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REGULATING AND ENABLING INNOVATION

R3LAB TOOLKIT

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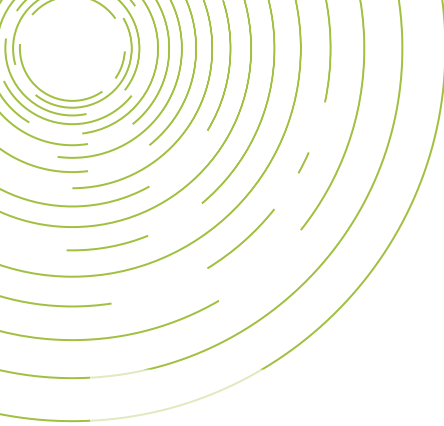


List of acronyms

Acronym	Definition
A2ii	Access to Insurance Initiative
AFR	Access to Finance Rwanda
AI	Artificial Intelligence
AIMS	African Institute for Mathematical Sciences
API	Application Programming Interface
ASIC	Australian Securities and Investments Commission
BNR	National Bank of Rwanda
CBE	Central Bank of Eswatini
CBK	Central Bank of Kenya
CCAF	Cambridge Centre for Alternative Finance
CGAP	Consultative Group to Assist the Poor
COVID-19	Coronavirus disease
DFI	Digital Frontiers Institute
eKYC	electronic Know Your Customer
ERS	Electronic Regulatory System
FATF	Financial Action Task Force
FRA	Financial Regulatory Authority (Egypt)
FSCA	Financial Sector Conduct Authority
FSRF	Financial Sector Regulator Forum
GDP	Gross domestic product
GSMA	Global System for Mobile Communications Association
GWP	Gross Written Premiums
IAA	International Actuarial Association
IACG	Insurance Awareness Coordinators Group
IAIS	International Association of Insurance Supervisors
ICT	Information and Communication Technology
IFWG	the Intergovernmental Fintech Working Group
IPEC	Insurance and Pensions Commission
IRA	Insurance Regulatory Authority
ISD	Insurance Supervision Directorate
IT	Information technology
KES	Kenyan Shilling
KPI	Key Performance Indicators
KYC	Know Your Customer
LT	long term
MAI	Market Analysis and Intelligence
MEL	Monitoring Evaluation and Learning
MNOs	mobile network operators
MSMEs	Micro Small and Medium Enterprises
MT	medium term
NAICOM	National Insurance Commission (Nigeria)
NBE	National Bank of Ethiopia
NHIF	National Hospital Insurance Fund
NHIS	National Health Insurance Scheme
NIC	National Insurance Commission
PR	Public Relations
SSA	Sub-Saharan Africa
ST	short term
STEM	Science technology engineering and mathematics
TCF	Treating Customers Fairly
TSPs	technical service providers
UK	United Kingdom
UNICEF	United Nations International Children's Emergency Fund
USSD	Unstructured Supplementary Service Data

We live in exciting times. As technology advances – most recently through AI taking the world by storm – new types of players, new systems, better data and new tools and channels are emerging across the insurance value chain. This brings unprecedented prospects for better serving people's insurance needs, and, in so doing, making insurance an engine of growth and development in Africa.

Making the most of these opportunities requires collaboration and cooperation between market players and regulators to build an ecosystem in which responsible innovation can thrive. FSD Africa, as regional specialist development agency which works to build and strengthen financial markets, is actively working to create this ecosystem in two ways:

- In March 2022, we launched the **Risk, Resilience and Regulatory Lab – R3Lab**, in short. The R3Lab works to create an enabling regulatory environment for innovation by encouraging and facilitating regulatory and supervisory interactions between insurance regulators in Africa. It offers customised capacity-building programmes, a peer-to-peer exchange platform, comprehensive learning toolkits, a resource centre, data collection and reporting as well as topical taskforces and forums for insurance supervisors in Africa.
- In parallel, we are running the **BimaLab Insurtech accelerator**, with the mission to connect technology, talent, and trends from the BimaLab ecosystem to accelerate innovation and growth in the insurance industry. BimaLab has expanded its footprint to 15 countries. So far, it has supported 75 insurtechs gain visibility, 20 to sign strategic partnerships, and 60 products and services to be developed in ten countries.

As part of the initial work of the R3Lab, we assessed the state of innovation in eight countries in Sub-Saharan Africa (SSA), took stock of the barriers to further innovation and suggested tailored innovation promotion action plan recommendations for each country – in the form of a series of insurance innovation country portraits and synthesis note. We are now working with supervisors in these countries to take their action plans forward.

This toolkit documents the steps and learnings for regulators to understand the state of innovation in their markets, what holds it back, what they can do to enable innovation, and how they can effectively track progress towards innovation and market development.

The toolkit is born out of extensive engagement with regulators and market participants in several sub-Saharan African countries over several years, including Ethiopia, Ghana, Kenya, Malawi, Nigeria, Ghana, Rwanda, Uganda and Zimbabwe. It includes practical examples from these countries and beyond.

Ultimately, what approach will be most effective is inherently shaped by the specific country context. We hope that the tools provided in this toolkit will help you to take action to understand your unique realities and options.

Elias Omondi
Principal, Innovation for Resilience, Risk and Resilience

"Our engagement with FSD Africa and FSD Uganda on the topic of regulating and enabling innovation goes back several years. We first did an innovation gap assessment in 2019. That helped us to define an action plan and implement several activities that have helped spur innovation in our market. Among others, we streamlined our product approval process, launched a regulatory sandbox, and developed a targeted communications strategy for two-way engagement with the market and insurtechs. Overall, it's good to see progress towards mindset change regarding innovation in the market which rekindles our vision that we shall be here for a long haul. We also appreciate the opportunity for peer exchange that the R3Lab brings."

Mr Sande Protazio,
Director Strategy and Market Development, IRA Uganda

"FSD Africa has immensely supported the National Insurance Commission (Nigeria) with many flagship projects. Specifically, we have been working actively with FSD Africa on both the BimaLab and R3Lab. Earlier this year, we had a training/workshop with the Nigerian insurance market, as well as intensive discussions with NAICOM staff/management to chart the way forward towards a workplan for regulating and enabling innovation in furtherance of the innovation portrait/assessment. As we move forward to the next cycle of our strategic plan for NAICOM more broadly, these inputs are helping us to define our priorities and set key indicators for how to measure progress."

Dr Usman J. Jankara, Deputy Commissioner, NIC Nigeria

""'Responsible innovation is key to the restoration of confidence in insurance on the back of hyperinflation and currency changes' impact on insurance policies and an increasingly informalised economy in Zimbabwe. As insurers actively seek innovative solutions, as regulators, we want to walk this journey with them but cognisant of the need to strike a balance between promoting innovation and policyholder protection. As we think through how to tackle key ecosystem constraints with industry and other stakeholders, we've found the inputs and support from the FSD Africa's R3Lab very useful. We look forward to work with the R3Lab to build out our action plan."

Dr Grace Muradzikwa, Commissioner, IPEC Zimbabwe

Introduction

Digital innovation[1] is changing the nature of financial markets. Innovation can create opportunities, enhance efficiencies, increase competition, drive scale, and improve the reach and value of financial products and services to consumers. However, with innovation also comes risk, and due to the novel nature of innovation, it is often not fully accommodated within current regulatory frameworks.

Historically, regulators have focused their supervisory efforts mostly on prudential soundness. More recently, regulators' mandates or objectives have broadened. There is an increasing focus on conduct of business and consumer outcomes, inclusive insurance and the proactive development of the insurance sector. With the evolution of regulatory mandates there is now greater recognition of the link between insurance and broader policy challenges such as inclusive economic development, climate risk and digitalisation.[2]

Striking a balancing act. Given that innovation brings with it both benefits and risks, and given that the regulator's mandate has evolved, it is the regulator's role to proactively consider the trade-offs between the two:

- On the one hand, the benefits from innovation create an imperative for the regulator to ensure that both the regulatory framework and its actions in regulating do not hamper innovation, but rather promote or facilitate it.
- On the other hand, the regulator has a duty to protect consumers against any risks arising from innovation (de Waal et al., 2019).

1.1. Why is a regulating for innovation toolkit necessary?

Supervisors are not always sure how to strike this balancing act or what tools they can leverage to do so, and how. In many cases regulating for innovation is articulated as synonymous with implementing a sandbox, with limited reference to the broader set of potential tools available to apply. This toolkit aims to offer supervisors a practical guide, drawing on examples from their peers, on how to take stock of the current state of – and need for – innovation, what tools are available to consider, how to choose a fit-for-purpose and fit-for-context combination of tools and how to go about implementing the chosen tool set.

1.2. Who should use this toolkit?

Empowering regulators and supervisors. This toolkit is published under the banner of the FSD Africa R3Lab, to equip regulators to help navigate their role and guide their decisions in regulating for innovation. The toolkit is not limited to R3Lab participants, however. It is relevant for any regulatory authority wanting to fulfil both a market development and consumer protection mandate.

Informing donors and regulatory advisors. This toolkit also aims to inform donors and regulatory advisors on how and where they can provide support to the regulators who are interested in regulating for innovation.

[1] Throughout, the concept of innovation "entails the introduction of new methods, ideas or products that offer greater efficiency or value in existing processes or products or that entirely redesign the existing ways of doing business or offering products" (Cenfri, 2018).

[2] The Access to Insurance Initiative (A2ii) published the report, "Evolving insurance supervisory mandates in sub-Saharan Africa (SSA) – implications for data practices." The report marks the first part of a project by the A2ii and Cenfri, in partnership with FSD Africa and together with a Steering Group comprising supervisors from seven jurisdictions: Ghana, Kenya, Malawi, Mauritius, Uganda and West and Central Africa (CIMA), chaired by South Africa. The project was initiated to support SSA insurance supervisors with obtaining the necessary information to conduct effective supervision and evaluate the insurance market, in line with ICP 9 while recognising that supervisory mandates are evolving with the times. The project aims to develop a consolidated reference list of KPIs covering the different 'pillars' of insurance supervisors' mandates, namely: prudential, market conduct, insurance market, development (including inclusive insurance) and the contribution of the insurance sector to sustainable development.

1.3. How is this toolkit structured?

The rest of this toolkit is structured into four sections:

1. Section 2 provides a framework for understanding the innovation dynamics in the market. Building this understanding is the starting point of the journey to regulate for and enable innovation. It has two components: (i) taking stock of the current state of innovation in the market; and (ii) understanding the ecosystem dynamics that shape or hold back innovation.
2. Section 3 introduces and discusses the different tools available to regulate and enable innovation, with practical examples of how they have been applied in different country contexts
3. Section 4 gives guidance and examples of how to put the tools into action. It covers how to devise action plan priorities, how to convert these into a feasible workplan, success factors for implementation of the workplan as well as, importantly, how to track the success of workplan implementation.
4. Section 5 concludes.

Starting point: Understanding innovation ecosystem dynamics

To be able to effectively regulate and supervise for innovation to thrive, it is important to first form a foundational understanding of the status and drivers of innovation in the particular market context. This requires conducting an **innovation gap assessment** to understand the extent of innovation and the gaps in this regard, as well as doing an assessment of the barriers and enablers of the **innovation ecosystem** that explain the state of innovation in the market.

This can be done by the regulator as an internal exercise, or it can be outsourced to a consultant with development partner support. A similar approach has been applied by the FSD Africa R3Lab as part of its innovation portrait series, and we use illustrative examples from the existing suite of innovation portraits throughout this toolkit.

2.1. Step 1: Conducting an innovation gap assessment

The starting point is to take stock of the current state of insurance market development and reach, as well as the current state of innovation in the market, and to compare that to the potential market reach. On this basis, one can then determine the innovation gap. This assessment will be done based on desktop research and discussions with regulatory staff and market players – the latter being especially important, given how crucial engagement with the players in the ecosystem is to understand the real dynamics at play.

The discussion below outlines the key elements to cover:

Current state of the insurance market

- **Penetration.** The first element to take stock of to understand the innovation gap is where the market is currently at. Here, consider the insurance penetration rate and compare that to the penetration rate for other countries in the region and globally to see how the country fares in comparison to its peers.

Why the penetration rate?

Traditionally, the insurance penetration rate, which is total premiums as a percentage of gross domestic product (GDP), is used as a catch-all indicator to measure the level of insurance market development. This indicator is useful for measuring the importance of the insurance industry in domestic economies as well as the maturity of the industry relative to other countries (Republic of Ghana, 2018). Given its aggregate nature and the central role of GDP (which is outside of the insurance sector's control) in determining penetration, it should not be the only indicator of market development considered. Nevertheless, it remains a commonly-used starting point to provide a high-level indicator of the state of development of the insurance (A2ii, 2022).

Where to look:

- A good source to gauge the penetration rate and other headline statistics for the insurance industry is the regulatory authority's annual report.
- For global comparison, a go-to source is Swiss Re's Sigma publications. For example, Sigma 3/2023 provides a snapshot of world insurance at that point in time, and lists insurance penetration rates for several countries.

- **Premiums and reach.** In addition to the penetration rate, also consider key headline statistics such as total gross premium trends, the share of general versus life premiums in total gross premiums, as well as the number of policies and policyholders/lives covered in total. The trend in total gross premiums gives a sense of the growth of the industry over time, while the number of policies and policyholders show the reach thereof. The share of life premiums in total premiums and the trend of this ratio over time, together, is often used as a proxy for the state of the insurance market development, as less developed insurance markets are typically dominated by general insurance, with limited retail life reach.
- **Landscape of providers.** Next, consider the number of licenses in the market and whether this indicates a fragmented or concentrated market, or indeed healthy competition (as measured through the Herfindahl Hirschman index[3] as a globally accepted measure of competition). Also consider the market share of the top five insurers in the life and non-life market, respectively, to form an appreciation of the dynamics in each market.
- **Distribution landscape.** Equally important to consider is the mix and share of distribution channels, given the prominent role that distribution plays in reaching out to previously underserved market segments. Here, consider the role of brokers, agents and direct distribution, gauged through statistics from the regulatory authority's annual report on percentage of premiums accounted for by each channel. Also use interviews with market players to understand the status of alternative distribution, for example through retailers, agricultural cooperatives or mobile network operators. Is there an emerging trend to leverage alternative distribution channels for insurance uptake and premium collection, or is this still nascent in the particular country?
- **Drivers of uptake.** Next, consider what market trends explain the current uptake picture. Is there compulsory insurance and, if so, what is its share in total insurance uptake? Do large employers play an important role in the life insurance market through group life or health? Is there anything from the consultations with market players or in documented demand-side research that explains the insurance uptake picture?

SNAPSHOT: Drivers of uptake

- In the **Ethiopia** portrait, demand-side data revealed that people prefer informal community-based funeral risk pooling mechanisms called Iddir but found limited uptake of formal insurance outside of the compulsory market.
- In the **Nigeria** portrait, insurance uptake is primarily characterised by corporate or employer-driven insurance, thus highlighting the absence of a vibrant voluntary retail market that is inclusive of those outside the urban formal sector.
- In the **Rwanda** portrait, the uptake of insurance outside of compulsory insurance lines remains low and most individuals and businesses are not using insurance as a coping mechanism to deal with the risks they face.
- The **Zimbabwe** portrait shows that the country has a history of a strong insurance market, with 34% of the population having insurance cover. However, the depth of insurance uptake is lacking, as most of the uptake is seen in funeral cover, leaving individuals unprotected against other risks.
- In the **Ghana** portrait, Ghana's low insurance penetration is reflected in low uptake of insurance among individuals and micro, small and medium enterprises (MSMEs) outside of the National Health Insurance Scheme.

- **Breakdown of uptake.** Finally, where demand-side survey data such as a FinScope[4] survey is available, analyse such data to understand the breakdown of insurance uptake further. Who tends to have insurance (by employment type, location, age profile, education and gender) and what is the demographic profile of the uninsured? Are there notable rural-urban or gender differences in uptake? All of these questions can pinpoint important areas where innovation may be required to extend the reach of the market.

[3] The Herfindahl-Hirschman index (HHI) is "a measure of the competitiveness of an industry in terms of the market concentration of its participants... Higher values of the index indicate higher market concentration and monopoly power as well as decreased competitiveness. For example, if there is only one firm in a market with 100 percent market share, then the value of the index would equal 10,000 (1002). The index decreases when a market is made up of a larger number of firms, each with a smaller market share." (Encyclopedia Britannica, 2023)

[4] FinScope refers to a nationally representative financial inclusion demand-side survey, rolled out in several countries in Sub-Saharan Africa. In some countries it is referred to under a different name, such as Access to Finance Survey in Nigeria and FinAccess in Kenya. For more information, see: https://finmark.org.za/data-for-financial-markets

SNAPSHOT: State of the insurance market in Kenya

As an example of the upshot of an innovation gap assessment, let's consider the findings from the Kenya insurance innovation portrait (2022) on the current state of the insurance market:

Fourth-highest insurance penetration in Africa. Kenya had an insurance penetration[5] rate of 2.3% in 2021, compared to 2% for the rest of Africa (Signé, 2020; AKI, 2021; Orimisan, 2022; IRA, 2021; GCR Rating, 2021). This ranks Kenya fourth in Africa in terms of gross premium income after South Africa, Morocco and Egypt (IRA, 2021). Insurance penetration has been on a declining trend, meaning that insurance premium growth has not kept pace with GDP growth (AKI, 2021). Nevertheless, Gross Written Premiums (GWP) increased by 1.73% from 231.3 billion Kenyan Shilling (KES) in 2019 to KES 253.31 billion in 2020 (AKI, 2021). According to the latest Insurance Regulatory Authority (IRA) Annual Report, this represents close to 4 million policies across a total of 11.65 million lives covered in 2019, representing 24.5% of the total population.

Non-life sector in the lead but life share growing. Non-life insurance contributed 56% of total insurance premiums in 2020 (at KES132 billion in 2020, up from KES124.8 billion in 2017) (IRA, 2021). However, life insurance premiums, which stood at KES 130.8 billion in 2020, have grown by almost 40% since 2017, albeit off a low base (IRA, 2021). This growth suggests that while the Kenyan market remains led by non-life activity, the life insurance industry is emerging as a potentially prime market for innovation and disruption.

Large number of licenses, with strong market leaders in the life market. Insurance is provided by 56 licensed companies: 24 life and 38 non-life, with some companies operating in both the life and non-life space. In the life insurance market, three companies account for 50% of market share. The general insurance market, however, is more fragmented, with the top five insurers accounting for less than 40% of the total market share (IRA, 2021).

Even spread across distribution channels. In 2020, 37.7% of the total industry premium was sourced through insurance brokers, 37.1% through insurance agents and 25.2% directly (IRA Annual Report, 2020).

Insurance uptake is largely driven by compulsory insurance and the National Hospital Insurance Fund. The traditional dominance of the non-life market can largely be attributed to the role of compulsory insurance[6]. For example, private and commercial motor insurance combined (which includes compulsory third-party motor insurance) accounted for 33.7% of general insurance premiums in 2020 (IRA, 2017; AKI, 2021). A further 33.4% was accounted for by medical insurance (AKI, 2021). The 2021 FinAccess Household Survey shows that total insurance usage increased from 23.3% of adults in 2016, to 27.9% in 2019, before dropping to 23.7% in 2021 (CBK, KNBS and FSD Kenya, 2022). This would suggest that about a quarter of Kenyan adults have insurance. However, the bulk of this is accounted for by National Hospital Insurance Fund (NHIF) uptake: in 2021, 20.6% of Kenyan adults belonged to the NHIF. When excluding NHIF, only around 7% of Kenyans had insurance in 2021 [7].

Rural-urban and gender differences. Insurance uptake (including NHIF) was 32.8% in urban areas in 2021, but only 18.5% in rural areas. This suggests that there is still a considerable rural-urban divide in insurance access. There is also a significant gender gap, although this gap has been decreasing across survey years (CBK, KNBS and FSD Kenya, 2022) (CBK, KNBS and FSD Kenya, 2022). Overall, the analysis of Kenyan insurance sector paints a picture of a relatively large and well-established market, but one

[5] Insurance penetration = $\frac{GWP}{GDP}$ *100

[6] The six compulsory insurance products are third-party motor insurance, liability for aviation, liability for shipowners, worker's compensation, liability for clinical trials and professional liability for insurance brokers.

[7] Note that, as some people have both NHIF and other types of insurance, the numbers across insurance excluding NHIF and NHIF do not add up exactly to the total insurance including NHIF figures.

where retail market reach is limited beyond compulsory insurance lines. Reaching the mass retail insurance market, as well as specific niches (such as farmers and MSMEs) or underserved segments (such as women or rural inhabitants) with appropriate products requires innovation. The following sub-section delves into the current state of innovation in the insurance sector to understand the gaps and opportunities for innovation.

State of innovation

The first part of the gap assessment (as outlined above) provides a picture of the established insurance market. This picture forms the backdrop against which innovation happens.

The second part of the gap assessment delves into the current state of innovation. This part is broken down into two components: firstly, considering innovation within the existing market (licensed insurers), and secondly considering the dynamics and trends in the insurtech sector as source of innovation.

State of innovation within the existing/current insurance sector

Innovation picture. Here, consider instances and the history of innovation. This is done through desktop research, including a scan of insurers' websites and of news reports, as well as by talking to insurers and asking them about instances of innovation. Relevant questions to consider include: Are there particular insurers that stand out as being more innovative? What is the general trend? Are systems already digitalised or still manual? Are there particular areas of insurance that attract more innovation than others, such as client interface digitalisation, or client onboarding? Are there specific product markets that are more or less innovative than others, such as health insurance of compulsory auto insurance? Did the Coronavirus disease (COVID-19) pandemic trigger innovation to digitalise insurance?

A holistic view. Remember that innovation can take place throughout the insurance product life cycle, as depicted in the diagram below, so be on the lookout for any relevant aspect of innovation:

Figure 1: Insurance product life cycle – where can innovation happen?
Source: Schlemmer, Bowman and Thom, Cenfri (2022)

SNAPSHOT: What does innovation entail at each stage of the insurance life cycle?

Opportunities for innovation are present across the insurance product life cycle. Key examples include:

- **For internal strategy and culture:** board and top management buy-in to and mandate for innovation; development of an internal innovation strategy and establishing space for regular innovation-related discussions; regular staff trainings or talks by external experts and internal knowledge exchanges on innovation; earmarking of dedicated capacity and innovation champions within different departments; set-up of a cross-departmental innovation committee/board that consists of senior and mid-level managers who evaluate internal ideas put forward by staff
- **For product development:** better, more granular data collection on target market behaviour, realities and needs, which allows for service personalisation (e.g., usage-based insurance products and tailor-made products and services); combination of risk management tools with insurance cover; coverage of new emerging risks like cyber security risks
- **For sales:** digital sales through leveraging eKYC, remote onboarding and digital contracting; partnerships with alternative distributors such as digital platforms, business associations, banks, retail chains
- **For underwriting:** more predictive and evaluative analysis and enhanced risk assessments; reduction of information asymmetries; finer segmentation driven by greater processing capabilities and more risk appropriate pricing; moving from reliance on historical data to reliance on real-time data (e.g., sensors, wearables)
- **For client engagement:** use of chatbots; 24/7 service accessible from any location; use of smartphone apps and social media channels (e.g., WhatsApp); where applicable, safety warnings for extreme weather events or other risks based on geolocation data
- **For claims:** enhanced fraud analytics and claim leakage minimization; AI (Artificial Intelligence) digital claim assessment; possibility to claim damages digitally (e.g., optical character recognition to estimate repair costs from images or videos); digital payment process; automated calculation and pay-out of claims
- **For internal systems:** digitalisation and updating of internal systems; internal workflow automation
- **For effective partnerships core to innovation:** technical service providers or Insurtech partnerships; distribution partners/aggregators; alignment of incentives

State of innovation in the insurtech market

In parallel to the assessment of innovation among incumbent insurers, also take stock of the state of innovation in the Insurtech sector. This is once again done through desktop research, as well as by speaking to emerging insurtechs and/or tech accelerators and hubs in the particular country. Relevant questions to ask here are: how many insurtechs are there, compared to broader fintech firms? What is their role in insurance innovation (once again with the insurance product life cycle as lens)? What is their role vis-à-vis insurers, and are there existing partnerships between insurers and insurtechs? Do not consider challenges yet as this stage – that will follow in the next sub-section – but just try to form a picture of the state of innovation among tech firms.

SNAPSHOT: State of insurance innovation in Ghana

To illustrate, let's consider the findings from the Ghana insurance innovation portrait (2022) on the current state of innovation in the insurance market:

Mobile-based microinsurance as a key driver of reach. Ghana's mobile insurance landscape has been a major contributor to insurance uptake since 2010 and 2011 with the introduction of Tigo and MTN's mobile life microinsurance products and has been the dominant form of insurance innovation within the Ghanaian insurance market. Since then, other mobile network operators (MNOs) have entered partnerships with insurance companies, technology service providers, and financial institutions to provide mobile insurance products (Advision Finance; Amarante Consulting; PromIGH, 2015). The most recent example of this kind of partnership is Hollard partnering with Cassava Fintech and Vodafone to launch a Ghanaian Unstructured Supplementary Service Data (USSD)-based microinsurance product for the underserved market (Ankrah, 2021).

Traditional insurers have started to explore alternative distribution channels. In Ghana, insurers are seeking new distribution avenues for competitive and innovative products, capitalizing on trusted consumer channels. By the end of 2018, there were 13 bank assurance collaborations established (NIC and GIZ, 2020)[8]. Additionally, insurers are venturing into e-commerce and retail sectors.[9]

COVID-19 pandemic led to increase in use of digital distribution channels. Amid the COVID-19 pandemic, insurance firms embraced online platforms to engage with both current and prospective clients. Around 60% of life insurance companies and 57% of non-life insurance companies have invested in Information and Communication Technology (ICT) since the pandemic's onset[10]. Furthermore, 55% of life insurers and 42% of non-life insurers have adopted new technologies for enhancing customer relations (NICGH, 2020) .

Innovation is occurring mainly within the life insurance segment. Innovation has been mostly observed within life insurance as insurers view this product type as the easiest to enter and innovate. Accordingly, about 77% (i.e. 30) of the new or enhanced products in 2019 were for the life insurance sector (NIC, 2019). Other product lines such as niche products (e.g. cyber-risk insurance) or products targeting MSMEs are rare (NIC, 2019). Though the National Health Insurance Scheme (NHIS) is meant to cover Ghanaians medical costs, 49.7% of surveyed NHIS patients paid out-of-pocket for their health care costs (Akweongo, et al., 2021).[11]

Ghana's insurtech sector remains nascent with limited growth. As of 2019, Ghana had 11 insurtechs of which 6 use digital platforms, 7 are technology-enabled partnerships, and 1 is parametric insurance (Cenfri, 2019). Most of the insurance product types offered by insurtechs are life and disability (55%) and health insurance (45%) and most insurtechs have sought to address challenges such as the lack of access to consumers (64%) and constrained business models (45%) (Cenfri, 2019) (Cenfri, 2019). The current insurtech sector is dominated by large telcos and micro-insurance companies. This implies that there is a clear opportunity for smaller and more agile companies to enter the market and fundamentally change it by driving innovation beyond mobile-based micro-insurance (Afflu, 2019). The 10 insurtechs that were selected in February 2022 to form part of the first cohort of the Innolab Insurtech Accelerator programme are most likely well positioned to take up this opportunity (Democrance, 2022). Moreover, half of the insurtechs of the Innolab Insurtech Accelerator Programme are serving the business-to-business segment which implies great potential for supporting Ghanaians insurers to update their internal systems.

[8] For instance, Allianz Life Insurance partnered with Societe Generale Bank, enabling Ghanaians to purchase insurance policies through the bank's nationwide branch network (Ghanaian Times, 2021).

[9] Hollard Ghana, for instance, joined forces with Jumia, a prominent e-commerce platform, to offer general insurance products through JumiaPay (Mkhize, 2021). Furthermore, Hollard Ghana partnered with retail giant Melcom in June 2020, introducing on-the-go booths at select shops to provide customers with motor, cell phone, and travel insurance, among other options (Ghanaian Times, 2020).

[10] These investments encompassed the procurement of laptops, online marketing tools, underwriting APIs, and payment gateway APIs.

[11] Notably, Old Mutual introduced JustCover, a WhatsApp-based travel insurance enabling instant coverage within Ghana, with sign-up and claims handled entirely via WhatsApp. Similarly, their Black and White Family Policy allows users to sign up and make investments for funeral expenses through WhatsApp (Boateng, 2020).

Concluding on the innovation gap

Piecing together the puzzle. The final part of the innovation gap assessment is to compare the pictures from the exercise above to arrive at a conclusion on the insurance innovation gap in the particular market. Given the current market picture, what is the need for innovation? Given the stock-take of innovation, how far does innovation currently go to meet that need? What are the gaps?

SNAPSHOT: Innovation gap conclusion for Nigeria

Based on the assessment of the current state of the insurance market and the state of innovation, the Nigeria insurance innovation portrait (2022) concluded the following:

More consumer-centric innovation needed to break into untapped market. Despite inroads made by leading insurers, innovation is not yet pervasive in the Nigerian insurance market. The persistently low insurance penetration figures and large untapped potential market mean that a fundamental shift away from business as usual is required by insurers, distribution partners and new tech players to build an inclusive insurance market. Such innovation is needed across the insurance life cycle and includes better, more streamlined systems and processes, products tailored to the needs of the un(der)served market segments, more effective ways of reaching lower-income and informal client bases, seamless premium collection even for those without formal bank accounts, and more proactive client outreach through channels that consumers know and trust.

2.2. Step 2: Taking stock of the ecosystem dynamics that shape or hold back innovation

After concluding on the gaps to innovation, the next step is to understand what causes the gap. What is holding back – or supporting – innovation in any particular market, and what is within the sphere of control of the regulator to address?

The level and nature of innovation is shaped by numerous factors in the broader **innovation ecosystem**. Below, we indicate a simple framework that captures the key components of a robust and conducive innovation ecosystem:

Figure 2: Innovation ecosystem enablers

Source: Authors' own, drawing on EY (2019)

As indicated in the diagram, the insurance innovation ecosystem comprises six factors: (i) underlying infrastructure, (ii) a strong talent pipeline, (iii) demand and supply-side market engagement enablers, (iv) access to finance, (v) an enabling regulatory framework, and finally, (vi) supervisory support systems for innovation.

The first two factors together form the **structural conditions** for innovation:

- The state of the **underlying infrastructure** can play a key role in market operations. For innovation to thrive, stable and reliable internet connections, electricity and payment systems are needed.
- The **talent pipeline** is also a structural condition. It refers to the availability of technical insurance and actuarial skills to the insurance sector, as well as the broader base of technical/science, technology, engineering, and mathematics (STEM) and entrepreneurial skill pool in the country to render tech entrepreneurs.

The second two factors together form the **market conditions** for innovation:

- **Market engagement enablers** comprise two distinct angles: firstly, for the market to thrive one needs a sufficient pool of **demand** – potential customers that can afford insurance, are aware of and have the skills to use insurance and are willing to trust insurers. Secondly, one needs well-functioning insurance market dynamics, with competition and, importantly, partnerships to drive insurance into underserved market segments.
- **Access to finance** is also a market condition for innovation. Insurers and tech innovators alike require resources to innovate. For insurers, this requires a board willing to take the risk to invest in innovative new partnerships or product development. For innovators, this requires access to seed and even pre-seed funding to source partners and take their idea to market.

To these are added the **regulatory** and **supervisory** parameters for innovation:

- **Regulatory factors** refer to anything inside legislation or subordinate regulations that affect the working of the market, be it licence categories, licence or ongoing operational requirements for insurers or other players, prudential requirements, or product regulation requirements.
- **Supervisory parameters** refer to the way that the supervisor implements the regulatory framework and fulfils its supervisory functions. It can include the onsite and offsite supervisory system and procedures, the process and timing of licensing and product approval, or the openness of the supervisor to engage with market players to help address questions or exercise moral suasion. It can also include non-legally binding guidance issued by the supervisor.

What if it's outside the regulator's control? The regulator has differing levels of influence over each of these components: regulatory and supervisory conditions are within its direct sphere, but it will have limited power over market and especially infrastructural constraints. However, it is crucial to understand the entire picture. Although the regulator may have less direct influence over some components, experience across countries has demonstrated that, indirectly, the regulator can play a role across all these factors – even if it is purely by catalysing a discussion with other government institutions. Secondly, it would be ineffective to only focus on those aspects directly under the influence of the regulator – if there is a major barrier to innovation beyond its control, there will be limited impact or benefit for the regulator to invest resources substantially into other activities until those barriers are eased or removed.

SNAPSHOT: How to go about assessing the innovation ecosystem

The innovation ecosystem assessment is based on relevant reported industry data as well as a series of stakeholder interviews to determine the current state of each of the six aspects of the framework.

Key questions to discuss during the **stakeholder interviews** include:

- What are the drivers of innovation and what are the challenges? *Probe for each aspect of the framework.*
- Does the regulator have the mandate to accommodate and support innovation (directly or indirectly) and, if so, what are its objectives in this regard?
- How innovation-friendly is the regulatory framework?
- What are the steps for innovators to navigate the regulatory requirements?
- How conducive is the current supervisory system to innovation?

- How are current supervisory processes/practices/systems (e.g. for product approval and licensing) and regulation/legislation received, experienced and interpreted by market players and how do they affect market players' business models and ability to innovate?

Key sources for the **desk review** include:

- **For infrastructure:** Consult global indices and reports produced by organisations/institutions such as: a) the Global System for Mobile Communications Association (GSMA) (e.g. the Mobile Internet Connectivity SSA Fact Sheets; Country Overview reports on driving mobile-enabled digital transformation, such as the one produced for Ghana) ; b) Statista (e.g. on global internet connectivity, internet penetration data, the mobile economy in Sub-Saharan Africa, the share of internet users in Africa) and c) the National Communications Authority (or its equivalent) in each country. The statistics published by The World Bank and the United Nations Capital Development Fund in the Open Data Databanks (e.g. on infrastructure and electricity access) and by Data Reportal (e.g. mobile phone penetration and access to the internet) are also useful. For energy-specific information, consider energypedia and the statistics published by the Regulatory Authority for Utilities and/or the Electricity Regulatory Authority/Commission (or its equivalent, depending on the country context, such as the Rwanda Utilities Regulatory Authority).
- **For talent**: Consider checking the website of the Ministry of Innovation and Technology (or its equivalent, depending on the country context) on the strategies set forward for the specific country, as well as the statistics published by reputable universities and other academic institutions.
- The African Institute for Mathematical Sciences; STEM Synergy (depending on whether it is present in the specific country) and the World Intellectual Property Organization may also be valuable resources to draw on. The World Bank reports on literacy rates, the United Nations International Children's Emergency Fund (UNICEF) reports on the quality of learning and skills development and Findexable reports on fintechs in Africa.
- **For market engagement enablers:**
    - **Demand-side:** Consider checking The World Bank data on Developing Insurance Markets as well as The World Economic Forum's Financial Inclusion Metrics, the World Bank Global Findex, and local demand-side surveys such as Finscope. Data Reportal, The World Bank Urbanization Review and the Investigating Inclusive Insurance Demand reports (for example, like the one published on Ethiopia) may include pertinent information. Worldometer provides demographic indicators; MacroTrends indicates population growth rates of the country and Statista population reports on mobile money accounts.
    - **Supply-side:** Have a look at global indices such as the GSMA report on Emerging Practices in Mobile Microinsurance as well as Data Reportal on different supply-side enablers. The World Bank's Enterprise Surveys could provide useful clues and the DataBanks that it makes available (in partnership with the United Nations Capital Development Fund), releases statistics on the fintech sector in many countries.
- **For access to finance:** Consider the reports and statistics published by the Financial Sector Deepening Africa network (for example, FSD Africa and AFR (Access to Finance Rwanda) and the United Nations Capital Development Fund (for its fintech landscape reports) as well as global indices such as Findex (published by the World Bank) and Findexable. The Ministry of Finance and Economic Planning (or its equivalent, depending on the country context) may also publish statistics on access to finance. Furthermore, companies providing start-up funding may be valuable sources of information; MEST Africa (which has an internal seed fund and incubation for startups who successfully pitch to their board of experienced investors) is a useful example. Articles written by specialist news agencies (such as Business Insider) could also be consulted – keeping in mind the necessity to rely on trustworthy/reputable sources.

- **For supervision:** Take stock of any documents that set out the current product approval and licensing system and processes, and note any guidance issued by the supervisor on topics that would be relevant for innovation.
- **For regulation**. In addition to the general desk review, it is also important to conduct a dedicated regulatory review. The review needs to consist of an analysis of the financial sector/market regulatory architecture to identify if and to what extent legislation poses a barrier to innovation. In addition, the spirit and purpose of the legislation should be considered to identify scope for the regulator to exercise discretion.

SNAPSHOT: Ecosystem insights from a workshop with industry representatives

In February 2024, industry representatives in one of the R3Lab countries came together to brainstorm the innovation portrait findings and discuss what their "ask" from the regulator is to help them bridge the innovation gaps. Here are some quotes from the breakout group discussions:

Ecosystem aspect	Industry views on key challenges
Structural factors	Skills and skills retention as major challenge
Market factors	**Demand-side factors:** trust deficit and awareness. **Supply-side factors** • Openness to invest in innovation and collaborate with start-ups – culture still lacking. • Challenge in getting on the ground in informal and rural areas – building agent networks; working with aggregators. • Need for simpler KYC, fewer forms, to make for streamlined customer engagement. • Partnerships highlighted as a major constraint. *"Industry is not yet ready for innovation".* **Access to finance** for investment: "Funding is the number one constraint"
Regulatory factors	Regulatory framework largely conducive to innovation, but bancassurance challenges and limitations noted. Also, a request to allow alternative channels without restrictions: "making it easier for insurtechs", "be flexible around embedded insurance"
Supervisory factors	Feedback and requests from industry to the supervisor: • Rewards and recognition for innovation – how to capture and share case studies? • Need for more guidance. • Facilitating collaboration – tech demo days • Need for more inter-governmental partnerships. • Licensing process streamlining; regulatory review processes need to be faster, portal a one stop shop

To address these ecosystem constraints and drivers, the regulator has numerous tools at its disposal. The next section unpacks the regulator's toolbox.

3 Tools for regulating and enabling innovation

There is a range of tools available to the regulator to encourage responsible innovation in its market that, when employed, can achieve the balancing act as described in Section 1.1. The regulator needs to decide what tools to apply in which context:

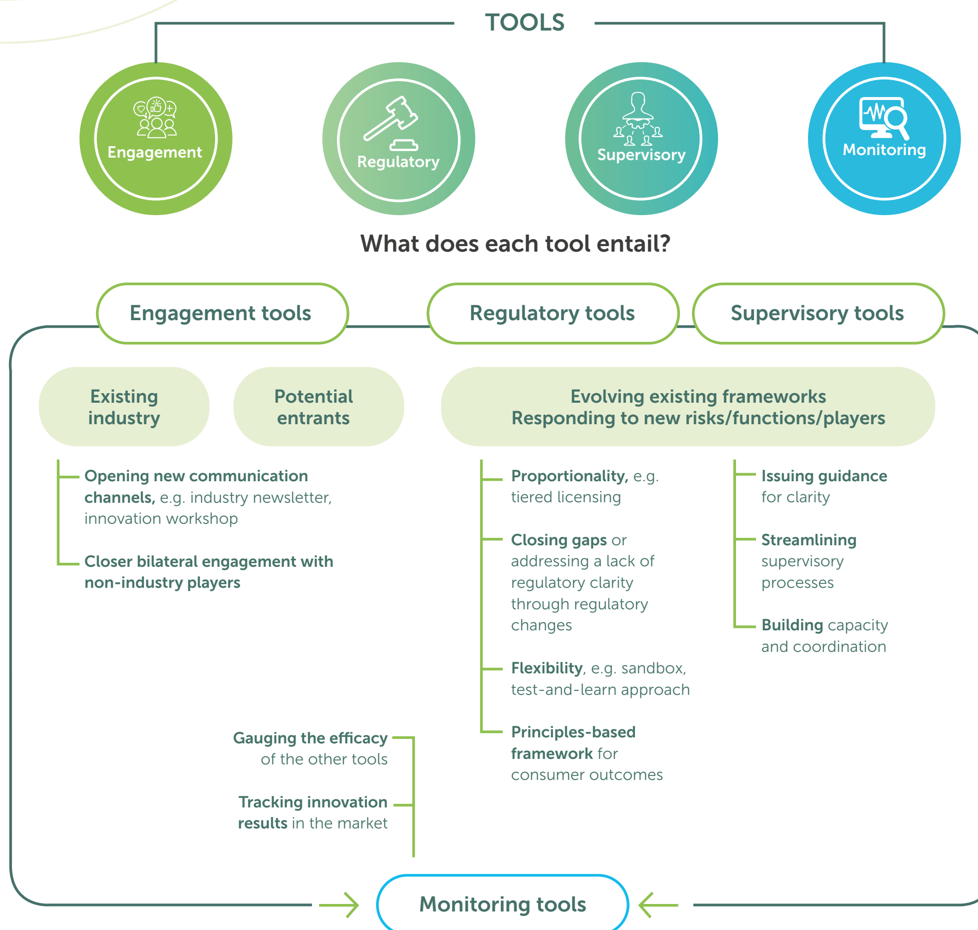


Figure 3: Regulating for innovation framework
Source: Cenfri, FSD Africa and FSD Uganda, 2021 – Regulating for Innovation Toolkit

Four categories of tools. As depicted in the framework diagram above, the tools available to the regulator fall into four categories:

- **Regulatory tools** entail adjustments to regulatory instruments, such as updating licence categories, issuing sandbox regulations or adopting a principles-based framework for consumer outcomes.
- **Supervisory tools** refer to any evolution of existing supervisory processes, for example, by updating the licensing or product approval process or issuing guidance for clarity.
- **Engagement tools** include proactive engagement with, and signalling to, industry, for example via the hosting of innovation workshops, publication of an industry newsletter, engaging with innovation hubs or accelerators, or explicitly following an open-door policy. Importantly, such engagement would extend not only to incumbent market players, but also to potential new entrants.
- **Monitoring** key innovation indicators will inform whether the other tools are fit for purpose and whether they need to be adjusted to ensure a regulatory environment that is conducive to innovation.

Broader application than just innovation. Though these tools may be initially applied to innovation objectives, they also

have broader application. They reflect the ongoing evolution of regulation and supervision and are fundamental tools to support even traditional supervisory activities and objectives. Ultimately, they provide an opportunity for a mindshift change among regulators and market players to see insurance market development as a collaborative responsibility with mutual benefit.

Finding the right, context-appropriate mix. Though regulation is often the first tool that comes to mind, supervisory and engagement tools are vital to addressing barriers to innovation that either do not stem from legislation or do not require legislative amendment to be implemented, while ongoing monitoring is important to gauge the success of any interventions and inform updates. Developing new regulation may also take a long time and be resource intensive. It is therefore essential to consider a combination of regulatory, supervisory, engagement and monitoring tools in any regulating for innovation strategy, mindful of the costs, benefits and time horizon of each , as well as the context and maturity of the market.

The sub-sections to follow unpack each category of tools in turn, considering how they can – and have been – applied in practice.

3.1. Engagement tools

Proactive communication with existing industry as well as potential entrants. Proactive communication with industry is an accessible tool that wields significant power and can have far-reaching impact. Two-way engagement is vital because the regulator will not have a full view of industry's evolving needs in its absence. Moreover, it is important for industry to be able to provide feedback to the regulator as well as vice versa, given that market innovation is happening so rapidly and continuously that it is impossible for the regulator, in isolation. to remain abreast of the latest developments (which is crucial for the regulator to be better and more proactively informed about and prepared for innovation). It is important that the regulator targets its engagement, encouragement and support not only at existing market players but also at potential market entrants who may be the source of future innovations (de Waal et al., 2019).

Typical engagement tools include convening current and potential players on innovation-related topics, clarifying uncertainties regarding regulatory requirements or supervisory processes, or simply signalling to the market the importance of innovation.

- Other proactive engagement tools include:
  - Facilitating collaboration
  - Training
  - Informing and advising
  - Compliance advice
  - Funding support, for example through innovation competitions
  - Industry innovation newsletters (discussed in detail in the box below)

SNAPSHOT: The industry innovation newsletter as proactive engagement tool

Quarterly industry innovation newsletters are a great example of proactive communication. The benefits of such newsletters include that they:

- Showcase expertise on relevant industry topics
- Ensure a consistent interpretation and understanding of new regulation
- Provide business exposure and the opportunity to promote new products and services
- Keep industry up to date with the latest developments in innovation
- Educate consumers

Such newsletters can be structured in the following way/suggested themes to cover include:

- Message from head of department
- Hot topics
- New industry developments

- Release of new publications
- Changes in regulation
- Global innovations
- Consumer education
- Recent/upcoming events
- Latest news/insights

The tool in practice: Insurance Buzz –the Insurance Regulatory Authority (IRA) in Uganda's industry innovation newsletter.

As part of its innovation action plan, the IRA Uganda launched an industry innovation newsletter in 2020. The newsletter allows the IRA to proactively engage with the market and beyond and enables the IRA to demonstrate its open-door policy. The newsletter acts as a vehicle to communicate key information, clear up any regulatory grey areas/concerns that industry may have and prevent perceived barriers which may be deterring innovators from entering the market.

The IRA's tracking of the newsletter reveals that it is progressively reaching more stakeholders and that it is driving a significant amount of traffic to the licensing and other documents available for industry to engage with on the IRA's website.

The examples below provide inspiration for the use of various engagement tools from different country contexts:

SNAPSHOT: Prompting market innovation and coordination

In **Ghana**, an Insurance Awareness Coordinators Group (IACG) was established to devise an Insurance Awareness and Education Strategy and ensure effective coordination among stakeholders for optimal impact. Comprising representatives from various sectors of the insurance industry, the IACG invites participation from all recognized apex bodies, associations, and think-tank groups alongside Ghana's National Insurance Commission (Ghana innovation portrait, 2022).

In **Egypt**, the Financial Regulatory Authority (FRA) was one of the partners to launch a hackathon aimed at Insurtech development. The objective is to equip participating teams with specialized training, mentorship, and resources to innovate digital solutions poised to disrupt the Egyptian insurance landscape.

In **Singapore**, an Innovation Week was launched that included different conferences, hackathons, showcases, roundtables, and networking activities. Discussion topics included Healthcare and Innovation, among others. Attendees get to experience Singapore's startup and innovation ecosystem through founder-focused panel discussions, experiential startup showcases, curated innovation and lab tours as well as experience the startup career fair. Other discussions include opportunities for Innovative Startups/SMEs and bridging the gap on how tech startups and corporations can collaborate for innovation.

In **Rwanda**, the FintecHub started Fintech Fridays. These are meet-ups for local fintechs that are also attended by regulatory staff and people from key Ministries and other Government institutions. The Government of Rwanda's draft Fintech strategy also includes an explicit emphasis on convening and engaging fintechs (MINICT, 2022). Both of these initiatives, though not insurance sector-specific, have application in insurance.

Kenya's BimaLab is an initiative between the insurance regulator (the IRA) and select insurers and insurtechs. The objectives of the programme are to help innovators refine their value proposition, determine commercial viability, and provide opportunities to scale their solutions through partnership.

South Africa's Regulatory Guidance Unit is a collaboration of the Intergovernmental Fintech Working Group (IFWG) – primarily between the Financial Sector Conduct Authority and the Prudential Authority. Its agenda includes providing guidance to innovators in the market. This regulator-driven intervention has been especially successful in promoting fintech innovation.

In partnership with the Royal Science and Technology Park, the **Eswatini** Communications Commission and the Financial Services Regulatory Authority, the Central Bank of Eswatini (CBE) initiated the CBE Fintech Challenge to stimulate financial sector innovations – including in insurance. This challenge brought together students with ideas, start-ups, young professionals and experienced business personnel. Finalists received coaching and training by industry specialists, guidance on the regulatory framework relevant to their product, technical expert advice on programming and software development, technological equipment plus a cash prize.

In **Uganda**, in addition to the newsletter mentioned in the box above, the IRA introduced innovation awards to increase its market engagement with insurtechs and incumbent insurers. Though meant to increase its engagement with market players, the innovation awards also serve to increase visibility of insurance as well as build trust with consumers in awarded insurance providers.

In another initiative, the IRA Uganda hosted a virtual workshop to convene the regulator, licensed industry players, potential market entrants (such as fintechs) and donors around the topic of innovation in the Ugandan insurance industry.

The workshop was aimed at:

- Signalling to industry and potential market entrants that innovation is a priority for the IRA
- Providing an opportunity for industry and potential market entrants to engage with the IRA around their chosen innovation topic
- Providing an opportunity for industry and potential market entrants to network and consider potential partnerships

Engagement to attract scarce skills and promote market research. In addition to the engagement tools outlined above, one of the core actions regulators can implement to address structural constraints is to build and attract scarce skills to insurance. The regulator can directly support insurance and innovation skills building via its convening role. It can also advocate for and attract scarce skills to the insurance sector via its market and public engagement activities.

SNAPSHOT: Building staff and market innovation skills

In **Rwanda**, the government substantially reduced visa requirements to attract skilled professionals and technical skills to the country (Rwanda National Security Service, n.d.). The Rwandan government is also working proactively to build technical skills: it has incentivised and encouraged prominent Pan-African tertiary institutions such as the African Institute for Mathematical Sciences (AIMS) to operate in Rwanda (Rwanda Portrait, 2022). While not directly targeted at the insurance sector, these broader efforts can also support the skills needs of the insurance sector.

Help to better understand the consumer. Another key action to address market constraints is to help the market to better understand harder-to-reach market segments through market research. The regulator can conduct such research itself, or use moral suasion, coordination and engagement activities to promote market research by market players and/or donors or other partner organisations. This market research can take the form of quantitative surveys or qualitative research such as focus group discussions or in-depth interviews.

SNAPSHOT: Promoting market research

The nationally-representative FinScope **and similar financial inclusion surveys** found in a number of African countries are key examples where regulators have conducted or facilitated market research – not only to provide data, but also to demonstrate to providers the value of this kind of information and research. For example, in **Kenya**, the Central Bank of Kenya (CBK) is an active driver of the FinAccess survey alongside Financial Sector Deepening Kenya and the Kenya National Bureau of Statistics. The Insurance Regulatory Authority is also actively consulted in the survey, and insights are drawn out of relevance to the insurance sector.

In **Malaysia** and in the **Philippines**, the regulators (Bank Negara Malaysia and Bangko Sentral ng Pilipinas, respectively) themselves commission and manage industry-wide surveys.

3.2. Regulatory tools

Regulatory tools can be wielded to do four main things to support innovation: introduce **flexibility** to allow innovative ideas to be tested; introduce **proportionality** into the current regulatory regime, **close gaps and expand the scope** in the regulatory framework to allow a broader suite of players and partners and introduce a **principles-based framework** that will balance innovation and protection. When considering actions to take to support innovation, these tools are traditionally regarded as the 'first port of call' by supervisors and market players alike. These are the least flexible of the tools at supervisors' disposal, however, and make up only a small fraction of supervisors' day-to-day activities. As such, it is important that the relevance and prominence of this category of tools be balanced with due consideration for the other categories of tools in the toolkit.

Flexibility

The principle of flexibility covers different approaches to allow new products, services and business models meeting market needs to be introduced into the market. The principle of flexibility gives regulators an opportunity to learn from the risks related to innovation, enabling them to tailor subsequent regulation accordingly. Discretion is important to ensure flexibility to respond to unforeseen developments. The regulatory architecture in a particular country will determine whether a regulator has the discretion to make certain interventions beyond that which is already included expressly in legislation. Product and licensing approval are the key (though not only) manifestations of the practical application of the flexibility tool.

Examples include:

- **Regulatory sandbox.** A sandbox is a controlled environment where innovators are given an opportunity to test their products on a limited scale and subject to certain conditions[13], without having to comply fully with regulations. This approach allows regulators keep a close eye on, and learn from, the impact of those products on the market and consumers. It is important to ensure that the sandbox design is fit-for-purpose (see the snapshot below). Where sandboxes have been established, it is useful to conduct formal evaluations to better understand the challenges encountered and redesign future implementation for success.

[13] These limitations or controls manage the scale and scope of risk that could manifest. Examples include: a) capping the number of potential customers and/or the amount of money that can be held; b) requiring that customers be informed explicitly that the product is being tested and c) requiring that innovators hold sufficient collateral to reimburse all customers, should the test be required to end.

SNAPSHOT: What is a sandbox and why is it important to follow a fit-for-purpose approach?
Financial-sector sandboxes refer to an explicit approach adopted by the financial-sector regulator to allow innovators that do not comply with existing regulations to test their products within the market, but with regulatory safeguards applied to limit the extent of the risk to consumers and the market.

It is structured formally, with structured application procedures and a clear set of eligibility criteria. Bespoke regulatory treatment is then usually provided to all those accepted into the sandbox.

Despite the popularity of the sandbox concept in recent years, the question of how regulators should be regulating for innovation cannot simply be answered with "implement a sandbox". First, the relevant prerequisites must be in place for such an approach to be an option. And even then, capacity, coordination and relevance are key implementation considerations. Ultimately, a sandbox remains a testing ground and does not replace the need to adjust the overall regulatory architecture to proportionately regulate for responsible innovation.

The question, then, is less about whether to build a sandbox than it is about assessing the market context, regulatory and supervisory realities in a systematic way and devising a context-relevant, fit-for-purpose strategy for dealing with an inherently unknown future based on testing and learning (Beyers et al., 2018).

The Consultative Group to Assist the Poor (CGAP) developed a sandbox decision process that can help to guide regulators on when and whether a sandbox may be an appropriate tool within their jurisdiction (CGAP, 2020).

The innovation portraits show that sandbox design may be tricky, and does not always immediately solicit sufficient market response:

- **Rwandan** insurtechs have found the requirements to participate in the sandbox complex and have expressed confusion on the correct legal pathway to follow to test their products.
- In **Uganda**, only two applicants from the initial cohort entered the sandbox, of which only one graduated with a product ready to take to market. The regulator noted that the resource requirements were much higher than anticipated.

Learning from such experiences is helpful to inform the redesign of a sandbox to make sure that it reaches its objectives.

- **The broader "test-and-learn" approach.** This approach has been applied for several years and comprises tools that go beyond a strict sandbox definition, for example, applying a letter of no objection, with safeguards, or leveraging discretion in the product approval process. In practice, test-and-learn is often used as an alternative way of allowing players that do not fall within the current regulatory framework into the market on a permanent or semi-permanent basis, with safeguards and monitoring requirements set on a case-by-case basis.

SNAPSHOT: What is a letter of no objection and how can it be used in practice as a flexibility tool?
Letters of no objection constitute a commitment by the regulator not to initiate disciplinary proceedings against a firm for engaging in an activity that does not fall within the current regulatory framework, subject to specific restrictions outlined within the letter. This tool can make it possible for regulators to deal with innovative developments that they have never encountered before, while providing individual firms with more clarity regarding a regulator's expectations and reducing the regulatory uncertainty that individual firms face (Beyers et al., 2018).

Implementing safeguards. Regardless of how flexibility is introduced, it is important that it be accompanied by appropriate safeguards. Such safeguards could include approving a new product, venture or partnership subject to suspensive or resolutive conditions. Conditions (or safeguards) can also be placed on product pilots, for example by limiting the number of policyholders that can take up the product during a pilot phase and the period during which the pilot product will be permitted in the market. Another safeguard is implementing additional monitoring requirements, especially for more complex products. This provides an opportunity for the regulator to learn about regulating new or intricate products without exposing policyholders to undue risks.

Proportionality

Proportionality entails setting requirements in line with the level of risk posed. The principle of proportionality often forms the basis for tiered regulatory requirements or licences and is acknowledged by the International Association of Insurance Supervisors as global standard-setter for insurance. It has been implemented by financial-sector regulators in numerous jurisdictions and forms the foundation for any regulating-for-innovation approach.

Examples include:

- Tiered licensing in terms of which entities are subject to different prudential and reporting requirements based on the activities in which they are permitted to engage, such as microinsurance licences.
- Proportionate measures, such as risk-based capital/supervision, different agent-qualification requirements for simplified products or for products sold through certain channels or tiered know-your-customer (KYC) requirements in line with transaction limits.
- Dedicated frameworks – a carved-out regulatory space providing a specific dispensation for a specific type of player or structure that is relevant from an innovation point of view such as, for example, a cell captive license.

The examples below provide inspiration for the use of tiered licensing from different country contexts:

SNAPSHOT: Tiered licensing as foundation for a regulating-for-innovation approach

In **Kenya**, the regulatory framework establishes reduced capital thresholds for microinsurers compared to those for long-term or general insurers. The introduction of a distinct microinsurance license has facilitated the entry of organizations focusing on low-income and underserved demographics.

In **Ghana**, Section 40 of the Insurance Act (2021) introduces new licencing categories that are designed to foster innovation in the market. These new categories are the innovative insurance licence – which is further split into either the a) innovative insurer licence or b) innovative reinsurer licence – and intermediary licences for third-party cell captive providers, microinsurance agents, and innovative insurance intermediaries. Licences are valid for twelve months, except for innovative licences, which are valid for two years.

The Insurance Supervision Directorate (ISD) in **Ethiopia** has taken several steps to promote innovation in the market. In 2013, it introduced a tiered capital requirements framework for insurance companies operating in Ethiopia. This framework allows different types of insurers to comply with proportional capital requirements, with the objective of creating an enabling environment for insurance development. In 2014 and 2020, proportional capital requirements were further applied to reinsurance and microinsurance business as per directives SMIB/3/2020 and SRB/1/2014, respectively. According to the latter license renewal directive[14], licensed insurance companies are not required to obtain a separate licence to provide microinsurance services. However, they require a positive composite risk assessment rating, approval of the microinsurance products from the ISD, and must establish a separate unit that exclusively manages microinsurance operations (NBE, 2022).

[14] Licensing and Supervision ~~of~~ Microinsurance Business Licensing, License Renewal and Product Approval for Microinsurance Providers Directives No. SMIB/3/2020.

In 2018, **Nigeria**'s National Insurance Commission (NAICOM) introduced ***Guidelines for MicroInsurance Operations*** in acknowledgment of the need for microinsurers to service the underserved and low-income market (EFina, 2018). The guideline allows for a dedicated license for microinsurers to operate in the market in an effort to create a regulatory space to serve the underserved market (Hougaard, et al., 2018). Under this guideline, insurers are set up as separate limited-liability companies, with reduced capital requirements. The 2018 guidelines also impose a maximum turnaround time requirement for claims payments as a mechanism to ensure that consumers are sufficiently protected, a requirement not yet applicable to traditional insurance. (Hougaard, et al., 2018).

Closing gaps and accommodating evolving market practices

New business models that are operating without a clear regulatory category allocated to them – notably technical service providers or insurtechs that do not neatly fit into the definition of a broker or agent but are not insurance underwriters either – pose risks to regulators, as this phenomenon increases the potential for regulatory avoidance or non-compliance. It also poses risks to providers that are faced with operating in an environment of regulatory uncertainty. It is suboptimal to regulate, for example, a non-broker under a brokerage licence – it means that the entity is complying with irrelevant requirements and, from the regulator's perspective, that there may not be a full set of appropriate compliance requirements in place for the entity's operations.

To close gaps and remove or reduce grey areas, regulators could consider introducing the following:

New licence types. This entails increasing the menu of available licenses based on what the innovation portrait found to be the types of players in the market, setting specific qualifying criteria and applying appropriate safeguards. Most insurance acts provide regulators with some discretion – although the extent does differ from country to country, many include wording similar/equivalent to "or any other activity that the regulator deems appropriate". This means that even if the regulator has not defined these license categories in the legislation, the regulator can still enable them and even regulate them before legislative amendments happen.

SNAPSHOT: Providing for technical service provider licensing
Under Section 110 of Ghana's Insurance Act of 2021, the National Insurance Commission (NIC) can now issue a license to technical service providers (TSPs) to operate in the insurance sector (Republic of Ghana, 2021).

Tailored conduct requirements. In some instances, regulation may not necessarily require new licence types, but it may be necessary to stipulate market conduct requirements for insurers, agents, technical service providers or insurtechs insofar as they deal with policyholders. In this instance, tailored regulations on market conduct may be called for. It may also be that market conduct regulation is needed to respond to specific issues arising in the context of innovation. Two examples are relevant to note:

- **Preparing for an increasingly remote world by enabling remote onboarding.** Regulators have the scope to lay the foundations for an increasingly remote means of doing business, with specific focus on remote, non-face-to-face digital onboarding. Customer onboarding, normally referred to as 'KYC', has traditionally been done in-person using physical identity documents. However, social distancing measures due to the COVID-19 pandemic, as well as increasingly digital business models, mean that remote onboarding is fast becoming a necessity for industry survival. The Financial Action Task Force (FATF) has dispelled the notion that remote onboarding is necessarily higher risk than in-person and has encouraged countries to utilise digital technologies

to enable risk-remote onboarding (FATF, 2020). Some specific steps that countries can take in this regard are outlined in Cenfri's guide for remote identity proofing.

- **Dealing with algorithms and chatbots in insurance distribution.** One area of innovation that may require specific attention in market conduct regulation is the use of AI or algorithms in insurance distribution. How to think about market conduct when it is an AI-powered chatbot rather than a human that assesses risk and facilitates insurance sales? What if the use of algorithms inadvertently leads to biased or discriminatory outcomes? Even if customers indicate that they are satisfied with chatbots, financial institutions face the possibility of breaching legal obligations, undermining customer confidence, and inflicting harm on consumers by implementing chatbot technology (Hari, A. 2023). Like the procedures they supplant, chatbots and algorithms must adhere to all relevant consumer financial regulations, and entities must be held accountable for breaches of these laws if they fail to comply. Additionally, chatbots may present specific privacy and security concerns. If chatbots are inadequately designed or fail to provide adequate support to customers, they can cause widespread harm and substantially erode customer trust (CFPB, 2023). Thus, regulation needs to respond to this risk.

Tailored regulations on specific innovation-driven issues. Finally, it may also be that there are specific thematic areas stemming from innovation for which regulation is needed in the insurance sphere. These relate to the use of technology in insurance, and the need to identify risks arising and formulate an appropriate regulatory response. Thus, over and above putting into place a broader or overarching regulating-for-innovation approach, it is necessary to regulate for the specific risks that emanate from specific innovations.

Examples include:

- **Data protection and privacy**. Risks in this regard have proliferated from the increased collection, storage and use of consumer data. It is up to the regulator to protect consumers from these risks, which may have severe consequences such as exclusion. However, given that the financial-sector regulator is not the data-protection authority, its role will depend on the legislative context of data protection in its country:
  - If a data authority has been established and there is an overarching data-protection framework, the regulator can choose either to shape the application of the data-protection policy to the financial sector or to delegate the regulation of consumer-data risks to the data authority.
  - If there is no data authority and no overarching regulation, the regulator can choose either to actively create the data-regulation approach for the financial sector or to take the risk of not developing a data regulation approach, leaving the sector without a specified legislative approach to consumer protection and privacy. The strategies and tools employed to achieve this objective must, therefore, be tailored according to the overall legislative approach to data protection in the specific jurisdiction and must be aligned with the regulator's mandate and market context (Gray et al, 2018).
- **Cybersecurity.** Cyber risk represents a distinctive, expanding, and constantly changing threat that affects both businesses and society at large (IAIS, 2023). Insurance regulators can respond by issuing cybersecurity regulations for application in the insurance sector or can align with broader financial sector or economy-wide frameworks, depending on the country context.

Regulation or supervision? It is important to note that, while this discussion has focused on the regulatory tools to close gaps and respond to grey areas, it may also be that legislation or regulation ***per se*** is not needed in a particular context, but that the matter can instead be solved through non-legally guiding guidance. In this case, the approach would fall under ***supervisory tools***.

Moving to a principles-based framework for consumer outcomes

It is becoming increasingly commonplace for regulators to look beyond tools that respond to bad practices (such as consumer-protection tools, disclosure requirements, fit-and-proper requirements, and governance requirements) to also consider the consumer outcomes that they want to achieve. Regulating for consumer outcomes requires a principles-based rather than a rules-based approach within which innovation can thrive.

SNAPSHOT: Principles-based versus rules-based approaches to regulation
A rules-based approach is a prescriptive way of regulating that entails a regulated entity adhering to a pre-determined set of requirements or following specified procedures. A principles-based approach entails determining a desired outcome, leaving the regulated entity to determine how to achieve that outcome.

Treating Customers Fairly (TCF) is an example of a principles-based framework to regulate for consumer outcomes. Many financial-sector regulators across several jurisdictions have implemented elements of TCF under their consumer-protection mandates[15]. The regulator's consumer-protection function has also developed to include regulating for positive consumer outcomes. In a recent publication, CGAP (Izaguirre, 2020) identified six core outcomes in financial-services engagements, namely:

- **Suitability**: I have access to good-quality services that are affordable and appropriate to my needs and situation.
- **Choice:** I can make an informed choice from among a range of products, services and providers based on appropriate and sufficient information and advice that are provided in a transparent and easy-to-understand way.
- **Safety and security:** My money and information are kept safe, and the provider respects my privacy and gives me control over my data.
- **Fairness and respect:** I am treated with respect throughout my interaction with the provider, even when my situation changes, and I can count on the provider paying due regard to my interests.
- **Voice:** I can communicate with the provider through a channel of my choice and get my problems resolved quickly with minimal cost to me.
- **Meets purpose:** By having access to and using products designed and delivered in this way and getting the service I need, I am in a better position to increase control over my financial life, to manage a shock, or to attain other goals.

SNAPSHOT: The evolution of consumer protection
Positive customer outcomes are a natural progression – the next evolution – of consumer protection and a vital consideration in any regulating-for-innovation approach. Whereas protecting consumers may focus a regulator's attention only on the risks, customer outcomes force a regulator to explicitly consider the benefits and risks of a product. Understanding the customer outcome from an engagement with a market player, better equips the regulator to tailor its regulatory responses for better outcomes. The concept of customer outcomes ties in with flexible and fit-for-purpose regulation. Implementing TCF principles in market-conduct guidelines, for example, is a way in which to regulate in a flexible manner that is conducive to innovators and technology, and that allows the consumer to benefit without posing additional risks (de Waal et al., 2019).

For example, in 2023, the Financial Sector Conduct Authority (FSCA) in South Africa conducted a study that aims to understand how customers engage with and view the financial sector, and whether customers' use of financial products and services indicates that financial institutions are upholding the TCF outcomes. The FSCA are now using the findings to develop outcomes indicators to track through the supervisory process.

3.3. Supervisory tools

To recap: supervisory tools comprise actions by the regulator or supervisor that do not entail changes to regulation; instead, they entail the use of non-legally binding instruments and guidance, as well as adaptations to supervisory systems or processes. We distinguish three types of supervisory tools, each of which is discussed in turn below:

- Issuing guidance to promote clarity
- Streamlining supervisory processes
- Capacity and coordination

[15] For examples of TCF principles adopted by regulators see: FCA (UK), FSCA (South Africa), and RBI (India).

Issuing guidance for clarity

"Guidance" refers to an instrument, document or statement issued by the regulator to the market to clarify the application of regulation. This tool relates closely to the discussion of regulatory tools for closing gaps. In some instances, bringing clarity may not require regulation per se, but can be done through non-legally binding guidance issued as a supervisory tool to explain and guide the application of existing regulation or legislation.

A signal to the market. Guidance is one of the most powerful tools regulators have. It signals the regulator's willingness to address regulatory uncertainty – an issue that is consistently cited as barrier to innovation by the market. The act of issuing guidance on emerging topics or areas not fully covered in regulations furthermore sends an implicit message of collaboration to the market: by acknowledging that it may not have all the answers yet on a new topic, the regulator sets a different tone to the all too common antagonistic one between providers and regulators. It also provides an opportunity to crowd in inputs from the private sector or supporting institutions such as development partners or academia. Despite these benefits, guidance is often underutilised. To meaningfully evolve, keep up with market trends and crowd in inputs from the market, it is important for regulators to become more comfortable with issuing guidance.

There are two clear use cases for guidance:

1. **Clarifying existing regulation.** In the first instance, guidance can clarify what regulation does or does not permit, or how to go about implementing regulatory requirements. This can be because regulation is broadly formulated, leaving questions on the exact application in different circumstances, is issued by another authority (like the data protection authority) and the application to insurance may not be clear, or because firms follow an overly conservative compliance approach. A good example is providing clear, step-by-step guidance on the requirements for different licence applications, or for the product approval process. A further example is the guidance issued by many regulators during the COVID pandemic to clarify mitigations, responses and stances.

2. **Guidance for emerging innovations, market developments or technologies.** Secondly, guidance can help to clarify where in existing regulations an innovation would fit, or which regulatory stipulations would apply to a new type of player, technology or product.

SNAPSHOT: Innovation guidance

Step by step guidance on licence requirements: The NIC in **Ghana** issued guidelines for Technical Service Providers on how to navigate the application process, as well as the subsequent compliance requirements (NIC, 2021). In response to uncertainties around the rules and procedures for product approval, the required documentation as well as the turn-around-time for product approval, the IRA **Uganda** amended product approval guidelines . More and more regulators are providing guidance as a search function on their websites to help potential applicants navigate to the right license(s) and what is required from them. The United Kingdom (UK) and Australia are good examples.

Guidance for emerging innovations: In the financial sector more broadly, examples abound internationally of guidance on cutting edge technological developments. For example, the Monetary Authority of **Singapore** has issued papers on Artificial Intelligence, **South Africa** issued guidance on cloud storage together with the regulations in that regard, and many regulators have issued papers on cryptocurrency or crypto assets. Whilst the latter started as primarily focused on payments it is increasingly relevant for automated insurance using blockchain and smart contracts.

Streamlining supervisory processes

Another important supervisory tool is for the regulatory authority to streamline its own supervisory processes for more efficient interaction with the market. Examples include:

Streamlining the licensing and/or product approval process. A common complaint among market participants is that the licensing or product approval process is time consuming, with considerable back-and-forth. Investing resources to take stock of the current process and introduce process efficiencies can go a long way to facilitate innovation in the market.

SNAPSHOT: How can the product approval process be streamlined?
As discussed under "Issuing guidance for clarity", the product approval process can be streamlined by issuing product approval guidelines to detail the product approval process and application criteria. There are several further ways in which the product approval process can be streamlined:

- **By doing an audit of the current process, how long it takes and what the bottlenecks are.** This can help to inform process improvements, such as forming a product approval committee, or training staff on product risk assessment. For example, IRA **Uganda** has streamlined its product approval process by training the product approval committee as well as industry players on how to use and implement a product risk assessment tool (Uganda Innovation Portrait, 2022). Refer to the separate snapshot on the product risk assessment tool below.

- **By automating the process,** such as by setting up a web portal to submit applications and track progress. For example: an earlier insurance market diagnostic study (Hougaard, et al., 2018) flagged delays in the product approval process as a constraint to innovation in **Nigeria**, despite the Insurance Act stating that feedback on product approval ought to be provided within 30 days of submission. To improve process efficiency, NAICOM streamlined the product approval process by developing an online portal through which documentation and product and process applications could be submitted. NAICOM also introduced a digital chatbot on their website to improve user experience (Nigeria Innovation Portrait, 2022). However, these new measures have faced some challenges: applicants have not been able to submit all required documentation on the portal and there have been operational challenges in circulating the documents submitted across NAICOM departments. Moreover, the NAICOM portal and website on occasion give error messages and absent links and NAICOM email addresses periodically fail to deliver emails (Nigeria Innovation Portrait, 2022). In response NAICOM is now considering further improvements to the system as part of its insurance innovation action plan.

- **By instituting a file and use system.** Finally, the product approval process could also be streamlined by setting out a file-and-use alternative. A file-and-use system allows for the automatic registration of insurance products after a defined period if no objection is raised by the authority. Thus, new products remain subject to the regulator's intervention, should it be necessary, and the regulator still assesses new products that are filed, but no explicit upfront product approval is required as long as the product meets requirements. It is important to emphasise that a file-and-use process does not mean that the regulatory authority should not have a robust product assessment approach that fits within the file-and-use timelines. If not implemented as part of an appropriate assessment system, file-and-use can create risks because: a) bad products could enter the market, harming consumers and undermining consumer trust and b) regulators could withdraw approval for a product after it has already been launched, which is far worse for a provider than not getting upfront approval.

SNAPSHOT: What is the IAA risk assessment tool and how has it been used to improve product approval processes?

The International Actuarial Association (IAA) developed a risk assessment and management tool that provides a framework with consistent criteria against which to consider products.

The paper giving rise to this tool is the outcome of a joint project between the IAA and the International Association of Insurance Supervisors (IAIS). It provides educational material and illustrates practices that can be used by regulators to address a key question in inclusive insurance markets: how does one identify the key insurance risks in terms of a product or a provider?

The paper outlines a risk assessment process, along with an assessment tool, in the form of a traffic light system in Microsoft Excel, to inform, amongst others, product approval decisions. Focus is placed on risk from the perspective of inclusive insurance products and inclusive insurance providers, particularly in terms of how they meet the needs of customers. Risk scores are assigned to each element and evaluated against the risk appetite to get to an outcome on each element. If the risk score is below a certain threshold, it means that the regulator can proceed, and if it is above a certain threshold then mitigating action is required. If it is even higher above the threshold, then it is clear that the product or venture should not proceed.

This tool therefore provides a consistent and robust basis for the assessment of new product applications, allowing a sound foundation on which regulators can apply flexibility in product approval decisions. Applying this tool enables regulators to confidently approve products that may not fall strictly within existing regulations (such as through letters of no objection, regulatory waivers etc.), provided they are satisfied that, with appropriate safeguards applied, the product does not exceed their pre-determined risk threshold i.e. the product will not introduce undue risk into the market or to individual consumers.

Digitalisation of systems and suptech. The digitalisation of supervisory systems can enhance the efficiency of supervisory processes and monitoring beyond just product and licence approval. There is a need to invest in supervisory system upgrades as relevant, but to do so in consultation with the market to ensure seamless integration with industry systems. In addition to efficiency gains in how the regulator runs its internal systems, suptech can help to streamline the interface with the market, making reporting more seamless (ultimately enhancing the quantity and quality of data on which to base supervisory insights), and expediting licensing and product approval.

SNAPSHOT: Use of supervisory technologies (suptech) to enhance risk and compliance monitoring

The term suptech refers to the use of technology in supervisory systems to enhance risk and compliance monitoring. Suptech has become a fundamental tool in the financial sector regulatory response to fintech (Mothibi & Rahulani, 2021). In the insurance sphere, the use of suptech has much scope to ease regulatory compliance amongst licensed financial service providers. It can also improve the reliability and timeliness of information received by regulators and policymakers to enhance supervisory efficacy and inform policy interventions.

A successful example of the use of suptech is the use of the Market Analysis and Intelligence (MAI) system for market surveillance by the **Australian** Securities and Investments Commission (ASIC). The MAI system obtains real-time data from all of Australia's primary and secondary capital markets and provides real-time alerts which identifies anomalies in the markets for potential investigation or are detected upon execution (Broeders & Prenio, 2018) This approach is based on the increasing prevalence of APIs to enable real-time data transfer from regulated entity to regulator and is expected

to become an increasingly prominent approach to reporting across global financial regulators over the next 5-10 years.

There are also several examples of the use of suptech within the insurance innovation portrait countries:

- The IRA **Kenya** uses an Electronic Regulatory System (ERS). The system allows online submission of all documents, returns and authorisation requests to the regulator.
- The NIC in **Ghana** also has a system for digital regulatory filing. In addition, the Ghana innovation portrait (2022) reported that the NIC is in the process of implementing an innovative solution that includes the use of software to monitor claims around third-party motor insurance directly from the servers of insurance companies. By doing this, the NIC and other authorities will be able effectively monitor the validity of motor insurance and users will be able to verify the insurance status of their or another individual's vehicles.
- **Rwanda**'s National Bank of Rwanda (BNR) has taken steps to digitise the reporting process. The adoption of cutting-edge suptech solutions is a policy priority for Rwanda, as highlighted in the Rwanda Fintech Strategy 2022-2027.

Capacity and coordination

Earmarking internal capacity for innovation. One of the key actions to address supervisory constraints is setting up a dedicated innovation unit or team with a primary mandate to promote market development and innovation – thus earmarking capacity for innovation. Such a dedicated department, unit or team then acts as an engine for and enabler of interventions to facilitate broader cultural change across all departments of the authority. This department or team cannot be responsible for achieving innovation outcomes, that responsibility needs to be decentralised across all departments and be a fundamental part of the organisational culture. However, this department or team can catalyse and drive tangible actions that push the organisation along this journey[17].

Dedicating capacity to promote innovation may not always be feasible. If not, it may still be possible to build an innovation culture within the organisation by leading from the top and making sure that there is a workplan for innovation to which different departments are held accountable. It is also important to train staff and expose them to innovation topics, for example through staff brown-bag lunches or by inviting external speakers to address and inspire staff on the topic of innovation.

SNAPSHOT: Earmarking capacity – Ghana's Innovation Hub

In Ghana, the NIC created an innovation hub tasked with the development and management of internal digital solutions aimed at enhancing the operational efficiency of the NIC. The Innovation Hub also assists in evaluating new innovations and technology solutions developed by regulated entities to ensure that there is sufficient comfort that these innovations do not expose the industry to too high risks (NIC, 2021). It was set up to address the Commission's explicit market development mandate bestowed under the 2021 Insurance Act. The Innovation Hub, the Public Relations (PR) Unit and the Research Unit are coordinated by the office of the NIC's commissioner and are in constant communication.

Source: Ghana Innovation Portrait (2022)

[17] The head of the team/unit/department charged with the mandate to bolster innovation needs to be a sufficiently respected, skilled, flexible and charismatic communicator to efficiently bring together and lead the ideal team – consisting of a mix of skills, seniority and departments, as well as representatives from the private sector.

SNAPSHOT: Success factors for driving innovation

Supervisory authorities can consider the following success factors to enable a dedicated innovation unit/team to achieve success:

- Make it easy to exchange and share ideas
- Do not let staff hierarchies stifle creativity
- Prioritise generating early successes to create demonstration effects and buy-in in the authority more broadly
- Always seek opportunities to learn – be willing to experiment and fail
- Build internal knowledge and explore strategic interests
- Use data to inform decisions
- Focus on responding to different departments' needs: by solving problems that are a priority for them, they will be much more collaborative

Source: Authors' own, based on experience working with regulatory authorities on their innovation strategies.

Intra-institutional coordination for innovation. Finally, interdepartmental structures and coordination should be leveraged to ensure that innovation facilitation is entrenched throughout the organisation. This can include the formation of a dedicated innovation committee (where relevant chaired by the dedicated innovation unit), or leveraging existing committee structures to embed innovation agenda items.

3.4. Monitoring tools

A successful approach to regulating for innovation ultimately depends on the commitment of the regulator to see the process through, to monitor trends and progress, and to adapt the approach as and when required.

Why monitoring? The R3Lab insurance innovation portrait exercise found that empowering those with the mandate for innovation goes hand in hand with setting clear targets against which progress can be tracked. Across the study countries, there is a need to revisit and expand the current market monitoring framework to set additional indicators that speak specifically to market development and innovation, and to consider the most appropriate and most immediately available data sources that can be used to track those indicators. When key innovation indicators are monitored, the use of the other tools can be adjusted to be more conducive to innovation; at the same time, this ensures that any regulatory changes are proportionate, evidence-based and robustly monitored (A2ii & IAIS, 2017).

SNAPSHOT: Use of KPIs to track inclusion and innovation

- The BNR in **Rwanda** sets Key Performance Indicators (KPIs) annually according to their general strategic plan. Apart from the insurance penetration rate, it also tracks the number of women and youth that have insurance, and urban versus rural coverage (Rwanda Innovation Portrait, 2022)
- The IRA in **Kenya** sets internal targets for innovation such as: the number of sandbox entrants or BimaLab graduates, or the number of events hosted. More broadly, the IRA's annual report tracks insurance penetration as the main measure of market development, alongside KPIs such as gross and net premium income, claims ratios, retention ratios and expense ratios (Kenya Innovation Portrait, 2022).

Identifying market development indicators. The starting point for adopting a more holistic approach to monitoring innovation is to identify a broad range of indicators for tracking innovation-related progress in the market. These indicators should be closely aligned to the supervisor's innovation objectives for its market. Traditional indicators used to track insurance market growth, such as insurance penetration rates, are not effectively able to track granular developments in market development and innovation. Likewise, indicators such as solvency, total premium volumes and insurer's total assets and liabilities do not adequately measure the levels of innovation transformation that the market has undergone.

Under the A2ii-IAIS regional implementation platform for Sub-Saharan Africa, an expanded lexicon of supervisory KPIs has been developed. The lexicon includes a list several indicators for insurance market development (Tatin-Jaleran & Chiew, 2019), as well as an accompanying Handbook for their implementation. The A2ii supervisory KPIs lexicon classifies market development indicators according to seven factors to be monitored to develop a complete picture of the development of the insurance market. These seven factors can be classified into three broad categories, namely market inputs, market operations and customer outputs:

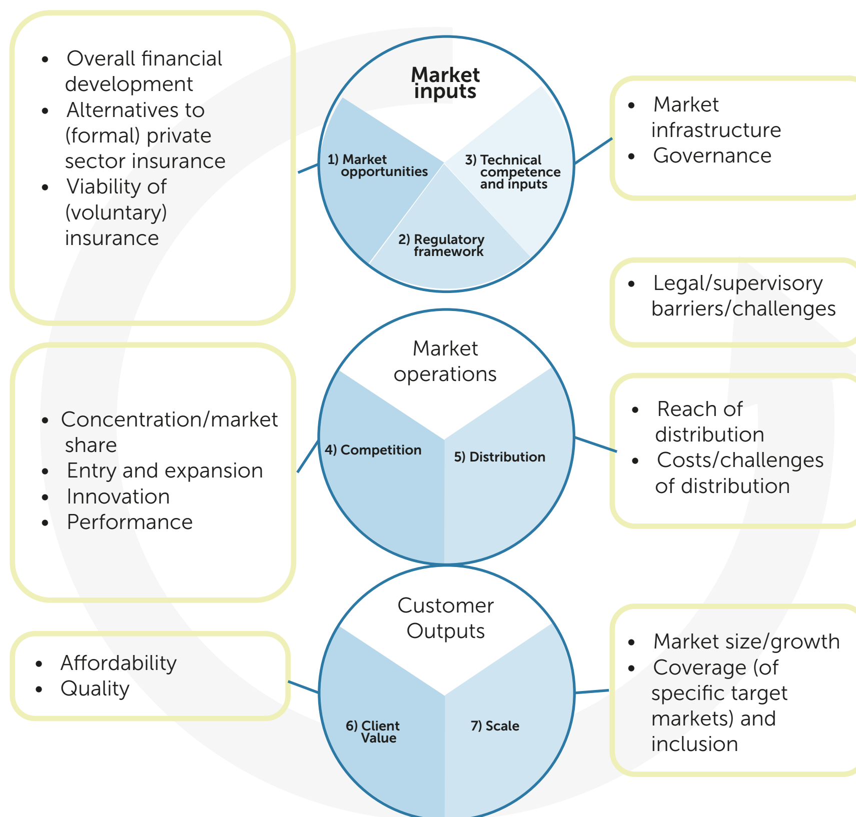


Figure 4: Market development tracker
Source: Author's own (2020)

Specific innovation indicators. In addition to the general market development indicators, several indicators can be used to track innovation, specifically. For example, the BimaLab uses the following indicators:

- Number new insurance products/services developed
- Number of organisations/ventures accelerated
- Amount raised by insurtechs as grants and equity
- Number of insurtechs onboarded on the sandbox
- Number of people reached (people newly insured, including family members covered)

Identifying market monitoring tools. Several tools or sources can be used to track market development. Below, several potential market monitoring tools are outlined. They have been compiled based on supervisors' experience in the R3Lab and BimaLab. They enable supervisors to track the innovation indicators that align with a supervisor's innovation objectives for its market. The characteristics and benefits of each tool, the opportunities it may create, how to use it, and its limitations are described below.

Regulatory Reports Analysis

The objective of regulatory reporting is to periodically provide supervisors with crucial data which allows them to fulfill their supervisory mandate and market-focused supervisory activities. Regulatory report analysis helps the supervisor to be responsive enough to identify, understand, monitor, measure, and address consumer risks and outcomes, competition issues and issues of compliance with consumer protection regulations. It also supports effective risk-based supervision by helping to prioritize supervisory programs and resources based on assessed risks.

This tool is implemented by identifying the goals and objectives of regulatory reporting, which will determine which data are needed. The supervisor is also required to identify the indicators required to fulfill them and, importantly, the underlying data points necessary to build each indicator. The supervisor with thereafter be required to design a reporting template. An important limitation is the difficulty of ensuring data quality. In particular, it may take considerable time after a new reporting requirement has been implemented for collected data to reach acceptable levels of data quality.

Complaints Analysis

Supervisors collect complaints data, and it is important to analyse aggregated complaints data obtained from reports that entities are required to submit on the number, nature, severity, and resolution of complaints received. The supervisor may also gather information from consumer associations, and ombudspersons that handle consumer complaints or disputes.

Incorporating complaints data into market monitoring will allow the supervisor to identify and more quickly respond to increasing risks— depending on consumers' propensity to complain, recorded categories of complaints, and timeliness of access to complaints data. Furthermore, it enables the supervisor to identify the different risks and problems various consumer groups face, especially vulnerable segments (e.g., gender-based discriminatory treatment during the complaints handling process), by segmenting complaints according to gender, location, age, income, and other consumer characteristics.

This tool is implemented by developing a systematic way of collecting complaints data. The supervisor will need to set up common definitions for the different types of complaints (or the nature of the problem consumers face). The complaints data can be organised by product type or other criteria (e.g., complaints status) to ensure the data are comparable.

Social Media Monitoring

Social media monitoring (or "social listening") is an unstructured data collection tool, which specifically focuses on consumer-generated data. It allows supervisors to listen to the collective voice of consumers by gathering insights into their experiences and issues with financial services and products. This tool monitors what consumers post on social media platforms such as Facebook, X, etc., as well as on digital forums, blogs, and websites. With social media as an indicator, supervisors can remain current on new products in the market and spot emerging trends in consumer protection risks in real time.

This tool applies innovative Information technology (IT) and data analytics techniques and methods to unstructured data, such as natural language processing, sentiment analysis, text mining, and web scraping. Supervisors may outsource social media monitoring to specialised third-party technology providers that possess a variety of innovative IT and data analysis techniques (e.g., machine learning, sentiment analysis).

Mystery Shopping

Mystery shopping aims to observe the actual behavior of company staff members or of third parties acting on their behalf during a true customer interaction. This tool requires the supervisor to send a trained consumer or supervisory staff member to the company to simulate a typical customer interaction. This "mystery shopper" then reports on their experience in a detailed and standardized manner. The interaction may be in person or remote (e.g., phone call, web chat inquiry) and relate to any part of the customer journey (e.g., shopping for a product, purchasing a product, making a transaction, calling customer service, making a complaint).

This tool is implemented by the supervisor determining the policy objectives of mystery shopping. The supervisor is also required to select the products, providers, and delivery to include in its mystery shopping exercise. The supervisor should also design the consumer profiles for shopping exercises. Effective mystery shopper training ensures a strong level of comfort in acting out scenarios and filling out questionnaires.

Industry Engagement

Industry engagement consists of direct interaction and dialogue between the supervisor and companies or industry associations. It is a key tool supervisors use to gather intelligence on market developments, understand emerging business practices and consumer risks, and learn about risks and opportunities in the broader operating environment that subsequently may impact consumers. Risks and opportunities may include, for example, deteriorating macroeconomic conditions or disruptive technological developments.

Industry engagement can be organised around specific products, services, or issues, or by type of service provider. It can take many structured forms, including Open public meetings with a variety of stakeholders, Workshops or roundtables to which company representatives are invited, Periodic institutionalized meetings with representatives of industry bodies.

Choosing the right mix of monitoring tools. In deciding which tool to select, regulators should start with their objective as guiding question, in line with the table below.

Supervisory Objective	Regulatory Report Analysis	Complaints Analysis	Social Media Monitoring	Mystery Shopping	Industry Engagement
Monitor indicators of consumer risk	Yes	Yes	Yes	No	No
Monitor sales and marketing practices	No	Yes	No	Yes	Yes
Monitor products in the market	Yes	No	Yes	Yes	Yes
Monitor consumer complaints	Yes	Yes	Yes	No	No
Monitor consumer sentiments towards a provider	No	No	Yes	Yes	No
Monitor emerging consumer issues	No	No	Yes	Yes	Yes

Table 1: Monitoring tool mapping to supervisory objectives
Source: FSD Africa BimaLab and R3Lab

Putting the tools into action

Toolkit checkpoint
Up to here, the toolkit has outlined WHY it is important to regulate and supervise for innovation. From there, it provided guidance for conducting an innovation GAP AND ECOSYSTEM ASSESSMENT and introduced WHAT regulators and supervisors should do to respond to the innovation gap and ecosystem assessment – namely considering and selecting which set of TOOLS to wield.

We now turn from the WHAT to the HOW of regulating for innovation. This section provides process guidance for regulators on how to act on the innovation assessment to choose and implement action priorities across the different tools that matter for the problems at hand and are relevant to implement.

4.1. Devising action priorities

How to choose actions relevant for a particular country context? Based on the portrait assessment, the regulator needs to consider what specific actions across the tools in the toolbox it wants to – and can – wield to address the innovation gaps and ecosystem barriers. This entails coming up with a set of **action priorities** for facilitating innovation in the particular country. These action priorities would span across all of the categories of tools, sequenced according to resource constraints and in light of the bottlenecks and needs identified in the innovation gap assessment.

Context determines need. When are different tools applicable, and which specific actions to choose under a specific tool category? The market context - as determined through the innovation gap and ecosystem assessment – will determine how the regulator needs to respond. Are there innovative developments – or can such developments be foreseen – that do not fit neatly within the existing regulatory framework or supervisory system? How can the regulator support that? What other elements of the innovation ecosystem is in the regulator's power to address?

What if it is outside of the regulator's direct control?
Some of the ecosystem factors (such as infrastructure, the market engagement enablers, or access to finance) will be outside of the regulator's direct control, so then the question becomes how it can wield its engagement and communication tools with the market, or coordinate with other government departments, to nudge and encourage those who are able to make a difference to act.

Assess capacity. Equally importantly to choosing relevant actions that speak to real market needs, is to determine whether the supervisory authority has the ability and willingness to support innovation. Capacity determines which tools can be implemented to regulate and support innovation, as well as their effectiveness. Regulators need sufficient capacity to understand and manage the risks that are likely to arise from new technologies and innovative business models, to monitor a higher number of firms more intensively against unique regulatory requirements and to provide advice to innovative firms. Although capacity constraints do not entirely limit a regulator's ability to implement all tools for regulating and supporting innovation, they may render the application of very resource-intensive tools unfeasible (Beyers et al., 2018).

To better understand capacity, one can conduct an **institutional assessment** that unpacks the level of capacity, the

incentives that drive behaviour, and the nature of coordination within the regulatory authority. The institutional assessment maps the regulator's day-to-day supervisory processes (for example, how product approval takes place, how reported data is collated and analysed, how departmental and decision-making structures work and what the mandate and operational functions of the various teams are). Such an understanding is needed to assess what regulatory and supervisory tools or mechanisms are feasible to implement, given the regulator's capacity and existing systems.

SNAPSHOT: Institutional assessments conducted for the R3Lab innovation portrait series
Each of the R3Lab innovation portrait assessments included an institutional assessment alongside a regulatory review and an innovation ecosystem assessment.

The institutional assessment entailed taking stock of the organogram for the regulatory authority, gauging the supervisory mandate and level of discretion allowed from the regulatory review, and interviewing regulatory authorities to understand their department structures, coordination mechanisms for innovation (if any), as well as any day-to-day constraints that they face.

Pinpointing priorities across the framework. Armed with an understanding of the needs and capacity realities, one can identify specific priorities across the various tool categories. The snapshot below provides indicative examples of recommended action priorities under each category of tools as identified across theR3Lab innovation portrait assessments in eight countries.

SNAPSHOT: Action plan key tenets

Category/Tool type	Indicative action priorities
Engagement	• **Signal a pro-innovation stance** (e.g.: in Zimbabwe, where the Insurance and Pensions Commission (IPEC) needs to not only build a solid awareness of innovation, but also to become a champion for innovation; Ghana, where proactive engagement by the NIC with the market will play a role in nudging industry towards innovation) • **Regularly meet with industry and prospective new players** (e.g. in Malawi, where proactive two-way engagement/feedback loops with current and potential market players will build regulatory certainty and signal openness and support and Ethiopia, where disseminating information to industry is a key gap) • **Launch industry awards or challenges** (the IRA in Uganda has had considerable success in implementing this action and the next) • **Issue an innovation newsletter**
Regulatory	• **Create regulatory sandbox regulations** (adopted in various countries) • **Allow for use of digital distribution/remote onboarding and digital signatures** (e.g. Uganda, where the IRA has developed and released guidelines for mobile insurance distribution, but could further clarify which digital mechanisms are allowed to dispel remaining market player uncertainties) • **Create a licence category for insurtechs or technical service providers** (e.g. in Nigeria, where one of the key recommendations emanating from the Innovation Portrait is for NAICOM to explicitly

	allow insurtechs – through guidance initially and then by reconsidering licensing) • **Update microinsurance regulations to ensure that they create the right incentives and are in line with market realities** (e.g. in Ethiopia, where the National Bank of Ethiopia (NBE) could consider adjusting microinsurance regulations to incentivise licence applications)
Supervisory	• **Dedicate a team within the authority to promote innovation** (e.g. in Zimbabwe, where creating an independent office or department within IPEC that drives innovation is a key recommendation) • **Build inter-regulatory coordination structures** (e.g. in Uganda, where the regulation of mobile insurance distribution sits with numerous regulators across the financial services sector) • **Upgrade or implement an online supervisory portal** (e.g. in Nigeria, where the recommendation is for NAICOM to invest in upgrading the existing portal for ease of navigation and useability) • **Streamline the licensing and product approval systems** (e.g. in Malawi and Nigeria, where inefficiencies and lack of transparency in the current systems play a role in hindering an easy pathway to market)
Monitoring	• **Develop a Monitoring, Evaluation and Learning (MEL) strategy for all regulating for innovation activities** (e.g. in Malawi, where the Pension and Insurance Unit within the Reserve Bank of Malawi could apply a holistic approach to measuring and tracking innovation and its risks to pursue market development) • **Set specific targets for supervisory and engagement activities** (e.g. in Rwanda, where the BNR could integrate innovation KPIs into its monitoring processes) • **Use insurer and demand-side data to monitor market outputs** (e.g. in Ghana, where the NIC could bolster its efforts to monitor market development and engage in research and development)

Small changes can go a long way. As the examples above illustrate, it is not necessary to do a complete regulatory overhaul to regulate for innovation. Simply updating or making tweaks to existing tools can be a resource-savvy way of regulating for innovation. Furthermore, relatively resource-light actions can have a significant effect on encouraging and facilitating innovation in the market. For example:

- Signalling to industry: a) that the regulator has an open-door policy (and following through on that signal in a meaningful way, by being responsive to queries through all channels); and b) that innovation is a key priority encourages market players to consider innovative products. This is because market players know that the regulator will walk that path with them in getting that product to market, as long as it provides value to consumers and does not pose undue risks.
- Likewise, clarifying frequently asked regulatory questions to ease the pathway to market of potential entrants/potential innovators is a less resource-intensive way to provide compliance support for insurtechs or start-ups that may be unfamiliar with or inexperienced in the insurance market but may bring valuable or needed solutions to market.

4.2. From action priorities to workplan

A set of action recommendations is a good starting point, but to get to implementation requires going through an exercise to arrive at specific activities, responsibilities, timeframes and indicators for each action plan category. This exercise converts the initial action plan into an actionable workplan. The diagram below provides an indicative example of how elements from the action plan can be converted into a workplan, drawing on the experience of the R3Lab innovation portrait countries:

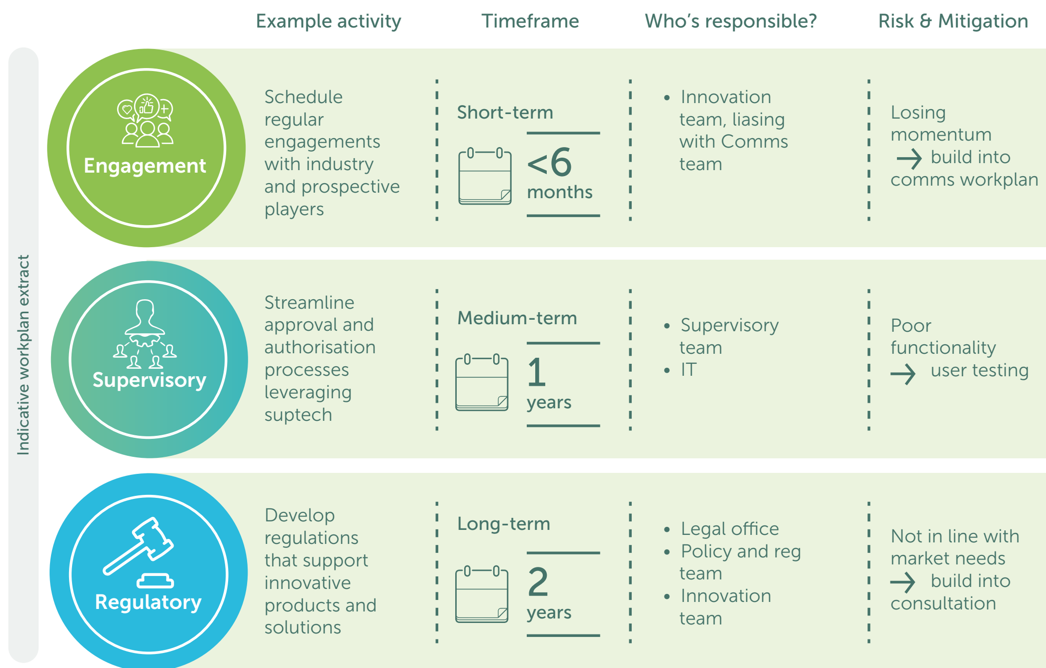


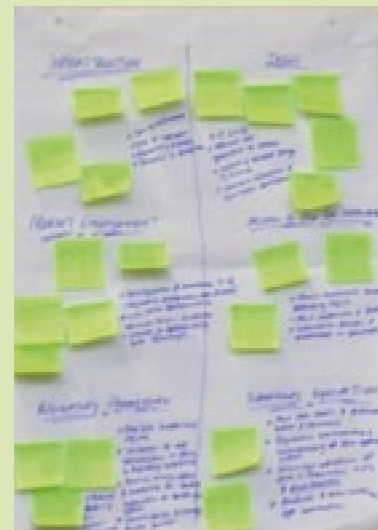
Figure 5: Indicative workplan extract

SNAPSHOT: Co-developing a workplan in Nigeria

Under the FSD Africa R3Lab, the National Insurance Commission (NAICOM) in Nigeria went through an exercise in early 2024 to develop a workplan for promoting innovation in its market, based on the findings of the innovation ecosystem assessment and the corresponding action plan recommendations.

NAICOM staff from various departments came together for two days to discuss the innovation ecosystem barriers, devise a vision for innovation in Nigeria, and debate and refine the initial action plan recommendations into an actionable workplan. This built on a prior day's workshop with the market to discuss key barriers and needs.

Through these collaborative efforts, six priorities were developed that were then converted into an actional workplan, with specific activities, timeframes and responsibilities. NAICOM then further refined the workplan considering its broader work to develop the next cycle of its strategic plan.



4.3. Success factors for implementation

There is no one-size-fits-all approach to implement the chosen tools, but five key factors play an important role in enhancing the likelihood of success:

1. Getting buy-in from top leadership. Ensuring that the department/unit or team spearheading the regulating for innovation strategy has a direct reporting line to and direct mandate from very senior staff within the supervisory authority (such as the Governor or Head of the Commission) is crucial. The innovation strategy needs to be led right from the top. Top management needs to buy into these objectives fully and then hold their reports accountable and so that it trickles down. Without this buy-in, supporting and adopting innovation is an uphill battle. This is the first success factor that the rest of the factors as discussed below flow from.

2. Delegated authority and flexible, quick decision making. While top leadership buy-in is important, the unit or team running with the innovation workplan should be equipped to take action on a day-to-day basis. A major constraint to an effective approach to regulate and enable innovation is a lack of delegated decision making. Where this is the case, even minor operational decisions need to be signed off all the way up the chain to the Governor or Commissioner. Such a bureaucratic system can place a damper on the regulator's ability to regulate for and enable innovation by:

- Disempowering staff from making decisions, which is demotivating and discourages accountability and innovation.
- Swamping leadership by operational sign offs, with the implication that they cannot focus on strategy.
- Slowing decision-making and responsiveness, which is anathema to enabling innovation.

3. Inter-governmental/inter-regulatory coordination. Innovative developments often "cut across" or "fall between" the mandates of multiple regulators. As such, innovations may be subject to more than one set of regulatory requirements. In the absence of regulatory coordination, innovative firms incur significant costs in their attempts to navigate the regulatory environment and face considerable regulatory uncertainty, which may affect their perceived viability and their ability to attract investor funding (de Waal et al., 2019). This creates an imperative for inter-governmental coordination on innovation topics.

SNAPSHOT: Advocating for the use of airtime in premium collection

Communication and coordination are fundamental to clarifying regulatory requirements. Mobile insurance is an example of an innovation that involves not only the insurance regulator but also the telecommunications authority and the payments regulator. It is thus vital for these regulators to communicate and coordinate effectively to avoid regulatory uncertainty. Two examples illustrate:

- In Nigeria, central bank guidelines prohibit the use of airtime in transactions, including the payment of insurance premiums. This has significantly impacted the viability of m-insurance (Hougaard, et al., 2018). This constraint has been a topic of discussion in financial inclusion coordination forums but at the time of writing of the innovation portrait in 2022 had not been solved through existing coordination forums.
- In Kenya, the Financial Sector Regulator Forum (FSRF) has been designed to facilitate information sharing, cooperation and collaboration on regulation and supervision across financial sector regulatory authorities. However, the forum does not yet have an explicit innovation mandate and, hence, has not given attention to cross-jurisdiction matters such as recurring deductions on mobile money for premium payment purposes. It also does not formally involve non-financial sector regulators, such as the data protection or telecommunications regulators (Kenya Innovation Portrait, 2022).

Both of these examples underline how important it is that inter-governmental/inter-regulatory coordination structures have the mandate to act on the topics discussed, and that all relevant authorities and departments are involved.

4. Building capacity. It is crucial that regulators be deliberate about how they apply their available capacity and incorporate measures to build additional capacity across the authority, as well as for the innovation team or unit where such a unit exists. In doing so, it is important to guard against siloed capacity building, whereby capacity is just built on the specific responsibilities for a specific department. Instead, it is important that staff's capacity is built also on innovation topics outside of their direct responsibilities (for example technology, use of data, cyber risks), to allow them to see the broader picture and make more nuanced decisions. Building supervisory staff capacity across the authority can also help to generate buy-in from different departments to the need for internal innovation as well as for facilitating innovation in the market. Even a well-capacitated and resourced innovation team will struggle to make a success of its regulating for innovation plan without the support of different departments and the skills/areas of expertise they bring.

SNAPSHOT:Building staff and market innovation skills
Uganda's new Insurance Act of 2017 gave the IRA a market development mandate in addition to the mandate of ensuring consumer protection and market soundness (de Waal, et al., 2019). As part of entrenching this mandate within the supervisory system and giving effect fully to its innovation action plan, the IRA has undertaken proactive internal capacity building, including expanding and training the communications department and training the product approval committee and most of its staff members on how to use the risk assessment tool to streamline the product approval process. Moreover, the departments share the responsibility to create content for the industry innovation newsletter (Uganda Innovation Portrait, 2022).

5. Early publicised success. A widely-publicised success story or key initiative is important early-on in the supervisory authority's regulating for innovation journey to demonstrate credibility. This does not necessarily mean implementing large-scale overhauls – instead, proactive communication on an anchor project could have a catalytic impact by signalling the legitimacy and commitment of the supervisory authority as it pertains to innovation.

4.4. KPI framework for monitoring progress

Vital to monitor and adjust. As outlined in Section 3.4, it is important to carefully monitor the progress of the regulating for innovation workplan. At the time of developing the workplan, regulators should consider what would be the indicators to track in this regard.

Developing a KPI framework. Section 3.4 sets out a framework for how to think about monitoring market development and innovation, and includes international resources to draw on for a list of potential indicators to consider. But how should regulators go about setting specific, measurable indicators for tracking the implementation of their workplans? Practically, this simply entails asking what indicator of success can be tracked for each element of the workplan. For example, if the workplan priority is to have more regular engagement with industry, then the performance indicator can be the number of engagements held.

From outputs to outcomes. While the initial set of KPIs may be focused on outputs to track progress of specific workplan activities, it is important for regulators to also consider what the broader outcomes are that they want these activities to contribute towards. This requires formulating a theory of change for what the ultimate goals are that they want to achieve through the workplan, and to set different levels of indicators accordingly.

What is a theory of change and why is it relevant?

A theory of change is a narrative that sets out the steps through which the desired change can happen, and how what one does contributes to that change. This theory of change is often captured diagrammatically in a results chain that sets out different layers, read from the bottom up:

- At the bottom is the **problem statement** – in this case, an articulation of the innovation gap or opportunities to be addressed
- Next are the **outputs** – what will the regulator do to address the gap/capitalise on the opportunities? What are the actions within the regulator's direct control?
- Next are the **outcomes** – what are the broader results the regulator wants to see due to the activities or outputs, for example as gauged through new entries into the market, new products or delivery channels, or ultimate uptake by consumers?
- The outcomes lens could be further nuanced to consider the ultimate **societal impact**, such as growth or welfare, to which the outcomes contribute.

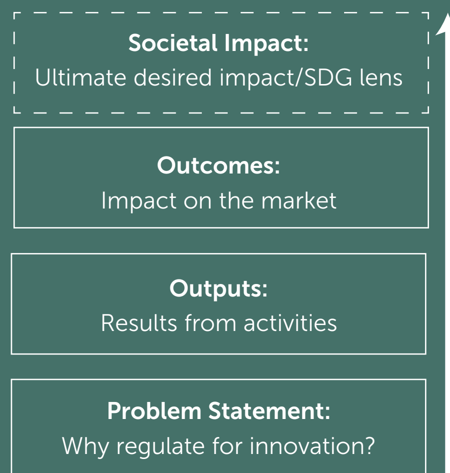


Figure 6: Basic regulating for innovation results chain

Following the logic of the theory of change, the KPI framework will have certain KPIs that are activity or output-focused. These KPIs aim to assess: a) whether the activity actually was implemented in a consistent manner and b) the immediate impact resulting from that activity (e.g., whether there was positive workshop feedback). These activities should then feed into an overall improvement of insurance innovation in the country (the outcome), which is measured by the overall insurance innovation KPIs as contained in the A2ii supervisory KPIs lexicon – such as the number of new products launched in the market, or the number of new market entries.

A timeframe perspective, with corresponding data sources. When setting the workplan, it is important to think about KPIs at different levels from a timeframe perspective – what are the immediate activity outputs to measure and what are the longer-term outcome or impact indicators – and to take a view on the relevant data sources for each. It is important to consider what can realistically be tracked from existing reported data and alternative sources over the short to medium term. Over the medium to longer term, the reporting requirements can then be updated to include relevant innovation metrics.

The table below provides an indicative KPI framework per category of tool as drawn from the experience of the R3Lab to date. For each category of tools, it indicates example activities, corresponding output KPIs and data sources, as well as outcome KPIs and data sources. For each KPI, the expected timeframe is indicated in brackets – short term (ST) for up to one year, or medium term (MT) for 1-2 years and long term (LT) for more than two years.

It is important for each regulator engaging with this toolkit to consider this list, but not to be bound by it. Rather, output and outcome indicators should be set as relevant to the specific workplan for each particular country.

<table>
<tr><th>Tool category</th><th>Corresponding suite of workplan activities (indicative, depending on context)</th><th>Example output KPIs</th><th>Data source</th><th>Example outcome KPIs</th><th>Data source</th></tr>
<tr><td rowspan="3">Engagement</td><td>Recognise industry innovations through annual awards and/or implementing an innovation challenge fund</td><td>Award ceremony held (ST)

Number of challenge fund grants awarded (ST)</td><td>Regulatory authority internal system tracking</td><td rowspan="3">Number of new innovative partnerships launched (MT)

Number of new products launched aimed at the underserved market (MT)

Amount raised by insurtechs as grants and equity
Number of people reached (people newly insured, including family members covered) (LT)</td><td rowspan="3">Product and partnership approval data

Data source from insurtechs

Demand-side surveys on % of adults with insurance.

Reported data on # policyholders and renewals</td></tr>
<tr><td>Develop an innovation communications and event strategy and calendar</td><td>Comms strategy developed (ST)

Comms calendar developed and incorporated into staff Outlook calendars (ST)</td><td>Regulatory authority internal system tracking</td></tr>
<tr><td>Schedule regular engagements with industry as well as prospective new entrants</td><td>Number of engagements held per annum (ST)

Attendance of events - % of non-incumbents (ST)

Overall expressed satisfaction with events (ST)</td><td>Event registers / attendance lists

Event evaluation forms</td></tr>
</table>

Tool category	Corresponding suite of workplan activities (indicative, depending on context)	Example output KPIs	Data source	Example outcome KPIs	Data source
	Create feedback loops for consumers on insurance products and innovation by sharing product performance data such as number of successful claims, average claims processing times, and number of complaints lodged per number of policies, across industry	Statistics published on website (ST)	Returns data	Number of customer complaints received (% increase versus baseline) (MT) Number of people reached (people newly insured, including family members covered) (LT) Policyholder persistence/churn (LT)	Regulatory authority or third-party recourse channel complaints statistics Demand-side surveys on % of adults with insurance Reported data on # policyholders and renewals
Regulatory	Evaluate existing regulations aimed at promoting innovation (e.g. microinsurance or sandbox) to assess effectiveness	Evaluation report adopted by management (ST) Revised regulation published to address constraints identified by evaluation (MT)	Regulatory authority internal system tracking	Better uptake of regulation, e.g. # microinsurance licenses issued or # sandbox entrants (LT) Number of people reached (people newly insured, including family members covered) (LT)	Licensing statistics Demand-side surveys on % of adults with insurance Reported data on # policyholders and renewals

Tool category	Corresponding suite of workplan activities (indicative, depending on context)	Example output KPIs	Data source	Example outcome KPIs	Data source
	Develop new regulation to support innovative products and solutions (e.g. on Insurtech licensing)	Consultation and drafting committee ToRs issued and committee formed (ST) New regulation developed (MT)	Regulatory authority internal system tracking	Number of new innovative solutions and products (adjust as relevant per specific regulation implemented) (MT) Number of insurtechs onboarded in the sandbox Number of people reached (people newly insured, including family members covered) (LT)	Licensing statistics Data sourced from insurtechs Demand-side surveys on % of adults with insurance Reported data on # policyholders and renewals
Supervisory	Streamline approval and authoritisation processes leveraging suptech	Decrease in product approval timelines (MT)	Regulatory authority internal system tracking	Number of new products licenced (MT) Number of people reached (people newly insured, including family members covered) (LT)	Regulatory authority internal system tracking Demand-side surveys on % of adults with insurance Reported data on # policyholders and renewals

Tool category	Corresponding suite of workplan activities (indicative, depending on context)	Example output KPIs	Data source	Example outcome KPIs	Data source
	Set up an innovation coordination committee, with clear ownership, within the regulatory authority	Committee established and incorporated into authority's strategic plan (ST)	Regulatory authority internal system tracking	Aggregate success measured on other output KPIs (MT)	Regulatory authority internal system tracking
	Set up internal knowledge sharing presentations for staff members on innovation topics	Number of knowledge sharing events held	Regulatory authority internal system tracking	Staff knowledge and buy-in to innovation	Annual staff survey
	Include assessment of innovation criteria into on-site inspections Leveraging reported data to track innovation progress	Number of onsite supervisions where soft criteria regarding innovation are assessed Utilisation of existing reported data to track innovation	Regulatory authority internal system tracking Insurance returns	Number of new innovative partnerships launched (MT) Number of new products launched aimed at the underserved market (MT) Number of people reached (people newly insured, including family members covered) (LT)	Product and partnership approval data Demand-side surveys on % of adults with insurance Reported data on # policyholders and renewals

Table 2: Indicative KPI framework
Source: R3Lab action plan recommendations and workplans

Hold staff accountable. For the KPI framework to be effective, it is important that it be linked to the key performance indicators against which staff members' performance is assessed. If a dedicated team or committee is formed, set targets for that team linked to the KPI framework and assign clear responsibilities for who should be tracking which data sources to compile the KPIs.

Flexibility to adjust. Finally, regulators should be flexible to adjust the plan accordingly where there are learnings about what resonates well with the market and what does not work, based on the findings on the KPIs.

Conclusion

This toolkit offers supervisors/regulators who are interested in regulating for innovation practical inputs, drawing on examples from their peers, on what tools are available to consider, how to choose a fit-for-purpose and fit-for-context combination of tools and how to go about implementing the chosen tool set in practice.

The key steps in implementing a regulating for innovation framework are to:

- Get buy-in from the policymaker to ensure a sufficient mandate
- Understand the innovation market context, including the barriers to innovation
- Think beyond regulatory tools and decide on a set of fit-for-purpose tools in context
- Draw up a clear plan that combines the various possible tools in sequence
- Think carefully about implementation, how much capacity to apply and who to coordinate with
- Monitor success and adjust the approach where necessary

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Appendix A

Indicative workplan priorities overview

Action area I: Effectively digitalise and streamline supervisory processes

Rationale: Product approval processes must respond to the market's needs to facilitate innovation. Potential product approval applicants need clarity and certainty about the conditions required to obtain approval, the steps involved in the process and the timelines and contact points. There is a need to further streamline the regulator's product approval processes and to make the corresponding steps and timelines transparent. While the regulator's existing Portal is a useful platform to engage with industry, there is a need to upgrade the existing portal and to integrate it into product approval processes.

Activities:

- Streamline the internal product approval process to integrate with the portal
- Administer a survey with portal users to identify core challenges related to portal usage but also related to product approval overall
- Invest in upgrading the existing portal for ease of navigation and useability
- Sensitise industry regarding digitalised supervisory processes, including the portal

Action area II: Nudge and capacitate industry towards value-added innovation

Rationale: Low insurance trust and awareness are holding back insurance demand while insurers find it challenging to understand the needs of underserved segments and to reach them efficiently, and often lack an innovation mindset.

Activities:

- Initiate the creation of an insurance awareness coordination group
- Encourage product development innovation as part of the marketing of the sandbox
- Recognise industry innovations through annual awards or an innovation exhibition
- Implement a challenge fund for insurance innovation
- Include assessment of innovation criteria into off-site and on-site inspections
- Organise a workshop series with development partners on consumer needs, market data and specific innovation topics

Action area III: Create more effective feedback loops with industry, innovators and policyholders

Rationale: Regulators can express a pro-innovation stance, inform, or nudge the industry towards innovation, and learn about the emerging types of innovation through proactive engagement with the market.

Activities:

- Work with insurance and fintech associations by having regularly scheduled knowledge sharing and community of practice meetings.
- Develop an innovation communications and event strategy and calendar and extend communication efforts to licensed as well as non-licensed entities
- Proactively leverage social media
- Launch a newsletter that includes a section for innovation press releases and share it periodically with licensed and non-licensed market players
- Create feedback loops for consumers on insurance products and innovation by sharing product performance data such as number of successful claims, average claims processing times, and number of complaints lodged per number of policies at the industry level

Action area IV: Strengthen and deepen coordination within the regulator and with other regulators to champion industry needs

Rationale: Coordination between different departments and with other authorities is becoming increasingly relevant as innovation requires the interaction of different parties, including telecommunications and payment technologies. Considering these trends, coordination between regulators provides opportunities to align strategies, regulations and guidelines on cross-jurisdiction matters in order to create an enabling environment for innovation.

Activities:

- Have quarterly meetings with an innovation focus between staff members and management to discuss challenges and actions

Action area V: Tailor regulatory guidelines to address all pertinent market innovation needs

Rationale: The regulator has proven to be responsive to observed market trends and has produced guidelines to encourage market development. However, there is a need to better link regulatory guidelines to issues that speak directly to the needs of insurance players, whether new or existing. Moreover, the law, regulations and directives can be unclear as to the practical details that allow market participants to navigate the requirements, rights, and obligations they face when starting an insurance business.

Activities:

- Implement a Q&A system and an outward communication campaign on supervisory requirements and processes for licensed and non-licensed entities, and specifically on the sandbox
- Evaluation of microinsurance, web-aggregator and sandbox guidelines through industry and insurtech engagement discussions/focus group discussions, and amend guidelines accordingly
- Set up a committee (and develop ToRs) to scope out the insurtech guidelines, consult industry and insurtechs on the needs and consider whether to go insurer partnership route or not

Action area VI: Internal capacity building and upskilling

Rationale: Attaining a paradigm shift towards innovation requires a thorough understanding of innovation, including its benefits and risks. A regulator's capacity dictates which tools can be implemented to regulate and encourage innovation as well as their effectiveness. As the insurance market is continuously evolving with technological advancements and innovative business models emerging, it is crucial for staff to proactively keep up with these changes. Consequently, there is a clear need for staff to have a constant exposure to new technologies and innovative business models to ensure that both benefits and risks emerging from innovation are well understood and assessed.

Activities:

- Engage with peer regulators – raise specific topics to BimaLab regulatory cohort and for R3Lab engagements
- Set up internal knowledge sharing presentations for staff members on innovation topics
- Regular attendance at regional and global forums and conferences (including insurtech-specific forums)
- Leverage online courses covering emerging regulatory tools such as those offered by the Cambridge Centre for Alternative Finance (CCAF), Digital Frontiers Institute (DFI) and Access to Insurance Initiative (A2ii).

About Cenfri

Cenfri is a global think-tank and non-profit enterprise that bridges the gap between insights and impact in the financial sector. Cenfri's people are driven by a vision of a world where all people live their financial lives optimally to enhance welfare and grow the economy. Its core focus is on generating insights that can inform policymakers, market players and donors who seek to unlock development outcomes through inclusive financial services and the financial sector more broadly.

About FSD Africa

FSD Africa is a non-profit company that aims to increase prosperity, create jobs and reduce poverty by bringing about a transformation in financial markets in sub-Saharan Africa (SSA) and in the economies they serve. It provides know-how and capital to champions of change whose ideas, influence and actions will make finance more useful to African businesses and households. It is funded by the UK aid from the UK Government. FSD Africa also provides technical and operational support to a family of 10 financial market development agencies or "FSDs" across SSA called the FSD Network.