data modeling zone

SEGDA — Servicios de Estrategia y Gestión de Datos Aplicada

DATA STRATEGIES SETTING A PLACE FOR DATA MODELING

A PRAGMATIC, AGILE, AND COMMUNICABLE METHOD TO GROUND THE DATA MANAGEMENT PRACTICE.

MARILU LOPEZ

PHOENIX, ARIZONA

FEBRUARY 29TH, 2024

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PROFESSIONAL JOURNEY

1986 **2001** **2012** **2019**

Banamex

ENTERPRISE ARCHITECTURE

citibanamex

DATA GOVERNANCE
DATA QUALITY
METADATA MANAGEMENT

DAMA International

2016   **2019**   **2021**   **2022**

DAMA Capítulo México

DAMA LATAM

PRESIDENTS' COUNCIL DAMA International

MARILU LOPEZ

DAMA MEXICO PRESIDENT

LATAM REGIONAL COORDINATOR

PRESIDENTS' COUNCIL CHAIR

VP CHAPTER SERVICES

SEGDA FOUNDER AND CEO
Servicios de Estrategia y Gestión de Datos Aplicada

DAMA International VP Chapter Services

CIMP Ex   CDMP Certified Data Management Professional MASTER   THE Open GROUP TOGAF 9 Certified

SEGDA
Servicios de Estrategia y Gestión de Datos Aplicada

2022

2023

DATA STRATEGIES FOR DATA GOVERNANCE
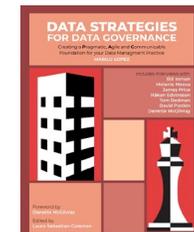
THE TARGET FOR THE NEXT 50'
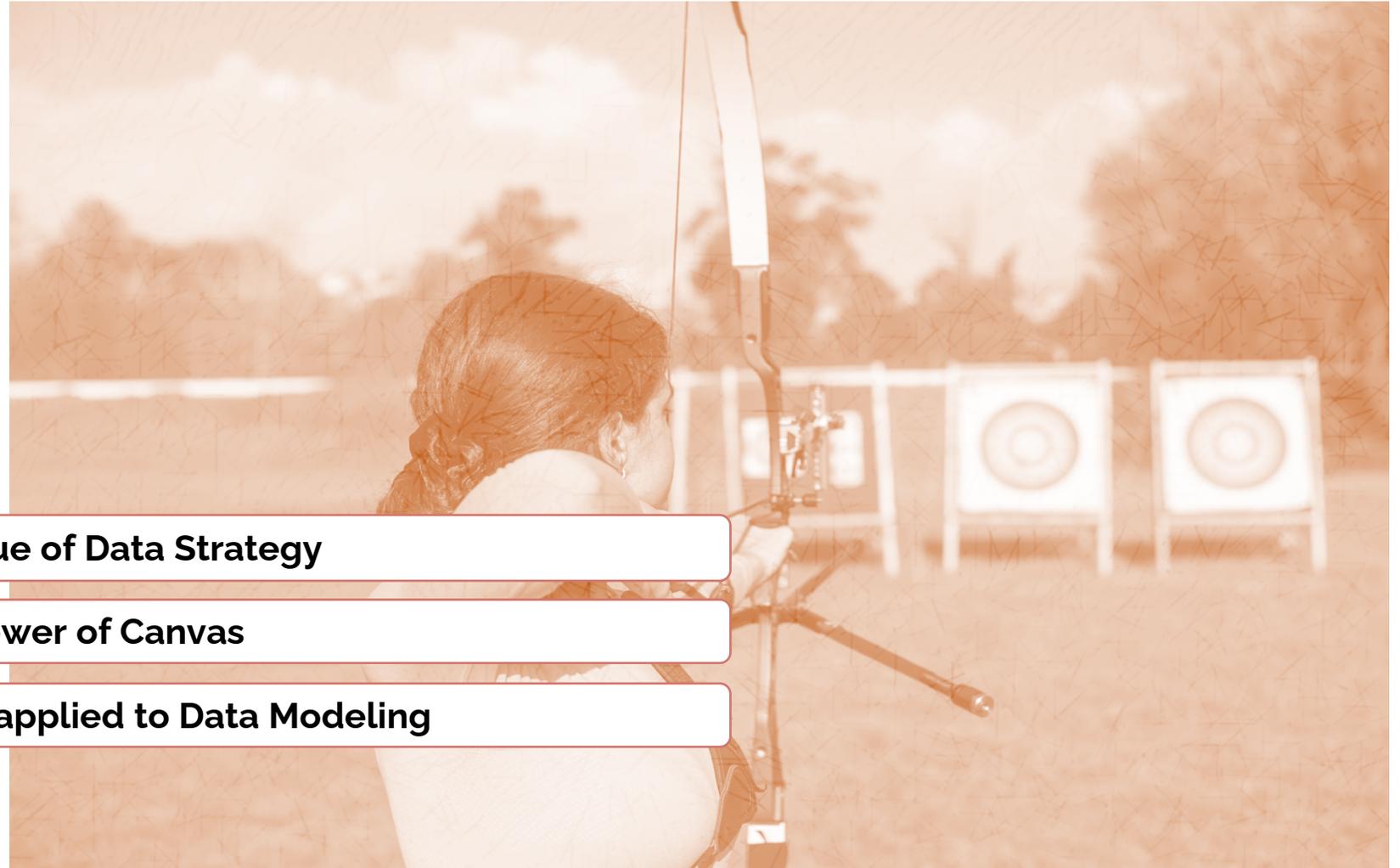
1	The Value of Data Strategy
2	The Power of Canvas
3	The PAC Method applied to Data Modeling

Satisfaction with current Data & Analytics Landscape

Query performance — 57%

Implementation and maintenance cost — 56%

Comprehensibility of the individual data models — 55%

Data pipeline performance — 54%

Flexibility with respect to extended data requirements — **54%**

Extensibility with respect to advanced analytics requirements — 50%

Top Modernization Approaches

**Optimization of existing
  data models, data processes, queries 56%**

Migration to a cloud platform for
  data & analytics**.**   49%

Improving the quality of the source

  data and/or data interfaces   43%

Redesign of the data architecture   43%

Software and/or hardware

  modernization   37%

DATA SILOS– CULTURAL AND ORGANIZATIONAL CHALLENGES

Lack of Communication   42%
Lack of Motivation   38%
Lack of Management Support   38%
Lack of Transparency   32%
Key People "protect" knowledge   31%

Lack of Data Strategy   **30%**

Digital Transformation Not Understood   30%

Digitalization Strategy Not Clear   30%

BARC: Infografics – "DATA Black Holes"
JUNE 2021

BARRIERS TO BUILD A DATA CULTURE

50% **of organizations surveyed found the lack of Data Strategy as the main obstacle to a Data Culture.**

BARC: "Data Culture Survey"
November 2021
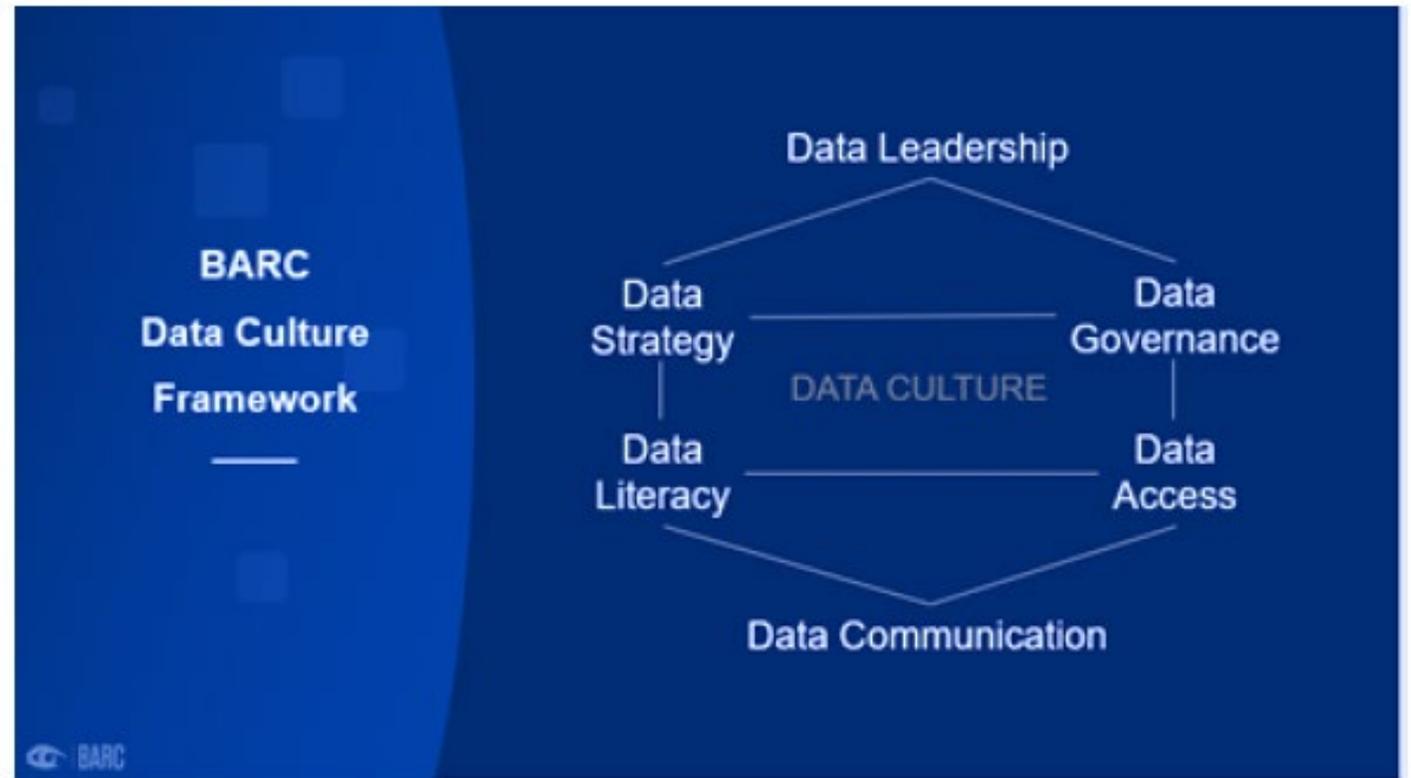
IMPACTS OF NOT HAVING A DATA STRATEGY

- **Overinvestment** in technology platforms that are underutilized and do not meet expectations.

- **Not articulated** resources allocated to Data Management, Data Governance, and regulations compliance programs.

- **Information silos** due to a lack of knowledge of the flow of data across processes

- **High costs** in maintaining Data Management functions without contributing to the strategic objectives of the organization.

- **Rejection** of Data Management initiatives.

- **Isolated efforts of Data Modeling** need more prioritization and funding for a sustainable practice.

SOME STRATEGY'S METADATA

STRATEGY

ORIGIN	*Military*
DEFINITION	*Strategy is the **highest-level guidance** available to an organization, focusing activities on **articulated goal achievement** and providing direction and specific guidance when faced with a stream of decisions or uncertainties.* **Peter Aiken, Todd Harbour** - Data Strategy and The Enterprise Data Executive
AUTHORS	*Selected elite team*
PRIVACY	*Keep it as secret as possible*

SOME DATA STRATEGY'S METADATA

DATA STRATEGY

DEFINITION	*"**Data** Strategy is the highest-level guidance available to an organization, focusing **data-related** activities on articulated **data goal achievements** and providing direction and specific guidance when faced with a stream of decisions or uncertainties"* **Peter Aiken, Todd Harbour** - Data Strategy and The Enterprise Data Executive
SCOPE	*Mostly technology platforms, and migration paths*
AUTHORS	*Selected elite team mainly from IT*
PRIVACY	*Known by a limited number of persons*
BELIEFS	*"It takes too long (months) to produce it"* *" There's no time for Data Strategy; we have many pain points to relief and regulations to be compliant with"*

# SOME DATA STRATEGY'S METADATA (MARILU'S PERSPECTIVE)

DATA STRATEGY

DEFINITION	"**Data Strategies** are the **highest-level guidance** in an organization on intelligently **assigning** *resources* to work in an integrated way to **achieve data-related goals** and contribute to achieving **business strategic objectives**. – **Marilu Lopez**
SCOPE	*All the organization's business needs of data, motivations, data-related pain points, and data-related behaviors to be modified. This will guide IT Strategy on data-related needs.*
AUTHORS	*Representatives from all the organizational units, coordinated by whoever is the Data Lead.*
PRIVACY	*Open to all the organization in a simple format, easy to read, to set expectations.*
BELIEFS	*It can be produced in 9 weeks* *It must be part of the Enterprise's Strategic Planning* *It is the key to Data Initiatives' success, including meeting GDPR and CCPA.*

THE NORTH TO AN EFFECTIVE DATA MANAGEMENT PROGRAM
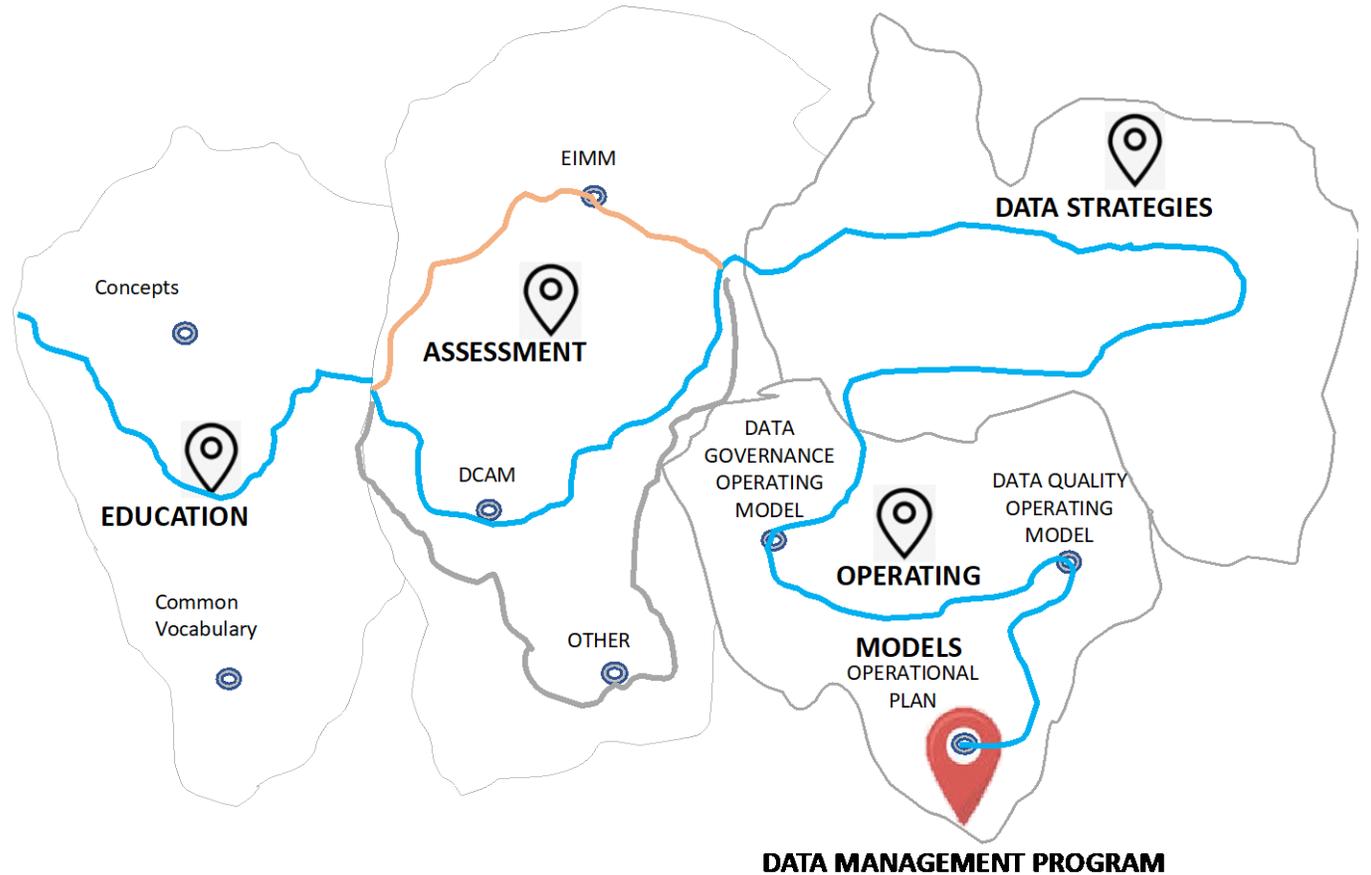
INSPIRING FRAMEWORKS
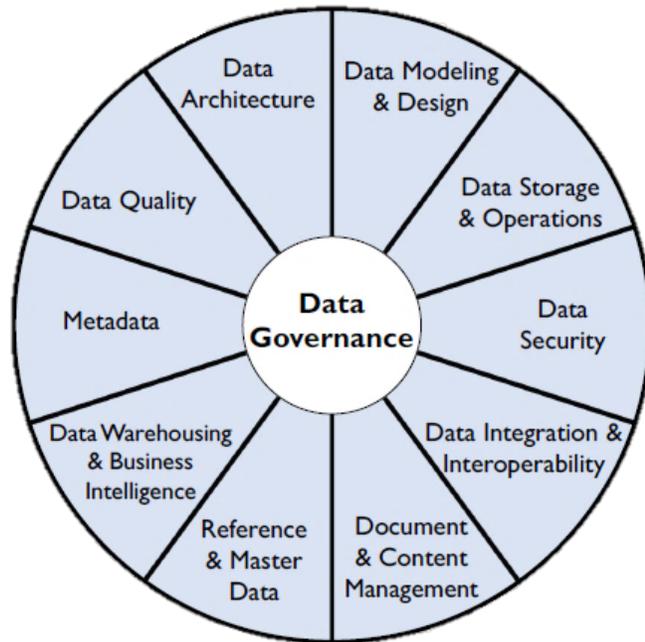

DAMA-DMBOK2 Data Management Framework
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THE PERFECT PAIRING
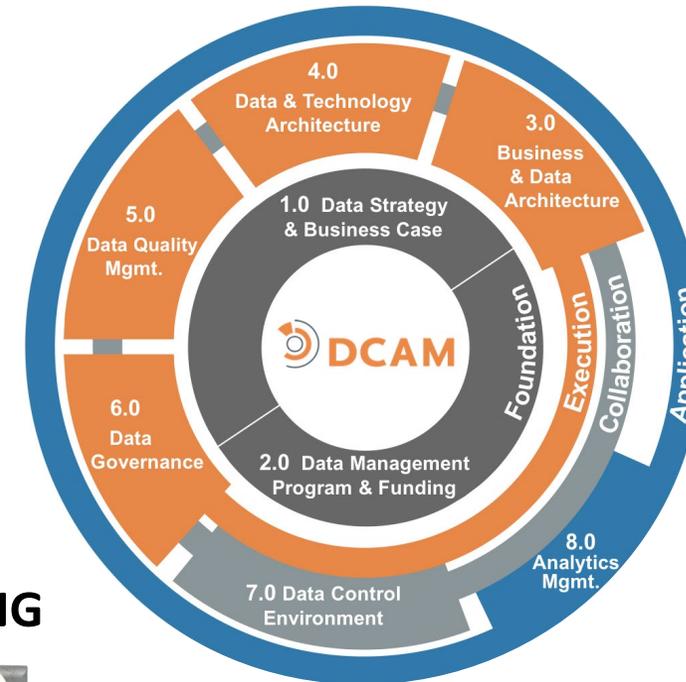

EDM Council DCAM
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THE RELEVANCE OF A CAPABILITY-BASED MATURITY MODEL

Capabilities are the anchor for Data Governance/Data Management Road Maps.
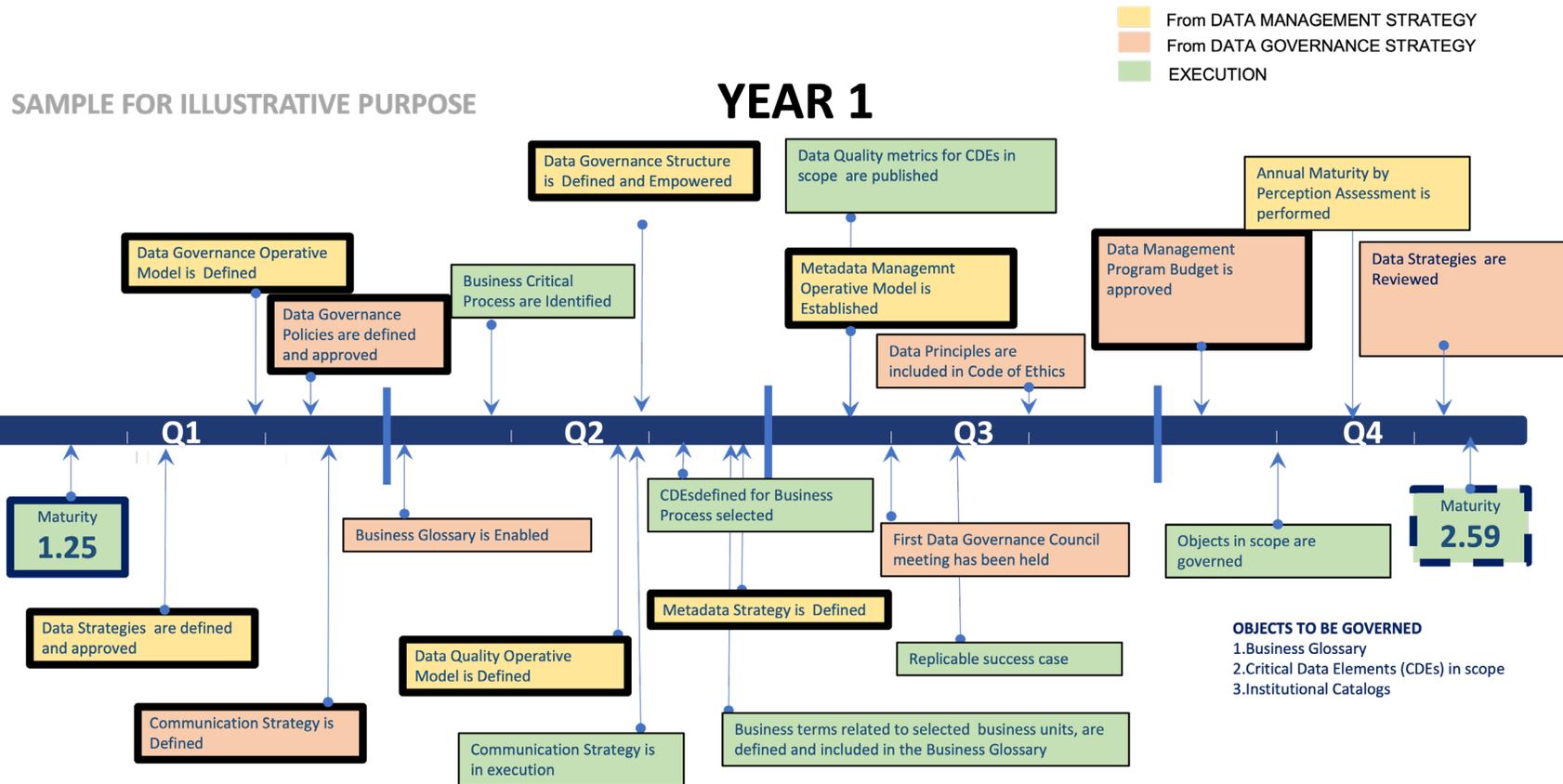
THE POWER OF A CANVAS
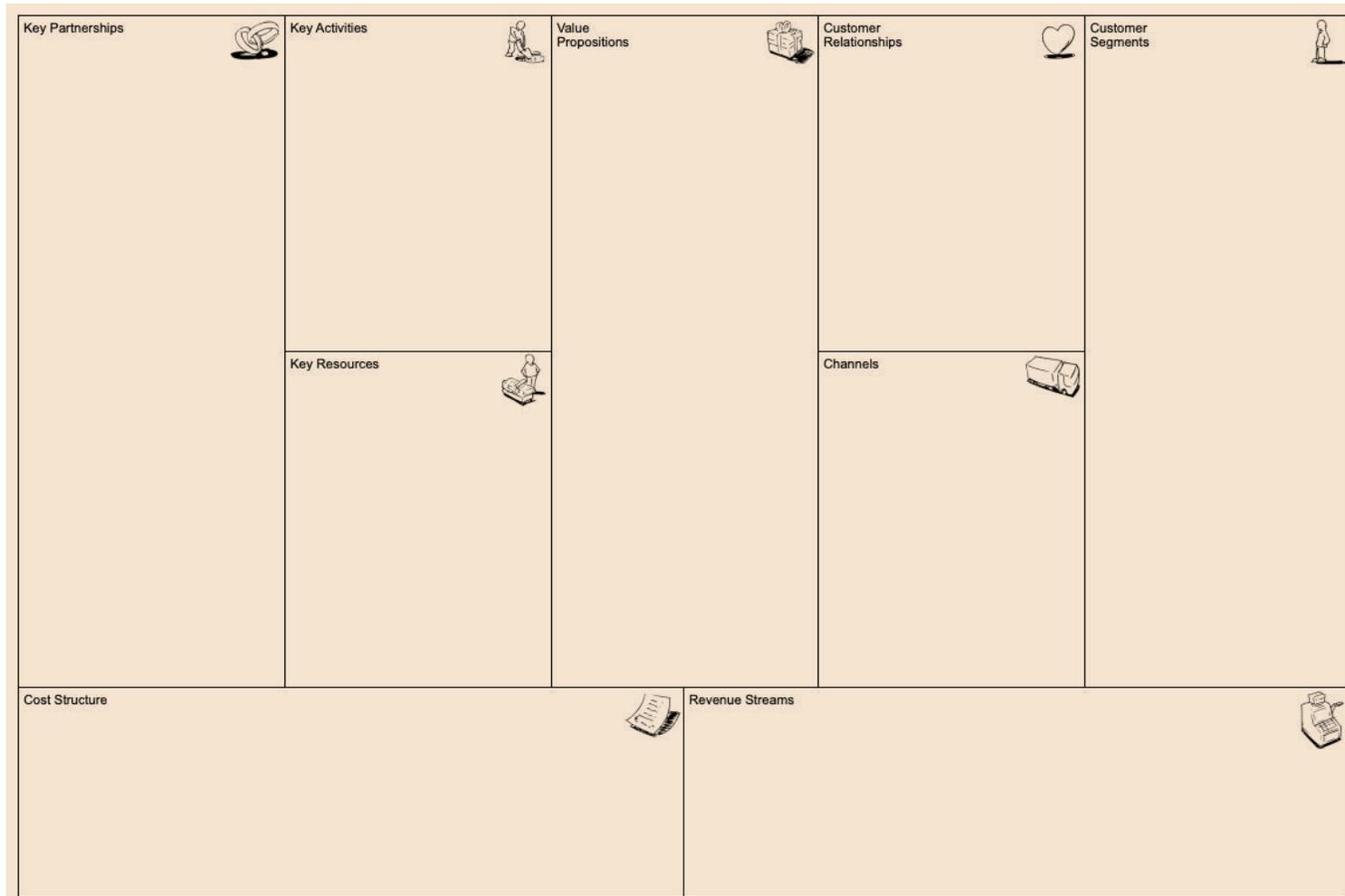
Alex Osterwalder's Business Model Canvas: http://www.businessmodelgeneration.com

DATA STRATEGY FRAMEWORK...A SOURCE OF INSPIRATION
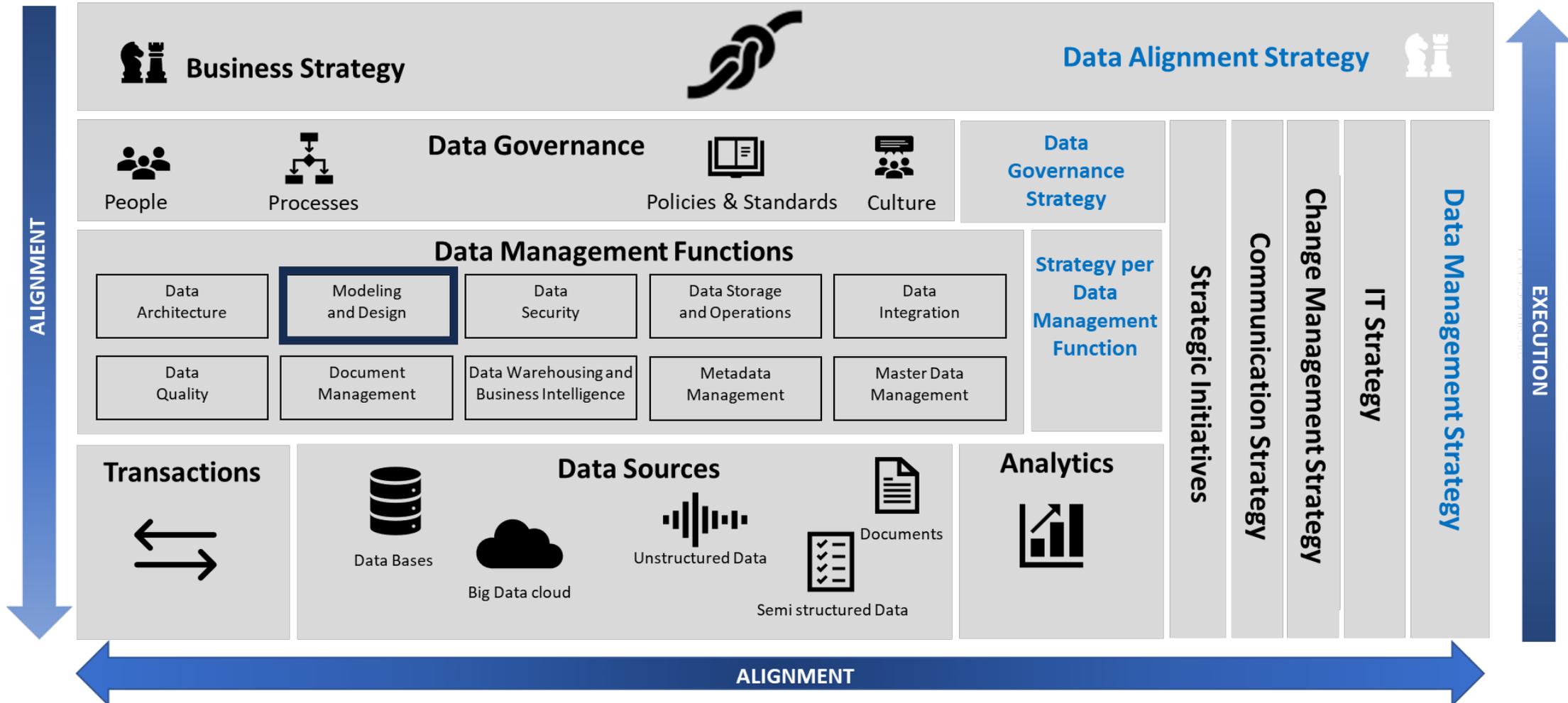
A PRAGMATIC APPROACH TO SUCCESSFUL DATA INITITIATIVES

THE DATA STRATEGY PAC METHOD

PRAGMATIC, AGILE, COMMUNICABLE

①

A **DATA STRATEGIES FRAMEWORK** GUIDING THE ALIGNMENT WITH ENTERPRISE STRATEGY
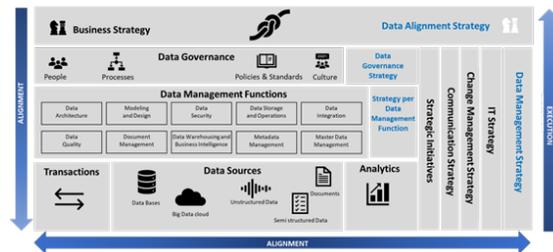
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A **SET OF DATA STRATEGY CANVASES** DEFINED BY STAKEHOLDERS
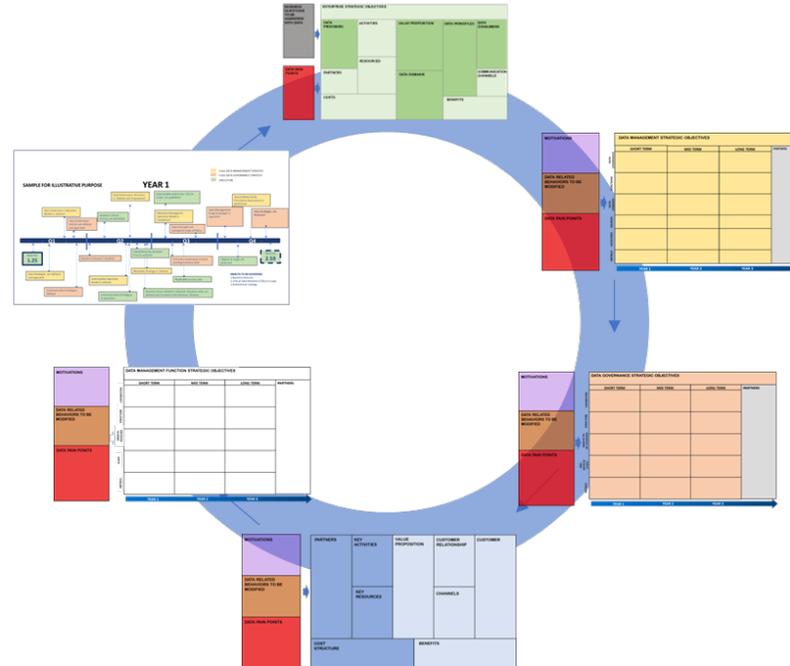
③

A **DATA STRATEGY CYCLE** TEN STEPS TO EFFECTIVE DATA STRATEGIES

DATA ALIGNMENT STRATEGY CANVAS

BUSINESS QUESTIONS TO BE ANSWERED WITH DATA

DATA PAIN POINTS

ENTERPRISE STRATEGIC OBJECTIVES

DATA PROVIDERS

ACTIVITIES

RESOURCES

PARTNERS

COSTS

VALUE PROPOSITION

DATA DOMAINS

DATA PRINCIPLES

DATA CONSUMERS

COMMUNICATION CHANNELS

BENEFITS

DATA MANAGEMENT STRATEGY CANVAS

MOTIVATIONS

DATA RELATED BEHAVIORS TO BE MODIFIED

DATA PAIN POINTS

DATA MANAGEMENT STRATEGIC OBJECTIVES

	SHORT TERM	MID TERM	LONG TERM	PARTNERS
DATA GOVERNANCE				
FUNCTIONS				
DATA DOMAINS				
SOURCES				
INITIATIVES				
METRICS				

YEAR 1 — YEAR 2 — YEAR 3

DATA GOVERNANCE STRATEGY CANVAS

MOTIVATIONS		DATA GOVERNANCE STRATEGIC OBJECTIVES			
		SHORT TERM	MID TERM	LONG TERM	PARTNERS
	CAPABILITIES				
DATA RELATED BEHAVIORS TO BE MODIFIED	STRUCTURE				
	OBJECTS TO BE GOVERNED				
DATA PAIN POINTS	ORG. UNITS IN SCOPE				
	METRICS				

YEAR 1 → YEAR 2 → YEAR 3
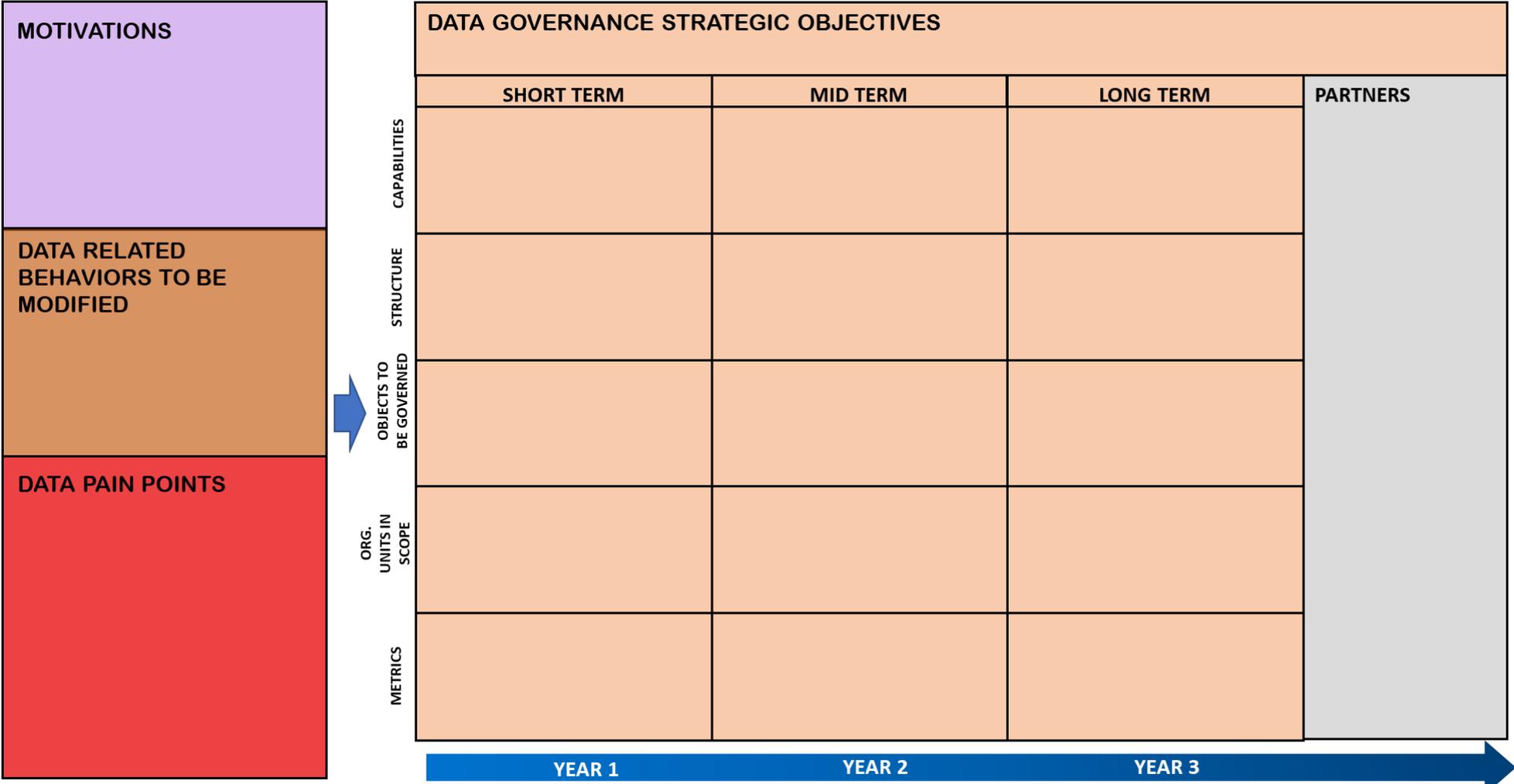
DATA GOVERNANCE BUSINESS MODEL CANVAS

| MOTIVATIONS |
| DATA RELATED BEHAVIORS TO BE MODIFIED |
| DATA PAIN POINTS |

PARTNERS	KEY ACTIVITIES	VALUE PROPOSITION	CUSTOMER RELATIONSHIP	CUSTOMER
	KEY RESOURCES		CHANNELS	
COST STRUCTURE		BENEFITS		

The Business Model Canvas CC License A. Osterwalder, Strategyzer.com www.strategyzer.com

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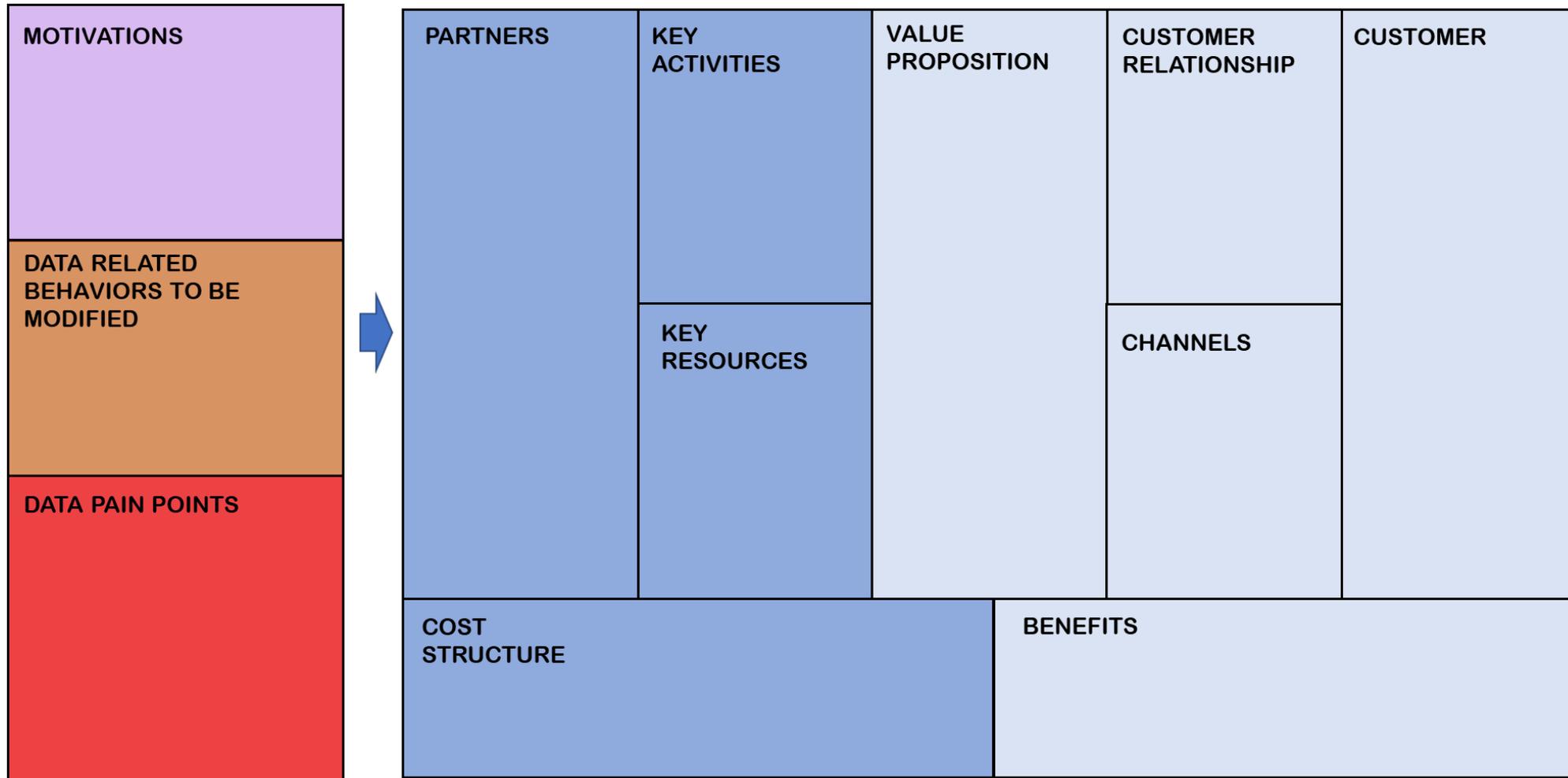
DATA MODELING STRATEGY CANVAS

MOTIVATIONS
DATA RELATED BEHAVIORS TO BE MODIFIED
DATA PAIN POINTS

DATA MODELING STRATEGIC OBJECTIVES

	SHORT TERM	MID TERM	LONG TERM	PARTNERS
CAPABILITIES				
STRUCTURE				
OBJECTS INVOLVED				
SCOPE				
METRICS				

YEAR 1 — YEAR 2 — YEAR 3

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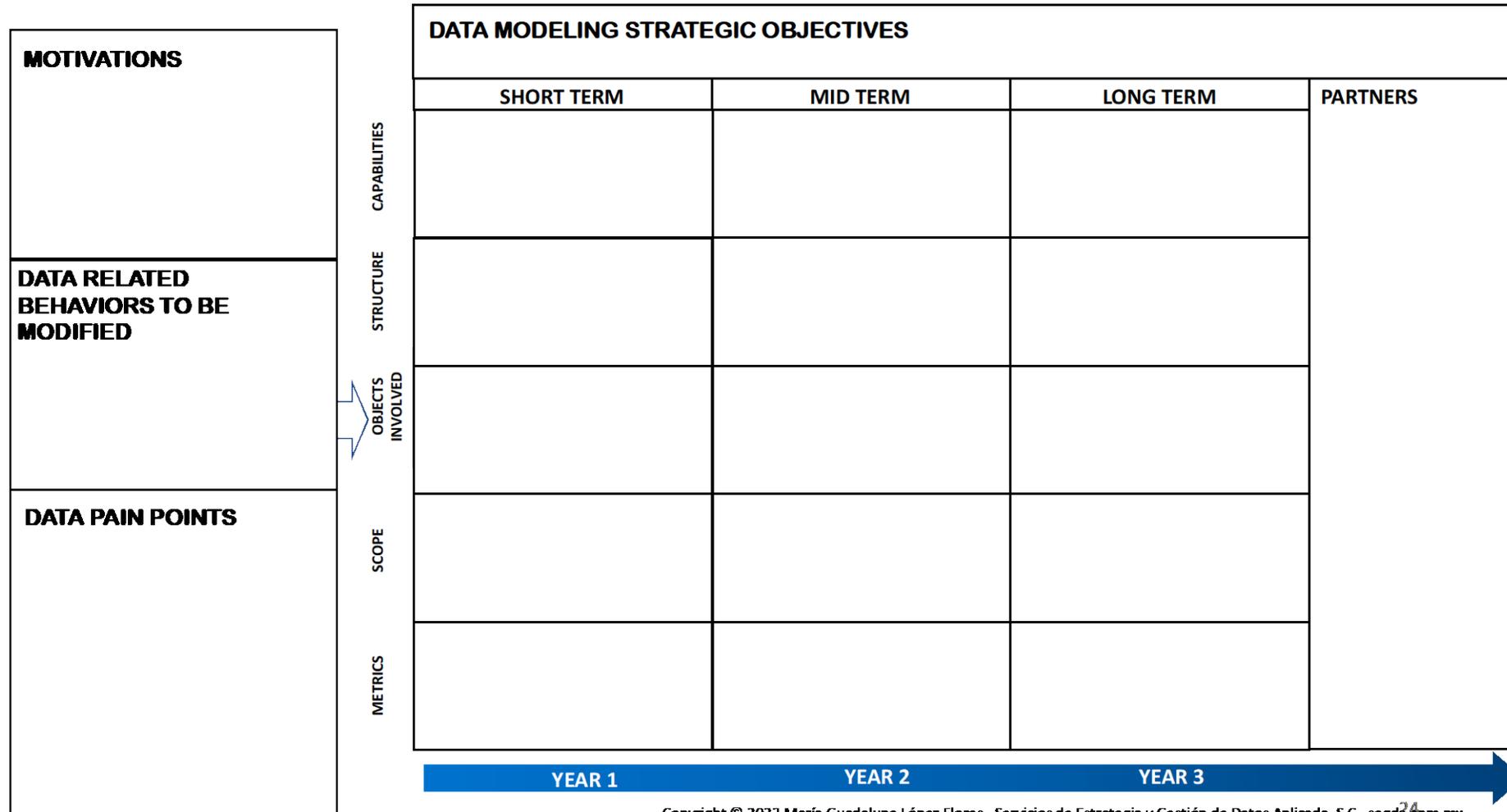
MOTIVATIONS

- The current time to market is putting us behind our competitors
- Complains about customer's experience have increased
- Recover market leadership

DATA RELATED BEHAVIORS TO BE MODIFIED

- Data models are not shared
- Data structures are reused with different purposes without documenting it
- Solutions implemented are not compliant with data designs

DATA PAIN POINTS

- Duplicated customer data impacting curstomer's experienc
- 75% average delay of systems projects delivery
- Fines received due to lackk of data privacy regulation compliance

DATA MODELING STRATEGIC OBJECTIVES

1. Foster projects' analysis and design phases reduction.   2. Bridge communication gaps between Business and IT

	SHORT TERM	MID TERM	LONG TERM	PARTNERS
CAPABILITIES	• Data Modeling technique and standards established • EDM approach defined • Training program established • Governance structure established • Tech platform implemented	• Data Modeling funding model established • Data Modeling operating model is established • Communication Strategy is defined • Data Modeling practice is enforced	• Data Modeling policies compliance validation is in place • Implementation vs data modeling validation is in place • Augmented Data Management Modeling established	• PMO • Enterprise Architecture • Data Architecture • Solution Architects
STRUCTURE	• Data Modeling lead • 2 Relational Data Modelers	• Data Modeling Center of Excellence • EDM custodian • EDM committee • 3 Certified Data Modelers • 2 NoSQL Data Modelers	• 3 Additional certified Data Modelers	
OBJECTS INVOLVED	• EDM • DWH	• Cloud Data Lakehouse • Customer MDM DB • Product Inventory	• Supply chain graph DB	
SCOPE	• Customers • Product	• Account Opening • Supply Chain	• Finance • HHRR	
METRICS	• % Entities modeled in EDM • % Target audience trained • % Of policies defined and approved	• % Entities modeled in EDM • % Target audience trained • % Of policies defined and approved • % of projects compliant with standards • Data Models Quality Score	• % Data Modeling compliance • % Implementations compliant with data models	

2024   **2025**   **2025**

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DATA GOVERNANCE ROAD MAP
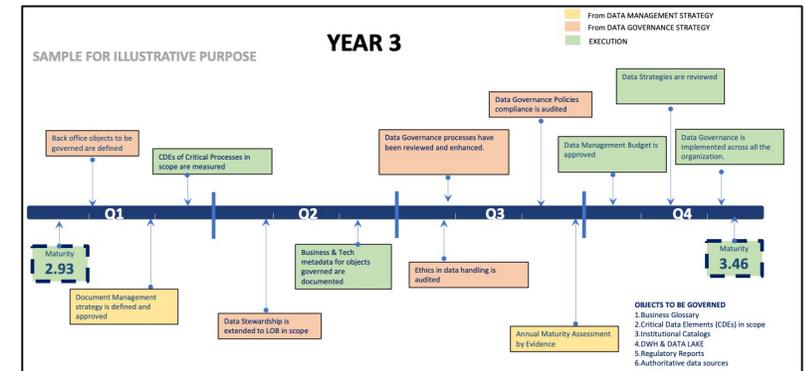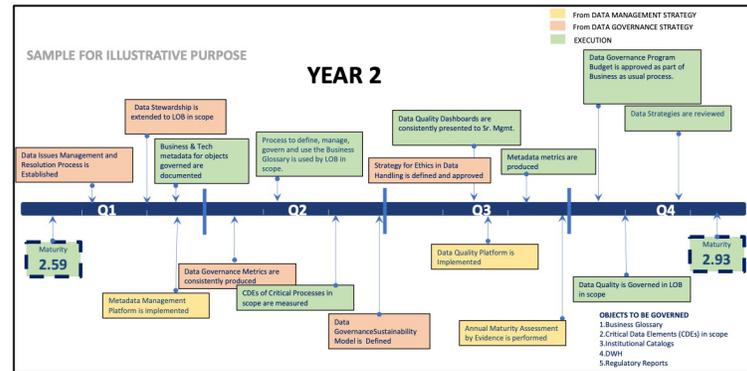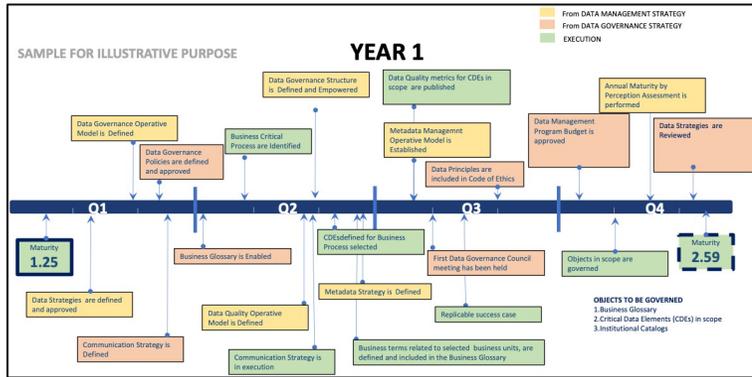
THE DATA STRATEGY CYCLE
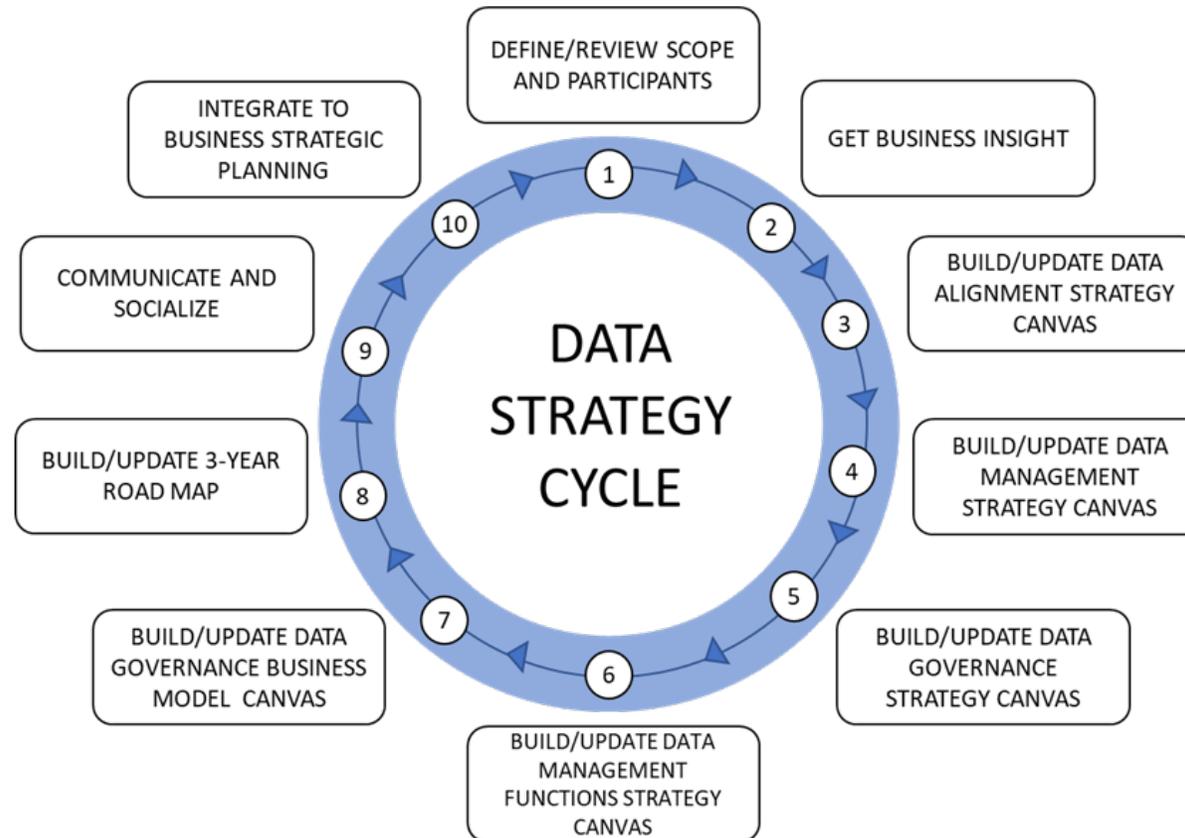
To be repeated annually.

CASTING PARTICIPANTS

STAKEHOLDERS REQUIRED

DATA ALIGNMENT STRATEGY

- BUSINESS LOBs
- STRATEGIC PLANNING
- CORPORATE GOVERNANCE
- LEGAL
- INFORMATION SECURITY
- IT
- FINANCE
- ENTERPRISE ARCHITECTURE
- DATA GOVERNANCE
- COMPLIANCE

DATA MANAGEMENT STRATEGY

- BUSINESS LOBs
- ENTERPRISE ARCHITECTURE
- IT
- PMO
- DATA GOVERNANCE

DATA GOVERNANCE STRATEGY

DATA MANAGEMENT FUNCTION STRATEGY

- DM SPECIFIC FUNCTION TEAM
- DATA GOVERNANCE

DATA STRATEGIES
FOR DATA GOVERNANCE
Creating a **P**ragmatic, **A**gile and **C**ommunicable
Foundation for your Data Management Practice
MARILU LOPEZ

Includes Interviews with:
Bill Inmon
Melanie Mecca
James Price
Håkan Edvinsson
Tom Redman
David Plotkin
Danette McGilvray

Foreword by
Danette McGilvray

Edited by
Laura Sebastian-Coleman

Let's tranform Data Strategy from a noun into a verb!

DATA GOVERNANCE/DATA STRATEGY   TECHNICS PUBLICATIONS

Winning any game requires a solid strategy, and the same goes for Data Management. Data Strategy involves a variety of interrelated strategies that work together to meet business goals, prioritize data needs, and address pain points. With Data Strategies, you can manage expectations and communicate effectively. This book provides a comprehensive guide for creating an Enterprise Level Data Strategy, including the necessary constituent strategies and canvases. By following this methodology, you can develop a practical, agile, and easy-to-communicate (PAC) Data Strategy that keeps your teams and organization aligned.

"This is a comprehensive book on data strategies. Marilu Lopez has come up with a way to connect the data strategy to executive management that until now has been a missing piece; how to set the data strategies in motion. She doesn't just go into how to create a data strategy as if it were a cake to be baked. Instead, she makes the reader think about what kind of data strategies are needed and how they fit into your organization's challenges, intentions, and aspirations. The content is very credible as Marilu Lopez consistently uses and relates to academic research, literature, and thought leaders' experiences. Thus, her PAC framework is based on today's accumulated knowledge and takes you further from there. If you are about to take on data strategy work, you should start by first checking out Marilu Lopez's messages."

Håkan Edvinsson, CTO, Principal Consultant, Informed Decisions

"For decades, data professionals have been advised to "get closer to the business" and to "connect business and data strategy," But how? Finally, a book that answers this question! Well done, Marilu Lopez!"

Tom Redman, "The Data Doc." Data Quality Solutions

"Today's college graduates think that technology is all about choosing a technology or a technology stack in order to get work done. They don't see that there is a larger infrastructure that they are a part of. What is needed is a book on the larger concepts that shape the IT industry. I recommend the book by Marilu Lopez as a starting place for understanding the larger framework under which IT operates."

Bill Inmon, CEO of Forest Rim Technology

ABOUT THE AUTHOR
Marilu Lopez (María Guadalupe López Flores) dedicated over 30 years to corporate life in the financial sector before becoming a Data Management consultant and trainer. She pioneered the Enterprise Architecture practice, which led her to focus on Data Architecture and, from there, expand her practice to Data Management, which she pioneered in Mexico, leading DAMA International (Data Management Association) local Chapter in Mexico. She has dedicated her volunteer work to this organization in different roles internationally. Through decades she suffered the lack of a holistic and comprehensive Data Strategy, which inspired her to do this work for the Data Management community worldwide.

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