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AI for Business:
Transforming Data into Decisions

CATIM - 2024

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Kelwin Fernandes

Why? Father, husband

How? Entrepreneur
Founder & CEO at NILG.AI

What? AI consultant
PhD in Machine Learning

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We are on a mission to become the

standard for AI adoption,

making any company highly efficient, ever-improving, and adaptable.

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We help entrepreneurs and managers
to define and execute
solid AI roadmaps that drive
change by optimizing core decisions
in your business

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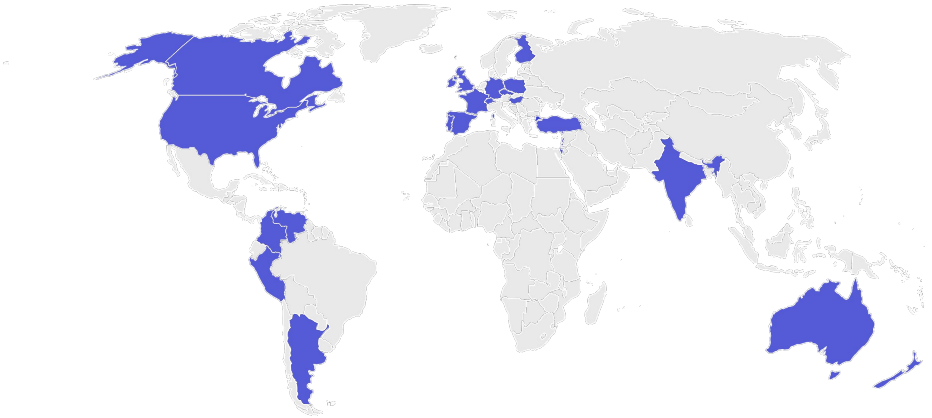
Proven success across industries and markets

Trusted by companies of all sizes and industries



+100 Entrepreneurs & managers

+25 industries

+20 countries

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Becoming the largest B2B AI YouTube channel

Empowering you to make strategic AI decisions by yourself

Join the

+85k

subscribers that trust NILG.AI

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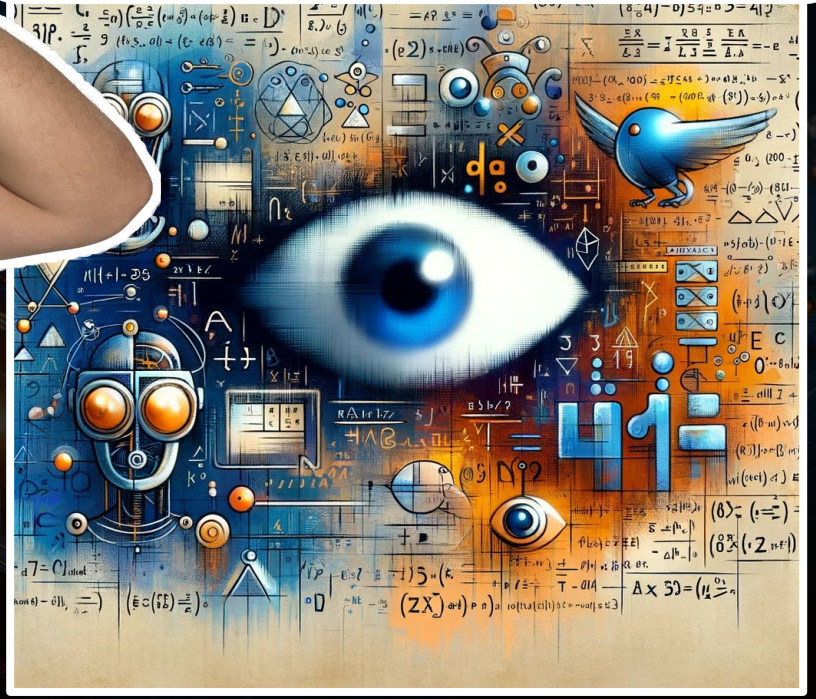
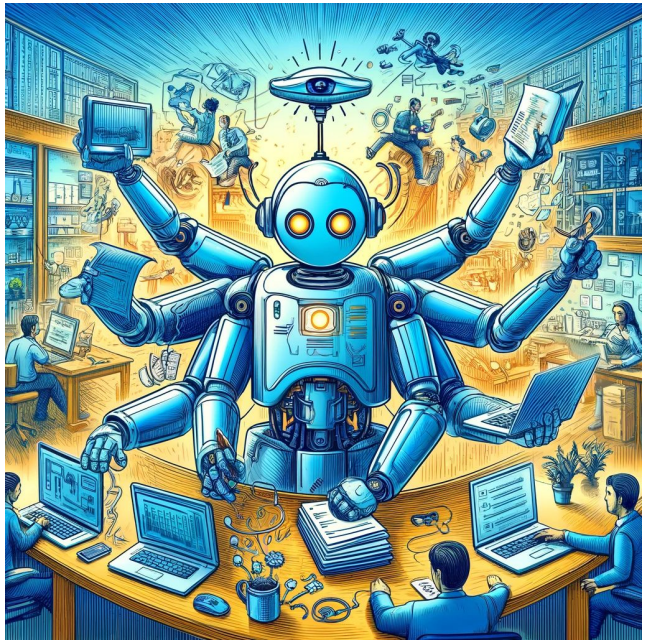
What is
Artificial Intelligence
?

Artificial Intelligence is...



Simple, useful and actionable definition for
business managers



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ARTIFICIAL INTELLIGENCE

PREDICTIONS

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=

PREDICTIONS

NEW DATA

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NEW DATA

=

BETTER DECISIONS

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ARTIFICIAL INTELLIGENCE

=

PREDICTIONS

=

NEW DATA

=

BETTER DECISIONS

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I became a dad for the second time 3 months ago

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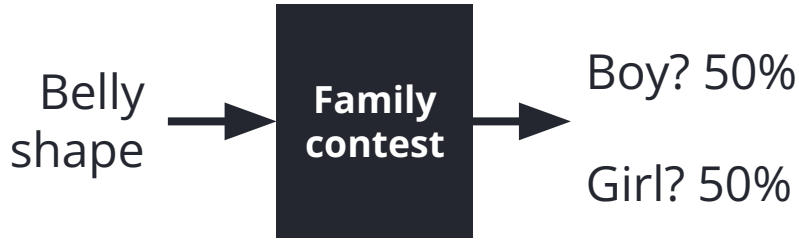
I became a dad for the second time 3 months ago



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I became a dad for the second time 3 months ago

Doctor

Boy? 1%

Girl? 99%

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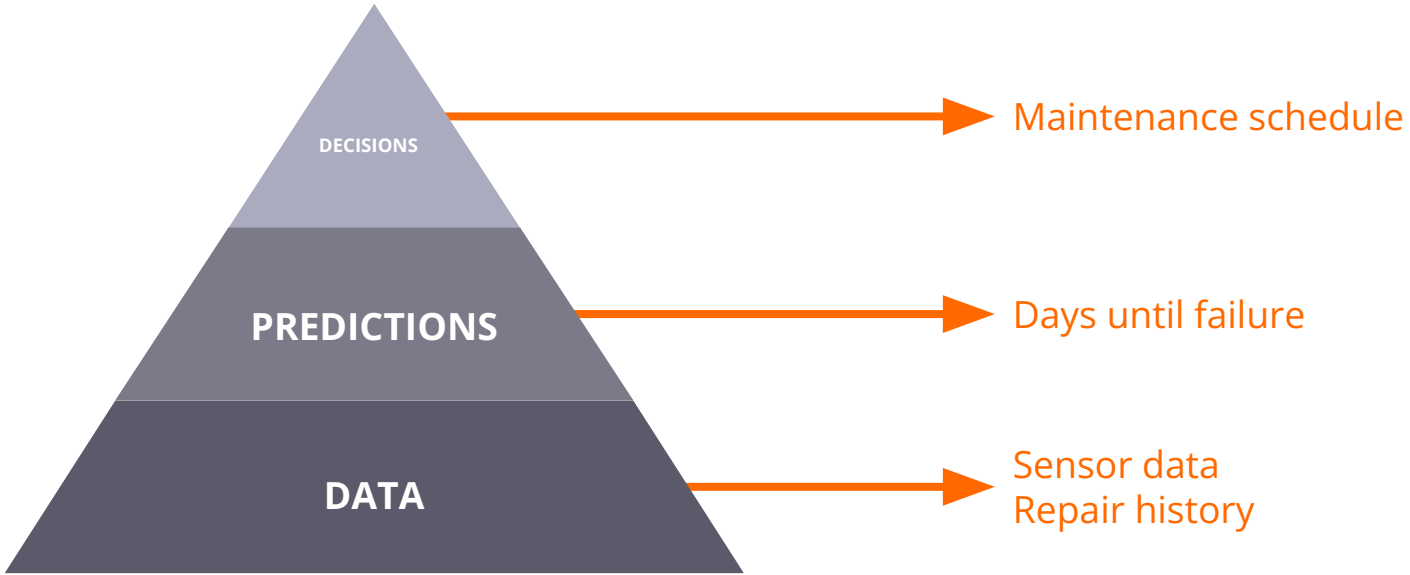
The Holy Trinity of Artificial Intelligence

Three key concepts to optimize any process



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Predictions are TRASH

Decisions are KING

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What did GenAI
bring to the table?

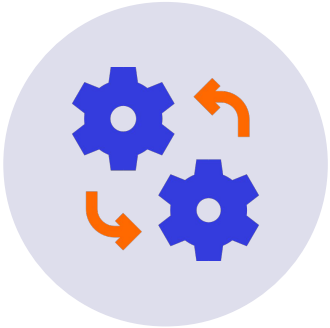
- **Same technology, sames principles**
- **Democratization of access to AI**
  - We need less data
  - We need less skills
  - We need less local computing power

How can you
leverage AI
in your business?
(and daily routines)

How can you leverage AI in your daily routine?

Where to apply AI

Make better decisions



Automate complex tasks

Uncertainty
(tolerance to errors)
+
Scale
+
Dynamic environments

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How can you leverage AI in your daily routine?

What can you expect

+ Productivity

Producing more with the same resources

You know what to do, but you need more of it

+ Efficiency

Producing the same with less resources

You know what to do, but you need to do it faster

+ Effectiveness

Producing better outcomes

You don’t know what to do

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AI applications in the metalworking industry

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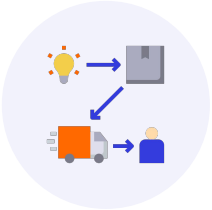
AI applications in the metalworking industry

Just a few examples

Predictive Maintenance

Quality Control



Supply Chain Management

Inventory Management

Customer Relationship Management

Let's think about: Data ⇒ Predictions ⇒ Decisions

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Applications in other industries we've worked on

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Marketing & CRM

Proactive Customer Journey

Lifetime Value

Sentiment Analysis

Support Ticket Categorization

Smart Pairing of Agents/Markets

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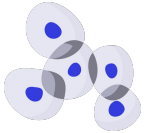
Healthcare

Medical Decision Support & Hospital Management

Sample Quality Assessment



Compliance Detection

Hospital Management

Procedure centric

Patient centric

Cervical cancer

Respiratory issues

Others

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Financial Services

FinTech, RegTech, and related services

Credit scoring

Automated assessment of loan submissions

Default Prediction

Detect abnormal consumption and future non-paying customers

Entity Categorization

Categorize transactions, companies, and invoices

Forecasting

Forecast core market indicators in your industry

Compliance

Continuous compliance assessment with current regulations

Fraud detection

Detect fraud and free-riders. Application in utilities and market research

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Other Industries

Automotive, travel, retail, among others

Market Demand

Allocate products to markets based on predicted demand

Dynamic Pricing

Identify price elasticity and expected demand (travel, retail, etc.)

Quality Assurance

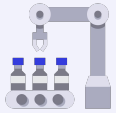
Defect detection on manufacturing and inspection (solar panels, 3D printing)

Predictive Maintenance

Identify system failures proactively based on sensor and image data

Multimedia video Analysis

Recognizing objects and events on video streams



Product Design

Discover product configurations that match expected benchmarks

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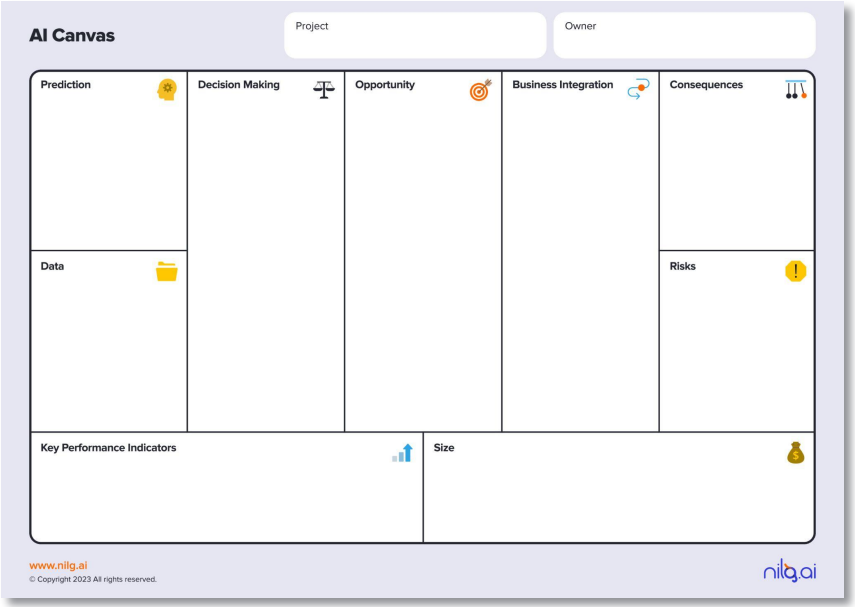
Business Centric AI

Business-centric AI: The AI Canvas

- **Universal language to talk about AI**
- Full-picture of any AI project
- Suitable for non-technical stakeholders



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AI Canvas

Project

Owner

Prediction

Decision Making

Opportunity

Business Integration

Consequences

Data

Risks

Key Performance Indicators

Size

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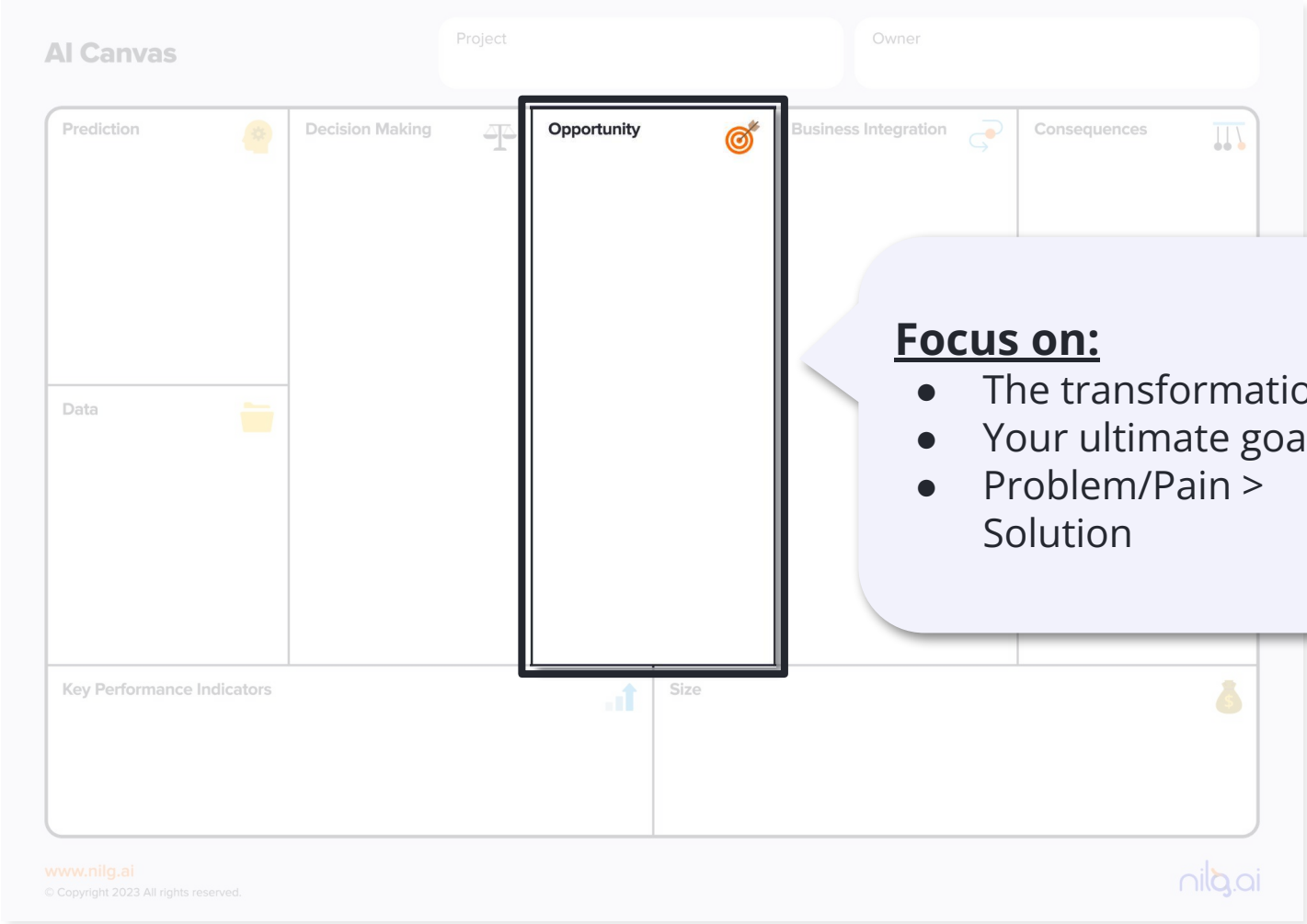
AI Canvas
Project
Owner
Prediction
Decision Making
Opportunity
Business Integration
Consequences
Data
Key Performance Indicators
Size
Focus on:
The transformation
Your ultimate goal
Problem/Pain > Solution
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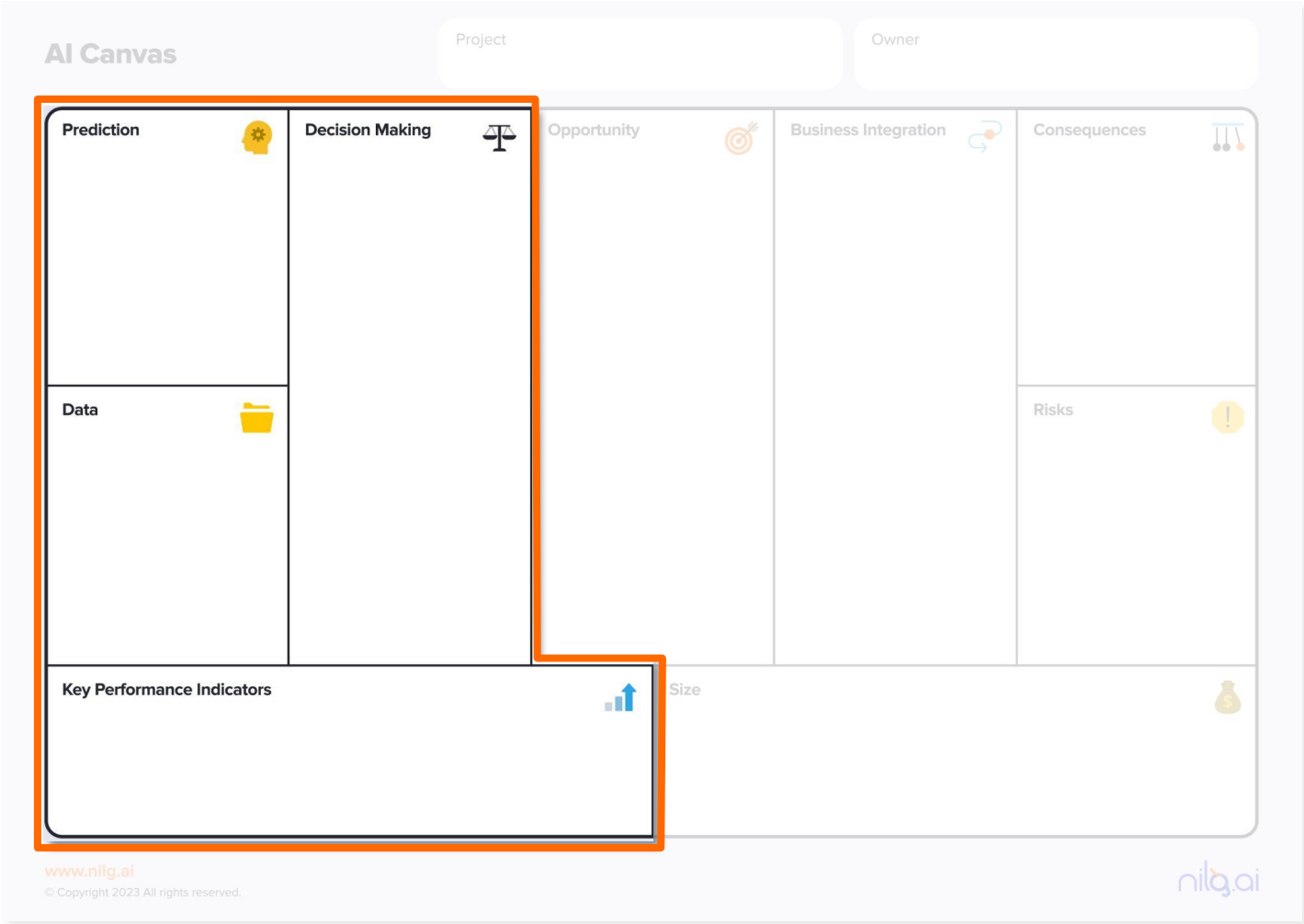
Technical


AI Canvas
Project
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Size
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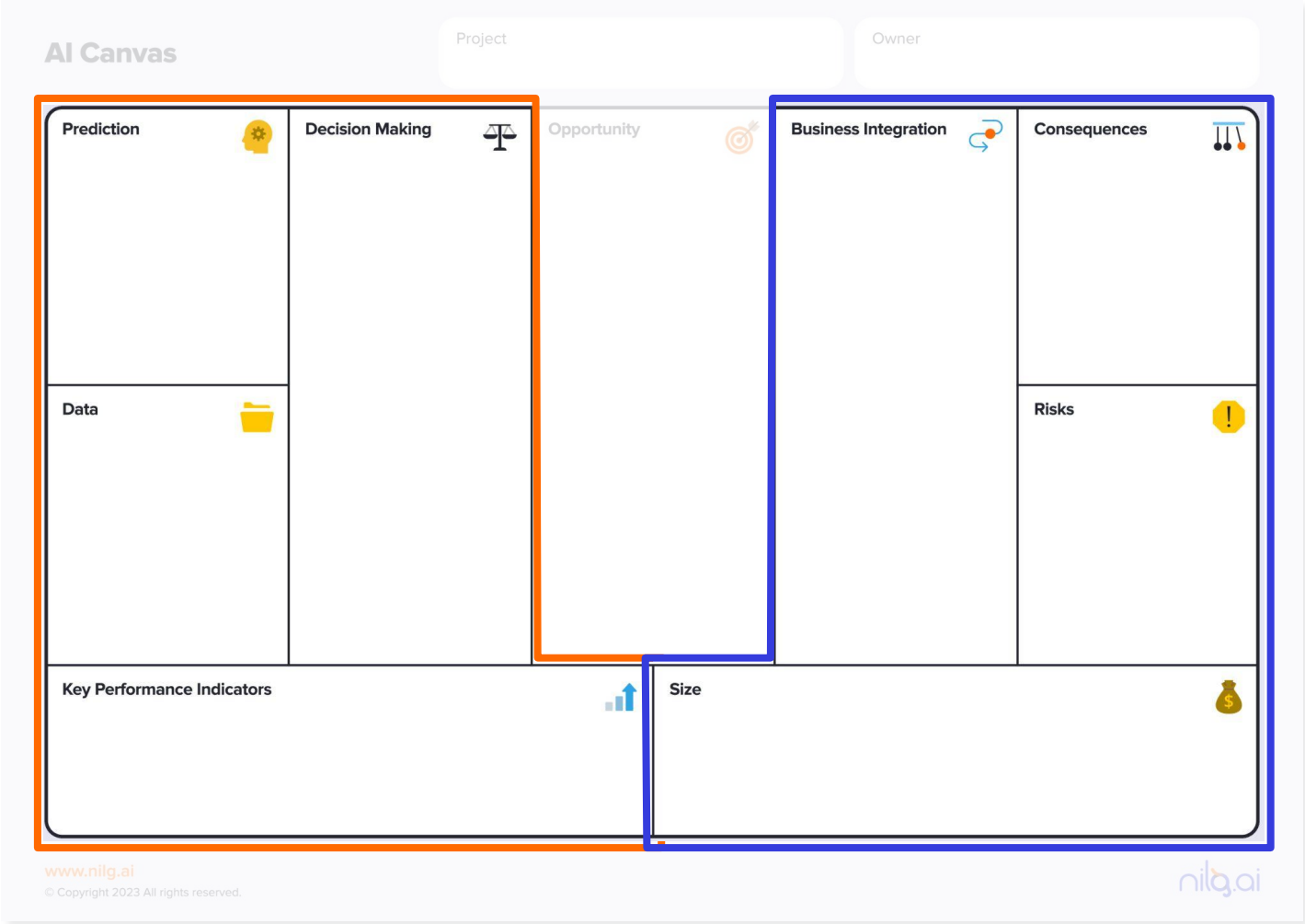
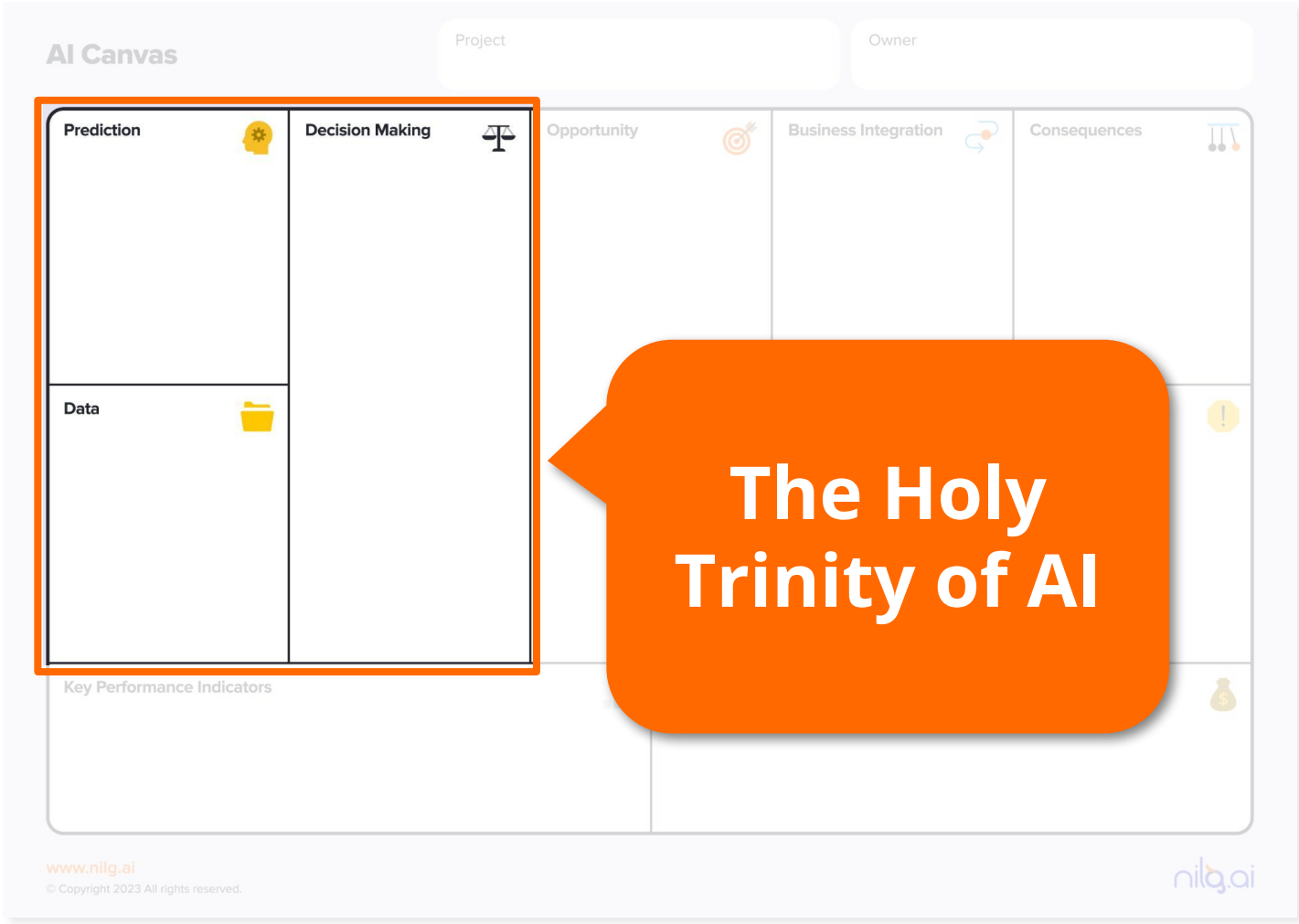
Technical



Business


AI Canvas
Project
Owner
Prediction
Decision Making
Opportunity
Business Integration
Consequences
Data
Key Performance Indicators
The Holy Trinity of AI
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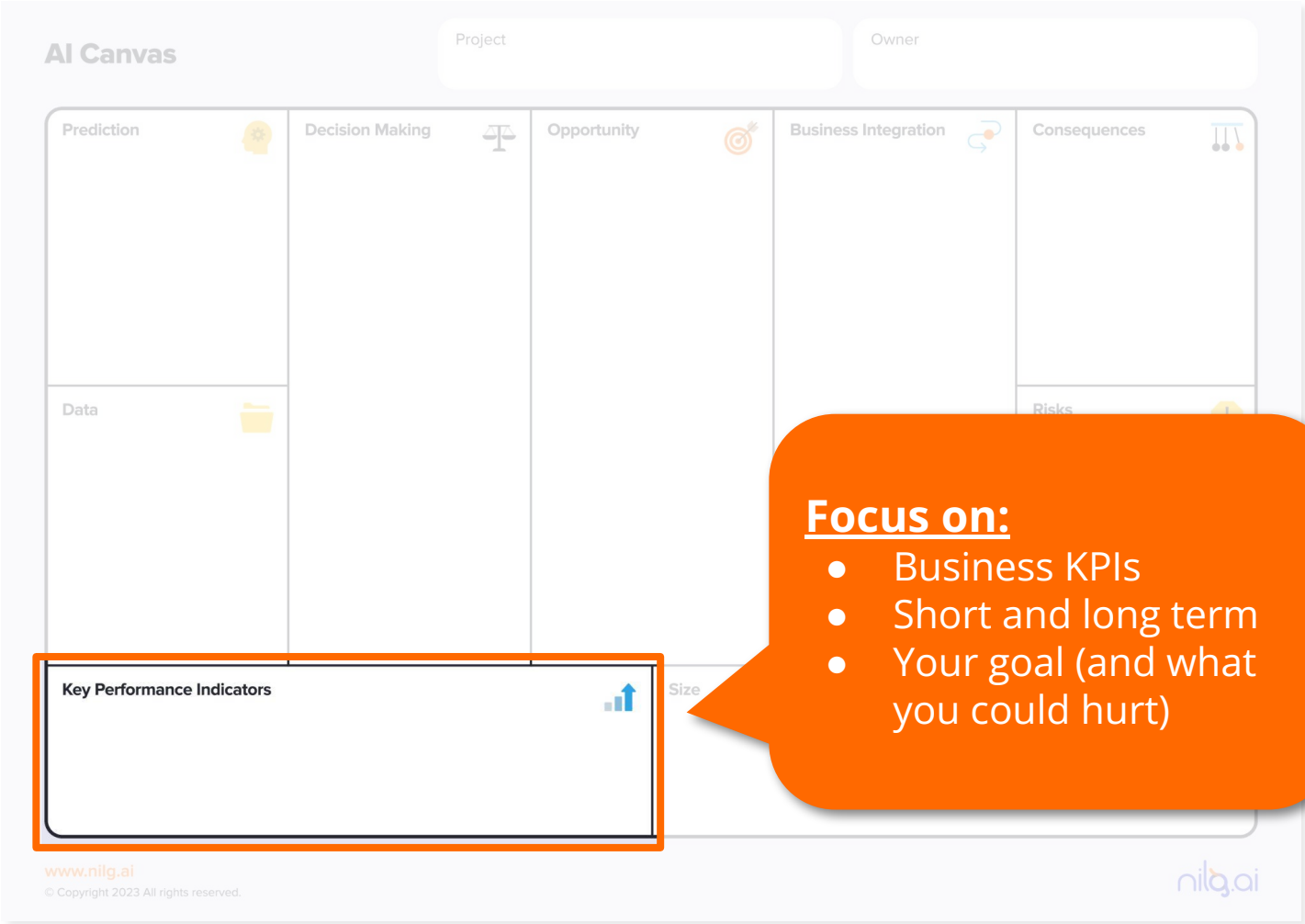
AI Canvas
Project
Owner
Prediction
Decision Making
Opportunity
Business Integration
Consequences
Data
Risks
Key Performance Indicators
Size
Focus on:
Business KPIs
Short and long term
Your goal (and what you could hurt)
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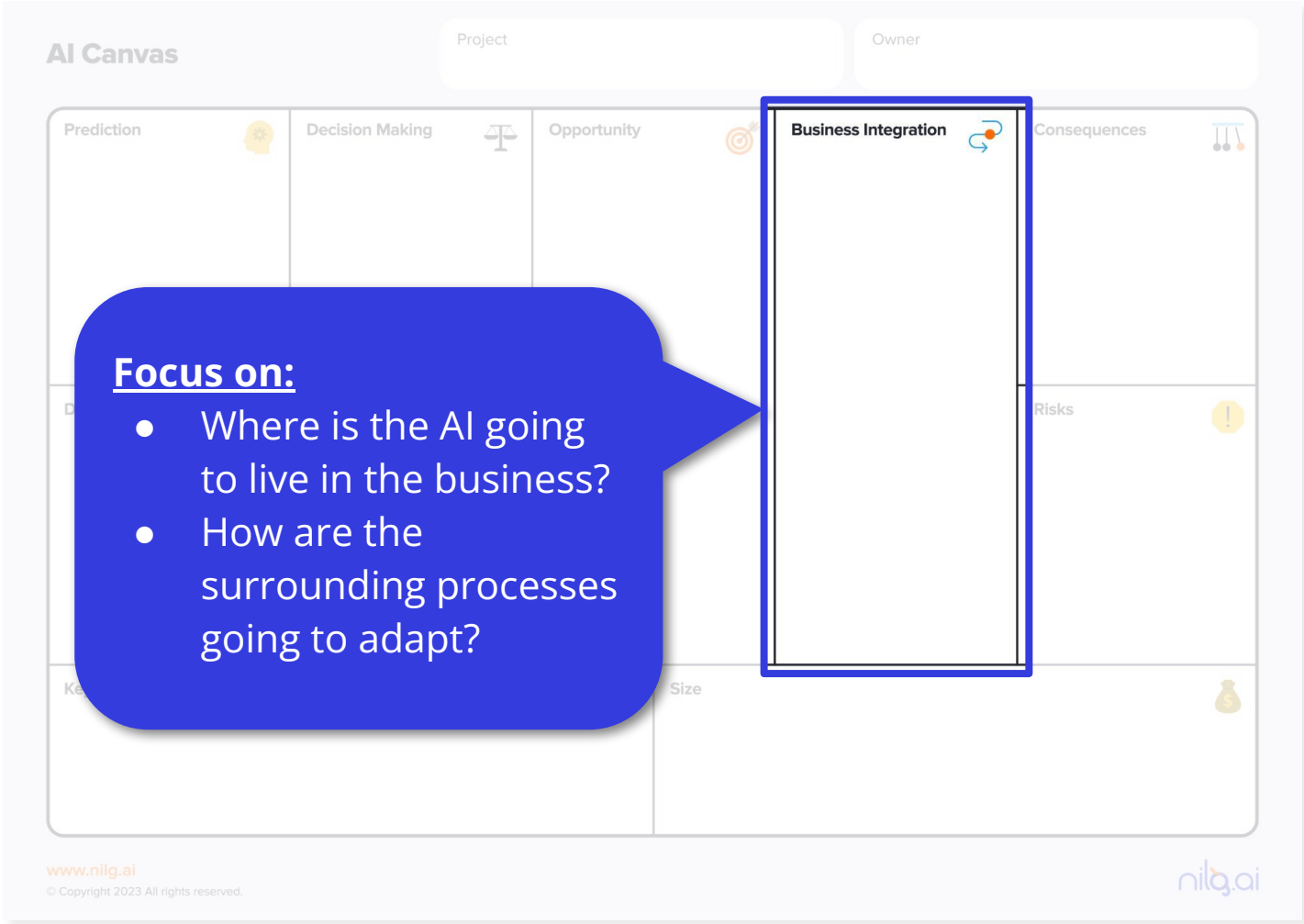
AI Canvas
Project
Owner
Prediction
Decision Making
Opportunity
Business Integration
Consequences
Risks
Size
Focus on:
Where is the AI going to live in the business?
How are the surrounding processes going to adapt?
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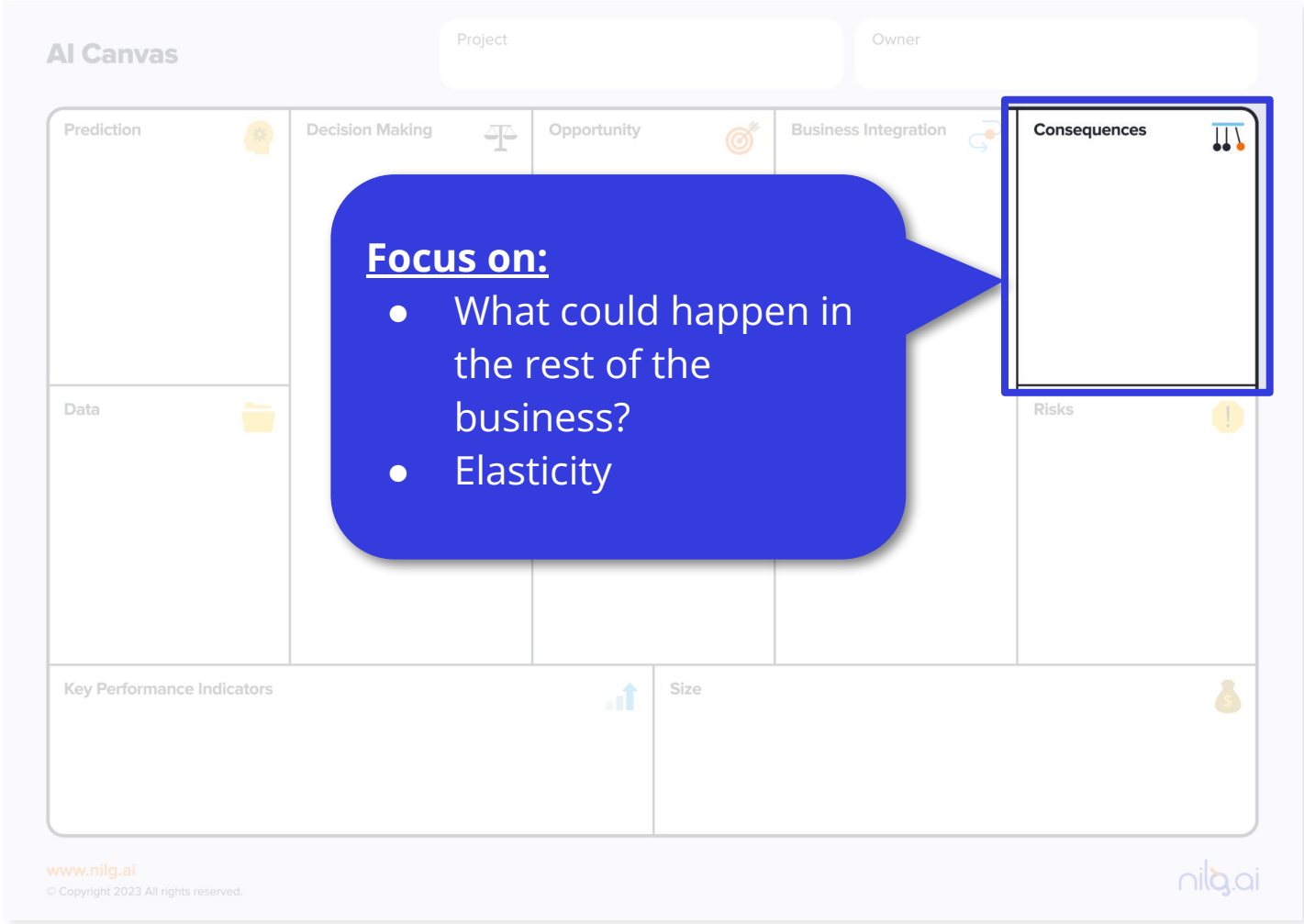
AI Canvas
Project
Owner
Prediction
Decision Making
Opportunity
Business Integration
Consequences
Data
Risks
Key Performance Indicators
Size
Focus on:
What could happen in the rest of the business?
Elasticity
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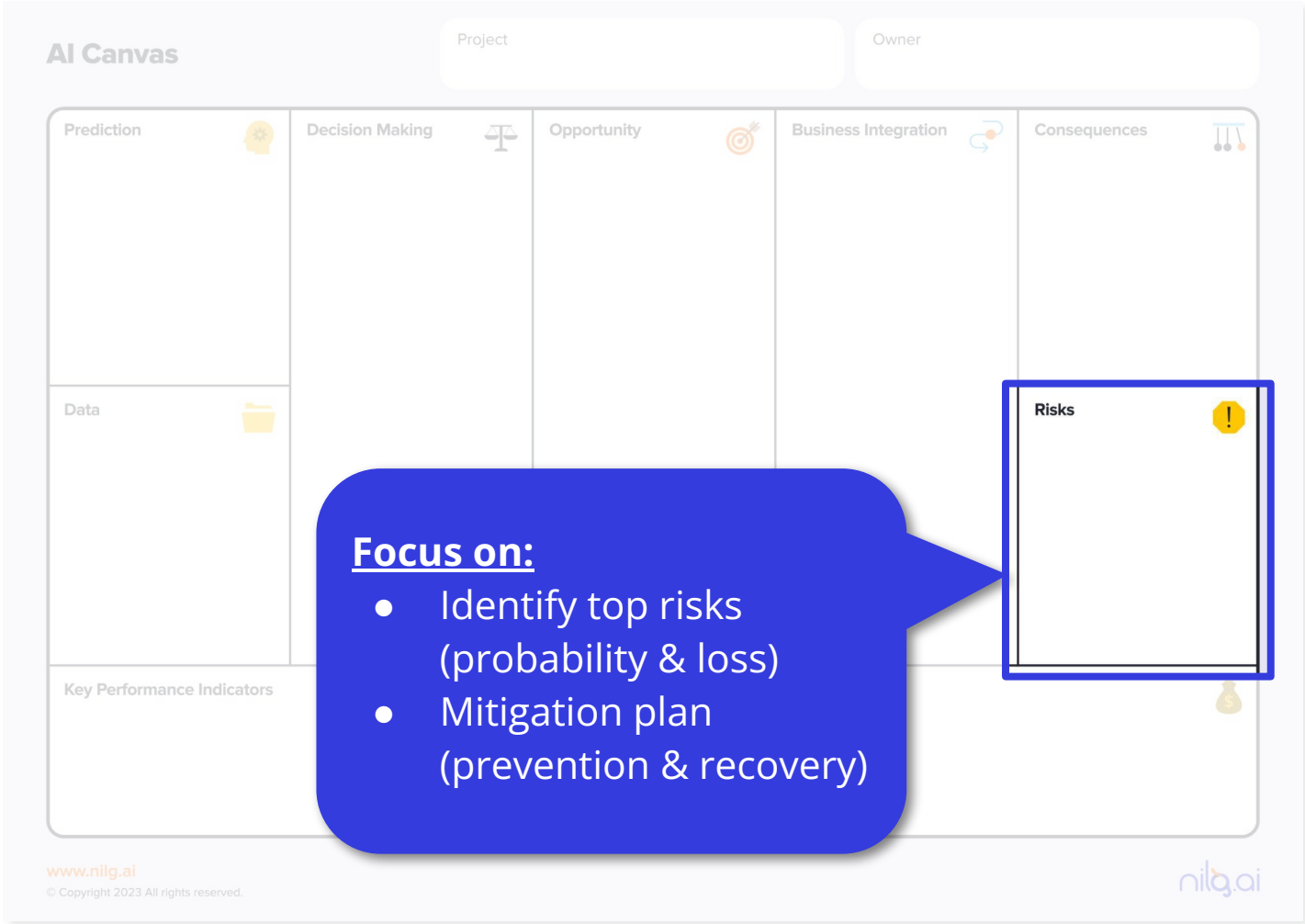
AI Canvas
Project
Owner
Prediction
Decision Making
Opportunity
Business Integration
Consequences
Data
Risks
Key Performance Indicators
Focus on:
Identify top risks (probability & loss)
Mitigation plan (prevention & recovery)
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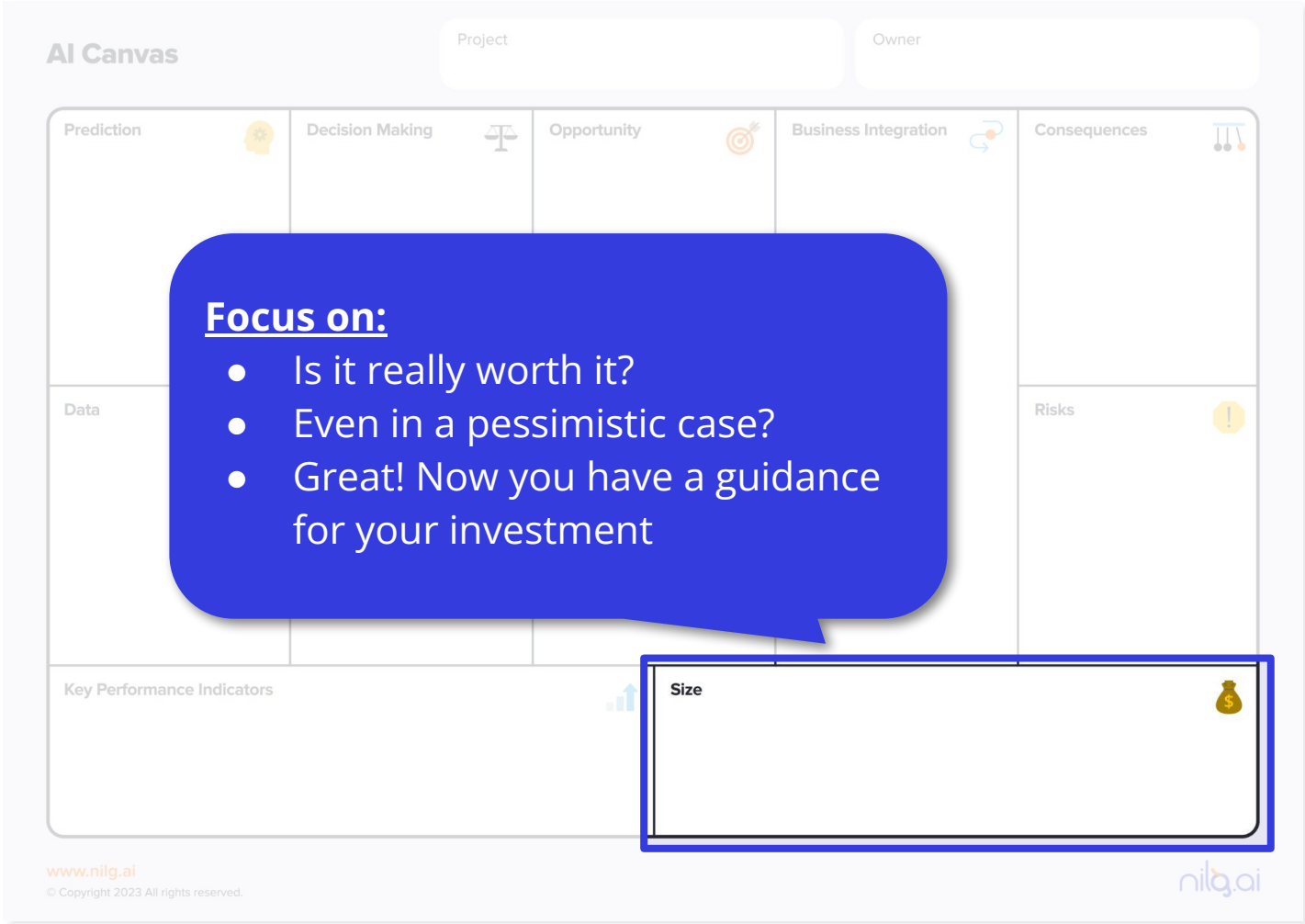
AI Canvas
Project
Owner
Prediction
Decision Making
Opportunity
Business Integration
Consequences
Data
Risks
Key Performance Indicators
Size
Focus on:
Is it really worth it?
Even in a pessimistic case?
Great! Now you have a guidance for your investment
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AI Canvas

Project	Owner

Prediction	Decision Making	Opportunity	Business Integration	Consequences
Data				**Risks**

Key Performance Indicators	Size

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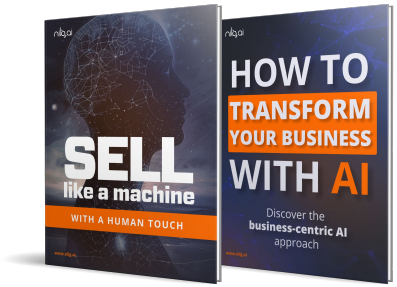

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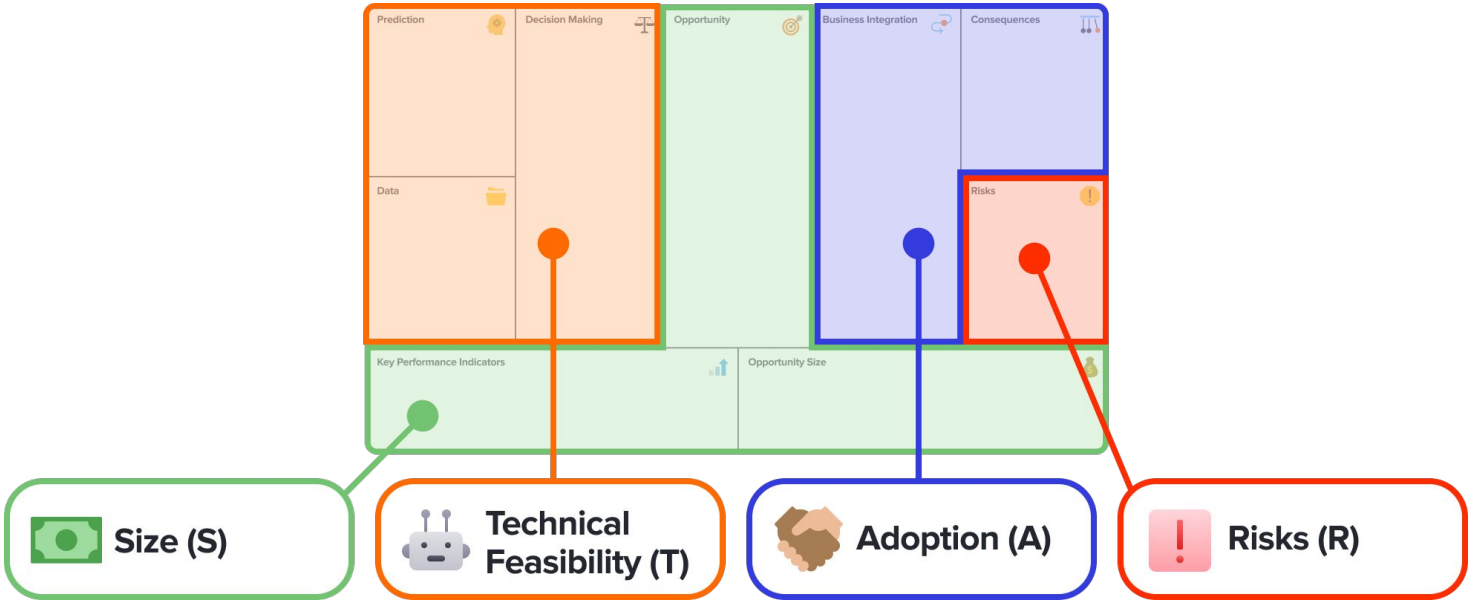
How to choose the
first quick win /
low hanging fruit?

STAR methodology



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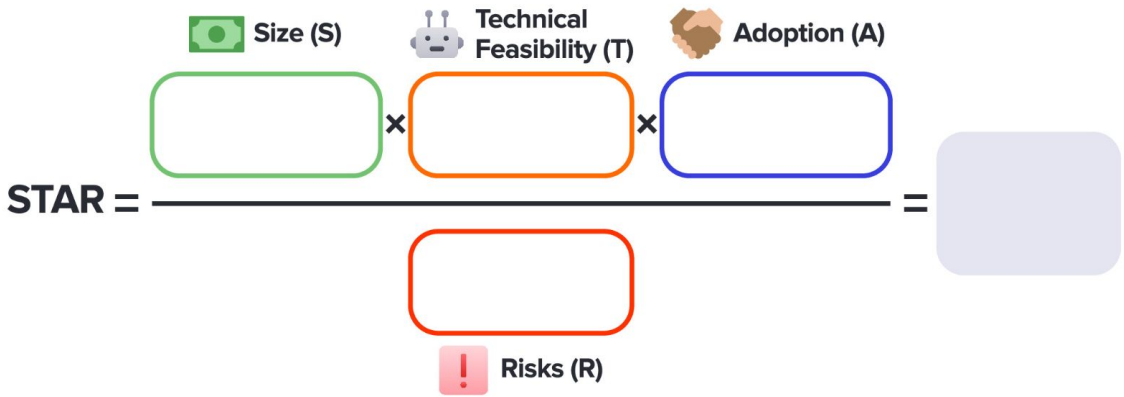
STAR methodology



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AI Canvas

Project

Owner

Prediction	Decision Making	Opportunity	Business Integration	Consequences
Data				**Risks**
Key Performance Indicators			**Size**	

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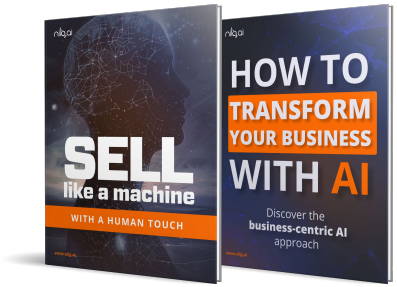

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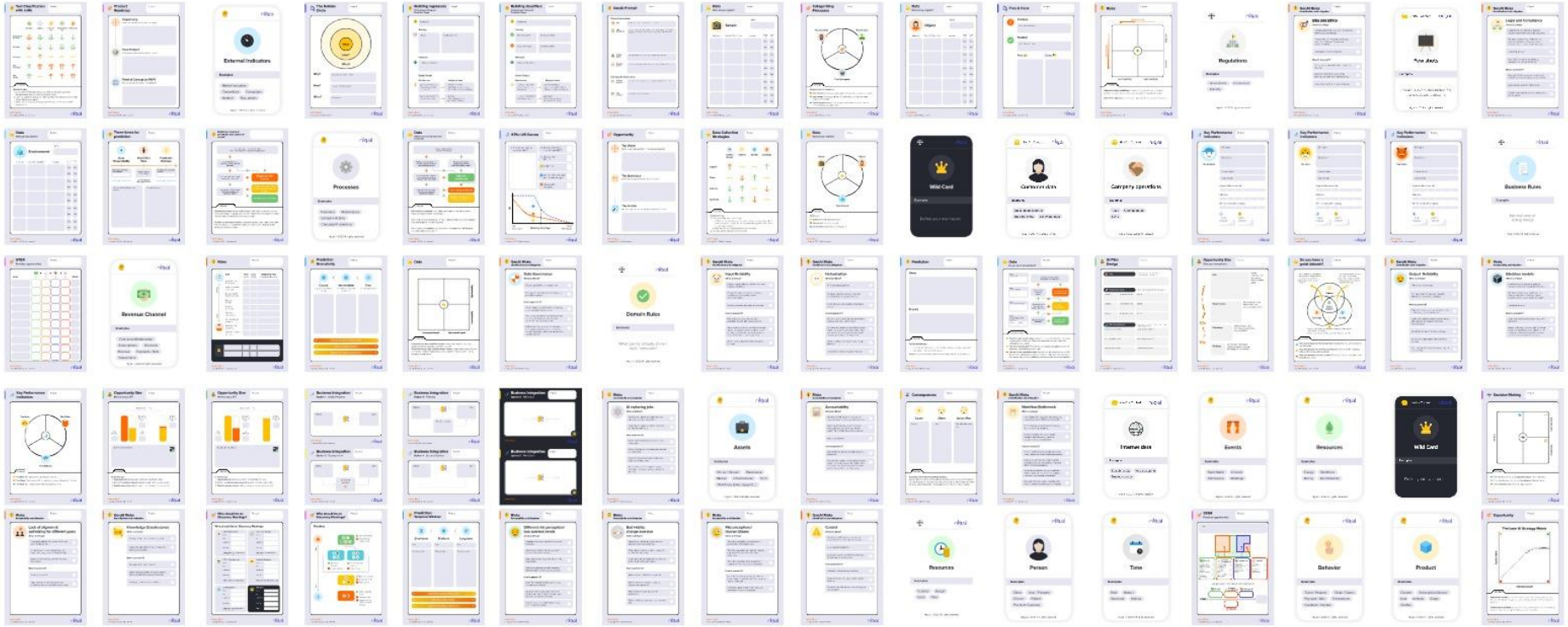

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See you later, alligator

Next Steps

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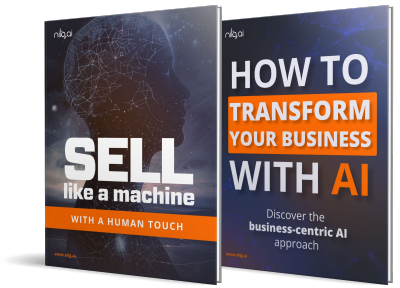
https://www.linkedin.com/company/nilg-ai



Q&A?

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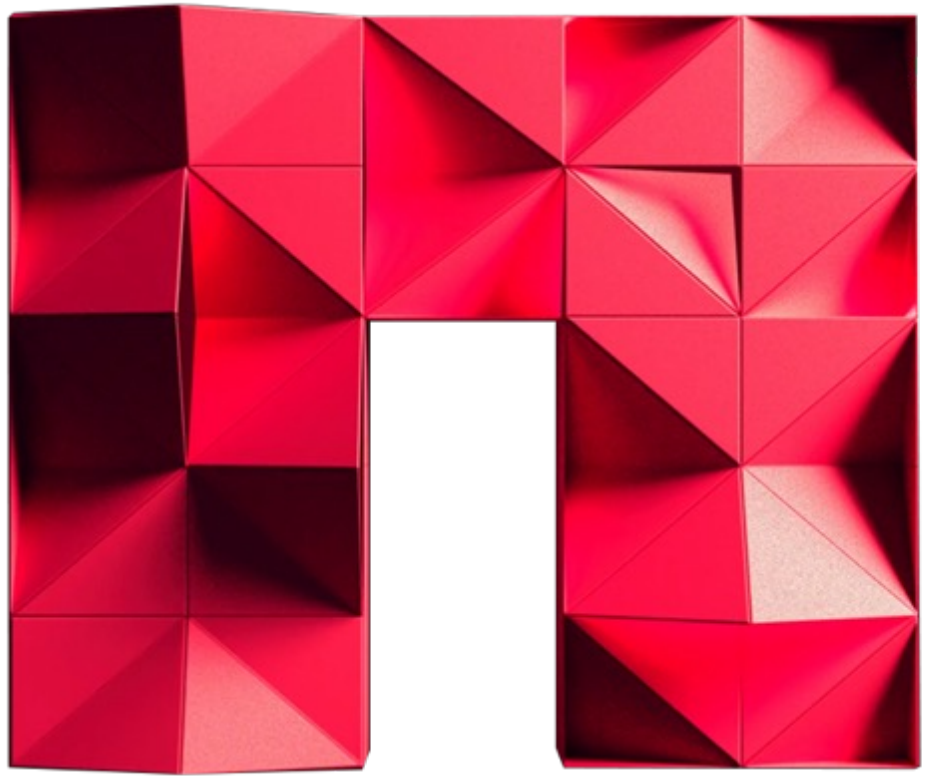
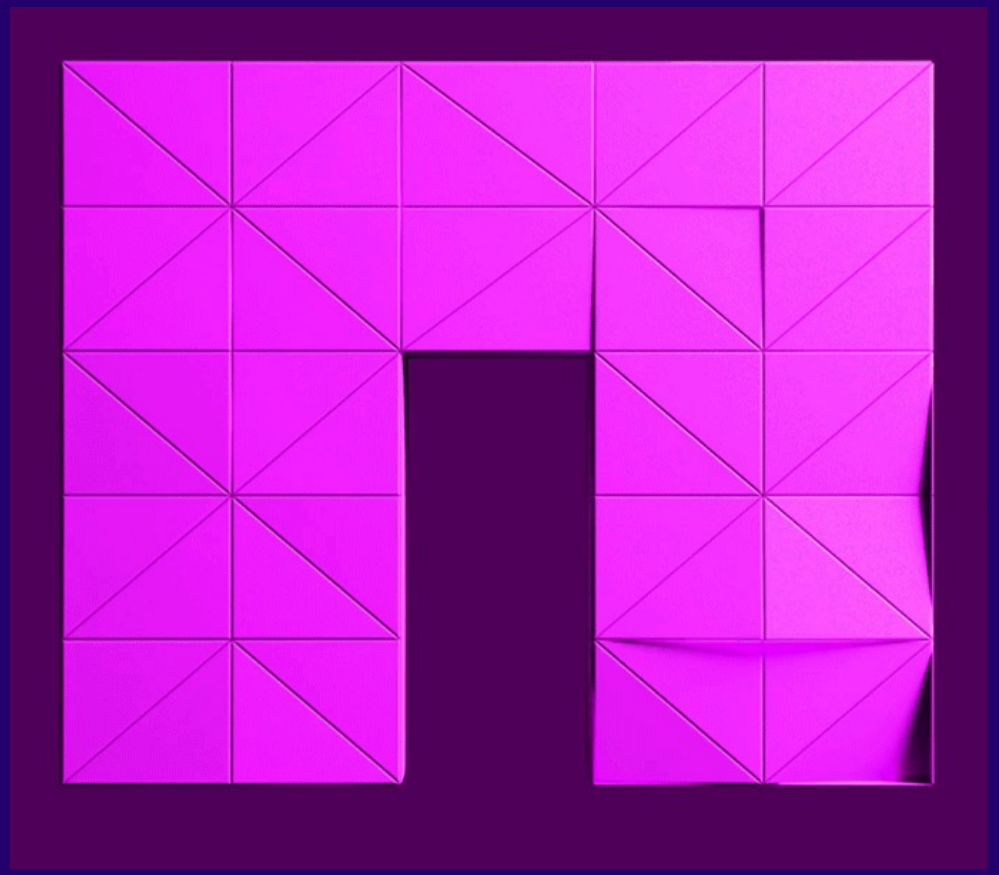
NetApp is the

INTELLIGENT DATA INFRASTRUCTURE COMPANY



PRR Plano de Recuperação e Resiliência
REPÚBLICA PORTUGUESA
Financiado pela União Europeia NextGenerationEU
MI MISSÃO INTERFACE
ANI AGÊNCIA NACIONAL DE INOVAÇÃO
CTI CENTROS DE TECNOLOGIA E INOVAÇÃO
Missão IN catim

NetApp



HI, WE'RE NETAPP

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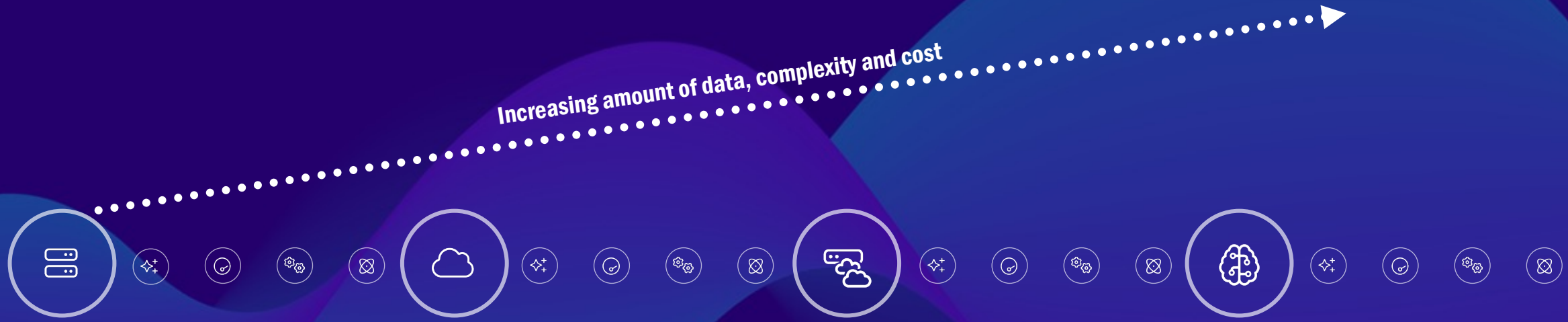
Across several eras in the age of data, NetApp has led in data infrastructure innovation



2002

Data Siloes & Unification

NetApp becomes the first vendor to **unify file & block workloads, and structured & unstructured data**

Hybrid Cloud

NetApp creates the first **data fabric strategy** that eliminates silos & provides unified control across any environment

Hybrid Multiclouds

NetApp becomes the ONLY vendor to introduce **cloud ops and data services** as key data infrastructure pillars in addition to being the **only vendor natively embedded in all major clouds**

Today

Intelligence

NetApp delivers **silo-free infrastructure,** then harnesses **observability and AI** to enable best data management everywhere

NetApp

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The Artificial Intelligence opportunity

AI is not only transforming industries but also shaping the future of work, the economy, and society at large

50%

Enterprise AI initiatives will boost productivity and creative problem-solving by 50%.*

Automation and Efficiency Improvements

60%

60% of workers will use their own AI to perform their tasks.*

Data Analysis and Insights

3YRS

Due to AI, the global average customer experience will improve for the first time in three years.*

Innovation and New Product Development

*Forrester 2024 predictions

NetApp

AI Has Captured Business Attention (and Budget)

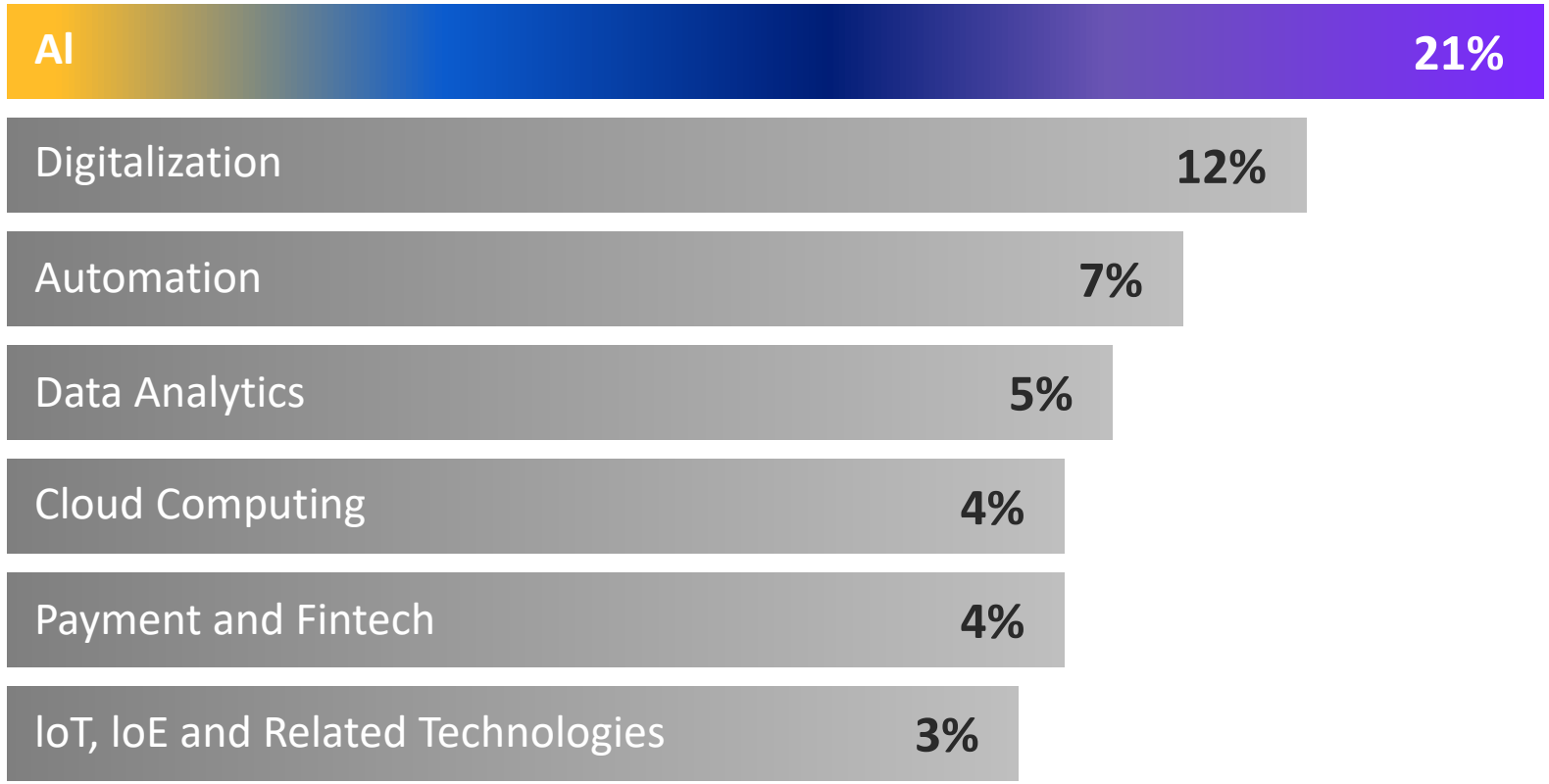
$1.8T
Generative AI market size by 2030

9 in 10
Organizations believe AI gives them a competitive advantage

2/3 occupations
could be partially automated by AI

Goldman Sachs

CEOs believe AI will most significantly impact their industries over the next 3 years



2023 CEO Survey (n=408). n varies, all respondents excluding NA/None/DK; Numbers may not total 100% due to rounding; Iot = Internet of Things; IoE = Internet of Everything. Source: Goldman Sachs, Gartner

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AI rewards are substantial...

7X

companies that succeed at AI will be fastest-growing

(Forrester)

$16 trillion

in business value by 2030

(PwC)

but success is elusive

76%

of execs acknowledge that they **struggle to scale AI successfully**

Only

18%

of companies have **implemented multiple enterprise AI projects**

(Deloitte, PwC)

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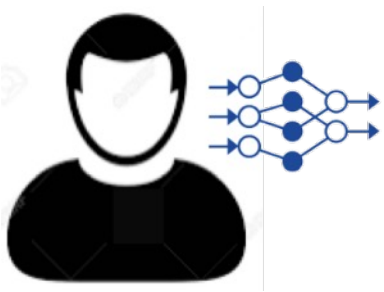
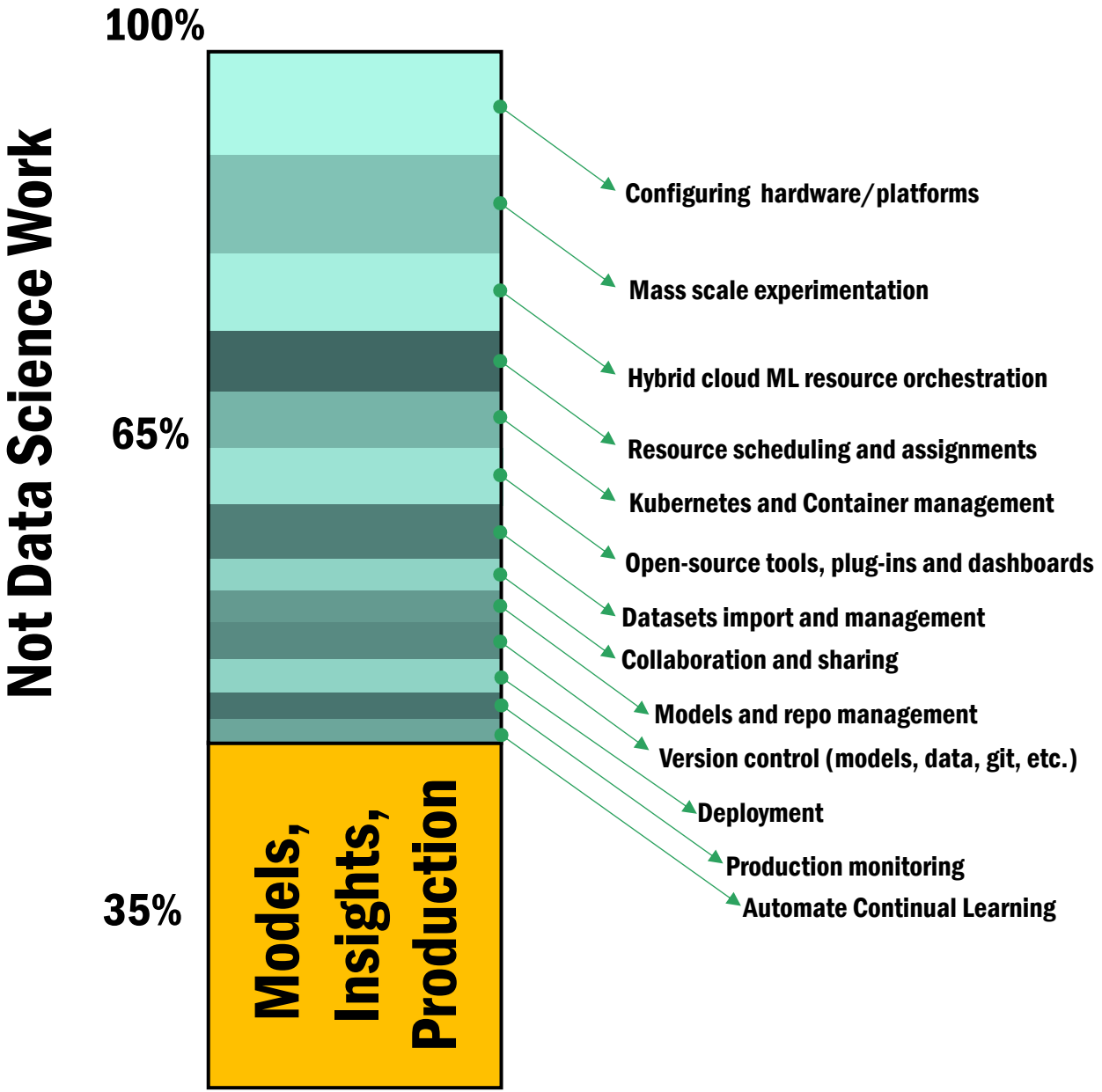
AI Industry Pain Points

Data Scientists are doing very little Data Science



Data Scientist Work Distribution*



85% OF MODELS DON'T GET TO PRODUCTION

50% OPEX WASTE

2X SLOWER TIME TO MARKET

30% REVENUES LOST

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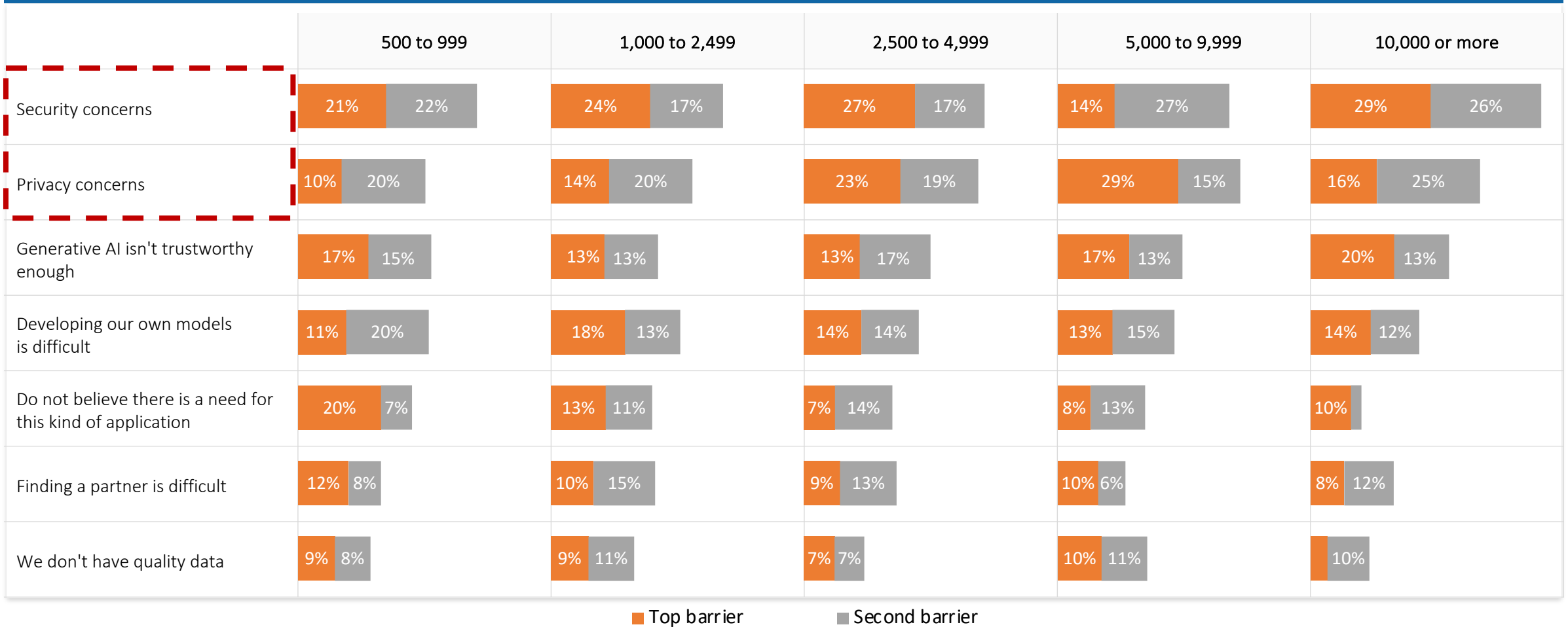
Top two barriers to using Generative AI in your organization by company size

What are the top two barriers to using Generative AI in your organization? .....Top vs. Second



Source: Future Enterprise Resiliency & Spending Survey Wave 6, IDC, July 2023, N=890, 500 to 999: 137; 1,000 to 2,499: 328; 2,500 to 4,999: 175; 5,000 to 9,999: 135; 10,000 or more: 115

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NetApp

SIMPLICITY AT SCALE

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Artificial intelligence challenges demand... intelligent data infrastructure

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Intelligent data infrastructure turbocharges AI

Maximize the potential of AI and secure a competitive advantage with NetApp

DATA MANAGEMENT SIMPLICITY

Optimized data provisioning

Fast, efficient data cloning

Hybrid multi-cloud optimized

HIGHEST PERFORMING DATA

Accelerate performance

Eliminate data silos

Eliminate application silos

TRUSTED SECURE DATA

Model traceability

Built-in cybersecurity

Sensitive data detection

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WHY NETAPP >

Customers See Business-Visible Results, and the Industry Has Noticed

Run 5x More data through your pipeline

<60 seconds Copy datasets in seconds rather than hours or days

~20 minutes To configure your AI infrastructure with Ansible integration

NetApp AI has won eight AI industry awards since 2019

A Leader in Gartner Magic Quadrant for Primary Storage Arrays

A Leader in Cloud File Systems

A Leader in Object Storage

A Leader in File-Based Storage

4 years of AI experience with 100s of published documents and 30+ dedicated AI team members

Top NVIDIA partner, 4 years of continuous development with NVIDIA

Over 400 worldwide customers

>50% YoY revenue growth

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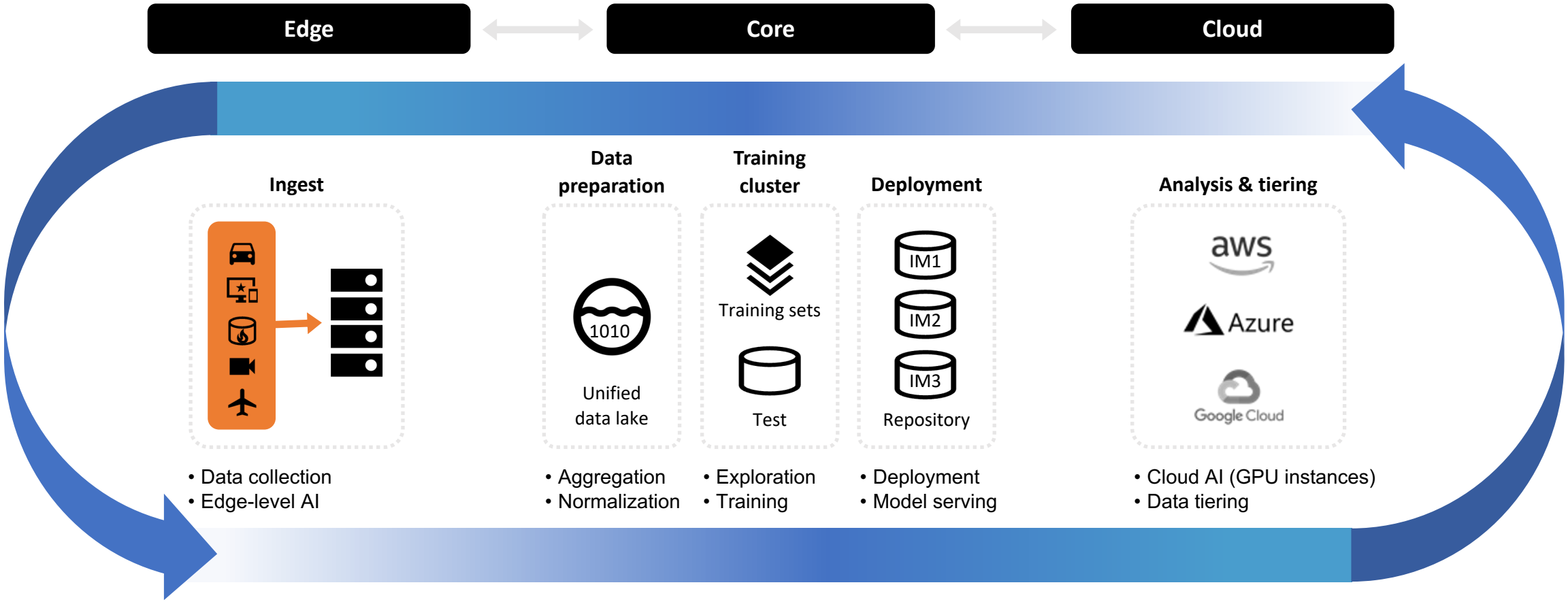
The best data for AI is data that moves freely

Build a data fabric that meets you where you are and where you want to be



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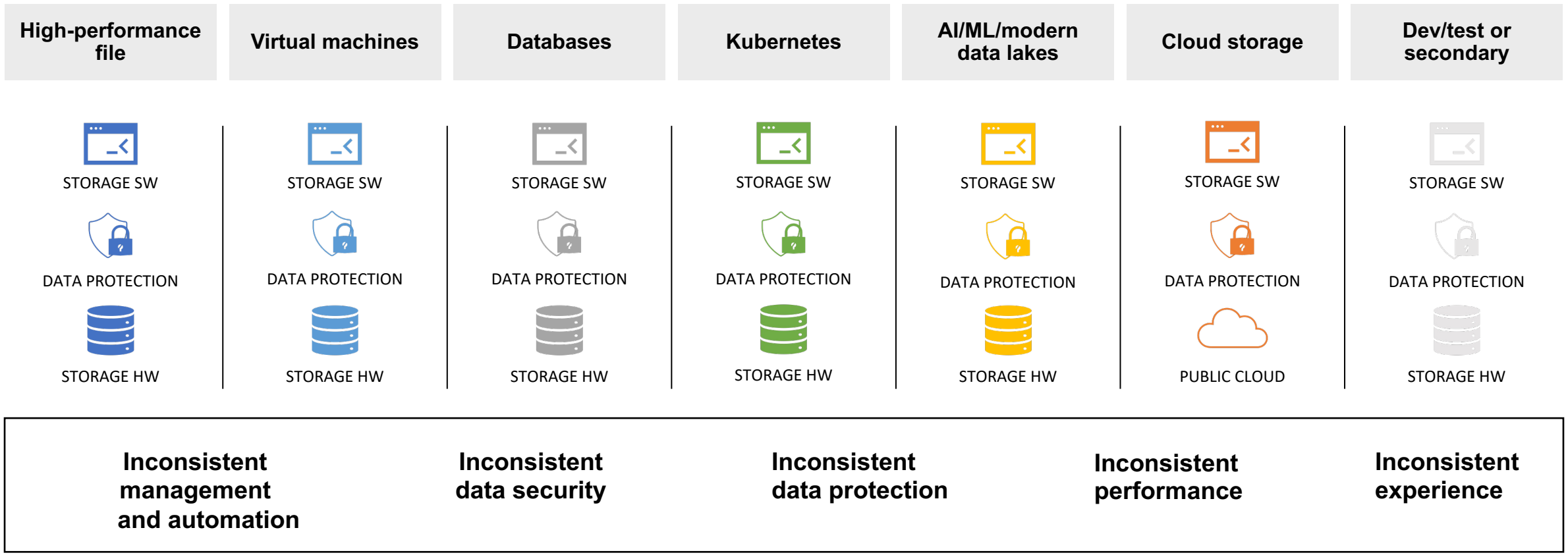
Complexity is the silent killer of IT productivity

Bespoke infrastructure silos across app, data, cloud are inefficient, costly, and introduce risk



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Increase productivity and minimize risk with unified simplicity at scale

Increase productivity and minimize risk with unified simplicity at scale

High-performance file	Virtual machines	Databases	Kubernetes	AI/ML/modern data lakes	Cloud storage	Dev/test or secondary

ONTAP

ONLY NETAPP

Comprehensive data management software delivering automation, efficiency, data protection, and security capabilities for file, block, and object

aws Microsoft Azure Google Cloud IBM Cloud SaaS

- ✓ **Consistent management and automation**
- ✓ **Consistent data security**
- ✓ **Consistent data protection**
- ✓ **Consistent performance**
- ✓ **Consistent experience**

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Data storage that grows with your business

START SMALL

Storage for any budget with entry-level storage

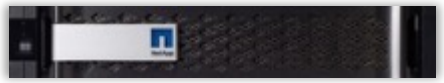
SCALE UP

Non-disruptively add massive capacity as needed

DRIVE COSTS DOWN

Adopt capacity flash at scale

PROTECT YOUR DATA



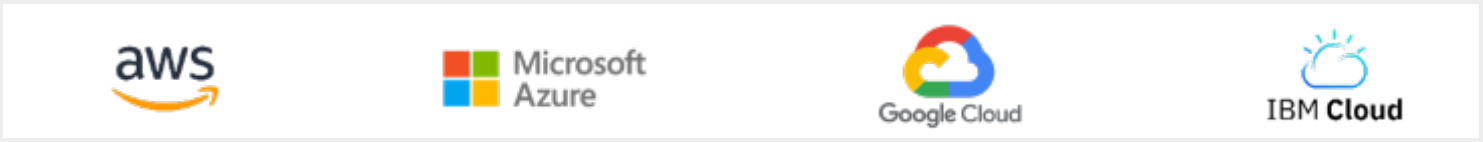
Leverage disk for secondary data for cost savings

SCALE OUT: One unified cluster with non-disruptive data mobility

No bespoke infrastructure or data silos – just one simple data infrastructure powered by ONTAP

ONTAP

Comprehensive data management software delivering automation, efficiency, data protection, and security capabilities for file, block, and object



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NetApp

THE MOST SECURE STORAGE ON THE PLANET

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NetApp secures and protects against today's top concerns

Integrated security is incorporated throughout the NetApp portfolio

Compromised administrator credentials—**multifactor authentication (MFA)**

Stolen data—**layered encryption**

Assured data retention—**write once, read many (WORM) storage**

Hacked software images—**secure boot**

Rogue administrators—**multi-admin verification and audit logging**

Ransomware attacks—**NetApp® Snapshot™ copies and integrations**

Lateral network attacks—**secure multitenancy (SMT)**

Disaster outages—**data replication**

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Full-spectrum data protection built into ONTAP

Secure your data, recover from disaster, spot the attack, and thwart ransomware

PROTECT

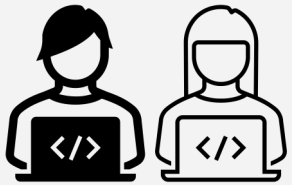
Policy Engine

Automatically block known malicious file types

Immutable WORM Primary Data & Tamper-Proof Snapshots

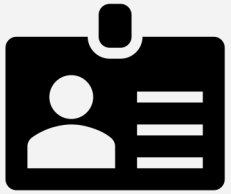
Prevent data destruction with immutable and indelible snapshots

Multi-Admin Verify



Block rogue admins and malicious users

End-to-End Encryption



Secure data access, end-to-end

DETECT

Autonomous Ransomware Protection

Automatically detect and respond to file system anomalies that may signal a ransomware attack – **built into ONTAP**

RECOVER

SnapRestore

Restore data in minutes from secure snapshots

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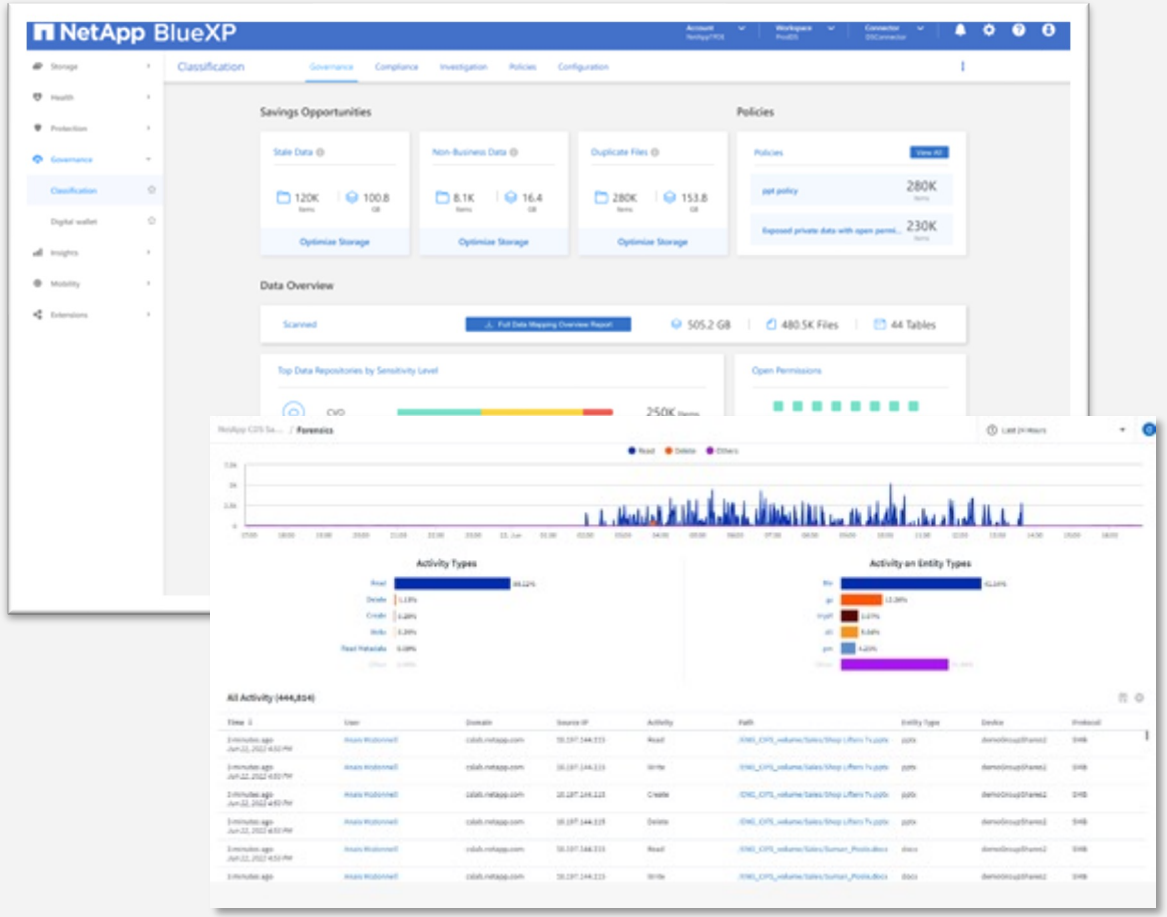
Some words from our lawyers… No ransomware detection or prevention system can completely guarantee safety from a ransomware attack. While it's possible an attack might go undetected, NetApp technology acts as an important additional layer of defense.

Deep dive into your data with ease

Additional hybrid multicloud services to give you control over your data



NetApp BlueXP & Cloud Insights

- Monitor for and alert on data access and **anomalous user behavior**
- Get **file-level forensics** and system auditing.
- **Discover, classify, and categorize** data and access across endpoints and clouds.
- Locate **personal, sensitive, or regulated** data.
- Pull **compliance reports** in minutes.

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Some words from our lawyers… No ransomware detection or prevention system can completely guarantee safety from a ransomware attack. While it's possible an attack might go undetected, NetApp technology acts as an important additional layer of defense.

NetApp Ransomware Recovery Guarantee

For enterprise primary storage

NetApp will **warrant snapshot data recovery** in the event of a ransomware attack

If you can’t recover your data copies with help from NetApp or partner assistance, NetApp will **offer compensation**

Deployed NetApp AFF C-Series and ASA A-Series storage according to NetApp ransomware protection best practices, with support from NetApp PS. Warranty includes both technology deployment and PS engagement. Terms and conditions apply.

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NetApp

USE CASES & REAL RESULTS

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Real Results with NetApp Data Solutions for AI

PONG YUEN

6X
Increased machine learning performance

SECONDS
Instead of hours to create dataset copies

Using AI to solve **real-world challenges** in the metaverse

cambridge consultants
Part of Capgemini Invent

400+
Delivered projects per year

PETAFLOP-SCALE
containerized computer on site

PARTNERS: SCAN NVIDIA NetApp

Discover, develop, and test machine-learning approaches in a fast, secure environment

KING'S College LONDON

Patients care transformed for **8+ MILLION**

Scaled the platform to other organizations

PARTNERS: SCAN NVIDIA NetApp

The first clinical provider in Europe to **rethink the practice of radiology by adopting an AI solution**

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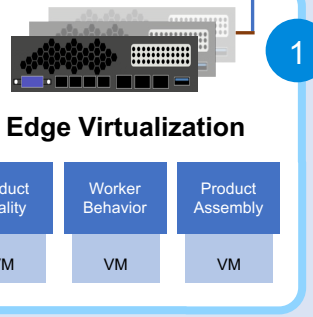
OT/IT Convergence - Industry 4.0

Multifaceted Workflows in Manufacturing

1. AI/ML Inferencing
2. AI/ML Model Training
3. OT/IT Convergence: Supply Chain
4. Knowledge Sharing: Performance Tier
5. Backup & DR, Audit Trails

Multi-Angle Video

Acoustic



1

Condition Filter Store

MetaData

ONTAP

Analytic updates

Data Historian Replication to Cloud

- ONTAP: block level database replication & sync
  - Bandwidth efficiencies
- Leverage 1st party tiered service: FSxN, CVO
- SPOT: cost optimization, cyber threat detection
- Instaclustr: Automation and repeatability

3 Run enterprise supply chain optimization analysis

4 Securely share knowledge with external vendors for maintenance planning

5 Historian copy available as disaster recovery failover target

1 AI/ML Inferencing Support

- Very small footprint
- Far edge virtualization: Containers & VMs
- Mixed workload support
- Includes NetApp Data Services

AIoT Edge Inferencing

- Prescriptive maintenance
- Product quality control
- Production optimization
- Worker EHS
- Supply chain connectivity

Plant Data Aggregation

FlexPod or AFF

Data Historian 3

MES

Ontap FSxN, CVO

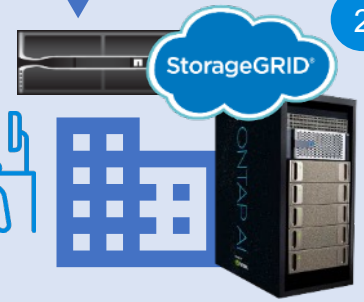
2 AI/ML Model Training

Cloud

- High performance tier
- Optimized data movement to cloud

On-Premise

- ONTAP AI: HPC storage matched to NVIDIA A100 / DGX GPU compute
- Cloud Sync data mover for image objects movement from edge

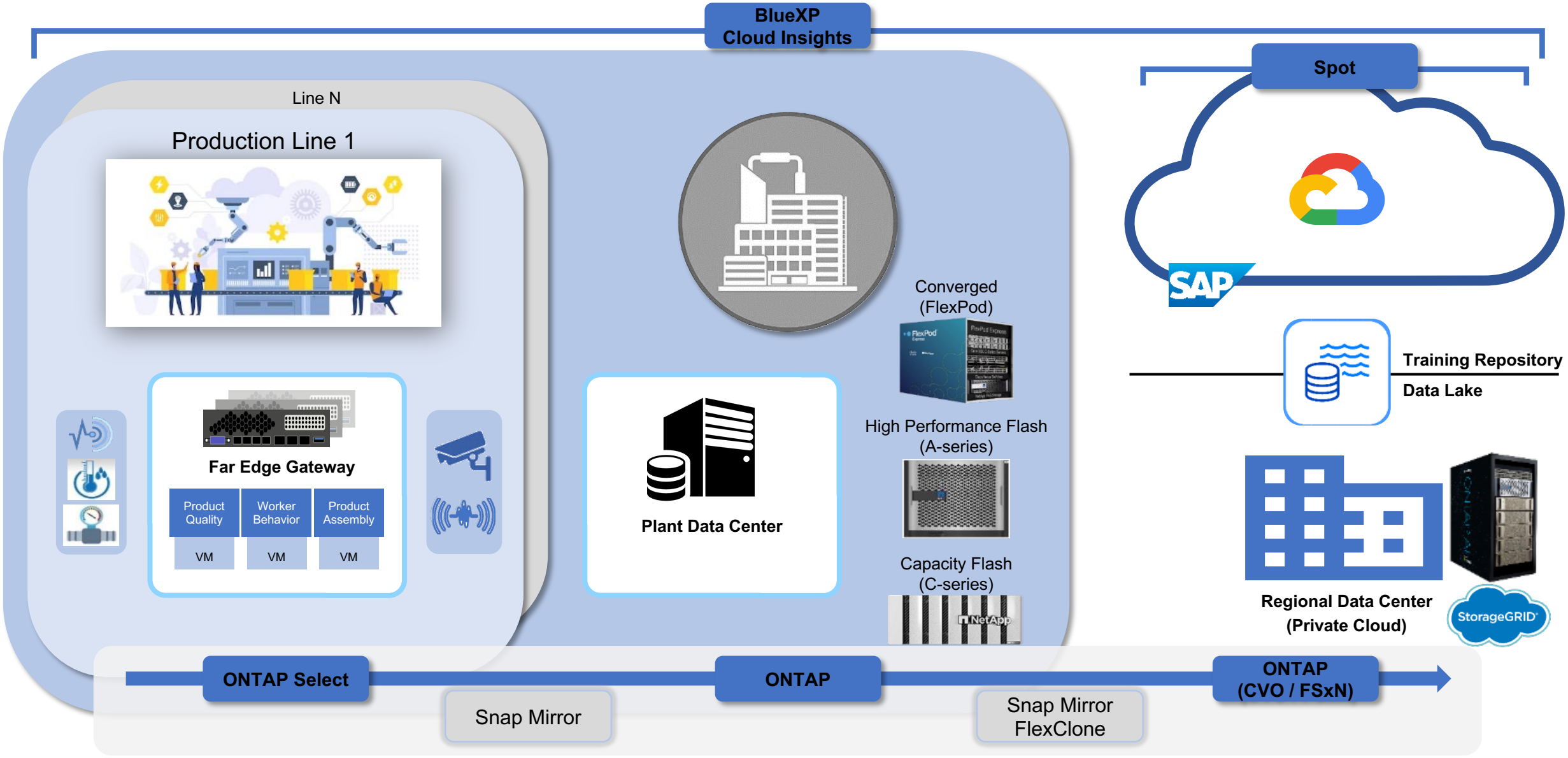


2 **Regional Data Center**

- Provisioning
- Push Services
- Monitoring

AI in Industrial Manufacturing

Unified experience for storage and data services across on-premises and cloud environments



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NetApp IoT in Oil & Gas

Multifaceted Workflows – Condition monitoring, Digital Twin

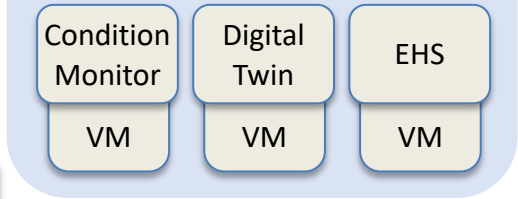
Field / Plant Operations
- Prescriptive maintenance
- Worker EHS

MetaData

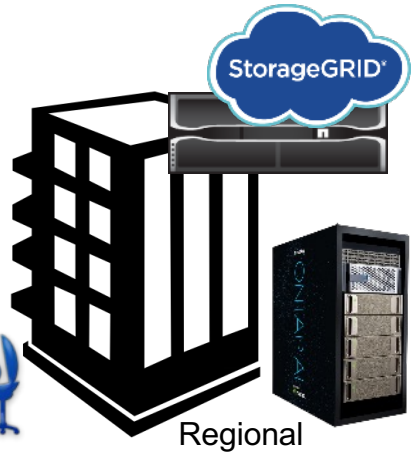
Enterprise
- Site to Site comparisons
- Supply chain optimization
- Secure external vendor interactions

FlexPod or AFF

Data from Plant
- Training Data / Model Updates
- Backup & DR
- Operations MetaData Dashboards



Analytic updates



Regional Data Center

- Provisioning
- Push Services
- Monitoring

Digital Twin Simulation
- Maintenance modeling
- Capacity planning
- Energy efficiency modeling

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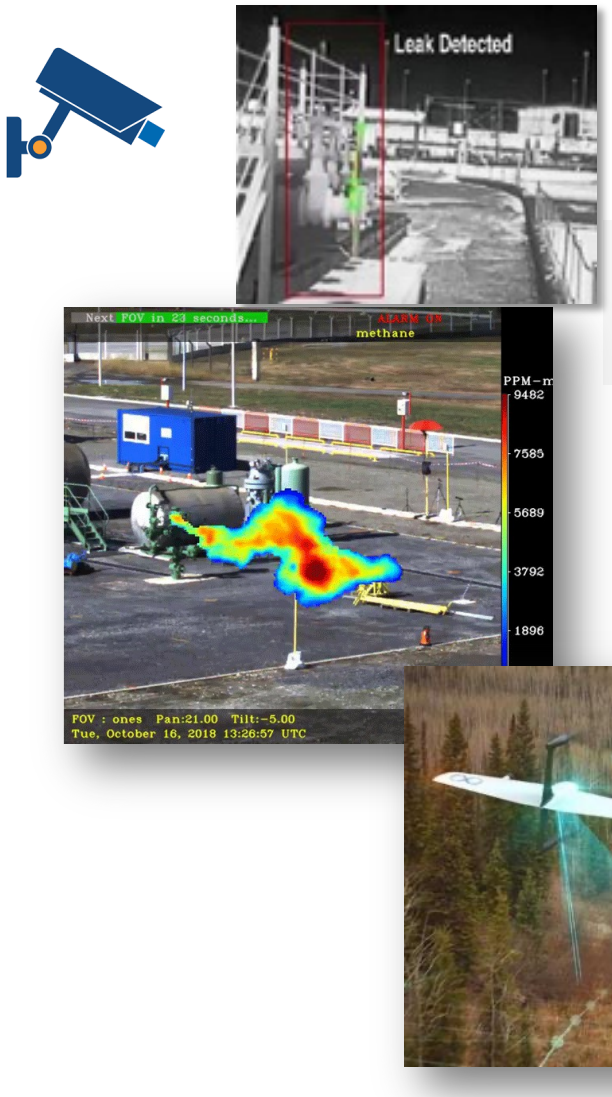
NetApp IoT in Oil & Gas

Multifaceted Workflows – Environmental Monitoring

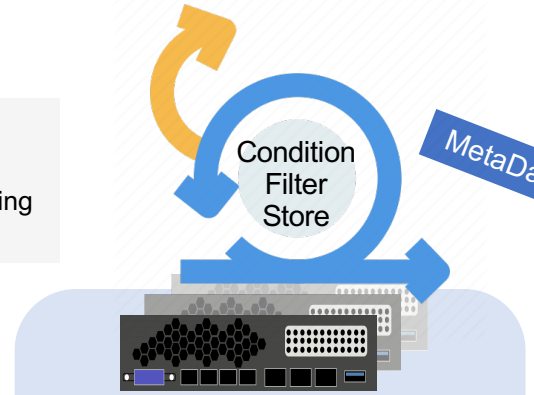


Leak Detection

- Spectral imaging
- Acoustic monitoring
- Mass balance

AI/ML Data Lake

- Training data
- Version auditability



MetaData

FlexPod or AFF

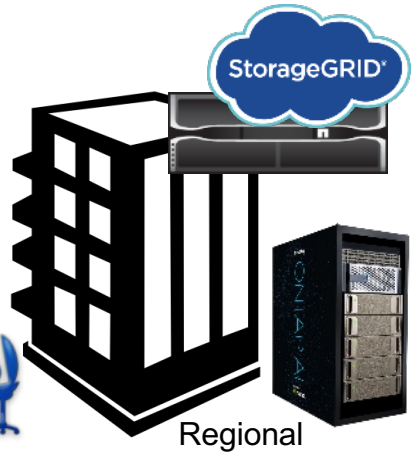
Data from Plant

- Training Data / Model Updates
- Backup & DR
- Operations MetaData Dashboards

Edge Virtualization

Condition Monitor	Digital Twin	EHS
VM	VM	VM

Analytic updates



Regional Data Center

- Provisioning
- Push Services
- Monitoring

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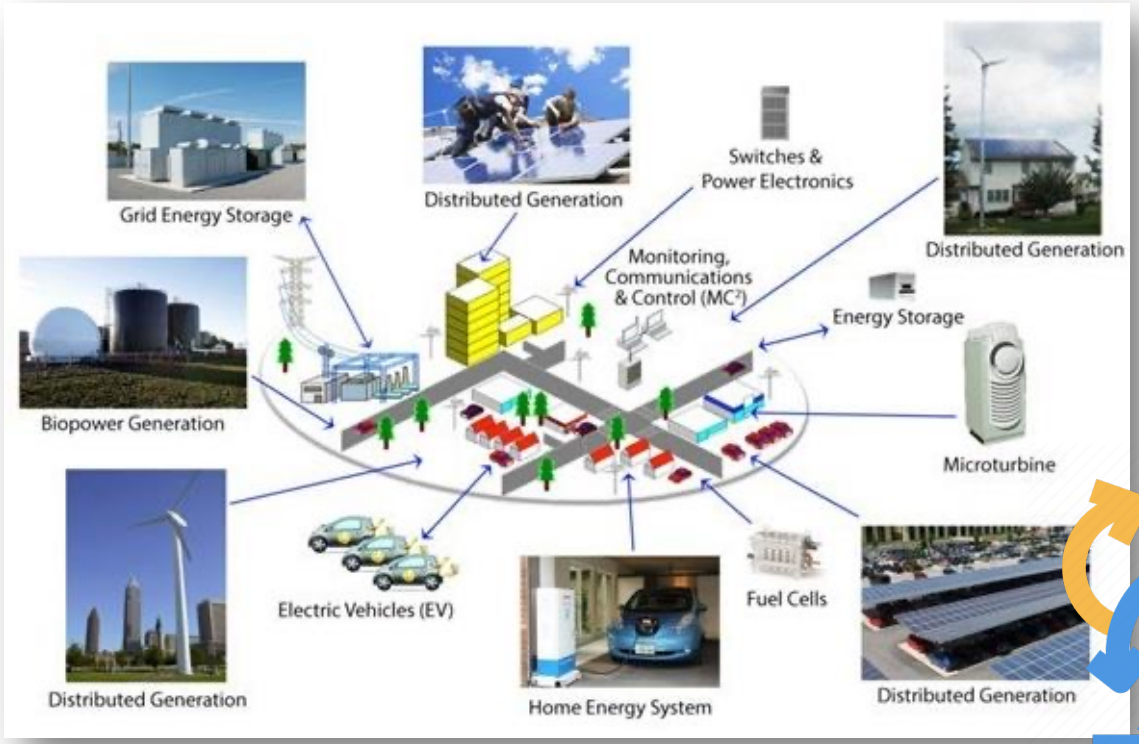
NetApp IoT in Distributed Energy Resources (DER)

Multifaceted Workflows – Load monitoring, Asset health



Field Data Aggregation

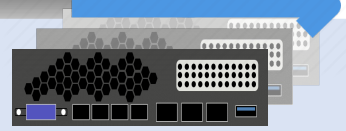
FlexPod or AFF

FIS

Condition Filter Store

Analytic updates

MetaData



Edge Virtualization

Condition Monitoring	Load Monitoring	Asset Inspection
VM	VM	VM

Regional Data Center

Data from Plant

- Training Data / Model Updates
- Backup & DR
- Operations MetaData Dashboards

- Provisioning
- Push Services
- Monitoring

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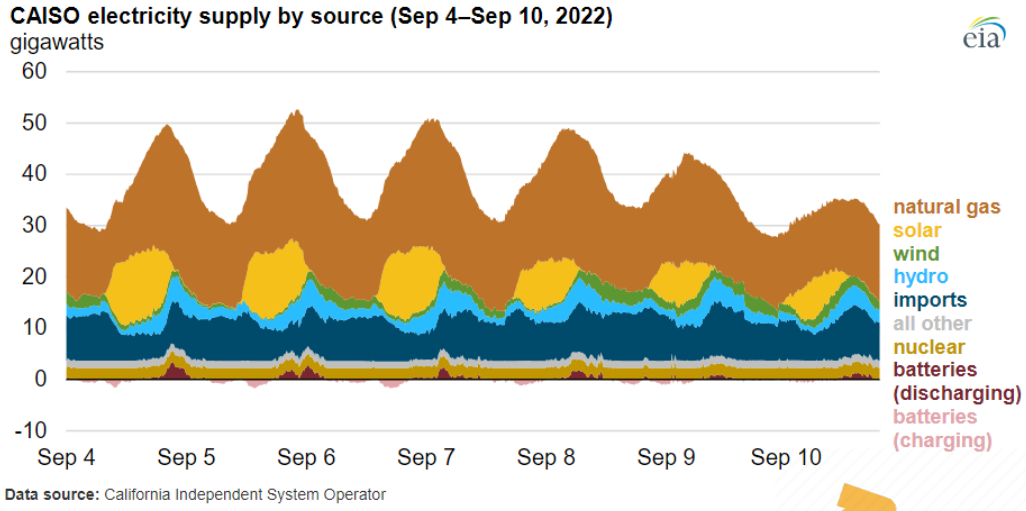
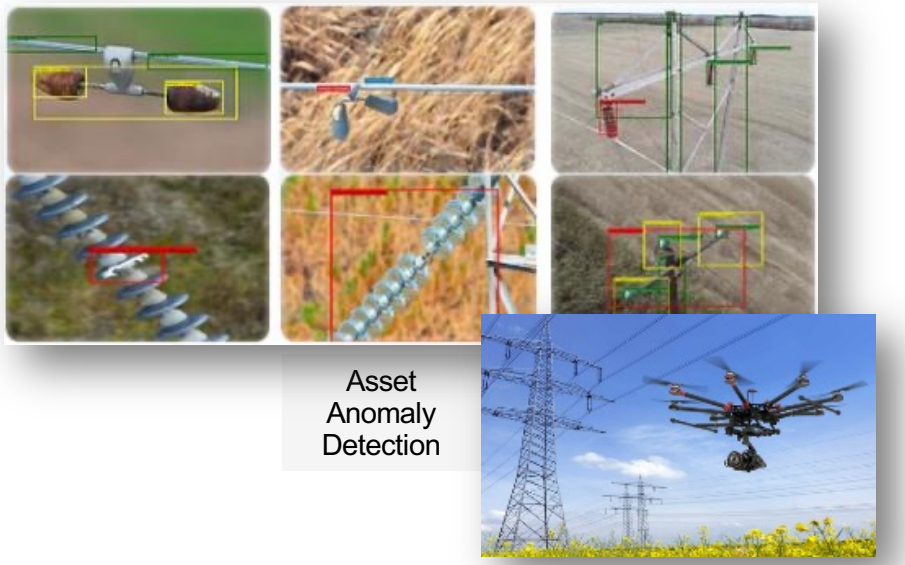
NetApp IoT in Distributed Energy Resources (DER)

Multifaceted Workflows – Load monitoring, Asset health

Load Demand Forecasting





Asset Anomaly Detection

Field Data Aggregation

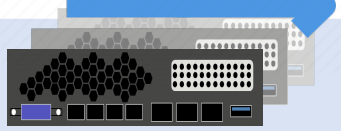
FlexPod or AFF

FIS

Condition Filter Store

Analytic updates

MetaData

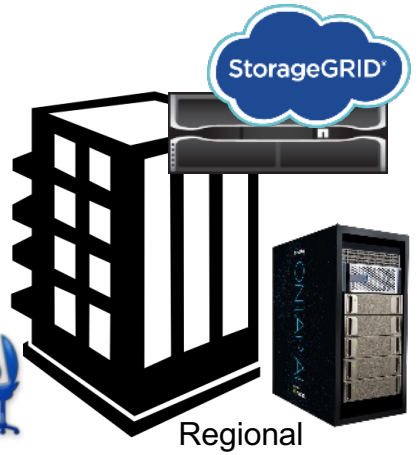


Edge Virtualization

Condition Monitoring	Load Monitoring	Asset Inspection
VM	VM	VM

Data from Plant

- Training Data / Model Updates
- Backup & DR
- Operations MetaData Dashboards



Regional Data Center

- Provisioning
- Push Services
- Monitoring

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Michelin Aircraft Tires provide bias tires, radial tires, and tubes for aviation customers around the world, in a range of applications including commercial and regional airlines, general aviation and military aviation

Customer Need

- Michelin is needing to improve their designs for airplane tires for creating higher quality tires to improve customer's experience; this research data must stay on premises given its competitive edge. This is Michelin's secret sauce, trade secret.

Technology

AI, Edge, Core and Data Lake

- 2 x AFF A300,
- 1 x SG6060,
- 1 x SG1000

Opportunity / Use Case

- Tire design and HPC simulation for testing the tires, and simulating wear
- At the Edge, tire wear and defect photographs are replicated to the Core for AI training
- Tire quality is improved through a closed loop system created for design, simulation, actual wear and defects

Solution

- Michelin needed a modern data infrastructure for HPC simulation, AI training & inference across the Core and Edge, and a modern data lake for maintaining all tire images and data

Customer Outcome

- Michelin expects to improve tire quality and life of tire, resulting in improved customer satisfaction

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Yale New Haven Health System is a nonprofit healthcare system with headquarters in New Haven, Connecticut. It is Connecticut's largest healthcare system with 2,409 beds and includes hospitals, physicians and related health services throughout Connecticut as well as New York and Rhode Island

Customer Need

- Customer needed to support university researchers to accelerate healthcare research to improve clinical and patient outcome
- Customer wanted to quickly focus on COVID-19 research including hydroxychloroquine efficacy, and ID patients that are worst case scenarios
- Create a flexible and agile research environment for a wide range of topics

Technology

- StorageGRID, ONTAP AI,
  AI Control Plane, Data Science Toolkit, Trident
- Modern data lake built on StorageGRID provided a single shared location for all data
- Data extracted out of data lake could be moved into ONTAP for executing analytics and AI training

Opportunity / Use Case

- Customer needed to make existing data available for healthcare researchers but was hampered by Petabytes of data locked and siloed into Hadoop HDFS clusters
- Move research data into a modern data lake to create a flexible environment
- Data made available for analytics and AI training

Solution

- NetApp provided trusted advice to create a modern data lake design which would make data available to healthcare researchers across the university

Customer Outcome

- Mission was successful to improve health and health care through targeted research and evaluation projects that combine scholarship and service to have a positive impact on policy and people's lives

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Johnson & Johnson is the world's largest health care company and remains at the top of the Big Pharma corporations with more than $82 billion in annual revenue in 2020

Customer Need

- Build an AI/ML Center of Excellence to focus on drug discovery and geonomics
- Enterprise AI at Scale to accelerate time to innovation.
- Efficiency. Single environment to handle variety of workloads across multiple business units.
- Value. Investing in a trusted OEM partner for a fully supported solution.

Technology

- 5x AFF A800 systems
- NVIDIA DGX A100 + Mellanox IB
- AI Infrastructure that supports (SuperCluster):
- Hundreds of concurrent jobs + occasional full cluster single job
- Requires NFS + PFS (BeeGFS)
- Aligns with US Army and Eli Lilly requirements

Opportunity / Use Case

- NLP and geonomics
- NLP is used to improve drug discovery by improving the efficiency performing various tasks such as analyzing data and conducting interviews.

Solution

- Initially presented DGX Foundry with Keystone
- Customer decided on on-premises solution, ONTAP AI
- J&J relied heavily on NetApp expertise and guidance as they build their HPC/AI CoE

Customer Outcome

- J&J has a wide variety of HPC and AIML workloads: NLP, biomedical imaging, Gaussian, MATLAB, etc.
- The NetApp, NVIDIA. Partner Teams partnership was critical

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Who is NetApp?

THE INTELLIGENT DATA INFRASTRUCTURE COMPANY

Industry-leading data storage, data services, and CloudOps solutions

Founded in 1992, headquartered in San Jose, California

$6.2B FY23 revenue

12,000+ employees and **4,000+ partners** helping organizations thrive in a hybrid multi-cloud world

Fortune 500 company (NASDAQ: NTAP)

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ANÁLISE DE DADOS NAS EMPRESAS: ATUALIDADE E FUTURO

PRR Plano de Recuperação e Resiliência
REPÚBLICA PORTUGUESA
Financiado pela União Europeia NextGenerationEU
MI MISSÃO INTERFACE
ANI AGÊNCIA NACIONAL DE INOVAÇÃO
CTI CENTROS DE TECNOLOGIA E INOVAÇÃO
Missão IN catim

Análise de dados nas empresas: atualidade e futuro

Atualidade

- **O tempo é um recurso escasso e dispendioso**
- **É necessário tomar ações / decisões rapidamente**
- **Conhecer e antever as situações, evitar desperdícios, paragens, erros, acidentes. Resolver problemas e adversidades**
- **Urgente olhar para o presente e projetar o futuro**

Análise de dados nas empresas: atualidade e futuro

- **Atualmente é possível resolver uma infinidade de problemas com recurso às tecnologias existentes**
- **São necessárias informações / dados para alimentar os sistemas, e assim obter o apoio na tomada de decisão**

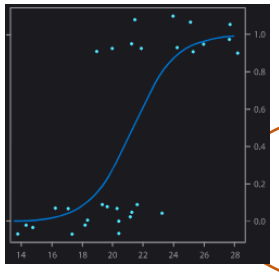
Análise de dados nas empresas: atualidade e futuro

Dificuldades…

Uma das principais dificuldades prende-se com a quantidade de possíveis caminhos.

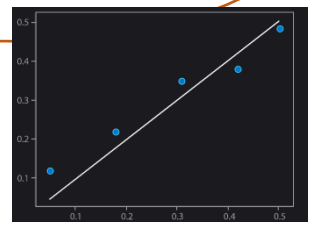
Não há uma melhor solução para um problema, tudo dependerá do contexto… e do objetivo a alcançar.

Análise de dados nas empresas: atualidade e futuro

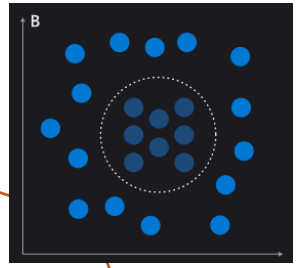


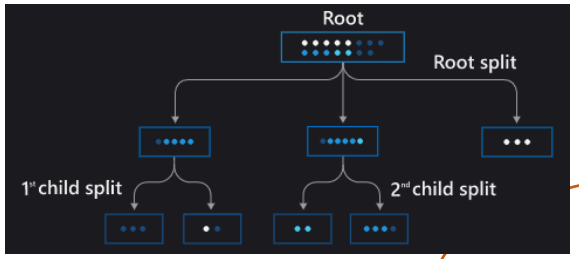
Algoritmo de Regressão logística

Algoritmo de Regressão linear



Teorema de Bayes

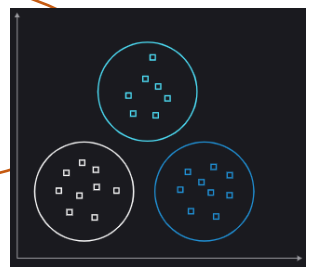




Algoritmo de árvores de decisão

Algoritmo da vizinhança mais próxima

Algoritmo de clusterização



Análise de dados nas empresas: atualidade e futuro

Análise de dados nas empresas: atualidade e futuro

Na análise desta temática, questões se levantam:

- **Que informações / dados são necessários?**
- **Todos os dados que possuo são relevantes? São fidedignos?**
- **Como lido com o excesso de informação?**
- **Terei capacidade de tratar toda informação que possuo?**
- **Quais as melhores tecnologias para o meu caso?**
- **…**

Análise de dados nas empresas: atualidade e futuro

Quanto mais informações, maior é a probabilidade de indecisão, falha, má interpretação, perda a qualidade da informação recebida e, consequentemente, a tomada de uma decisão errada.

Análise de dados nas empresas: atualidade e futuro

Nas últimas semanas surgiram dezenas de notícias acerca do tema IA, ressaltam-se:

- "*Pela primeira vez, o ChatGPT passou no famoso teste de Turing*" – LiveScience (14/06/2024)

Os resultados revelaram que o GPT-4 foi considerado humano 54% das vezes, enquanto o GPT-3.5 obteve 50%. O humano verdadeiro foi corretamente identificado 67% das vezes.

Análise de dados nas empresas: atualidade e futuro

- *Cada vez mais pessoas estão a vender fotos da sua íris em troca de criptomoedas – mas a que custo?* (Visão, 04/03/2024)

Análise de dados nas empresas: atualidade e futuro

- *Regulamento Inteligência Artificial (IA)* - Regulamento aprovado pelo Parlamento Europeu em 13 de março de 2024 e aprovado pelo Conselho da UE em 21 de maio de 2024.

Aprovação da primeira regulamentação direcionada à IA. A aprovação ocorreu com **523 votos a favor, 46 contra e 49 abstenções.**

Análise de dados nas empresas: atualidade e futuro

O regulamento estabelece uma série de obrigações com base nos riscos potenciais e no seu nível de impacto, estabelecendo a **proibição de certas aplicações**, **limitações da utilização de sistemas de identificação biométrica pelas autoridades**, isenções aplicáveis à lei, obrigações para os sistemas de alto risco e requisitos de transparência.

Análise de dados nas empresas: atualidade e futuro

Inevitabilidade…

As alterações já iniciaram e encontram-se presentes no nosso dia-a-dia e mudaram o nosso modo de pensar e agir.

Exemplos:

- Aluguer de vídeos (Netflix, NOS tv, …)
- Transporte de pessoas e encomendas (Uber, Cabify, Glovo, …)
- Venda de bens e objetos de consumo em geral (Amazon, Ebay, …)
- Aquisição de música (inTunes Store, Spotify, Beats, …)
- Reservas de hotéis e estadias (Airbnb, Booking, …)

Análise de dados nas empresas: atualidade e futuro

Inevitabilidade…

"Conhecimento é poder" **–** Francis Bacon, filósofo britânico (1561 – 1626)

Francis Bacon, em 1620, escreveu: "***knowledge and power are synonyms***". Novum Organum, Livro I, #3. Advancement of Learning. Novum Organum. New Atlantis (Chicago: Encyclopedia Britannica, Inc, 1952), p. 107

Cada vez mais as empresas pretendem tomar decisões com base em informações e conhecimento em tempo real (tempo útil).

Dados…Voltamos ao início da apresentação…

Análise de dados nas empresas: atualidade e futuro

Potencial…

A **análise e tratamento de dados** permite:

- Otimização dos processos e assim redução de custos e aumentar a eficiência produtiva
- Melhoria da visualização e controlo dos processos de negócios (em toda cadeia de valor)
- Melhoria na qualidade dos produtos e serviços (controlo da qualidade em tempo real)
- Melhoria na sustentabilidade
- …

Análise de dados nas empresas: atualidade e futuro

Desafios…

Porque **não avançamos**? O que nos **impede**? **R**: Devido a fatores de várias ordens:

- **Maturidade digital** das empresas (competências em análise de dados, departamentos vocacionados para análise e processamento de dados, hardware e tecnologias necessárias)
- **Obtenção de dados**
- **Cultura digital e recursos humanos** com formação e aptidão
- **Resistência à mudança**
- **Dificuldade em definir os benefícios económicos**, sobretudo a curto prazo, o que dificulta o investimento
- **Questões de segurança da informação** (cibersegurança) e **proteção de dados** (RGPD)
- …

Análise de dados nas empresas: atualidade e futuro

Futuro…

"A digitalização não se expressa apenas na construção de uma página web ou do reforço do comércio eletrónico mas, nas fábricas, tem um papel fundamental na eficiência e otimização dos processos produtivos"

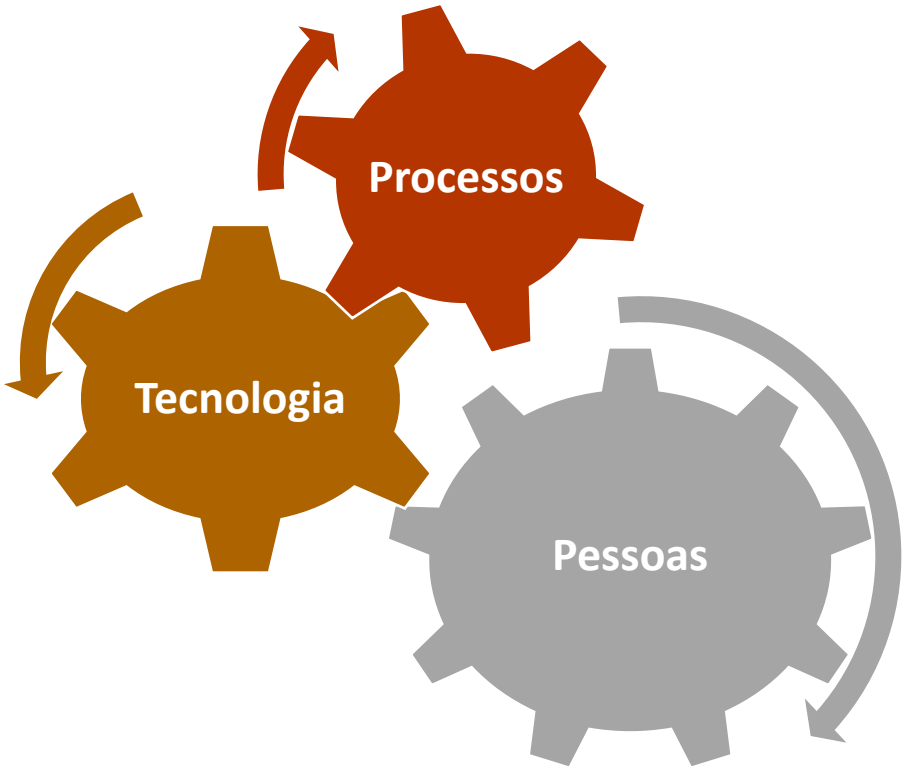
Ana Lehmann (Secretária de Estado da Indústria)

Análise de dados nas empresas: atualidade e futuro

Futuro…

Importante reter:

- Não basta adquirir sensores sofisticados, app's, softwares, hardwares, …
- Indústria 5.0: A Indústria do Futuro terá como elemento central o ser humano. Daí a importância também na aposta do conhecimento, motivação, trabalho em equipa… as pessoas farão sempre a diferença.



Muito obrigada

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