



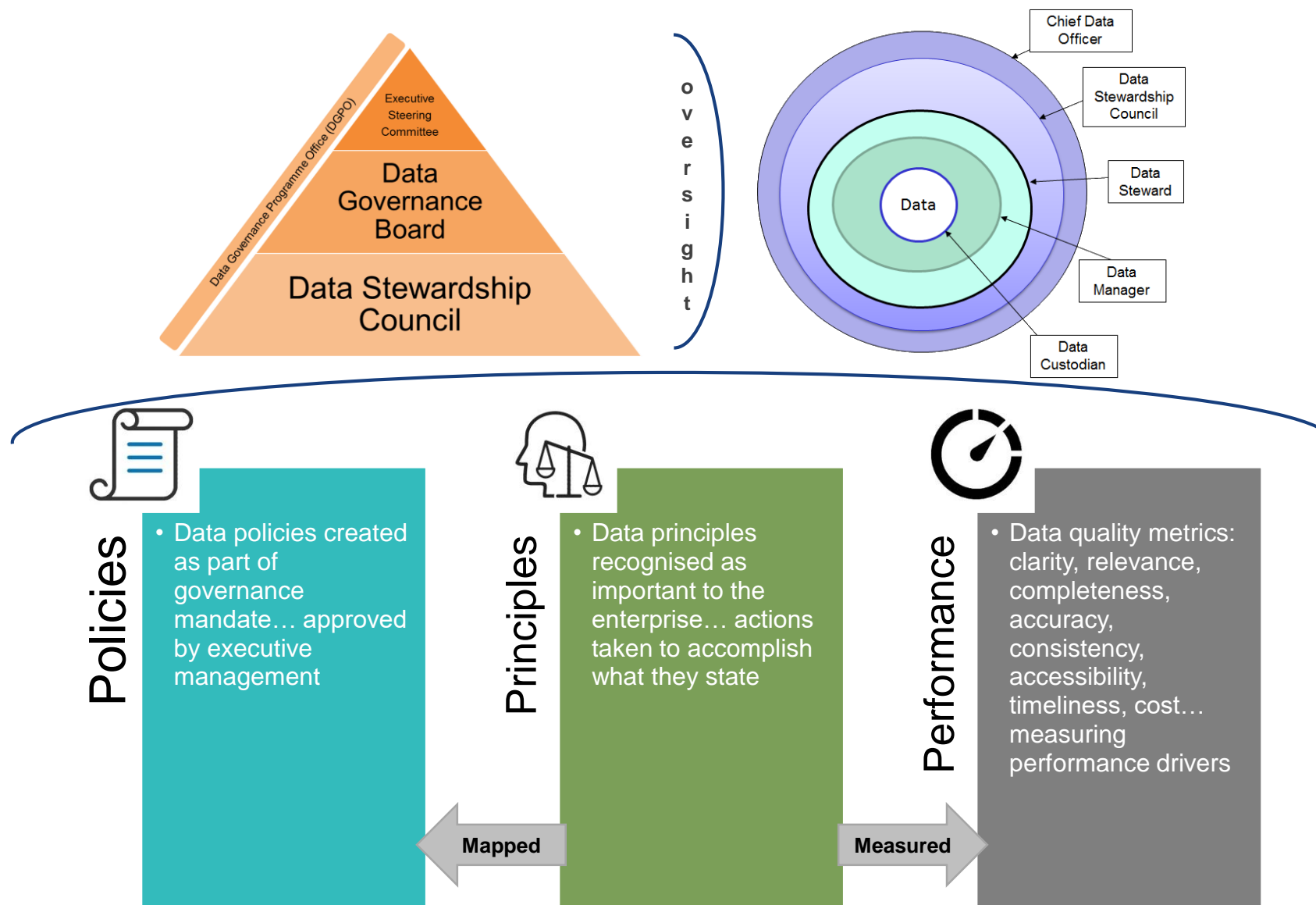
# UNDERPINNINGS OF DATA GOVERNANCE

- To explain what is a Principle
- To differentiate between Policies, Standards, Guidelines and Procedures
- To describe the characteristics of a Performance Metric

- **What is a Principle**
  - What is a Policy
  - Measuring Performance



# Underpinnings



A rule or belief governing behaviour.

– *Oxford Dictionary*

**Principles** describe the organisation's beliefs regarding *data quality, compliance and security*. They **should** guide what the organisation does with data, why it does it and how it is done.

# Why it is Important

Principles must create the ability to ***call out errant behaviour.***





# Why it is Important

Principles are smart ways for *handling things that happen over and over again* in similar situations.

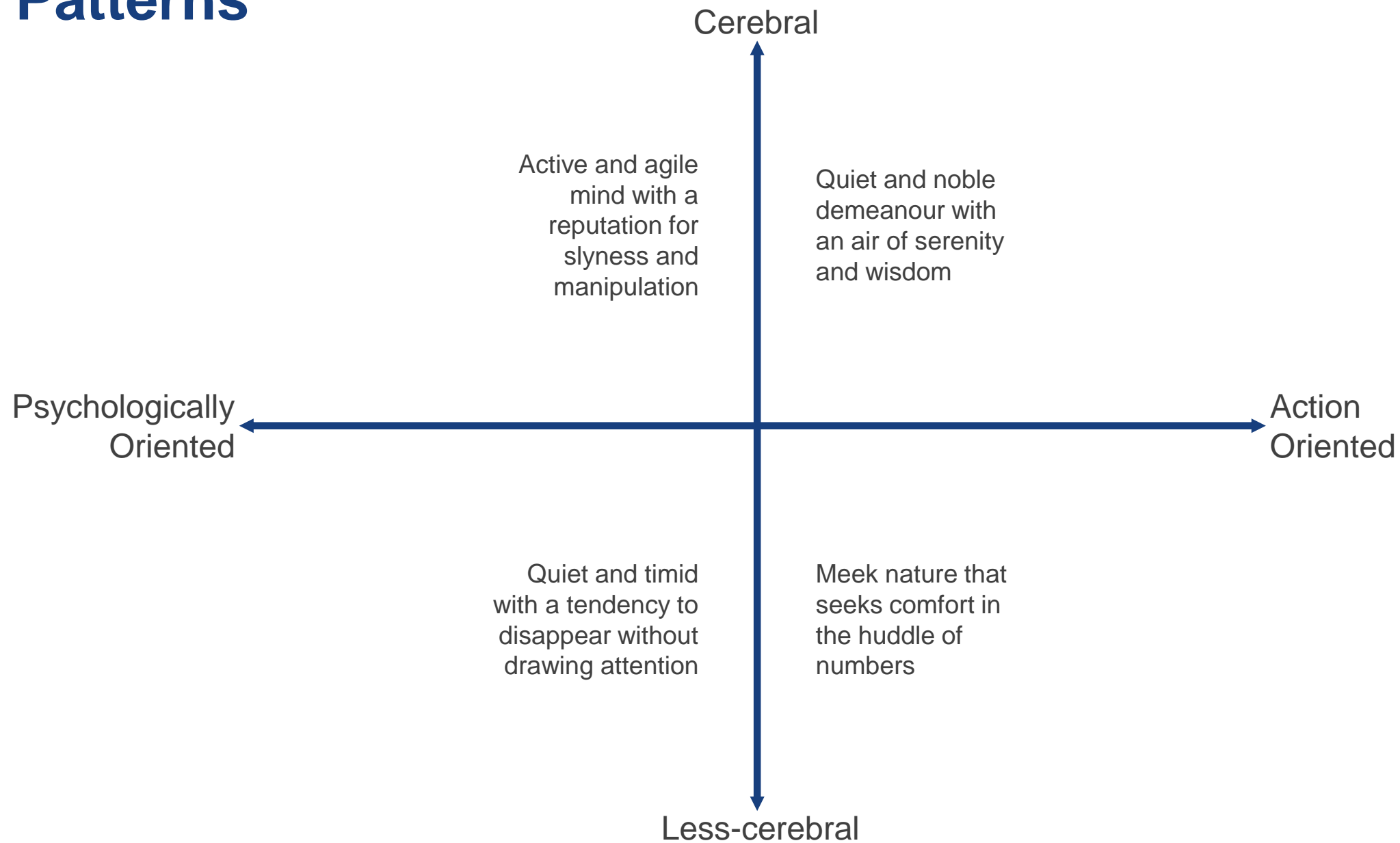
– Ray Dalio

*Having a good set of principles is like having a good collection of recipes for success.*

*If I didn't have these systems, I'd probably be broke or dead from the stress of trying so hard.*



Dalio, R. (2017). *Principles: Life and Work*. Simon and Schuster.





**Principle:** Data is an asset

**Statement:** Data must be recognised as a valued enterprise asset

**Tagline:** From 'My Data' to 'Our Data'

**Rationale:**

- Data is a valuable enterprise resource. Accurate and timely data are critical for effective decision-making and customer service

**Implications:**

- Carefully manage data to ensure they are clearly defined, properly accessed and appropriately controlled. Everyone within the enterprise must be able to access data and rely upon their accuracy when and where needed
- This principle is one of three closely-related principles regarding data: data is an asset, data is shared and data is easily accessible. There is an awareness task to ensure everyone within the enterprise understand the relationship between value of data, sharing of data and accessibility to data

**Principle:** Data changes the world

**Statement:** We are able to “datafy” things we could never before in order to process and gain insights from it

**Tagline:** Data is the oil of the 21<sup>st</sup> century and analytics is the combustion engine

**Rationale:**

- Leaders are now organising, visualising and translating vast swathes of data into insights that guide the directions and create the objectives of organisations

**Implications:**

- It is important to have a data strategy
- Shift from just data collection to data use
- Leaders must have data expertise in addition to domain expertise



# Other Examples

- **Data is Shared** – *Data Shared is Value Multiplied*
- **Data is Accessible** – *Available When and Where*
- **Data Stewardship** – *Data Governance is Everyone's Responsibility*
- **Data will be Analysable** – *You Can't Examine What You Don't Understand*
- **Data Quality** – *Right the First Time, Every Time*
- **Data Compliance** – *Avoid Risk and Compliance Issues*
- **Data Security** – *Protect Data 24/7*

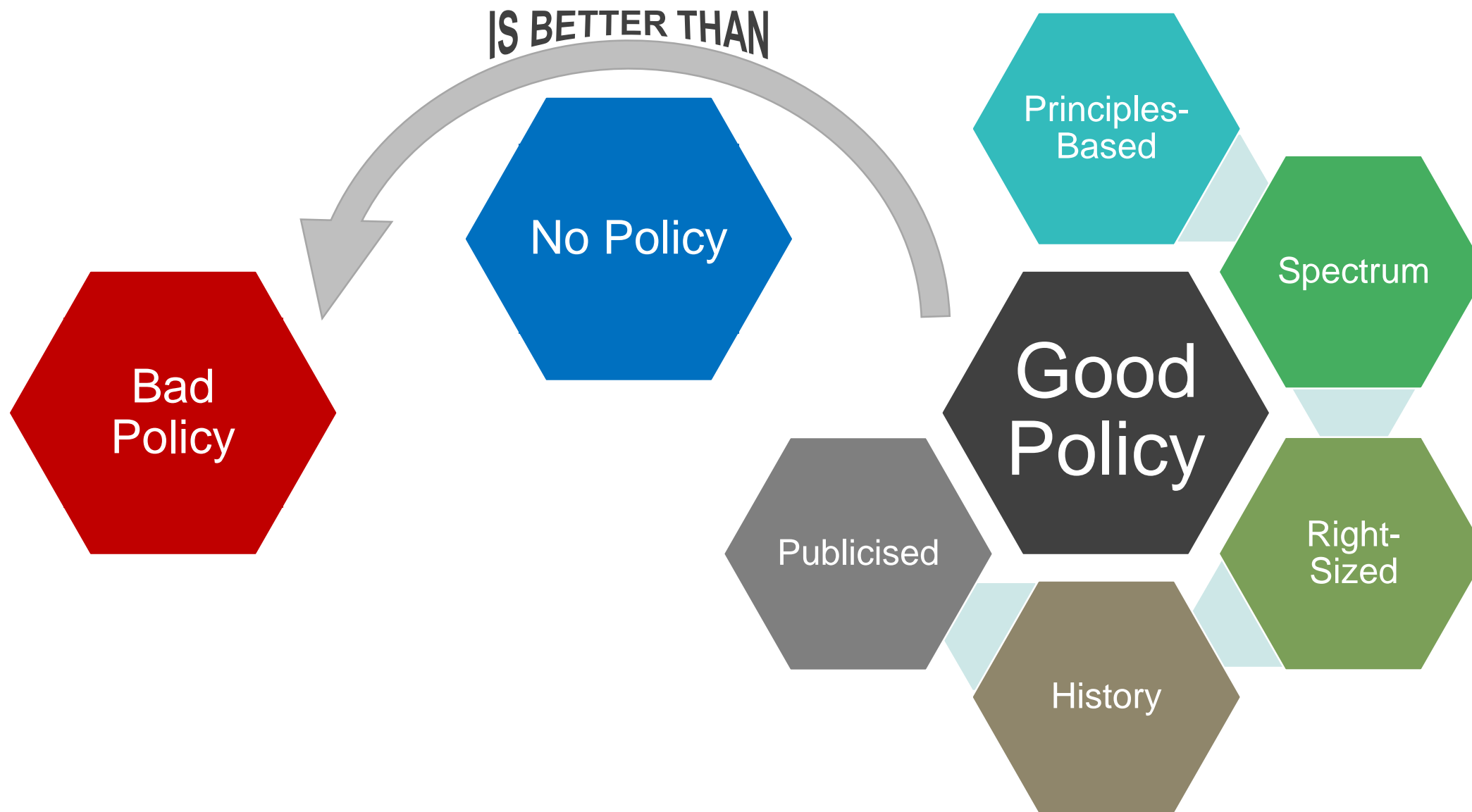


# Agenda

- What is a Principle
- **What is a Policy**
- Measuring Performance



# What Makes a Good Policy





# Policy, Without Doubt

## Principle

- Statement of commitment from senior management
- Relatively constant

## Policy

- Broad statement of management intent; in support of the Principle
- Changes infrequently
- Enterprise-wide mandatory compliance

## Standard

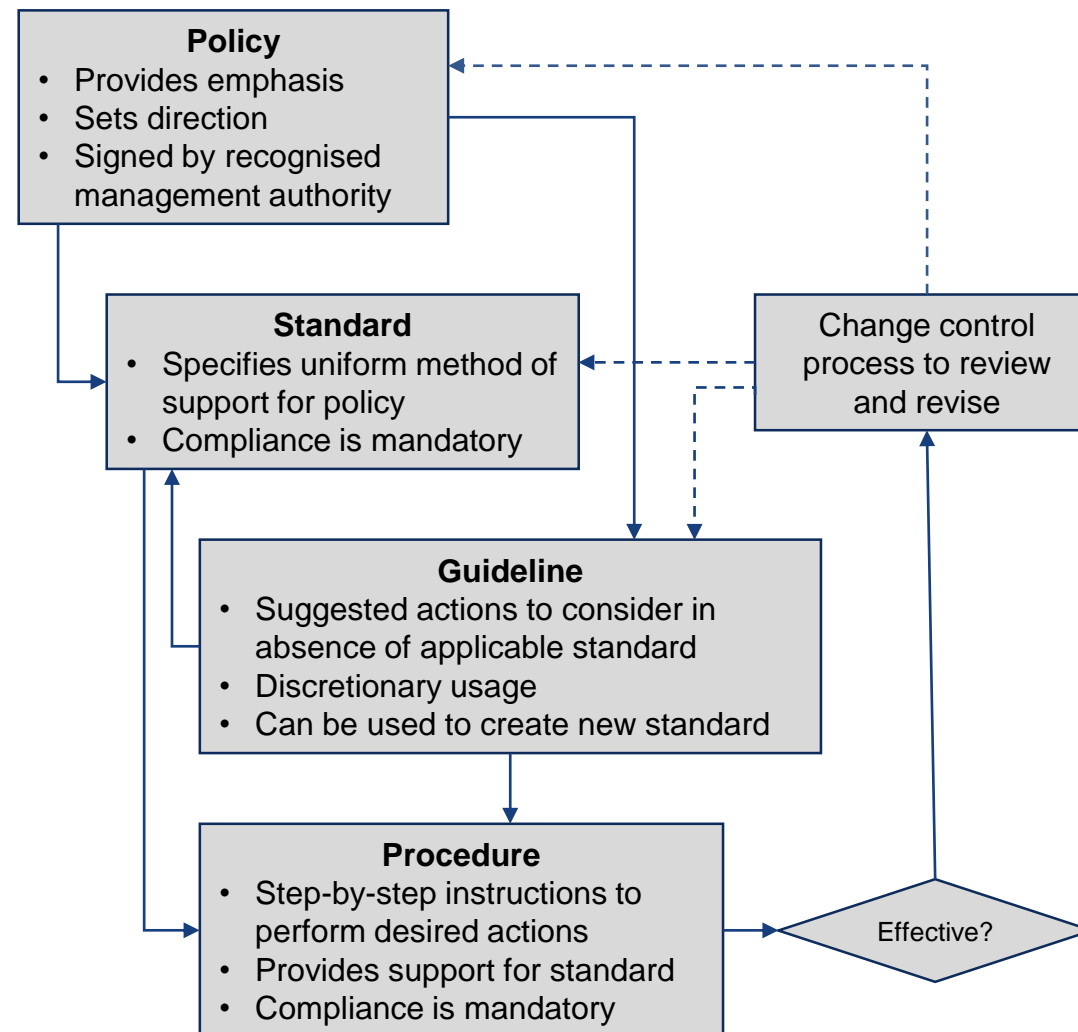
- Specific mandatory rule in support of the Policy
- Focuses on control

## Guideline

- Recommended practice that should be considered

## Procedure

- Series of steps to comply with the Policy and Standard



Adapted: source unknown



There is no good size, just **right size**. It depends on:

- size of the business
- size of the policy subject
- importance of the subject to the business

The **audience** matters as well. It depends on:

- size of the audience
- nature of the audience
- are they external, and/or internal
- how much detail they need/want to see

A start-up might have none at all except a one-line mission statement that encapsulates everything you need to know about the company.

An SME might have a few short ones.

A major bank, insurance firm or government department might have hundreds including some quite long ones. It depends on the need. Don't fall into the trap of one-sizing.

| Revised on  | Version | Description   | Approved by       |
|-------------|---------|---|-------------------|
| 01-Oct-2015 | 0.1     | Initial Document Creation   | IT Manager        |
| 10-Jan-2016 | 1.0     | Publish Document  | IT Manager        |
| 15-Jan-2016 | 1.1     | Review document, modify policy section reflecting organizational legal-contractual service level agreements for the protection of information, including ISO, PCI DSS | IT Head           |
| 20-Jan-2016 | 1.2     | Formal Editorial work   | PMO               |
| 27-Jan-2016 | 1.3     | Formal review and minor edits   | PMO               |
| 15-Feb-2016 | 1.3a    | Include missing protection of information assets policy clause as per Network Security Policy Design stage  | PMO               |
| 22-Feb-2016 | 1.3b    | Update mandatory requirements of the Information Security Policy with respect to Policy requirement and Network Design  | PMO               |
| 10-Mar-2016 | 1.4     | Formal review and change to use new policy template   | PMO               |
| 17-Mar-2016 | 1.5     | Formal review to reflect jobs descriptions of IT Security roles defined by HR for the organization  | HR Head           |
| 25-Mar-2016 | 2.0     | Formal approval for Senior Management   | Senior executives |

The basic *metadata* around the policy: dates, owners, authors, reviewers, versions, coverage, status, review frequency, etc. A policy without these parameters, gets written because someone says it is needed, rather than being needed because it is really needed for its own sake to provide principles-based guidance on what needs done.



Transparent and prominent internal publication of policies is essential but sometimes gets forgotten. It goes beyond document format and where it is located. It needs to be carefully thought through and organised. It might be critical that the policy has been disseminated to the right people in the right way; that it has been subjected to the right level and depth of training if necessary; and that individuals have acknowledged it applies to them, given their responsibilities.

Training is key, but just as important is wide availability of the policy to everyone it applies to, set out in the clearest possible way. The delivery and availability of policy in a prominent place on a organisation's intranet is now more important than ever, ideally in association with a really good "content management system" which keeps track of who has seen, opened and signed off which version of which policy; centrally managed with metrics, follow-ups, an escalation process and reports.





# Developing a Policy

| Process Steps   | Research  |
|---|---|
| 1. Identify and define the problem or issue that necessitates the development of a policy | 1. Read, if possible, policy documents created by other organisations on the same topic |
| 2. Appoint a person in charge   | 2. Research legislation on Internet   |
| 3. Establish the policy development process   | 3. Conduct information-gathering meetings   |
| 4. Conduct research   | 4. Conduct surveys  |
| 5. Prepare a discussion paper   | 5. Read minutes of historical management committee meetings                             |
| 6. Consult – stage 1  | 6. Read related reports   |
| 7. Prepare a draft policy   | 7. Read industry magazines and journals   |
| 8. Consult – stage 2  | 8. Seek legal advice  |
| 9. Adopt the policy   | 9. Find relevant policy templates   |
| 10. Communicate the policy  |   |
| 11. Monitor, review and evaluate the policy   |   |

Adapted: Leo Isaac



# Example

|    |  |    |    |
|----|--|----|----|
| 1. | 1 Introduction                                       |    | 1  |
|    | 1.1. Background                                      | 1  |    |
|    | 1.2. Purpose   | 1  |    |
|    | 1.3. Scope   | 1  |    |
|    | 1.4. Philosophy                                      | 2  |    |
|    | 1.5. Definition of University Data                   | 2  |    |
|    | 1.6. Terminology                                     | 3  |    |
|    | 1.7. Inconsistency with This Policy                  | 3  |    |
|    | 1.8. Referral to Next Higher Level of Authority      | 4  |    |
|    | 1.9. Departure from Requirements                     | 4  |    |
| 2. | Organisation Structure                               |    | 5  |
|    | 2.1. Introduction                                    | 5  |    |
|    | 2.2. Roles and Responsibilities                      | 5  |    |
| 3. | Data Classification                                  |    | 11 |
| 4. | Data Administration Guidelines                       |    | 14 |
|    | 4.1. Introduction                                    | 14 |    |
|    | 4.2. Data Quality                                    | 14 |    |
|    | 4.3. Data Collection                                 | 14 |    |
|    | 4.4. Data Sharing                                    | 15 |    |
|    | 4.5. Reporting Loss or Leakage of University Data    | 23 |    |
|    | 4.6. Data From External Parties                      | 24 |    |
|    | 4.7. Resolution of Data Disputes                     | 24 |    |
| 5. | Personal Data  |    | 25 |
| 6. | Retention and Archival                               |    | 26 |
|    | 6.1. Guidelines and Procedures                       | 26 |    |
|    | 6.2. Student Academic and Curriculum Records         | 26 |    |
| 7. | Standards For Data, Database Objects And Data Models |    | 27 |
|    | 7.1. Naming Standards for Data and Database Objects  | 27 |    |
|    | 7.2. Common Code Tables                              | 27 |    |
|    | 7.3. Data Models                                     | 27 |    |
|    | 7.4. Data Modelling Scope                            | 27 |    |
|    | 7.5. Data Modelling Standard                         | 28 |    |
| 8. | Data Access Control For Systems                      |    | 29 |



# Example

|   |    |   |
|---|----|---|
| 1. Introduction   |    | 4 |
| 1.1. Overview   | 4  |   |
| 2. Data governance policies                                     |    | 5 |
| 2.1. About this policy  | 5  |   |
| 2.2. Authority for the Agency's work                            | 5  |   |
| 2.3. Approvals within the Agency                                | 5  |   |
| 2.4. Working with external stakeholders                         | 5  |   |
| 2.5. Responsibility for policies and procedures                 | 5  |   |
| 2.6. The role of the data steward                               | 5  |   |
| 2.7. The role of the Data Standards Working Group               | 6  |   |
| 2.8. The role of data custodians                                | 6  |   |
| 2.9. The role of data users                                     | 6  |   |
| 2.10. Monitoring the implementation of data management policies | 6  |   |
| 3. Data acquisition and storage                                 |    | 7 |
| 3.1. About this policy  | 7  |   |
| 3.2. WGEA Protective Security Policy                            | 7  |   |
| 3.3. Prioritisation of data access                              | 7  |   |
| 3.4. Development of inter-connected data management systems     | 8  |   |
| 3.5. Use of corporate data solutions                            | 8  |   |
| 3.6. Data Standards Working Group responsible for procedures    | 8  |   |
| 3.7. Promotion of the existence of data holdings                | 8  |   |
| 3.8. Documentation of business processes                        | 8  |   |
| 3.9. Deletion of unwanted data holdings                         | 8  |   |
| 4. Data quality   |    | 9 |
| 4.1. About this policy  | 9  |   |
| 4.2. Use of data quality statements                             | 9  |   |
| 4.3. Data quality model   | 9  |   |
| 4.4. Responsibility for data quality                            | 10 |   |
| 4.5. Data cleaning activities                                   | 10 |   |
| 4.6. Changes to reporting data                                  | 10 |   |
| 4.7. Commitment to improvement                                  | 10 |   |

|  |    |    |
|--|----|----|
| 5. Data processing and analysis                                      |    | 11 |
| 5.1. About this policy   | 11 |    |
| 5.2. Recording the user(s)   | 11 |    |
| 5.3. Responsibility for recording processing metadata                | 11 |    |
| 5.4. Use of standard analysis methods                                | 11 |    |
| 6. Data reporting, sharing and dissemination                         |    | 12 |
| 6.1. About this policy   | 12 |    |
| 6.2. Release of public reports                                       | 12 |    |
| 6.3. Personal information released in accordance with privacy policy | 12 |    |
| 6.4. Agency use of remuneration data                                 | 12 |    |
| 6.5. Use of data for Agency reporting                                | 13 |    |
| 6.6. WGEA Data Explorer and data.gov                                 | 13 |    |
| 6.7. Release of the public data file                                 | 13 |    |
| 6.8. Custom data requests  | 13 |    |
| 6.9. Creative commons  | 13 |    |
| 6.10. freedom of information   | 13 |    |
| 7. Metadata management   |    | 14 |
| 7.1. About this policy   | 14 |    |
| 7.2. Recognising the importance of metadata                          | 14 |    |
| 7.3. Recording of metadata   | 14 |    |
| 7.4. Recording metadata within IT systems                            | 14 |    |
| 8. Staff education, support and training                             |    | 15 |
| 8.1. About this policy   | 15 |    |
| 8.2. Role definitions and support                                    | 15 |    |
| 8.3. Best practice   | 15 |    |
| 8.4. Support for data users  | 15 |    |
| 8.5. Responsibility for ensuring adequate training and skills        | 15 |    |
| 9. Glossary  |    | 16 |
| 10. References and related documents                                 |    | 17 |





# Example

Data Governance Policy

## STAFF

# Data Governance Policy

### ▼ Governance

#### - Data Governance Policy

- › Delegations of Authority Policy & Register
- › Intellectual Property
- › Internal Communications Policy
- › Organisational Unit Review
- › Policy Development and Review Policy
- › Project Management
- › Quality Management Policy
- › Social Media Policy
- › Records and Archive Management
- › Risk Management
- › Satellite Centres
- › Senator Workload and Remuneration Policy
- › Protected Disclosures Policy and

The policy establishes proper stan and integrity of University data. Th roles and responsibilities of Univer relation to data access, retrieval, s backup to ensure proper manager is maintained.

1. Background Information
2. Policy Purpose
3. Policy Scope
4. Definition and Terms
5. Policy Principles
6. Policy Review
7. Further Assistance
8. Appendix 1 - Data Management Life Cy

## 1. Background Information



Data Governance Policy (Policy, PDF File, 156.7 KB)

Policy applies to University-wide  
All Staff

Policy Status New Policy

Approval Authority Vice-Chancellor

Governing Authority Information Com  
(ICTAC)

Responsible Officer Director, Office d

Approval Date 03/03/2014

Effective Date 03/03/2014

Date of Last  
Revision Not Applicable

Date of Policy  
Review \* 03/03/2019

\* Unless otherwise indicated, this po  
date.

## Related Policies, Procedures, Guidelines and Local Protocols

Acceptable Use of IT Policy  
Code of Conduct for All Staff  
Communication Policy  
Computer Use Policy  
Copyright and Moral Rights  
Data Classification Policy and Procedure (to be developed)  
Data Governance Procedures (to be developed)  
Intellectual Property Policy  
Policy on Policy Development  
Records and Archives Policy  
Records Retention and Dispos  
Telecommunications Usage Pol

Page last updated: 2017-06-27

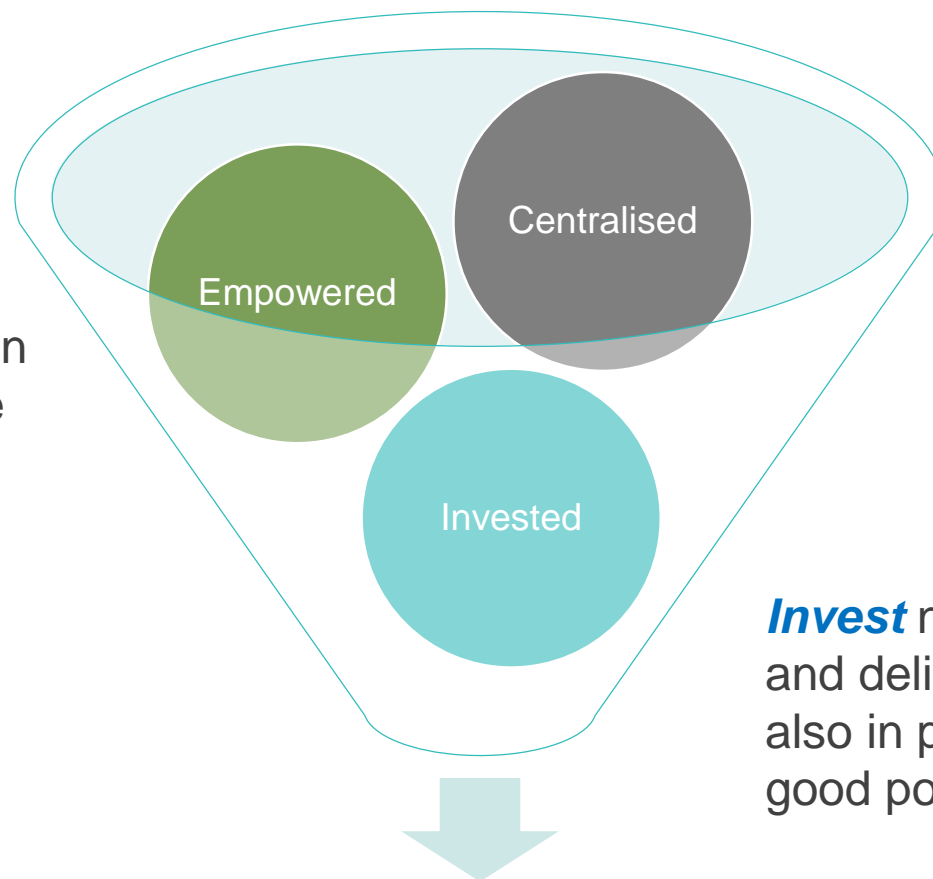
Short url: <https://www.acu.edu.au/policies/617065>





# How to Get There

**Empower** the policy team in terms of seniority, influence and its placement on the reporting hierarchy.



**Centralise** policy ownership and delivery, e.g., within the organisation of the Chief Operating Officer, or Chief Compliance Officer, etc.

**Invest** not just in the content and delivery of policies, but also in putting together a good policy team.

Robust Policy Framework



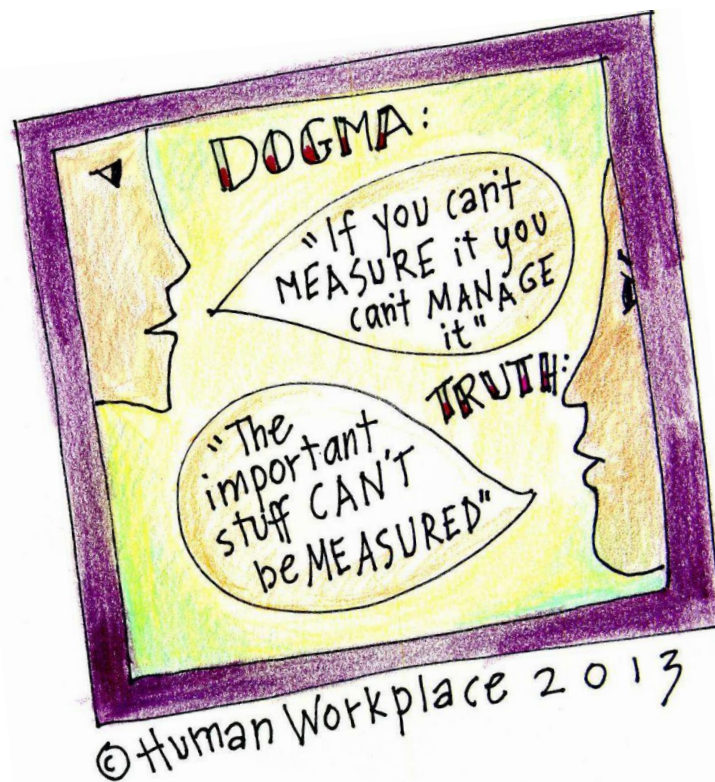
# Agenda

- What is a Principle
- What is a Policy
- **Measuring Performance**





# The Need to Measure



“Work implies not only that somebody is supposed to do the job, but also accountability, a deadline and, finally, the measurement of results —that is, **feedback from results on the work** and on the planning process itself.”

Drucker, Peter; *Management: Tasks, Responsibilities, Practices*

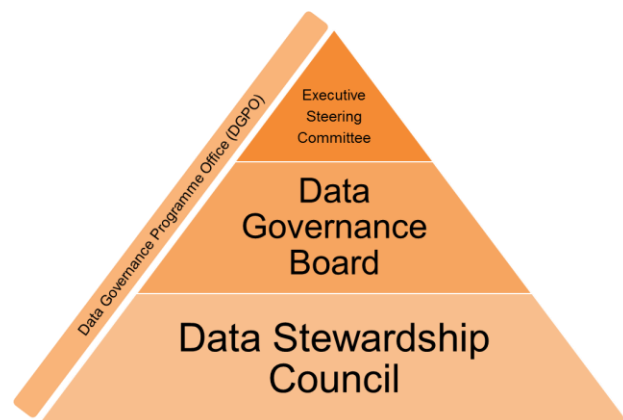
“Measurement is the first step that leads to control and eventually to improvement. **If you can't measure something**, you can't understand it. If you can't understand it, you can't control it. If **you can't control it**, you can't improve it.”

Harrington, H. James





# Sometimes Gets Measured



1. **Data Champion** – identify competent custodians; explain new policies; update on progress of initiatives; announce programme changes
2. **Meeting Success** – attendance and participation of programme meetings at or above established baseline
3. **Numbers Game** – number of issues raised and resolved; or ideas considered and implemented
4. **Education & Training** – training hours clocked and training runs organised



## Policies

- Data policies created as part of governance mandate... approved by executive management

1. **Document Count** – number of policies, guidelines, standards and procedures established
2. **Document Measure** – number of application systems, business reports, etc., using guidelines and standards
3. **Document Success** – improved compliance or reduced infractions



## For a Start

1. Identify what needs to be improved; this is critical to success. Make a list
2. Document the as-is state
3. Set the to-be goals
4. Determine the critical success factors. What are the activities that if done correctly will help to achieve the goals? **These are the things that will be measured**
5. Create a means of measuring the results

- **Specific** – identify set of specific metrics
- **Measurable** – clear, simple to understand and easy to measure
- **Actionable** – easy to capture, practical and quantifiable
- **Realistic** – relevant to business, i.e., defined within a business context that explains how the metric score correlates to improved business performance
- **Timely** – establish a sense of urgency and measure over a period of time to analyse the trend

# THANK YOU

[nicholas\\_tan@nus.edu.sg](mailto:nicholas_tan@nus.edu.sg)



# SUPPLEMENTARY

| Process Steps   | Research  |
|---|---|
| <ol style="list-style-type: none"> <li>1. Identify and define the problem or issue that necessitates the development of a policy – know and understand the purpose of policies; not all issues or problems can be effectively dealt with by the creation or modification of a policy.</li> <li>2. Appoint one or more persons to co-ordinate the policy development process – the policy development process takes time. There needs to be someone or perhaps a committee who is "driving" the process.</li> <li>3. Establish the policy development process – the process requires research, consultation and policy writing tasks. The co-ordinator should develop a plan of what tasks need to be done, by whom and when.</li> <li>4. Conduct research <ul style="list-style-type: none"> <li>• Read policy documents created by other organisations on the same topic</li> <li>• Research legislation on the Internet</li> <li>• Conduct a meeting with staff and other people with experience</li> <li>• Survey participants or a particular group of participants such as coaches</li> <li>• Read minutes of management committee meetings (if allowed)</li> <li>• Read other documents such as annual reports or event reports</li> <li>• Read industry magazines and journals</li> <li>• Seek legal advice</li> </ul> </li> <li>5. Prepare a discussion paper – the purpose of the discussion paper is to explain the nature of the problem or issue, to summarise information yielded by research and to suggest a number of policy options. The discussion paper will be an important tool in the process of consultation.</li> <li>6. Consultation Stage 1 – circulating the discussion paper to all stakeholders (interested parties) is a first step in the consultation process. It is then important to gain as much feedback from stakeholders as possible. This may be effected through workshops, open meetings, your web site and by meetings with individuals. Ensure that this stage of consultation is thorough.</li> </ol> | <ol style="list-style-type: none"> <li>1. Read, if possible, policy documents created by other organisations on the same topic – whilst it be inappropriate to copy completely policies developed by other organisations, it may be quite reasonable to utilise them to develop an understanding of the topic, keywords and phrases and to obtain a picture of what is involved. For the inexperienced writer, it may be more than useful to gain an insight into how the policy document may be structured.</li> <li>2. Research legislation on the Internet – a policy may need to be created or amended because of a change in legislation, e.g., the introduction of the PDPA.</li> <li>3. Conduct a meeting – it is important to seek the assistance of others to analyse and define the problem. Unless the problem is defined well, it is difficult to find a solution. The meeting may be used to gather ideas from meeting participants about the nature of the issue or problem and how it might be solved.</li> <li>4. Survey participants – conducting a survey of participant satisfaction may be one possible way to gain information for the development of a policy; the survey may ask participants to provide views on what they feel is really important.</li> <li>5. Read minutes of management committee meetings (if allowed) – some organisations publish the minutes of their committee meetings or may allow them to be viewed by non-committee people. Minutes of management committee meetings often document the most important issues that the organisation faces. They may contain some detail of discussion about how issues may be solved. Minutes of meetings may be less fallible than individuals. They do not change from year-to-year or have memory lapses. For this reason, minutes are a historical record of the organisation and may provide excellent information for policy development.</li> </ol> |



## Process Steps

7. Prepare a draft policy – when there has been sufficient time for consultation processes to be completed the next step is to prepare a draft policy.
8. Consultation stage 2 – when the draft policy is completed it should be circulated to key stakeholders, published in the organisation's web site, discussed in further meetings and forums. At this stage it is necessary to seek help from stakeholders to fine-tune the wording, clarify meaning and make adjustments to the policy before it is finalised.
9. Adoption – when the co-ordinator of the policy development process is reasonably satisfied that all issues and concerns about the policy have been aired and dealt with, it is time to finalise the policy. The final policy document needs to be formally adopted by the management of the organisation (management committee) with an appropriate record entered in the minutes.
10. Communications – following formal adoption of the policy, it should be communicated far and wide throughout the organisation and stakeholders. Training sessions may need to be conducted to ensure that staff are fully informed and able to implement the policy. If the policy is not well communicated it may fail.
11. Review and evaluate – the implementation of the policy should be monitored. The policy may still require further adjustments and furthermore, the reasons for the policy's existence may change. A general practice is to set a date for the policy to be reviewed; this might be once a year or once every three years. It depends on the nature of the policy.

## Research

6. Read other documents such as reports – annual reports are another historical record of the organisation that may provide information about problems and issues that require policy development. Reports about events and programs that the organisation has conducted may provide opinions and views as to how they may be improved.
7. Read industry magazines and journals – with more journals going on-line, there is considerable information about all kinds of policy issues on the Internet. Often articles provide many helpful suggestions about important issues that require organisations to update their policies.
8. Seek legal advice – the lack of policies, or policies that are inadequate, can lead to legal action being taken against an organisation. Obtaining legal advice in the research phase and in the final approval of the policy may not only be advisable but also necessary.
9. Consider researching policy templates – it may help to conduct an online search for policy templates. The contents of a policy template may give ideas and prevent something important being forgotten.

