

Applied A.I. Solutions

Foundations of Data Management

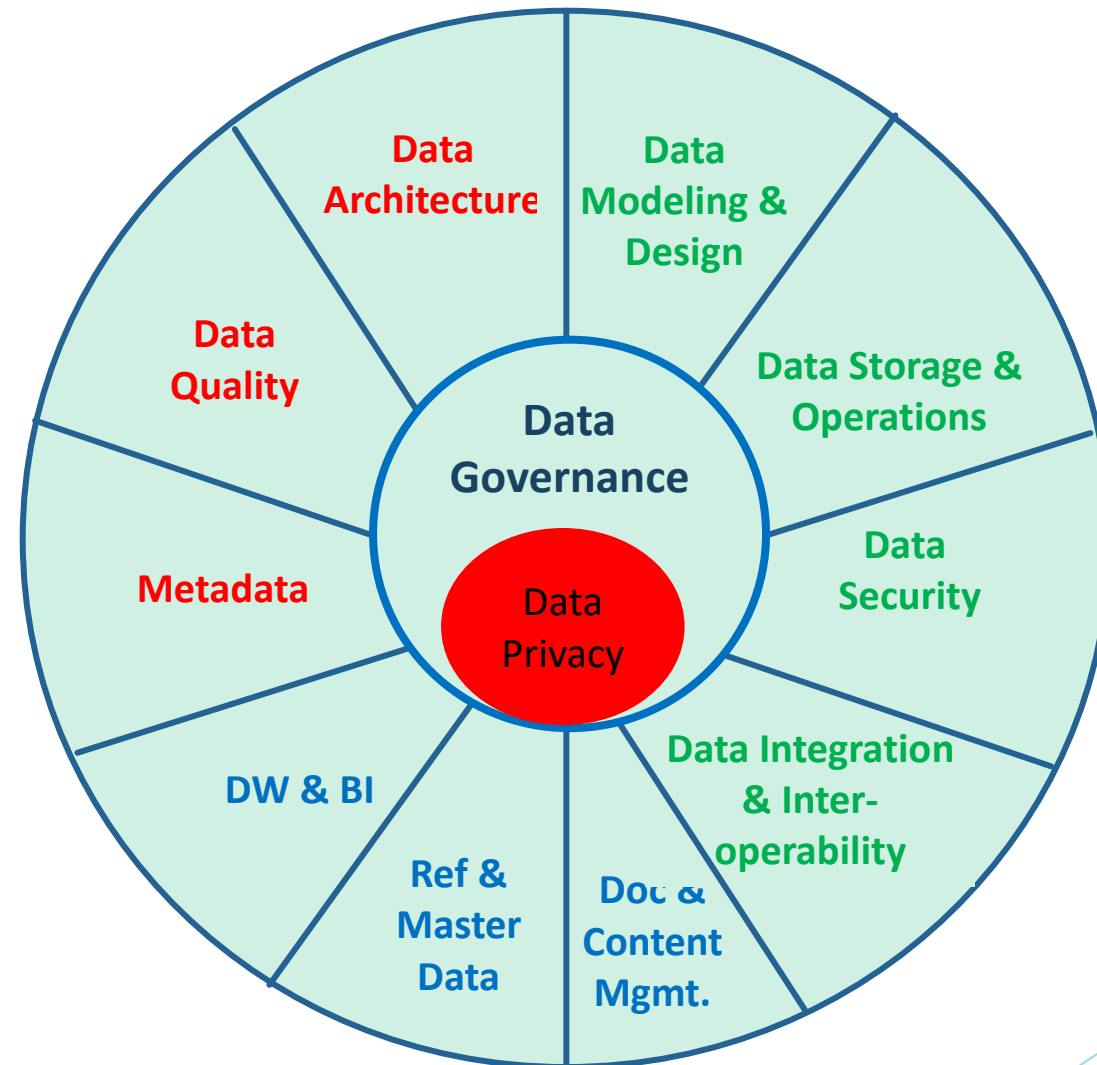
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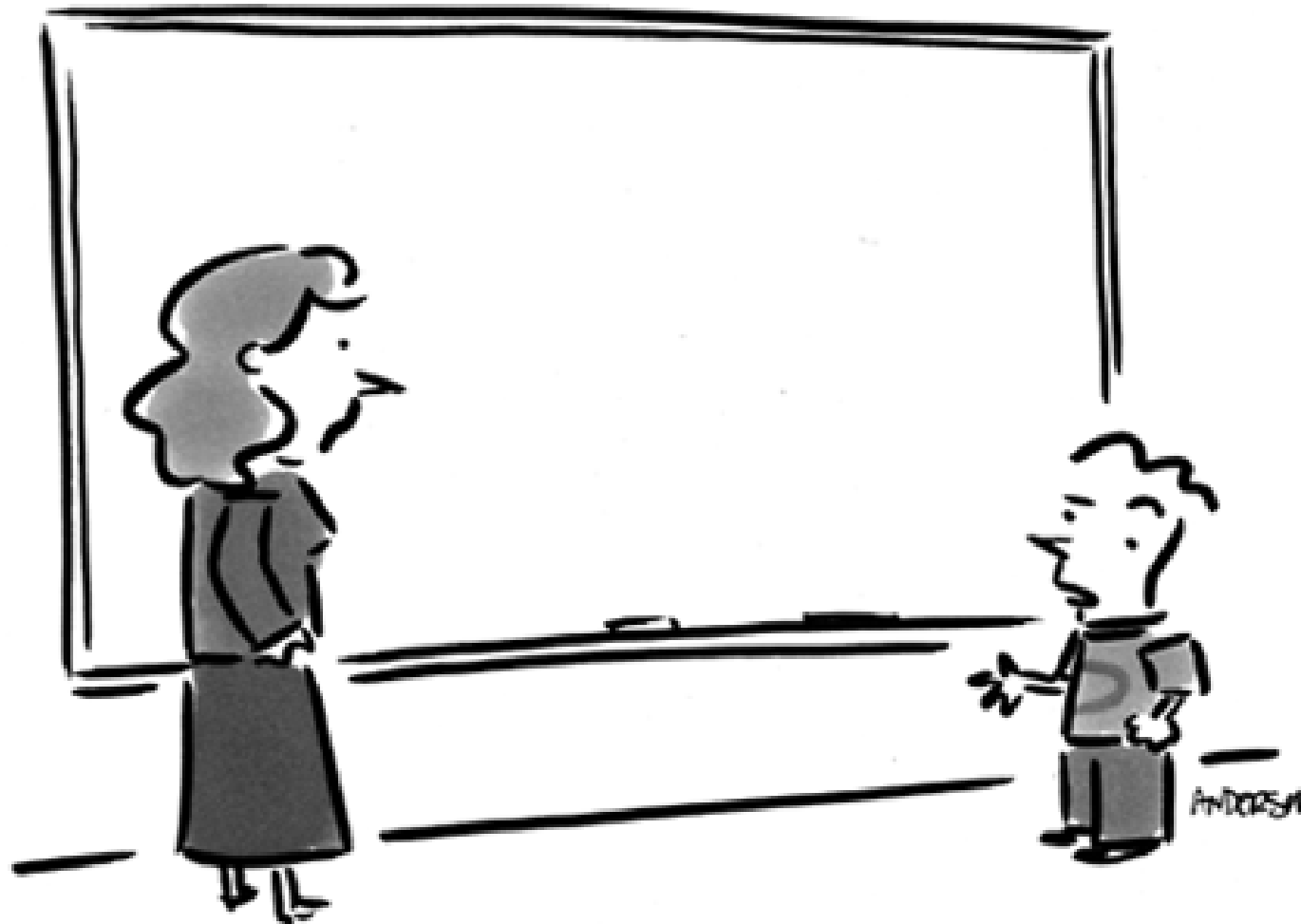
DATA PRIVACY

The DAMA Wheel



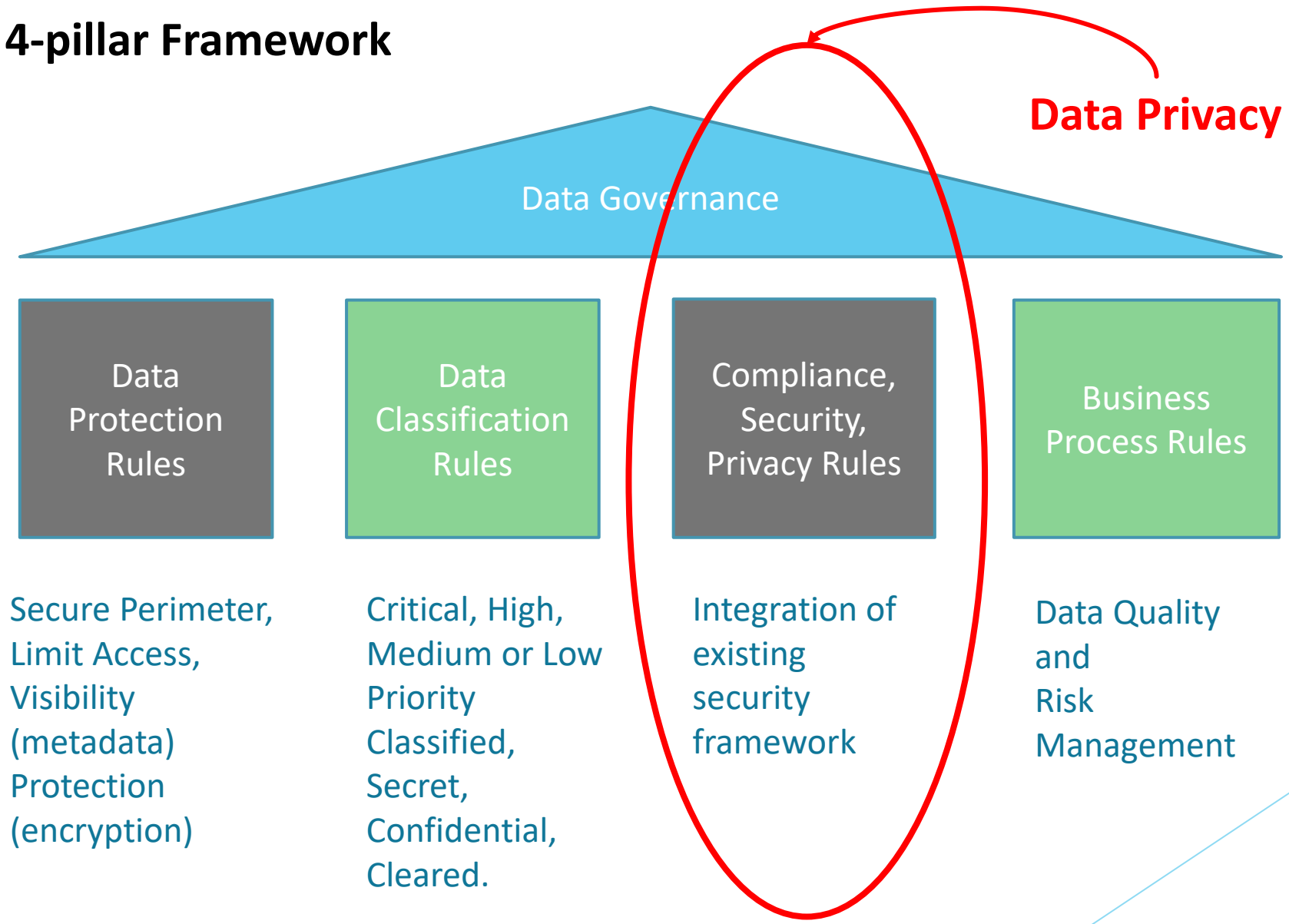
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"Before I write my name on the board, I'll need to know how you're planning to use that data."

DG 4-pillar Framework



Data Privacy

Strategic Alignment

1

Accountability: roles and responsibilities in the defined organizational chart

2

Data Inventory: data stewards to maintain the inventory of all data using metadata tools

3

Business Processes: establish processes for managing data in massive storage and data analysis tools

4

Policies, Procedures and Rules: define data protection, classification, compliance and security

1. INTRODUCTION

- The police apprehends a traveler because of tweets
- A university researcher demonstrates how mobile phones become tracking devices
- Metadata has a different meaning (and purpose) to service providers, general public and government authorities
- Laws and regulations define privacy policies intended to protect the data of individual, enterprise, government from being used without formal owners' consent

Data Privacy Framework

Definition

The exercise of monitoring, and enforcement, and shared decision-making over privacy of Data

Goals¹²

1. Identify sensitive data
2. Flag sensitive data within the metadata repository
3. Address privacy laws and restrictions by country, state or province
4. Manage situation where personal data crosses international boundaries
5. Monitor access to sensitive data by privileged users


Business Drivers

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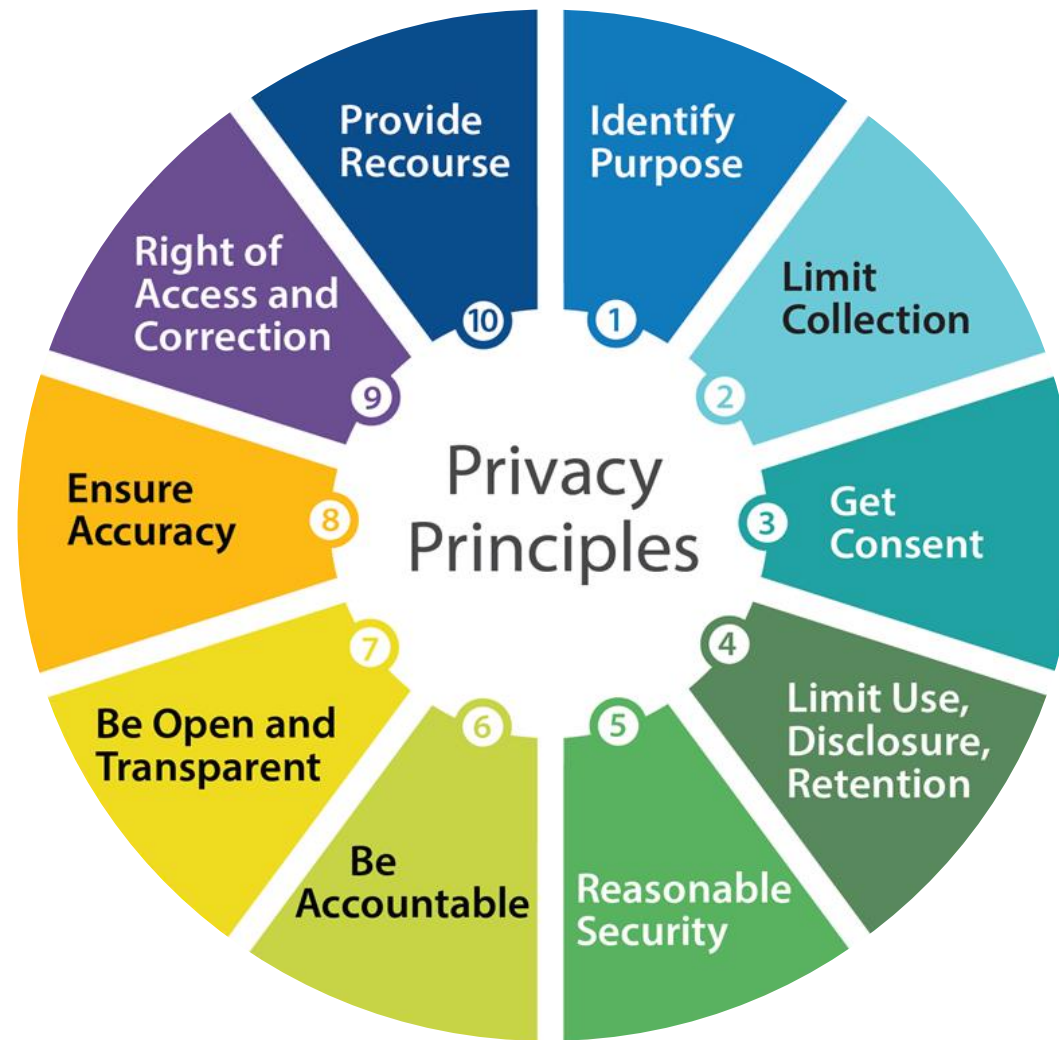
² Big Data Governance, An Emerging Imperative, by Sunil Soares, 2012, MC Press Online, LLC, Boise, ID 83703

Important Principles

1. Be Accountable. Be responsible, by contractual or other means, for all personal information under your control.
2. Identify the Purpose
3. Obtain Consent
4. Limit Collection
5. Limit Use, Disclosure and Retention
6. Be Accurate
7. Use Appropriate Safeguards
8. Be Open
9. Give Individuals Access
10. Provide Recourse

[Ten Principles of Privacy Protection - Province of British Columbia \(gov.bc.ca\)](http://gov.bc.ca)

Principles



Inputs

- Laws and regulatory requirements
- industry standards
- Organization's personal information practices, policies and procedures on how the collect, distribute, dispose personal information
- Data Governance Policies and Procedures
- Data Maturity Assessment
- IT Practices and Technology

Activities

1. Plan for compliancy
2. Create Data Privacy Policies
3. Define Data Privacy Team
4. Oversight Data Lifecycle
5. Audit Data Storages, DW, and Metadata
6. Publish and Deliver Data Privacy Policies and Procedures

Deliverables

1. Data privacy Strategy
2. Data Privacy Principles
3. Data Privacy Policies and Procedures
4. Recognized Compliancy
5. Reporting to stakeholders
6. Data Privacy Practice Scorecard and KPIs

Suppliers

- Business Executives
- Data Stewards
- Data Owners
- SME
- Maturity Assessors
- Regulators
- Enterprise Architect

Participants

- Data Protection Officer (DPO)
- Data Governance Bodies
- CIO, CDO, CD Stewards
- Data Stewards, Data Architects, DM Professionals
- Compliance, Audit Teams
- PMO

Consumers

- Data Protection Officer (DPO)
- Data Governance Bodies
- Project Managers
- Compliance Team
- DM Stakeholders
- Business Management
- Architecture Groups
- Partner Organizations

Who should be responsible for protecting our personal data? | World Economic Forum (weforum.org)

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Technical Drivers

Techniques:

- Legal, Technical Audits (internal, external)
- Constant Oversight and Monitoring of complaint logs regarding Data Privacy

Tools

- Software and manual procedures
- Website
- Glossary
- Workflow
- Document Management
- Scorecards

Metrics

- Compliance to regulatory and data privacy policies
- Penalties, fines
- Individual complaints
- Non-compliant activities
- Effectiveness
- Sustainability

Drivers

- Regulatory compliance
- Reduce the risk
- Improve Data Quality
- Improve Metadata management
- Increase individuals' satisfaction (internal and external)
- Increase customer satisfaction and reduce complaints related to data privacy

Essential Concepts

1. **Identify sensitive data**
 - De-identification of Data
 - Do not attempt to re-identify the data
 - Require downstream user to keep the data in de-identification form
2. **Flag sensitive data** within the metadata repository
3. **Address privacy laws** and restrictions by country, state or province
 - Privacy by design
 - Reasonable limitations on data collection
 - Reasonable data retention and disposal policies
 - Simplified consumer choice to obtain express consent of data usage
 - Data brokers
 - Large platform providers

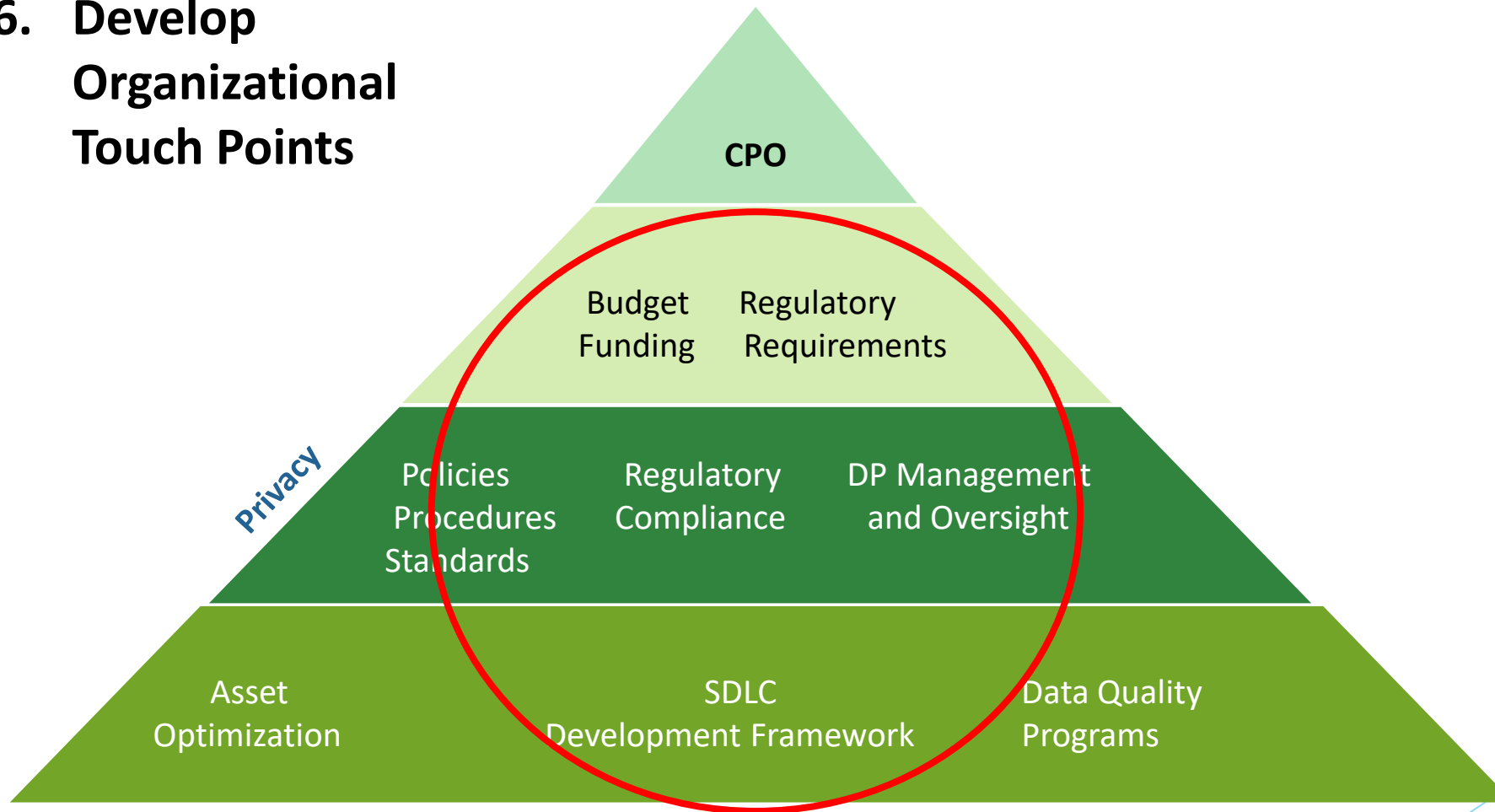
Essential Concepts

4. Manage situation where personal data crosses international boundaries
5. Monitor access to sensitive data by privileged users

2. ACTIVITIES

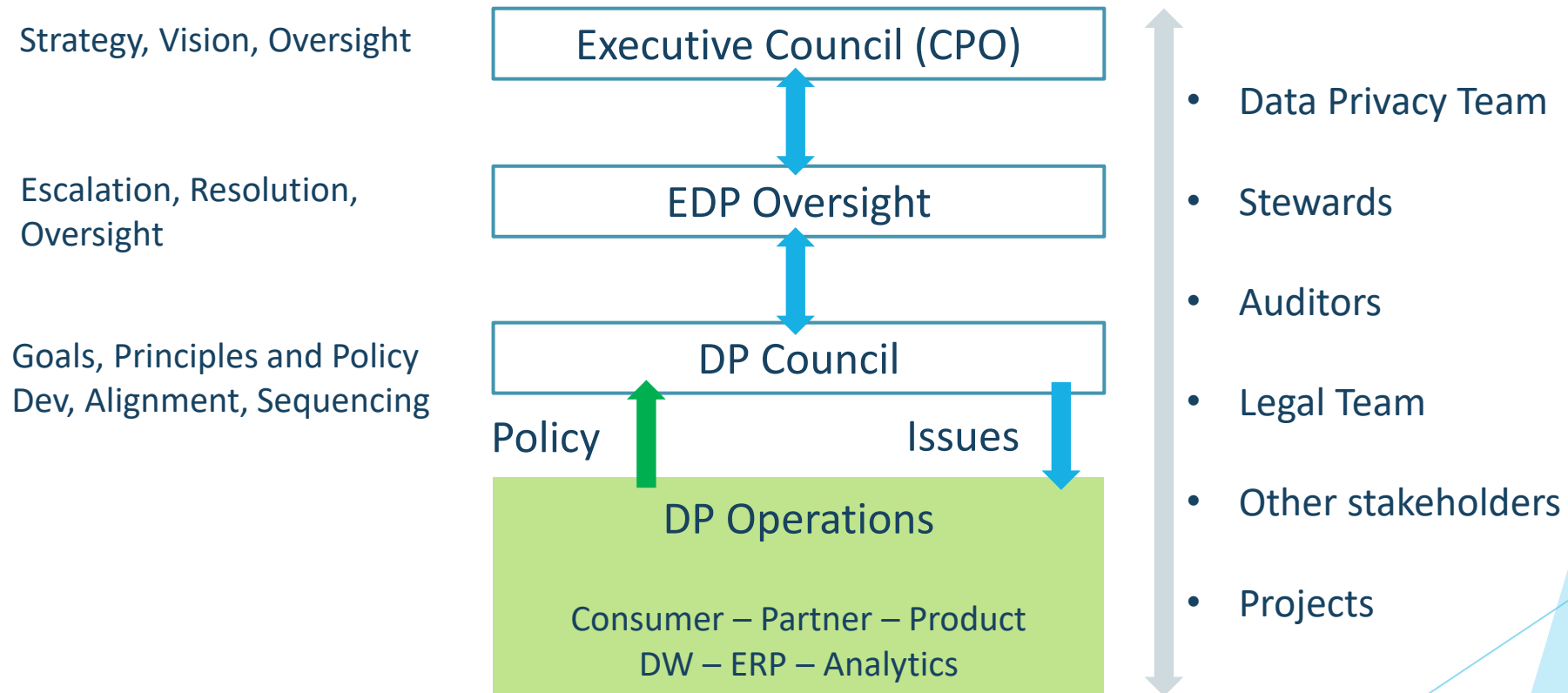
1. Define Data Privacy for the Organization
2. Perform Readiness Assessment
3. Perform Discovery and Business Alignment
4. Develop Data Privacy Strategy aligned to the Data Governance Strategy
5. Define Data Privacy Goals, Principles, and Policies

6. Develop Organizational Touch Points



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7. Define DP Operating Framework



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Other Activities

8. Underwrite DM Projects
9. Engage Change Management
10. Engage in Issue Management
11. Assess Regulatory Compliance Requirements
12. Implement Data Privacy
13. Sponsor Data Standards and Procedures

- 14. Develop a Business Glossary
- 15. Coordinate with Architecture Groups
- 16. Sponsor Data Asset Valuation
- 17. Embed Data Privacy

3. TOOLS and TECHNIQUES

- Online Presence / Websites
- Business Glossary
- Workflow Tools
- Document Management Tools
- Data Privacy Scorecards

4. IMPLEMENTATION GUIDELINES

- Readiness Assessment / Risk Assessment
- Operating Plan and Enterprise-wide Implementation Roadmap
- Organizational and Cultural Change
- Adjustment and Communication

5. Metrics

- a. Value
 - Conformance to regulatory requirements
 - Reduction of risk
 - Reduction of penalties and fines
 - Contribution to business objectives
- b. Effectiveness
 - Speed of change adoption
 - Achievement of Data Privacy goals and objective
 - Effectiveness of communication
 - Effectiveness of education / training
- c. Sustainability
 - Performance of policies and process
 - Conformance to regulatory requirements

