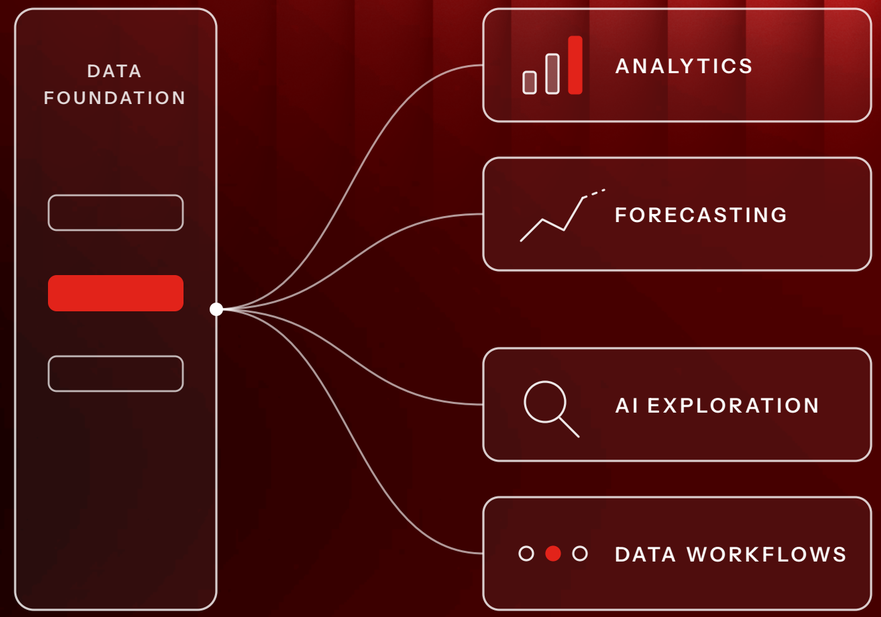
CASE STUDY | DATA & AI | RETAIL

When Enterprise Data Needs to Do More Than Reporting

How ICS Compute built a governed data foundation for analytics, forecasting and AI-assisted exploration for a leading Indonesian omnichannel retail company.

Data Foundation | Analytics | Forecasting | AI Exploration | Governance



INTRODUCTION

Enterprise systems can hold years of valuable business information. Preparing that information for new analytical workloads is a different task from storing it and reporting on it.

Dashboards need reliable analytical data. Forecasting needs historical information together with relevant business context. AI-assisted exploration gives users another way to work with analytical information. These use cases look different at the point of use, and they all depend on the same data foundation underneath.

ICS Compute created a modern data and analytics environment for a leading Indonesian omnichannel retail company. The environment extends the company's existing enterprise information into analytics, forecasting and AI-assisted exploration, all within one governed foundation.

Executive summary

SITUATION

A leading Indonesian omnichannel retail company already held important financial and operational information in its enterprise data environment.

CHALLENGE

New analytical requirements went beyond predefined reporting. Analytics, forecasting and AI-assisted exploration need data that can be processed, governed and reused across different workloads.

APPROACH

ICS Compute established a modern data environment that connects enterprise source data with repeatable processing, analytics, machine-learning forecasting and governed AI-assisted exploration.

OUTCOME

The company now has a shared data foundation that supports several analytical workloads inside a controlled enterprise environment.

At a Glance

INDUSTRY	Omnichannel Retail
BUSINESS AREA	Enterprise analytics and financial forecasting
STARTING POINT	Existing enterprise financial and operational data
FOCUS	Data integration · Analytics · Machine learning · AI-assisted exploration · Governance
TECHNOLOGY	**SAP BW** · **AWS** · **Databricks** · **Genie Space**
ICS COMPUTE ROLE	Architecture · Data integration · Data engineering · Analytics · Machine-learning enablement · AI-assisted exploration · Governance · Operational handover
OUTCOME	A governed analytical environment supporting multiple Data & AI workloads

The Business Challenge

Traditional reporting usually answers questions that have already been defined, and the data is prepared to deliver those answers.

Forecasting asks for more. Historical data has to be organized for modelling, so that a model can learn from patterns over time.

AI-assisted exploration adds another interface for working with data. Self-service analytics adds a further requirement, because analytical information has to remain easy to use while it stays governed.

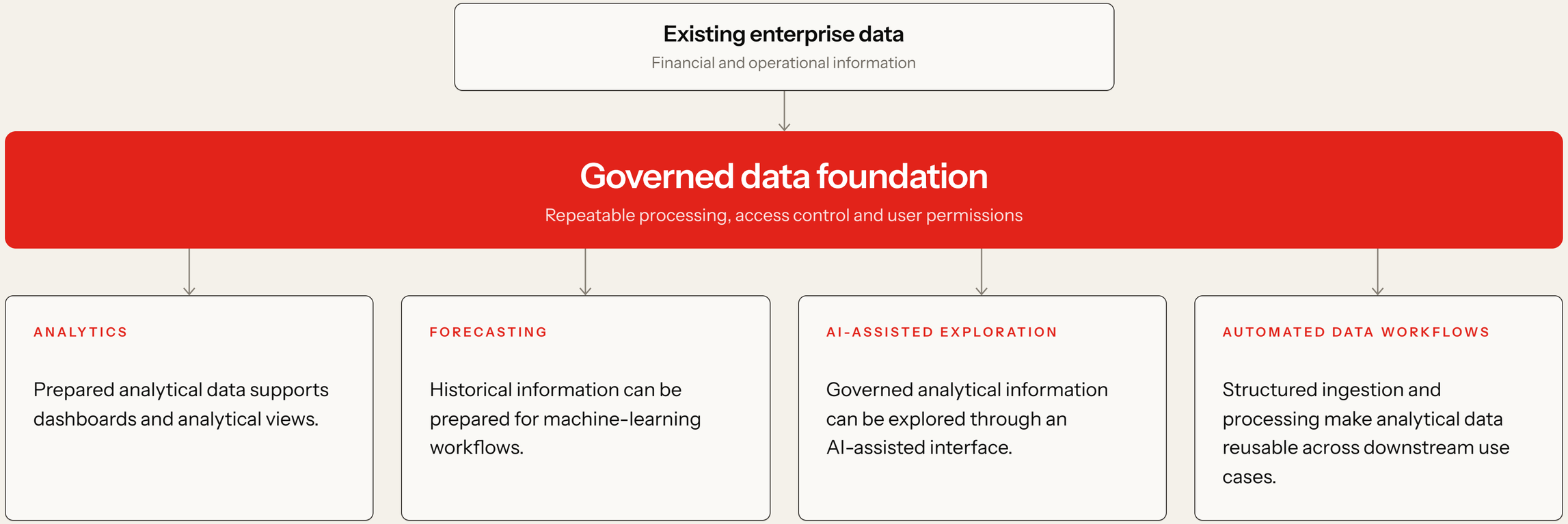
The task was to build an environment where the same enterprise information supports several ways of working.

Key idea

The question became how to make the same data useful for what comes after reporting.

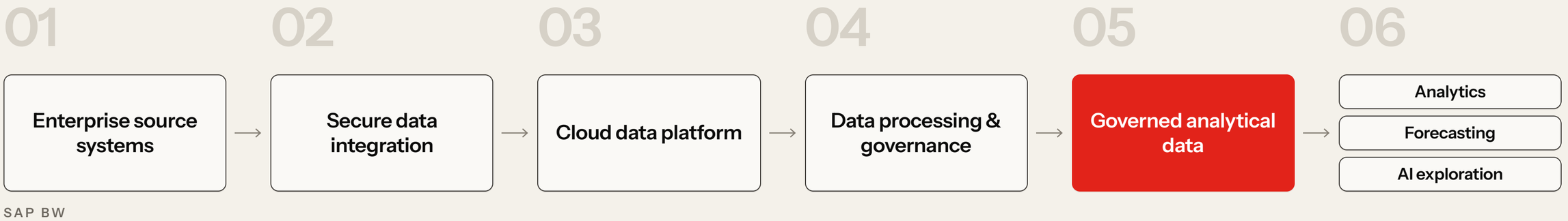
One Data Foundation, Multiple Ways to Use It

Different analytical workloads consume the same governed foundation, which keeps them in one environment with one set of controls.



High-Level Solution Architecture

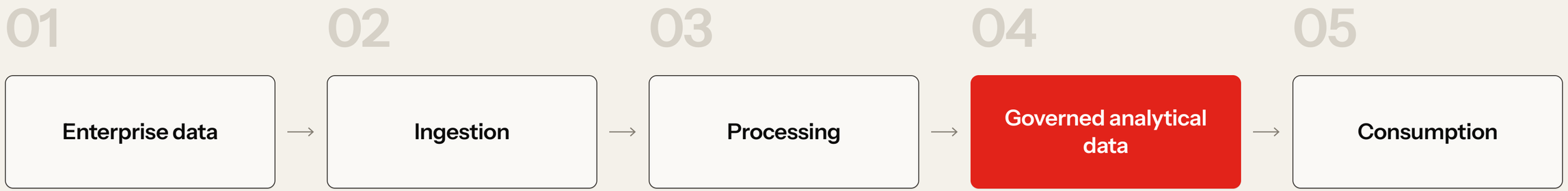
The architecture connects existing enterprise data to a cloud data platform and prepares governed analytical data for analytics, forecasting and AI-assisted exploration.



Conceptual architecture

From Enterprise Data to Analytical Data

ICS Compute established repeatable ingestion and processing workflows. Each downstream use case draws on prepared analytical data produced by the same workflows.



ENTERPRISE DATA

Financial and operational information held in existing enterprise systems.

INGESTION

Repeatable workflows bring source data into the analytical environment.

PROCESSING

Structured processing prepares the data for analytical use.

GOVERNED ANALYTICAL DATA

Prepared data is managed under platform access controls and user permissions.

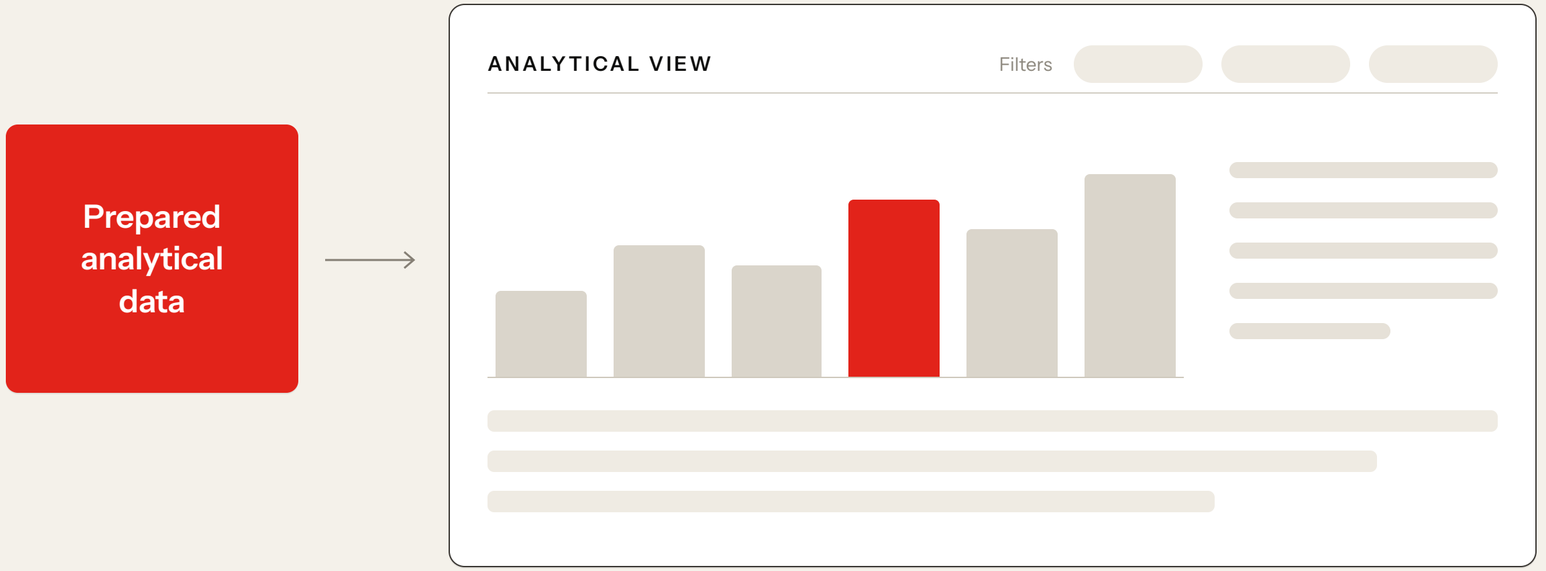
CONSUMPTION

Dashboards, forecasting and AI-assisted exploration read the prepared data.

Every analytical workload consumes prepared, reusable data.

Analytics as One Consumer

Dashboards and analytical views read prepared data from the shared platform. Reporting is one of several ways to consume the data foundation.



Conceptual illustration

ANALYTICAL DATASETS

Prepared in the platform and shared by every consumer.

DASHBOARDS AND VIEWS

Read from those datasets and let users filter what they see.

CONTROLLED SHARING

Access follows the permissions managed in the platform.

Forecasting Needs Context

Historical numbers record what happened, and explaining why some periods behave differently takes additional context.

The project considers calendar and seasonal context that is relevant to the Indonesian market, alongside the company's historical business data.

These contextual variables give a forecasting model additional signals about recurring patterns.

INPUT

Historical business data

+

INPUT

Calendar & seasonal context

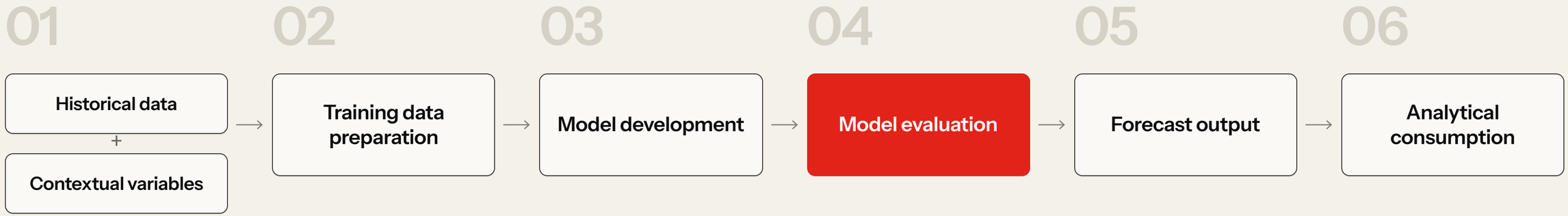
- Public-holiday patterns
- Working-day patterns
- Major seasonal periods

→

Forecasting workflow

The Forecasting Workflow

Machine-learning capabilities were used to develop and evaluate forecasting approaches inside a defined workflow.



INPUTS

Business history and calendar context enter the workflow together.

TRAINING DATA

Historical financial data is prepared for modelling.

DEVELOPMENT

Forecasting approaches are built with machine-learning capabilities.

EVALUATION

Each approach goes through a defined evaluation process.

OUTPUT

The workflow generates the forecasts.

CONSUMPTION

Forecast output is made available for analytical use.

The implementation established a measurable forecasting workflow that can be evaluated and refined as additional data and explanatory variables become available.

From Model to Usable Analytical Output

A forecasting model becomes more useful to an enterprise when its output can move into a repeatable analytical workflow.

Forecast generation → **Preparation for analysis** → **Analytical consumption**

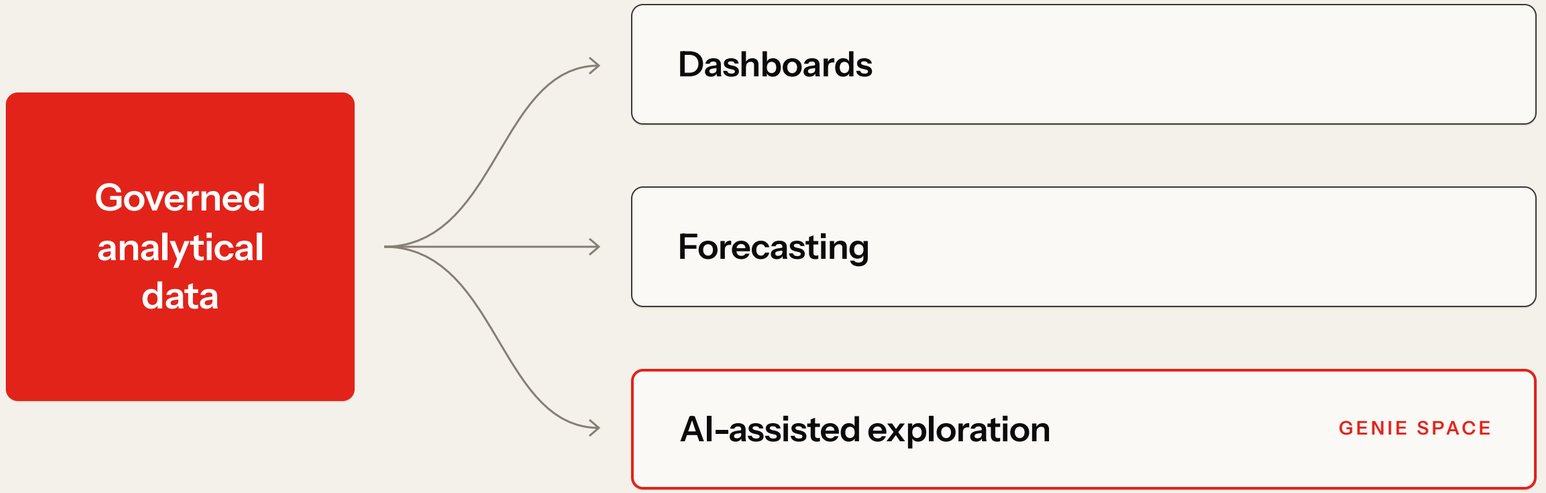
Forecast outputs and the historical information they build on can be prepared for analytical consumption.

Forecast generation is a defined step in a repeatable workflow, and the model operates as a working component of the platform.

AI-Assisted Data Exploration

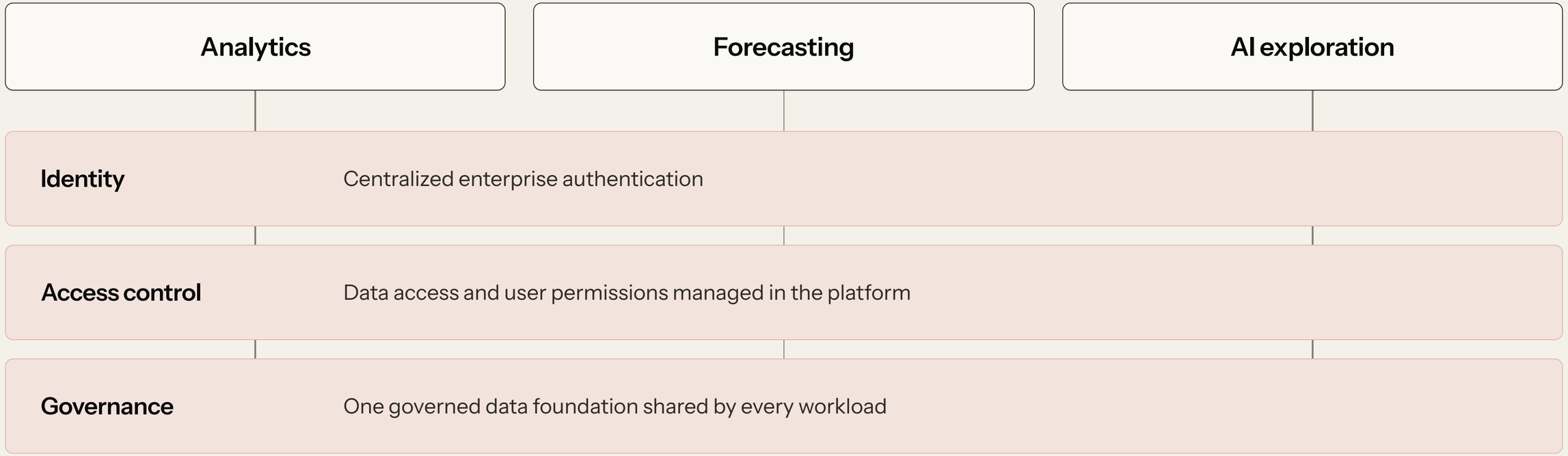
Dashboards are built around predefined views. AI-assisted exploration gives users another way to work with governed analytical information.

ICS Compute introduced Genie Space as an additional interface for exploratory analysis of governed analytical data. It sits alongside dashboards and forecasting inside the same access-control and enterprise-identity practices.



Governance Across Every Workload

Enterprise identity and access control apply to every analytical interface in the environment. A new interface works within the access controls that already apply.



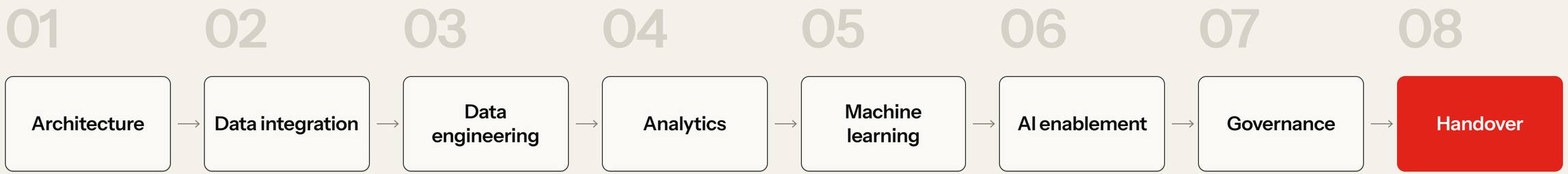
What the Platform Enables

The environment gives the company five capabilities to build on.

One shared data foundation	Existing enterprise information can support multiple analytical workloads within one governed environment.
Repeatable data workflows	Enterprise data moves through structured ingestion and processing into analytical consumption.
Forecasting capability	A machine-learning forecasting workflow was implemented with a defined model-evaluation process.
Governed analytical access	Analytics and AI-assisted capabilities sit within an enterprise access and governance model.
Foundation for future Data & AI	The environment can be extended as additional business use cases emerge.

ICS Compute's Role

ICS Compute served as the end-to-end implementation partner, connecting architecture, data engineering and analytical consumption within one engagement.



Infrastructure, data and consumption requirements were designed as parts of the same system.

ICS Compute works as an end-to-end Data & AI partner for enterprises building on the systems they already run.

Key Lessons

01

Enterprise data becomes more valuable when it can support more than one workload.

One governed foundation serves dashboards, forecasting and AI-assisted exploration, so new use cases can build on prepared data.

02

Forecasting needs business context as well as historical numbers.

Public-holiday, working-day and seasonal patterns add context to the historical record.

03

New AI interfaces still depend on governed enterprise data.

An AI-assisted interface works from the governed data and access controls already in place.

04

The path to AI can start with data the business already has.

Existing financial and operational information became the starting point for analytics, forecasting and AI-assisted exploration.

Is your enterprise data ready for what comes after reporting?

ICS Compute helps enterprises connect existing business systems to governed data platforms that support analytics, machine learning and production AI workloads.

DATA FOUNDATION
Governed, reusable data

→

ANALYTICS
Dashboards and forecasting

→

AI
Production AI workloads

Discuss Your Data & AI Roadmap →

ICS Compute
PT. Innovation Cloud Services · 2026

www.icscompute.com

sales@icscompute.com