Architecture Standard

INTERNAL ONLY

Governance	
Principal Risk	Operational & Resilience Risk
Sub Risk Type	Technology Risk
In support of the following Policy/ies	Technology Risk Policy
Approval date	20 September 2021
Last Review date	27 September 2021
Next Review date	31 July 2023
Location	Policy Hub

Ownership	
Accountable Executive **(Group CCO/CRO/Business Unit/Area CRO)**	Deon Raju Designation: Group Chief Risk Officer
Principal Risk Officer	Ravendra Teeruth Designation: Principal Risk Officer
Sub Risk type Owner	N/A
Policy Owner	Phumzile Gebashe Designation: Chief Risk Officer - ITO
Standard Owner	Marius Marais Designation: Head Policy and Governance
Standard Approver **Note *Group Standards - PRO or delegated Official / Business Unit/Area Standards - CRO or Delegated official**	Phumzile Gebashe Designation: Chief Risk Officer - ITO
Standard Custodian (Contact)	Zandra Marais Designation: Head Risk Oversight

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Architecture Standard

1. STANDARD CONTEXT

1.1 Introduction

The Architecture Standard, hereafter referred to as 'the Standard', specifies the required provisions / controls as per the requirements indicated under Purpose.

Its primary objective is to enable teams to design and deliver high quality and sustainable architectures that support our businesses and service our customers. In doing so, this Standard is in support of the Operational and Resilience Risk Management Framework and the Enterprise Risk Management Framework (ERMF) and should be read in conjunction with any document listed in Section 4.1 'Related documentation supporting this Standard' and the supporting Cheat Codes which has been created to assist stakeholders across the organisation on how to implement and execute on key requirements.

1.2 Purpose

The primary objectives of the Standard document are to:

- Outline the specifications applicable to Architecture Context.
- Specify the essential principles and practices that ensure Absa's architecture is fit for purpose (at present and into the future, by delivering on Absa's strategic objectives).
- Provide the minimum controls in terms of policy adherence with regards to Architecture.
- Specify the requirements applicable to Architecture Guilds and Councils.

1.3 Scope and R

1.3.1 In scope

This Standard applies to:

a) Absa Group Limited and all its subsidiaries, if applicable (including any consolidated entity acquired via a debt-for-equity swap or created through a joint venture); and

b) All employees and workers of any entity within paragraph (a) above; for the purposes of this document, "employees" includes permanent employees and fixed term employees; "workers" include contingency workers (also referred to as agency workers) and secondees to Absa from a third party, irrespective of their location, function, grade or standing.

1.3.2 Out of Scope

This standard does **not** apply to:

(a) Any entity in which Absa Group Limited has any interest and which is a non-consolidated entity, or to any employee of any such entity; or

(b) Any entity which has been consolidated for International Financial Reporting Standards (IFRS) accounting purposes*, provided Absa Group Limited has neither legal nor operational control.

- By agreement between the Policy Owner and the Absa Group Limited Accountable Executive / Relationship Manager for a non-consolidated entity, specific control requirements incorporated within this Policy may be applied to the non-consolidated entity. In such cases, obtaining the agreement of the non-consolidated entity concerned or its other owner(s) to the control requirement(s) and the monitoring / oversight of the effective operation of the related controls, will be the responsibility of the relevant Accountable Executive / Relationship Manager."
- **such entities are likely to be special purpose vehicles (SPV) with a related Absa Group Limited loan which is in default and where Absa Group Limited has current and unilateral enforcement rights but does not have legal ownership / control.*

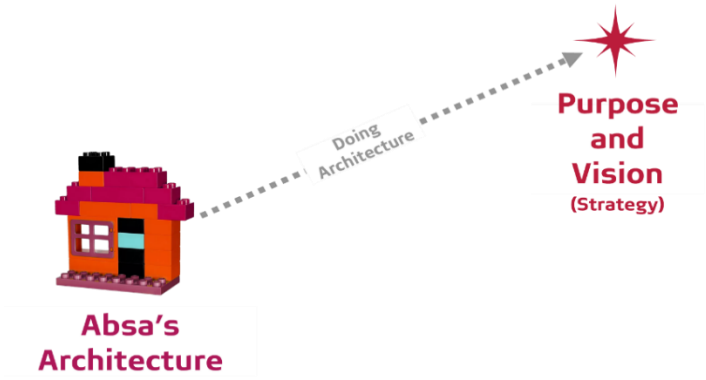
2. STANDARD PROVISIONS / CONTROL REQUIREMENTS

2.1 Architecture Context

2.1.1 What is Architecture?

In the first instance, it is defined as "the complex or carefully designed structure of something". In that respect, it is fair to say that Absa has an architecture which is the aggregation of all our works (across business, technology, and other areas) since the inception of this organisation and the different entities that comprise it.

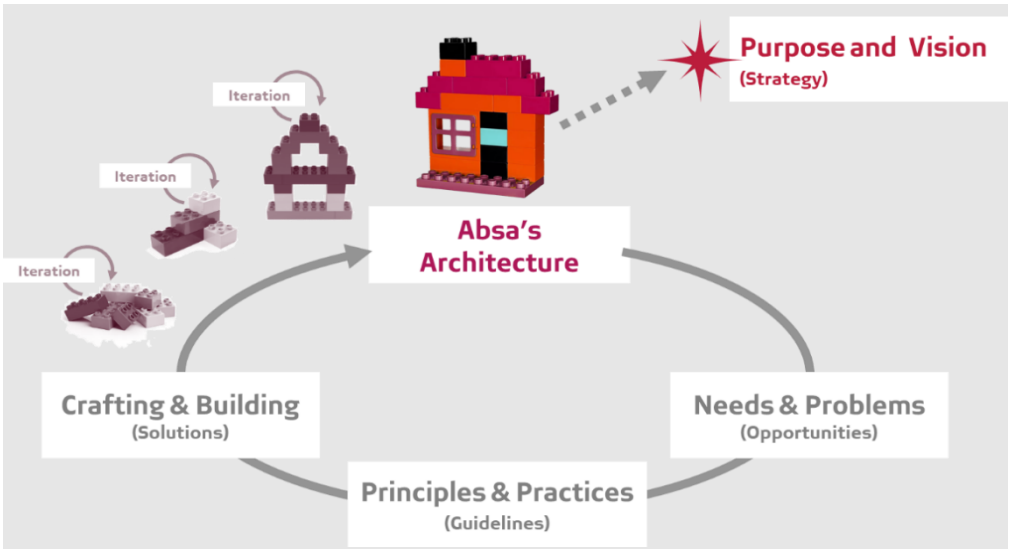
In the second, it is "the art or practice of designing and constructing buildings" or similarly complex engineering works. In this respect, we do Architecture. This encompasses many practices, and today, for Absa, it is more about achieving our purpose and strategic vision by creating business agility.



2.1.2 Architecture Practices (How we do Architecture at Absa)

To have architecture that serves our strategy we need to constantly improve how we do architecture. In this respect, the point of doing Architecture is to move the organisation forward towards its strategy, but this is not something which is pursued by architects individually. Instead, this comprises many disciplines including strategy, analysis, design, planning, implementation, change management and risk.

Although the outcome of sound architecture practices are the formation and modification of architectures aligned to the organizational objectives, it takes several inter-related activities to achieve that outcome.



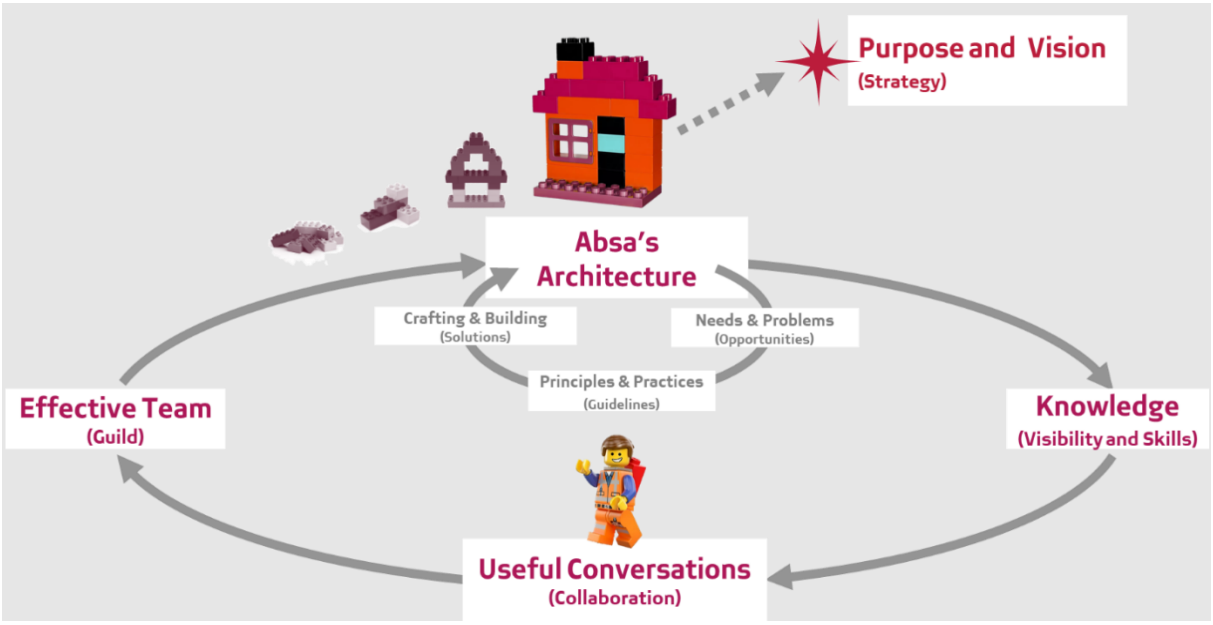
- **Needs and Problems (Opportunities):** It is necessary for each team undertaking change to outline clearly and precisely their or their customers' needs, or problems set against the backdrop of our purpose and vision (strategy). *This is typically done through the strategy, book of work building and prioritization activities by the various business.* ***Note:*** *It is noted that while multiple activities are undertaken, we strive to achieve a single integrated Absa strategy across all areas of our business.*

- **Crafting and Building (Solutions):** The above opportunities need to be fleshed out, triaged/prioritised, funded and constructed. We prefer that this crafting of solutions (on paper) and the building and operationalisation of these solutions (in reality) is done in an iterative fashion utilising the appropriate design practices for the class of challenge (below). *This is typically done in line with the Product Delivery Lifecycle (PDLC) Standard.*

- **Principles and Practices:** In order to perform this cycle effectively, it is necessary to define a set of architectural principles and practices. The principles serve to facilitate a consistent means of validating architectures and as a guide to good decision making. They assist common direction towards strategy, facilitate scaled learning and act, in some cases, as a safety-net to protect against bad decisions. The principles are outlined Absa's Approach to Architecture. The practices are essentially a library of key techniques which enable rapid and accurate execution of change, and which reduce the chances of failure. ***Note:*** *Teams should look to use techniques such as Design Thinking, Working Backwards, Inception/Envisioning, DevOps and Automation, Cloud, Data-centric architectures,* Objectives and Key Results (*OKRs), etc.*

2.1.3 Architecture Guild (Who Does Architecture at Absa)

Given the inter-related and complex nature of the organisation and the work that we do, collaboration is key to ensure that the work being undertaken has the highest level of success. To support this, an inter-disciplinary community of committed people is required and the colleagues who shape Absa's architecture may or may not have the word "Architect" in their job title. This community of people with a shared interest is termed a guild. To have an architecture which is fit for purpose, it is necessary that we have a guild which can do architecture effectively.



- **Knowledge (Visibility and Skills)**: Teams which undertake significant change in Absa need to have appropriate skills to effect the change as well as sufficient visibility of Absa's current architecture, industry trends and leading practices. Visibility is accomplished through the architecture principles, certain practices (e.g., jam/design sessions and inception/envisioning) as well as the meetings and proceedings of the **Architecture Councils.** ***Note:*** *Skills planning is typically undertaken by each business unit (BU) in line with its strategy and investment approach (e.g., in a talent council or similar) and not done separately by the guild.*

- **Useful Conversations (Collaboration):** Most strategically meaningful change spans business unit boundaries in some way. To preserve change autonomy for our business units as well as to consciously work together to achieve larger more meaningful goals or reuse it is necessary that there are effective collaboration mechanisms in place. While this is not confined to the architecture guild, it is necessary that the guild maintains constant and effective communication and eschews useless communication and unnecessary bureaucracy. This is in part accomplished through the architecture principles as well as the meetings of the architecture councils but is mostly accomplished through direct conversations while understanding needs and problems as well as crafting and building solutions. Operational activities should ideally be abstracted through open documentation and Application Programming Interface (APIs) or other means of re-useable and reproducible open integration.

- **Effective Team (Guild):** Ultimately, knowledge [sharing] and useful conversations both contribute to the running of an effective guild which spans business units' boundaries and has the relevant knowledge to shape architectural decisions in a collaborative manner. To ascertain effectiveness of the guild, certain key interventions and measures are required. *These are further elaborated on under Architecture Guilds and Councils*.

2.1.4 Architecture Guild Operational Goals

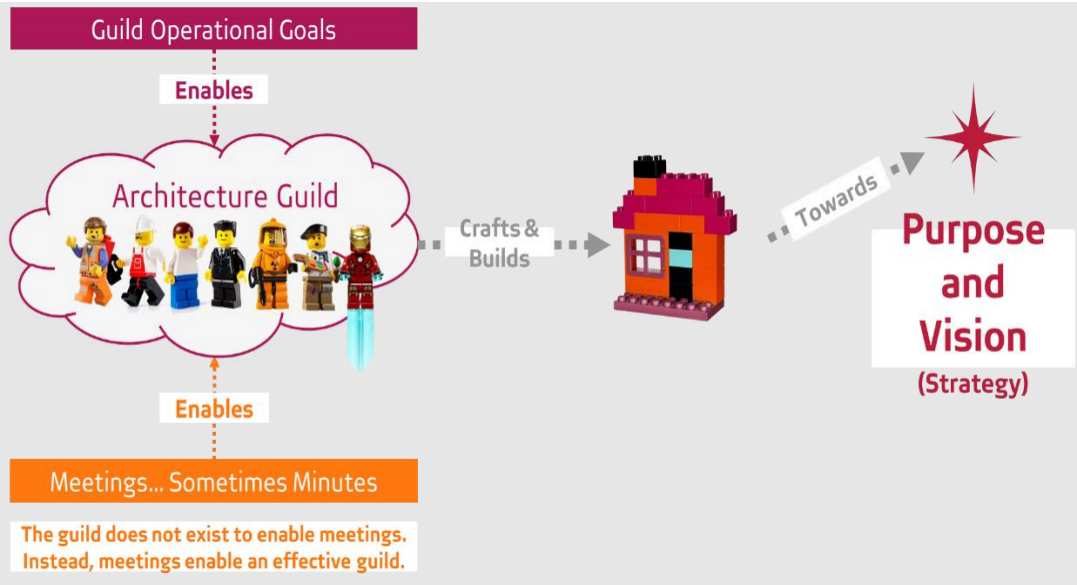
The concept of a guild was brought into mainstream focus by music streaming company Spotify with their "Spotify Model" which was their approach to scaling agile techniques through multiple autonomous but interconnected teams. We have absorbed concepts from Spotify and other models into Absa's organisational design and delivery frameworks.

Under this is an **Architecture Guild**:

- is a community of people with shared skills or interests that primarily exists to share knowledge and advance practices in architecture (and, where relevant to that, in related disciplines)?
- may also be referred to as a virtual team which does not bind to a single reporting structure (drawn from different areas with different skills)
- holds meetings which may have governance implications but that is not the primary purpose

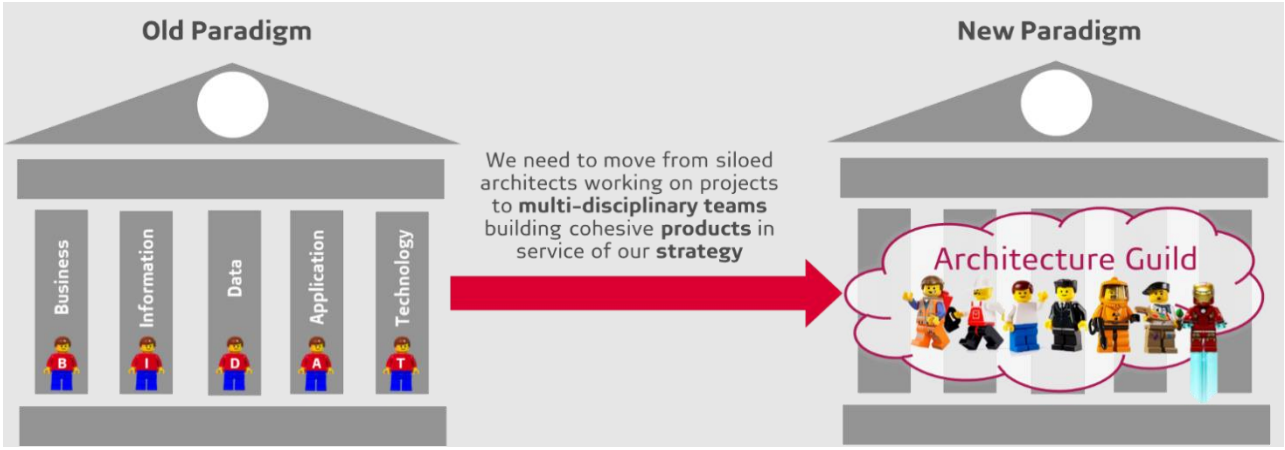
Absa's architecture guild operates with the following goals which shape its operation as well as the meetings of the Architecture Councils:

It is critical to note that the Operational Goals and the Architecture Council Meetings enable an effective Guild, not the reverse. It is through an effective guild that we can evolve Absa's architecture towards our strategy.



2.1.5 Architecture Domains (The Parts of Absa's Architecture)

Historically, architecture domains were defined around broad-stroke cross-cutting skill-groups or concerns within an organisation. An example of this is the traditional BIDAT model (Business, Information, Data, Applications and Technology). Traditionally, architecture teams, processes, controls, and councils would be structured around these domains (e.g., a data architecture council, a technology architecture council and so forth)[1].



Given the changes in our industry and the rise of the digital age, the BIDAT model (which dates to the 1990s or before (the pre-digital age) is ill-equipped to provide the necessary degree of agility and cohesion that is needed in an innovative organisation. In fact, it often acts contrary to our purpose and strategy. Therefore, BIDAT is **not** used as the primary domain model at Absa.

Key drivers for this decision are:

- In modern times, the focus has shifted from these cross-cutting yet siloed domains towards much clearer business domains or business services (each of which will contain data, applications, technologies, etc)[2].
- Architecturally, the organisation strives for modularity of business services to ensure evolution of our architecture, business agility and resilience of implementation.
- Historically, councils and structures established around these domains typically result in layered bureaucracy with multiple duplicate gates. Despite this, very few individuals in each of the BIDAT domains will understand the full architecture and its relevance to strategy. Therefore, these siloed governance structures offer minimal benefit if any from a strategy or control standpoint as they can offer little more than a token approval.
- Technically, the organisation strives to achieve the benefits that come from standardisation of technologies (e.g., reuse, reduced friction, and overheads, fungibility of skills, standardisation of risk and security mechanisms). However, we also strive to evolve the technology stack to keep pace with innovation, as well as maintain healthy technologies. In a siloed organisation, these two desires become contradictory, leading to unnecessary friction and discord. Ultimately, we desire appropriate judgement to be applied when standardising, evolving or both – ultimately this means that our technology evolution serves our strategy and creates new opportunities, as opposed to the opposite.

  Hence, instead, Absa prioritises business domains in its end-to-end architecture (including the technologies within them) over the historical BIDAT based domains. Strategically, Absa has structured the organisation around these core capabilities and their jobs to be done and therefore the business domain model is congruent with the architecture domains.

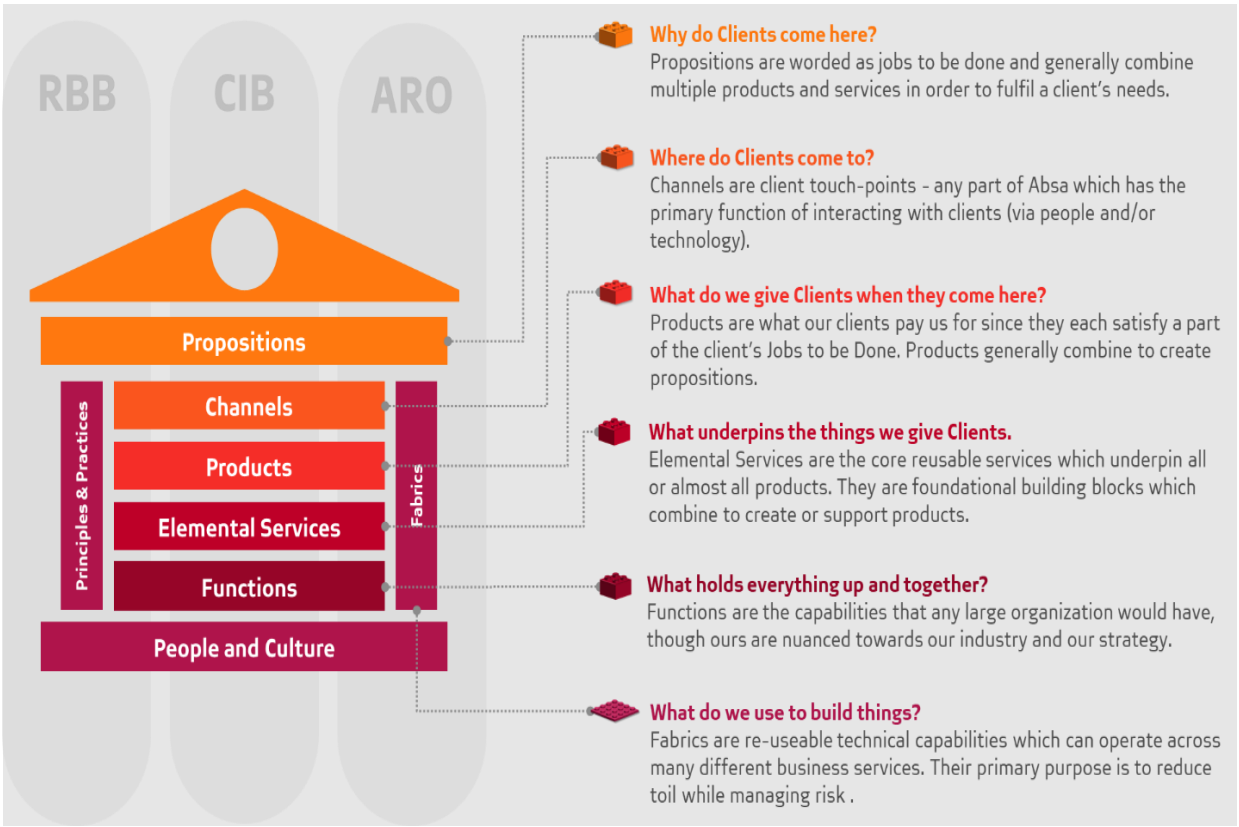
[1] This is perhaps a result of the misinterpretation of the Zachmann Framework (which is actually an ontology not an org structure) or an example of Conway's Law in action (i.e. satisfying siloed or disconnected domain architects by including them all in an architecture model).

[2] This was first popularised through Domain Driven Design (DDD) and Service Oriented Architecture (SOA). More recently it has formed the foundational basis for Microservices and modern cloud-based technology architectures as well as the shift from Waterfall to Agile and from project-based thinking to product-based thinking.

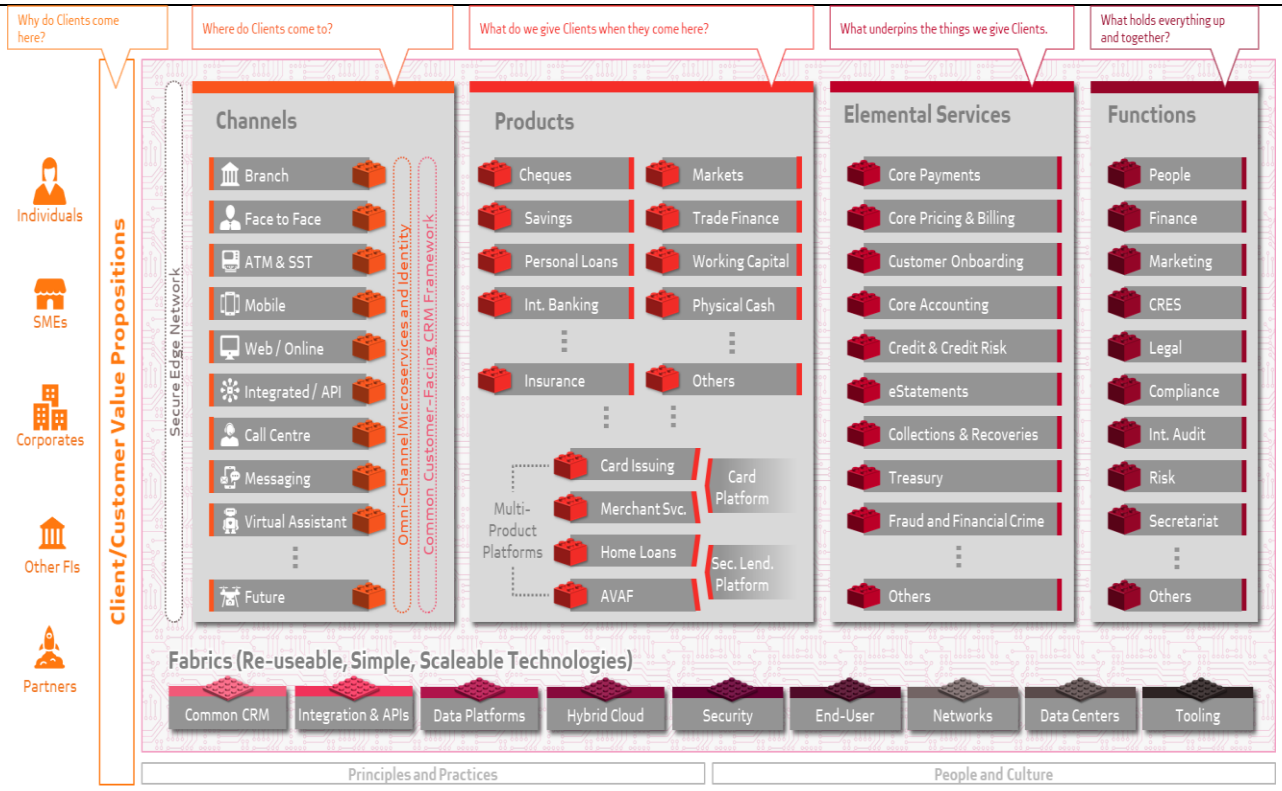
Because of this:

- While we are mindful of the specialist skills allied to the BIDAT domains which are still essential for our success, we prefer durable teams structured around business services to teams structured around BIDAT domains.
- Further, we explicitly do not separate BIDAT domains in our architecture practices, artefacts and opt instead for an **integrated** approach. This means, for instance, that there is no separate mandatory data architecture function or artefact, nor a separate technology architecture. It is simply "Absa's architecture". All formal architecture artefacts (i.e., the Strawman and Solution Blueprint) must articulate solutions cohesively across different BIDAT domains at the appropriate level of detail for the stage of work, the subject matter, and the solution goals.
- Further, we do not separate business and technology strategy. They are essentially parts of "Absa's strategy" and serve the same goals and intents.

Instead of BIDAT, Absa applies the following domain constructs in its top-level reference architecture:



A level deeper, these unpack into the more specific capabilities (business services and fabrics) which underpin our customer value propositions.



The above model is unpacked and explained in greater detail [Absa's Approach to Architecture]

2.2 Architecture Principles & Practices

2.2.1 Architecture Principles

The architecture principles are set out in depth in [Absa's Approach to Architecture]. These fall into the following categories:

a) Purpose of Architecture Principles.
b) Applicability of Architecture Principles.
c) Begin with the Customer (or Colleague).
d) Appropriate Techniques for the Class of Challenge.
e) Build for the Future, Build Future-Proof.
f) Modularity and Loose Coupling.
g) Managed Diversity and Captivity Resistance.
h) End with the Customer (or Colleague).

The accountable architect (Lead Architect or Chief Architect) of a portfolio must ensure that the principles are understood by themselves and the teams that they work with.

The principles should first be considered as guidance to teams, allowing them to solve problems correctly up-front. However, at a deeper level, the principles serve as a consistent means of validating architectures and as a guide to good decision making. They assist common direction towards strategy, facilitate scaled learning and act, in some cases, as a safety-net to protect against bad decisions.

Applying them requires non-binary judgement calls, trade-offs, complex design work and often iterative prototyping and production releases. It is the responsibility of the guild (and moreover, the accountable architect) to ensure that the processes are understood and followed, or to consciously decide to depart from these principles with

appropriate rationale. The architecture council approvals serve to validate that these principles are considered, and the necessary judgement calls are made appropriately.

While teams could make use of score-card techniques to assess adherence of a solution to the architecture principles, this is not mandatory. Instead, the sign-off of the relevant architecture council (as per Policy Adherence) is the primary validation of principle adherence as well as the primary evidence thereof.

2.3 Policy Adherence

It is expected that architectural decisions are taken in line with the applicable Absa policies and standards. Policies and standards typically include their own processes, acceptance criteria, risk assessment mechanisms, risk appetites, etc. The members of the architecture councils as well as the teams involved in delivering change must, at minimum, familiarise themselves with the Policies and Standards listed in **Section 4.1** 'Related documentation supporting this Standard and the Cheat Codes.

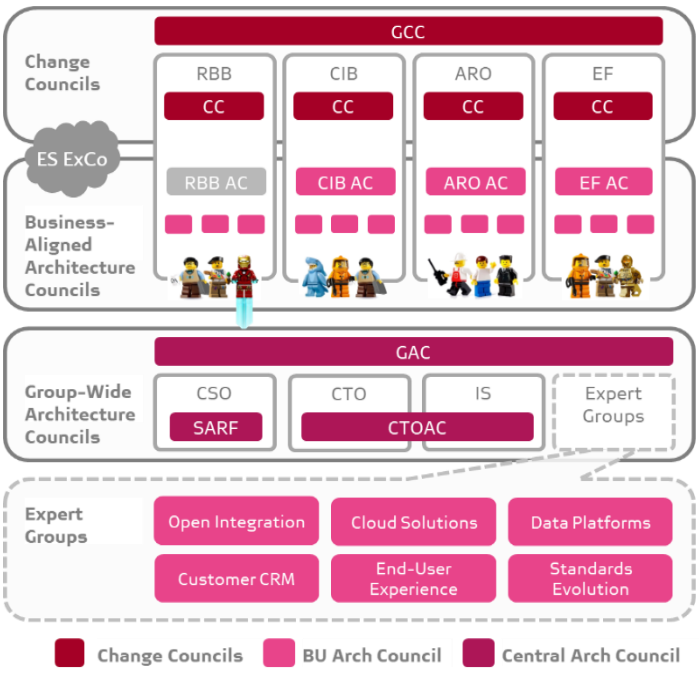
Most notably, for Data Architecture, the reader should refer to section Organising and Modelling Data of the Data and Records Management Risk Policy for detailed guidance. The accountable architect must ensure that these are inherent within any solution design.

Furthermore, the sign-off or approval of different control tribes or risk teams may be required as per group policies and standards. This standard does not duplicate or exhaustively enumerate them.

2.4 Architecture Guilds and Councils

Conway's Law observes that organizations build solutions that mirror their lines of communication. Hence, as an organisation the aim is to organize around the strategic outcomes that we aim to create. This allows the organisation to achieve collaboration and peer review without unnecessary bureaucracy and layered decisioning. Furthermore, this allows the organisation to achieve cohesion and reuse while simultaneously supporting autonomy and a federalised model.

There are different levels of architecture councils operating with different remits and purpose, described in the sections below. In general, by standardising upon this the organisation will reduce the number of meetings or reviews in approval of a project and improve the soundness of Absa's architecture while simultaneously combating unnecessary friction.



2.4.1 General Architecture Council Principles

The following general terms apply to all formal architecture councils in the group. This does not preclude the creation of other forums. Vehicles for collaboration and cohesion are encouraged. However, their approvals do not substitute for the approval of the formally defined architecture councils.

- The Group Change Standard defines the relevant change bodies and the processes undertaken by them. Under this the various Change Councils are the primary decisioning authority on what change is undertaken.

- The Business-Unit Aligned Architecture Councils support the business-unit change councils in shaping the how. Therefore, as a principle, the structure of Absa's businesses defines the structure of the primary Architecture councils.

- In support of their Business and the highest good for Absa, Architecture councils are mandated to reject/decline unhealthy change or build activities that would cause damage to Absa. As a result, the Architecture Councils have a governance mandate / implication to ensure that good architectural design is affected and has the mandate to prevent the implementation of poor design. The success of these councils is, however, determined by how it executes on this mandate.

- Even if architectures are approved the ultimate decisioning authority remains the Business Executives (in the Change Councils, Business Unit Excos or Group Exco). It is the primary responsibility of the Business Units, their executives and control structures to incorporate business cases into their strategic planning and change processes.

- Each council should establish a term of reference that specifies its membership, quorum and decisioning rights. An architecture council (in terms of this standard) may only be formalised through the review and approval of the Group Architecture Council. This is done to prevent the creation of unnecessary forums that may add undue friction and duplication but is not intended to prevent business units from organising appropriately.

- Architects (Members of the Guild) do not only work on projects or for projects. They also work across projects or to shape what becomes a project or to solve operational problems. They don't report to the project manager, they work with the project manager.

- Architecture Councils are not limited to review of projects. They should be part of the process of strategy development, Business as Usual (BAU) change as well as any other initiative which is architecturally significant.

- It is also expected that Architecture Councils act as information radiators sharing leading practices, innovative initiatives, reusable services. This is done to create visibility and cohesion.

- Where appropriate, the architecture artefacts and proceedings of these councils should be published in an open and discoverable mechanism (e.g., Confluence or Office 365) to allow teams to search for and discover information.

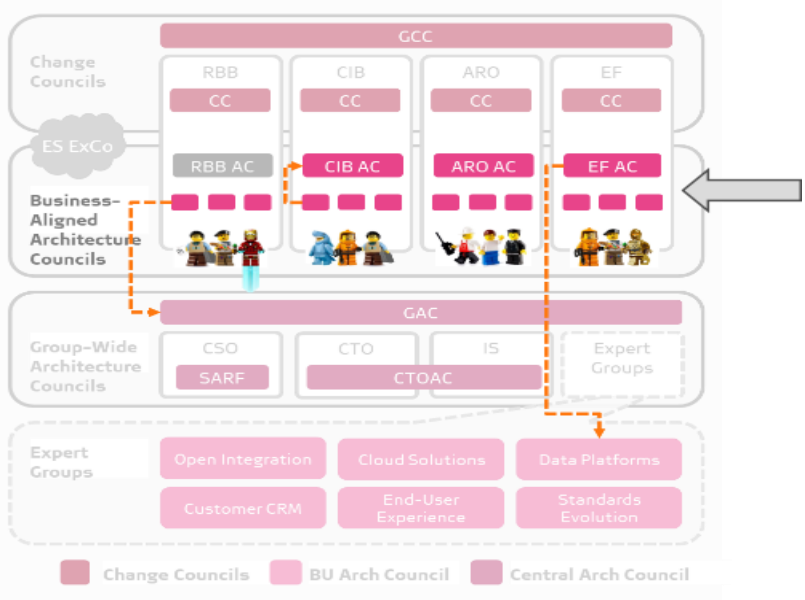
- While participation is welcomed, decisioning rights vest with the different portfolios and their voting members. The councils may also have non-voting members, for visibility. For matters which are highly sensitive the councils may hold closed sessions with a minimal audience.

- All architecture councils should practice roman voting or a similar clear decisioning mechanism, in line with their terms of reference. If any impacted portfolio votes to reject the item under review, then actions to be taken outside of the Council. In general, post these discussions, the voting area may change their vote on a matter (noting their change in the minutes/transcript/votes). In some exceptional cases it may be necessary to defer to another body as escalation and re-presented there for approval (e.g., a contentious item is referred to GAC). **Refer to** Roman Voting Explained for a more detailed explanation. It is the responsibility of the chair to ensure

that there is a clear and valid rationale for any votes against and that the portfolio voting to reject is truly impacted.

- All architecture councils should have the appropriate Chief Technology Officer (CTO), Chief Security Officer (CSO), Risk and Change representatives (as voting members), per their terms of reference and operating model. The better the representation from central areas the less need there is for council reviews outside of the Business Unit.

2.4.2 Business Unit Aligned Architecture Councils



- Each business unit (Retail and Business Bank (RBB), Corporate and Investment Banking (CIB), Absa Regional Operations (ARO) and Functions) must operate an Architecture Council or decide to fall under the remit of another architecture council. They must determine what level of councils and review appropriate for their current capability, operating model, and strategy.
  - A business unit could choose to operate a single architecture council across all their sub-business units or to operate federated councils within each of their sub-business units.
  - A business unit could choose to combine their architecture council with that of another related area.
  - Any change in these structures must be presented and ratified at the Group Architecture Council and published accordingly.

- A sub-business unit is one layer down (e.g. Everyday Banking, Virtual Channels, etc.). Sub-BUs may still operate their own Architecture Councils for smaller change, but visibility and peer-review are key. They may self-approve initiatives in accordance with the following critical criteria:
  - Material Change is self-contained to that portfolio,
  - It is extension to existing platforms below a certain cost to achieve (recommended threshold is <R20m over the business case duration). This parameter must be set and validated in the business unit's change councils and/or DRM.
  - The change is in support of an agreed strategy and approach already presented and approved.
  - Hence or otherwise, if an initiative has a material implication to the group's overall architecture or operation it should elevate to the appropriate level of decisioning (Accountable or Chief Architect's Judgement).
  - Where the business unit does not operate a formal architecture council (i.e., without approval rights), this standard does not preclude it from enabling peer reviews and cohesive decisioning as well as ensuring that preparation for architecture councils is conducted appropriately.

- Fail safe: Where an area has not made a conscious decision around their architecture councils or in the event of major structural changes to the organisation, it will default up to the Group Architecture council**.**

2.4.3 Group-wide Architecture Councils

- For Architectures that exist across several business units (those initiated by BUs as well as by Security, Infrastructure, CTO and Functions) there is a need to ensure that change and architectures are aligned.
- This means that while these portfolios can still do their own change and architecture reviews without impacting other areas, where change is significant it must be reviewed by the impacted business unit and CTO architecture teams.

- This also creates visibility of solutions that can be leveraged and re-used (i.e., those which create opportunities). This is largely a driver for change undertaken by central areas.

- **Group Architecture Council (GAC)** is the highest architecture council in the bank. All BUs and central areas are represented upon it. In general, it is expected to look at matters of strategy and initiatives which have high complexity or risk (not to review every project). Matters which should be taken to GAC include:
  - Strategic initiatives and long-term planning activities (e.g., multi-project/multi-year roadmaps)
  - Key changes in technology direction or solutions/fabrics where we desire reuse.
  - Presentations on key emerging technologies or trends (e.g., position papers)
  - Initiatives with a significant scale or cross-BU impact.
  - Items outside of the BU/Sub-BU architecture critical criteria (as noted above).
  - Anything which a BU/sub-BU architecture council would like to share information on, consult on or create visibility of.

- The model also accommodates special forums which may be required transiently (e.g., a large initiative) or an Expert Group (borrowing Institute of Electrical and Electronics Engineers (IEEE's) nomenclature) which defines and upholds architectural integrity of a platform and provides expert guidance and peer review to teams. Expert Groups are designed to help teams working in these platforms by providing a deeper degree of solution shaping and guidance to teams that make use of those platforms and serve as a vehicle for visibility, collaboration, and learning. Where applicable, expert group consultation should take place as part of the design activities. Formation of Expert Groups must be reviewed and approved at GAC.

2.4.4 Roman Voting Explained

Complicated processes with duplicate checks are inefficient and confusing. Layered decisions (where it is not clear who approves what) makes things even more confusing over time. Rather than unclear conditional approvals, there is a requirement for swift and conclusive approval which may come with actions for the future. This section serves as a guideline for structuring the proceedings of the architecture councils and different areas should adopt a similar mechanism for consistency, but this is not mandatory.

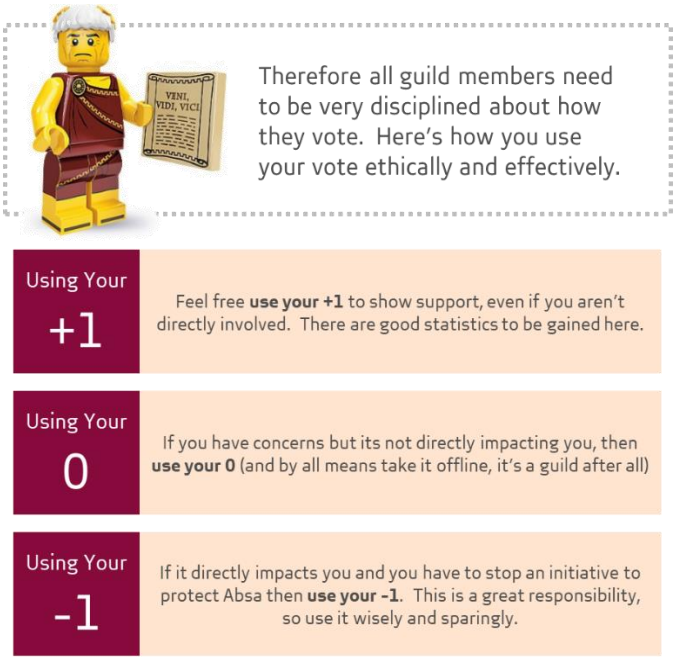
- In each architecture forum, each portfolio gets one vote (delivery areas within the business and central areas count as portfolios). The Council Chair gets one vote (as a tiebreaker). Portfolios decide who votes, delegations and quorum.

- Roman votes work as follows:
  - +1: Supported / Approved
  - 0: No interest, No opinion, No remit, No impact.
  - -1: Uncomfortable, not approved

- If there are any -1s and the council cannot agree in the allotted time, the matter is to be taken outside the session. This could mean taken to a central forum (e.g., the initiative changes or evolves the overall security architecture).

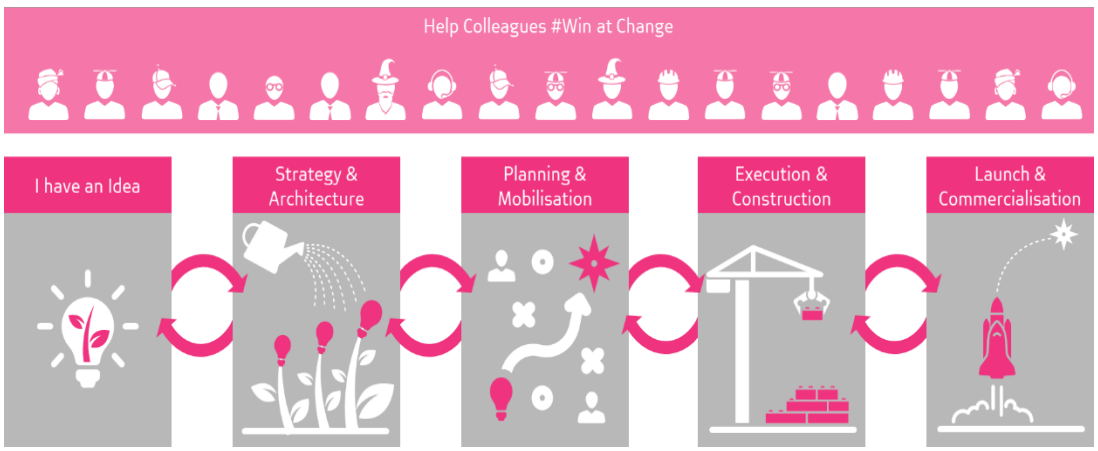
- Any vote or an approval may carry with it a referral to another forum.

- Given the strategic significance of the decisions taken by the architecture councils, the following guidance is provided to members of the council on how to exercise their votes responsibly.



2.4.5 Architecture Processes and the PDLC

- Absa has defined its Product Delivery Life Cycle (PDLC) to guide how solutions and products are designed and delivered in the Group. It defines the key phases of an initiative (pertaining to an internally facing or externally facing product)



- Under the PDLC processes initiatives (and our overall book of work) pass through progressive refinement. Under this process, initial ideas are triaged, optimised, detailed and re-timed to produce an optimal shape to achieve strategic objectives within constraints.

- It has been observed that Architecture work done early in the life of an initiative is critical to the success of that initiative as well as the overall change book. This prevents mis-spend on initiatives which are reviewed too late to detect issues and ensures that all change which is funded is architecturally sound. There is little value in reviewing an initiative after all budgets have been spent. Therefore, rather than reviewing detailed artefacts late in the life of an initiative it is imperative to consciously opt to review more high-level artefacts early in the process before full funding is released to an initiative.

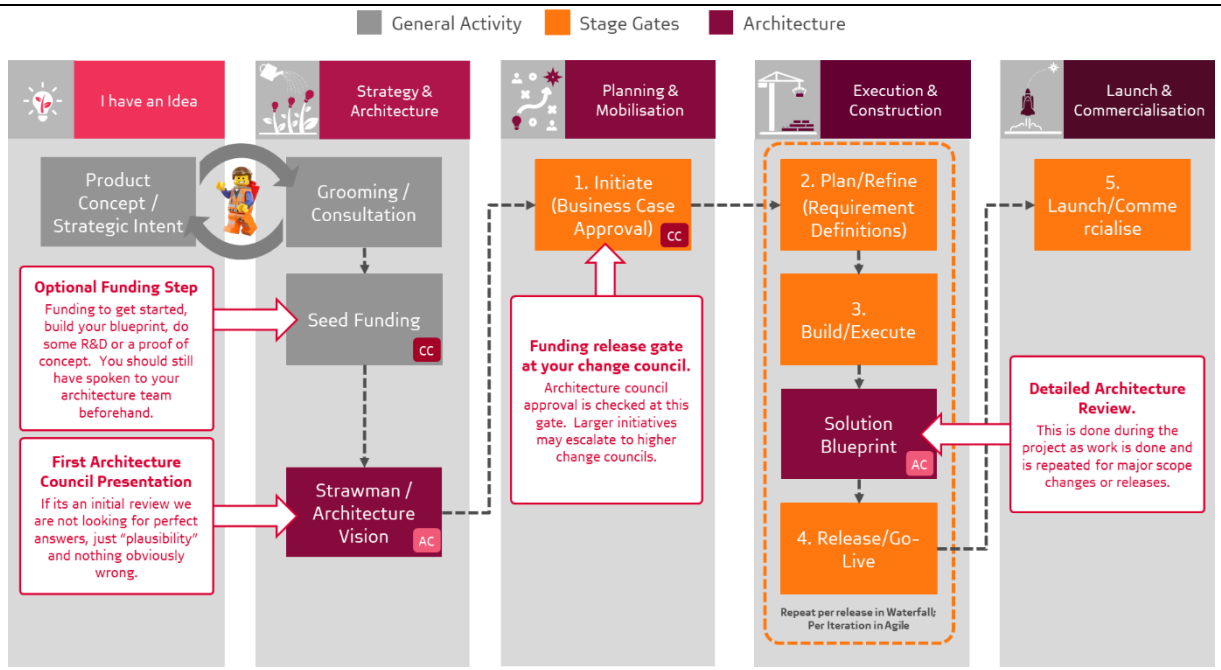
- Further, complex, and valuable problems often do not lend themselves to an up-front analysis. Instead, solutions need to be crafted and built in an iterative and evolutionary method using data (e.g., actual customer feedback) to inform the process. Therefore, consciously opt to support iterative review and refinement rather than lengthy up-front analysis as part of the architecture review processes.

- It is noted that, although PDLC is intended to be a Product Delivery Lifecycle it currently applies primarily to Strategic Investment (SI) projects. For clarity, this standard does not only apply to SI projects, but rather to any initiative and these initiatives should be subject to the appropriate council reviews as described above.

2.4.6 Stage Gates and Architecture Artefacts

Against the backdrop of PDLC we define a set of key reviews and architecture artefacts. These are designed to be a small, focused subset of available documentation which spans across BIDAT domains as well as Absa Architecture Domains. These artefacts and review procedures are described in later sections.

It should be noted that various risk, control, and governance functions exist in Absa. These are represented in the different approval activities under PDLC and in business as usual. These areas have their own processes for risk assessment and management. Therefore, Architecture Councils and the associated artefacts do not seek to duplicate their processes or redo their assessments, merely to strive for an integrated and cohesive view across them.



2.4.7 Grooming / Consultation

- **Why it matters:** Many good ideas never see the light of day due to inadequate guidance and support at their inception. Projects can experience issues because of misalignment. Often, a rejection in **architecture councils** stems from a lack of consultation or involvement from impacted areas or stakeholders or not having visibility of the best way to build.
- **What Should Happen:** The team understands the existence of a problem or opportunity or express a strategic intent. An initial vision is crafted, in collaboration with stakeholders or impacted areas. This is iterative with the refinement of the product concept.
- **Recommended Techniques and Resources:** Working Backwards from the Press Release, Jobs to be done (JTBD), Canvases, MIRO, Inception / Envisioning
- **Output:** Product Vision / Concept
- **Approval Needed:** No architecture approval is mandatory. Consult with the relevant architecture forum for guidance & grooming in line with the "Come Early, Come Often" principle. While this is an optional step, it is intended to flush out misalignment early on and. Omission could result in rejection by the architecture or change councils.

2.4.7.1 Strawman / Architecture Vision

- **Why it matters:** Small decisions here "under the radar" can have significant impacts later (e.g., large course corrections, project resets or remediation in production). This is about "planned parenthood" and conscious choices on what to pursue, in what sequence and how.
- **What Should Happen:** Team has consulted with the relevant stakeholders or impacted areas and reached alignment. There is a have a deeper understanding of what needs to be done and the steps/approach to get there. This is key to costing appropriately.
- **Techniques and Resources:** Design thinking, Inception, High Level Estimation (Team & Tin), Analytics / Benefits, Prototyping or proof of concept.
- **Output:** Strawman / Architecture Vision + Roadmap that is not obviously wrong, is well timed can be used as a basis for initial planning, estimation, or business case (3-5 slides which are generally the same as Steerco content with supporting background and technical information)
- **Approval Needed:** Approval from appropriate architecture forum (via a roman vote or equivalent). If the initiative is not highly complex or risky then the approval of the Strawman is the overall architecture approval and a

detailed solution blueprint approval in an **architecture council** is not necessary. This further approval route must be set by the **architecture council** at Strawman review (default is no further approval).

- **Acceptance Criteria for Council Reviews:** The team/architect presenting the solution must
  - Provide context of the solution within the strategy, goals and business architecture of the business unit originating the change, between other changes/initiatives and within the broader context of Absa.
  - Demonstrate understanding of customer/colleague needs (Empathy) and how you will measure your success through their eyes (e.g., Customer Metrics, OKRs).
  - Demonstrate understanding of the problem (as well as the constraints surrounding it, e.g., regulation, policy/standards, security, legacy systems, affordability, etc).
  - Demonstrate that the problem is being solving it well or optimally (not just default answers).
  - Demonstrate that the solution is commercially sound (in terms of business case and estimation).
  - Demonstrate alignment to the architecture principles.
  - Demonstrate use of strategic technologies, frameworks, and techniques.
  - The concept of a durable team is understood. A plan and funding to build one is included as part of your business case/roadmap.
  - If unable to demonstrate any of the above, the significant future decisions that will need to be made in future, are understood (along with the factors that would influence them). These should be accompanied by a reasonable estimation proxy or solution options. The latest point at which that decision must be made is known. It is highly preferable that decisions taken are reversible (e.g., using cloud rather than buying physical).
  - Convey and scale understanding of the problem and solution (to an audience that understands banking, technology, strategy, and our bank, but not necessarily the part of it in depth).
- **Evidence:** Minutes or recordings of the council sessions.

2.4.7.2 Solution Blueprint

- **Why it matters:** Because projects can "drift" or take unhealthy decisions in the heat of the moment. Projects can change scope or direction (deliberately) which needs a useful review.
- **What Should Happen:** As the solution is built, it is documented at a relevant level of detail. This may be the result of experimentation or analysis. In the event of a material pivot or change control, additional review may be required. This may happen in an architecture council or in BAU.
- **Techniques and Resources:** Design thinking, Inception, HL Estimation (Team & Tin), Analytics / Benefits.
- **Output:** Refined solution blueprint (preferably in a "living" tool in an evolvable format not in a project-only document)
- **Approval Needed:** In agile, a material change to architecture or scope requires approval of that change in the relevant architecture council; In waterfall, a solution design and approval is required as per the direction of the Accountable Architect of the portfolio or as set in the Architecture Council review. Accountable architect for the portfolio may determine in which council this review is conducted (if any) unless this is set up-front by the change or architecture councils. Chief architects / Chief Information Officer (CIO) / CTO may call a spot review on any project at any time (generally this is because of delivery issues).
- **Acceptance Criteria:**
  - As per the Strawman with the addition of the following:
    - No material deviations from the strawman architecture without justifiable cause and necessary approval.
    - Key decisions are made and documented within the solution design.
    - Foundation of a durable team in place.
    - Where applicable/possible (especially in agile), the existence of a demo able, deployable product.
    - Alignment to applicable standards as well as the engineering code of good practice (when released).
- **Rejection Criteria (Anti-Patterns):**
  - Documentation is not in an evolvable format (e.g., confluence). For technical solutions, self-documenting code is preferred. Appropriate tooling should be used for certain artefacts (process models, data models,

etc). Documentation specific to Risk Data Aggregation Risk Reporting (RDARR) Policy requirements, must be reflected in Voltron (a purpose-built data taxonomy and lineage tool).

- Customer journeys, systems diagrams, infra diagrams, data architectures, etc. that are misaligned (because of teams working in siloes or significant drift between the implementation and documentation).
- Lack of understanding of the problem or solution from a durable team.
- Solution is crafted in ignorance or opposition to existing standards, patterns, target architectures, policies, and opportunities for re-use. This is indicative of severe misalignment and poor architecture.
- Solution is crafted in a way that will not actually achieve the solution goals or strategic objective or may be damaging to Absa. This may include functional, non-functional (e.g., performance) or risk aspects.
- Failed or rejected assessments from control tribes (based on clear policy / standards) due to a solution deficiency.
- No test automation and automated deployment working (can be omitted in the case of an infrastructure project or where it is not possible - at Chief Architect / CIO / CTO discretion)
- **Fail-safe:** Formal solution blueprint review in an architecture council is not generally required. However, it is still the responsibility of the team and Absa's control structures to ensure that the solution is built appropriately.

- **Evidence:** Minutes or recordings of the council sessions.

3. STANDARD GOVERNANCE

3.1 Roles and responsibilities

Key roles and responsibilities to achieve the Standard requirements:

ROLE	RESPONSIBILITY
Business Head / Accountable Executive 1st Line of Defence (1LOD)	• Accountable for the implementation of Architecture control requirements within their **Business Unit.** • Responsible for setting up the operating model within their **Business Unit** to drive compliance with this policy and associated standards. • Responsible for driving compliance with this standard. • Confirm that the Architecture Standards are considered and implemented in Change initiatives, as applicable. • Report any non-compliance with the Architecture Standard to the Business Line Manager on an on-going basis. • Confirm embedment of all Architecture Standards requirements for their **Business Unit**. • Confirm that an accountable person / people exist for architecture in their Business Unit and that these people have full coverage of their business unit.
Group Architecture Council	• Look at matters of strategy and initiatives which have high complexity or risk (not to review every project). **Note:** • Group Architecture Council (GAC) is the highest architecture council in the bank. • All Business Units and Functions are represented upon it
Business Architecture Council/s	• Determine what level of councils and review appropriate for their current capability, operating model, and strategy. • Operate a single architecture council across all their sub-business units or to operate federated councils within each of their sub-business units or

ROLE	RESPONSIBILITY
	• Combine their architecture council with that of another related area. • Present and ratify any change in these structures at the Group Architecture Council and published accordingly. **Note:** Each business unit (RBB, CIB, ARO and Functions) must operate an Architecture Council or decide to fall under the remit of another architecture council.
Accountable Architect (Per portfolio) (Lead Architect or Chief Architect)	• Responsible for the architecture of a portfolio and its coherence / interoperability with the portfolios and changes around it. They must ensure that: – The architecture principles are understood by themselves and the teams that they work with. – That crafting of solutions is done in line with the principles to serve strategy while maintaining a satisfactory control posture. Any deviations from the above receive due consideration and are treated under the appropriate process (e.g., project sign-off for project decisions, architecture council review, etc) – Work with others to ensure the above. • Responsible to convene an architecture council where required and operate that council in line with this standard • Participate in the proceedings of the Absa Architecture Guild (contributing to our shared knowledge and learning where appropriate, guiding and teaching others).
Principal Risk Owner (PRO) Second Line of Defence (2LOD)	• Set Group-wide policies and standards. • Establish and operate proper governance. • Approve Group-wide standards created by 1LOD. • Provide overall oversight and challenge to ensure consistency of approach adopted across the Group. • Gain an understanding of Policy implementation effectiveness and escalate as needed. • Provide guidance to 1LOD regarding the Policy requirements. • Confirm that each standard is in line with relevant policies by providing appropriate oversight and challenge and provide signoff where appropriate. • Approve waivers, dispensations and breaches raised against policy. • Assess any Conformance Review requirements and perform where necessary. • Report on the aggregate Risk profile. • Develop the Business Unit Risk Appetite for the Resilience Risk, and recommend changes, as appropriate, for changing business conditions. • Make decisions together with the Business Unit CROs on Risk Appetite proposals made by business unit, in line with discretions delegated to them to ensure alignment as a minimum to the group level appetite.
Absa Internal Audit (3LOD)	Perform independent audits on adherence to the Policy requirements.

3.2 Adherence

The standard is mandatory for all Business Units across Absa Group Limited and is used to implement the specific Business approach for managing Technology Risk in support of the ERMF. The Standard's provisions / control requirements will be audited as such in alignment with the requirements of the related Policy.

Any deviations from the Standard's provisions/control requirements must be escalated per the requirements stipulated in the Management of Dispensations, Waivers and Breaches Standard.

Non-adherence to any requirement in this Standard may result in disciplinary action, which could lead to dismissal.

3.3 Principal Risk Impact

It is to be understood and expected that, in the execution of the requirements detailed in this standard, the frameworks, policies and standards of other Principal Risks – as detailed within the ERMF – may apply and interact invariably to the requirements set out in this standard and are to be complied with.

3.4 Reputational Impact

Any action or inaction taken relevant to this standard which may have the potential to incur reputation risk for Absa Group Limited, i.e. likely to result in material criticism and/or censure of Absa Group Limited by key stakeholders or opinion formers (including clients, market counterparties, regulators, government officials, law enforcement agencies, media or Non-Governmental Organisations (NGOs)) must be escalated to reputationrisk@absa.africa according to the Reputation Risk Framework.

3.5 Data Privacy

For all personal data that is collected, processed, stored, shared, archived or destroyed under this Standard, the control objectives and minimum control requirements of the Data Privacy Policy and Data Privacy Standard must be complied with.

3.6 The Absa Way Code of Ethics

The Absa Way Code of Ethics outlines our values and expected behaviours when engaging with our fellow employees, customers, clients, shareholders, governments, regulators, business partners, suppliers, competitors and the broader community. The behavioural standard set by the Absa Way applies to every Absa employee and colleague across our business globally. The objective is to define the way we think, work and act at Absa to ensure that we deliver against our Purpose of helping people to bring their possibilities to life.

Absa takes the Values and Behaviours and points set out in this Code of Ethics very seriously. It is every colleague's responsibility to be aware of, understand, and behave according to this Code of Ethics and the policies that apply to their roles. Any failure to act in accordance with the Values and Behaviours or any breach of this Code of Ethics may result in disciplinary action, up to and including dismissal.

4. REFERENCES

4.1 Related documentation supporting this Standard

The following documents must be referred to during the execution of this Standard:

- Enterprise Risk Management Framework.
- Operational and Resilience Risk Management Framework.
- Risk Data Aggregation and Risk Reporting Policy (RDARR)
- Technology Risk Policy.
- End User Developed Applications (EUDA) Standard.
- Physical Security Risk Policy.
- Country Retention Schedules - Supporting Document.

- Data and Records Management Risk Policy
- Data Privacy Policy.
- Fraud Risk Policy.
- Group Procurement Policy
- Information Security and Cyber Risk Policy
- Product Delivery Lifecycle (PDLC) Standard
- Project Change Delivery Control Standard
- Cloud Computing Policy
- Sanctions Policy
- Cheat Codes

4.2 Glossary

This glossary provides acronyms and definitions that are specific to the content of this document:

4.2.1 Abbreviations / Acronyms / Terms

Abbreviation / Acronym / Term	Explanation
API	Application Programming Interface
ARO	Absa Regional Operations
BAU	Business as usual
BIDAT	Business, Information, Data, Applications and Technology
BU	Business Unit
CIB	Corporate and Investment Banking
CIO	Chief Information Officer
CSO	Chief Security Officer
CTO	Chief Technology Officer
ERMF	Enterprise Risk Management Framework
GAC	Group Architecture Council
IEEE	Institute of Electrical and Electronics Engineers
JTBD	Jobs to be done
NGOs	Non-Governmental Organisations
OKR	Objectives and Key Results
PDLC	Product Development Lifecycle
RBB	Retail and Business Bank
RDARR	Risk Data Aggregation Risk Reporting
RRMF	Resilience Risk Management Framework
SI	Strategic Investment

4.2.2 Definitions

Definition	Explanation
Architecture Guild	Community of people with shared skills or interests that primarily exists to share knowledge and practices in architecture and related disciplines.
SPV	A special purpose vehicle is a separate legal entity created for a specific limited purpose. For example : SPVs can be used to ring fencing assets or debt, or for securitization transactions

5. RECORD OF VERSION CONTROL / UPDATES

Date	Author / Source	Change
27 September 2021	Krisantha Naidoo – Standards Oversight Circular date: 27 September 2021 Circular number: 1371/2021	Annual Review • Version 2.0
10 June 2022	Krisantha Naidoo - PCM Custodian	Off-Cycle Review • Added Data and Records Management Risk Policy to Section 4.1 • Updated all links to the Policy Hub • Version 2.0