DF Digitalize AI

Secure. Efficient. Intelligent.

AI-assisted Data Digitalization & Analytics Solution for Life Sciences & Healthcare Companies

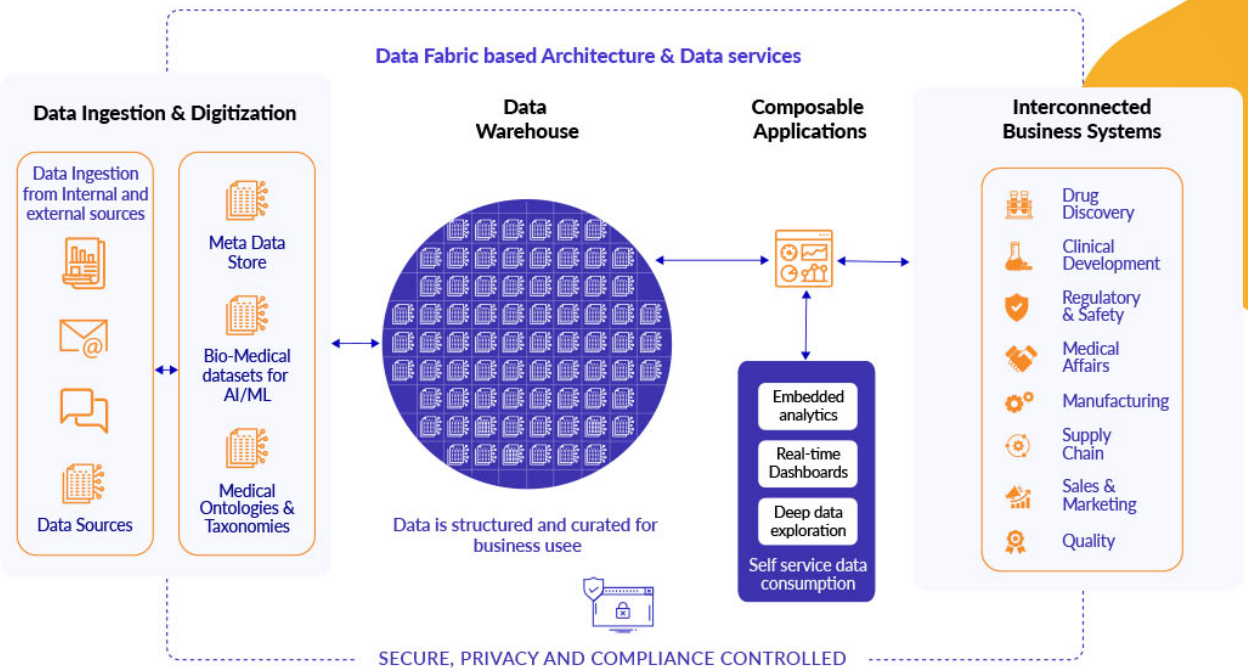
datafoundry

Enabling digital transformation for better health outcomes

Advanced AI assisted data digitization and analytics solution

DF Digitalize AI enables Pharmaceutical, Medical Devices, Cosmetics and Healthcare companies extract value faster and more effectively from their data assets, accelerating their digital/AI transformation for better business and health outcomes.

Using deep learning models developed by industry experts, DF Digitalize AI is an Intelligent Solution that ingests and digitizes analog data from multiple structured and unstructured sources, curate it and then create a structured data fabric which is available for process automation and rich analytics, across the entire value chain.



The AI/ML models that power DF Digitalize AI are built using a bio-medical data set of 10 million+ documents covering the entire business value chain – from discovery through clinical development, regulatory and safety, sales, manufacturing, and supply chain to Quality and GxP compliance.

Data ingestion may be required from external sources or internal databases to feed into the ML pipeline as part of the data fabric. DF Digitalize AI comes with pre-built scrapers to ingest documents/data from web sites, and connectors to establish data integration pathways from enterprise systems to the data staging area.

DF Digitalize AI allows the design of a data fabric for your enterprise data to make it easier for upstream/downstream applications to share and reuse data for process automation.

Unified AI assisted solutions for Life Sciences and Healthcare

DF Digitalize AI is a unified AI solutions designed for Life Sciences and Healthcare usage scenarios.

- Integrators/Connectors to ingest data from various enterprise systems (ERP, Regulatory, CTMS, EDC, Safety Database, eDMS, MES, Sales Operations and CRM systems).
- Extracting data from unstructured documents and flat files using 99.5% accurate OCR and NER models.
- Providing the data as a curated, structured repository for insights and analytics.
- A data fabric-based design with composable application components that can be put together quickly for a PoC/MVP to establish business value before full-fledged enterprise implementation.
- A team of SMEs drawn from Datafoundry and our partner ecosystem to help ensure quality in the data digitization outcomes.
- Built upon a robust Compliance framework to assure data integrity, privacy and security requirements.
- Managed professional services for end-to-end implementation of the digital transformation project/s.

Features of DF Digitalize AI

AI Assisted Document Processing Pipelines for generation of similar/ repetitive text from images, text from images, from paper files using highly accurate OCR & NER models.

Built on extensive bio-medical data sets, our MediLP models provide a solid foundation for building Natural Language Processing pipelines around OCR and Text Analysis.

Rapid application development – Using Datafoundry's event-driven micro services platform, customers can quickly build beta products or full-scale enterprise applications quickly and cost effectively.

Our partnership ecosystem with CROs and functional service providers, academia and research institutes will enable you to access domain experts and service consultants.

Professional services around data transformation, AI labelling & Analytics.

Cloud Ready compliant - allowing you to deploy on your private cloud or ours.

How does it work?

At Datafoundry, our objective is to simplify and accelerate your digital transformation with the help of DF Digitalize AI solution framework. The goal is to help you build PoCs quickly (less than 12 weeks) to validate your business use cases for AI adoption.

Step 1

Perform an analysis of your data sources and establish the business use cases. Our domain experts can help you in this process.

Step 2

Identify one or more pilot projects. Use the secure and robust **DF Digitalize AI solution** to digitize sample documents and data sets to validate the value extraction strategy. Datafoundry's expert consultants can help you complete the pilot projects within a matter of weeks. The output can be curated by SMEs from Datafoundry or our partnership ecosystem.

Step 3

The curated and approved digitized data can now be fed into a downstream business application or the analytics module of the **DF Digitalize AI** solution or to an analytics tool of your choice.

Step 4

Using the results of your pilot projects, plan your enterprise data digitization projects based on your business priorities. The **DF Digitalize AI** solution can also be implemented within your private cloud environment.

Indicative approach that has worked well with some of our Life Sciences customers

DF Digitalize AI Advantages

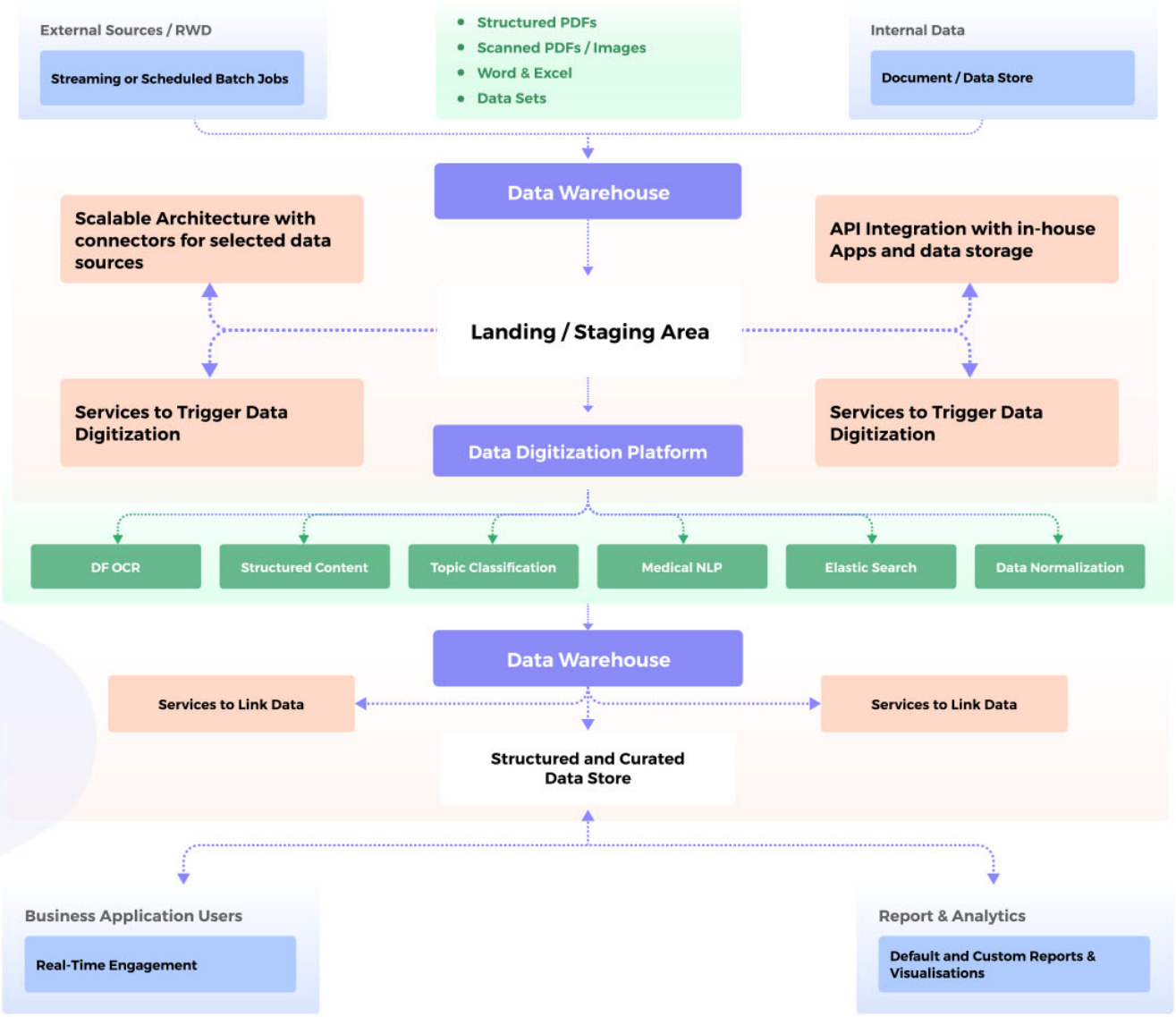
Eliminate errors, and reduce costs, time-consuming manual work, and improve efficiency of business processes – **upto 70% reduction in data digitization costs.**

Secure, Cloud Ready and regulatory compliant - allowing you to deploy on your private cloud or ours.

Rapid application development – Using Datafoundry's micro services solution, customers can build beta products or full-scale enterprise applications quickly.

Our partnership ecosystem with CROs and functional service providers, academia and research institutes will enable you to **access domain experts & consultants.**

Data Digitalization Pipeline



Indicative Use Cases of
DF Digitalize AI

1 Discovery Research and Pre-Clinical Development

- Moving from analogy to complete digitalization of data from previous internal research and external sources during drug discovery.
- Data from previous pre-clinical studies digitalized to help design better pre-clinical approaches and expedite the process.

2 Clinical Development

- Data from previous clinical studies from internal and public sources can be digitalized for designing more effective trials, including synthetic trial arms based on digital Real-World Data (RWD).
- Development of better strategies for clinical regulatory submissions.
- Digitalization of Clinical and regulatory data to automate document authoring and quality checks.

3 Regulatory & Payer Approval

- Better insights for comprehensive regulatory approval packages and payer approval packages.
- Label Digitalization to reduce development and distribution timelines for Product Labels and meet with multiple country regulatory requirements.

4 Go-To-Market

- Improved medical affairs engagements by digitalizing data collected from previous interactions with HCPs and KOLs.
- Participation data from past conferences is digitalized to improve participation in medical affairs conferences.
- Providing better medical affairs participation through digitalized data from past papers, abstracts, and blogs.
- Insights on sales operations for better KOL identification, profiling and mapping.
- Derive insights for product launch and GTM strategies through digital access to previous marketing campaigns data.
- Analytics and Insights on Sales team productivity.
- Analytics on the effectiveness of different sales channels.

5 Post-Marketing

- Digitalization for IDMP Compliance.
- Implementing newer, regulatory-compliant real-world studies by digitizing real-world data.
- Automating systematic literature reviews, meta-analyses, and HEORs

6 Business Innovation, Quality and Compliance

- Building a Data Fabric that ingests data from multiple systems and uses deep learning models for predictive analytics and other business innovations.
- Establishing Product Track and Trace by integrating data from Manufacturing, Supply Chain, and Regulatory functions.
- Quality and GxP compliance through data digitization.
- Enable regulatory agency inspection readiness for clinical, safety, and manufacturing inspections through data digitization.

Case Study

A global consumer drugs company, as part of their digital transformation strategy, wanted to explore whether their internal clinical trials data can be combined with data from external public sources to create a searchable data repository for insights on the safety and efficacy of their products in comparison with competitor products. Usually, such an exercise would result in multiple Systematic Literature Reviews (SLRs) and Meta Analyses being performed by a team of Medical Affairs SMEs.

The Challenges

The internal data was in the form of scanned PDFs dating back to the 1990s. The external sources identified were Literature Databases such as PubMed, Embase etc.

Our Solution

The Datafoundry team used the DF Digitalize AI solution to quickly build an intelligent document processing pipeline to digitize the data from the scanned internal documents and the PDFs downloaded from the Literature databases. A sample of 1000 internal documents and 25,000 external documents.

The Outcome

The digitalization pipeline was integrated with DF mLiterature AI – an application that uses AI-powered automation functionalities to reduce the manual effort in Literature Reviews. The pilot implementation resulted in 70%-time reduction for a Literature Review project. The accuracy of the ML models in data extraction through OCR and Named Entity Recognition (NER) models was around 99.5%. The availability of the structured data repository resulted in complete automation of data extraction from Literature articles. The data was also made available to an analytics application for visualising the Literature Review outcomes. Happy with the results, the customer has now engaged Datafoundry to deploy the digitalization pipeline across the enterprise for Clinical and Regulatory data.

Who We Are

Datafoundry is a company with a vision to **apply AI/ML and deep learning to develop data fabric** for process automation and gaining meaningful data insights for simplifying data-driven business operations.

AI Powered
Aggregates data from disparate sources and produces quality signals and creates periodic safety assessment reports.

Customizable & Scalable
We have put together some of the best minds to create a platform that is can be customized and easily implemented.

Secure & Compliant
We help our clients make multi-billion-dollar data-driven decisions in a regulatory compliant and secure environment.

Adherence to Regulations & Standards

Our products adhere to all regulatory requirements and meet industry standards.

GxP
ICH-GCP, cGMP, GLP, GDP

FDA
ER:ES - US FDA 21 CFR Part 11, EU Annexe 11

GDPR
Data Protection and Patient Privacy

ISO 27001
ISO/IEC 27001
Information Security Management

Our Products

DF mSafety AI

DF mLiterature AI

DF Digitalize AI

DF mTrials AI

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