

Club Phát Triển Kế Toán

Topic: Enterprise Data Strategy

Drive Agile Business Transformation

Aidt Aron

Co-Founder, Solution Director, ARON JSC.

13:30 – 16:30 PM, Aug 14, 2022



Nội dung

1. Vai trò của dữ liệu trong thời đại ngày nay
2. Tổng quan về chiến lược dữ liệu & các cách tiếp cận
3. Phân loại & quản lý dữ liệu trong DN
4. Xây dựng chiến lược dữ liệu phù hợp với chiến lược kinh doanh
5. Xây dựng văn hoá/tổ chức quản trị DN dựa trên dữ liệu
6. Trao đổi và thảo luận

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Current trends



The future is here – Are you ready to outpace change?

Which number is the right one?



Sound familiar?



Quotes - We Commonly Hear From Customers

"Manual process with too much risk for errors"

"Too many redundant processes"

"Reconciliation nightmares"

"Inconsistent data so I can't trust it"

Business Benefits and Value

- Eliminate duplicative maintenance across systems
- Eliminate lengthy and costly manual reconciliations
- Reduce period-end close cycles
- Easily create and manage alternate hierarchies
- Immediate visibility of all changes with audit history
- Quickly assimilate acquisitions and corporate re-orgs

"Dependent on IT for updates"

"No standardization or governance"

"No visibility"

"Acquisitions and Re-orgs are unmanageable"

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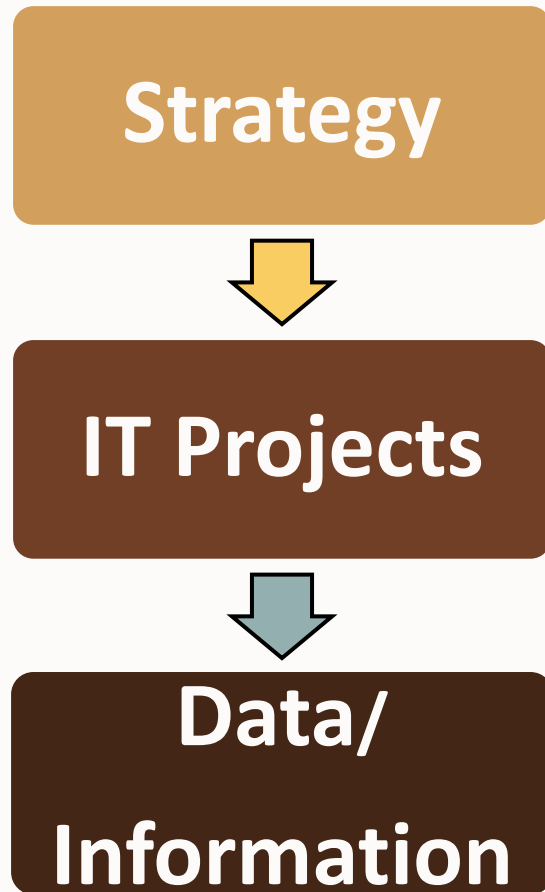
A GOOD DATA STRATEGY

Is **not determined** by what data you have readily available

But what your business wants to achieve and **how data can help** you get there

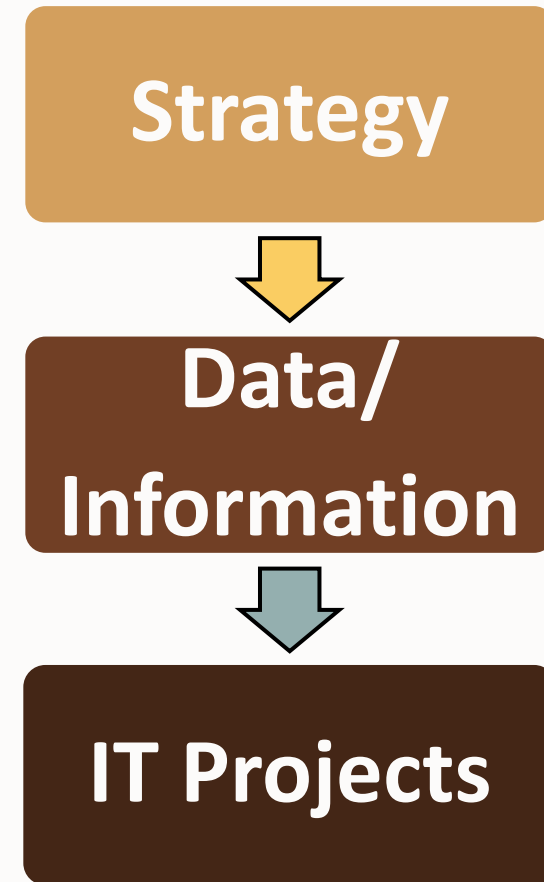
Data Strategy in Context

IT Project or Apps - Centric Development



VS

Data - Centric Development



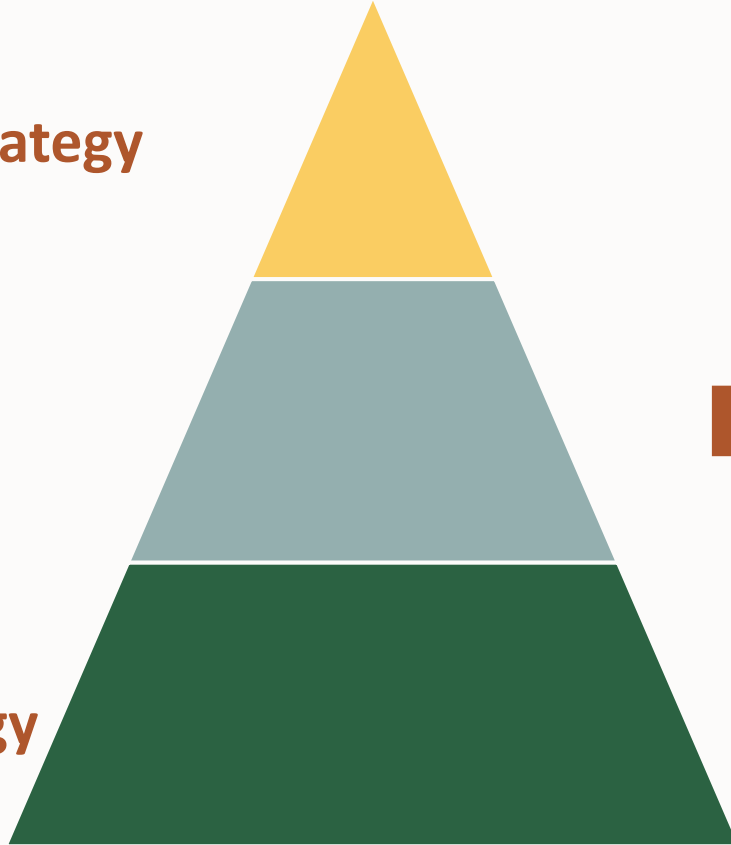
Data Strategy in Context (cont.)

This is **WRONG!**

Business Strategy

IT Strategy

Data Strategy

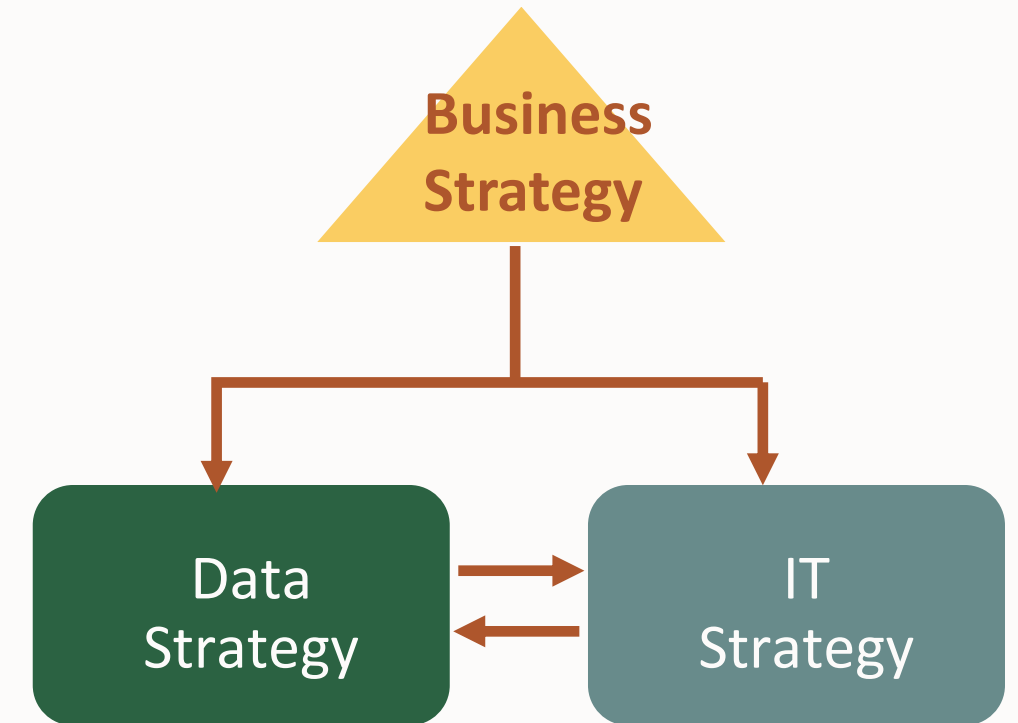


This is **CORRECT...**

Business Strategy

Data Strategy

IT Strategy



Directly supportive of business strategy

Data strategy “Offense” vs “Defense”

Which style of data strategy fits your organization?



OFFENSE

- **Focused on Creating Opportunity**
- Improving Profitability
- Increasing Revenue
- Improving Customer Satisfaction
- Competitive Advantage



DEFENSE

- **Focused on Reducing Risk**
- Compliance & Regulation
- Avoiding Audits or Fines
- Fraud Detection
- Security & Privacy



Data strategy “Offense” vs “Defense”

Which style of data strategy fits your organization?

The Data-Strategy Spectrum

A company’s industry, competitive and regulatory environment, and overall strategy will inform its data strategy.



FROM “WHAT’S YOUR DATA STRATEGY?,” BY LEANDRO DALLEMULE AND THOMAS H. DAVENPORT, MAY-JUNE 2017

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The 5 strategic data use case areas

- 1 Using data to make better informed, fact-based decisions
- 2 Helping you understand your markets and customers
- 3 Using data to offer smarter services and intelligent products
- 4 Using data to improve and automate your business processes
- 5 Using data to gain new revenue streams

Data Maturity Assessment

- Assess the as is status
- Define target status
- Identify actions to close gap
- Benchmark against industry



Approaches To Maturity Assessment

- Self Assessment
- Consulting help

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Enterprise Data Changes Are Everywhere

Classify and measures **value** across the enterprise

Slice and dice reports **by** region, **by** BU, **by** product...

Share and **align** across applications, departments, and businesses

Continuous, on-going **change** – part of being an agile business



Financial	Business	Analytical	Reference Data
• COA segments • GL Accounts • Legal Entities • Business Units • Cost centers • Products	• Sales Territories, Teams, People • Companies, Organizations • Locations: Stores, ATMs, Meters • Parties: Customers, Vendors • Employees, Jobs, Positions, Skills	• Dimension member lists • Alternate hierarchies • Cross-dimensional mappings • Intercompany mappings	• Types, Codes, Value sets • Market segments • Product categories • Geo Codes • Classification codes • Business taxonomies

Managing Enterprise Data is Key for Every Business

Changes can be Large or Small, Transformational or Routine

Digital / Systems



Transformational Changes



Business / Organizational



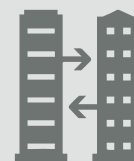
Migration to Cloud



Cloud Coexistence



Multi-ERP
Rationalization



Corporate
Reorganizations



Mergers
& Acquisitions



Business Model
Changes

Routine Changes



New Geo Region



New Department



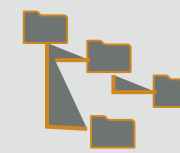
New Offering



New Cost Center

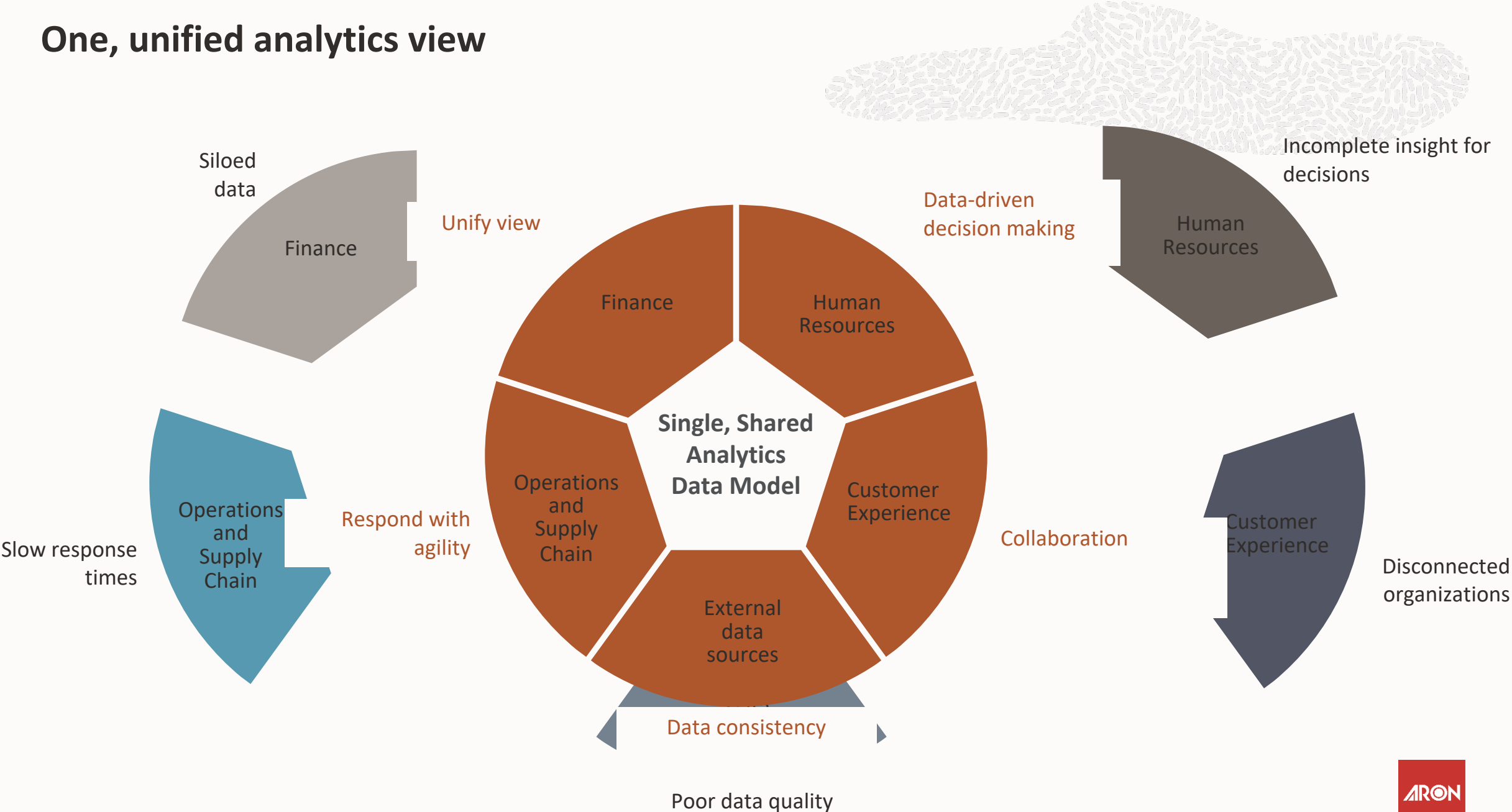


New Legal Entity



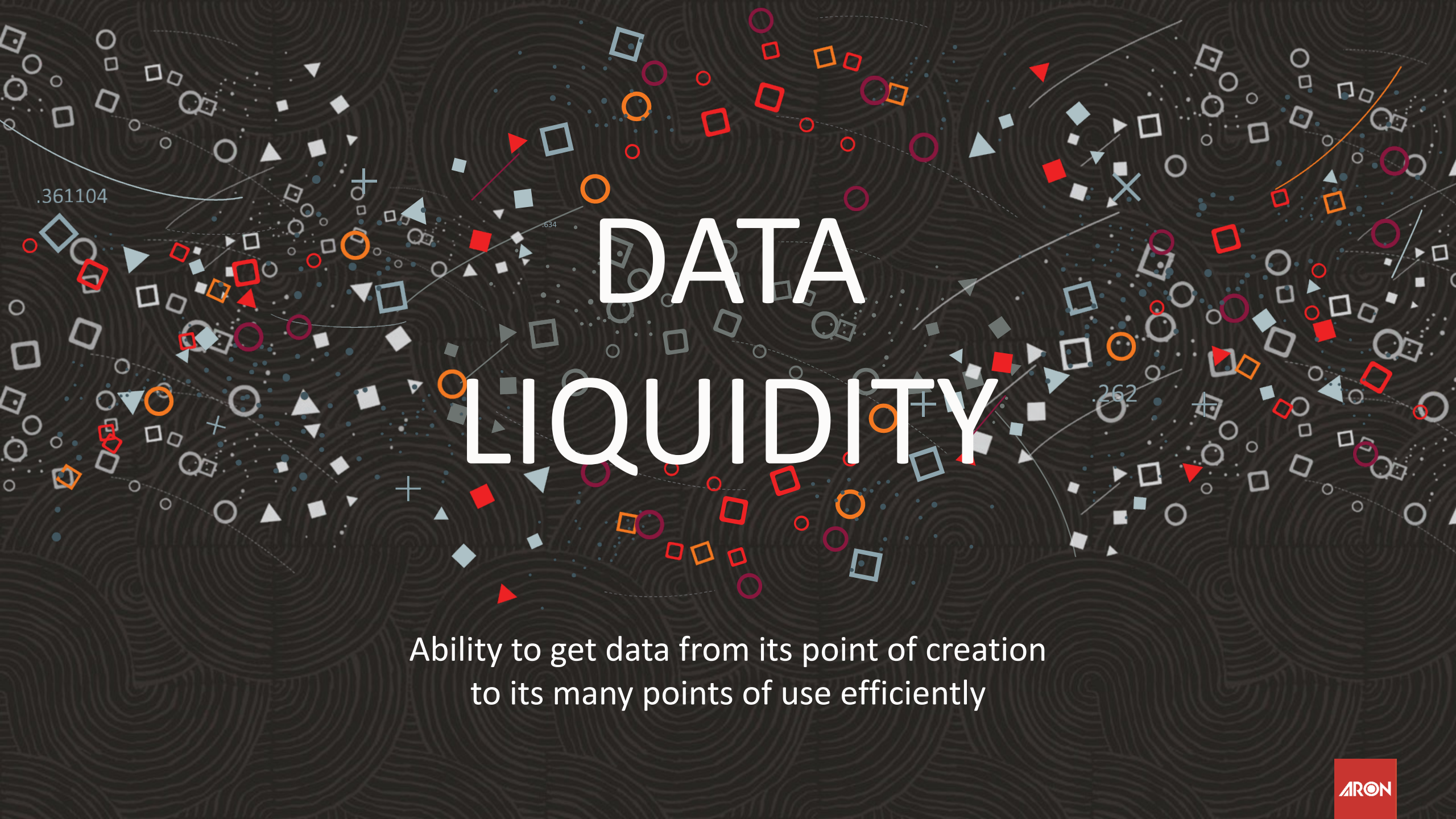
New Project

One, unified analytics view



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The background features a dark grey field with numerous concentric, wavy circles in a lighter grey tone. Scattered across this field are various geometric shapes: squares, circles, triangles, and plus signs. Some of these shapes are filled with colors like red, orange, blue, and purple, while others are white or light grey. Faint, thin lines and small dots also contribute to the complex, data-like texture of the background.

DATA LIQUIDITY

Ability to get data from its point of creation
to its many points of use efficiently

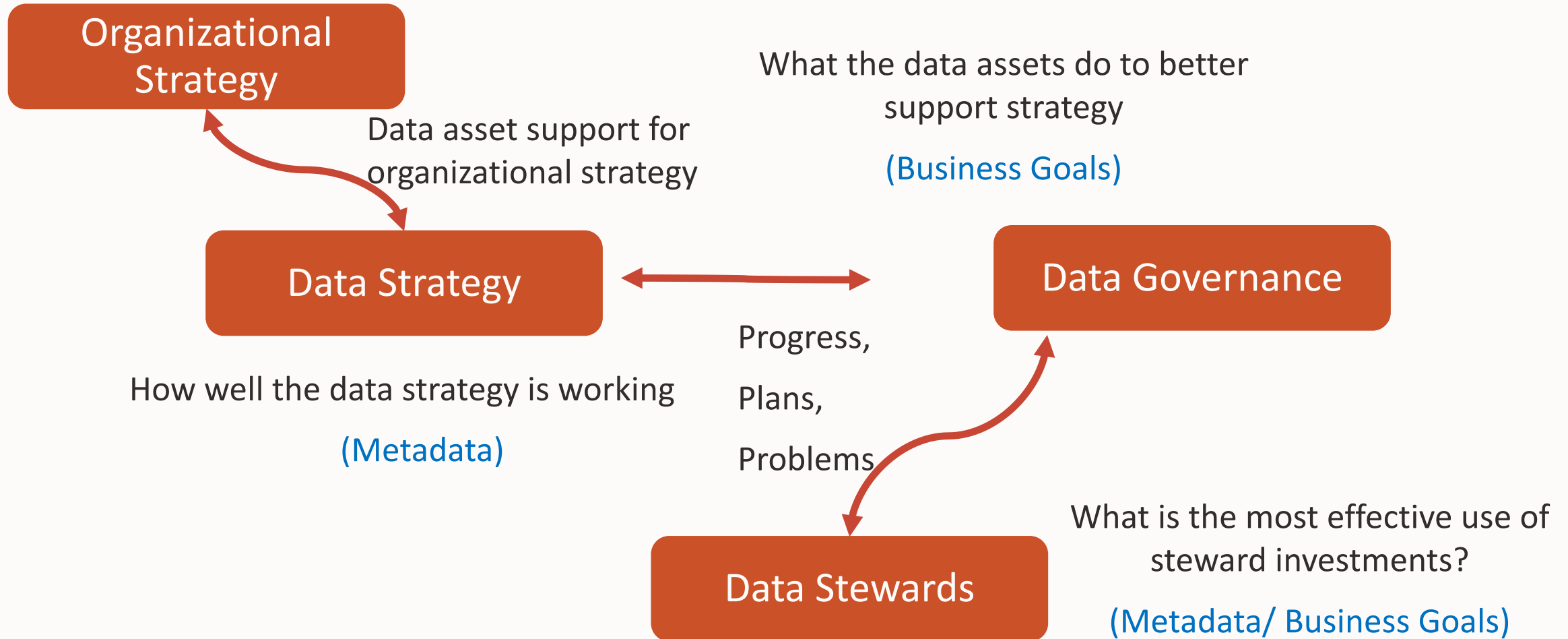
Business Strategy driving IT Strategy

WHY START WITH A BUSINESS CASE

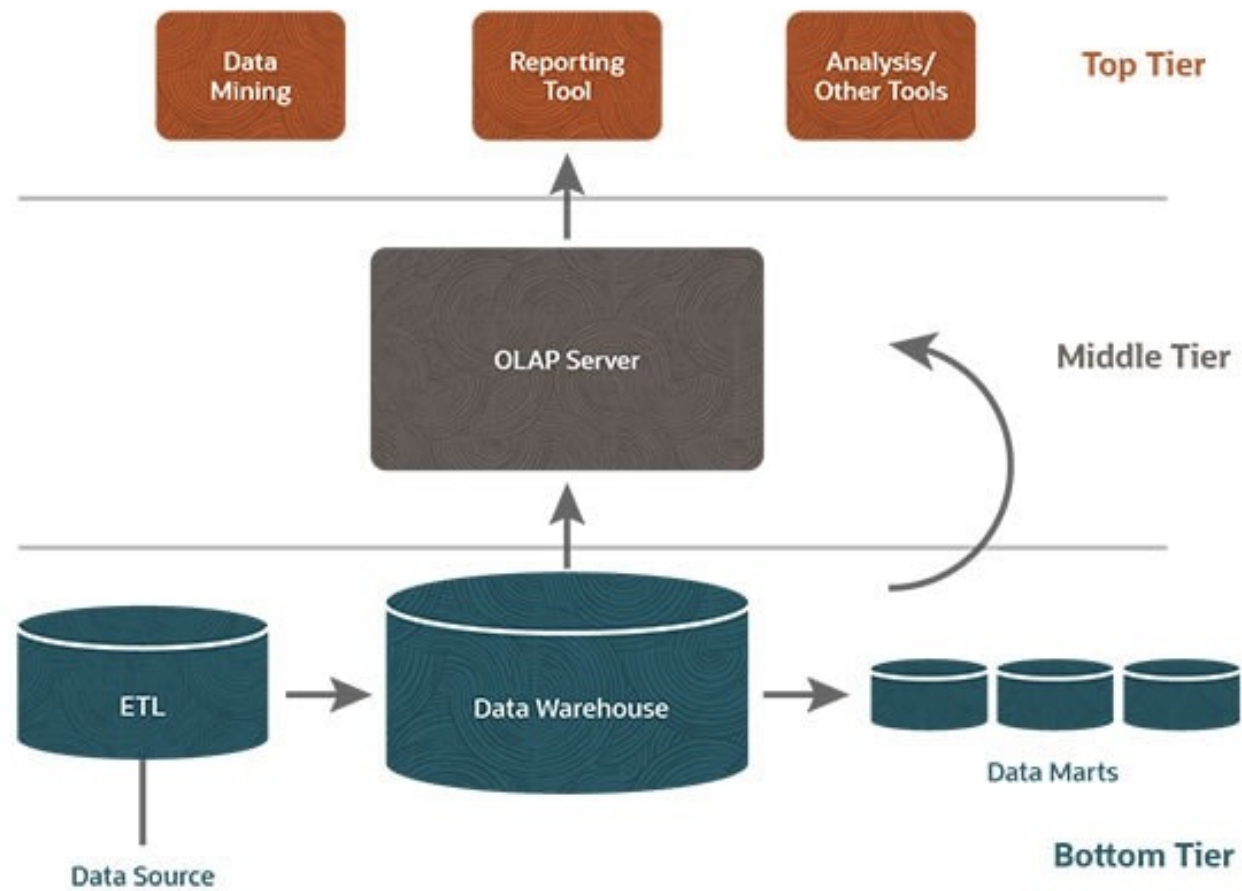
- Data Strategy takes time to build
- Initiative requires priority
- Initiative requires resources
- Commitment to use the output



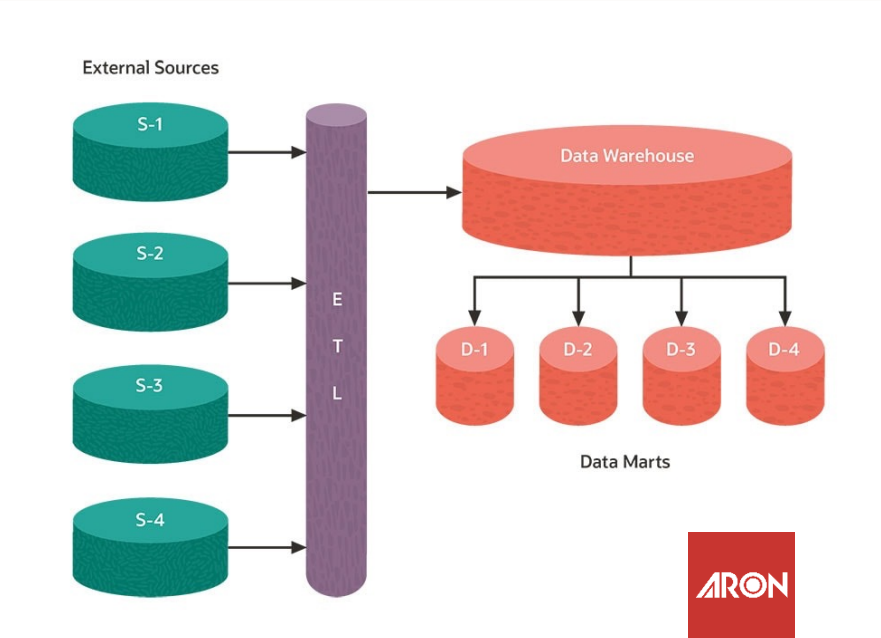
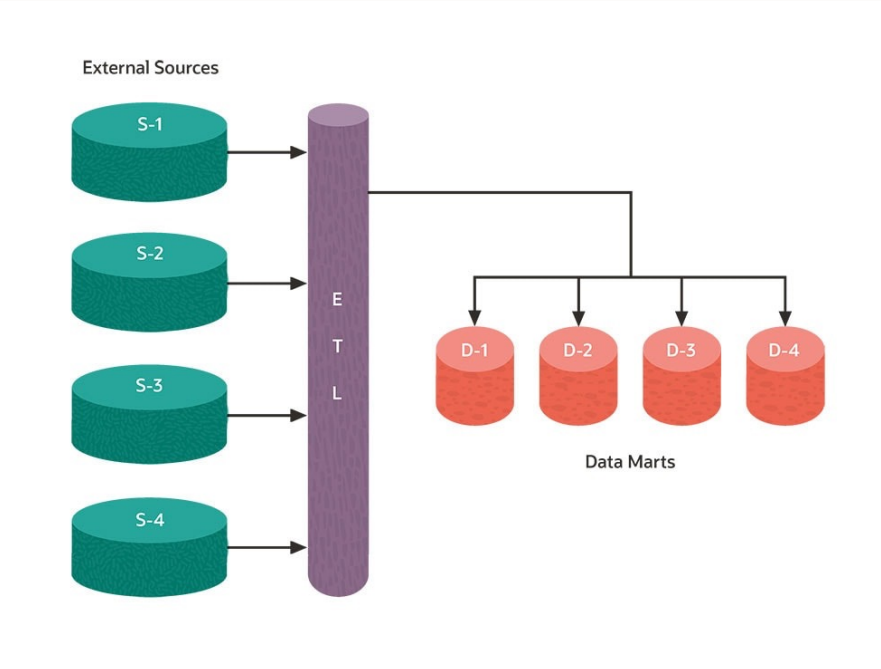
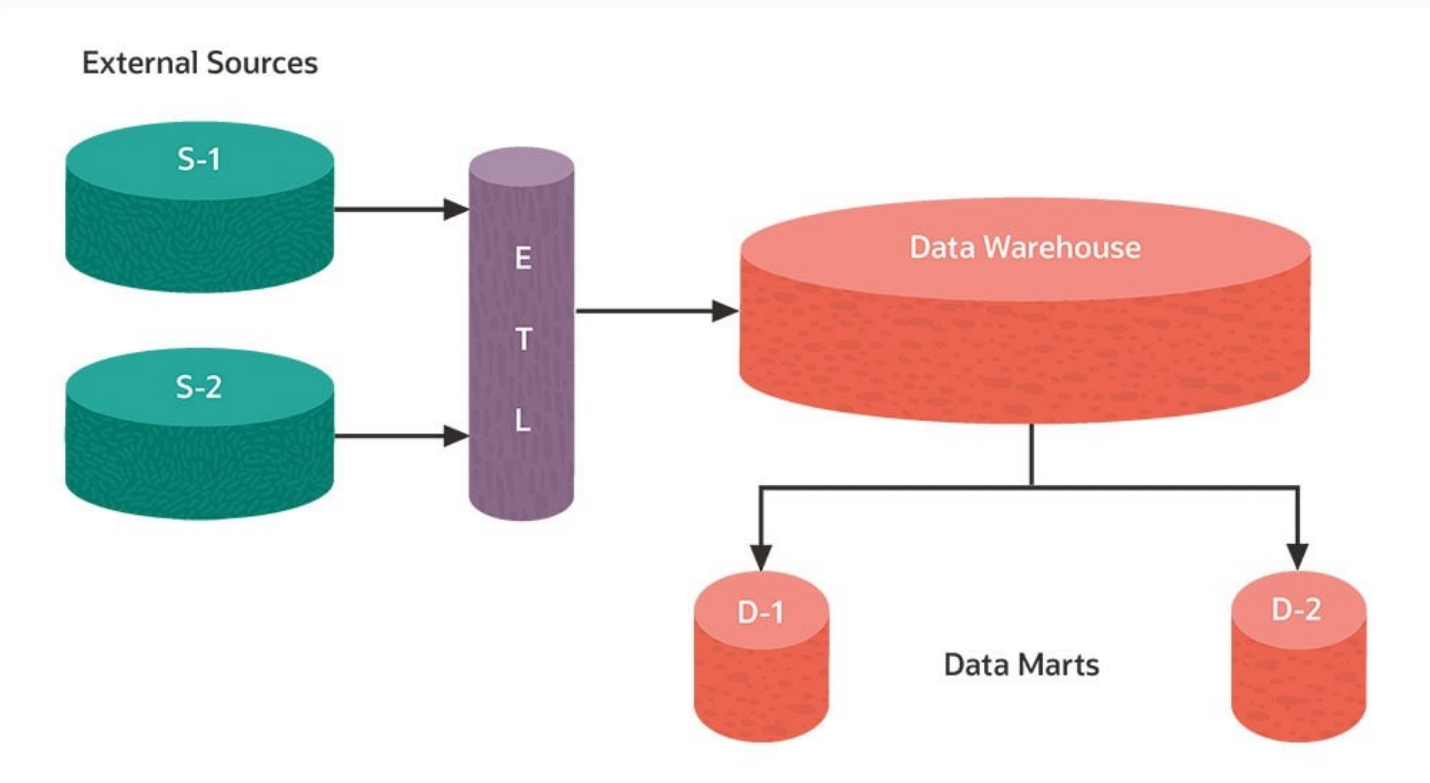
Data strategy and Governance in Strategy context



Data Warehouse



Data Warehouse (cont.)



Data Lakes vs Data Warehouses

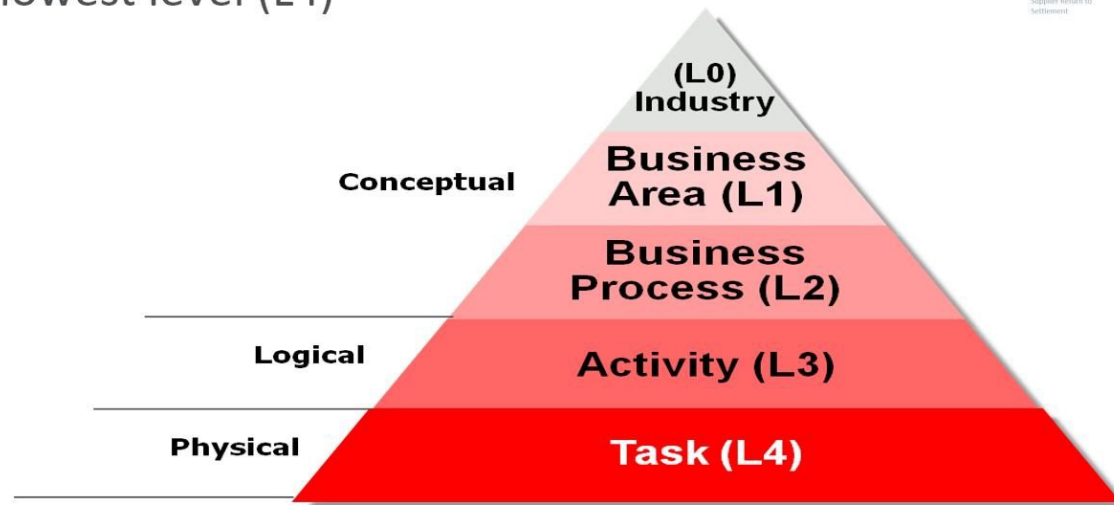
AREA	DATA LAKE	DATA WAREHOUSE
Data Store 10101 01010 00100	It can capture and retain unstructured, semi-structured, and structured data in its raw format. A Data Lake stores all types of data, irrespective of the source and structure.	It can capture and retain only structured data. A Data Warehouse stores data in quantitative metrics with their attributes. Data is transformed and cleansed.
Schema Definition 	Typically, the schema is defined after data is stored. This offers high agility and data capture quite easily, but it requires work at the end of the process (schema-on-read).	Typically, a schema is defined prior to when data is stored. It requires work at the start of the process, but it offers performance, security, and integration (schema-on-write).
Data Quality 	Any data that may or may not be curated (such a raw data).	Highly curated data that serves as the central version of the truth.
Users 	A Data Lake is ideal for the users who indulge in deep analysis, like Data Scientists, Data Engineers, and Data Analysts.	A Data Warehouse is ideal for operational users like Business Analysts because of being well structured and easy to use and understand.
Price & Performance 	The storage cost is relatively low, compared to a Data Warehouse, and querying results is better.	The storage cost is high, and querying results is time consuming.
Accessibility 	A Data Lake has few constraints and is easily accessible. Data can be changed and updated quickly.	A Data Warehouse is structured by design, which makes it difficult to access and manipulate.

Business Process vs Data Strategy

Business Process Models

Consider the five level model

- Top three levels are conceptual (L0 – L2)
Services observed at (L2)
- Fourth level is implementation specific (L3)
- Process integration points appear on lowest level (L4)



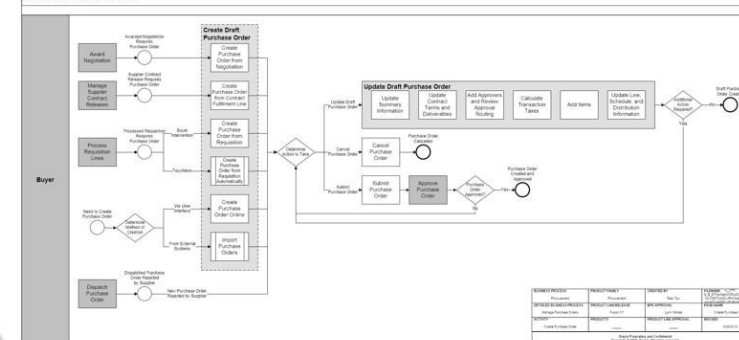
L1 Modern Best Practice for Procurement Optimize Procurement Processes



L2 Requisition to Receipt



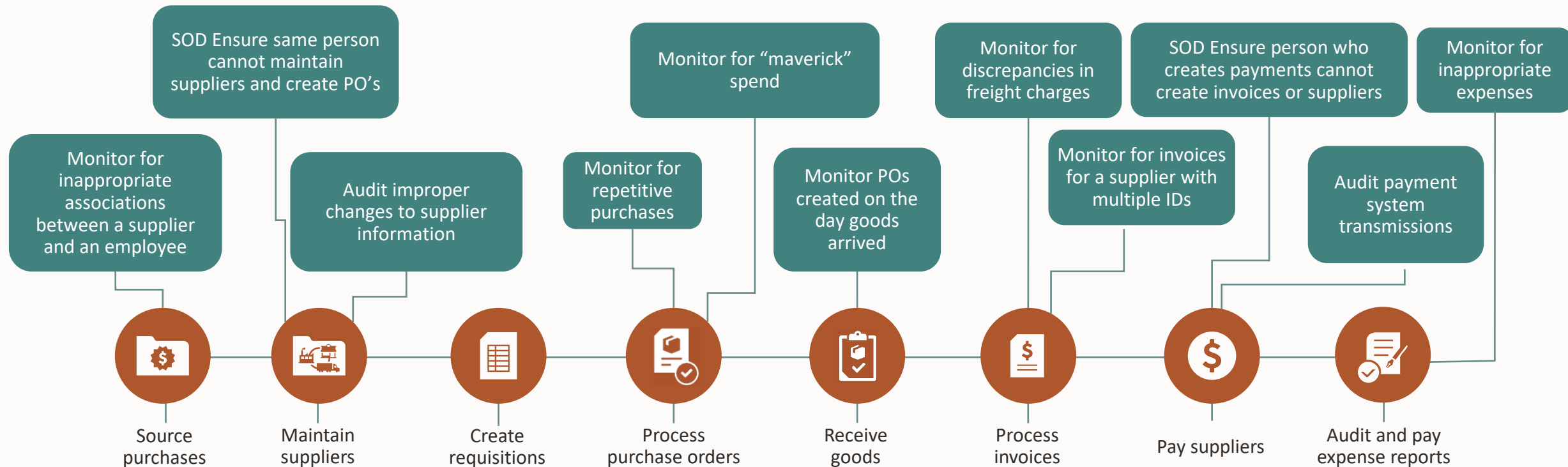
L3 Create Purchase Order



Build resiliency by managing risk

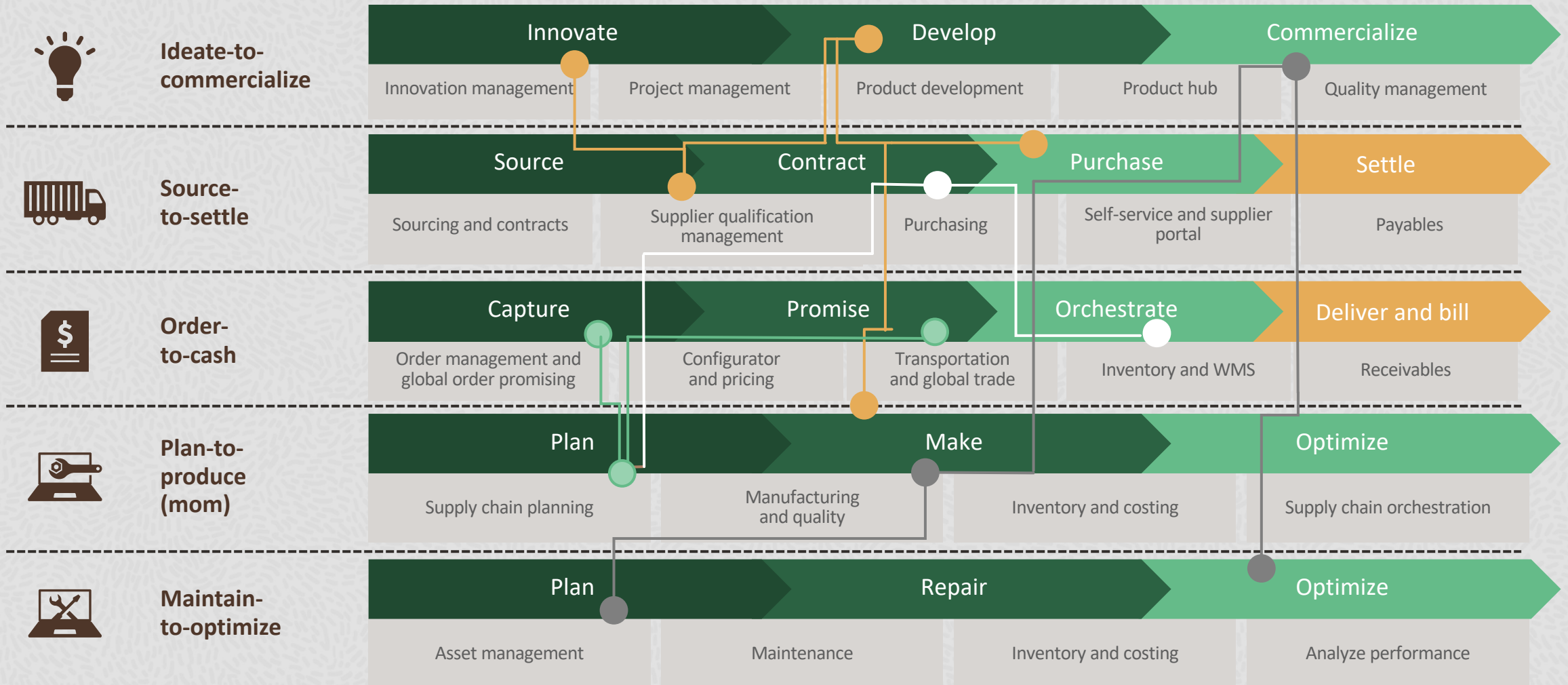
Gain financial oversight, reduce fraud and error

Example: Overlay procure-to-pay business process with a combination of access, configuration and transaction controls

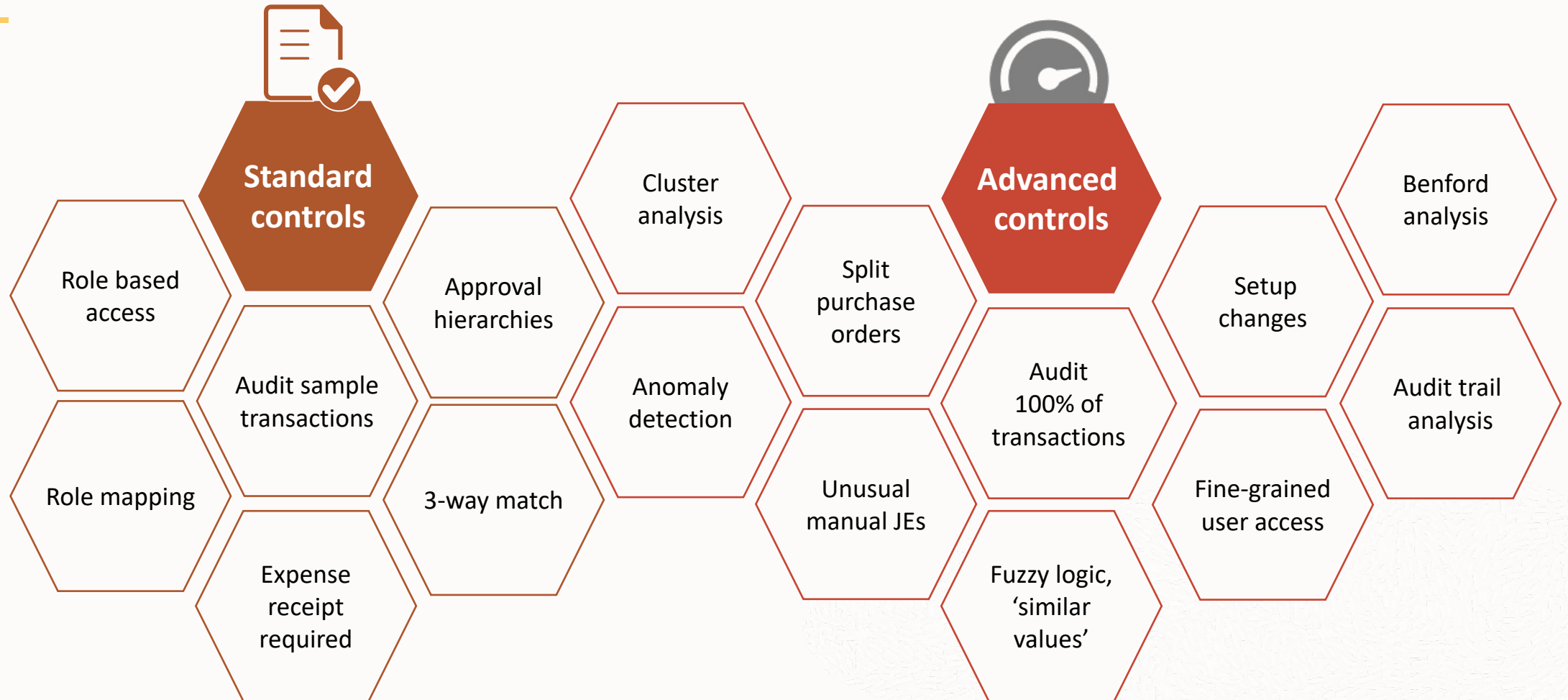


Connected processes

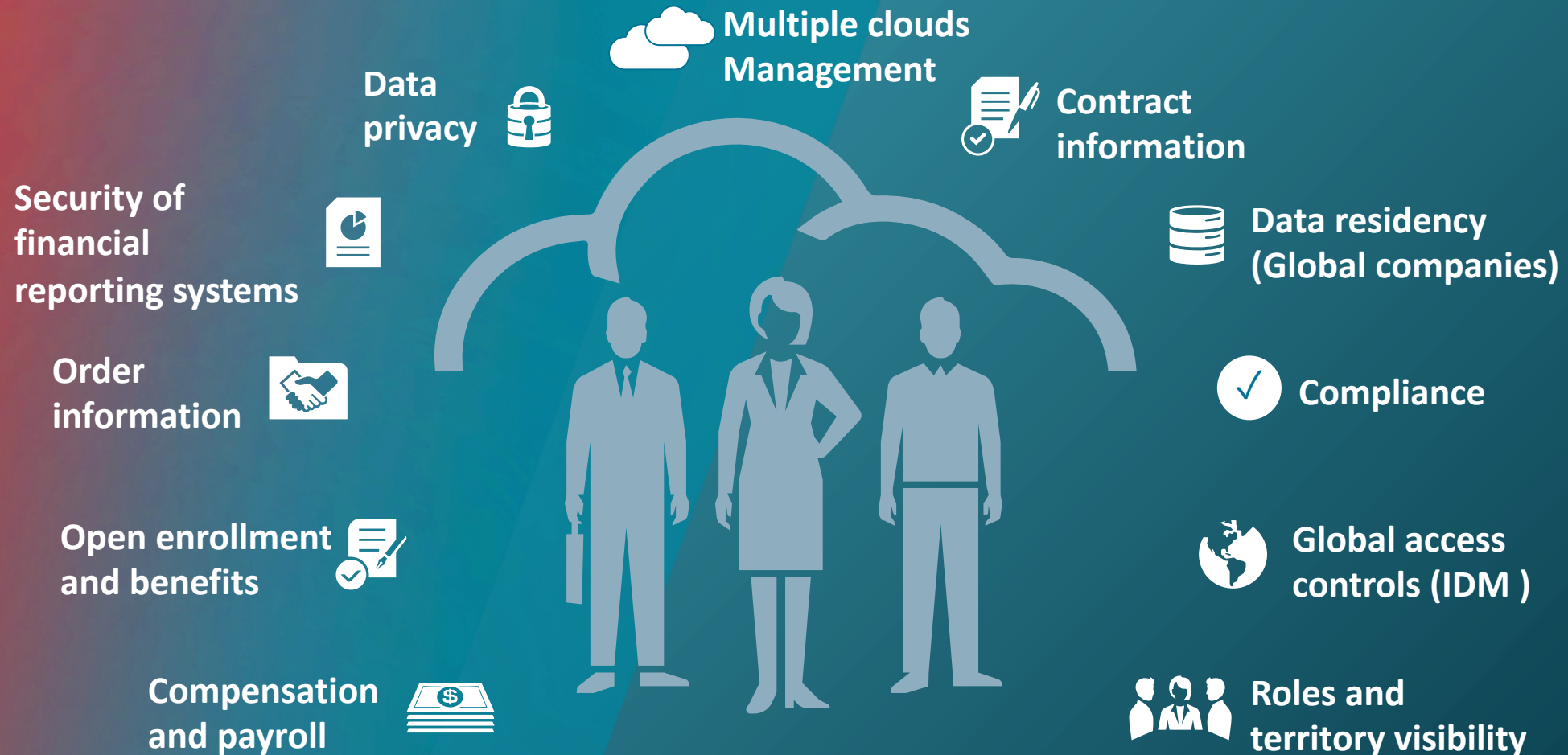
Broader, simpler footprint for the digital supply chain



Standard + Advanced ERP controls



Why Should Business Managers Care About Cloud Security?



Integration: The Foundation for Digital Business

50%

time and cost

“Through 2020, integration work will account for 50% of the time and cost of building a digital platform.”

Gartner

ERP Integrations - Overview

ERP

Oracle Procurement	Oracle Order Management	Receivable Transaction
Oracle Inventory	Oracle Financials	Receivable Receipt
Oracle Manufacturing	Master Data (Organization/Stores/Customer/ Item)	

Back End

ERP is a back-office application which handle almost back-end business processes, including:

- Master Data
- Procurement
- Inventory Management
- Manufacturing
- Order Management
- Receivables/Payables
- Cash Management
- Assets
- General Ledger



POS/ eCommerce

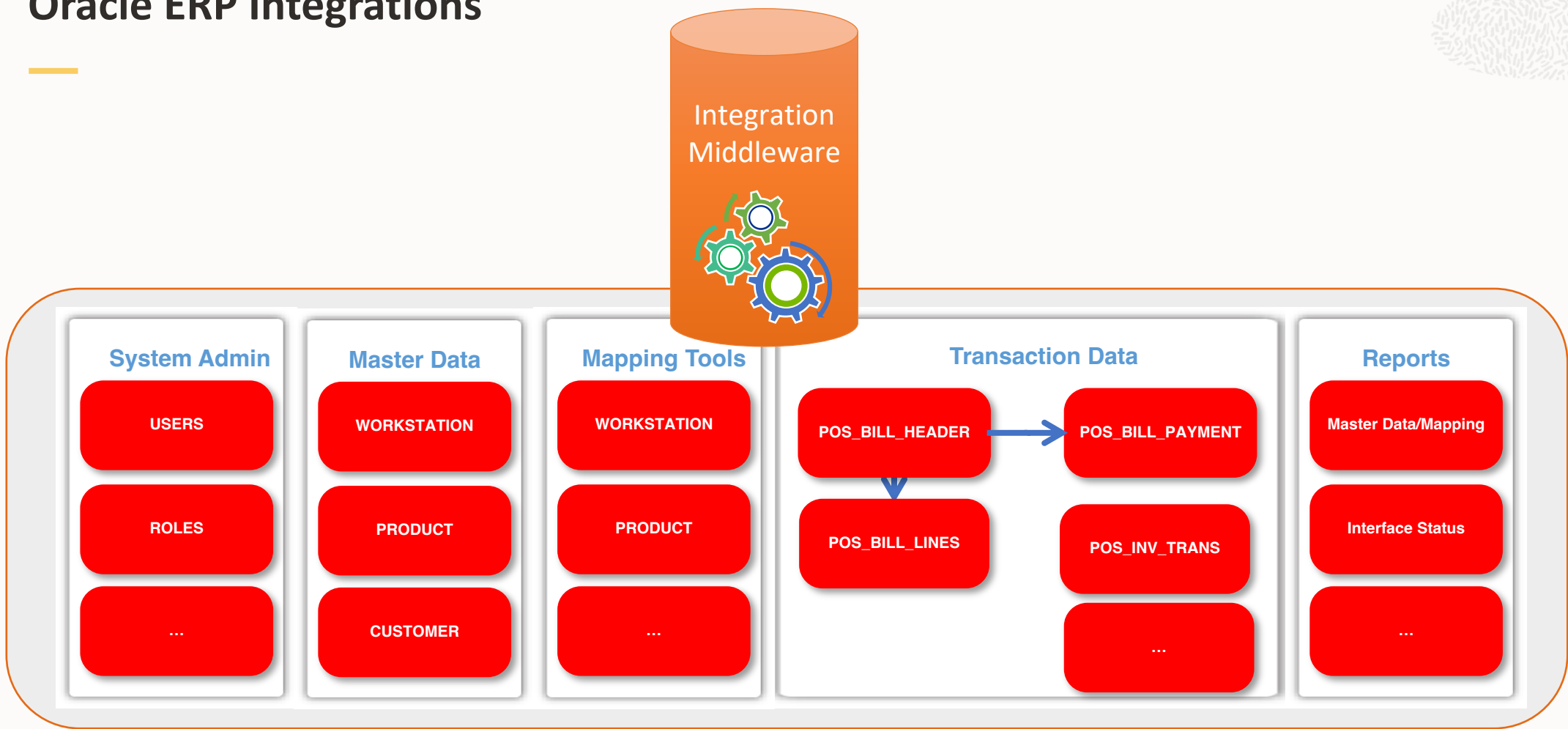
Order Billing	Receipt (Cash/ Card/ Voucher)
Master Data (Store/ Customer/ Item/ Pricing/ Promotion)	

Front End

POS is a front-office application which handle almost core business processes, including:

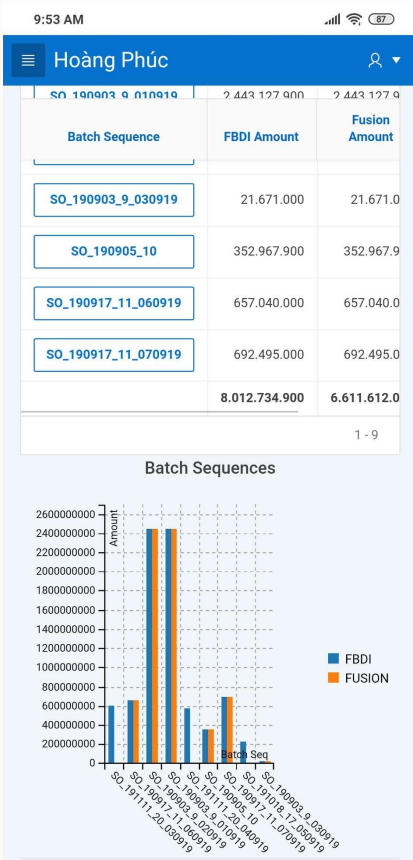
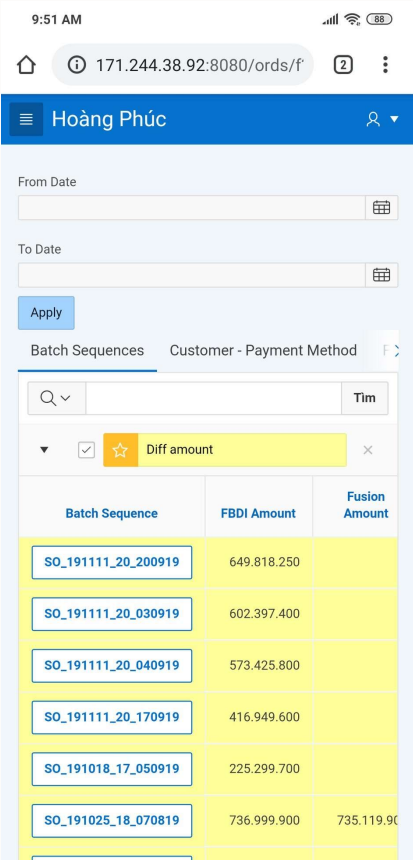
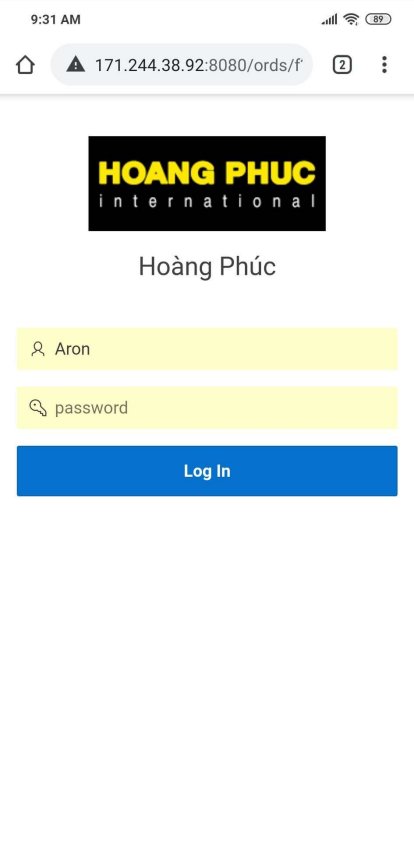
- Customer Master Data
- Item Master Data
- Store Master Data
- Selling Price/ Promotion
- Order Billing
- Order Receipt

Oracle ERP Integrations



Integration Middleware Solution

Oracle ERP Integrations



Integration Middleware Solution - Overview

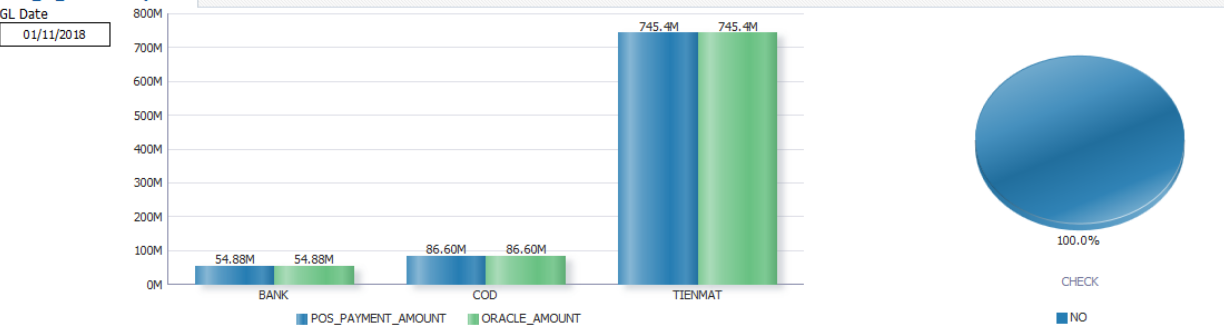
ERP Integrations



Bills not importing into Oracle

STOREID	SOID	SODATE	TYPE	AMOUNT	SYNCERRMSG
CH035	20181126107951	11/26/18	INVOICE	520000	
CH085	20181126161242	11/26/18	INVOICE	300000	
CH028	20181126115094	11/26/18	RETURN	300000	

POS_06_Đối Chiếu Paymen...



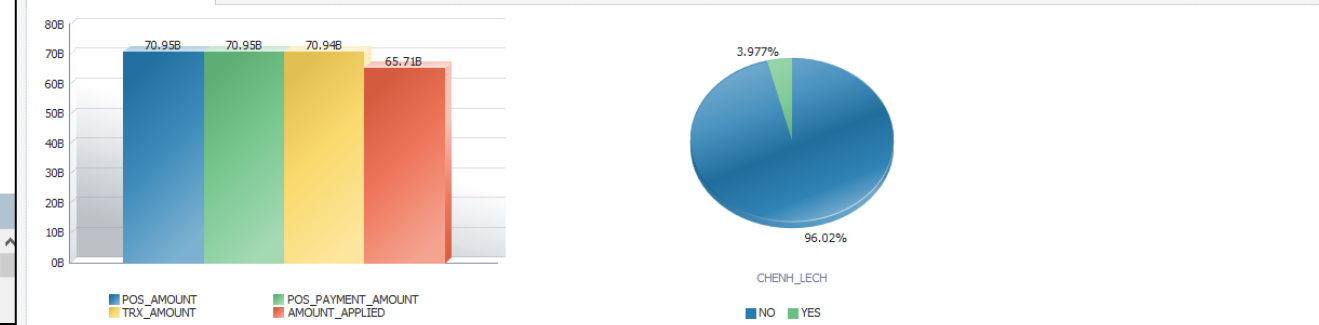
	BANK		COD		TIENMAT		Total	
	POS_AMOUNT	ORACLE_AMOUNT	POS_AMOUNT	ORACLE_AMOUNT	POS_AMOUNT	ORACLE_AMOUNT	POS_AMOUNT	ORACLE_AMOUNT
Total	54,876,700	54,876,700	86,600,200	86,600,200	745,436,800	745,436,800	886,913,700	886,913,700
CH002	0	0	785,000	785,000	13,787,700	13,787,700	14,572,700	14,572,700
CH003	0	0	690,000	690,000	10,923,800	10,923,800	11,613,800	11,613,800
CH005	1,338,000	1,338,000	804,400	804,400	7,498,900	7,498,900	9,641,300	9,641,300

GL_DATE	STOCK_ID	SO_TYPE	TYPE_ID	RECEIPT_NUMBER	POS_PAYMENT_AMOUNT	RECEIPT_APPLIED	RECEIPT_UNAPPLIED	WRITEOFF_APPLIED	MISC_RECEIPT_AMOUNT	THIRD_TRX_AMOUNT	TRX_SPT_NUM	CHECK
11/1/18	CH011	I	BANK	AR_REC.JN.1811.000189	460,000	460,000	0	0	0	0	0	NO
					460,000	460,000	0	0	0	0	0	

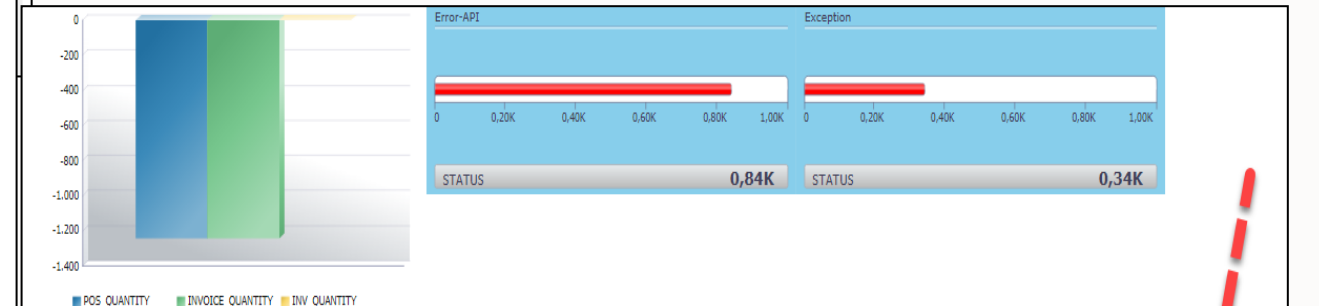
POS_05_Đối Chiếu Doanh Thu Summary _T

Org name JUNO_BL_OU (*) From Date 01/11/2018 (*) To Date 25/11/2018 Apply

POS_05_Đối Chiếu Doanh ...



GL_DATE	STOCK_ID	TRX_NUMBER	CHANNEL	POS_AMOUNT	POS_PAYMENT_AMOUNT	TRX_AMOUNT	AMOUNT_APPLIED	CHENH_LECH	SO_HEADER_ID	POS_AMOUNT
11/1/18	CH058	111479	OFFLINE	12,866,400	12,866,400	12,866,400	12,866,400	NO	20181101206342	198,900
									20181101185398	249,900
									20181101165068	840,000



TRX_ID	TRX_NUMBER	ORG	SUB	LOCATOR	TRANS_DATE	TYPE_NAME	ATTRIBUTE15	TRX_LINE_ID	ITEM_NUMBER	UOM	POS_QUANTITY	INVOICE_QUANTITY	INV_QUANTITY	REASON	ERROR_MSG	STATUS
46554	117080	R02	CH006	TP_CH006	18/11/2018	POS Issue		2048887	8935281506038	DOI	-1	-1	0		Transaction processor error- Negative balances not allowed	Error -API
46635	117161	R02	CH008	TP_CH008	18/11/2018	POS Issue		2063453	1101000002653	DOI	-1	-1	0		Transaction processor error- Negative balances not allowed	Error -API

Integration Middleware Solution

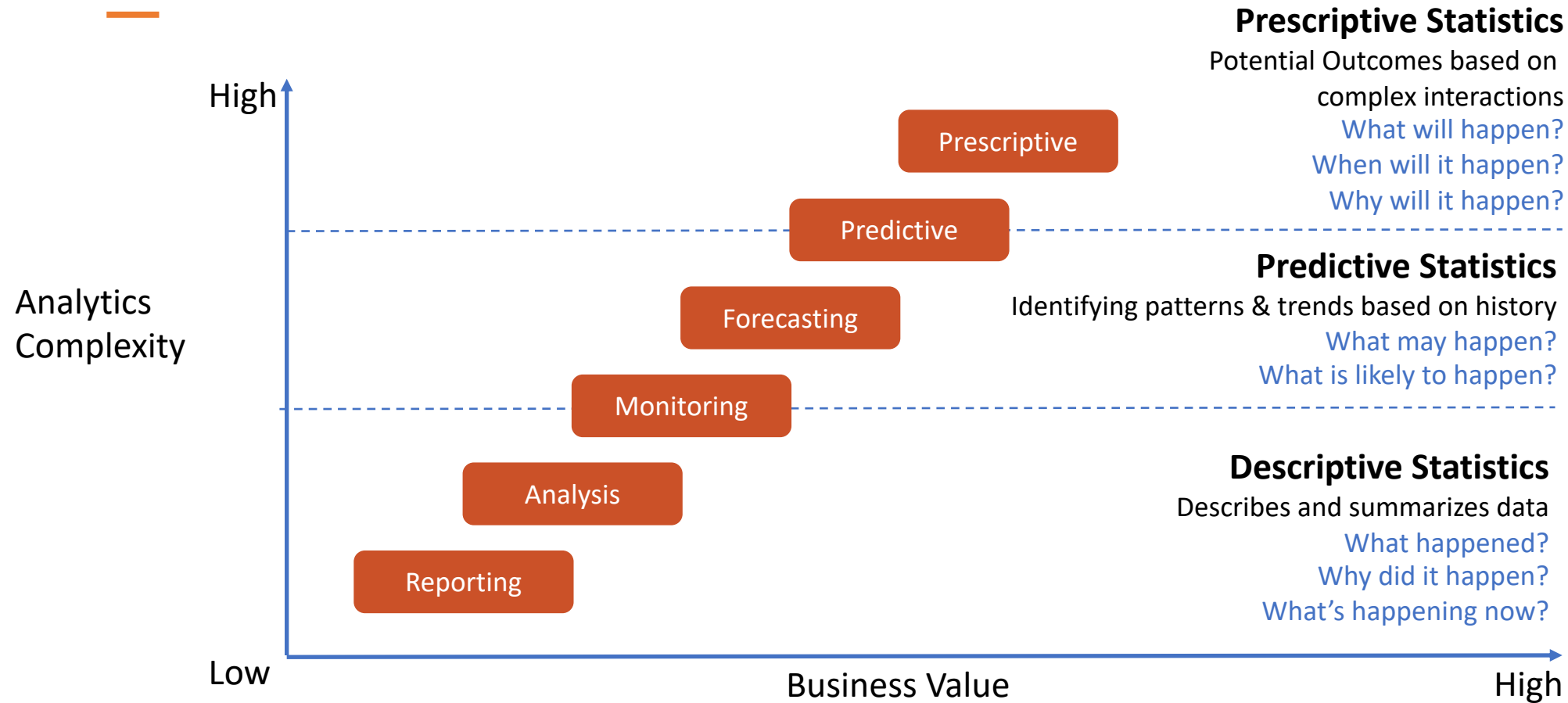
A large iceberg floats in a blue ocean under a blue sky with scattered white clouds. The visible tip of the iceberg is small and jagged, while the submerged part is much larger and more complex. The text "Reporting ≠ simple" is overlaid on the image, with "Reporting" and "simple" in white and the "≠" symbol in a dark brown color.

Reporting $\neq$ simple

It's like an iceberg, 1 single KPI requires a lot of information, while the outcome might be a single number

Where are you on the maturity model?

Data-driven



Data analysis

KPIs and detailed analyses

General Ledger

- Revenue
- Operating expense
- Net income
- EBITDA
- Payroll cost
- Net working capital
- DSO, DPO, DIO
- Current and quick ratio

Accounts Receivable

- AR outstanding
- AR average days outstanding
- AR aging
- AR current due, overdue
- AR average invoices amount
- AR receipts
- AR debit/credit memos amounts
- AR distribution amount

Accounts Payable

- AP current due, overdue
- AP avg supplier payment days
- AP turnover
- AP aging
- AP on time & overdue payments
- AP discount taken and lost %
- AP average days on hold
- AP % interest penalties paid

Spend

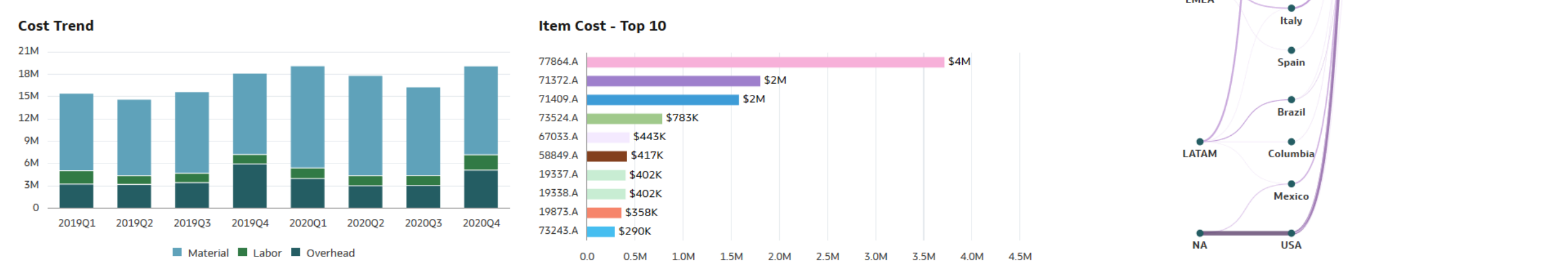
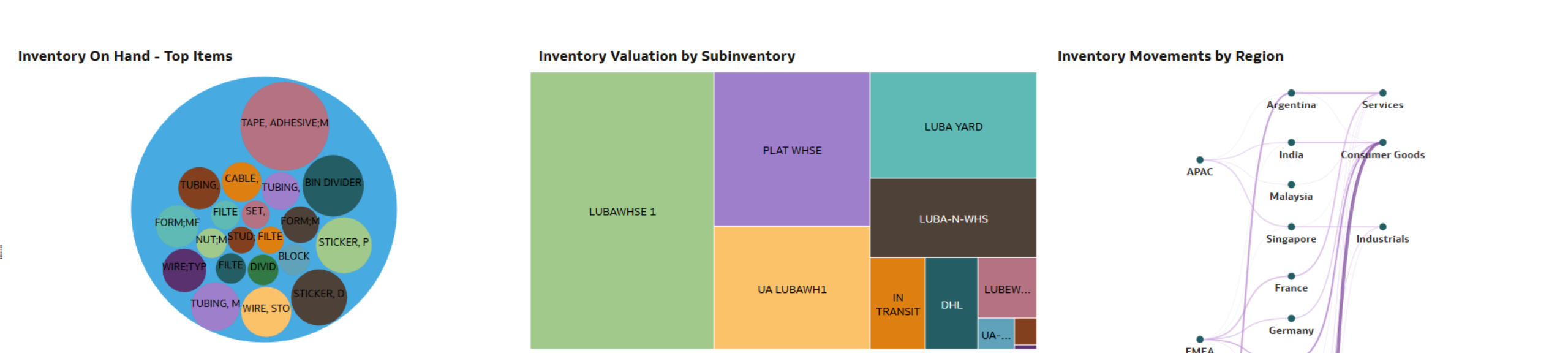
- Addressable Spend
- PO Matched Spend
- Agreement Leakage Spend
- Negotiated Spend %
- Average Spend Per Invoice
- Top ten suppliers
- PO Matched Spend %
- Max, Min, Average Unit Price

Employee Expense

- Total and avg expense amount
- Credit card expense amount
- Cash expense amount
- Manual and auto audit %
- Expense approval cycle time
- Expense filing cycle time
- Cash expense reimburse cycle time
- Avg days late

Procurement

- Agreement utilization
- Contracts Expiring
- Requisition-to-receipt cycle time
- Purchasing analysis by discounts, shipped, short closed, etc
- Receipt analysis by delivery, rejected, returns, etc



Analyze profitability and cost drivers

- **Analyze top line growth and bottom line trends** with detailed breakdown
- **Understand the cost drivers** across the enterprise to optimize return on Capex and Opex investments
- **Include additional data in your analysis:**
 - Combine finance and HR data to gain deeper insights into employee cost and productivity
 - Combine finance and SCM data to gain deeper insights into operational cost

Use pre-built KPIs to jump start your analysis

- Revenue
- Cost of Revenue
- Net income
- EBITDA
- Gross Margin %
- Operating expense
- Payroll cost
- ROE, ROA
- Current and quick ratio
- SG&A, Depreciation, Tax



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Organisation structure to support data strategy

Data Citizens

- All employees are data citizens
- Data insights enable everyone in their daily job
- In beginning of journey:
 - Early data citizens may feel isolated
 - May be necessary to bring them together into teams to provide each other support
 - Dedicated data analysts may need to coach the data citizens

Organisation structure to support data strategy

Data Functions – Centralised data team



Data culture

“A data culture is the collective behaviours and beliefs of people who value, practice and encourage the use of data to improve decision-making. As a result, data is woven into the operations, mindset and identity of an organisation. A data culture equips everyone in your organisation with the insights they need to be truly data-driven, tackling your most complex business challenges.”

- Tableau 2022



Data skills

- Data Literate
- Platform and Tool Skills
- Responsibility
- Specialists



Data skills

Data Literate

- **Identify Useful Data**

- Recognise data
- Identify quality and completeness

- **Analyses Data**

- Basic statistics (summation, comparison, average)
- Visualise in basic graphs (Bar, pie, line graph)

- **Explain Meaning**

- Explain business context of the data
- Appropriate visualisation

- **Apply To Decisions**

- Use data to support decision papers
- Identify if data analysis is consistent with decision

- **Data Narrative**

- Communicating the data insights

- **Be Ethical in Usage**

- Be aware of biases in the data
- Use the data within company guidelines

Data skills

Platform and Tool Skills

- **Data Tools Skills**

- Extracting data (Excel export)
- Analysis tools
- Visualisation tools

- **Data Platform**

- What data resides in each platform
- Getting access and usage tutorials



Data skills

Responsibility

- **Data Governance Processes**

- Approval for access
- Approval for analysis
- Approval to share

- **Data Governance Policies**

- Data regulations
- Ethical policy
- Data sharing rules



Data skills

Specialists

Data Analysts

Data Scientists

Report Developers

Data Engineers &
Architects

Data Operations

Data Governance



Data strategy

Skills



DATA CITIZENS

- Literacy Training
- Platform Training
- Data Professional



DATA TEAM

- Career Development
- Personal Development Plans
- Training Catalogues



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2. Tổng quan về chiến lược dữ liệu & các cách tiếp cận
3. Phân loại & quản lý dữ liệu trong DN
4. Xây dựng chiến lược dữ liệu phù hợp với chiến lược kinh doanh
5. Xây dựng văn hoá/tổ chức quản trị DN dựa trên dữ liệu
- 6. Trao đổi và thảo luận**