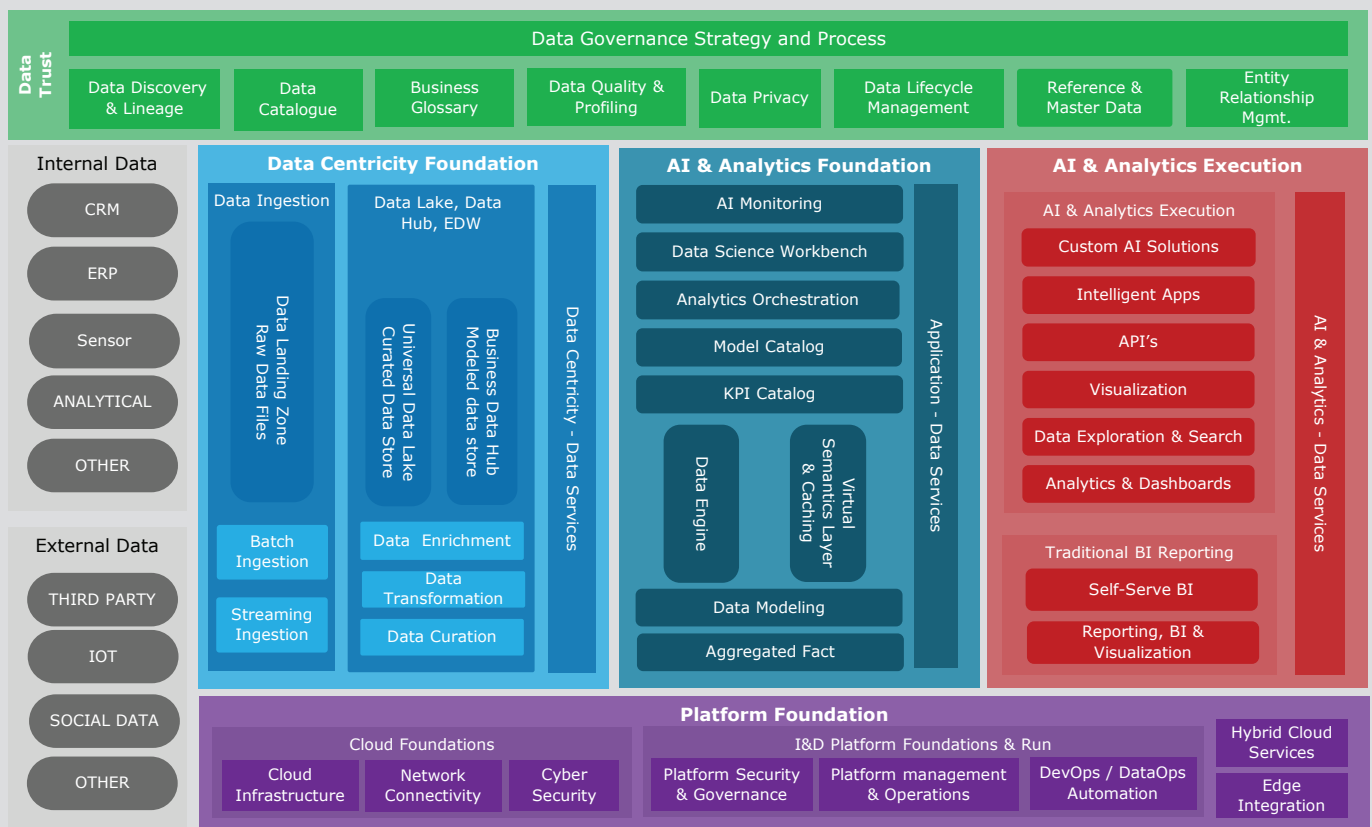# Capgemini

AI ENGINEERING FACTSHEET

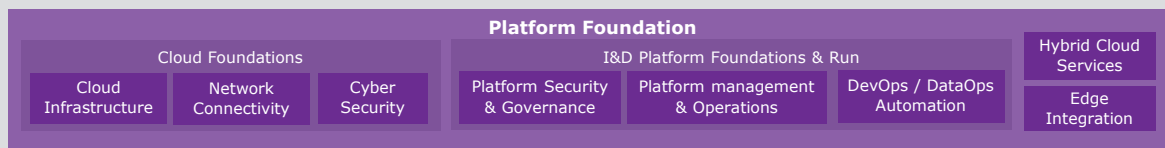## The AI Engineering foundation services in more depth

Part of our Perform AI portfolio, AI Engineering consists of foundation services that provide the right data and AI managed platforms to deliver trusted AI solutions in production and at scale. The details below should provide an more in depth look at our AI Engineering foundation services.

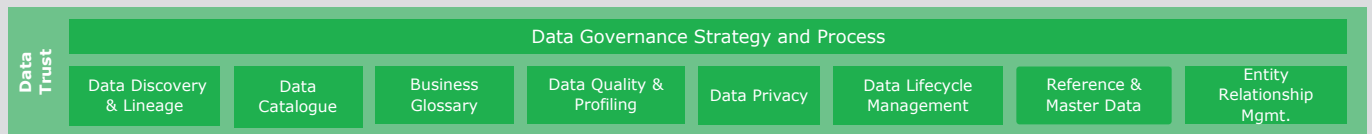## Modern Enterprise Data & AI Platform

Data Trust

Data Governance Strategy and Process

Data Discovery & Lineage	Data Catalogue	Business Glossary	Data Quality & Profiling	Data Privacy	Data Lifecycle Management	Reference & Master Data	Entity Relationship Mgmt.

Internal Data

- CRM
- ERP
- Sensor
- ANALYTICAL
- OTHER

External Data

- THIRD PARTY
- IOT
- SOCIAL DATA
- OTHER

Data Centricity Foundation

Data Ingestion

- Data Landing Zone Raw Data Files
- Batch Ingestion
- Streaming Ingestion

Data Lake, Data Hub, EDW

- Universal Data Lake Curated Data Store
- Business Data Hub Modeled data store
- Data Enrichment
- Data Transformation
- Data Curation

Data Centricity - Data Services

AI & Analytics Foundation

- AI Monitoring
- Data Science Workbench
- Analytics Orchestration
- Model Catalog
- KPI Catalog
- Data Engine
- Virtual Semantics Layer & Caching
- Data Modeling
- Aggregated Fact

Application - Data Services

AI & Analytics Execution

AI & Analytics Execution

- Custom AI Solutions
- Intelligent Apps
- API's
- Visualization
- Data Exploration & Search
- Analytics & Dashboards

Traditional BI Reporting

- Self-Serve BI
- Reporting, BI & Visualization

AI & Analytics - Data Services

Platform Foundation

Cloud Foundations

Cloud Infrastructure	Network Connectivity	Cyber Security

I&D Platform Foundations & Run

Platform Security & Governance	Platform management & Operations	DevOps / DataOps Automation

- Hybrid Cloud Services
- Edge Integration

Our foundation services can best be understood in terms of five main groupings, shown in the figure above and detailed below.

Platform Foundation: These services are about building an industrialized data and AI platform supporting innovation, to take you from data to action. To do this, we have created two groups of services: the Cloud Platform Foundations addressing cybersecurity, network, and middleware, and the Insights & Data (I&D) Cloud Platform Foundations addressing DataOps, security, governance, and the operating model. Data can be securely ingested from a hybrid cloud architecture, into a secure, industrialized, optimized, automated platform with DevOps tooling. Using our range of accelerators, we can even provide a "Data & AI Platform in a box" to give clients a quick start.
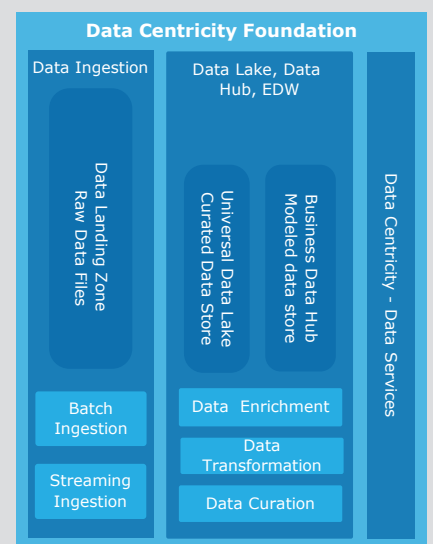
Platform Foundation

Cloud Foundations			I&D Platform Foundations & Run			Hybrid Cloud Services
Cloud Infrastructure	Network Connectivity	Cyber Security	Platform Security & Governance	Platform management & Operations	DevOps / DataOps Automation	Edge Integration

Data Trust: These services recognize the importance of data to an organization's ability to innovate, and the negative impact to the bottom line of untrusted data. They enable the introduction of effective, automated data management to cope with exponential data growth. To support this aim, we offer a collection of approaches, policies, frameworks, processes, and rules to facilitate development of a data governance strategy and process. Tooling to support a governed data ingestion factory or service is provided.
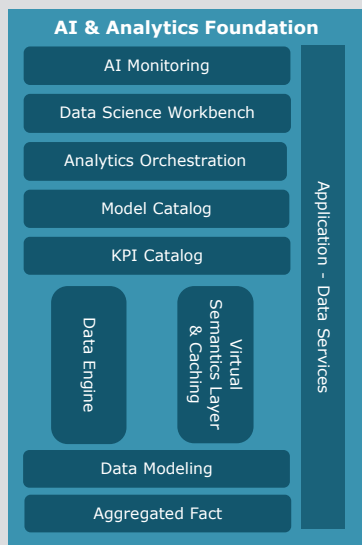
Data Trust

Data Governance Strategy and Process

Data Discovery & Lineage	Data Catalogue	Business Glossary	Data Quality & Profiling	Data Privacy	Data Lifecycle Management	Reference & Master Data	Entity Relationship Mgmt.

Data Centricity Foundation: These services enable the creation of an agile and evolving data asset that can power business innovation and data exploitation. Data is transformed and stored in a data-centric layer. Also in this area, we provide accelerators such as a re-platforming engine for analytics products, a data transformation framework for migrating data warehouses to big data and cloud environments, and a range of intelligent integration services. Issues that we can help clients address include:
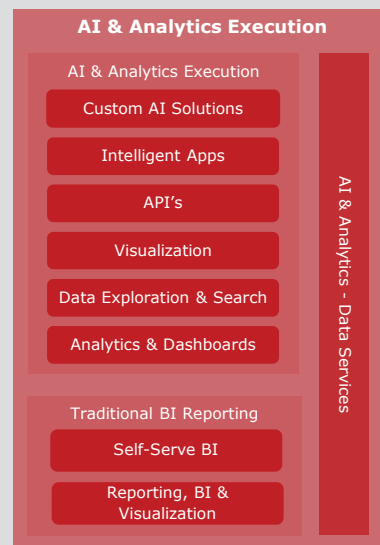
- Data lake approach: SQL vs NoSQL, security, file structures, standards, and naming conventions

- Data-centric models: hub approach (SQL vs NoSQL), security, file structures, standards, and naming conventions

- Data transformation tooling, standards, and playbook accelerator definitions

- Defining standard use cases and technology to support data wrangling and algorithmic processing.

Data Centricity Foundation

Data Ingestion
- Data Landing Zone Raw Data Files
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Data Centricity - Data Services

AI & Analytics Foundation: In this area we offer the architecture, frameworks, work products, and accelerators needed to get from data to business innovation. Via data engines, data is turned into schematics or virtual views relating to business products. We help with selection of tools for areas like AI monitoring, data modeling, and data science workbenches.

AI and Analytics Execution: Our services in this area help with the creation of AI-based or AI-enabled applications, so that AI can provide clients with breakthroughs in automating, augmenting, and disrupting human and machine tasks. We have a structured method for scoping and piloting use cases and then developing full-scale solutions. Our proven approach produces custom AI solutions fast and with minimal risk while maximizing the value of clients' investment and growing their AI expertise.

AI & Analytics Foundation

- AI Monitoring
- Data Science Workbench
- Analytics Orchestration
- Model Catalog
- KPI Catalog
- Data Engine
- Virtual Semantics Layer & Caching
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- Aggregated Fact

Application - Data Services

AI & Analytics Execution

AI & Analytics Execution
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- Analytics & Dashboards

Traditional BI Reporting
- Self-Serve BI
- Reporting, BI & Visualization

AI & Analytics - Data Services

In addition, we offer **Architecture & Advisory** services to support every aspect of AI Engineering. We work with clients to identify the best data strategy, technology platform, architecture, and target operating model to choose in order to achieve industrialization of AI. These services are complemented by frameworks and accelerators underpinning the design of each layer of the architecture foundations, and an operating model for running a DevOps Platform. The latter is important because automating a technology platform in this way tends to drive adoption of DevOps; continuous integration and delivery is now viewed as part of the standard tooling of an analytics platform.

There are two important AI Engineering offers to highlight:

- **Data Estate Modernization** comprises (1) a data-focused portfolio assessment to generate a modernization roadmap, (2) work by our cloud migration factory to optimize use of cloud platforms, and (3) accelerators to transform current on-premise data workloads and services to the new hybrid platform (on-premise, private cloud, public cloud).

- **Unified Data Management** provides end-to-end data ingestion, data orchestration, data governance, and data architecture capabilities.

Our partner ecosystem plays a vital role in AI Engineering. It includes key players such as Snowflake, Databricks, Talend, Informatica, Amazon Web Services, Microsoft and Google. We work closely with selected specialist partners in each area.

About Capgemini

A global leader in consulting, technology services and digital transformation, Capgemini is at the forefront of innovation to address the entire breadth of clients' opportunities in the evolving world of cloud, digital and platforms. Building on its strong 50-year heritage and deep industry-specific expertise, Capgemini enables organizations to realize their business ambitions through an array of services from strategy to operations. Capgemini is driven by the conviction that the business value of technology comes from and through people. It is a multicultural company of over 200,000 team members in more than 40 countries. The Group reported 2018 global revenues of EUR 13.2 billion.

Learn more about us at

www.Capgemini.com/AIEngineering

Perform AI
Artificial Intelligence.
Real World Solutions.

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People matter, results count.