

SMART AND
PRACTICAL
CONSUMPTION OF
THE 'DATA FUEL'



Driving success with the right blend of analytics & cloud to realize value from the data economy

The massive quantities of unstructured and uncurated data being generated by the digital wave – social media, mobile devices, Internet of Things (IoT), Extended Reality (XR), and Artificial Intelligence (AI) – has taken data management up by a storm. As a result, enterprises across industries are discovering the broader opportunities and risks of this data flood to uncover hidden potentials and envision the whole picture.

As IT systems grow to include specialized, domain-specific software dealing with highly complex systems spread across multiple geographies, maintaining data quality and consistency has become essential to understand the business at a deeper level, take proactive data-driven decisions, reimagine business processes, and support digital transformation. This confluence of data, storage, algorithms, and computational power has set the stage for a wave of creative disruption.

There are new problems to be solved (**real-time intelligence, phygital mix, disintermediation, need for resilience and agility**); new priorities to be considered (**customer-centricity, digitization of the core, adaptive operating models**); and new scenarios to be imagined (**digital sentience, extreme automation, instant demand gratification, uberization**).

The rules of the game have changed. And data is driving all-new industry disruptions, business models, demand, and innovation for manufacturers worldwide. The connected ecosystem between suppliers, retailers and manufacturers requires effective collaboration, leveraging collaboration and seamless secure exchange of information to realize value for all stakeholders from the data economy.

Hidden Data Potentials in Manufacturing

While high uncertainty and low growth force manufacturers to squeeze every asset for maximum value, on the shop floor, mistakes are expensive, and downtime is enormously costly. To do more with less in a slow-growth and uncertain environment, however, companies must look for new ways to boost the productivity and profitability of their operations.

There's one significant asset that manufacturers have not yet optimized: data.

Transformation in manufacturing of aerospace and defense, automobile, heavy equipment, electronics, oil and gas, and other subdomains is powered by connected products, connected factories, and evolved business models like servitization. On average, manufacturing shop floors are creating 1.5 TB of datasets per day per location. As a result, every turn a farmer takes on an interactive tractor, every communication exchanged between smart assembly lines, every interaction between an automotive OEM and its stakeholders pours in a data flux.

Data can produce insights to optimize the productivity of individual assets as well as the total manufacturing operation. Gathered from IoT sensors, analyzed via AI algorithms, and represented in visualization platforms, data can be used to control costs, optimize the consumption of resources, and manage sustainability efforts amid changing regulations. It can uncover new ways to optimize processes, solve previously impenetrable problems, and also reveal hidden bottlenecks or unprofitable production lines.

- Yield-energy-throughput (YET) analytics can ensure that individual machines are efficient, increase throughput, and reduce energy consumption.
- Profit-per-hour (PPH) maximization analytics can measure the impact on the total profitability of an integrated supply chain to provide actionable intelligence.

- Predictive maintenance can reduce machine downtime by 30% - 50% and increase the machine life by 20% - 40%.

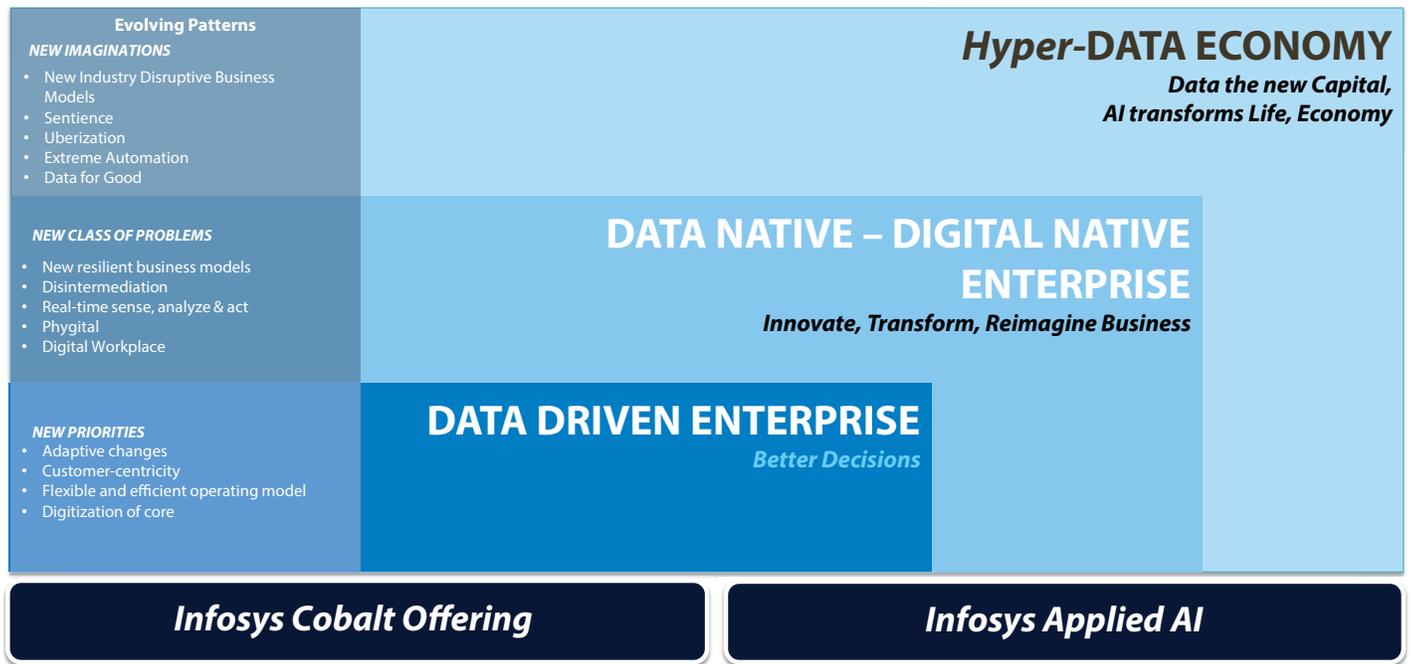
The question remains: **How to harvest and use this mountain of information to gain a competitive edge?**

Data Monetization from Cloud: A Key to Unlock Immense Possibilities for Manufacturers

Analyzing the end-to-end manufacturing landscape and breaking down the data requirements of enterprises in different maturity states, Infosys has categorized the data journey into a '3 Horizon' story:

- The **First Horizon** is about helping enterprises become data-driven by bringing all the data together from silos, modernizing legacy architecture, and shifting to a digitized state that can support new business capabilities.
- The **Second Horizon** is focused on the new capabilities developed on top of the First Horizon. Enterprises in this state intend to apply data to specific use cases like reimagining business processes, becoming digital-native, reacting and responding in real-time, etc. Infosys works with clients to enable a culture of data literacy and inculcate "data trust" with change management, data governance, and data quality
- The **Third Horizon** revolves around helping manufacturers collaborate and participate in a data economy with Cloud and Embedded AI. It is facilitated by the pandemic-ushered urgency of data collaboration across borders and the convergence of industries like vehicle leasing and insurance. Infosys harvests next-level insights with a data village where multiple collaborators work together in a harmonized ecosystem.

The three Horizons powered by *Infosys Cobalt & Applied AI* :



Infosys is on a mission to realize all levels of data needs of different manufacturers with a connected ecosystem and out-of-the-box innovation.

Enabling Data-driven Manufacturers

Infosys leverages its partnership with key data economy solution providers like **AWS Data Exchange, Snowflake Data Marketplace, Azure Data Share, Google Data Marketplace, and Harbr** to enable capabilities like:

- **Information Catalog and Shopping:** Enables 'shopping' like experience for a Data Economy's dataset consumer
- **Live & Ready-to-Query Data:** Enables access to Live & Ready-to-Query data from all Data Economy partners
- **Data Monetization:** Helps data providers to tap into new revenue streams
- **Secure Exchange:** Ensures safeguarding of sensitive information along with personalized & secure views
- **Scalable Platforms:** Seamlessly onboard providers and consumers as

the Data Economy grows. The Infosys Data Economy Platform provides a comprehensive set of capabilities for achieving success in the data economy of the future.

We enable our clients to navigate the industry shifts and play by the new rules of the game with **Infosys Cobalt & Infosys Applied AI** set of services, solutions, and platforms. It offers 14,000 cloud assets and over 200 industry cloud solution blueprints.

Ensuring More from Less

- **Transform with Ecosystem Play** - Embrace AI and other emerging technology paradigms to enable connected, hyper-personalized, intelligent processes.
- **Bring Agility & Scale** - Make decisions fast while insights work for you at need as disruptions span longer and situations continue to evolve.

- **Manage Business Continuity** - Modernize data estate and leverage cloud for built-in resiliency – elastic scale, remote accessibility, durability, automation, and more.
- **Experiment with the Robustness of the Cloud** - Implement DevOps for faster turnaround
- **Integrate large-scale data governance and quality checks** – Efficiently design data science platforms for users to build their own models and democratize the data
- **Step-up Analytics** - Leverage advanced analytics coupled with predictive and prescriptive maintenance as the key enablers (esp. for OEMs)
- **'Bring your own vendor'** - Save the hassle of taking data outside the organization.

Client Stories



A Multinational Automotive Manufacturer Enabled Seamless Collaboration For Fleet Operations

By leveraging Infosys Cobalt, a leading Automotive Manufacturer addressed the increased scale of data generation & slow processing by transforming their Vehicle Data Warehouse to Amazon Web Services (AWS). This led to optimized & near-real time vehicle tracking & support for fleet operations.



Aircraft Manufacturer Optimizes Drone Operations

A major aircraft manufacturer extended its value chain with an insights marketplace for drone operators to schedule flights effectively. They leveraged Infosys Cobalt to enable a cloud-based data platform that curated, consolidated, and harmonized data from 300+ aviation applications.



A US-based agricultural machinery manufacturer evolved from error-prone traditional methods to unlock hidden data-driven potentials

The company eliminated data silos and reimagined forecasting based on consumption data rather than shipments through cloud-enabled capabilities. Empowered by tableau, power apps, and contextual analytics, they leveraged early warning signs to proactively manage incidents, increase uptime, design for scale, and drive value for customers.

Sources:

1. Manufacturing: Analytics unleashes productivity and profitability | McKinsey

For more information, contact askus@infosys.com

Infosys[®]
Navigate your next

© 2022 Infosys Limited, Bengaluru, India. All Rights Reserved. Infosys believes the information in this document is accurate as of its publication date; such information is subject to change without notice. Infosys acknowledges the proprietary rights of other companies to the trademarks, product names and such other intellectual property rights mentioned in this document. Except as expressly permitted, neither this documentation nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, printing, photocopying, recording or otherwise, without the prior permission of Infosys Limited and/ or any named intellectual property rights holders under this document.