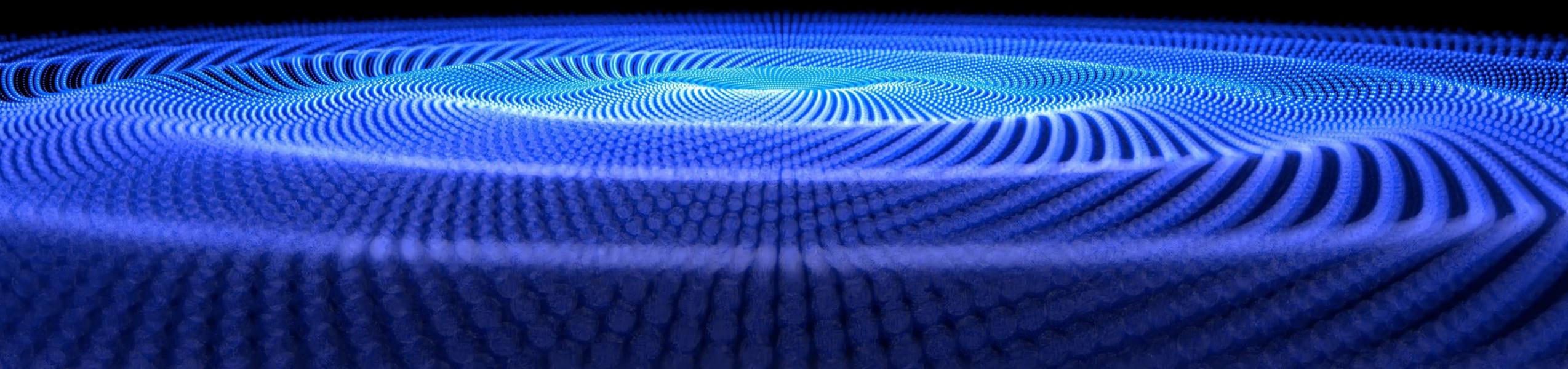AUDAX LABS

# Azure **Data Lake**

# Implementation Services

# Our Capabilities & Experience

Audax labs is an Innovation Partner with a strong System Integrator background. We work with enterprise clients in their innovation journey from ideation to enterprise grade deployment.

## PARTNERS


HITACHI Inspire the Next

Microsoft Solutions Partner

## CUSTOMERS

HITACHI Inspire the Next

Microsoft

Parker

G

LiveWire

Rabobank

9to5 seating

Kelvin

BoNsai media group

## INDUSTRIES
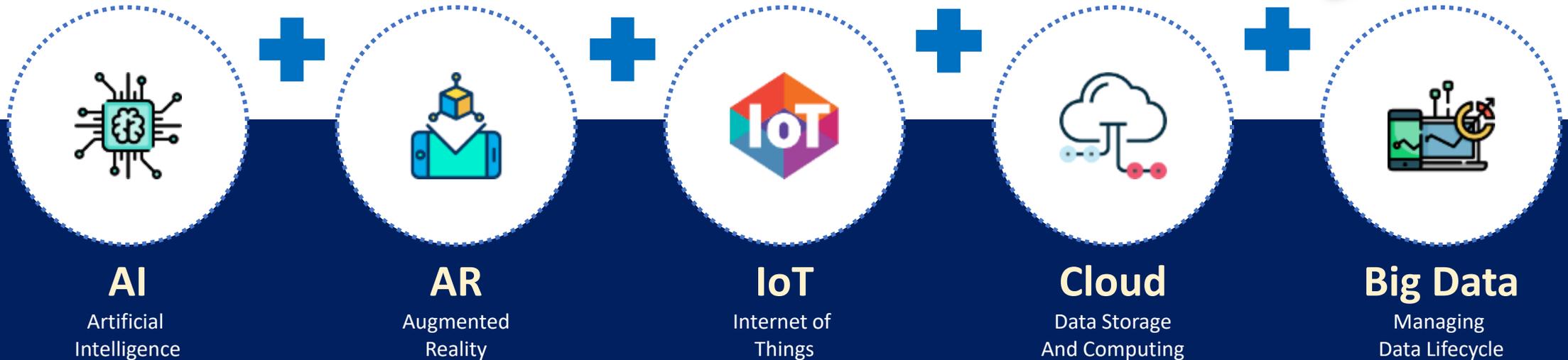
- Automotive
- Manufacturing
- Healthcare
- BFSI
- Retail

## TECHNOLOGIES

**AI**
Artificial Intelligence

**AR, VR, & XR**
Augmented Reality

**IoT**
Internet of Things

**Cloud**
Storage & Computing

**Data**
Managing Data lifecycle

## GLOBAL PRESENCE



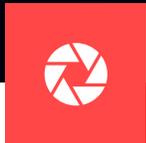SEATTLE
OXFORD
SAN JOSE
NOIDA
KOLKATA

# Data Lake Implementation Service & Deliverables

AUDAX
LABS

Audax Labs, in collaboration with Microsoft Azure, delivers comprehensive data lake services that leverage the capabilities of Azure Synapse for streamlined data integration and Power BI for intuitive and interactive data visualization.

Audax Labs' Data Lake implementation service offers an infinitely scalable platform that integrates with advanced tools, ensuring secure and flexible data management supporting diverse use cases. This empowers businesses to make informed decisions and drive innovation in the digital landscape.

## Deliverables:

### Power BI Integration

Audax Labs' data lake services ensure seamless Power BI integration into the data lake ecosystem. This integration empowers intuitive and interactive data visualization, enhancing analytics and reporting capabilities.

### Azure Synapse Integration

Audax Labs ensures a robust Azure Synapse implementation within the data lake ecosystem. It optimizes data integration, storage, and analytics for streamlined and scalable solutions in data processing and analysis.

### Azure Databricks Incorporation

Audax Labs enhances its data lake services by incorporating Azure Databricks, enabling advanced analytics and machine learning capabilities for efficient data-driven decision-making

# Delivering valuable solutions

Microsoft Azure Data Lake provides a versatile platform that can address various data-related challenges and deliver valuable solutions, including -

IoT Data
Management and Analysis

Big Data Analytics
and Business Intelligence

Data Warehousing and
Data Lake Integration

# Firmware Over-The-Air (FOTA) data management using Azure Data Lake



**Solution Component:**

Azure + Synapse + ADLS GEN 2 + Power BI + Azure CI CD

**Challenge:**

A major electric motorcycle manufacturer encountered the task of effectively overseeing and upgrading firmware for their in-field devices. Firmware Over-The-Air (FOTA) updates play a crucial role in enhancing the security, functionality, and performance of their IoT devices. However, managing this process at a large scale presented a series of challenges.

**Solution:**

Audax Labs leveraged Microsoft Azure's Data Lake capabilities to establish a central repository for the aggregation and storage of FOTA-related data, encompassing both structured and unstructured data originating from the firmware update process. This data includes device metadata, update logs, and performance metrics. Azure Synapse Analytics was used for ETL operations to cleanse and prepare data for real-time analysis.

**Outcome (ROI):**

- Efficient FOTA Management
- Real Time Insights
- Data-Driven Decision-Making
- Enhanced Device Security and Performance
- Predictive Maintenance
- Improved Customer Satisfaction

# EV Motorcycle Telemetry Data Management using Azure Data Lake



## Challenge:

A major EV motorcycle manufacturer was facing challenges in extracting valuable insights from the telemetry data produced by their vehicles. This telemetry data encompasses critical information related to battery performance, charging patterns, ride statistics, and more, all pivotal for refining motorcycle design, forecasting maintenance requirements, and improving the overall user experience.

## Solution:

Audax Labs effectively harnessed the potential of Microsoft Azure Data Lake, establishing it as the central hub for gathering and storing telemetry data originating from electric motorcycles. This encompassed a wide array of data, encompassing both structured and unstructured formats, such as sensor data, GPS coordinates, battery health metrics, and more.

## Outcome (ROI):

- Real Time Insights
- Predictive Maintenance
- Improved User Experience
- Optimizing Battery Performance
- Data Security and Compliance
- Cost Optimization by reducing operational expenses.

## Solution Component:

Azure + Synapse + ADLS GEN 2 + Power BI + Azure CI CD

# HR modelling and Portfolio planning in Azure Data Lake



**Challenge:**

A significant US organization's Human Resources (HR) department frequently faced with complex workforce management issues, including the optimization of employee distribution, succession planning, and resource allocation. Conventional HR modelling and portfolio planning methods proved to be time-consuming and fell short of realizing the complete potential of data-driven decision-making.

**Solution:**

Audax Labs used Azure Data Lake as the central repository for the aggregation, storage, and management of HR-related data, encompassing employee profiles, performance records, training data, and other pertinent information. Azure Synapse Analytics played a pivotal role through its ETL (Extract, Transform, Load) processes, which were utilized to cleanse and prepare the data, ensuring efficient processing and analysis of HR data.

**Outcome (ROI):**

- Data-Driven HR Decision-Making
- Real Time Insights
- Better Resource Allocation
- Better Portfolio Planning
- Succession Planning
- Employee Satisfaction

**Solution Component:**

Azure + Synapse + ADLS GEN 2 + Power BI + Azure CI CD

# Our Differentiators

AUDAX LABS

**OUR
DIFFERENTIATORS**

## Microsoft Partner

- Flexible Engagement Models
- **Experience of executing projects with ECIF**
- System Integration
- Industry Experience
- Microsoft Technologies Expertise

## Innovation Lab

- Design Thinking
- Metaverse integration with Enterprise systems
- Configurable as per customer requirements

## Speed

- Building Blocks
- Solution Teams for **Rapid Prototyping**
- Faster response time

## Live Projects

- Multiple Live AR/VR/XR projects since 2017
- **POC to Production Metaverse experience**

## Sales Support

Help Sales team with:
- Customer Presentations
- Demos
- **POCs and Sales plays**

# Outcome Driven Innovation!

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