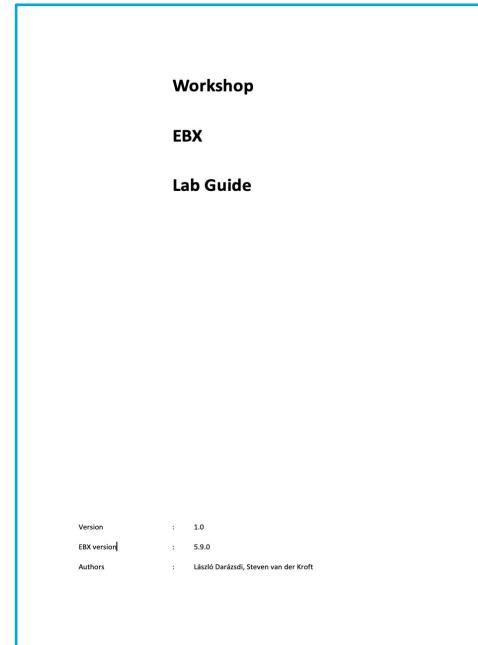
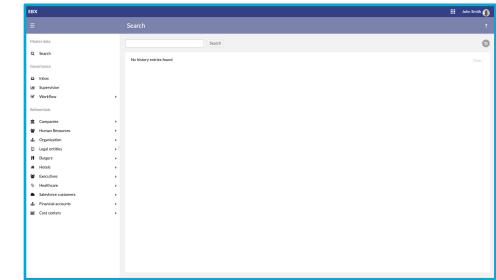


Workshop EBX

A screenshot of the "TIBCO EBX Lab Guide" document. The table of contents includes sections like INTRODUCTION, TIBCO EBX, THIS WORKSHOP, GUIDED LAB 1: GETTING STARTED, GUIDED LAB 2: COMPANY ATTRIBUTES, GUIDED LAB 3: CUSTOMER, GUIDED LAB 4: PRODUCTS, and GUIDED LAB 5: DASHBOARD, along with their respective page numbers.

Presentation

Workshop EBX Lab Guide

EBX Application



Workshop EBX

Steven van der Kroft, Lackó Darázsdí

June 2020



CONNECTED
INTELLIGENCE

Agenda

- Introduction
 - TIBCO Connected Intelligence
 - TIBCO Reference Architecture
 - EBX Overview
 - EBX Capabilities
- Break
- Hands-on
- Q&A

Agenda

- **Introduction**
 - TIBCO Connected Intelligence
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TIBCO CONNECTED INTELLIGENCE



TIBCO **Connected Intelligence** unlocks the value of real-time data, creating a strategic, competitive asset for smarter, faster decision making.

Embrace modern integration architectures to power innovation



Cloud-native
Maximum scalability & business agility



API-led
Standardized & flexible Connectivity



Event-driven
Timely response & intelligent actions



Open Platform
Best-of-breed innovation & faster time-to-market

**Embrace
modern
data
architectures**
for trusted data



Metadata

How we define things



Reference data

How we classify things



Master data

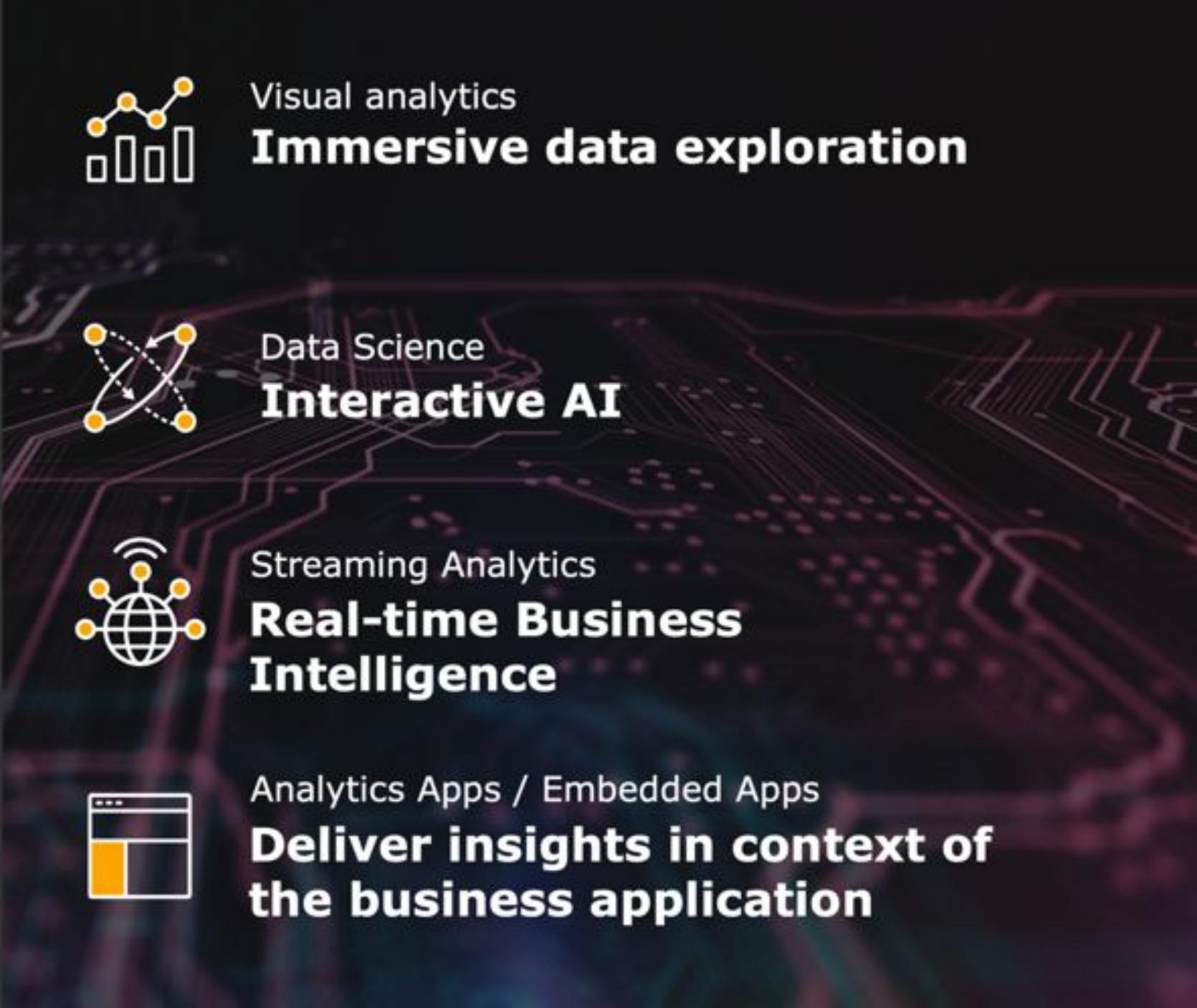
**How we manage important
things**



Transactional data

How we provide data

**Embrace
modern
analytics
architectures**
for actionable
insights



TIBCO Reference Architecture



API Product Manager



Integration Developer



Application Developer



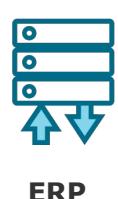
Citizen Integrator



Data Scientist

TIBCO CONNECTED INTELLIGENCE

Common Management



ERP



In-House Apps



Storage



Network



Cloud Provider 1
CRM



Cloud Provider 2
HR



Cloud Provider 3
Marketing

TIBCO Reference Architecture



API Product Manager



Integration Developer



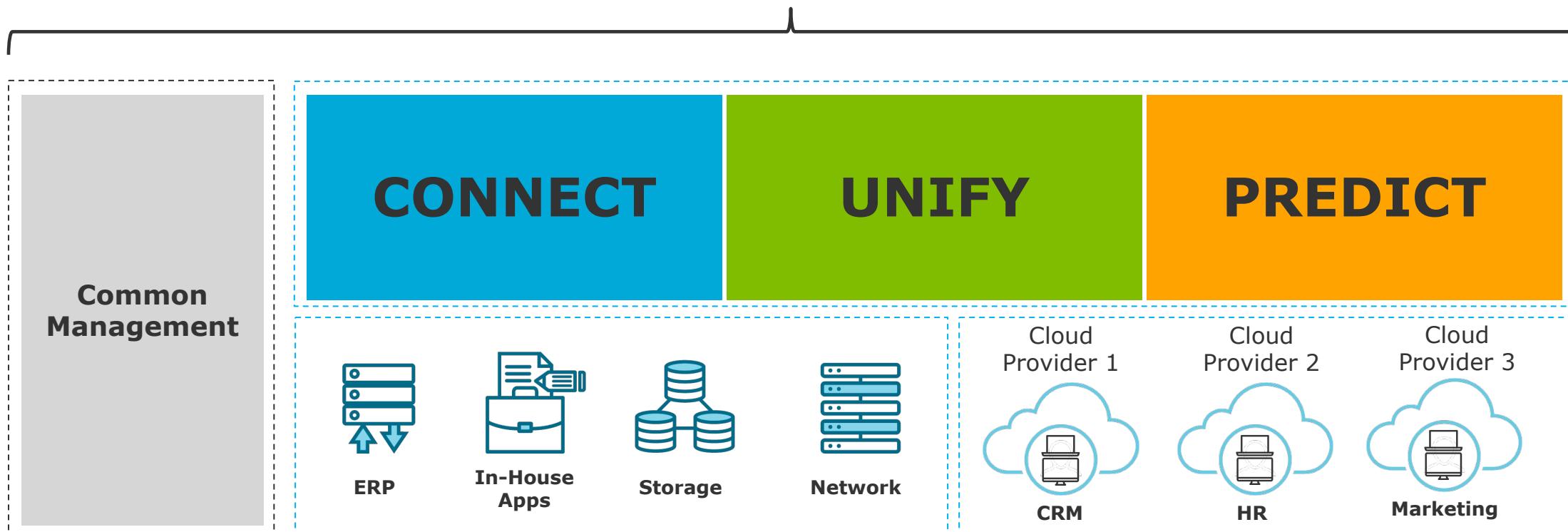
Application Developer



Citizen Integrator



Data Scientist



TIBCO Workshops



API Product Manager



Integration Developer



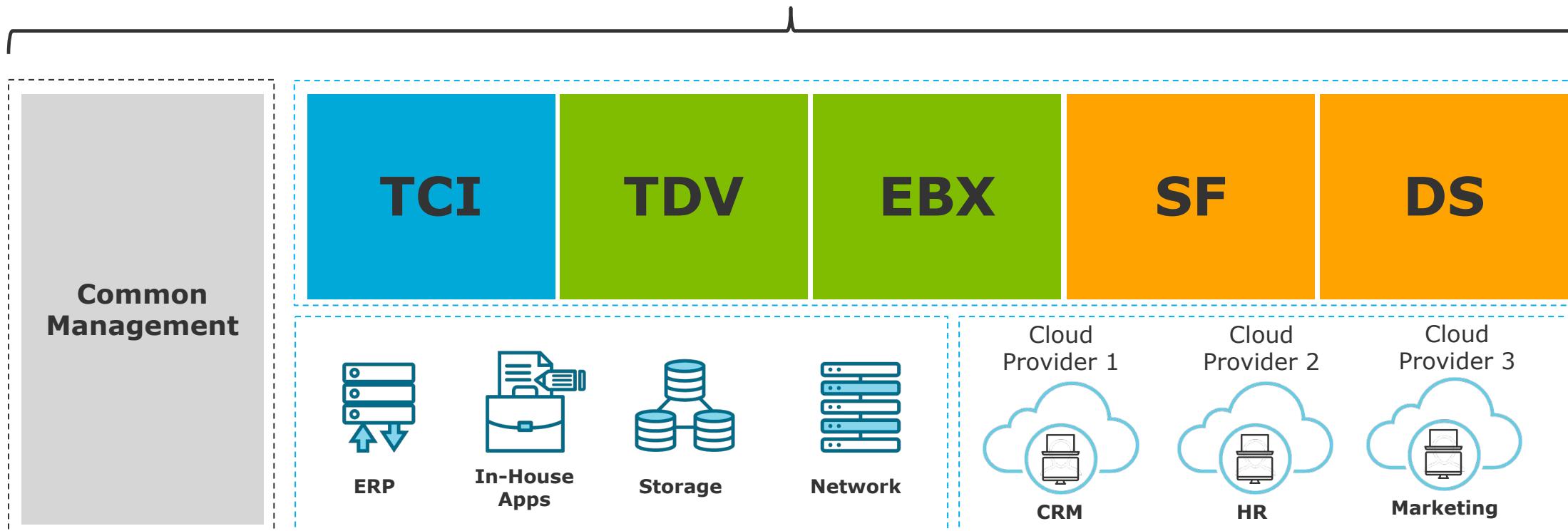
Application Developer



Citizen Integrator

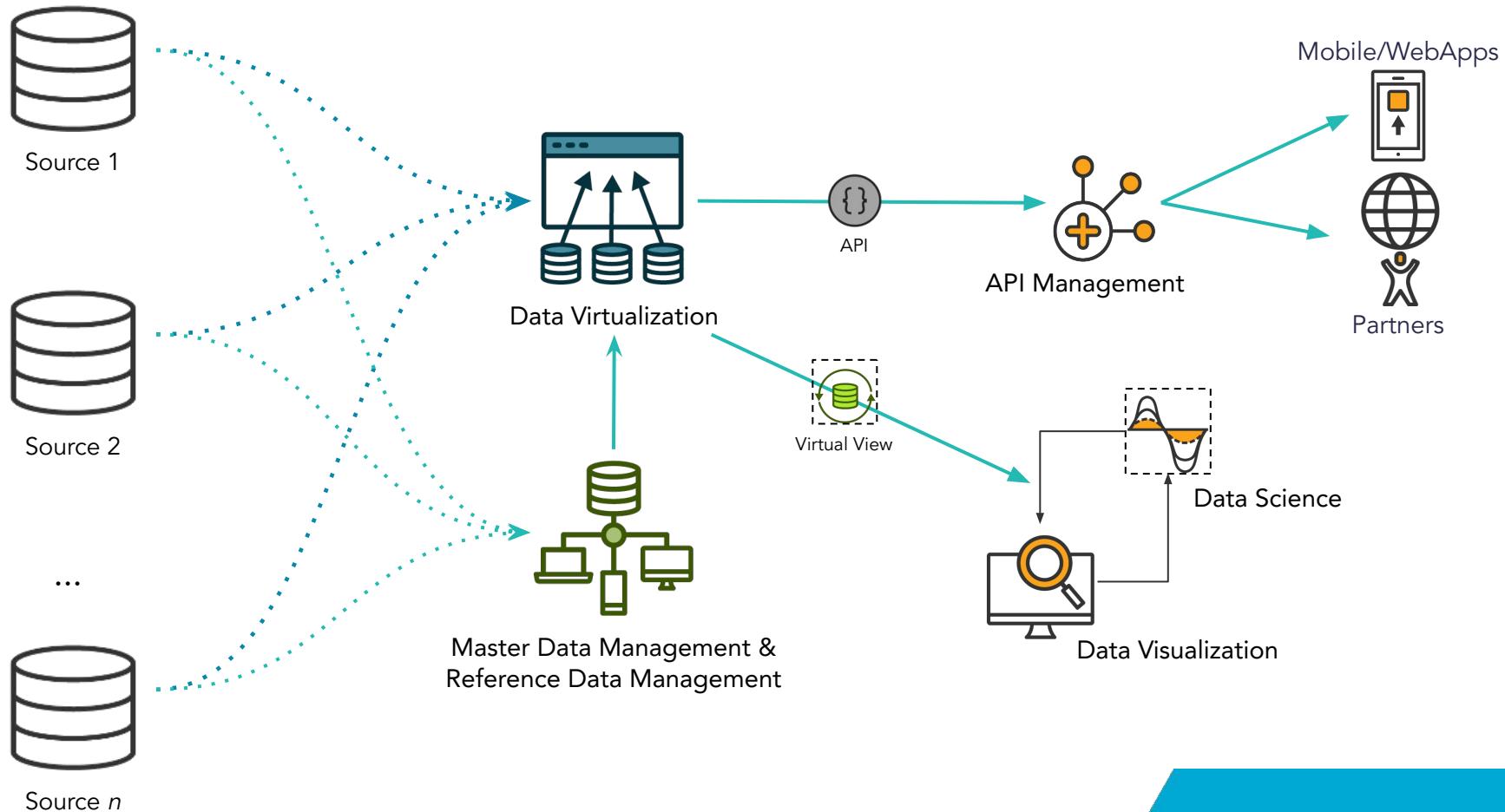


Data Scientist



360° View of Anything - Step by Step

Downstream consumers benefit from access to a unified source of up-to-date transactional data aligned by consistent master data



TIBCO EBX Workshop



Developer



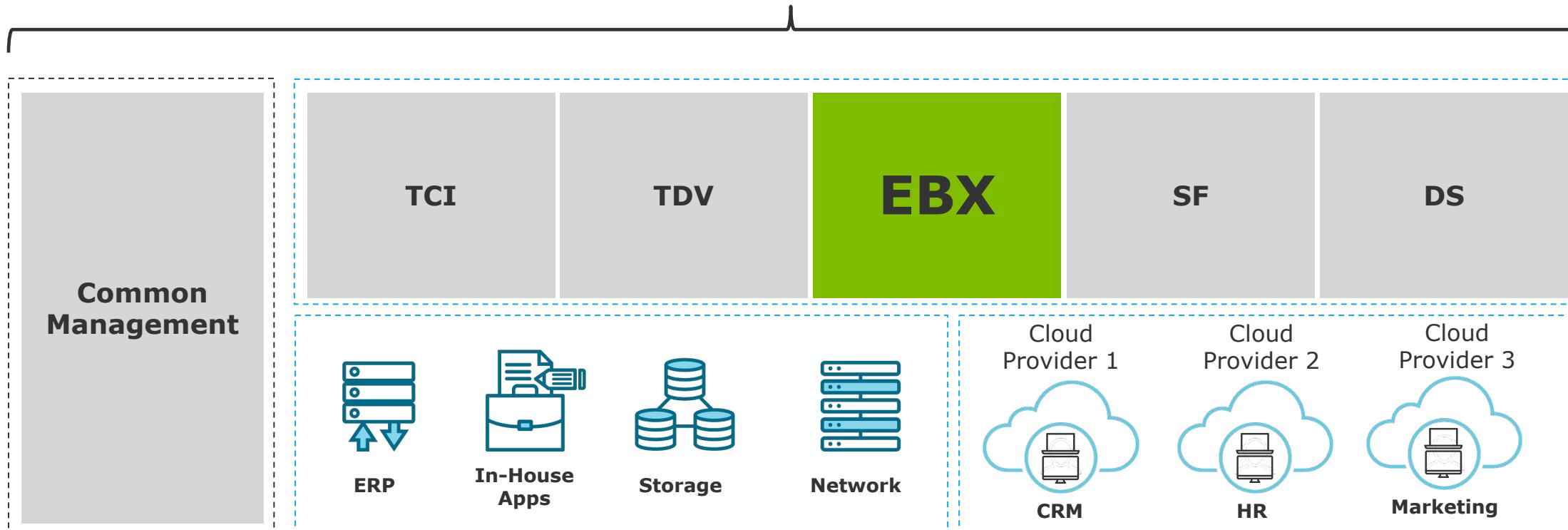
Data Analyst



Data Steward



Business User

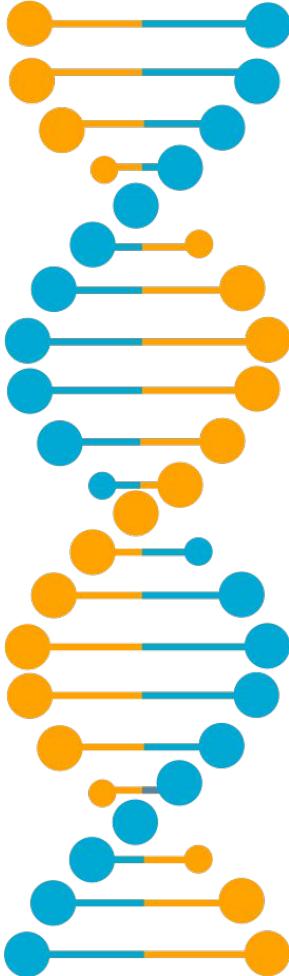


TIBCO EBX Workshop

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Multiple shared data assets are intrinsically linked and should be managed that way



Master Data

“How we manage important things”



Parties



Products



Suppliers



Locations

Reference Data

“How we classify things”



Geographies



Legal entities



Chart of accounts



Industry codes

Metadata

“How we define things”



Business terms



Policies

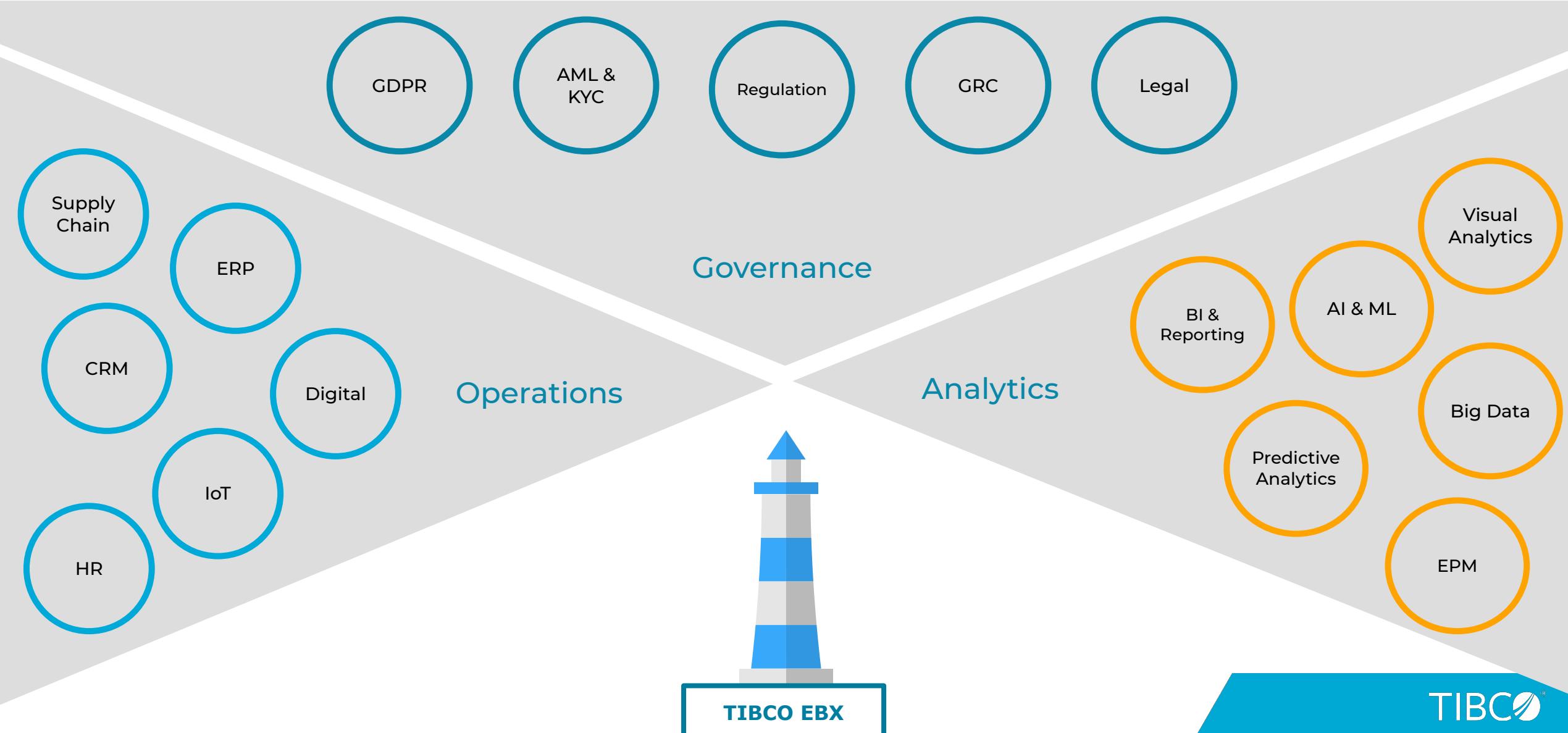


IT systems



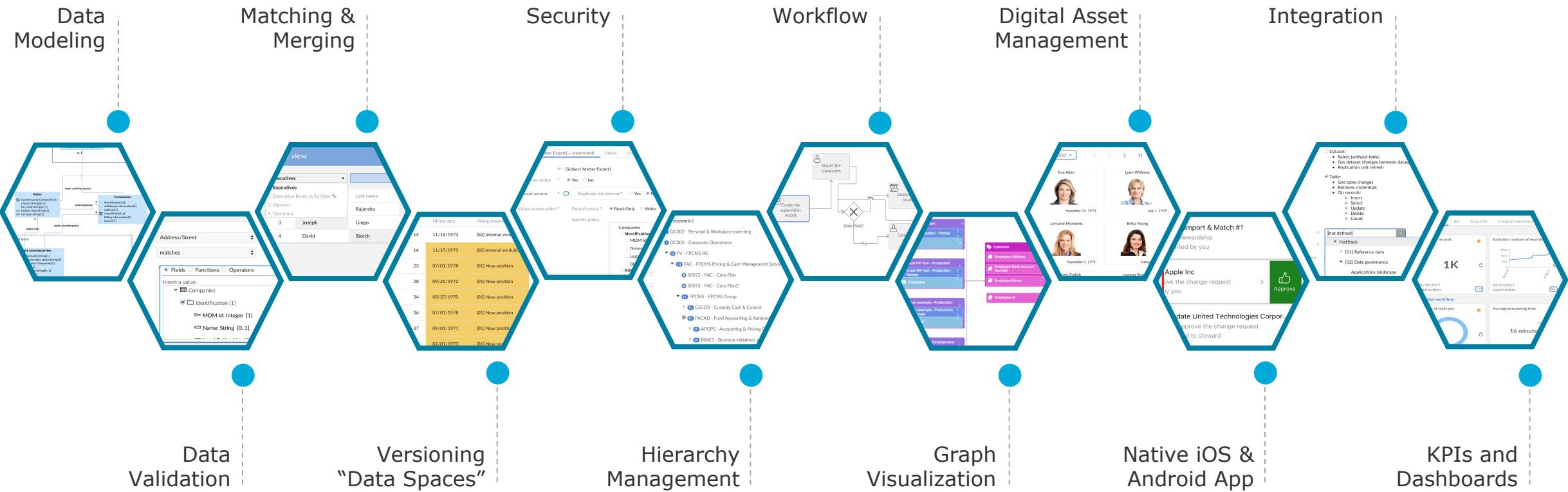
Models & rules

Support all data-driven initiatives



Introducing TIBCO EBX

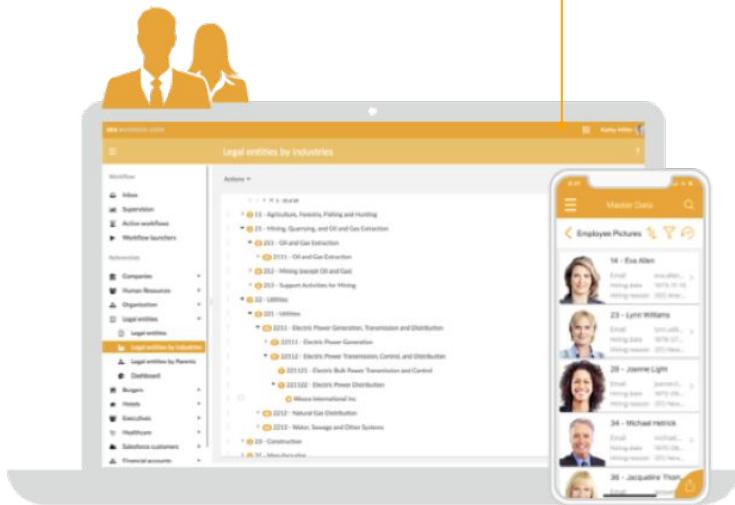
Agile, model-driven, and multidomain solution to manage, govern, and consume shared data assets



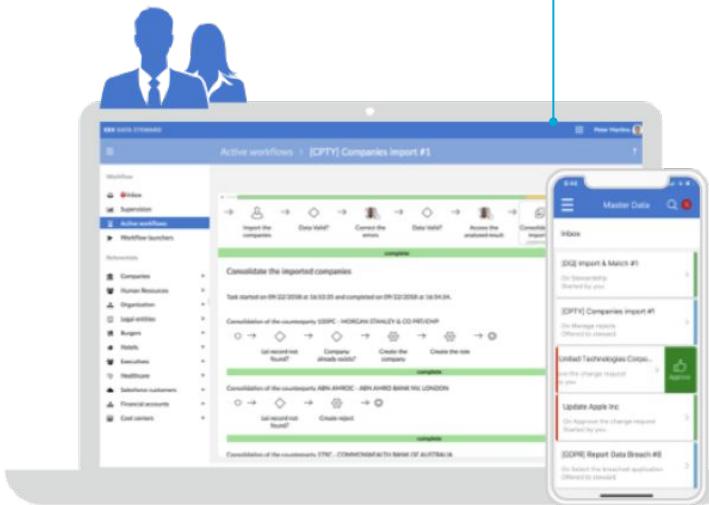
Designed for collaboration

EBX delivers self-service capabilities to all users, so they can manage, govern, and consume all their key data assets on one unified solution

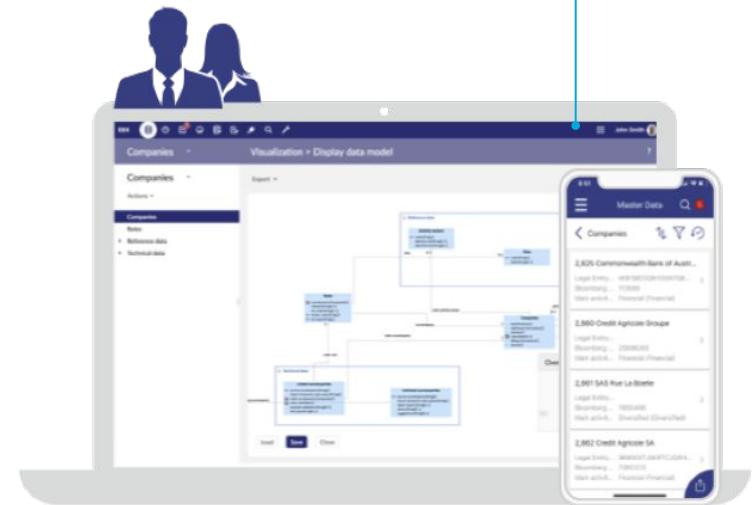
Business users



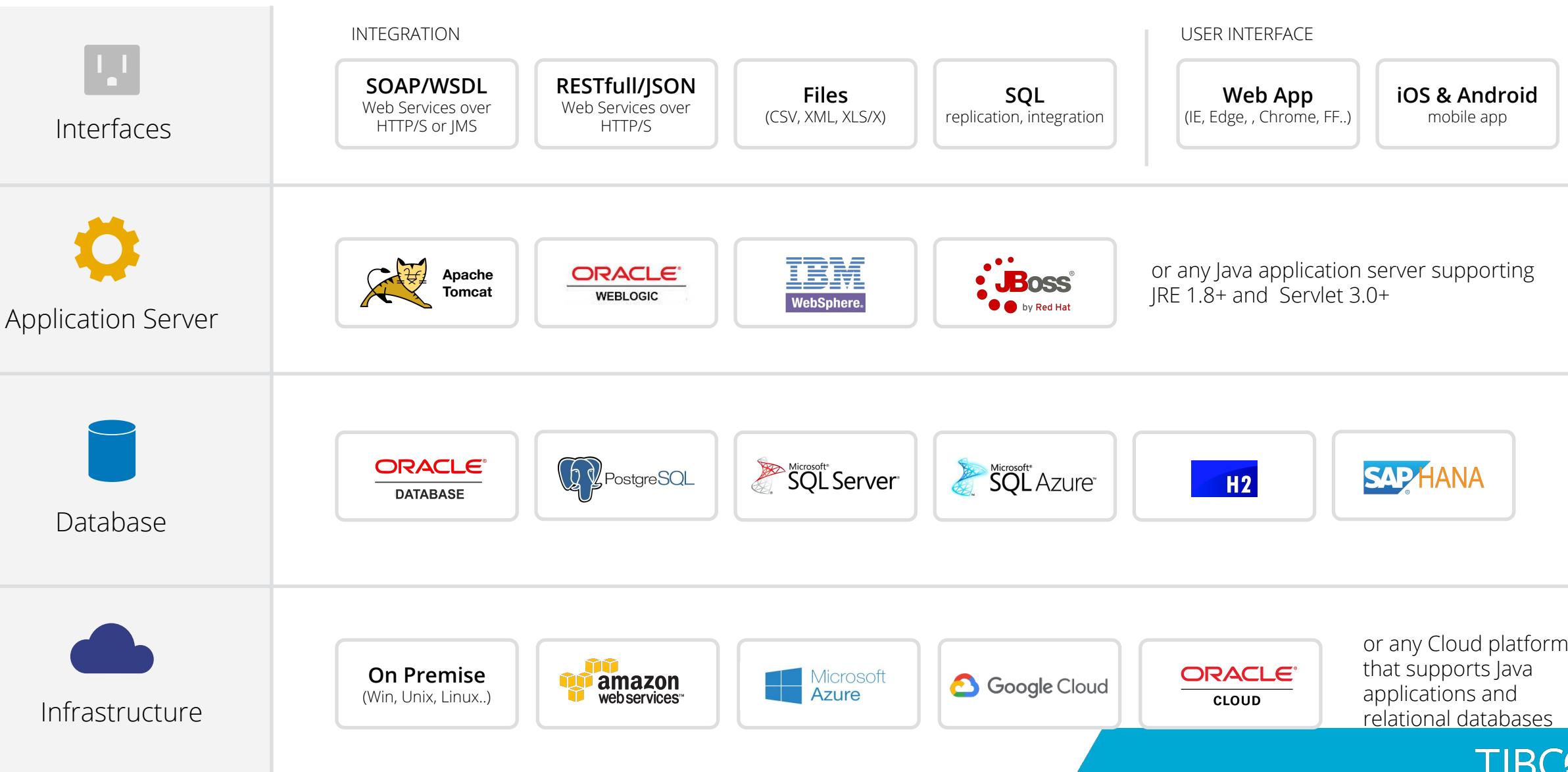
Data stewards



Developers/Analysts



Run TIBCO EBX on the platform of your choice



TIBCO EBX is an “all in one” platform

All data domains	All features	All users	All devices	One codebase	Agnostic	All Platforms	All Languages
Client-driven solution designed for any data domain.	Deliver all the features required to manage the entire life cycle of data assets for all domains	One unified user interface to support all user profiles (users, stewards, developers...)	Native user experience on desktop (Web) and mobile devices (iOS/Android)	100% developed internally, no OEM or third-party components	Support for multiple RDBMS (Oracle, SQL Server, PostgreSQL), Java containers, middleware platforms	Same software runs on premise or in the Cloud. Support for multiple Cloud platforms (AWS, Azure..) as well as databases	Support for multiple languages in the UI, data models and data values

TIBCO powers digital business

A unique set of integration and analytics capabilities to enable the basic to the most advanced digital initiatives

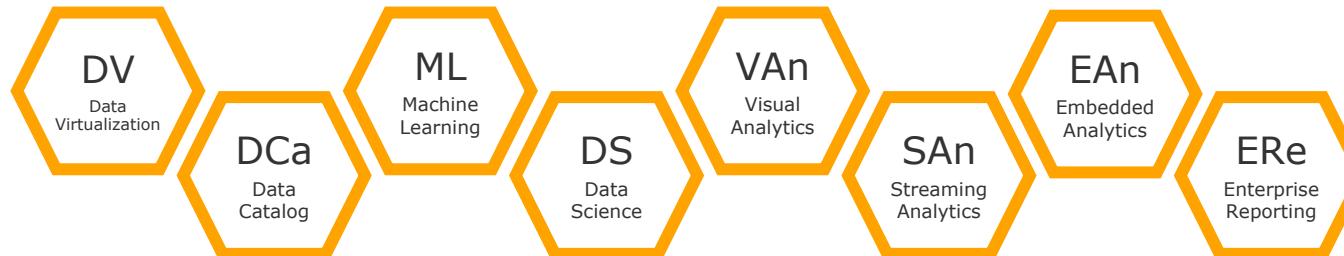


Data-at-rest

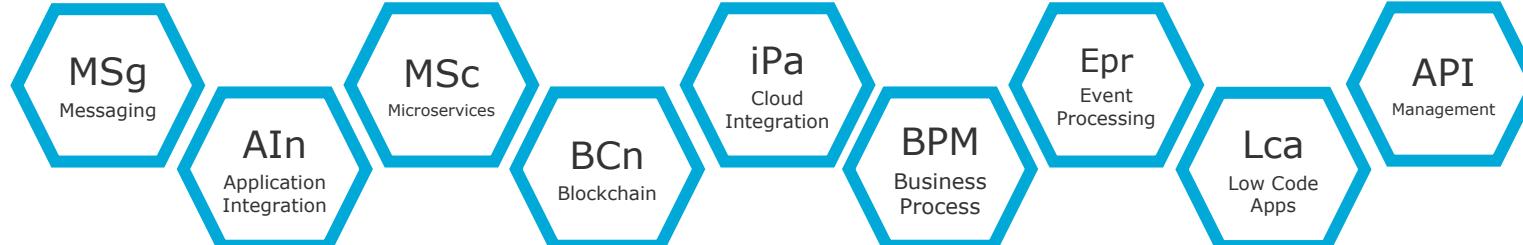
Data-in-motion



Augment Intelligence



TIBCO EBX



Interconnect Everything



Over 200 customers worldwide

 Swiss Re	 J.P.Morgan											
												
	Citi Data Catalog: 200+ reference and master data classes, financial hierarchies, data governance & report control for regulatory compliance, big data catalog, and data lineages.								Worldwide multidomain MDM/RDM program on menu items, ingredients, restaurants, franchisees, financial hierarchies.			
												
					Rabobank Reference Catalog: worldwide Reference Data Management program on NAICS, SBI, NACE codes.							
												

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Data Modeling

Semantic modeling

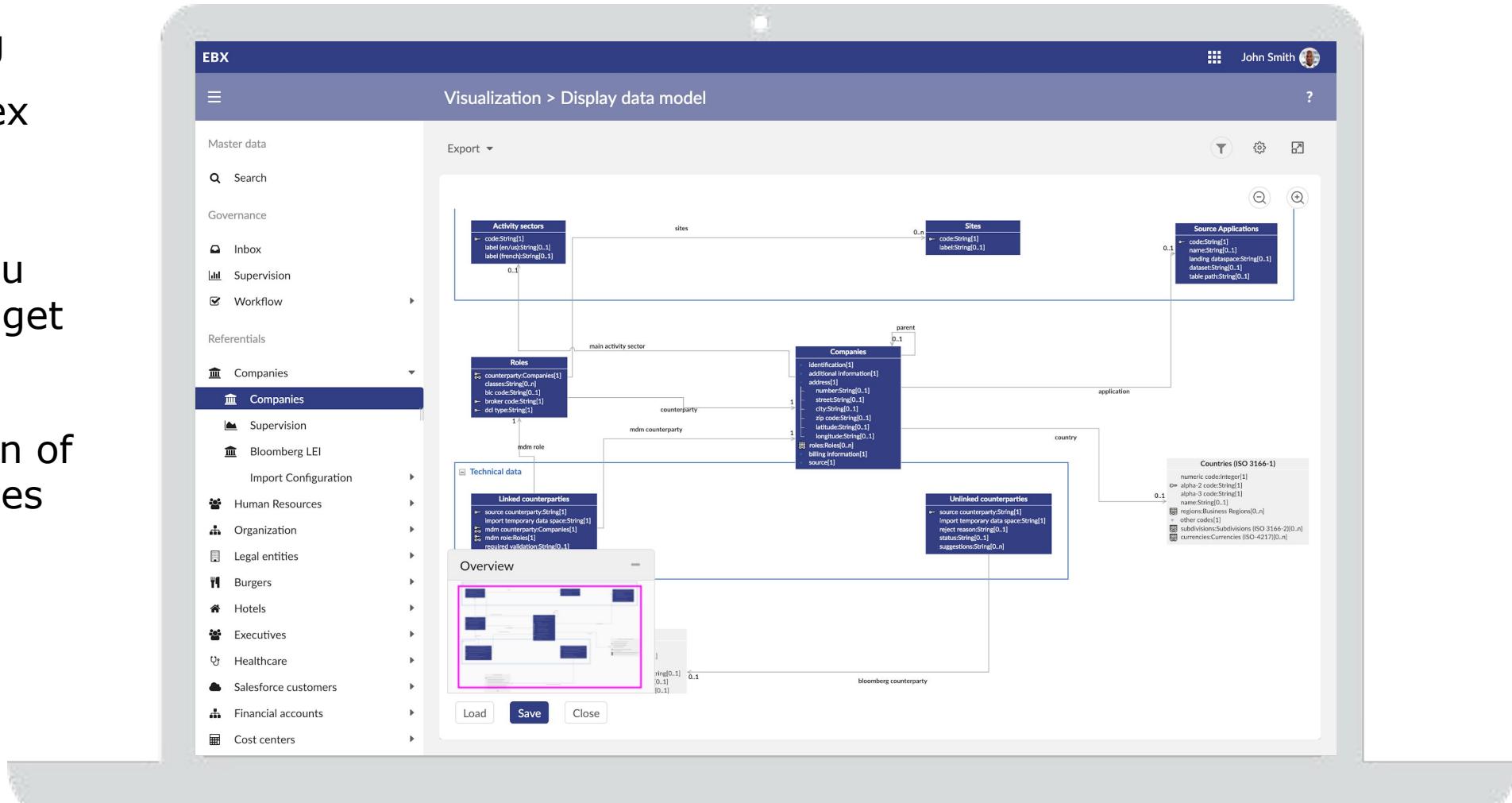
Support for complex types, cardinalities

Full model-driven approach, What you model is what you get

Version control

Dynamic generation of UI and Data Services

Visualization



Data Validation

Validation engine

Real-time or
incremental data
validation

Rules defined in data
model

API for advanced rules

Available in UI and
Data Services

The screenshot illustrates the configuration of a validation rule. On the left, the 'Data models' sidebar shows a hierarchy of data structures, with 'Employee hiring' currently selected. The main workspace displays the 'Create a rule (2/3)' step. A 'Define criteria' dialog is open, where a specific rule is being defined. The rule specifies that the 'EmployeeHiring/HiringDate' field must be 'is after' a certain value. The 'Formula' section provides a powerful way to define this value using various functions. A modal window is overlaid on the formula input, showing a list of available date functions: 'current-date()', 'day-from-date(date)', 'month-from-date(date)', and 'year-from-date(date)'. This demonstrates the integration of complex validation logic directly within the data model configuration.

Matching and merging

Support for matching
in realtime or batch

Fine grained
configuration of
algorithms, matching
rules

Matching + merging or
linking

Survivorship:
Automatic resolution
of duplicates

Stewardship: Manual
resolution of
duplicated

The screenshot displays the EBX DATA STEWARD application's 'Merge view' for '1. Executives'. The interface is divided into several sections:

- Left Sidebar:** Includes 'Master data', 'Search', 'Governance' (with sub-options like Inbox, Supervision, Workflow), 'Referentials' (with sub-options like Companies, Bloomberg LEI, Dashboard, Human Resources, Organization, Legal entities, Burgers, Hotels, Executives), and 'Executives' (which is currently selected).
- Middle Section:** A table titled '1. Executives' showing data for four individuals: Joel Abramson (Male, 89 Canterbury Drive, Douglas, 66050, Kansas (US)), Lee Abrams (Unknown, 347 Rose Street, Marshall, 37174, Tennessee), George Abrams (Male, 373 Schoolhouse Lane, Perry, 62237, Illinois (US)), and Julie Abramson (Female, 379 Sherwood Drive, Kershaw, 29078, South Carolina).
- Bottom Section:** A 'Preview' table showing the details of the selected record (Lee Abrams) for further review.
- Header:** Shows the title 'EBX DATA STEWARD' and a user profile for 'Peter Martins'.
- Buttons:** 'Step 1/4', 'Reset', 'Cancel', and 'Next'.

Version control

Past, present and future versions (data spaces)

Version control on both data models and data values

3-way compare and merge

Full record-level history

The screenshot shows the EBX DATA STEWARD application interface. The left sidebar contains a navigation menu with sections like Master data, Search, Governance (Inbox, Supervision, Workflow), Referentials (Companies, Bloomberg LEI, Dashboard, Human Resources, Organization, Legal entities, Burgers, Hotels, Executives, Healthcare, Salesforce customers, Financial accounts), and a bottom section for Sales and Marketing. The main area displays a table titled 'Companies > Companies' with the following columns: Transaction id, MDM Id, Operation type, User, Merge, and Name. The table lists 10 rows of data, with the third row highlighted in yellow. The 'Operation type' column indicates updates for the first three rows and creations for the remaining seven. The 'User' column shows Peter Martins (steward) for the updates and John Smith (admin) for the creations.

Action	Transaction id	MDM Id	Operation type	User	Merge	Name
Update	2,499	2,861	Update	Peter Martins (steward)		SAS Rue La Boetie.
Update	2,498	2,861	Update	Peter Martins (steward)		SAS Rue La Boetie.
Update	2,497	2,861	Update	Peter Martins (steward)		SAS Rue La Boetie.
Update	2,424	2,825	Update	John Smith (admin)		Commonwealth Bank of Australia
Creation	2,009	3,286	Creation	John Smith (admin)		Toronto Dominion South East Asia Ltd
Creation	2,009	3,285	Creation	John Smith (admin)		Credit Suisse Singapore Ltd
Creation	2,009	3,268	Creation	John Smith (admin)		Oddo et Cie SCA
Creation	2,009	3,262	Creation	John Smith (admin)		Morgan Stanley International Finance SA
Creation	2,009	3,254	Creation	John Smith (admin)		Lombard Odier & Cie France
Creation	2,009	3,242	Creation	John Smith (admin)		Caisse Regionale de Credit Agricole Mutuel Val de Fra

Security

Integration with enterprise directory (LDAP, AD...)

Permissions at any level (data space, data set, table, attribute, row, features..)

The screenshot shows the EBX application interface. On the left, there's a sidebar with 'Company employees' navigation items: 'Actions', 'Access rights by profile' (which is expanded), 'New record', 'Employees', 'Persons', 'Work contracts', 'Assignments', and 'Reference data'. The main area is titled 'Access rights by profile : New record'. It shows a profile dropdown set to '[Chief Data Officer]'. Under 'Restriction policy', the 'No' radio button is selected. In the 'Dataset actions' section, 'Duplicate the dataset' is set to 'Yes'. Under 'Values access policy', 'Default policy' is set to 'Write'. A 'Specific policy' section is expanded, showing a tree view of permissions for 'Employees', 'Employee hiring', 'Employee leaving', 'Status and contracts', and 'Persons'. Under 'Employees', 'Identifier', 'Person', and 'Email' are listed. Under 'Employee hiring', 'Hiring date [ReadOnly]' and 'Hiring reason [ReadOnly]' are listed. Under 'Employee leaving', 'Leaving date' and 'Leaving reason' are listed. Under 'Status and contracts', 'Status', 'Work contracts', 'Assignments', 'Employee manager', 'Manager', and 'Manager of...' are listed. Under 'Persons', 'Picture' is listed. At the bottom are 'Save', 'Save and close', and 'Close' buttons.

Hierarchy Management

Dynamic hierarchies
based on any
relationship

Support for any type
of hierarchy (ragged,
balanced...)

Onscreen visualization
and editions

Support for standard
and alternate
hierarchies using
inheritance

The screenshot displays the EBX DATA STEWARD interface with the title "Cost centers hierarchy". The left sidebar contains a navigation menu with sections like Master data, Governance, and Referentials, with "Cost centers" selected. The main area shows a hierarchical tree view of cost centers. At the top of the tree is "[All elements]". Below it are several nodes, some expanded to show sub-nodes. The nodes include:

- OC002 - Personal & Workplace Investing
- OC003 - Corporate Operations
 - FV - FPCMS BG
 - FAC - FPCMS Pricing & Cash Management Services
 - 50072 - FAC - Corp Plan
 - 50073 - FAC - Corp Plan2
 - FPCMS - FPCMS Group
 - CSCCO - Custody Cash & Control
 - FACAD - Fund Accounting & Administration
 - APOPS - Accounting & Pricing Operations
 - BINCS - Business Initiatives and Central Services
 - FDADM - Fund Admin (FPCMS)
 - MRFAC - Merrimack Fund Accounting
 - PRAFR - Pricing Complex Accounting & Fund Reporting
 - WLFAC - Westlake Fund Accounting
 - FACIT - FPCMS IT
 - FPCAD - FPCMS ADMIN
 - GX - Fidelity Charitable Services BG
 - IE - India BG

Workflow

Integrated workflow engine to control any data management process

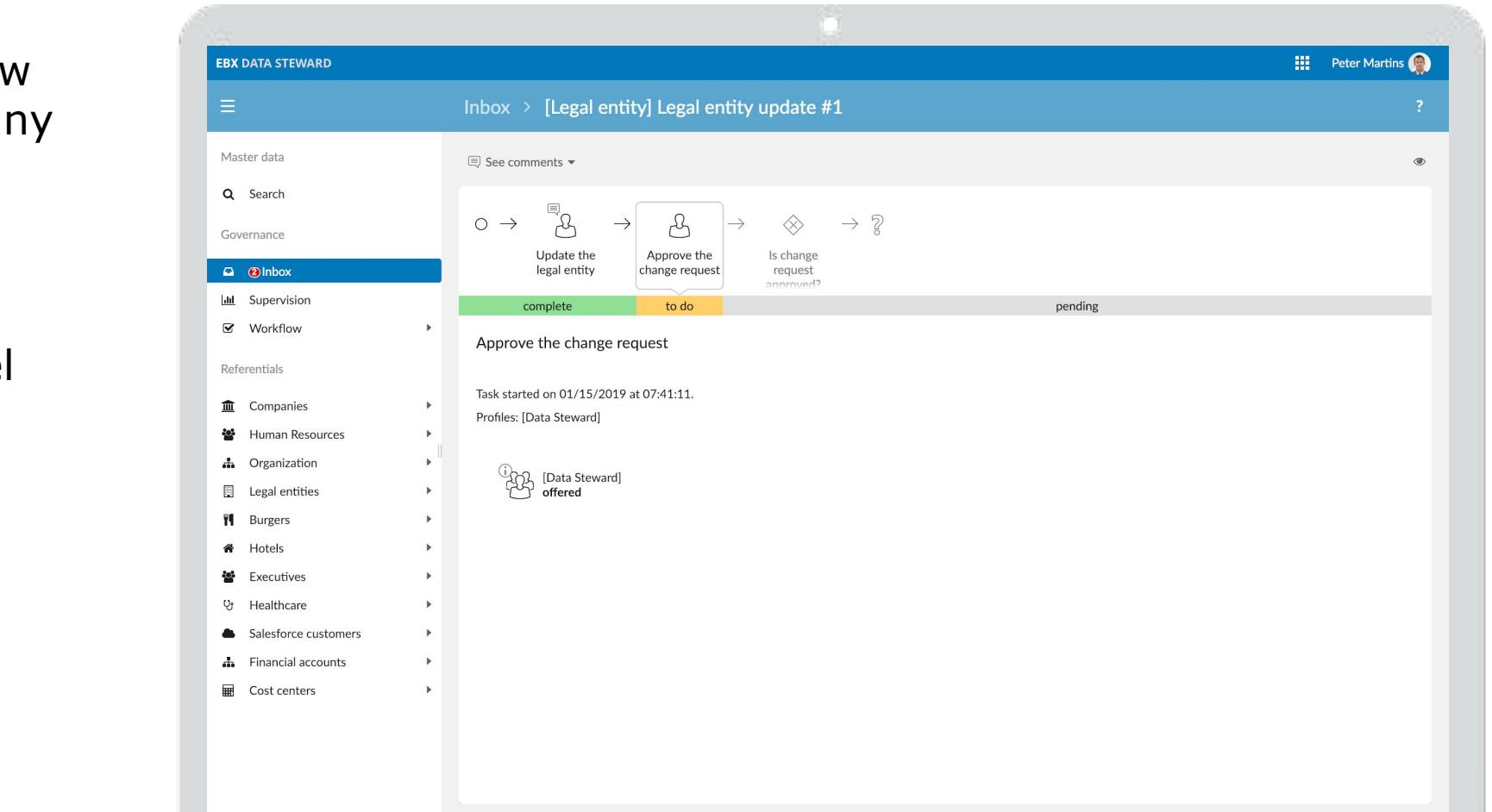
Workflow modeler

Support for parallel workflows

End user and server-side tasks, conditions

Inbox

Notifications, deadlines

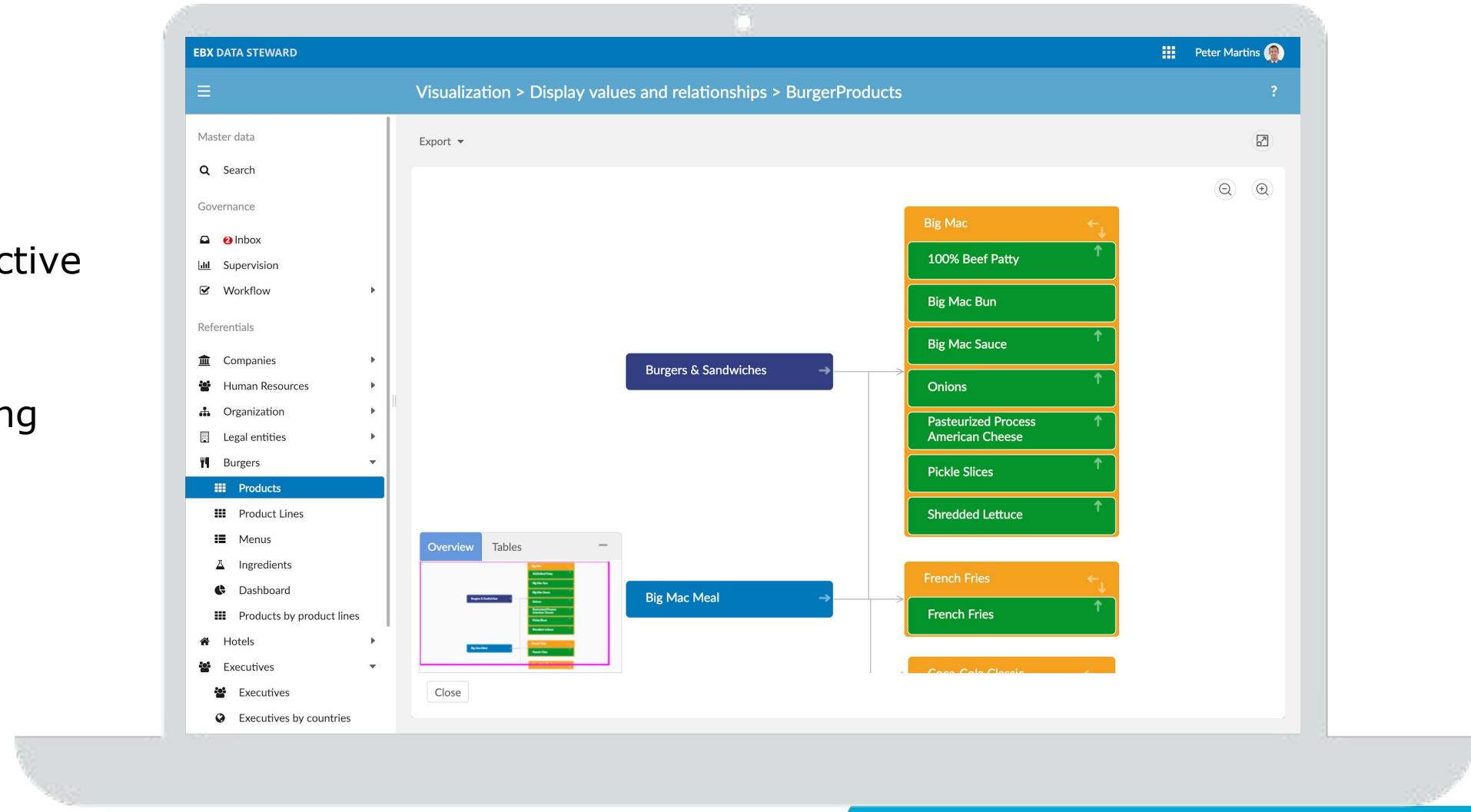


Visualization

Data Model and Workflow Model visualization

Data values and relationship interactive graphs

Support for any dimension, including cross-domain relationships



Digital Assets

Unstructured data
(documents, videos)

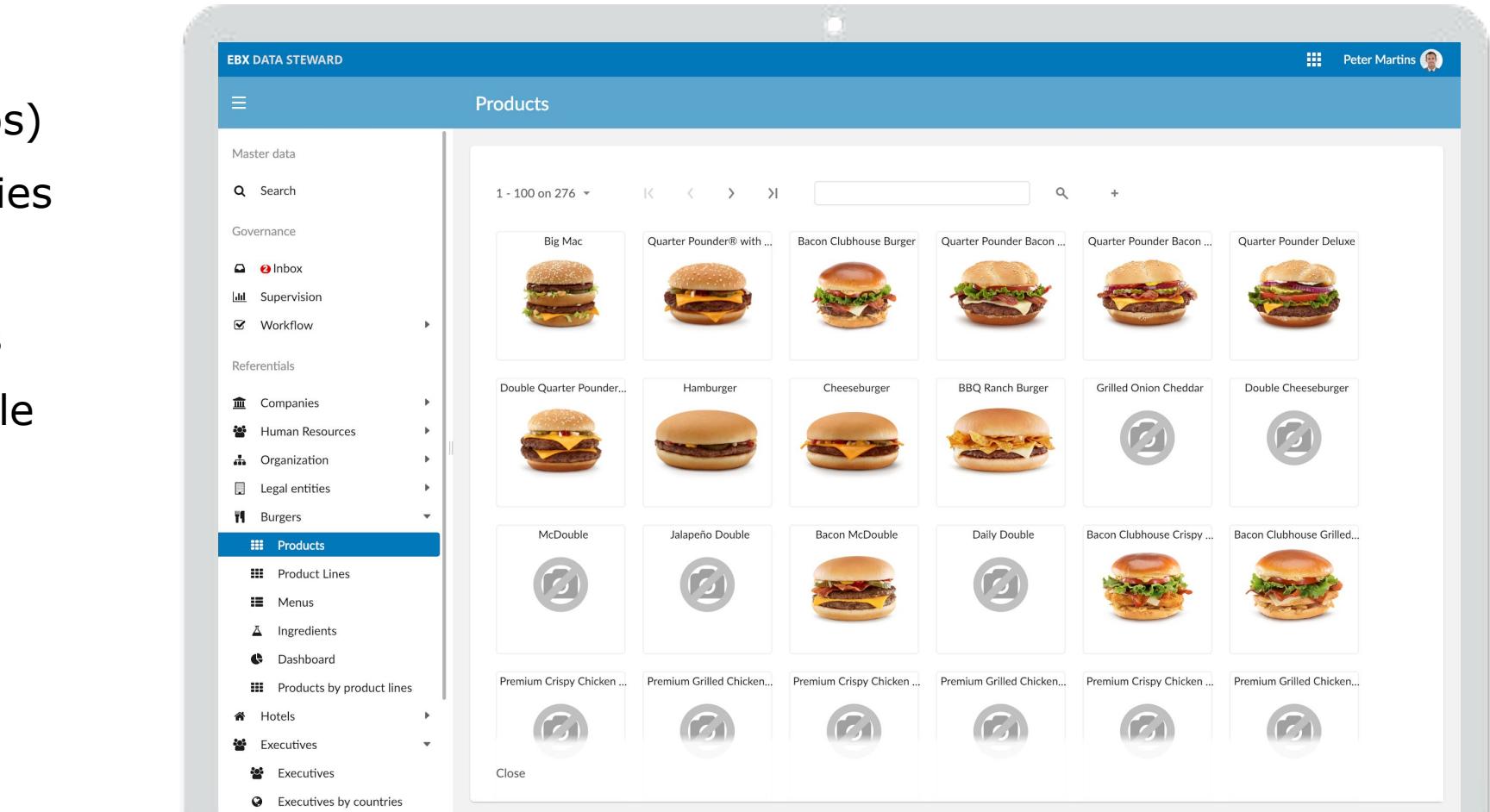
Digital asset libraries

Version control

Metadata and tags

Support for multiple
storage systems

API for advanced
integrations



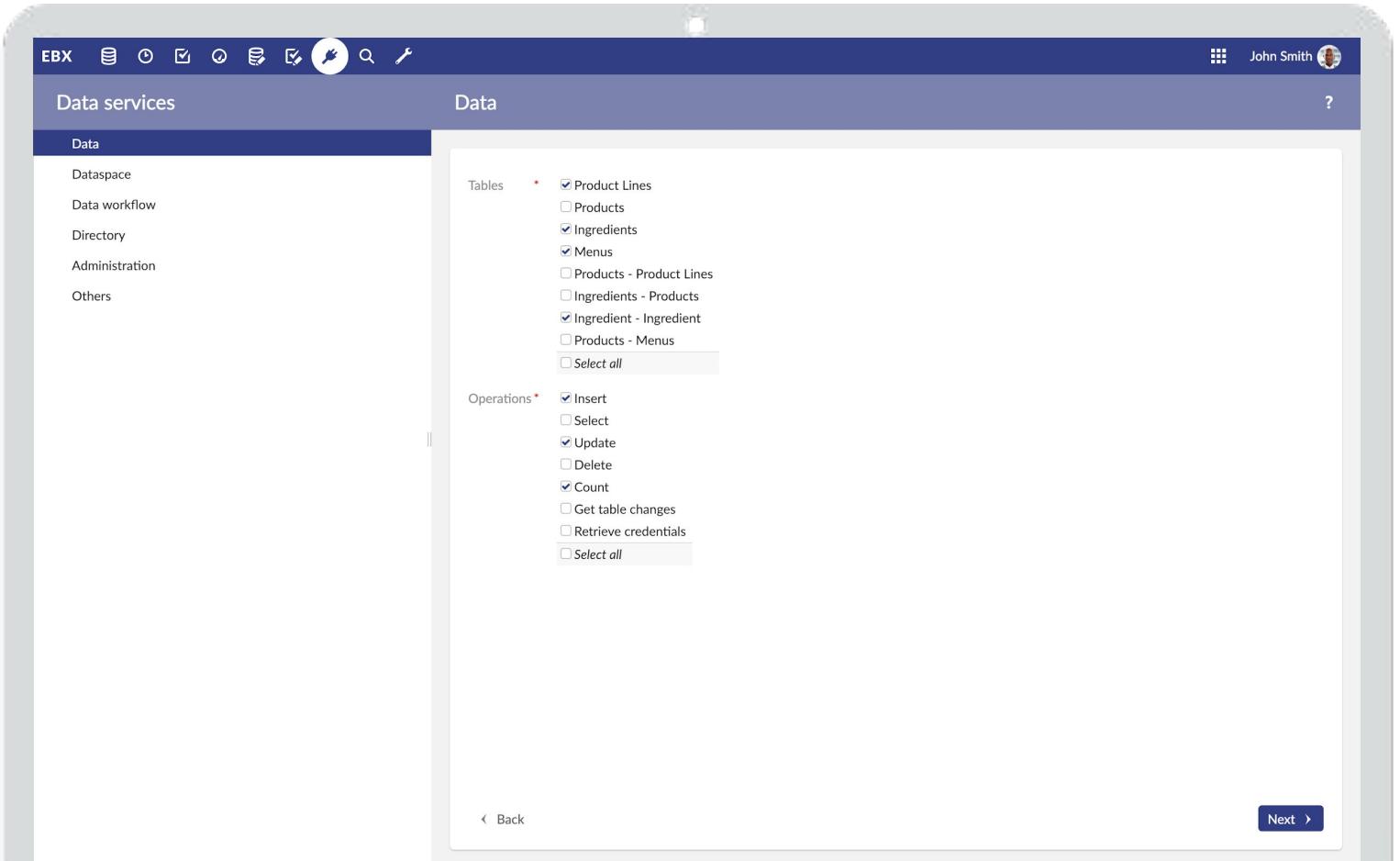
Integration

Web Services:
SOAP/WSDL and REST

REST Toolkit for
customer REST
services

File integration (CSV,
XLS/X, XML)

SQL import/export

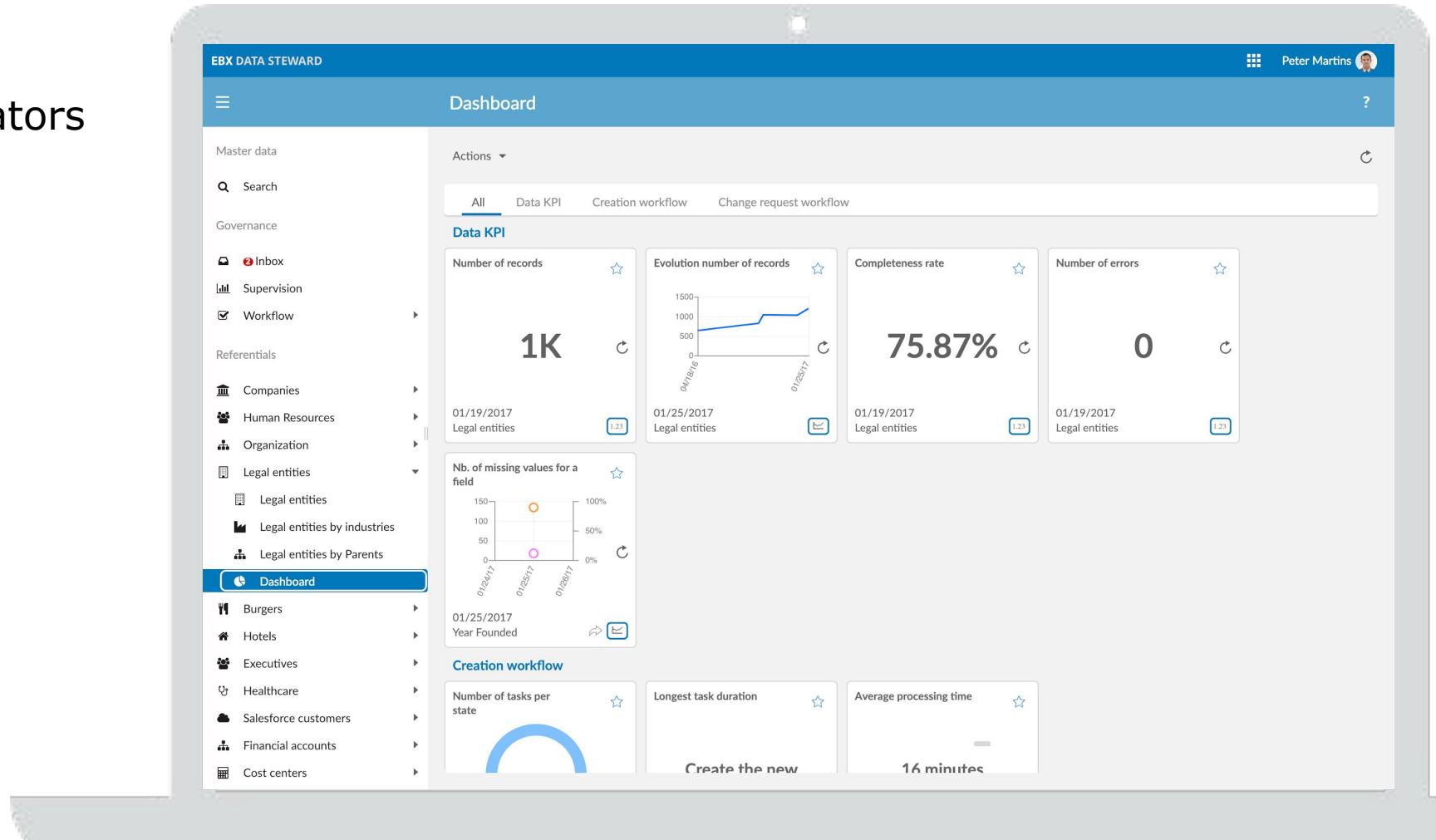


KPIs and Dashboard

Data quality and performance indicators

Library of 60+ indicators

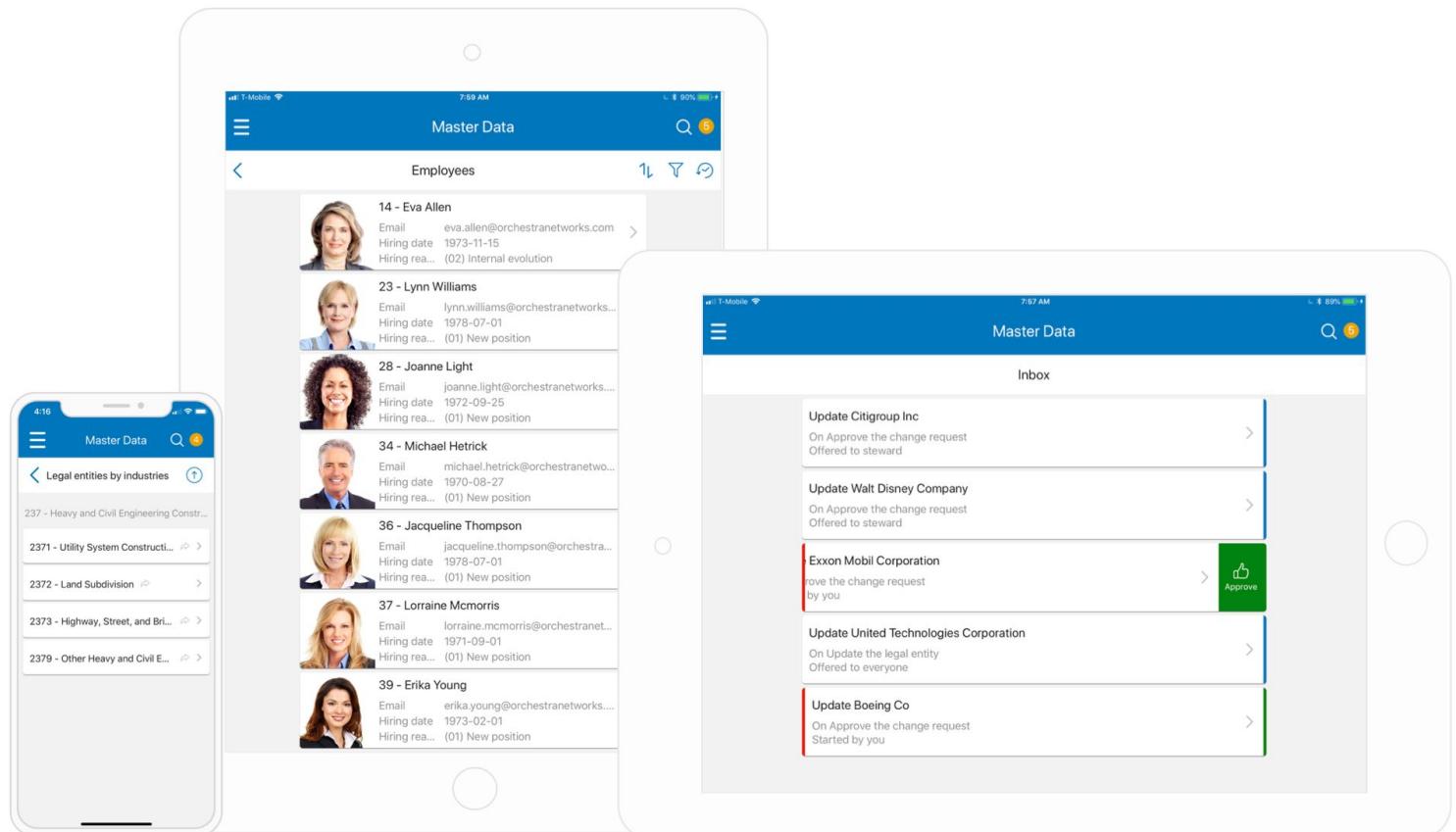
Dashboards per domain



EBX GO

Native iOS and Android app for smartphones and tablets

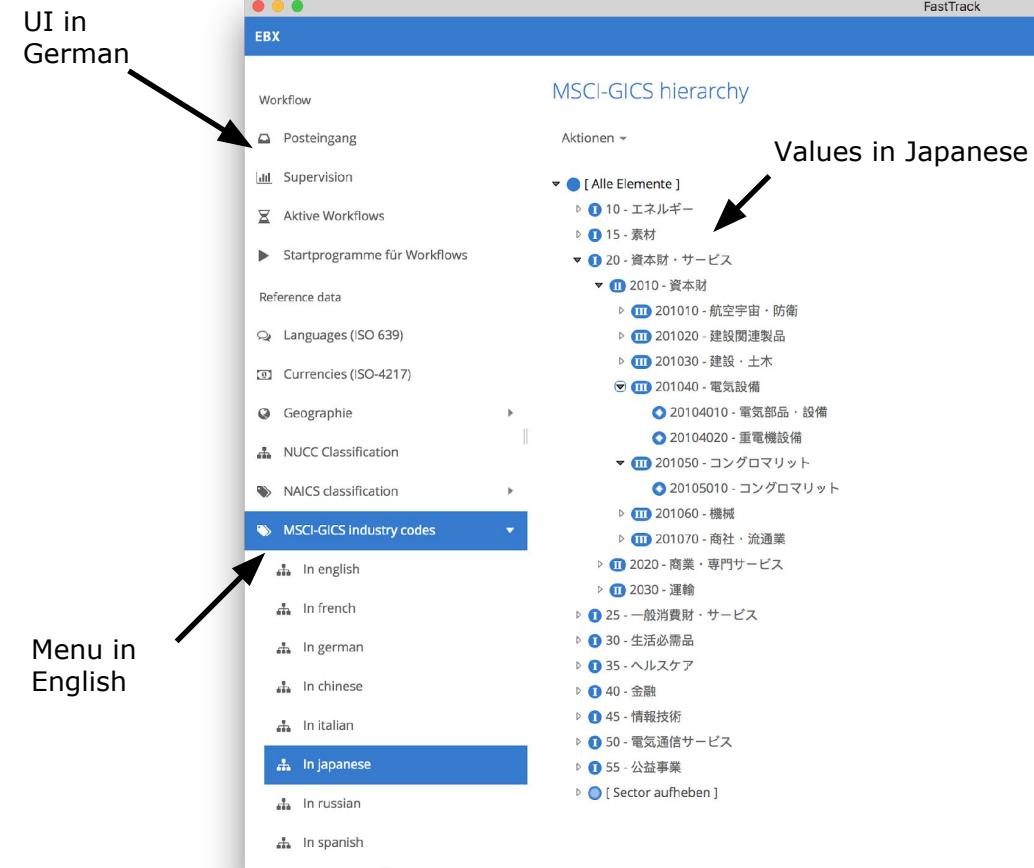
- Browse, view and search data
- Workflow
- Support for digital assets
- Data quality dashboards
- Data visualization



Extended language support

As we scale our worldwide operations and customer base, we are committed to provide extensive language support in all the dimensions of MDM.

User Interface (including EBX GO)	Models (Data, Workflow)	Data Values	Language-specific features
Official Language Packs EN JP FR DE ES PT	Any language UTF-8 • Localization of labels, descriptions, error messages, UI components...	Any language UTF-8 • EBX uses UTF-8, which enables data to flow through the system without any loss or corruption • Data inheritance feature to localize values without any data duplication	<ul style="list-style-type: none">Search and matching algorithms for specific languages (JP, CN)



Agenda

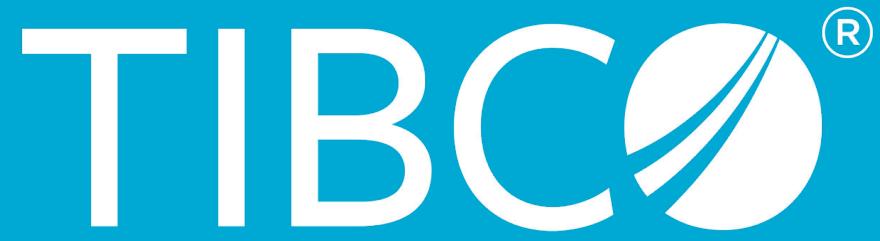


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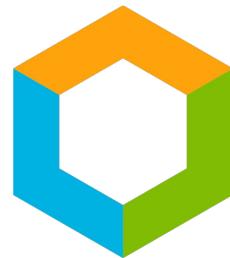
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Steven van der Kroft, Lackó Darázsd
April 2020



CONNECTED
INTELLIGENCE