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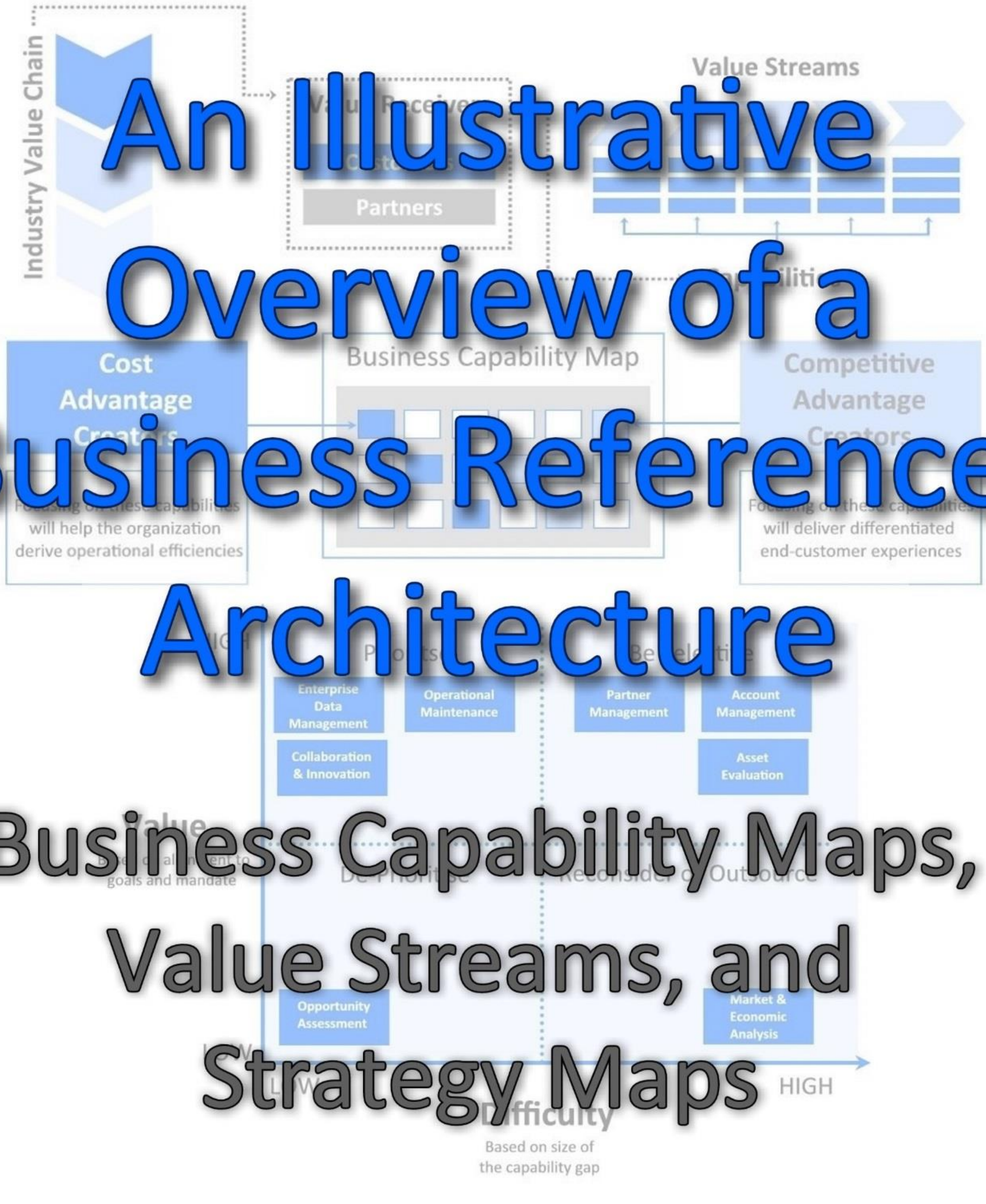
An Illustrative Overview of a Business Reference Architecture

Business Capability Maps, Value Streams, and Strategy Maps



Organisations require a unified and validated view of business capabilities that aligns initiatives investment and strategy in order to compete in their industry.

Foreword

The example we've chosen is based on work that's been done for a South African refinery of coal to oil and other auxiliary products, mainly polymers and plastics. The choice was deliberate: it illustrates that a Business Reference Architecture is important for big and complex organisations; and that it can very successfully be implemented.

Up until around thirty years ago, most companies did not use information technology in any form. Even today some smaller companies are yet to make the switch. Technology is however the driving force behind every business and without it, it's impossible to conduct the day to day operations efficiently. But what's worse is when the technology in your business is holding you back from your business goals and strategy.

Technology in your business should make you more efficient, save you time and in the end, impact your bottom line in a positive way. Without a functional infrastructure in place, your employees aren't able to do their job to the best of their ability.

If you find yourself getting frustrated with dealing with your technology or find that you are losing precious time during your day waiting on an application to load or it is not producing the required outcomes, it might be time to look into your current ICT infrastructure, no matter the size and the scope. It's essential to take the time to invest in your technology to ensure that the technology in your company is working for you and not against you, and this is exactly where The Helicon can help.

In business ICT must end misalignment

The Helicon's Business Reference Architecture helps accelerate your strategy design processes and enhances ICT's ability to align people, processes and procedures, and the technology with key business priorities.

This Business Reference Architecture is designed for:

- CIOs, CTOs, heads of EA, or chief architects who need to improve their organisation's understanding of business capabilities and how ICT can and should support them.
- Organisations that want to sharpen their focus by using architecture to better inform their ICT governance, stakeholder management, and ICT strategy capabilities.

It will help you:

- Identify those areas that are misaligned.
- Leverage a validated set of models and process diagrams for your business.
- Learn how to incorporate your reference architecture across your core ICT areas.
- Learn how to analyse how appropriately business capabilities are supported by people, processes, and technology.

Accelerate the development of business supporting enterprise architecture, ICT strategy, application portfolio, and data architecture capabilities.

This document is a high level overview of the following:

- Step 1 – Build your business' capability map using The Helicon's Business Reference Architecture
- Step 2 – Use your business' capabilities to define your organisation's strategic focus
- Step 3 – Assess your business' key capabilities to determine your planning priorities
- Step 4 – Adopt a capability based approach to strategic planning

Key concepts

Business Value Chain

A high-level analysis of how the business creates value for the consumer as an overall end-to-end process.

Business Capability Map

A visual representation of the organisation's key capabilities. This model forms the basis of strategic planning discussions.

Business Value Streams

The specific set of activities a business player undertakes to create and capture value for and from the end customer.

Strategic Objectives

A set of standard strategic objectives that most businesses in an alike industry will feature in their corporate plans, i.e. organic growth; more streamlined operations; improved resource utilisation.

Industry Strategy Map

A visualisation of the alignment between the organisation's strategic direction and its key capabilities.

Capability Assessments

Based on people, processes, and technology, a heat-mapping effort that analyses the strength of each key capability.

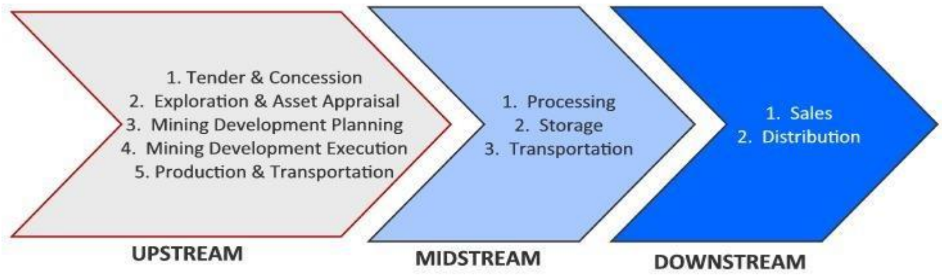
Business Overview: Oil, petroleum, gas and polymers producers

Activities in this business include the exploration and production of petroleum; the mining and extraction of petroleum-based products from mainly coal; the production of petroleum and gas; polymers; and the recovery of hydrocarbon liquids.

In addition to large upfront investments and high operational costs, exploration and production projects usually have long lead times. Therefore, strong partnerships and innovative finance structures are necessary to perform well in varying market conditions.

Although high costs and risks of exploration are inherent to this business, exploring for minable coal can be extremely profitable. The primary driver of profit is the underlying market oil price.

The Helicon is using this business sector as an example of the real-world results and the extensive work that's been done by the associates in this specific sector. The tools, processes and procedures that we utilised were adapted and refined over time to fit into any business scenario.



Value chain for the petroleum producers

Step 1 - Build your organisation's capability map using The Helicon's Industry Reference Architecture

Review the following business value streams and capability map for oil, petroleum, gas and polymers producers. We have developed customised workbooks, templates and reports that may be customised to suit your industry. The Helicon can also provide contractual assistance to fulfil this task.

Define the organisation's value streams. Review the value streams and come to a consensus as to how your organisation creates and captures value.

Develop a business capability map. Involve all the key business stakeholders to validate a set of business capabilities in order to unify the organisation's perspective.

Step 1A – Context: Define your organisation's value streams

Review the value streams and come to a consensus as to how your organisation creates and captures value.

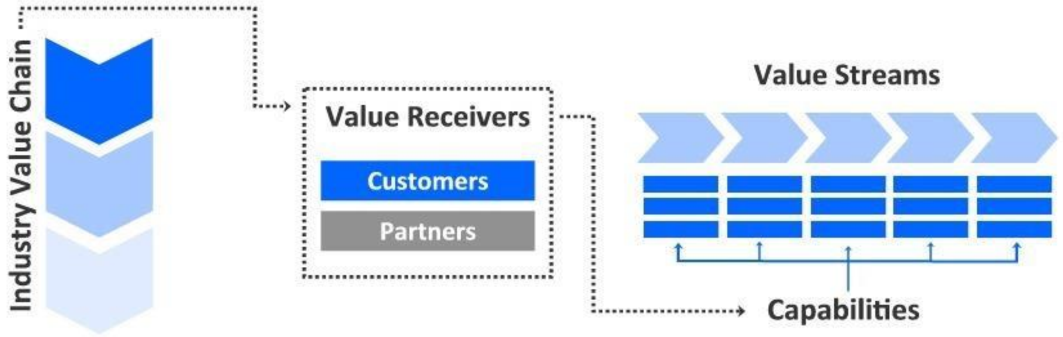
Value streams connect business goals to the organisation's value realisation activities. They enable an organisation to create and capture value in the market place by engaging in a set of interconnected activities. Those activities are dependent on the specific industry segment an organisation operates within.

Value streams can extend beyond the organisation into the supporting sub-systems of suppliers and customers, whereas business processes are contained within and the organisation has complete control over them.

There are two types of value streams: core value streams and support value streams.

Core value streams are mostly externally facing: they deliver value to either an external or internal customer, or they tie to the customer perspective of the strategy map. Support value streams are internally facing and provide the foundational support for an organisation to operate.

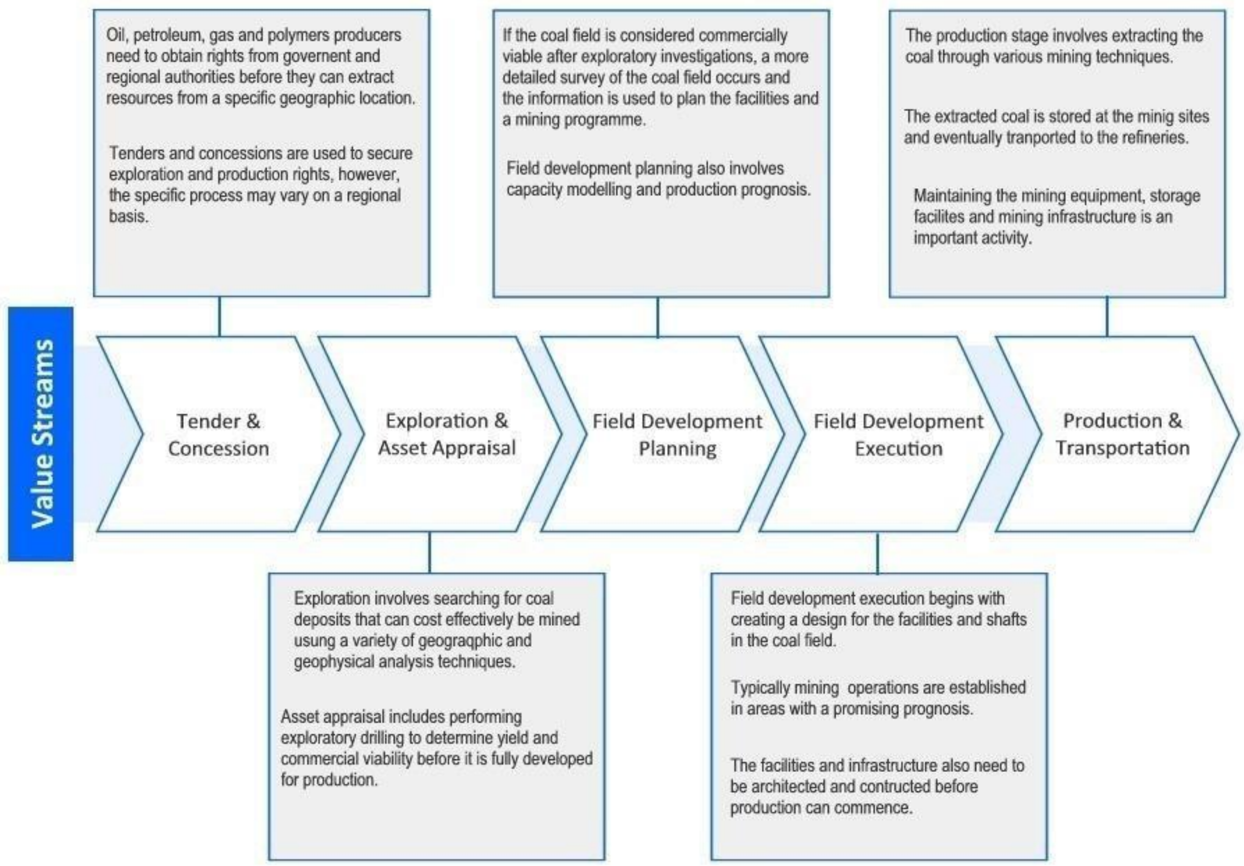
An effective method for ensuring all value streams have been considered is to understand that there can be different end-value receivers. The Helicon recommends identifying and organising the value streams with customers and partners as end-value receivers.



Value streams in context

Step 1A – Visual: Value Stream descriptions for oil, petroleum, gas and polymers producers

The following visual diagram is an example of Value Stream descriptions. A template is available from The Helicon that can be adapted to suit your requirements.



Value Stream Description Example

Step 1A Instructions: Define the organisation's Value Streams

1. Identify and assemble key stakeholders

Build an accurate depiction of the business.

It is important to make sure the right stakeholders participate in this exercise. Identifying capabilities for an organisation is very introspective and requires deep analysis.

Consider:

- Who are the decision makers and key influencers?
- Who will impact the business architecture work?
- Who has a vested interest in the success or failure of the practice?
- Who has the skills and competencies necessary to help you be successful?

Avoid:

- *Don't focus on the organisational structure and hierarchy.* Often stakeholder groups don't fit the traditional structure.
- *Don't ignore subject-matter experts on either the business or ICT side.* You will need to consider both.

2. Determine how the organisation creates value

The first step of delivering value is defining how it will happen.

Use the organisation's industry segment to start a discussion on how value is created for customers. Working back from the moment value is realised by the customer, consider the sequential steps required to deliver value in your industry segment.

Consider:

- Who are your customers?
- What tasks are your customers looking to accomplish?
- How do your organisation's set of products and services help them accomplish that?
- What are the benefits your organisation delivers to them?

Avoid:

- *Don't boil the ocean.* Focus on your industry segment and how you deliver value to your partners and customers specifically.

3. Define and validate the organisation's value streams

Unify the organisation's perspective on how it creates value.

Write a short description of the value stream that includes a statement about the value provided and a clear start and end for the value stream. Validate the accuracy of the descriptions with your key stakeholders.

Consider:

- How does the organisation deliver those benefits?
- How does the customer receive the benefits?
- What is the scope of your value stream?
- What will trigger the stream to start and what will the final value be?

Avoid:

- *Don't start with a blank page.* Use The Helicon's value stream definitions as a starting point and customise from there.

4. Identify potential risks and possible mitigations

Take a step back and consider if there are any risks present with the decisions made or strategy decided upon. Utilise your Programme and Project Management capabilities and subject matter experts to identify potential risks, and if any risks are identified, also identify which mitigating actions could lessen each identified- or potential risk.

Risk Management is the process by which risks to the project or the plan (e.g. to the scope, deliverables, timescales or resources) are formally identified, quantified, documented and managed during the project. A project risk may be identified at any stage of the project by completing a Risk Form and recording the relevant risk details within the Risk Register.

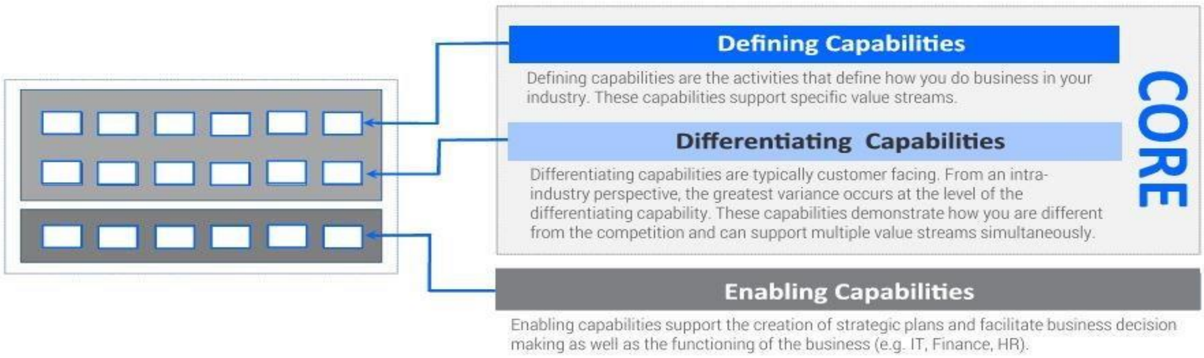
Step 1B - Context: Develop a business capability map

Business architecture consists of a set of techniques to create multiple views of an organisation; the primary view is known as a business capability map. A business capability defines what a business does to enable value creation, rather than how. Business capabilities are business terms defined using descriptive nouns such as *Marketing* or *Research and Development*. They represent stable business functions, are unique and independent of each other, and typically will have a defined business outcome.

A business capability map provides details that help the business architecture practitioner direct attention to a specific area of the business for further assessment. A business capability mapping process should begin at the highest level view of an organisation, the *ground 0*, which presents the entire business on a page.

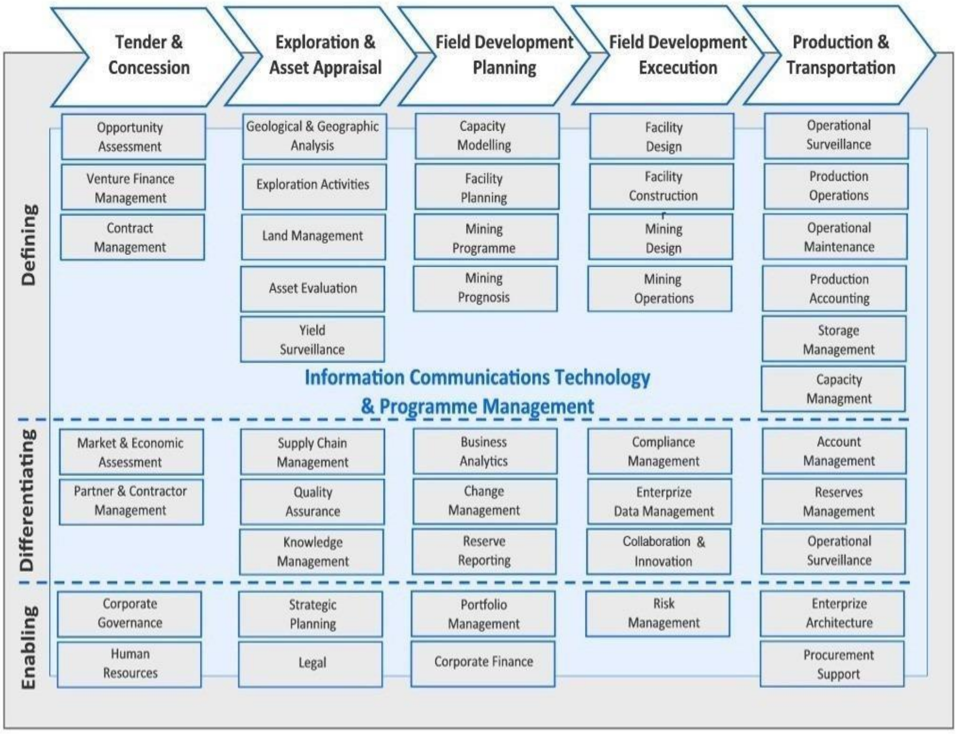
An effective method of organising business capabilities is to split them into logical groupings or categories.

At the highest level, capabilities are either *core* (customer-facing functions) or *enabling* (supporting functions). As a best practice, The Helicon recommends dividing business capabilities into the following categories:



Business Capability Map

Step 1B – Visual: Capability Map for oil, petroleum, gas and polymers producers



Capability Map for Oil, Petroleum, Gas and Polymers Producers

Step 1B Instructions: Develop a Business Capability Map

5. Determine which business capabilities support value streams

Deconstruct value streams into their component capabilities.

It is important to make sure the right stakeholders participate in this exercise. The exercise of identifying capabilities for an organisation is very introspective and requires deep analysis.

Consider:

- What is the objective of your value stream? This can highlight what capabilities support which value streams.
- What are the activities that make up the business?
- Segmenting your value stream into individual stages will give you a better understanding of the steps involved in creating value.

Avoid:

- *Don't do this alone. Make sure the right stakeholders participate.* The exercise of identifying capabilities for an organisation is very introspective and requires deep analysis. It is challenging to develop a common language that everyone will understand and be able to apply. Don't waste your efforts building an inaccurate depiction of the business.

6. Accelerate the process with an industry reference architecture

It's never a good idea to start with a blank page.

The business capability map can be used as an accelerator. Assemble the relevant stakeholders – business unit leads and product/service owners – and modify the capability map to suit your organisation's context.

Consider:

- What are the activities that make up your business?
- Can these activities be tied to outcomes? If not, they might not apply to your organisation.
- Are there any capabilities on the business map that don't fit the organisation? Delete them if yes, they may in fact be overheads that should be eliminated!
- Are there any capabilities not on the map that do fit the organisation? Create them if yes.

Avoid:

- *Don't repeat capabilities.* Capabilities are typically mutually exclusive activities.
- *Don't include temporary initiatives.* Capabilities should be stable over time. The people, policies, processes and procedures, and technologies that support capabilities will change continuously

7. Identify potential risks and possible mitigations

Take a step back and consider if there are any risks present with the decisions made or strategy decided upon. Utilise your Programme and Project Management capabilities and subject matter experts to identify potential risks, and if any risks are identified, also identify which mitigating actions could lessen each identified- or potential risk.

Step 2 - Use ICT's capabilities to define your organisation's strategic focus.

Define the organisation's key capabilities. Determine which capabilities should be prioritised based on their strategic value to your organisation.

Develop a strategic map. Insert your organisation's corporate strategic objectives and map them to your value streams and capabilities to communicate how objectives are realised.

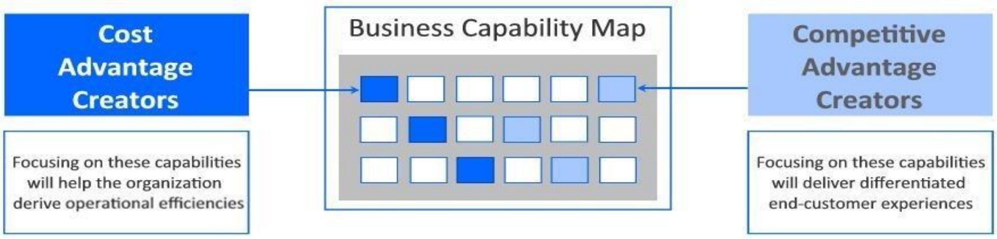
Refine, revisit, or reset the mandate for ICT by catalysing a dialogue on what matters most to the organisation. Don't hesitate to give us a call - The Helicon has the resources and skills to assist with this task.

Step 2A – Context: Define the organisation's key capabilities

A discussion about the key or most critical capabilities is an excellent opportunity for ICT leaders to review, refresh, and even reset expectations from the business as to what value ICT should be providing to the organisation. There is often misalignment as to whether, or to what extent, ICT should be making strategic investments to help the business enhance its capabilities through technology. Some ICT leaders believe they should be transforming the organisation while their CEO wants them to focus on operational efficiencies.

Depending on the mandate from the business, an ICT leader may focus on developing a cost advantage for the organisation by directing technology efforts to capabilities that deliver efficiency gains. This is often the case for many ICT leaders for whom the primary role for ICT is to enable the business to deliver its products/services to the end consumer at the lowest cost possible. These capabilities are known as **Cost Advantage Creators.**

Organisations can develop a competitive advantage over their industry counterparts by creating a differentiated experience for the organisation's customers. Increasingly, this is facilitated and made possible through technology. ICT can direct investment on capabilities that will improve their organisation's competitive position in its market by delivering unique or enhanced experiences for the organisation's end customers. ICT can focus on developing a competitive advantage by directing efforts on capabilities that are end-customer facing. These are known as the organisation's **Competitive Advantage Creators.**



Competitive Advantage Creators.

Step 2A – Context: Case study

BACKGROUND

- The organisation has historically focussed their operations on Southern Africa.
- A world-wide extended period of lower crude oil prices has constrained spending, and has put the global petroleum industry under pressure.
- Expenses on the African Continent has risen beyond the industry norms, straining the organisation even further.
- There are large unmined coal reserves on the South American Continent, especially in Brazil, and the Brazilian Government is more accommodating than the previous one.

TACTICS

- The organisation has steadily and profitably expanded their ancillary product streams of polymers, plastics and the recovery of hydrocarbon liquids.
- The organisation was taken off-shore in 2012 and operations are now co-ordinated and run from London in the UK.

  It de-listed from the JSE and are now listed on the London Stock Exchange.
- There is a limited geographical focus on the African Continent, with the major focus on Southern America, with investments in Brazil in production.

IMPACT

To enable their strategy the organisation is focussing on the following capabilities:

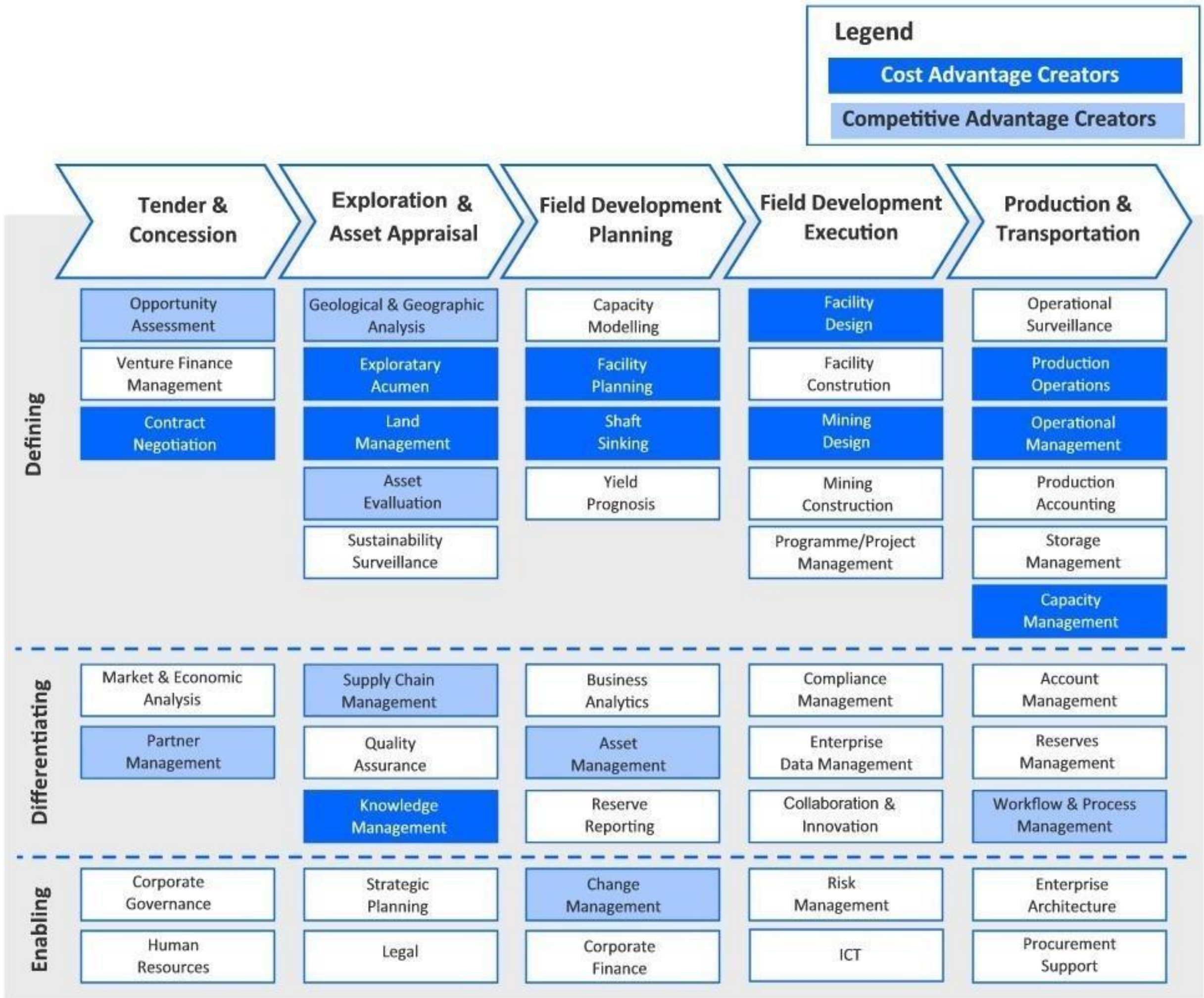
Competitive Advantage Creators

- Opportunity Assessment
- Asset Evaluation
- Partner Management
- Supply Chain Management
- Asset Management
- Workflow and Process Management

Cost Advantage Creators

- Contract Negotiation
- Exploration Acumen
- Production Operations
- Facility Planning
- Facility Design
- Operational Maintenance
- Capacity Management
- Knowledge Management

Step 2A – Visual: Defining key capabilities for the organisation's strategy



Key Capabilities for Strategic Planning

Step 2A – Instructions: Define the organisation's key capabilities

1. Determine cost advantage creators

Focus on capabilities that drive a cost advantage for your organisation.

If your organisation has a cost advantage over competitors, the capabilities that enable it should be identified and prioritised. Highlight these capabilities and prioritise the programs that support them.

Consider:

- What is the source of your cost advantage? ICT should support the capabilities that drive the cost advantage.
- Is the industry you operate in sensitive to prices?

Avoid:

- *Don't focus on capabilities that create an unsustainable cost advantage.* Take a long-term perspective and allocate your resources accordingly.

2. Determine competitive advantage creators

Prioritise capabilities that give your organisation an edge over rivals.

If your organisation does not have a cost advantage over competitors, determine if it can deliver differentiated end- customer experiences. Once you have identified the competitive advantages, understand which capabilities enable them. These capabilities are critical to the success of the organisation and should be well supported.

Consider:

- Are there any products or services your organisation provides that customers consider superior to competitive offerings?
- Which capabilities enable the competitive advantage?
- How easy is it for competitors to neutralise your competitive advantage?
- Focus on the capabilities that are difficult to replicate by competitors to create a more sustainable advantage.

Avoid:

- *Don't determine the competitive advantages in isolation.* Incorporate various perspectives from throughout the organisation to truly understand how the organisation competes in the marketplace. Also consult with your customers, their perspective is the best gauge to determine your position in the marketplace!

3. Define strategic and essential future-state capabilities

Know where you want to go and be, and chart a course to get there.

In addition to the current cost and competitive advantage creators, the organisation should have the intention to enhance new capabilities. Discuss and select the capabilities that will drive the attainment of future goals.

Consider:

- What are your competitors doing that gives them a competitive advantage?
- Can your organisation easily replicate and improve these capabilities to neutralise the advantages?
- How is the external environment (political, economic, social, and technologic) likely to change in the near term future?
- How are these changes likely to change and impact your key capabilities?

Avoid:

- *Don't blindly copy your competitors' strategies unle*ss you're just another 'also running'. It is important to understand that you need to be unique; before focussing on your key capabilities to neutralise your competitors' advantages, ensure that your key capabilities fit in well with your strategy.

4. Identify potential risks and possible mitigations

Utilise your Programme and Project Management capabilities and subject matter experts to identify potential risks, and if any risks are identified, also identify which mitigating actions could lessen each identified- or potential risk.

Step 2B – Context: Develop a strategy map.

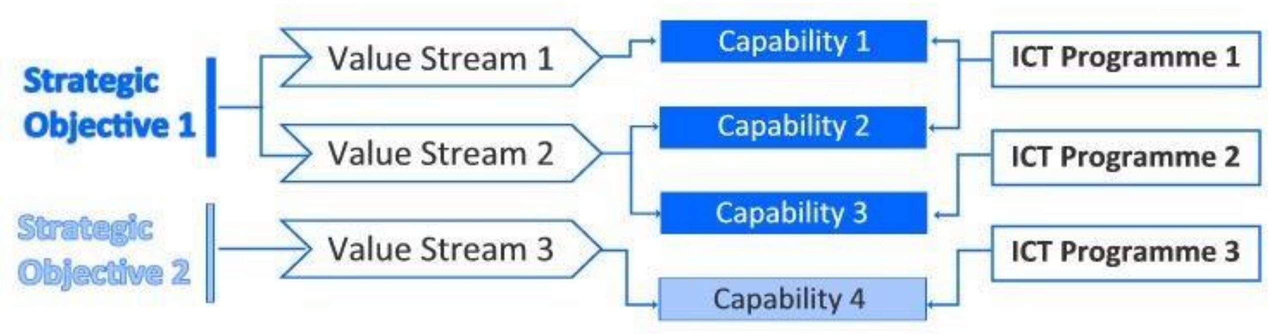
Articulating a clear strategy that not only aligns ICT with business objectives, but also enables ICT to adapt to changing business needs, is the most important activity CIOs, CTOs, heads of EA, or chief architects can do for the ICT department and organisation. A strategy map is a tool to help narrow the focus onto what matters most. With ever-changing resources, business strategies, and external environments, the strategy map can ensure ICT is consistently providing value through the enhanced prioritisation of ICT programs.

Strategy mapping is a technique that helps the executive suite communicate the business strategy to other levels of the organisation by visually representing the organisational strategic objectives and mapping each of them to value streams, business capabilities, and ultimately, to specific ICT programmes.

There are four layers to a strategy map: strategic objectives, value streams, business capabilities, and ICT programmes:

- Strategic objectives are the outcomes that the organisation is looking to achieve.
- Value streams enable an organisation to create and capture value in the market through interconnected activities that support strategic objectives.
- Business capabilities define what a business does to enable value creation in value streams, rather than how.
- ICT programs are actionable descriptions of how the IT department will enable one or multiple business capabilities in its target state.

To maximise value, each ICT programme should be prioritised according to the strategic objective it enables. Business capabilities also help sequence ICT programmes.

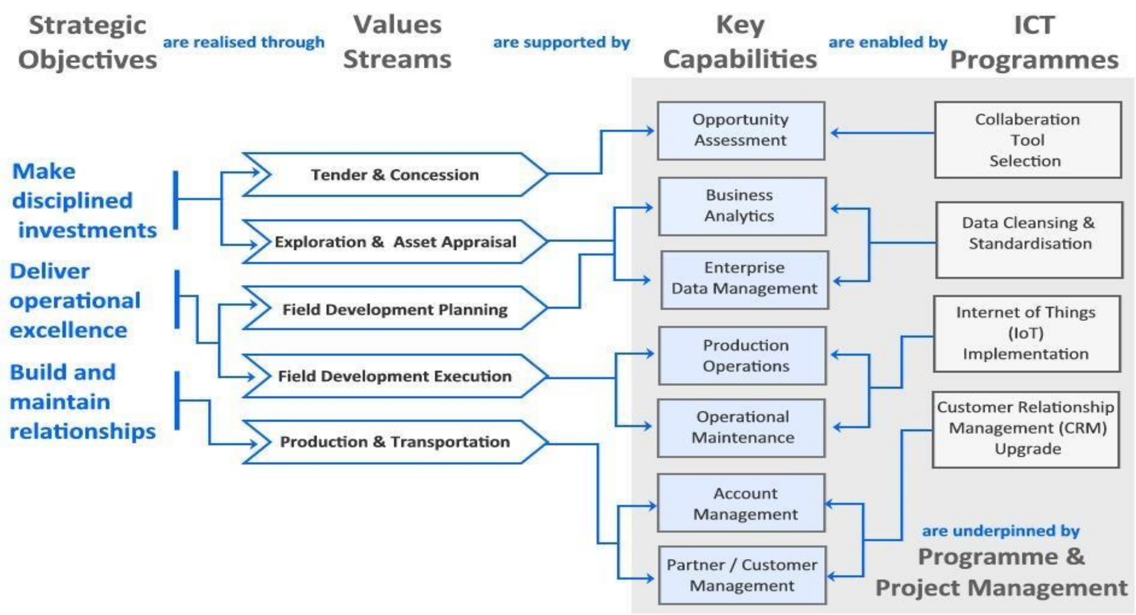


A Strategy Map

Step 2B – Visual: An illustrative example of strategic objectives.

Make disciplined investments	*"Our overall strategy is to invest in projects that generate long-term value and achieve returns well above our cost of capital whilst maintaining a conservative balance sheet."*
Deliver operational excellence	*"We recognise that strong business strategies only work with superior execution, so we work to increase production and efficiency while preserving product quality excellence."*
Build and maintain relationships	*"We work to develop and maintain strong relationships — with governments, partners, civil society, and others — to enhance our operations in every area we operate in across the globe."*

Step 2B – Visual: An illustrative example of the strategy map.



An Illustrative Example of the Strategy Map

Step 2B – Instructions: develop a strategy map

1. Identify the strategic objectives for the business

Knowing the key strategic objectives for the business will drive business-ICT alignment.

It is important to make sure the right strategic objectives of the organisation have been identified and are well understood. Engage the right stakeholders to help identify and document the key strategic objectives for the business.

Consider:

- Who are the decision makers and key influencers?
- Who will impact the strategic objectives for the business?
- Are there external forces that will impact the current strategic objectives?

Avoid:

- *Don't simply go with the existing documented strategic objectives for the business - it may be out of date and be totally irrelevant.* Ensure they are up to date and interview the decision makers to get the most updated objectives if needed.

2. Map the strategic objectives to the ICT programmes that support them

Communicate the business strategy to other levels of the organisation.

Starting with strategic objectives, map the value streams that will ultimately drive them. Next, link the key capabilities that enable each value stream. Finally, map the ICT programs supporting those capabilities. This process will help you prioritise ICT programmes that deliver the most value to the organisation.

Consider:

- Are there any products or services your organisation provides that customers consider superior to competitive offerings?
- Which capabilities enable the competitive advantage?
- How easy is it for competitors to neutralise your competitive advantage?
- Focus on the capabilities that are difficult to replicate by competitors to create a more sustainable advantage.

Avoid:

- *Don't determine the competitive advantages in isolation.* Incorporate various perspectives from throughout the organisation to truly understand how the organisation competes in the marketplace. Also consult with your customers, their perspective is the best gauge to determine your position in the marketplace!

3. Validate the strategy map and programme prioritisation

Crowdsource the strategy map validation.

Validate the strategy map in layers. Start with ICT and confirm which ICT programmes enable particular capabilities. Next, work with the business departments to validate the capabilities that support the value streams. Finally, validate the strategic objectives of the organisation with the executive team and communicate it to the value streams that support them.

Consider:

- Are all strategic objectives equally important? If not, get a prioritised list of strategic objectives.
- Do any of the programs have critical dependencies that influence sequencing? If there are strategic objectives that do not have any ICT programmes mapped to them, consider adding new programmes. Conversely, reconsider upcoming programmes that do not have a connection to strategic objectives.

Avoid:

- *Don': delay validating the strategic maps with top-level executives.* A proactive approach will save you time in terms of rework and maximise alignment.
- *Don't leave anyone out on the assumption that they won't be interested.* It is easy to miss key stakeholders — be meticulous and methodical.

4. Identify potential risks and possible mitigations

Take a step back and consider if there are any risks present with the decisions made or strategy decided upon. Utilise your Programme and Project Management capabilities and subject matter experts to identify potential risks, and if any risks are identified, also identify which mitigating actions could lessen each identified- or potential risk.

Step 3 - Assess your organisation's key capabilities to determine your planning priorities.

Organisational analysis. The organisation's capabilities are supported by people, processes and procedures, and technology. Use these factors as the basis for your assessment.

Business process review. The better aligned an organisation is from a structural, role, process, and capability perspective, the more effective it will be. Use process and procedures analysis and assessment to drive collaboration and integration.

Technology opportunity identification. New technologies create opportunities for business agility and help develop resilience to changing market conditions.

Step 3A – Context: Organisational analysis

The better aligned an organisation is from a structural, role, process, and capability perspective, the more effective it will be.

For optimal results, the structure of the organisation should match its strategy. All too often, however, organisations will grow to meet the needs of the day and not by strategic design. As such, it can be advantageous to perform an analysis to determine whether key capabilities are supported by multiple business units and partners or if they are potentially unsupported in some cases, leaving important gaps in the organisation's strategy and value offerings.

An organisation is able to increase efficiency and productivity when compatible, comparable activities are grouped together. By contrasting business units with key capabilities, an organisation can uncover specific areas where business units have overlapping, conflicting, or complementing focuses.

This insight can inform decision making pertaining to the centralisation of processes, services, and human resources, as well help pinpoint the key areas, from ICT's perspective, that should be emphasised in order to better enable business decision making. For instance, in situations where many business units share accountabilities or responsibilities to deliver key capabilities, ICT may need to focus on collaboration, knowledge sharing, and dissemination in order to ensure that best practices become the norm (highlighted in green, horizontal across capabilities).

Conversely, when a key capability is not supported by enough business units (or any), that capability should potentially be given priority (unless it has been outsourced) and will likely need more investment from a change management perspective (highlighted in red, vertical across business units).

Key Capabilities

Supporting Business Units	Opportunity Assessment	Operational Maintenance	Asset Evaluation	Collaboration & Innovation	Market & Economic Analysis	Enterprise Data Management	Partner Management	Account Management
Finance	R		R			C		C
Marketing & Growth	R					C	A/R	R
ICT	C	R	R	A/R		A		C
Human Resources	C	R				C		
International Operations		A/R		R	R	R		
Domestic Operations		A/R		R	R	R		
Supply Chain			A					C
Security		R				C/I		
Engineering		A		R	C/I	C/I		

Legend R = Responsible for some or all the work; A = Accountable for the activity; C = Consulted with or communicated to; I = Informed of results

Example RACI Map

Step 3A – Instructions: assess your organisation's key capabilities to determine your planning

1. Identify key business units

Analyse your organisational structure to optimise resources.

Understanding how the organisation is structured can help optimise the allocation of resources based on the key capabilities they support. Start with making an exhaustive and inclusive list.

Consider:

- Is the documented organisational structure up to date and accurate? Validate the information you have gathered with other employees to capture any additional business units.

Avoid:

- *Don't re-invent the wheel.* The formal organisational structure chart and Pay & Leave statements are great sources of information and can be used as a starting point.

2. Map business units to key capabilities

Understand which business units support capabilities.

Review the list of key capabilities and document the business units that are accountable or responsible for them.

Accountable, in this case, refers to the units mandated to manage the performance of a capability. Responsible refers to the mandate to support a capability.

Consider:

- Does the current organisational structure match the strategic goals and priorities of the organisation?
- Are there any key capabilities with only one business unit both responsible and accountable?
- Consider facilitating an enhanced reporting structure for them.

Avoid:

- *Don't leave important gaps in the organisation's strategy and value offerings.* Ensure that all key capabilities have at least one business unit responsible for them and **ONLY** one business unit accountable for them.

3. Identify planning priorities to support effective organisational design

Pinpoint the key business areas for organisation's decision makers.

Perform a horizontal analysis to determine where there are shared accountabilities and capabilities for key responsibilities

Perform a vertical analysis to determine which key capabilities are unsupported by business units in order to create an effective organisational design

Consider:

- Are there any key capabilities where business units have overlapping, conflicting, or complementing focuses?
- Does the ICT effectively enable all the supporting business units?
- Are there some business units that are responsible and accountable for too many key capabilities? If possible, spread the accountabilities and responsibilities to multiple business units to harness their unique perspectives and reduce risk.

Avoid:

- *Don't overcomplicate it!* Having too many business units responsible and accountable for the same key capability is not effective and counter-productive. If it is absolutely necessary, ensure that collaboration and knowledge sharing applications support these key capabilities as effectively as possible.

4. Identify potential risks and possible mitigations

Take a step back and consider if there are any risks present with the decisions made or strategy decided upon. Utilise your Programme and Project Management capabilities and subject matter experts to identify potential risks, and if any risks are identified, also identify which mitigating actions could lessen each identified- or potential risk.

Step 3B – Context: Business process review

Use process analysis and assessment to drive collaboration and integration.

Organisations undergoing growth, either organically or through mergers and acquisitions, tend to develop n a piecemeal and short-sighted fashion in an attempt to preserve the *status quo*. This can lead to the following pains:

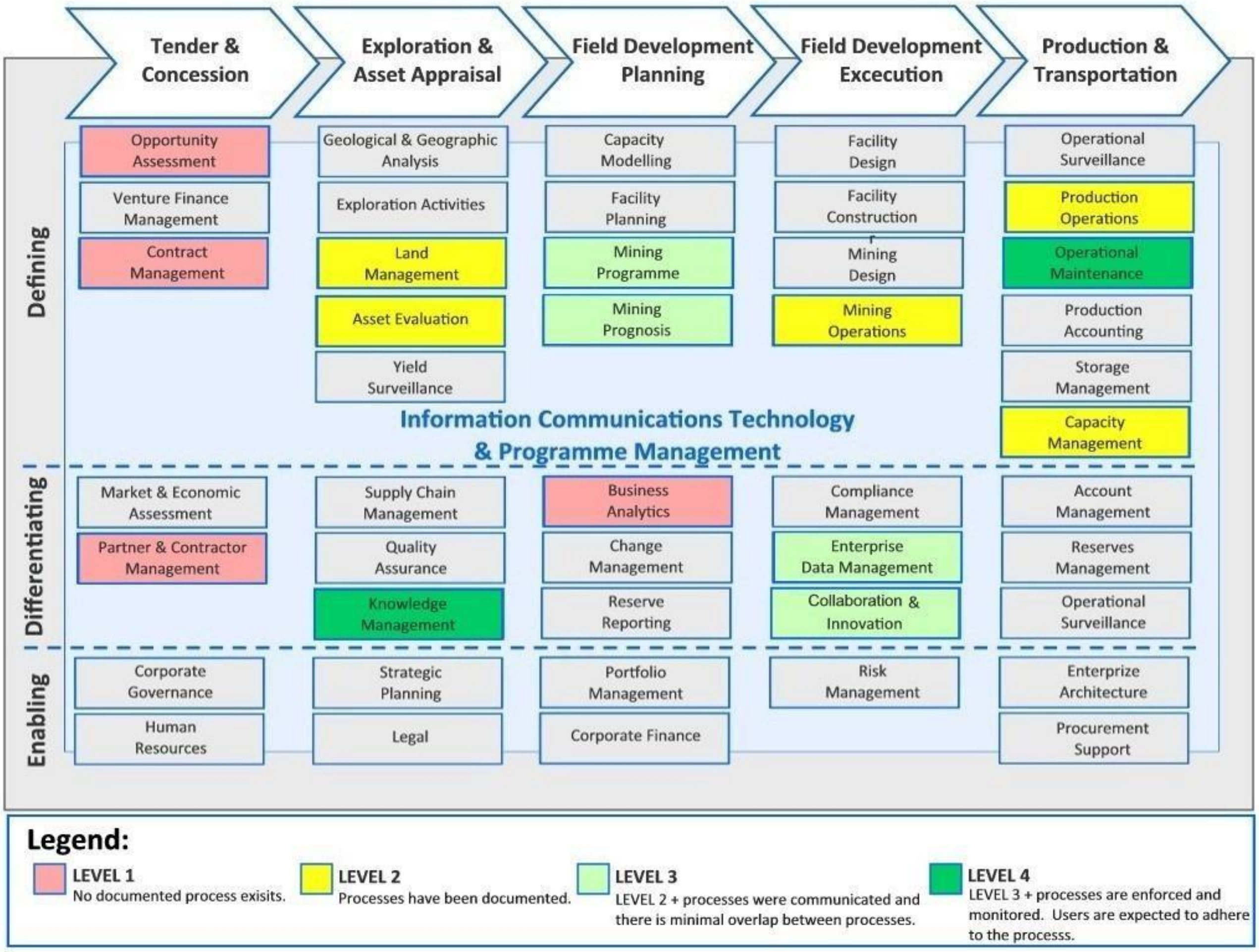
- Duplicated or conflicting business activities.
- Processes that create bottlenecks by involving too many business units.
- Manual re-keying of data into multiple systems.
- Inefficient process for producing standard reports.

These organisations are driven by the desire to effectively manage existing business processes while recognising the need for a faster ability to share data, information, and insight across multiple systems and business units to support increasing demands for a more rapid response.

A primary goal of a strategy is to provide a framework that enables the current business environment to function as seamlessly and as fast as possible, allowing for flexibility when processes need to evolve.

Through effective strategy design, IT can provide integration across business units by performing an analysis of how well the organisational capabilities are supported by processes. Specifically, IT should analyse and assess processes on the basis of adherence, enforcement, and overlap and on the presence of effective monitoring measures.

Step 3B – Visual: Business process support of key capabilities



Business Process Support of Key Capabilities

Step 3B – Instructions: Assess your organisation's key capabilities to determine your planning priorities

1. Assess how well processes support capabilities

Standardisation produces efficiency.

Begin by assessing whether each key capability has documented processes [and procedures] supporting it. Then evaluate whether the documented processes have been communicated and is enforced, and the extent to which there is process overlap.

Consider:

- What processes are documented?
- Have the documented processes been communicated to the business users?
- Are there redundant processes? If yes, consider revising or obsoleting those.
- Are there areas where processes are required? Record the need for processes and communicate to all stakeholders.

Avoid:

- *Don't waste time.* Only evaluate processes that are documented and communicated, and then evaluate them for pertinence and exclusivity.
- *Don't do this in a vacuum.* Validate that you have captured all existing processes by speaking to other employees and stakeholders.

2. Evaluate user adoption of processes for key capabilities

Having processes is one thing, but are they being adhered to?

The next level of analysis involves assessing whether defined processes are being adhered to. Confirm if the organisation enforces adherence and that regular monitoring for deviations is occurring.

Consider:

- Is there regular monitoring for deviations from the defined process? Is this recorded and acted upon?
- Are there certain individuals or groups of users that are not following the processes that are in place? Why?

Avoid:

- *Don't assume the luck of process adherence is simply the employees fault.* In some cases the processes might not be well designed or are out dated, thus warranting the need for refinement and enforcement.

3. Prioritise process refinement for key capabilities

Use processes to drive collaboration and integration.

Key capabilities should be well supported by processes [that are underpinned by adequate procedures]. Score each on a scale of 1-3, and if there are any capabilities that scored Level 2 or below, prioritise delivering effective process support, improving user adoption, and establishing effective process governance.

Consider:

- Is business process management in your mandated area of influence, responsibility, or accountability? If not, consider who you may need to recruit for support from the business side to drive refinements.
- Communicate any new processes or changes to existing ones through a variety of mediums. Make it easy for the users and employees to reference them if needed.

Avoid:

- *Don't create redundant processes and procedures.* Ensure there is minimal overlap with existing processes if you are creating a new one. Don't forget to think about user adoption and governance when creating new processes. This may be challenging, but will ultimately ensure long-term success.

4. Identify potential risks and possible mitigations

Take a step back and consider if there are any risks present with the decisions made or strategy decided upon. Utilise your Programme and Project Management capabilities and subject matter experts to identify potential risks, and if any risks are identified, also identify which mitigating actions could lessen each identified- or potential risk.

Step 3C – Context: Technology opportunity assessment

New technologies can create opportunities for business agility and help develop resilience to changing market conditions.

Business agility is essential to stay competitive. However, the application portfolio of many organisations cannot sufficiently support the flexibility and efficiency the business needs because of legacy challenges.

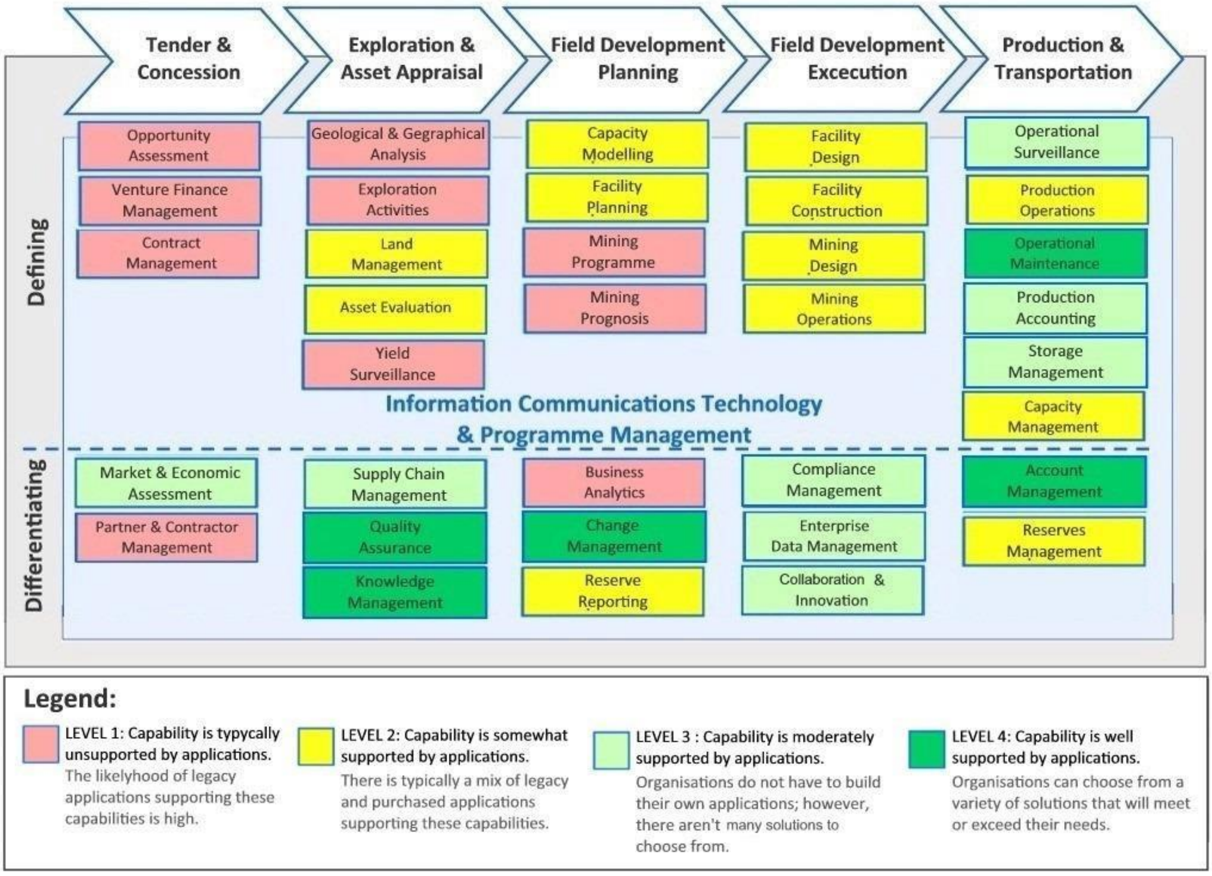
Organisations experience application sprawl over time caused by many factors that can end up costing more for licenses, operational resources, and maintenance.

Organisations are looking for ways to modernise their applications, but want to develop options without introducing additional risks. Adopting a capability-based approach to assessing applications will enable the ICT department to identify opportunities to:

- Automate tasks through the strategic selection and implementation of applications.
- Integrate applications that have cross-capability implications.
- Rationalise the application portfolio.
- Eliminate redundant or legacy applications that don't deliver enough value.

The market availability for software applications dedicated to supporting a specific capability (or set of capabilities) can serve as an indicator of the presence of legacy challenges. Where there is a lack of application availability, it may be a signal that many industry players had to develop their own.

Step 3C – Visual: Availability of ICT offerings



Availability of ICT Offerings

Step 3C – Instructions: Assess your organisation's key capabilities to determine your planning priorities

1. Assess how well capabilities are supported by ICT

Determine how well key capabilities are supported by ICT.

Perform an ICT rationalisation exercise on the key capabilities to determine how well they are being supported by ICT.

ICT should be assessed on the basis of flexibility, ease of use, and integration.

Consider:

- How flexible is the ICT environment, i.e. how well do the applications integrate?
- How easy are the applications to learn and use?
- Are there overlaps, un-planned redundancy, or data quality issues?

Avoid:

- *Don't perform a complete overhaul.* Consider continuity in delivering business services before you rip up and replace everything.
- *Don't forget about shadow ICT.* Ask around to get an accurate understanding of what is being used to support business capabilities.

2. Uncover opportunities for ICT to create value

Make sure the business is leveraging ICT wherever it can and should.

Unsupported key capabilities are areas in which ICT can deliver high value for the business. The key capabilities that score Level 1 or 2 in the technology assessment are the ones that require the most attention because it is here where immediate gains can be made.

Consider:

- Based on their importance, prioritise which unsupported key capabilities to focus on.

Avoid:

- *Don't focus on unsupported key capabilities that will require too much investment.*
- *Don't build an application just because you can.* Research existing solutions and compare costs and effort before deciding to build in-house.

3. Compare results with industry research to determine a plan of action

Compare your results with a The Helicon's industry technology assessment.

If the capability is well supported in the industry but unsupported in your organisation, purchasing applications is a viable option.

Consider:

- What are the future needs of the business?
- What are the compliance requirements?
- How much vendor support will you require?
- Do you already have the underpinning hardware and other infrastructure required to run the applications, or will an investment need to be made?

Avoid:

- *Don't forget that every organisation is unique.* Develop a strong understanding of how the key capability needs to be supported, who the users will be, and if the application will integrate well with existing solutions before you make a purchase.
- *Buying new isn't always better than building or re-using.* If you discover through software reviews that the existing solutions will not meet your needs, revisit the existing or build an in-house solution.

4. Identify potential risks and possible mitigations

Take a step back and consider if there are any risks present with the decisions made or strategy decided upon. Utilise your Programme and Project Management capabilities and subject matter experts to identify potential risks, and if any risks are identified, also identify which mitigating actions could lessen each identified- or potential risk.

Step 4 - Adopt a capability- based approach to strategic planning.

Consolidate and prioritise capability gaps. Direct strategic investment based on organisational priorities, value to effort, and the mandate from the business.

Build a roadmap to address key capability gaps. One of the primary drivers of value for a strategy is the provision of intelligent programme sequencing according to the capability gaps they address.

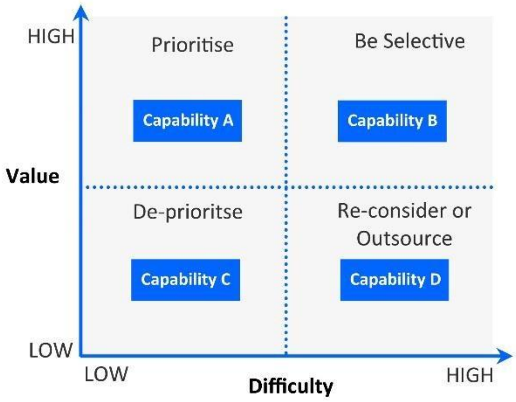
Make strategy design a circular process. Use the outputs of a strategy and their impacts on capabilities as inputs into subsequent strategy design processes.

Step4A – Context: Consolidate and prioritise capability gaps

Direct strategic ICT investments based on the collective output of the capability assessments.

When combined with a solid understanding of business priorities and ICT's mandate, a capability assessment can be the driving force that informs a unified perspective on the sequencing of an organisation's strategic IT initiatives.

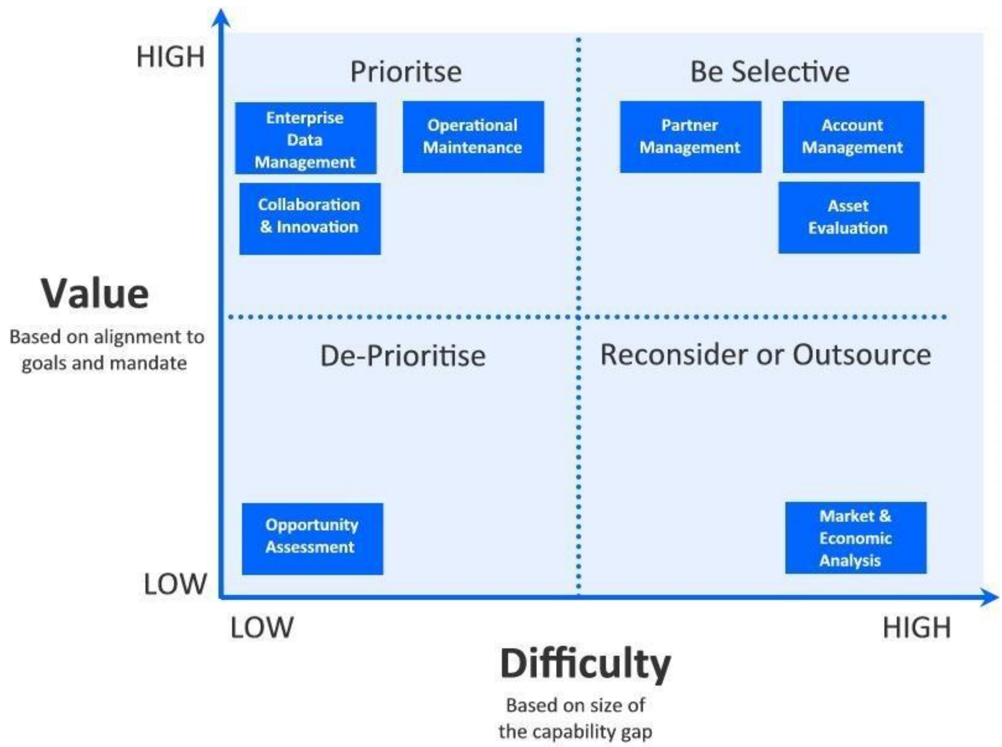
Assessments based on how well it is supported by people (via organisational analysis), process (via process review), and technology (via application, infrastructure, data, and security improvements) will inform the overall health of a capability, or in other words, the size of a capability gap. This information, when contrasted with the concept of difficulty to value, forms an enhanced decision-making framework that can be used to determine initiative sequencing on a strategic roadmap.



If a capability has a large gap (is poorly supported by people, process, and/or technology), it should be considered as high difficulty, or effort, to address. When the capability is well aligned with business priorities and the IT mandate, the capability gap should be considered as high value to address.

See the figure above; ICT leaders should focus their efforts on the top-left (high value, low difficulty). In the top-right quadrant (high value and high difficulty), ICT should seek business support to drive the initiative. Capability gaps on the right side of the quadrant overall are good candidates for capability outsourcing.

Step 4A – Visual: Value-to-difficulty analysis for business capabilities



Step 4A – Instructions: Adopt a capability-based approach to strategic planning

1. Synthesise your assessments and plot them on a difficulty-to-value matrix

Elevate your focus from the ICT level to the organisation level.

Gather and synthesise the priorities from the people, processes, and technology assessments to develop a consolidated view of ICT's planning responsibilities.

Consider:

- How big is the difference between current needs and the assessment of the factors that support each capability?
- Are there any groups of capabilities that have low scores from the assessments? Consider a root-cause analysis to determine what could be impacting multiple capabilities.

Avoid:

- *Don't forget about functional capabilities.* Enhance the green (low-gap) capabilities once you have resolved the issues with the red and yellow (large-gap) key capabilities.

2. Prioritise key capability gaps based on mandate, alignment, and effort

Focus on addressing your quick wins first.

Use your mandate from the organisation to inform which capabilities to focus on first. Key capabilities that are easy for you to enhance and provide high value to the organisation should be prioritised.

Consider:

- If a capability has people and process challenges associated with it already, a technology solution alone may not suffice.
- Prioritise the enhancement of key capabilities with significant gaps that are in your mandated responsibilities.
- Will the future needs of the business change which capabilities are most important?

Avoid:

- *Don't overstep your mandate.* In some organisations, IT is expected to have influence over business processes, but that is not always the case. Equally, HR concerns may be perceived as outside the mandate of ICT. As such, ICT should focus first on the key capabilities that have clear technology gaps to avoid mandate friction.

3. Identify potential risks and possible mitigations

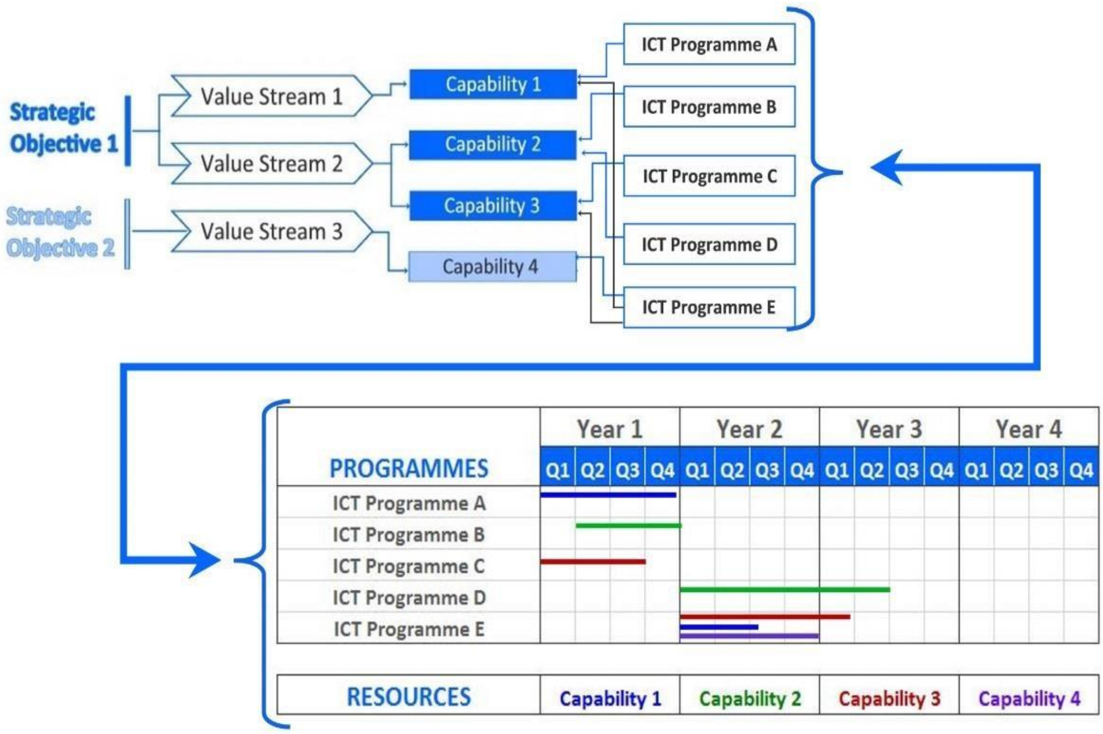
Take a step back and consider if there are any risks present with the decisions made or strategy decided upon. Utilise your Programme and Project Management capabilities and subject matter experts to identify potential risks, and if any risks are identified, also identify which mitigating actions could lessen each identified- or potential risk.

Step 4B – Context: Build a roadmap to address key capability gaps

The primary value driver of a strategy is the provision of an intelligent sequencing of programs according to the capability gaps they address.

The desired or target state that a strategy will seek to deliver will depend on the strategic goals and objectives of an organisation and the health of the capabilities that most closely support them. The gaps between the current state and the desired state will determine what the transition initiatives must achieve from an outcome perspective. These gaps indicate how close or how far ICT currently is from achieving the desired state for each capability. This will help the project team identify critical risks and early-value creators and bring them to the forefront of their project timelines.

The list of initiatives will be the main output of the ICT strategy. Good transition initiatives need to be well thought out before the executive team signs off on the ICT strategy. As such, thoroughly evaluating a set of options will ensure that the most appropriate programmes/initiatives are selected. These programmes/initiatives are not likely to be implemented simultaneously, given resource restrictions and dependencies. As such, in order to maximise the value of the ICT strategic plan for the business, each initiative must be prioritised according to the benefit it will provide.



ICT Strategic Plan

Step 4B – Visual: ICT strategy roadmap

ICT Strategy Roadmap

Step 4B – Instructions: Adopt a capability-based approach to strategic planning

1. Define ICT programs to address gaps in key capabilities

Develop solutions to fill gaps in key capabilities.

Examine the gaps in key capabilities and determine what IT programs will address them. Understand what gaps are critical to fix based on ICT's mandate. Stay focused on the value-to-effort ratio for the remaining programmes.

Consider:

- What are the key capabilities you are mandated to focus on?
- What are the high-value and low-effort key capability gaps you identified earlier?
- Given these assessments and strategic discussions, are there any ICT programmes that should be cancelled?

Avoid:

- *Don't try to address all gaps in the key capabilities at once.* Remember to focus on the enhancements that will provide high value yet require low effort to achieve improvement.

2. Sequence ICT programmes in business-priority order

Prioritise the ICT programmes based on business priority.

Develop a roadmap of changes and enhancements to address gaps in key capabilities. Ensure the key capabilities you are mandated to focus on are prioritised first. Remember to factor in resource availability and existing dependencies when developing the roadmap.

Consider:

- What resources are going to be needed to execute on the roadmap?
- What are the dependencies of these key capabilities and existing ICT programmes?
- Make sure critical dependencies between ICT programmes are sequenced appropriately.

Avoid:

- *Don't put too much on your plate.* Consider what you can actually achieve given current budgetary and staffing constraints.
- *Don't be short-sighted.* It is a good exercise to estimate what additional resources you might need to satisfy all the identified gaps in case the business is willing to support you.

3. Identify potential risks and possible mitigations

Take a step back and consider if there are any risks present with the decisions made or strategy decided upon. Utilise your Programme and Project Management capabilities and subject matter experts to identify potential risks, and if any risks are identified, also identify which mitigating actions could lessen each identified- or potential risk.

Step 4C – Context: Make strategy design a circular process

Use the outputs of a strategy – the initiatives and programmes – and their impacts on capabilities as inputs into subsequent strategy design processes.

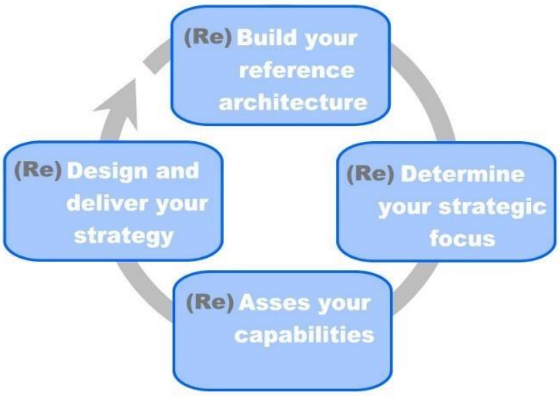
Principles like Lean, Agile, TOGAF, SCRUM and Six-Sigma have proliferated and are now integral forces influencing how business is done. Most would agree that these concepts have shaped the way products and services are designed and delivered for the better.

The underlying connection between these concepts is that, in order to deliver products and services in a way that sustains a business, waste can no longer be tolerated in our new resource-constrained environment. This reality is shaping the way inputs and outputs are viewed in the context of processes; wherever possible, a process' output should be converted back into an input into the same or an alternate process.

This limits waste and promotes business model sustainability.

In terms of strategy design as a process, the outputs are the sequenced set of programs and initiatives that an IT department will undertake in order to address the prioritised capability gaps that support organisational goals. The benefits of these initiatives can (and must) be measured in relation to the capabilities they have impacted, and thus, become the inputs into the process of designing the next process.

Step 4C – Visual: The circular strategic planning process



The Circular Strategic Planning Process

Step 4C – Instructions: Adopt a capability-based approach to strategic planning

1. Build your organisation’s capability map using your reference architecture

Review The Helicon’s reference architecture and customise it to fit your organisation.

Continually refine and update your business capability maps to ensure they stay accurate.

Consider:

- How does your organisation create and capture value?
- What new capabilities has the organisation added since the last strategic planning period?

Avoid:

- *Don’t do this alone.* Continuously involve key business stakeholders to validate the business capability map.

2. Use capabilities to define your organisation’s strategic focus

Refine, revisit, or reset the mandate for ICT by catalysing a dialogue on what matters most to the organisation.

Explore how the mandate has changed over time.

Consider:

- How often has the business strategy changed?
- Which capabilities does the business want to develop into cost or competitive advantage creators?

Avoid:

- *Don’t focus on unsupported key capabilities that will require too much investment in terms of time, effort and finances.*
- *Don’t have a short-term outlook.* Developing key capabilities takes time and will require investments into people, processes, and technology. Think about what key capabilities the business will need to succeed now and in the long term.

3. Determine your planning priorities by assessing your key capabilities

Use people, process, procedures and technology as the basis for your assessment.

Update your assessments based on the impacts previous programmes have had on key capabilities.

Consider:

- What are the future needs of the business?
- Were the previous ICT programmes effective in terms enhancing the organisation’s key capabilities? Why or why not?

Avoid:

- *Don’t forget that every organisation is unique.* Develop a strong understanding of what key capabilities need to be supported, who the users will be, and which processes, procedures and technologies enable them.

4. Adopt a capability-based approach to strategic planning

It is time for ICT to end misalignment between business priorities and technology investment.

Use business capabilities to position strategic planning discussions and to inform ICT what investment will be mandated to transition the strategy from paper to the run space.

Consider:

- The output of each strategic requirement and what sequential ICT programmes should serve as the input into the next ICT strategy design process.
- Based on the demonstrably improved strategic acumen this approach delivers, new opportunities such as digital strategy leadership, will likely emerge.

Avoid:

- Don’t put too much cm your plate. Consider what you can actually achieve given current budgetary and staffing constraints.
- Don’t create too many views of your organisation. Instead, focus on unifying the perspective in one business capability map.

In conclusion

This document is a preview of what is required at a high level – it is not a blue-print of how to arrive at the final state of an implementable Business Reference Architecture. The Helicon has the experience, skills and resources and will gladly help to accelerate the process.

The final Business Reference Architecture should show in detail how all systems (strategy, business and technology systems) work together to deliver value. Ultimately, the architecture should be a mechanism to accelerate innovation in the business by considering the long term vision and defining the principles necessary to guide business and projects executed within the enterprise. It should also take into account constraints changes and informs planning and decisions on how best to evolve the enterprise to some future state.

Please do contact us if you need any help or want to discuss this fascinating topic in more detail. Our web site, with contact details, is www.the.helicon.co.za, and you may also find some other useful services listed there.

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