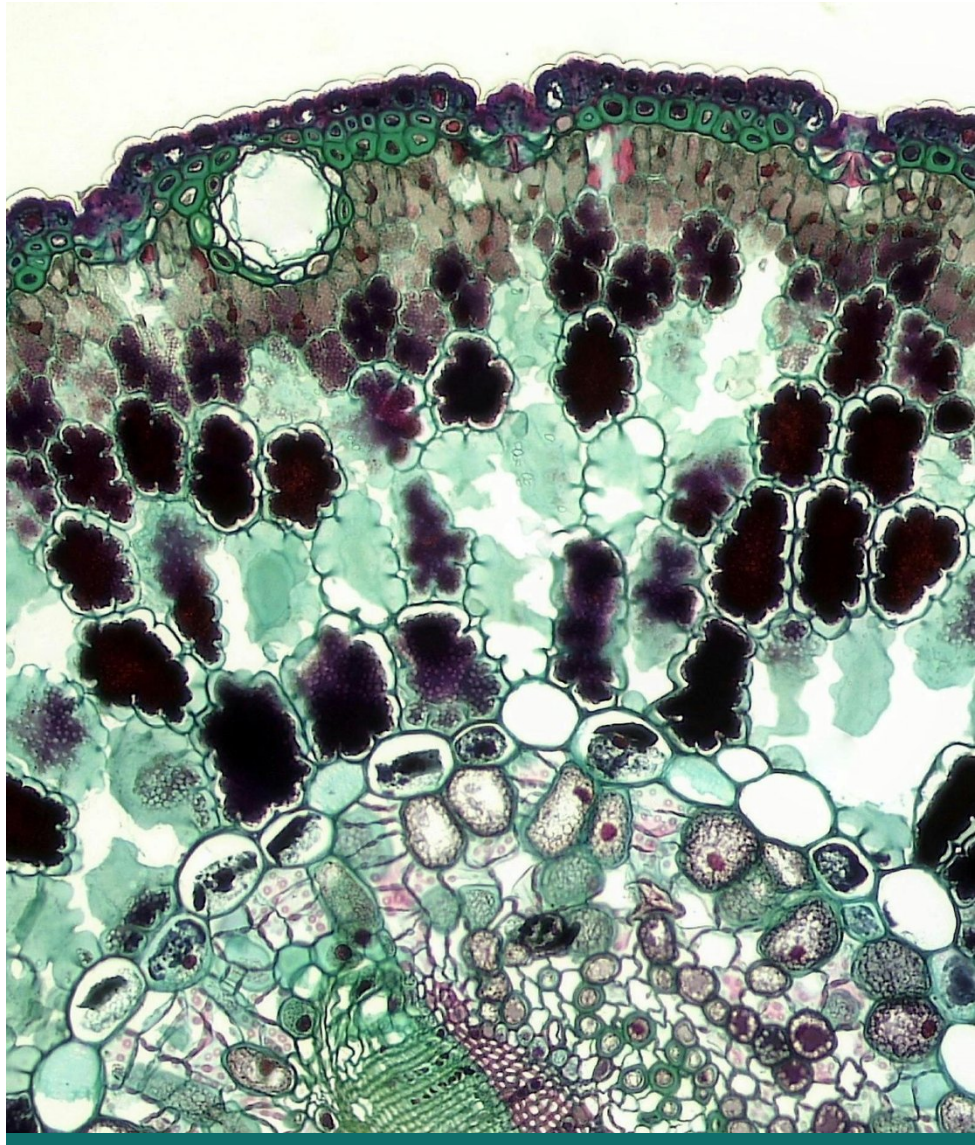


PARTICIPATORY INTELLIGENCE : THE FRAMEWORK

Towards a practice for turning public participation into solutions

Karen Willenberg

September 2026



neith-ai.com

About the author:

Karen Willenberg is a regulatory lawyer who has worked in policy and regulation across Africa since 2004. She is the founder of Neith and her work focuses on helping organisations navigate public participation processes through the use of participatory intelligence.

About Neith:

Neith is an AI startup based in Cape Town, which provides the digital infrastructure that helps organisations to analyse public participation processes and use the resulting insights to make and implement decisions. Our goal is to support participatory decision making by turning large scale public inputs into shared understanding.

Suggested citation:

Willenberg, K. (2026). Participatory Intelligence: The Framework.
Cape Town: NeithCo (Pty) Ltd.
<https://doi.org/10.5281/zenodo.23212444>

FOREWORD

At a recent gathering of past and present African leaders in Kigali, the need for home-grown solutions was highlighted as the continent's next development challenge. Appeals to greater self-reliance and the necessity of finding African solutions to African problems are not new, but the focus is shifting to issues of institutional capacity and African-designed governance.

It is often said that the most valuable resources are the easiest to overlook, because they have become so routine and so familiar that we take them for granted. In the search for home-grown solutions, public participation is such an overlooked resource. The requirement to involve the public in the decisions that impact them is already embedded in the constitutions, legislation and governance processes of many countries. We are spending significant time and money on running these processes, but their potential as sources of collective knowledge for solving our biggest challenges is still largely unrealised.

The problem hiding in plain sight is that the scale of participation has outgrown our capacities to meaningfully engage with what people are saying. We regularly hear ministers report on the hundreds of thousands of public comments received on major policies or legislation, but how does anyone make sense of this kind of volume? This is the practical challenge that participatory intelligence was developed to address, not simply by advocating the use of technology to analyse public inputs faster, but by proposing a structured way of working with large scale participation processes that enables institutions to gather knowledge from these processes and incorporate this knowledge in their decision making.

Participation, without question, has a valuable democratic purpose, but these processes also give leaders and institutions access to vital information that they cannot legitimately or effectively govern without. It is in these processes that people share their experiences of lived conditions, understanding of community priorities and guidance on implementation constraints. Public participation provides an incredibly rich source of knowledge and learning about how to solve our biggest challenges, provided we have the capability to turn public contributions into workable solutions.

Participatory intelligence matters because we need better ways of making decisions together, approaches which incorporate technology, but still value connection and collaboration. The framework seeks to contribute to the work of scaling decision-making capacity, while at the same time honouring traditions of collective problem solving in the age of AI. This paper is a first attempt to set out the foundations of what I hope will become an emerging practice.

Karen Willenberg
Founder, Neith

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1

Introduction

- 1.1 The scale of public participation is becoming increasingly unmanageable, both for institutions and for the stakeholders impacted by their decisions. Two examples from legislative processes in South Africa and Kenya illustrate the problem - in the public process on South Africa's National Health Insurance Bill, more than 330 000 written comments were received by the National Assembly and 23 400 written comments by the National Council of Provinces (NCOP). The written submissions were followed by hearings in each of the 9 provinces and a further 961 oral submissions¹. Similarly, the public process to finalise Kenya's Finance Bill, attracted over 100 000 written submissions from more than 170 to 200 groups and stakeholder entities, followed by public hearings across 13 counties².
- 1.2 We are interested in what institutions actually do with public inputs and the framework provides the initial outlines of a structured practice that incorporates the use of AI to achieve participatory decision making at scale. We will introduce participatory intelligence and set out the core components that make up this practice, which was developed to help institutions turn large scale participation into workable solutions.
- 1.3 We start from the recognition of public participation as a core value for legitimate and effective decision-making. This value is widely shared across the African continent, reflected in traditional governance structures and in the formal commitments which many countries have made to public participation either as a national value, institutional obligation or stated objective³.
- 1.4 In affirming this value, we acknowledge the critique emerging from a new generation and their anger at performative participation that is failing to achieve any meaningful public influence over decision making. This critique should push us to work harder at making participation more consequential.
- 1.5 The work of bringing the contributions of the public into decision making is more urgent now than ever. As institutions start making greater use of AI systems in public decision making, the importance of participation will intensify. It is not inevitable that the use of AI will lead to more

¹ <https://parliament.gov.za/index.php/press-releases/press-release-national-assembly-passes-national-health-insurance-bill-and-land-court-bill>

² <https://parliament.go.ke/node/25976>

³ Relevant provisions range from explicit participatory governance requirements (Kenya, South Africa, Ghana, Uganda and Zimbabwe) to strong constitutional commitments to participation (Nigeria, Zambia, Mozambique, Algeria and Senegal) and the broad recognition of the right to participate in public affairs (Namibia, Tanzania, Ethiopia, Angola).

centralised decision making. This technology makes new capacities for governing available, but we can still determine how those capacities will be used.

- 1.6 Participatory intelligence offers institutions an approach to the use of AI, not just human-in-the-loop (HITL) which can often be reduced to people simply validating system outputs, but human-in-the-centre (HITC) where the public participation allows people to actively contribute their experiences, values and priorities to the evidence assembled for the purpose of solving a particular problem. Without deliberate and thoughtful practices to ensure that the perspectives of the people actually experiencing problems are included, we run the risk of turning current structural omissions, which already leave the voices of the poor, of rural communities and of Africa's majority offline population⁴ largely unheard, into a deeply entrenched algorithmic silencing. Communities that are either absent from the data or present, but given too little weight, will face new and more durable forms of exclusion from the decisions that impact them.
- 1.7 The inclusion of African data and the building of African models is important and valuable work that will ensure greater representation in model datasets, but representation cannot replace participation. A dataset captures information about people, as others have chosen to reflect them and even African datasets are likely to favour those who are online, literate and writing in dominant languages, leaving the rural poor and offline communities underrepresented. Participatory intelligence goes beyond training data to offer a structured practice, a way of working with AI that enables people to contribute their lived realities, community priorities and practical knowledge to the decisions that AI systems will increasingly shape.
- 1.8 For some, current AI development is pointing to a future in which larger and more capable models sit at the centre and people are relegated to the periphery as recipients of machine solutions. This future would be antithetical to African traditions of participatory governance in which participation is valued and people are encouraged to contribute as members of community with mutual responsibilities for problem solving, rather than as data points to be analysed. Africa offers the world an alternative vision, not in the form of a romanticised return to traditional governance, but a rethinking of current assumptions about how societies use technology to solve difficult problems, one that would put computation at the service of the lived experiences and values of human communities.

⁴ In the discussions about AI in Africa, I see very little engagement with this reality. Africa has the world's lowest rate of internet usage, with the ITU reporting just 38% of the population online in 2024, compared to a global average of 68%. The urban-rural contrast is especially stark with internet usage in cities reaching 57% in 2024, compared to just 23% in rural areas. This is the widest gap among all ITU regions and participatory infrastructure will be critical to ensuring the offline population is brought into decision making. (<https://www.itu.int/itu-d/reports/statistics/2025/10/15/ff25-internet-use/>)

2

What is Participatory Intelligence?

Participatory intelligence is the practice of using the combined expertise, insights and experience contributed by large groups of people in formal participation processes to build solutions, the technology required to make the knowledge emerging in these processes visible and the capability to turn that knowledge into workable solutions.

It is a practitioner-developed approach which emerged from over two decades of experience with the practical challenges that arise when institutions invite people to contribute to a process, but then lack the tools to use the volumes of public contributions in their decision making. It draws on direct experience of how participation processes are operating across the continent today to identify where major shifts might be required.

As an interdisciplinary approach, it draws from the fields of collective intelligence, participation design and computational analysis, integrating them into an institutional practice that can be systematically followed when working with public inputs. Participatory intelligence can therefore be understood as a philosophy, practice and technology:

- 2.1 As a philosophy, it shares the central premise of collective intelligence, namely that no single person or entity possesses all the knowledge required for addressing complex challenges and that groups can generate insights that no single participant holds alone. The particular contribution of participatory intelligence is to consider what this requires in the formal participation processes through which institutions gather information that would otherwise be dispersed across citizens, communities, businesses and experts.
- 2.2 As a practice, participatory intelligence sets out a structured way of working that is comprised of 6 core components, including expanding the scope of review to cover the process as a whole, iterative participation design and consolidated record keeping to maximise opportunities for gathering collective knowledge.
- 2.3 As a technology, participatory intelligence puts the philosophy and practise into operation through AI platforms that can be used by institutions to collect large volumes of public input, conduct whole process analysis and inform decision making. Importantly, participatory intelligence is not automated decision-making, its purpose is to use technology to augment institutional understanding of the written and oral submissions collected in formal consultation processes.

There is a considerable amount of work on AI-enabled engagement with public inputs happening around the world, as reflected in the OECD's recent review of 50 AI uses cases in 22 countries⁵. What is noteworthy are the findings in this report that most government strategies are still limited to high-level principles and lacking guidance on how teams should be working with this technology in actual participation processes. This is the blindspot that is overlooked by many institutions, AI capability is not the same as institutional capability to work with AI. Without the necessary skills and training, for example on how to interrogate outputs, interpret findings or convert analysis into decision options, the technology alone will not deliver the type of transformation we need to see for genuine public participation.

3

The 6 Components of the Practice

The components set out below are not exhaustive, but provide a starting point for the practice of participatory intelligence:

- Whole process analysis
- AI-augmented review
- Iterative participation design
- Traceability from submissions to decisions
- Consolidated Participation Record
- Institutional AI capability

The idea is not that every component can or will be implemented immediately or even implemented in every process, instead the components provide a way of working that can be introduced progressively, then adapted and strengthened as institutional capability develops.

3.1 Whole process analysis

Let's consider what happens today - governments, regulators and other institutions invite people to contribute to their decisions through consultations, hearings, workshops, roadshows and increasingly, automated digital platforms. In these processes, huge volumes of written and oral submissions are collected. Where time and resources permit, public inputs are still largely reviewed manually. Some institutions may use tools for thematic classification or outsource the analysis to consultants, but the

⁵OECD/Bertelsmann Stiftung (2026), Artificial Intelligence and the Future of Citizen Participation: Typology of Applications, Opportunities and Challenges for Democratic Innovation

output is usually a report or summary which will capture individual stakeholder positions with high-level thematic analysis.

Since we can only read documents one-by-one, the traditional approach to the analysis of public participation has, quite naturally, focused on reading and summarising individual submissions. We refer to this as “submission-level” engagement, because it evaluates each of the submissions received as individual units of analysis. This approach is useful for understanding individual submissions, but it is not well suited to rendering visible the collective knowledge emerging from the process as a whole.

The single biggest shift required for the practice of participatory intelligence is extending the analysis of public participation to cover the process as a whole, meaning that the complete body of all public inputs is treated as an object of analysis in its own right. This is necessary because collective knowledge will only become visible when we are able to evaluate the contributions of all stakeholders involved in a particular process. The purpose of this expanded approach is to identify emergent signals and patterns that would not be apparent from reading individual submissions one-by-one, including relationships between different stakeholder positions, areas of convergence and divergence or recurring concerns. Individual contributions remain important, but they are assessed both individually and relationally, as part of a larger participation environment.

Rather than treating the process as a collection of isolated, individual submissions, participatory intelligence engages the process as a connected unit of knowledge and therefore seeks to bring the combined contributions of all stakeholders into view. This means that instead of asking only, “What did a particular stakeholder say?”, participatory intelligence will ask, “What are stakeholders saying in relation to each other?”. By taking this expanded view, we begin looking for the connective tissue between different positions, for the relationships, recurrences and interdependencies that will inform the decision.

Primary decision makers rarely, if ever, read public submissions. They are reliant on their teams, which means their visibility of the dynamics of a process is intermediated. One of the major benefits of the whole process approach to analysis is that it gives primary decision makers greater visibility of the entire consultation by revealing critical patterns that have emerged in stakeholder responses to a particular proposal. Where this visibility matters most is implementation, whole process analysis will provide a useful map of the terrain, giving decision makers a more complete operational picture of the conditions relevant to implementation, including sources of resistance, implementation constraints and possible alternative solutions.

3.2 AI-augmented review

The manual review of public inputs requires time and resources that many institutions lack⁶, which goes some way to explain why the rigorous analysis of submissions is so frequently sacrificed in favour of fairly superficial summaries. This is an area where AI can significantly enhance the capacity of internal teams tasked with reviewing large volumes of public inputs and the use of these tools is growing as institutions recognise the value of AI-enabled analysis in processes from national policy consultations to local planning initiatives.⁷

Teams today are already working with generic tools to summarise and extract themes from written submissions. However, this does not yet achieve the recommended shift to whole process analysis which requires additional work to produce a defined corpus, structure the underlying data, manage the context, apply consistent analytical methods and ensure appropriate human supervision.

The use of generic AI tools and reliance on ad-hoc prompting may suffice for smaller processes, but as the number of public inputs increases, so will the risks of loss, distortion and inaccuracies. Institutions that regularly conduct or participate in public processes require analysis that is systematic, repeatable and fully auditable, this is best achieved with tools that have been specifically designed for large scale participation.

3.3 Iterative Participation Design

Participatory intelligence seeks to reconfigure public participation so that stakeholder contributions can be captured, connected and compared to produce usable knowledge for building solutions. Iterative participation design requires that the different stages of a participatory processes are adapted to respond to what is learned from stakeholders in the previous stage.

This component addresses two weaknesses in the traditional design of participation processes. First, stakeholder engagements will frequently replicate the siloed approach taken with written submissions. Consider the way most hearings are designed, each stakeholder will present in turn, mostly repeating the content of their written submission and then answer questions from the appointed panel. Second, engagements are usually limited to the stakeholders who made written

⁶ In 2024, the UK government estimated that manually reviewing the 500 consultations it runs each year would require 75 000 days to analyse at an estimated £20 million in staffing costs (<https://www.gov.uk/government/news/government-built-humphrey-ai-tool-reviews-responses-to-consultation-for-first-time-in-bid-to-save-millions>)

⁷ The OECD report referred to earlier offers examples of use cases (https://www.oecd.org/content/dam/oecd/en/publications/reports/2026/07/artificial-intelligence-and-the-future-of-citizen-participation_0608e00e/a1ee2e0a-en.pdf)

submissions, which tends to favour participants that are literate, digitally connected and well-resourced, but risks the exclusion of the people most affected by a decision.

An iterative approach to participation design provides an opportunity to go beyond what has already been said in the written submissions. This approach uses the findings from the whole process analysis undertaken in a previous stage to identify questions that remain unresolved, propositions that need further testing, implementation concerns and potential areas of compromise between different stakeholders. It also uses the analysis to identify any critical stakeholders that may be missing from the process and treats gaps in participation as findings in their own right, to be addressed or corrected in the design of subsequent stages.

By way of example, our analysis of a recent policy process revealed a handful of issues where the positions taken by participating stakeholders were most sharply divided. We proposed that the hearings be structured to allow stakeholders to speak specifically to their arguments on these issues, since these issues would be most critical to the finalisation of the policy. The analysis also indicated that certain positions expressed by stakeholders were addressing other stakeholders, which indicated that some of the core disputes might be narrowed through direct stakeholder-to-stakeholder discussions. This led to a further recommendation that the hearing schedule make provision for focused and facilitated roundtable sessions on the two or three most contested issues to allow opposing stakeholders engage directly.

For participatory intelligence, hearings are not limited to what the institution may initially have believed were the primary concerns, but are responsive to the issues emerging from analysis of the process as a whole to include concerns that stakeholders indicate need to be resolved.

3.4 Traceability from submissions to decisions

Recent surveys paint a bleak picture of a public steadily losing trust in institutions⁸. Poor quality participation is a major contributor to this decline, with organisations like the UN warning against “tokenistic” participation as leading to deeper distrust and civic disengagement.⁹ When people are invited to participate in a process, but then cannot see how or where their contributions were used, trust erodes, creating an environment in which it is exceedingly difficult to govern effectively.

If we are to restore public trust in decision making, it is especially important that institutions are able to show the relationship between the public inputs they received and the decisions that are ultimately taken. In the practice of participatory intelligence, the goal is to preserve enough

⁸ <https://www.afrobarometer.org/publication/ad891-across-africa-public-trust-in-key-institutions-and-leaders-is-weakening/>

⁹ <https://www.ohchr.org/en/stories/2020/09/right-participation-matters-more-ever-un-secretary-general>

information for an institution to trace the pathway from public contributions through to their final decision.

This is not the same as giving reasons. When providing reasons, institutions will set out the explanation for a particular decision. Traceability is more like an audit trail between participation and the final decision. It will track who was consulted, what submissions went into the process, what analysis was done and then how the analysis was used in the final decision. It does not require an institution to demonstrate how every contribution impacted their decision, but to maintain a documented path between participation and the final decision.

This sounds difficult, but the creation of a consolidated participation record (see below) will make traceability viable at scale. The recommendation for institutions is that traceability should not be treated as an output or report to be reconstructed at the end of a process, but included as core functionality in the systems they acquire or build for the analysis of public submissions. This will ensure that where an emerging pattern is identified in the public inputs received, it will always be possible to trace that finding back to an underlying written or oral submission made during the course of the process. If a particular finding is then used inform a recommendation, the relationship between the finding and the recommendation should also be preserved.

As AI models are used more frequently for public decision making, the more important traceability will become as a democratic safeguard which allows oversight. The bigger the scale and complexity of a process and the more reliance we start to place on AI to help us identify patterns distributed across millions of public contributions, the more important it will become to preserve a record of the connection between public contributions and decisions.

Traceability will enable decisions to be interrogated, rather than merely accepted, because traceability will ensure that the voices of the public are not lost in AI-generated findings and that we are able to make collective knowledge visible while still preserving the integrity of the connection to individual submissions.

3.5 Consolidated participation record

Public processes involve multiple stakeholders, multiple submissions, and potentially multiple rounds of consultation, often taking place over extended periods of time. For major legislative or policy issues, the process can take many months and maintaining a consolidated participation record is very difficult at present, because it means reconciling all the various submission formats gathered throughout the process, usually under tremendous time and resource constraints.

Institutions are keeping records of public participation, but practices vary across countries and then within countries across different institutions. Some institutions are quite advanced in their record

keeping, while others may not yet have a systematic approach. Whatever the current stage, the creation of a consolidated participation record is foundational work for AI-enabled participation.

The absence of digital records of participation is going to become increasingly consequential in the age of AI, because these systems can only work with information that has been captured and made available to them. Record-keeping is therefore no longer a purely administrative issue, but an essential step in ensuring that the inputs collected from the public are available for analysis. The creation of a digital and AI-enabled record of participation is a non-negotiable. If no such record is ever created, the process as a whole will not exist in any observable form that can be analysed by AI tools.

The aim is to ensure that the participation record captures the full course of participation, including written submissions received, presentations made at oral hearings, questions, responses and any other forms of engagement. AI tools can now help teams to transform a fragmented submissions into a structured record. However, the larger the process, the more work will be need to convert the underlying documents into coherent dataset.

Hearings remain a significant challenge due to language and infrastructure constraints. We appreciate that many institutions are doing the work of engaging marginalised communities by holding provincial, county and district level consultations and, for these communities, hearings may be the only way that their knowledge and experiences enter the participation record. If their contributions are not captured or poorly captured, the participation record will systematically privilege stakeholders who have the resources and capacity to make formal written submissions. The objective is therefore to ensure that oral submissions are entered into the same participation record as written submissions.

3.6 Institutional Capability

Institutions (both public and private) have a surprisingly low awareness of the insularity of their decision-making and are often genuinely surprised when attempts to implement decisions are met with resistance, opposition and outright hostility. In many cases, decisions are generated by a relatively small group of officials or executives, consultants and powerful stakeholders, who have little to no visibility of the experiences, conditions and realities of the people impacted by their decisions. Until recently, the challenge has been practical, because the time and cost of gathering knowledge is so prohibitive that most decision-making practices have evolved to largely omit this. AI changes this limitation, by creating opportunities to bring the diverse knowledge contributions into decision making and giving decision makers the tools to engage with these contributions at scale.

The objective of participatory intelligence is not simply to collect and review submissions faster, although this has benefits, but to develop a practice for working with participation at scale to develop

better solutions. We are seeking ways to learn from the contributions of the public and experts, looking for information about a particular problem that we might not previously have been aware of and asking how this information might shape or change our decisions.

Technology is integral to this practice, but technology alone will not create the capability required for participatory intelligence. Alongside investments in AI-enabled platforms, institutions will need to invest in training at both operational and leadership levels. Teams must develop the capability to validate the findings generated by AI systems, interrogate those findings and translate them into viable outcomes, while primary decision makers will need the capability to evaluate the significance of those findings and incorporate them into their decisions, the gap between participation and action starts to narrow. For this reason, participatory intelligence stresses the need for training of the teams working with AI to engage with public inputs, but even more critically, for the leaders who maintain accountability for the final decisions.

4

Conclusion

What needs to be done to ensure that public participation is real and meaningful on a continent that is expected to reach 2.5 billion people by 2050? ¹⁰ In order to be real at this scale, our formal commitments to including people in the decisions that impact them have to be translated into practises that seriously engage with public inputs as sources of knowledge and use these inputs to build better solutions.

Making participation meaningful again will go some way to stemming the decline in public trust, which is at historic lows. Participatory intelligence offers a pathway for institutions to begin creating the conditions under which trust can be rebuilt and sustained.

¹⁰ <https://www.uneca.org/stories/%28blog%29-as-africa's-population-crosses-1.5-billion%2C-the-demographic-window-is-opening-getting>