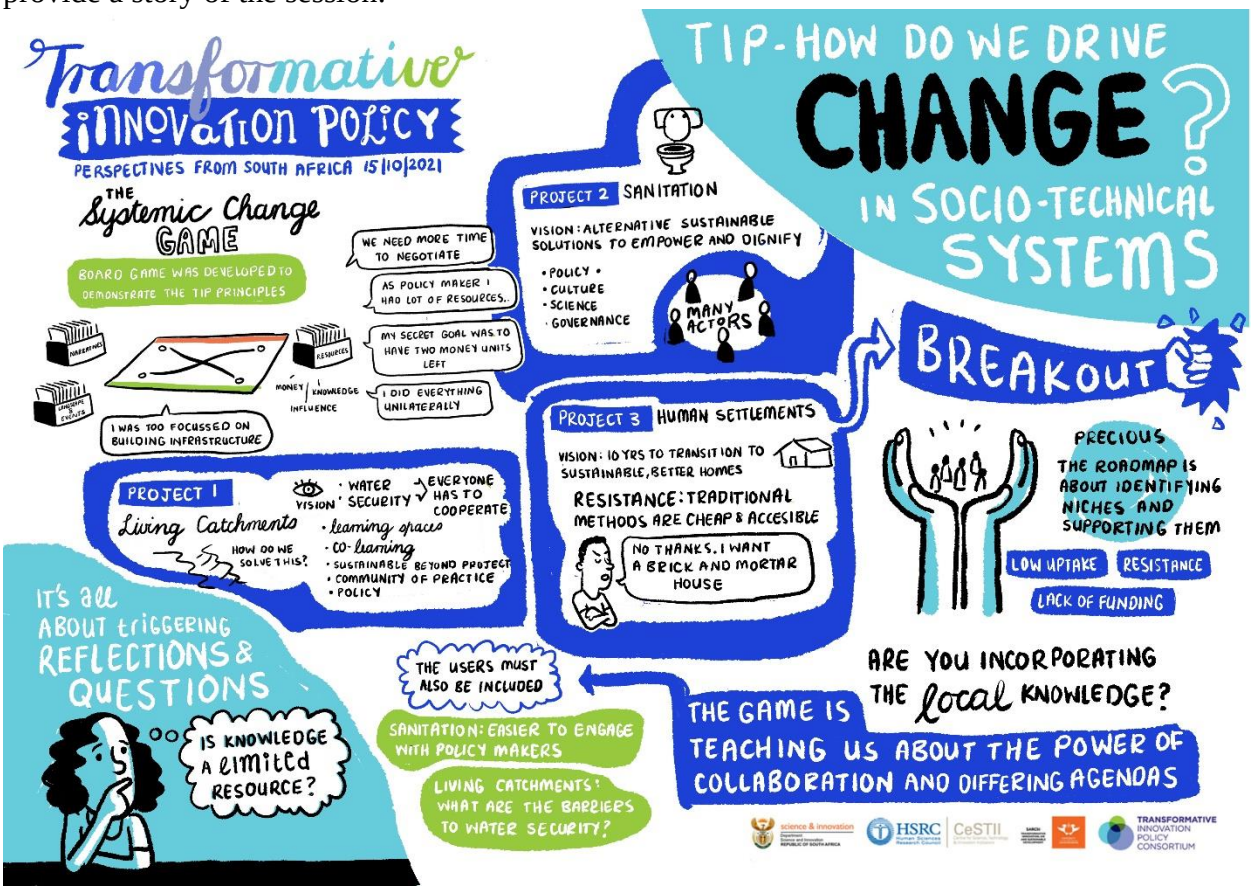
TIPC Global[6] facilitated session one, themed on '*Transformative innovation policy: How do we drive change in* ***socio-technical systems****?'* and consisted of three parts: a) a demo of a game based on socio-technical systems[7]; b) presentations by three projects(SANITI, Living Catchments and

science and innovation policy and, with colleagues at STEaPP, is spearheading new integrated approaches to researching and teaching science policy and science advice.

[6] TIPC is organization comprising of researchers in the science, technology and innovation (STI), policymakers and funding agencies that are working in collaboration to create a new framework for STI policy (TIPC, 2021).

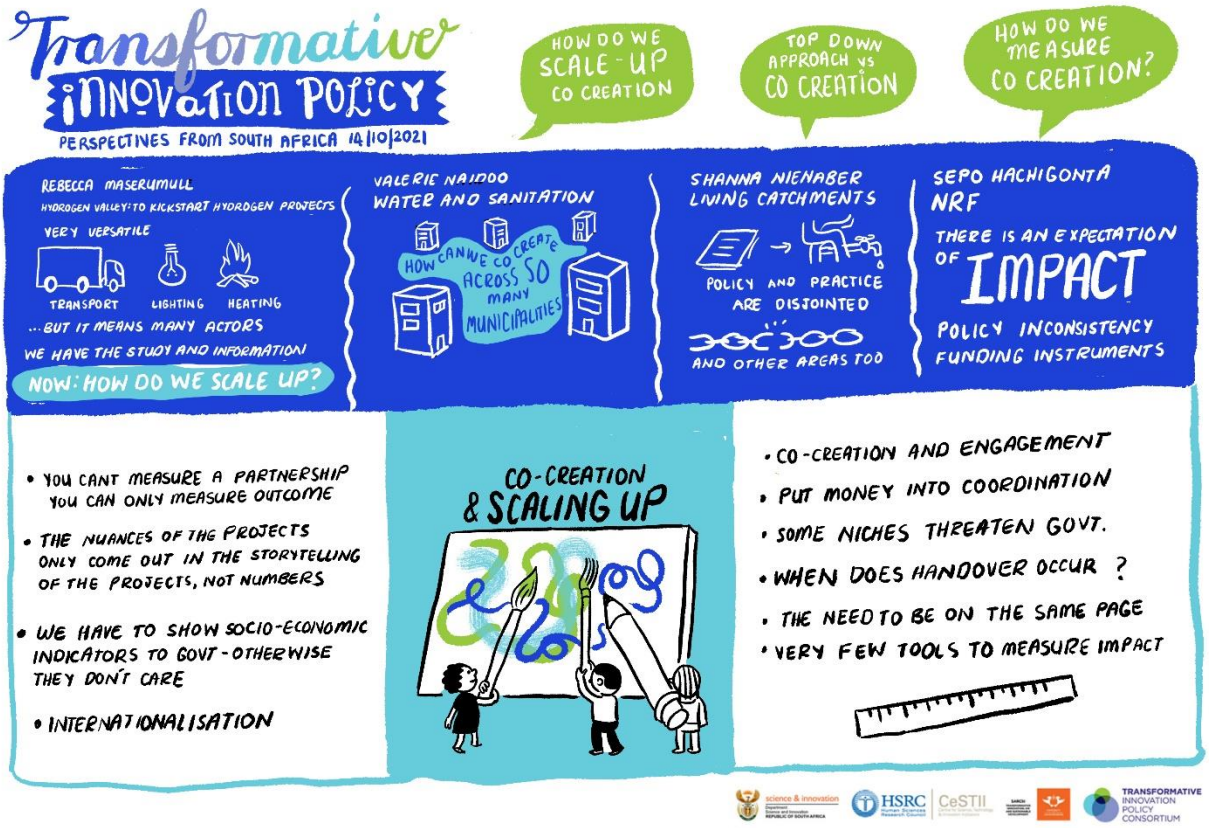
[7] The "Systemic Change" learning game is about socio-technical system change. The key objective of the game is to communicate the complexity of system change for a broader audience. players can take on the role of one of five transition actors who, under certain rules, cooperate with each other despite their self-interests by spending their allocated resources (money, knowledge, influence) and by performing certain actions every turn to win the game. The game may be beneficial for learning about transformations by highlighting the nature of cooperation versus personal (or hidden) agendas, and illustrating the nature and implications of systems change.

Human Settlements) where each project unpacked the socio-technical system of their policy experiment that further led to breakout sessions. Participants selected a breakout room based on their interests in a particular project; c) lastly, the session went into a plenary discussion summarising the key points of the discussions held in the breakout sessions. The below illustrations provide a story of the session:



Nicolene Louw (Fine Line Illustrations, 2021)

Session two, '*Embedding transformative innovation in policy processes: Critical reflections on* ***co-creation and scaling up****',* was facilitated by Dr Kruss and invited contributions from Rebecca Maserumule (Hydrogen and Energy), Valerie Naidoo (SANITI), Shanna Nienaber (Living Catchments), and Sepo Hachigonta (National Research Foundation). Several questions on the theme of co-creation were posed to participants ahead of the panel. Some of the questions included: how to identify/map the range of stakeholders that need to be involved in each co-creation effort?; what are the options and possibilities in ensuring adequate resources (human, financial) for co-creation?; and what are the conditions under which co-creation practices can scale up across regional and technical domains? Key recommendations highlighted were for policy coherence to be a clear and distinguished objective, and catalytic funding could be available to drive incubation, which is not linked to traditional market triggers. More key points from the session are highlighted below:

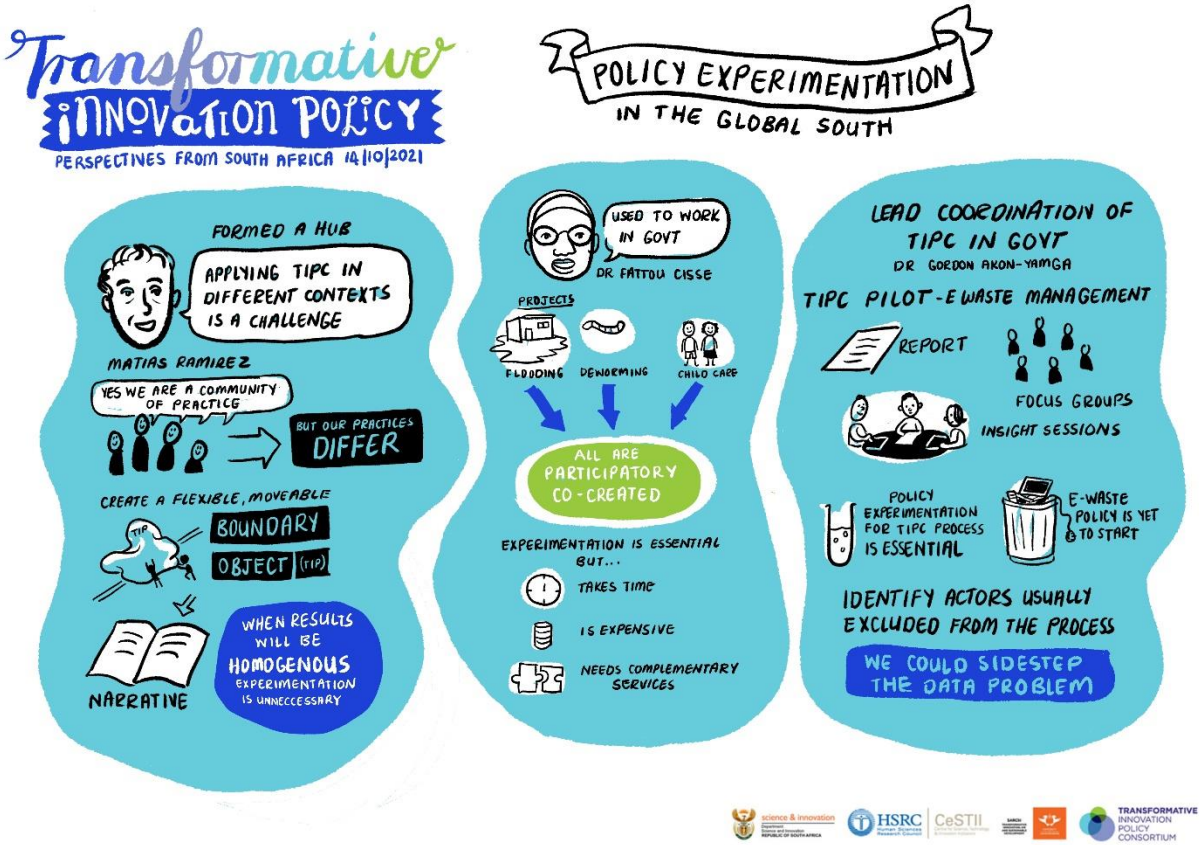


The third session of the day, and the final session of the Colloquium, was facilitated by Ms Victoria Shaw (TIPC Global). The session themed '*Transformative innovation policy in the global South*' invited contributions from Dr Matias Ramirez, [8]Dr Fatou Cisse[9], and Dr Gordon Akon-Yamga[10], who provided insight into their policy experiences in Latin America, Senegal and Ghana. Questions posed to the contributors included: a) What common themes do you notice emerging?; b)What lessons might be transferable across contexts?; and c)What is your own experience? Some key findings central to successful transformative innovation policy were concluded to be strong partnerships among stakeholders and willingness. In addition, the policy experimentation timeframes must be sufficient to avoid misleading conclusions about longer-term effects, and policy experimentation is costly, requiring adequate financial resources. Additional points from the session are depicted below:

[8] Dr Matias Ramirez is a senior lecturer in management at the Science Policy Research Unit (SPRU) and the Sussex Principle investigator, with a particular focus on Latin America, at TIPC.

[9] Dr Fatou Cisse is the Head of the TIP Senegal research team, a research professor of management and economics at the University Cheikh Anta Diop, and the Head of the Poverty and Equity Department at CRES.

[10] Dr Gordon Akon-Yamga is a research scientist , and Head of Commercialization and Information Division (CID) at the CSIR Ghana



In conclusion, the Colloquium was a success with roughly 150 participants, taking part over three days and contributing toward building a community of practice in South Africa. Dr Glenda Kruss emphasised the importance of co-creation when dealing with the complex issues around transformative innovation policy. Prof. Erika Kraemer-Mbula emphasised that we should not '*underestimate the importance of being incremental in the implementation of radical change'* and that the process will not occur overnight but rather requires time, dedication, and resources. *The* ***Transformative Innovation Policy: Perspectives from South Africa Colloquium*** **achieved** its' goal of creating and deepening a community of practice as space was created for co-creation and co-learning. Furthermore, this provided a suitable foundation for broadening the community of practice and seeing the inclusion of more policymakers working on sustainable and innovation development across various levels within government.