

Turn Distributed Education Data Into a Governed KPI Foundation.

Intellix EduData Exchange

Education Data Engineering & Exchange Platform



Consistent,
governed data



KPI-ready
analytical data



Governed
data operations



Prepared for
governed exchange



Privacy-aware,
controlled-use design

Connect • Discover • Engineer • Harmonize • Govern • Operate • Publish

Education Systems



K-12

SIS • LMS • Assessment
HR/Finance •
Student Support •
Other



Higher Education

SIS • LMS • ERP •
Admissions/CRM •
Finance/HR •
Other

EduData Exchange



Intellix EduData Exchange

One Platform. One Governed Foundation.
K-12 and Higher Education.



Identity &
Context



Quality &
Reconciliation



Metadata &
Lineage



Governance &
Ownership



Privacy &
Controlled Use



Observability &
Readiness

Governed Foundation



Governed Data Foundation

Governed, aligned data
prepared for KPI
consumption.

Medallion Architecture
Bronze • Silver • Gold

InsightCore

InsightCore —
Governed KPI-Oriented
Education DataHub



K-12 KPI
Data Domains



Higher Education
KPI Data Domains

Representative sector-configured
domain contexts.

Patent Pending

Consumers



Intellix Vista



Customer BI



Reporting &
Data Products



Controlled Sharing
& Exchange



MOCKUP DEMO READY

Demonstrates intended architecture and workflows.



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Connect the data. Govern the journey. Build the KPI-ready foundation.



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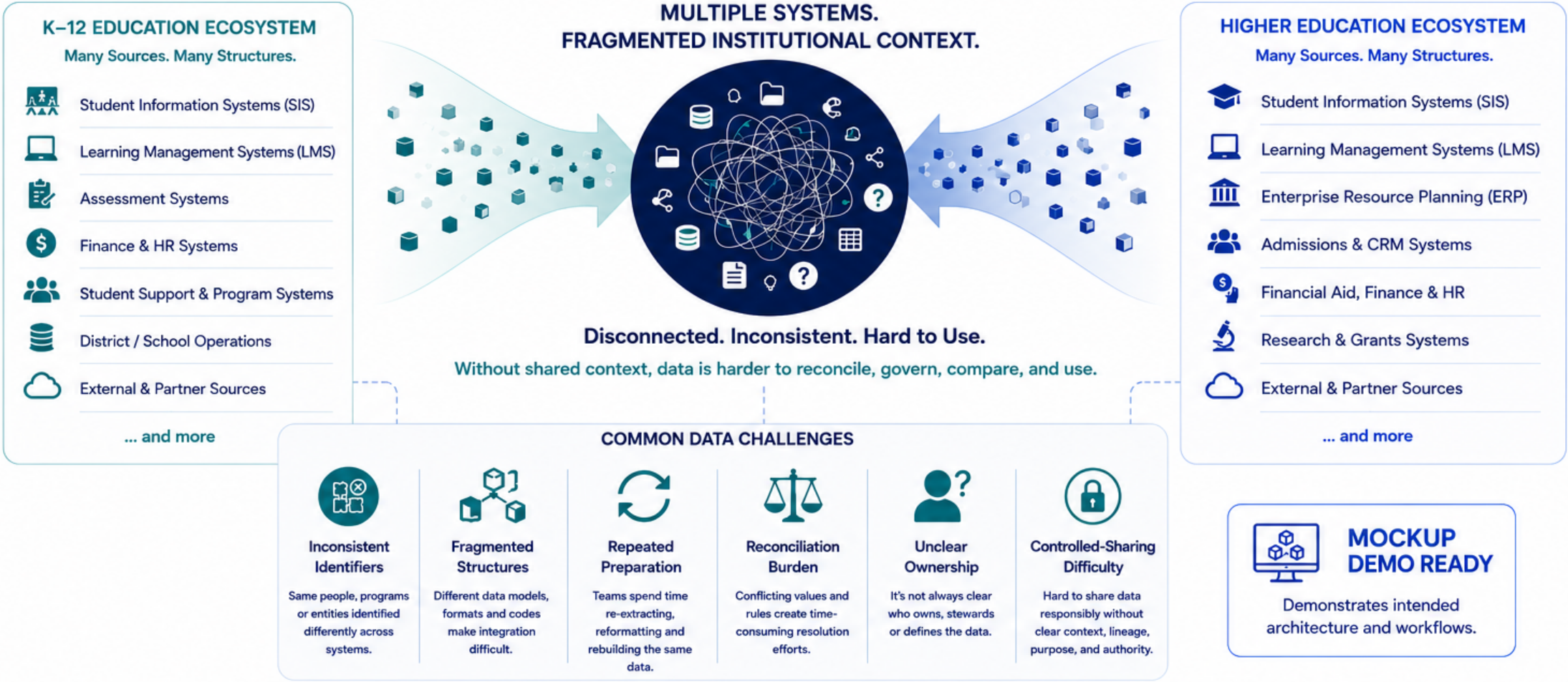
Education Data Is Everywhere. Shared Context Is Not.

Education institutions generate and receive data across many systems—each with different structures, identifiers, definitions, owners, and purposes.

The result: fragmented, hard to trust, and hard to use.



The Challenge: Lots of Data, Little Shared Meaning.
Different systems. Different definitions. Different structures. Without shared context, it's difficult to combine, compare, trust, or responsibly share data.



One Education Data Exchange. One Governed Data Foundation.

Intellix EduData Exchange is the platform that connects, discovers, engineers, harmonizes, governs and publishes education data for K–12 and Higher Education.

One platform. One governed foundation.
Built for governance. Prepared for analytical use.



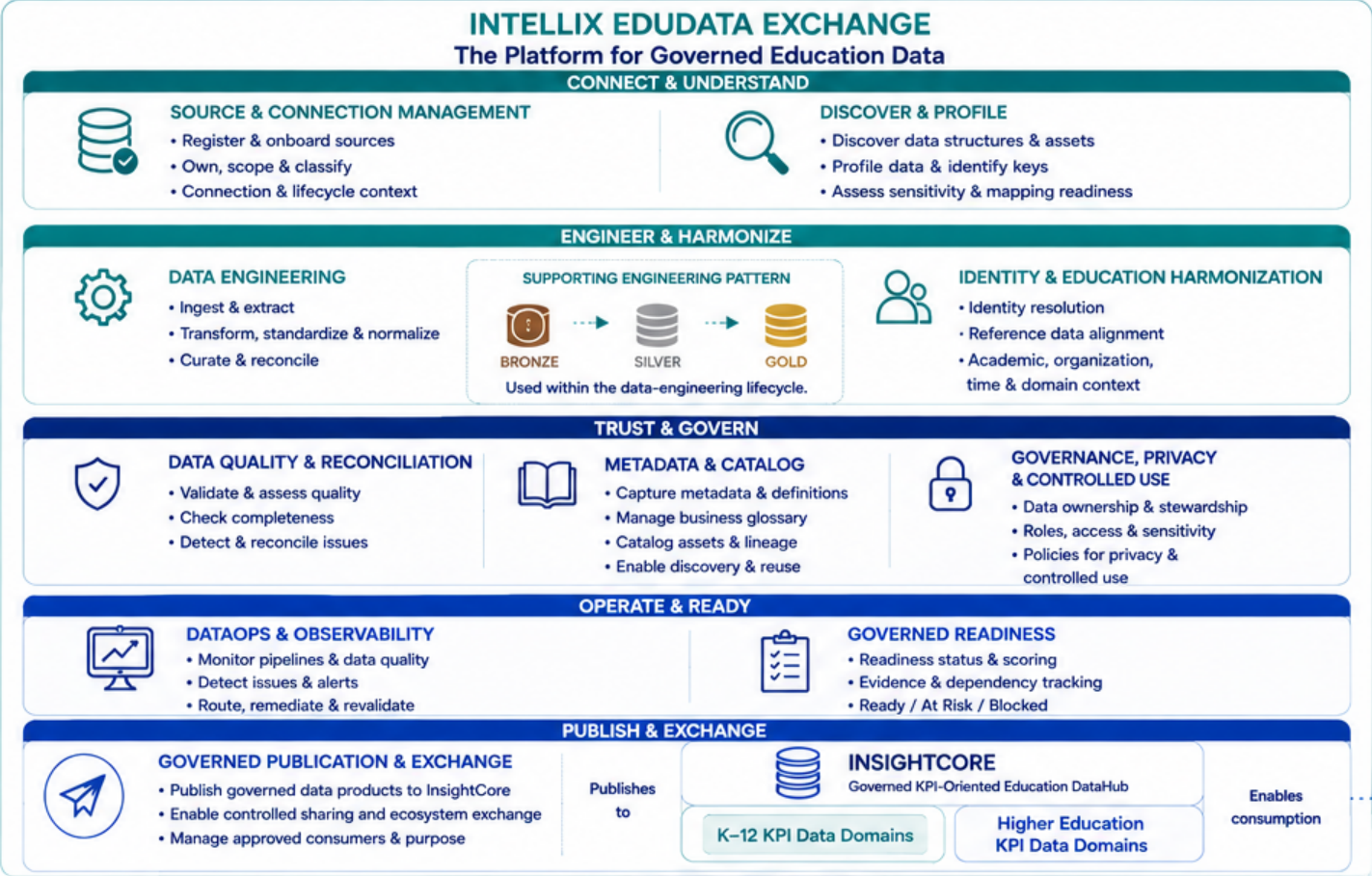
Intellix EduData Exchange

Education Data Engineering & Exchange Platform



Our Purpose

Create and operate a governed education data foundation that prepares consistent, contextualized and KPI-ready data for analytics, reporting and controlled exchange.



DOWNSTREAM CONSUMERS



DATA SOURCES

K–12 Systems

- SIS
- LMS
- Assessment
- Finance / HR
- Student Support
- Operations
- Partner / Other

Higher Education Systems

- SIS
- LMS
- ERP
- Admissions / CRM
- Financial Aid
- Finance / HR
- Research / Grants
- Partner / Other

FOUNDATION PRINCIPLES



Governance by Design
Ownership, lineage and controlled use across the data journey.



Education First
Purpose-built for K–12 & Higher Education.



Standards-Aware
Accommodate standards-based mappings where required.



Shared Definitions
Governed definitions and context support consistency and reuse.



Configurable & Extensible
Designed to evolve with institutional data needs.



Traceable & Governed
Lineage, evidence and governed review remain visible.



Start With Purpose.

Connect the Data the Use Case Actually Needs.

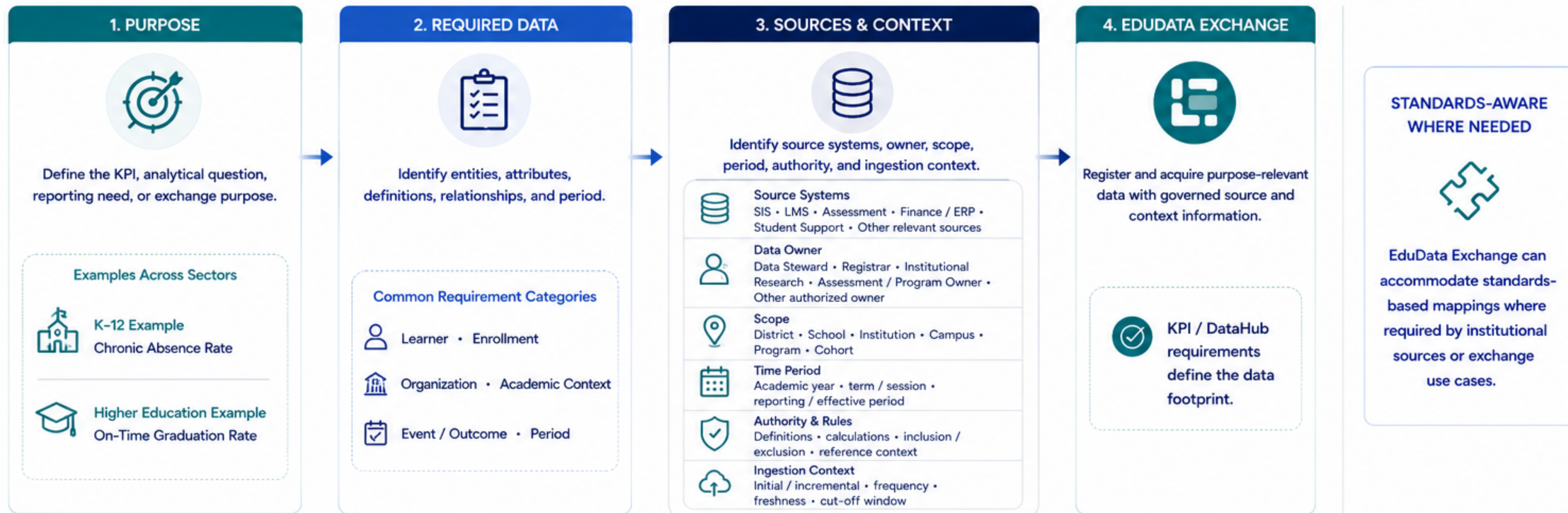


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Every data acquisition should begin with a defined purpose. Define the KPI, analytical question, reporting need, or governed exchange use case. Identify the data it requires, where it comes from, who owns it, and the context needed to interpret and govern it.

Purpose defines the footprint. Context preserves meaning. Governance establishes accountability.



PURPOSE-DRIVEN ACQUISITION PRINCIPLES



1. Purpose-Relevant

Select data required for the defined KPI, use case, reporting need, or exchange purpose.



2. Context-Preserved

Retain source, owner, scope, time, and institutional meaning.



3. Definition-Aware

Capture definitions, rules, inclusions, exclusions, and reference context.



4. Governed Acquisition

Bring data under ownership, lineage, and controlled-use context.



5. Reusable Foundation

Structure governed data so defined analytical requirements can be supported consistently.



Engineer the Data. Prepare It for Governed Analytical Use.



**Intellix
EduData Exchange**

Education Data Engineering & Exchange Platform

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EduData Exchange is designed around a controlled engineering lifecycle that progresses purpose-relevant source data toward standardized, harmonized and governed analytical use.

The lifecycle preserves source context while progressively applying shared definitions, harmonization, quality controls and governance.

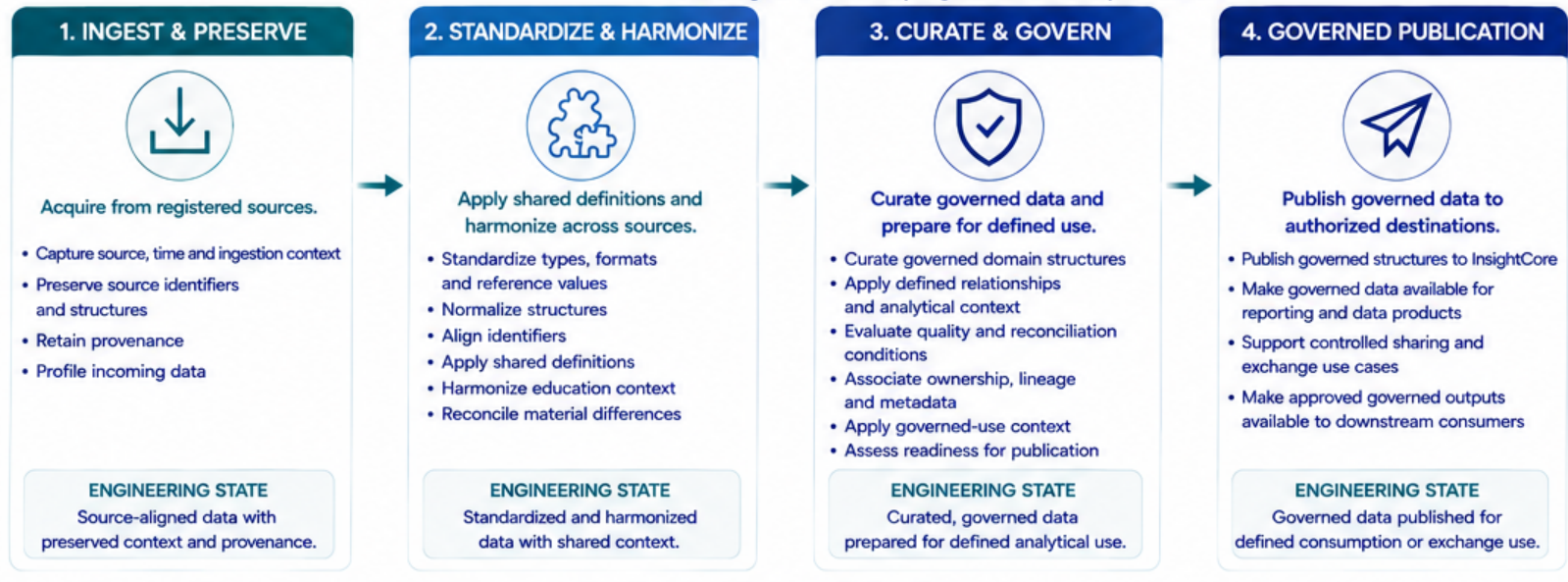


Engineering for Governed Analytical Use

The EduData Exchange engineering lifecycle progressively contextualizes, harmonizes, and governs data before governed publication for defined analytical, reporting or exchange use.

THE EDUDATA EXCHANGE ENGINEERING LIFECYCLE

Four stages. Governed progression toward publication.



CROSS-CUTTING CONTEXT ACROSS ALL STAGES



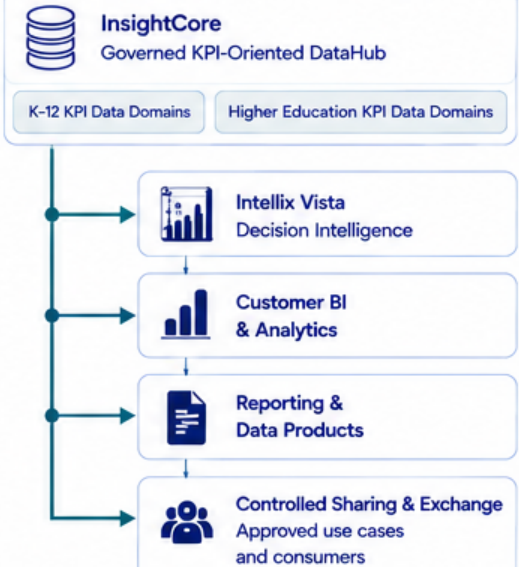
SUPPORTING ENGINEERING PATTERN — WITHIN STAGES 1-3)

Medallion architecture is a supporting engineering pattern used within EduData Exchange.



Bronze → Silver → Gold is a supporting engineering pattern used within EduData Exchange to progressively prepare governed data for publication.

PUBLICATION DESTINATIONS



ENGINEERING PRINCIPLES



Purpose-Driven
Engineer data for defined use cases.



Context-Preserved
Source and institutional context remain associated.



Standards-Aware
Accommodate standards-based mappings where required.



Governance Across the Lifecycle
Ownership, lineage and controlled-use context remain visible.



Traceable & Governed
Lineage and supporting evidence remain visible.



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MOCKUP DEMO READY



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Harmonize Identity and Education Context Without Losing Provenance.

EduData Exchange is designed to align identities and harmonize education context across contributing sources while retaining source lineage and resolution context. Shared definitions can be established without discarding where the data originated or how differences were resolved.

EDUCATION-SPECIFIC DIFFERENTIATION



Identity Alignment
Align source-specific identifiers through crosswalks and contextual matching.



Master & Reference Data
Use governed master and reference data to provide consistent, shared definitions.



Hierarchies (K-12 + HE)
Represent education organizational and academic structures across sectors.



Academic Structures
Support terms, courses, sections, programs, cohorts, outcomes and more.



Organization Context
Align organization structures and roles across contributing sources.



Time & Academic Calendar
Harmonize reporting, academic, and effective-date contexts.

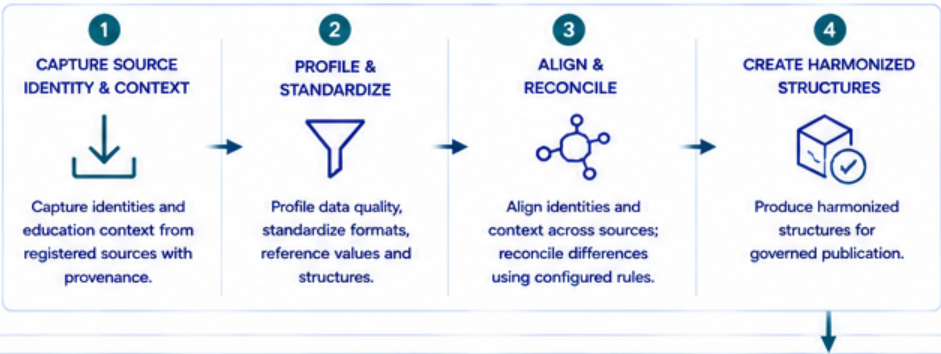


Source Authority & Conflicts
Apply configured authority and rules; resolve differences transparently.



Provenance Preserved
Designed to retain source lineage, transformation context and resolution evidence.

SOURCE-RESOLUTION FLOW WITHIN EDUDATA EXCHANGE



RECEIVES HARMONIZED STRUCTURES

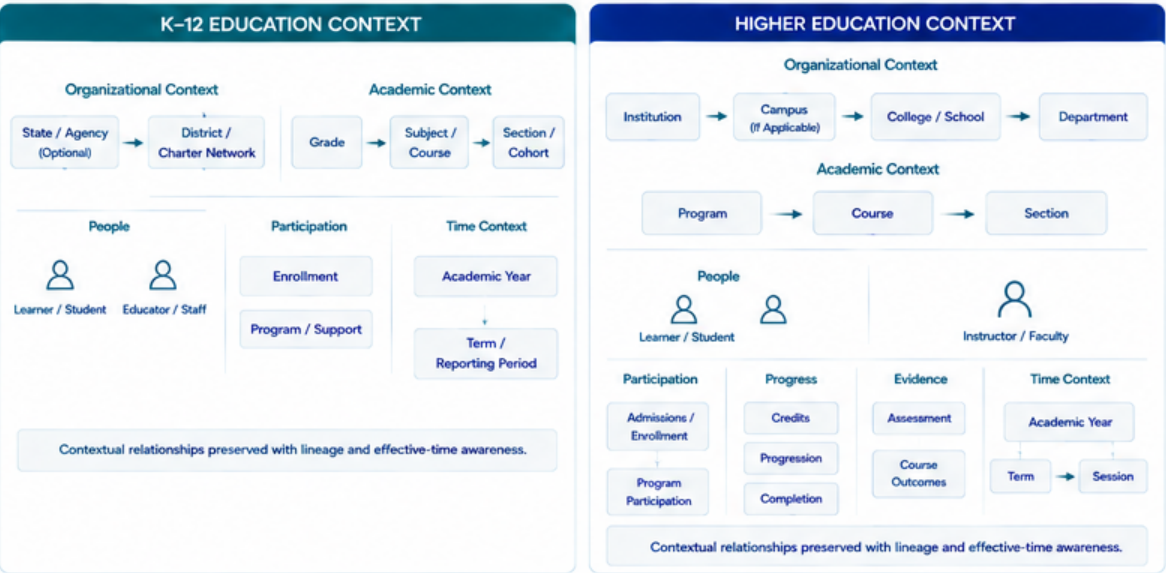


InsightCore
Governed KPI-Oriented Education DataHub

K-12 KPI Data Domains

Higher Education KPI Data Domains

REPRESENTATIVE EDUCATION CONTEXT STRUCTURES — INTENDED ARCHITECTURE



CONFIGURED SOURCE AUTHORITY By Data Element & Context

Data Element / Context	Possible Contributing Sources	Authority Determination
Identity	SIS • HR • Admissions • Assessment • Other	Configured authority / crosswalk and matching rules
Enrollment	SIS • Admissions • Program Systems • Other	Effective-period and scope configured rules
Course / Section	SIS • LMS • Scheduling • Other	Configured source precedence by context
Assessment	Assessment • LMS • SIS • Other	Purpose-dependent authority configuration
Program	SIS • CRM / Admissions • Other	Configured authority and governed review

RESOLUTION APPROACHES When Differences Exist

- **Source Precedence**
Use configured authoritative source.
- **Effective Date**
Apply the value valid for the applicable period.
- **Completeness / Validity Rule**
Select the value that meets defined conditions.
- **Cross-Source Reconciliation**
Compare contributing evidence across sources.
- **Governed Review**
Authorized reviewer resolves when needed.



Resolution evidence is designed to retain source lineage, the applicable rule or reviewer decision, and relevant timestamps.

PROVENANCE DESIGNED INTO EVERY STEP



Find and Resolve What Prevents Data From Being Ready.



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EduData Exchange is designed to evaluate data-quality and reconciliation conditions across harmonized structures and surface issues that may prevent intended analytical, reporting, or exchange use. Conditions are assessed for impact, assigned to responsible owners, investigated, remediated, and revalidated through a governed workflow.



Quality-Driven Data Engineering

Governed readiness conditions inform progression toward InsightCore and other approved publication or exchange paths. Exceptions are designed to remain visible, owned, and traceable through the workflow.

QUALITY & RECONCILIATION CONDITIONS



Completeness

Required data is present.



Validity

Values conform to definitions, formats and business rules.



Consistency

Values are consistent across sources and time.



Uniqueness

No unintended duplicate records.



Referential Integrity

Relationships exist and are valid.



Timeliness

Data is current for its intended use period.



Source Conflict

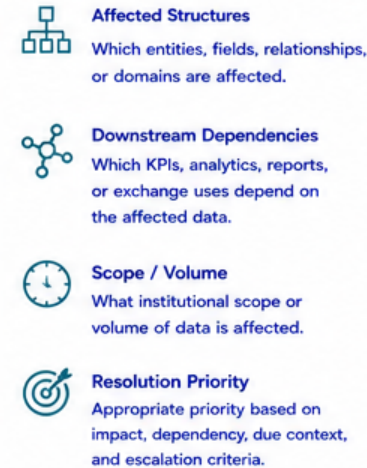
Conflicting values across contributing sources.

GOVERNED QUALITY & RECONCILIATION WORKFLOW



The workflow is designed for visible ownership, evidence, and governed review across roles. The intended workflow allows escalation criteria to vary by organization and use case.

IMPACT CONSIDERATIONS



EXCEPTION & REMEDIATION LIFECYCLE

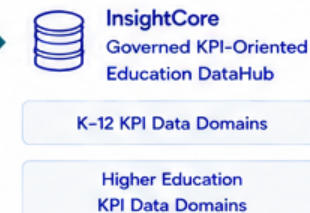


REPRESENTATIVE READINESS CHECKS (Illustrative)

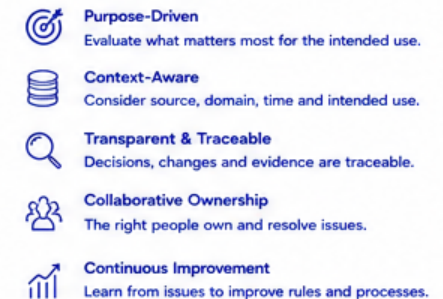


Applicable checks, thresholds, owners, and evidence requirements can vary by source, domain, use case and organizational policy.

INFORMS GOVERNED READINESS FOR PUBLICATION



QUALITY GUIDING PRINCIPLES



Note: This page illustrates the intended design for data quality and reconciliation workflows within EduData Exchange. It is not a claim of current production automation.



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Govern Education Data for Responsible Use.

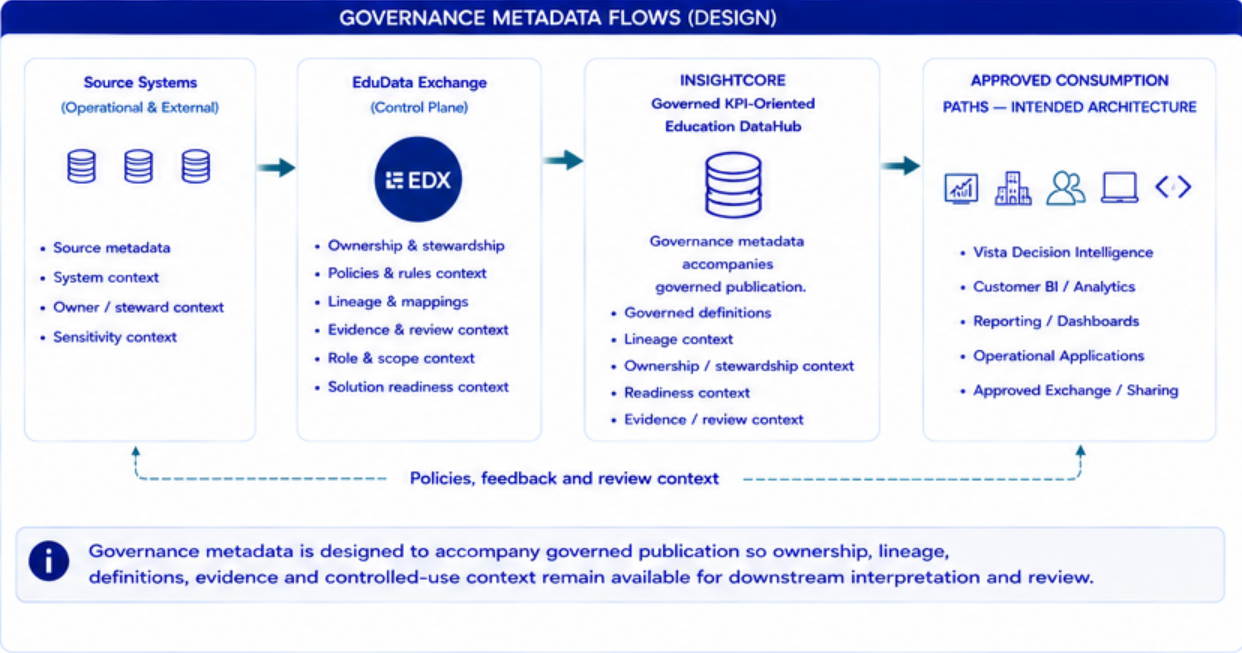
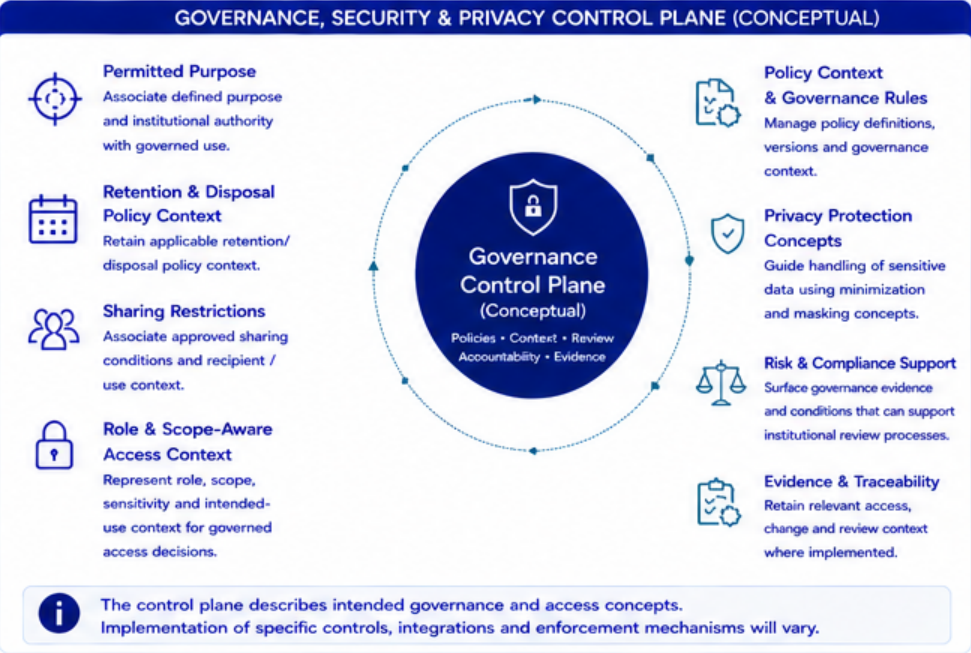
EduData Exchange is designed to support governance, privacy, access and controlled-use decisions across the education data lifecycle. It links ownership, definitions, lineage, policy context and evidence to help institutions use data appropriately and transparently.



Governance by Design. Policy-Guided Use.

Ownership, shared definitions and provenance-aware context help institutions make informed decisions about how education data is prepared, reviewed and used for approved purposes.

KEY GOVERNANCE DIMENSIONS						
 Ownership & Stewardship Accountability for data and clear steward responsibilities.	 Definitions & Business Rules Consistent terms, definitions and reference rules.	 Lineage & Mappings Source lineage, transformations and crosswalk / mapping context.	 Evidence & Review Context Supporting evidence and review artifacts for decisions.	 Role & Scope Context Role and scope-aware access concepts by purpose and least-privilege intent.	 Data Sensitivity Context Sensitivity classification context to guide access and handling decisions.	 Minimization & Masking Concepts Collect or use only what is needed; consider masking or pseudonymization.



PRIVACY & DATA PROTECTION PRINCIPLES (BY DESIGN)

**Data Sensitivity**
Classify sensitivity context to guide use and handling.

**Data Minimization**
Use only data necessary for the defined purpose.

**Masking / De-identification Concepts**
Consider masking or de-identification where appropriate.

**Contextual Limitation**
Consider role, scope, sensitivity and intended purpose before access.

GOVERNANCE PRINCIPLES

**Accountable Ownership**
Responsibility is clearly defined.

**Policy-Guided**
Policies provide context for decisions and review.

**Least-Privilege Intent**
Access considers only what is needed for the intended purpose.

**Traceable & Governed**
Context for decisions, changes and evidence is retained.

**Continuous Improvement**
Learn from reviews to strengthen processes.



INTENDED PURPOSE

Designed to support institutional data-governance, privacy and compliance processes through ownership, lineage, policy context, evidence and controlled-use concepts.

i This page illustrates the intended governance, privacy and controlled-use architecture within EduData Exchange. It does not represent current production enforcement, regulatory compliance, or security/privacy certification.

Monitor, Detect and Resolve. Operationalize DataOps.

EduData Exchange is designed to support observation of the data lifecycle across sources, ingestion, processing and publication. The intended workflow connects operational signals, issue context, ownership, impact and follow-up through governed workflows.



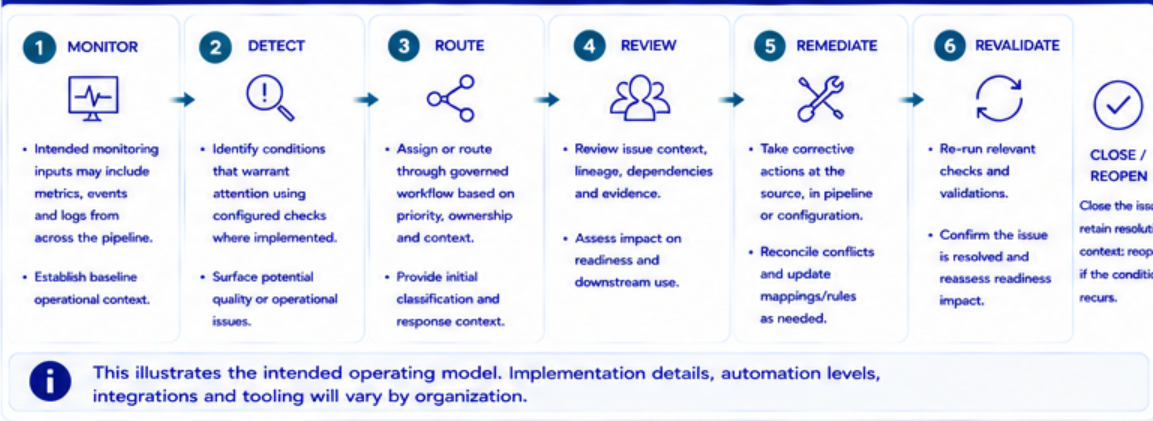
DataOps by Design. Observable and Governed.

The intended model connects operational signals, ownership, impact and follow-up through governed workflows to help teams understand conditions, assign responsibility and reassess readiness after remediation.

REPRESENTATIVE OBSERVABILITY CONDITIONS (INTENDED MODEL)

 Source Health Availability, connectivity and response status of source systems.	 Ingestion Health Job and load conditions for receipts and processing.	 Freshness Timeliness of data compared to expected update windows.	 Schema Drift Structure changes, new/removed fields, type or format changes.	 Conflict / Reconciliation Cross-source differences and reconciliation status or needs.	 Quality Blockers Quality conditions that may affect governed readiness.	 Issues Open conditions that require attention, review and resolution.
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DATAOPS OPERATING MODEL (INTENDED WORKFLOW)



IMPACT VISIBILITY (INTENDED)

 Readiness Impact Which readiness dimensions may be affected?	 Dependency Impact Which KPI, report, analytics, exchange or data-product dependencies rely on the affected data?	 Scope / Volume Impact What institutional scope or amount of data is affected?	 Priority / Due Context What priority and response context is appropriate?
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ISSUE CONTEXT (INTENDED MODEL)

 Owner Assigned data or business owner.	 Priority / Severity Critical, High, Medium, Low.	 Status Open → In Progress → Resolved → Closed.	 Due Context Target response or resolution context.	 Evidence & Lineage Links to sources, lineage, metrics and notes.	 Resolution Notes Comments and activity history.
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REPRESENTATIVE OPERATIONAL CONDITIONS

Condition Type	Representative Signal	Possible Owner	Potential Impact
 Source Unavailable	Source system is down or unreachable.	Integration Owner / Source Owner	May affect ingestion and regulated readiness.
 Ingestion Condition	Job failed, partial load or missing data.	Data Engineer / Platform Team	May delay downstream processing and reports.
 Freshness Condition	Data is older than the expected update window.	Data Steward / Business Owner	May affect timeliness of analytics and decisions.
 Schema Drift	Structure changed or unexpected fields.	Data Engineer / Data Steward	May affect processing, mappings and reports.
 Source Conflict	Differences across sources or mismatched values.	Data Steward / Business Owner	May affect reconciliation and governed readiness.
 Quality Blocker	Data fails quality rule(s) (completeness, validity, etc.).	Data Steward / Data Quality Owner	May affect publication and dependent use.
 Mapping Issue	Mapping is missing, incorrect or out of date.	Data Steward / Business Owner	May affect KPI, reporting, or analytical interpretation.

OBSERVABILITY SIGNALS (CONCEPTUAL)

 Pipeline Health Operational status across the pipeline.	 Ingestion Activity Job runs, loads and activity context.	 Processing Condition Processing checks and validation outcomes.	 Freshness Status Current vs expected update context.
 Open Issues Number and status of open conditions (needs attention).	 Priority Conditions High/critical conditions requiring focused response.	 Readiness Impact Readiness dimensions and dependencies affected.	 Trend Context Condition trends to help guide follow-up actions.

RUNBOOK & OPERATING GUIDANCE CONCEPTS

 Runbook Concepts Document investigation and remediation guidance.	 Threshold Context Define conditions that may warrant attention based on policy and operational needs.	 Post-Resolution Review Retain resolution context and lessons learned.	 Rule / Mapping Review Identify potential updates to rules, mappings and checks following investigation.
 Consumer Feedback Provide input to improve prioritization and operational practices.			

i DataOps and observability provide operational context for identifying changing conditions, understanding dependencies, assigning ownership and reassessing governed readiness after remediation.



Loaded Is Not the Same as Ready. Governed Readiness.

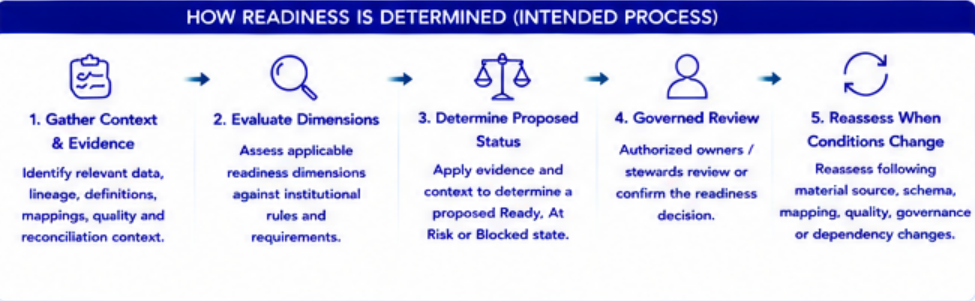
Data can be ingested and stored yet still require additional review before governed analytical, reporting or exchange use.

EduData Exchange is designed to assess multiple readiness dimensions that inform whether data should progress toward InsightCore or another approved publication path.



Our Commitment: Governed Readiness. Not Assumed Readiness.
The intended model uses a Governed Readiness Status—Ready, At Risk or Blocked—based on applicable evidence, rules and institutional context. It is an institutional readiness model, not an external certification or a guarantee of outcomes.

GOVERNED READINESS DIMENSIONS (INTENDED MODEL)				
 Source Availability, connection/ source context and ingestion condition.	 Schema Structure completeness, validity and change context.	 Identity / Reference Identity alignment and reference-data context.	 Mapping Mapping completeness and business-rule alignment.	 Quality Applicable quality checks, conditions and open issues.
 Reconciliation Cross-source conflicts and reconciliation state.	 Governance Definitions, lineage, stewardship and evidence context.	 Privacy / Use Sensitivity, permitted purpose and controlled-use context.	 Ownership Responsible owner / steward and accountability.	 Dependencies KPI, reporting, exchange or application dependencies.



i Governed Readiness Status is designed to support institutional determination of whether data should progress toward InsightCore or another approved governed use. It is not an external certification and does not guarantee specific outcomes.

THE CORE QUESTION

Is the data Ready for InsightCore?

In the intended architecture, a Ready status indicates that data may progress toward governed publication to InsightCore.
This supports governed analytical, reporting, exchange and decision support use.

GOVERNED READINESS STATUS (INTENDED MODEL)

**READY**
Applicable readiness expectations are met with supporting context and no identified blocking condition.

**AT RISK**
One or more gaps or conditions may affect intended use and warrant review, mitigation or remediation.

**BLOCKED**
A blocking condition indicates that publication or governed use should not proceed until the applicable issue is resolved or reviewed.

ILLUSTRATIVE READINESS MATRIX — INTENDED MODEL												
Sample view only. Actual statuses will vary based on context, evidence and review.												
Data Domain / Dataset	Source	Schema	Identity / Reference	Mapping	Quality	Reconciliation	Governance	Privacy / Use	Ownership	Dependencies	Overall Status (Intended)	Trend
Student Demographics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Ready	→
Enrollments	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Ready	→
Course Sections	✓	✓	✓	⚠	⚠	✓	⚠	✓	✓	✓	At Risk	↗
Assessments	✓	✓	✓	✓	🔒	✓	✓	✓	✓	✓	Blocked	→
Attendance	⚠	⚠	✓	✓	⚠	✓	✓	✓	✓	✓	At Risk	↘
Discipline	🔒	✓	✓	✓	🔒	⚠	⚠	⚠	✓	⚠	Blocked	→
✓ Ready ⚠ At Risk 🔒 Blocked ⚠ Not Applicable / Context Only												
Statuses reflect governed readiness decisions in the intended architecture based on applicable evidence, rules, institutional context and steward review.												

WHAT THIS MEANS

 Readiness is multidimensional, not a single check.

 Different layers may provide context; the governed readiness decision is based on applicable dimensions, evidence and institutional context.

 Use Governed Readiness Status to guide publication and downstream use.

 At Risk or Blocked conditions can flow into the intended DataOps workflow for review, remediation and revalidation (Page 9).

IMPORTANT PRINCIPLES

 Governed Readiness is an institutional decision, not an external badge or certification.

 Engineering layers may contribute readiness evidence; they do not determine readiness by themselves.

 Statuses can change based on new evidence, rule updates, corrections or dependency changes.

 Only data with a Ready status (in the intended model) should progress to InsightCore for governed use.

InsightCore — The Governed Education DataHub for KPI-Based Analytics.

InsightCore is the governed KPI-oriented Education DataHub within EduData Exchange. It organizes governed education data and context into purpose-relevant structures for measures, dimensions, hierarchies, KPI definitions, calculation context, relationships, time, metadata, lineage and quality/readiness context. This foundation supports consistent KPI semantics for analytical, reporting and approved downstream consumption.



InsightCore — The Governed KPI DataHub.

A purpose-built, governed KPI-oriented Education DataHub that organizes governed K–12 and Higher Education structures for KPI-based analytics, reporting and approved downstream consumption.



Governed KPI Definitions & Calculation Context
Consistent KPI meaning, calculation context and institutional terminology.



Sector-Configured Contexts
K–12 and Higher Education use representative sector-specific analytical contexts.



Traceable & Interpretable Structures
Lineage, relationships and metadata support understanding and interpretation.



Quality & Readiness Context
Quality, reconciliation and governed readiness context accompany KPI structures.



InsightCore — Patent Pending.
Representative domain coverage reflects intended architecture and may evolve.

Use and Exchange the Governed Foundation Your Way.

InsightCore provides a governed KPI-oriented Education DataHub designed to support multiple analytical, reporting and approved exchange contexts.

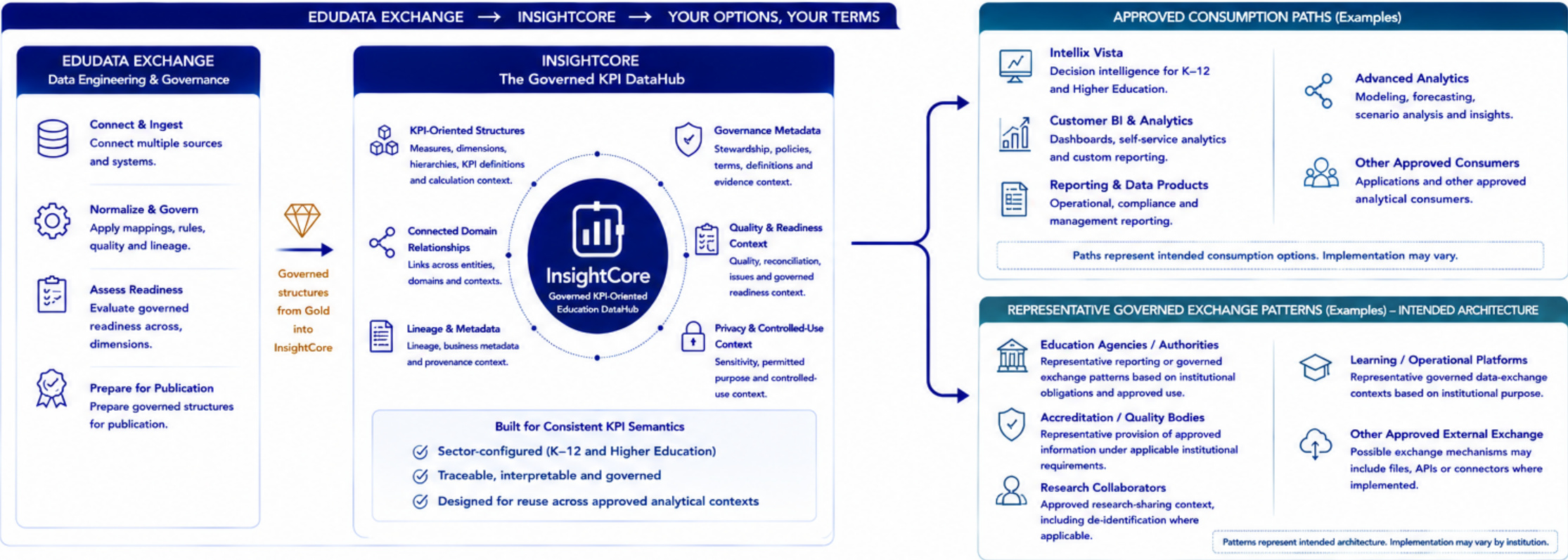
Consume through Intellix Vista, your own BI and analytics tools, reporting/data products, or exchange through representative patterns—based on your purpose and authority.

**Open Consumption Model**
Support multiple approved analytical and reporting paths.

**Governance Context Travels**
Definitions, lineage, quality and readiness context accompany governed publication.

**Designed for Reuse**
Structure KPI-oriented data for reuse across approved analytical contexts.

**Governed Exchange Options**
Represent controlled exchange patterns based on purpose, authority and institutional policy.



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Let's Build the Right Foundation—Your Way.
Explore how EduData Exchange and InsightCore can support your institution's governed analytical, reporting and exchange needs.

 **SCHEDULE A SALES DISCUSSION**

 **REQUEST A GUIDED DEMO**

 **EXPLORE A POC**

MOCKUP DEMO READY

Mockup Demo Ready for preview and discussion. Not a production implementation.