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GOVERN OR BE GOVERNED

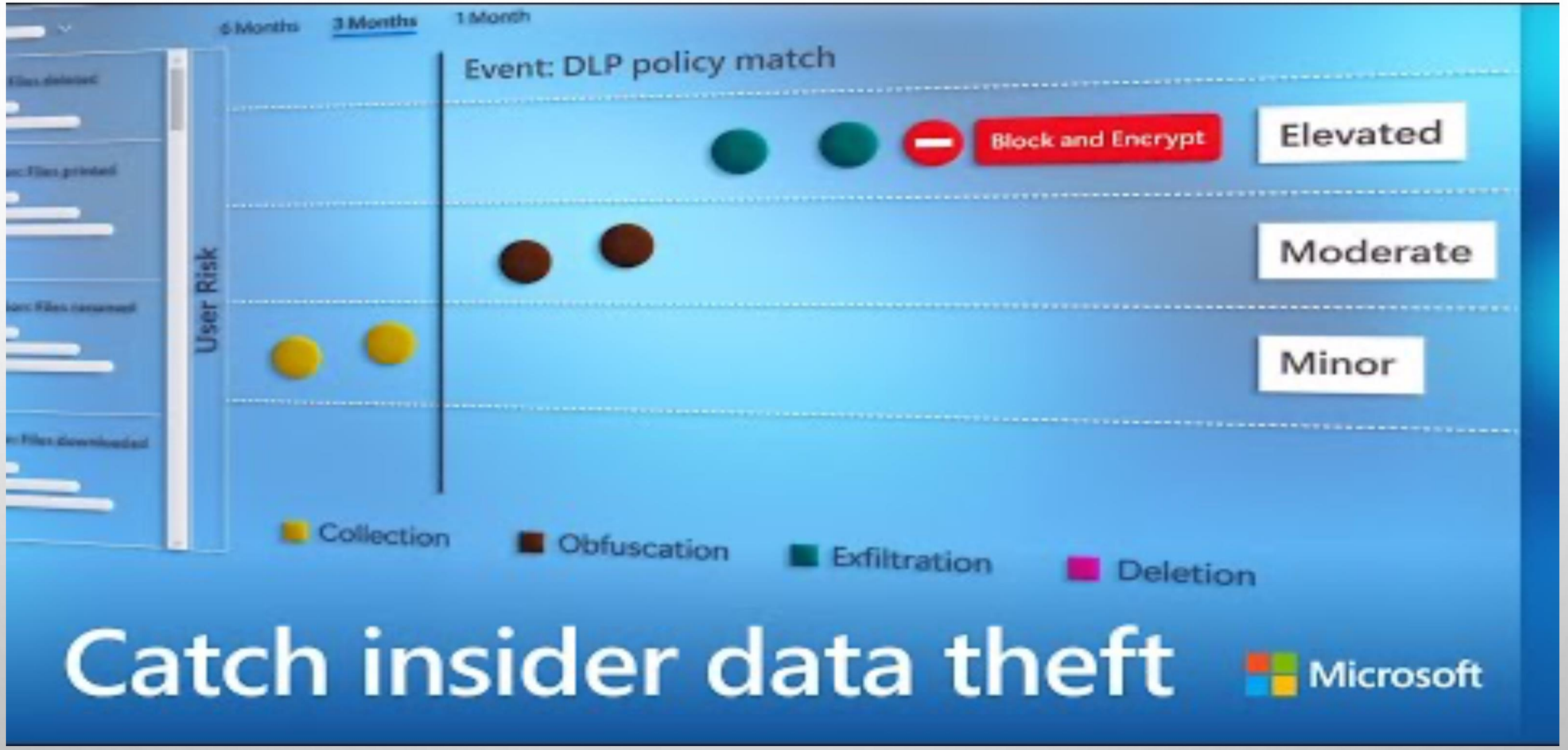
Trust and compliance in Power BI reporting





AGENDA

- Governance in data-driven orgs
- Classify and protect data
- Transparent lineage & impact
- Secure Power BI controls
- Purview–Power BI integration



MODERN DATA GOVERNANCE

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TRUST COMPLIANCE AND ANALYTICS

Governance as Foundation

Over 90% of organizations cite data governance as essential to sustaining compliance and consumer trust.

Regulations Shape Practice

GDPR and CCPA require analytics that respect privacy, enforce consent, and ensure ethical data use.

Credibility Through Controls

Robust governance frameworks reduce risks of misuse or breaches and strengthen organizational credibility.

UNGOVERNED POWER BI RISKS



DATA SILOS

Isolated datasets prevent holistic analysis, causing fragmented insights and duplicated efforts across teams.



MISTRUST

Unclear data lineage and inconsistent definitions erode user confidence in reports, reducing BI adoption.



COMPLIANCE PENALTIES

Insufficient governance exposes organizations to regulatory breaches, with average incident costs reaching $4 million.



DECREASED DECISION QUALITY

Conflicting metrics and lack of accountability lead to a 20–30% drop in decision quality, impacting business outcomes.



MICROSOFT DATA GOVERNANCE OVERVIEW

Integrated Data Platform

Azure Synapse, Power BI, and Purview unify analytics and governance end to end.

Purview Capabilities

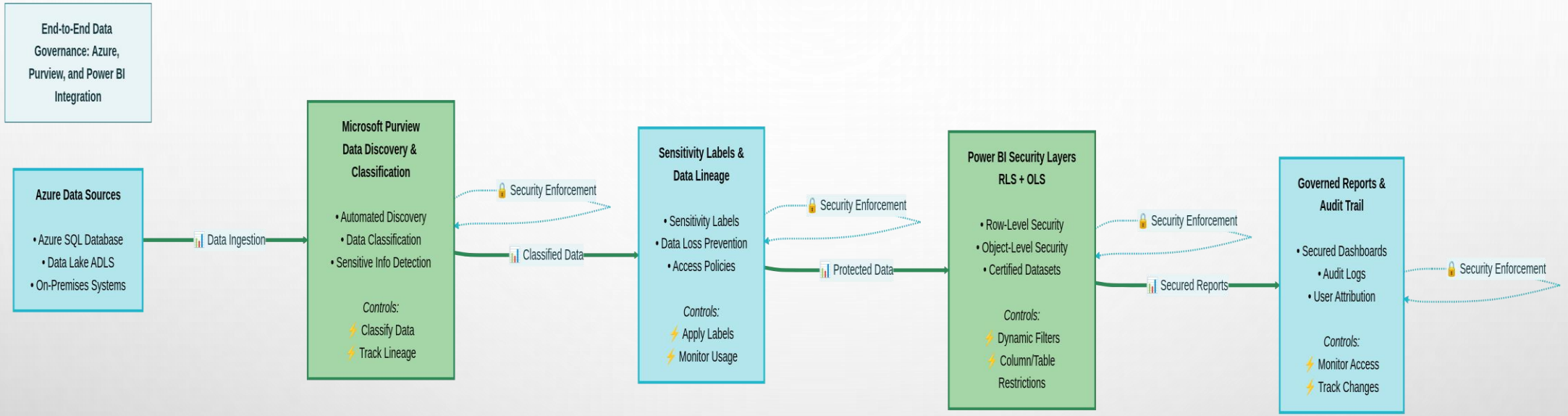
Automated classification, discovery, and lineage enrich unified data catalogs.

Compliance and Risk

Real-time monitoring and lineage support standards and mitigate risk.

Efficiency Gains

Organizations report up to 40% less manual governance effort.



DATA DISCOVERY & PROTECTION

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AUTOMATED DATA CLASSIFICATION

Data Ingestion

Purview connects to diverse sources and aggregates assets at scale.

AI-Driven Scanning

Machine learning analyzes millions of assets with high accuracy.

Classifier Application

Over 300 built-in classifiers tag PII, PCI, and financial data.

Compliance Monitoring

Continuous oversight surfaces risks quickly and reduces manual errors.

60%+

improvement in data discoverability with centralized catalogs

PROTECTING SENSITIVE DATA



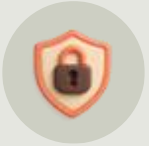
Data Masking & Anonymization

During ingestion and storage, sensitive fields are obfuscated to protect identities, especially in non-production.



Encryption at Rest & In Transit

During storage and transfer, data remains unreadable to unauthorized users on disk and across networks.



Access Controls & Monitoring

During usage, role-based access and continuous monitoring restrict and track views and changes.



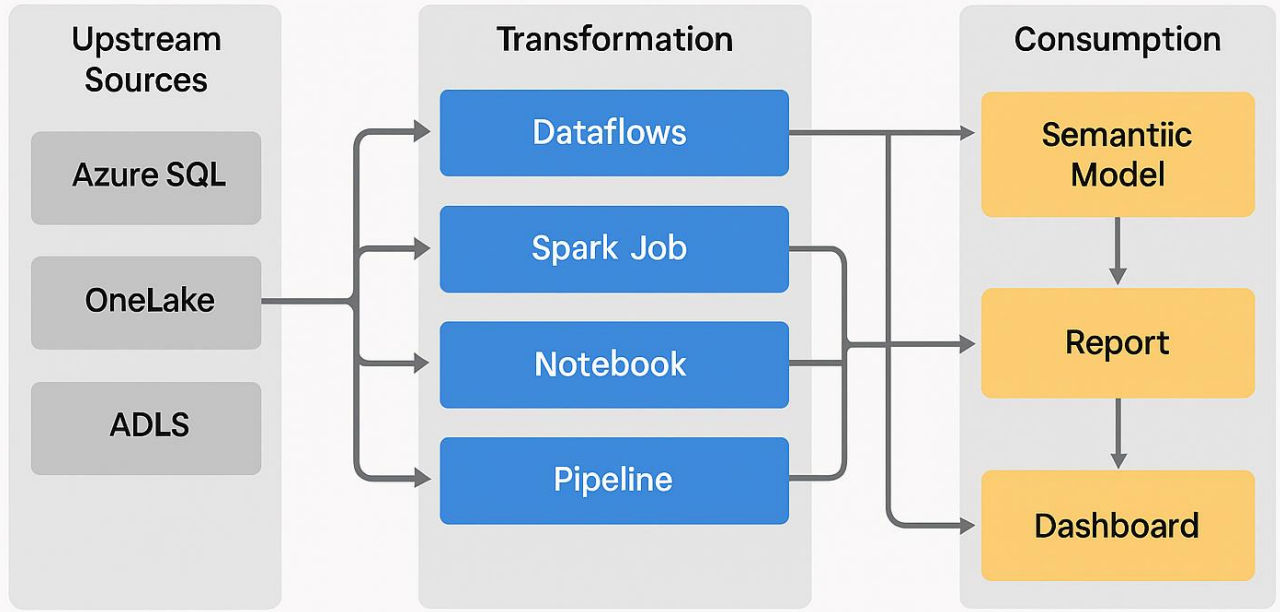
Classification & Automated Policies

Across the lifecycle, tools like Microsoft Purview classify data and enforce adaptive protection.

DATA LINEAGE & IMPACT ANALYSIS

Purview Integration

Show lineage tracing and impact analysis for powerbi service and fabric



Upstream Sources



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TRACING DATA FLOW TO POWER BI

Documenting the journey

Track data from raw sources through transformations to Power BI dashboards for clear lineage.

Faster issue resolution

End-to-end lineage can cut troubleshooting time by 70%, improving reliability and speed.

Purview lineage maps

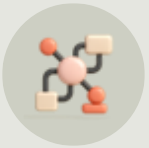
Microsoft Purview captures lineage metadata and visualizes dependencies to build trust.

Use flow diagrams

Sequential timelines and process flows clearly convey movement from sources to reports.



LINEAGE TOOLS: IMPACT & AUDIT



Impact Analysis

Visualize data flows to understand upstream changes and minimize downstream disruption for better decisions.



Audit Readiness

Automated lineage delivers provenance and usage histories for streamlined SOX and HIPAA compliance.



Risk Reduction

Track dependencies to identify risks early and ensure transparency across systems.



Operational Efficiency

Cut manual work and reduce audit prep time by at least 50% to focus on higher-value tasks.

VISIBILITY ACROSS DATA LIFECYCLE

Continuous lineage tracking

Map data flows end-to-end to sustain visibility.

Version control discipline

Track schema, code, and model changes reliably.

Rich metadata management

Standardize business terms, owners, and SLAs.

Collaboration & governance

Use shared platforms; empower committees to steer.

Transparency in KPIs

Embed visibility metrics to reinforce trust.

Outcome

Gartner: up to 35% lift in data quality and trust.



POWER BI SECURITY CONTROLS

POWER BI SECURITY IMPLEMENTATION

Row-level Security (RLS)

Restricts data access at the row level with role-based filters, ensuring users only see records they are authorized to view.

Object-level Security (OLS)

Controls visibility of specific tables, columns, and visuals, protecting sensitive report elements and datasets from unauthorized access.

Compliance Impact

Effective RLS and OLS support least privilege and reduce exposure risk; Microsoft reports a 30% improvement in compliance scores.



INTEGRATED COMPLIANCE FRAMEWORK



COMPLIANCE MONITORING

Real-time tracking with Purview and Azure Monitor enables proactive detection of non-compliance.



AUDITING

Automated trails and granular logging in Power BI support deep investigations and evidence.



POLICY ENFORCEMENT

Automated controls trigger alerts and remediation workflows on policy violations.



REPORTING

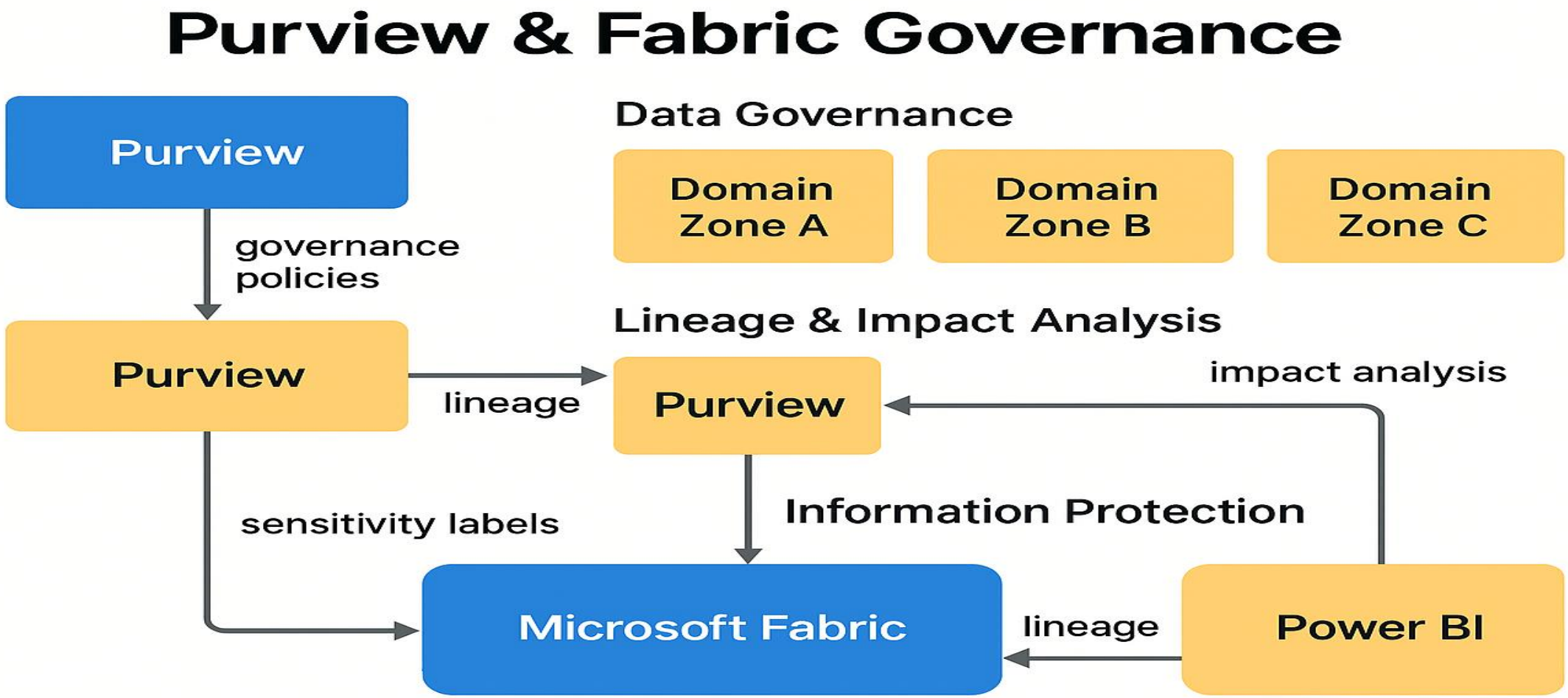
Stakeholder-ready reports align to ISO 27001 and NIST, improving transparency.

BALANCED GOVERNANCE BOOSTS BI

25%

higher user satisfaction with balanced governance in self-service BI (Forrester)

PURVIEW-POWER BI INTEGRATION



SUCCESSFUL GOVERNANCE CASE STUDIES

Faster Compliance Reporting

Multinationals achieved up to 50% quicker regulatory reporting by aligning Purview data catalogs with Power BI lineage and ownership.

Fewer Access Disputes

Centralized policies and clear stewardship reduced data access conflicts by roughly 60%, improving trust and turnaround time.

Risk Mitigation & Audits

Finance and healthcare teams mapped lineage to controls, cutting audit cycles and strengthening evidence for compliance reviews.





AGILITY AND GOVERNANCE CONTROL

Iterative Governance Maturity

Organizations advance through continuous feedback, policy refinement, and automation upgrades—treating governance as an evolving practice, not a one-time milestone.

AI-Driven, Adaptive Policies

The outlook emphasizes anomaly detection, dynamic rules, and greater user empowerment—balanced by governance automation to sustain agility and trust.

Forecasted Enterprise Adoption

By 2027, over 70% of enterprises are expected to deploy integrated governance across BI ecosystems to achieve durable agility and compliance.

Data Governance Maturity Progression (Level 1-5)

From no data catalog to AI-powered automated governance

Level 1: Unaware

No formal governance exists. Data management is ad-hoc and reactive.

Characteristics

- No data owners
- No classification
- Manual access control
- No audit trails

Tools Used

- None or spreadsheets

Common Challenges

- Data sprawl
- Security risks

Key Activities

- Reactive firefighting only

Level 2: Reactive

Basic governance practices exist but are localized and primarily

Characteristics

- Some data owners in silos
- Basic classification
- Manual RLS implementation
- Limited audit logs

Tools Used

- Power BI workspaces
- Basic tagging

Common Challenges

- Inconsistent policies acros...
- Scalability issues

Key Activities

- Address issues as they arise
- Ad-hoc RLS setup

Level 3: Proactive

Enterprise-wide governance program established with defined policies,

Characteristics

- Clear data owners assigned
- Automated classification vi...
- RLS/OLS implemented
- Audit logging enabled

Tools Used

- Purview
- Power BI Premium
- CoE established

Common Challenges

- User adoption
- Balancing control vs. agility

Key Activities

- Governance council meetings
- Policy documentation

Level 4: Managed

Governance is automated and continuously monitored with

Characteristics

- Automated classification & ...
- Dynamic RLS with security t...
- Real-time compliance dashbo...
- Integrated audit workflows

Tools Used

- Purview + DLP
- Power BI + Audit Logs
- Data governance platform

Common Challenges

- Maintaining momentum
- Keeping policies current

Key Activities

- Quarterly governance reviews
- Automated compliance testing

Level 5: Optimized

AI-powered governance with continuous improvement and cultural

Characteristics

- AI/ML-powered anomaly detec...
- Self-service data discovery
- Predictive compliance
- Governance embedded in all ...

Tools Used

- Advanced Purview + AI
- Fabric governance
- Integrated across ecosystem

Common Challenges

- Keeping pace with technology
- Talent retention

Key Activities

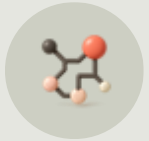
- Innovation experiments
- Industry leadership

EMPOWERING TRUST AND CONTROL



Governance Foundations

Establish robust frameworks to secure environments and build trust through compliance.



Purview Lineage

Use Microsoft Purview for classification, lineage, and protection to ensure transparency.



Controlled Self-Service

Balance agility with strong controls so teams innovate responsibly.



Accountability & Risk

Adopt best practices to mitigate risks and maintain clear accountability.

RLS vs OLS Security in Power BI

Complementary approaches for comprehensive data protection

Feature	Row-Level Security (RLS)	Object-Level Security (OLS)	When to Use
What It Controls	Which rows/records users can see in a table	Whether entire tables or specific columns are visible	Filtering data by user attributes, regions, or departments
User Perspective	Users see filtered data; table/column names visible	Restricted objects are completely hidden from metadata	Protecting sensitive column names or entire datasets
Performance Impact	Filter applied at query time; minimal overhead with proper indexing	Metadata filtering; negligible performance impact	Large datasets need RLS with careful design; OLS for structural hiding
Implementation	DAX expressions using USERNAME() or USERPRINCIPALNAME()	Tabular Editor or Power BI Desktop TMDL view	RLS for dynamic, user-attribute based filtering; OLS for static role restrictions
Use Case Examples	Sales reps see own region; HR managers see department only	Hide salary columns from non-HR; restrict financial metrics	RLS for operational filtering; OLS for regulatory/compliance hiding
Scalability	Highly scalable with proper security table design	Scalable; manages many roles efficiently	Both scale well; combine for multi-layered security
Testing Method	View As role in Power BI Desktop to test dynamic filters	Publish and verify in Power BI Service with assigned users	Test both thoroughly; RLS testing more critical for data accuracy

Q&A / Open Discussion

- What governance challenges are you facing with Power BI today?
- Are business users struggling with **too many reports** or **too little trust**?
- Where are you today on the **Governance Maturity Curve**?
  Ad-hoc → Managed → Governed → Trusted → Enterprise-scale
- What would success look like **6 months from now**?

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Vivek Trivedi

Microsoft Certified Trainer (MCT)

Session: Govern or Be Governed: Making Power BI Reports Secure, Compliant, and Trusted