Microsoft Dynamics 365

Module 01

Introduction to Customer Insights

1: Introduction to Dynamics 365 Customer Insights

2.1 The Problem with Customer Data

2.2 Solving the Problem with Customer Insights

1.1 The Problem with Customer Data

Businesses do not know who their customers are

Businesses can't have a unified conversation with their customers

Customer expectations are growing…

91% of consumers are more likely to shop with brands who recognize, remember, and provide relevant offers and recommendations. [1]

81% of buyers want brands to get to know them and understand when to approach them and when not to. [2]

… but today's experiences are falling short

65% of customers are frustrated by inconsistent experiences across channels. [1]

74% of customers are frustrated by the irrelevant content they are exposed to on websites. Up to 40% of them will leave. [2]

61% of customers stopped doing business with at least one company last year because of poor customer experience. [3]

1 Accenture
2 Accenture

1 McKinsey
2 Accenture
3 Accenture

Managing customer data – not a new challenge, but increasingly more difficult

Disconnected customer data

Only 13%

Of organizations claim a high degree of making the most of available customer data

Inability to unify data

63%

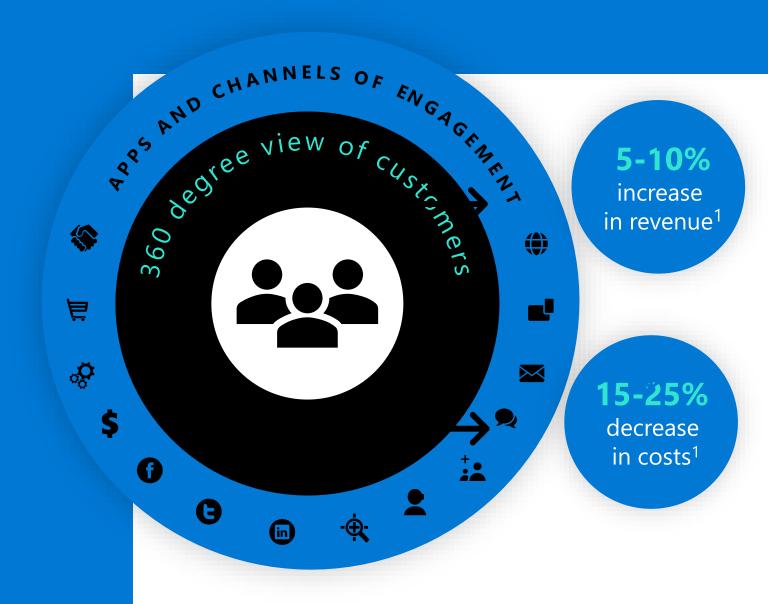Of organizations stated the top obstacle to using customer data is the inability to unify it

Lack means to extract data

47%

Of respondents cited inability to extract data from source systems as a key challenge

Closing the Gap

Close the gap by activating data to gain insights

APPS AND CHANNELS OF ENGAGEMENT

360 degree view of customers

5-10% increase in revenue[1]

15-25% decrease in costs[1]

[1] McKinsey

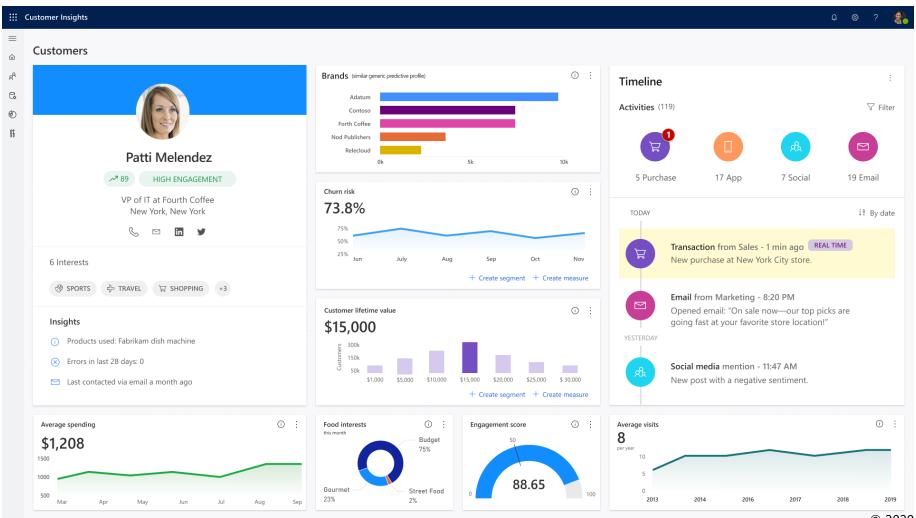# 1.2 The Solution: Customer Insights

The Customer Insights Vision

Insights done differently

End-to-end customer experiences

Vision: Empower every organization to unify and understand its customer data to derive real-time insights that power personalized experiences and processes

Dynamics 365 Customer Insights

Get a holistic view of customers

Unlock insights and take action

Adapt and extend

Rely on a productive and trusted platform

Dynamics 365 Customer Insights done differently

Traditional customer analytics

Custom-built on analytics platform
Hard coded
Hard to adapt
Siloed apps
Time to implement measured in months
Requires deep technical expertise
Different stacks for storage, KPI calculations,
ML, app experiences
Compliance as an afterthought

Dynamics 365 Customer Insights

Finished SaaS solution
Configurable
Extensible
Insights embeddable into operational CRM of
choice
Time to implement measured in weeks
Ready to run by business users
Integrated in one finished solution based on
hyper-scale cloud platform
Compliant by design
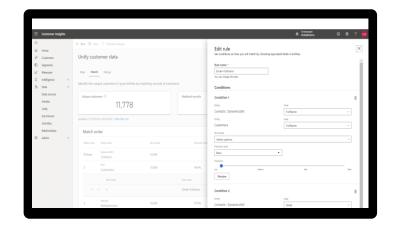
Scenarios: end-to-end customer experiences

Marketing

Lead generation

Campaigns

Website

Content

Sales

Recommendations

Next best action

Omni-channel support

Cross-sell/upsell

Service
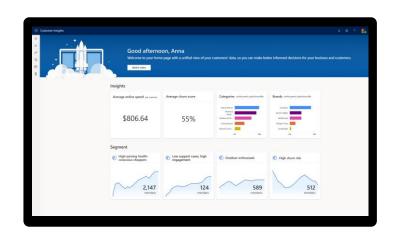
Get a holistic view of customers
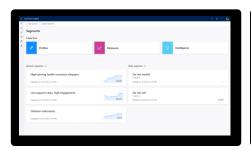
Connect your data with ease

Transform customer data intelligently
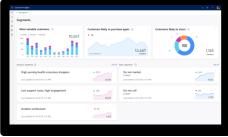
Enrich data

Unlock insights and take action

Predict customer intent
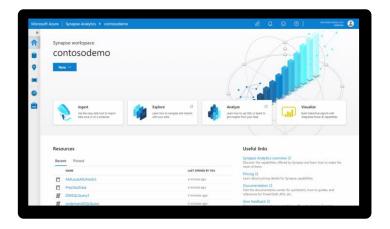
Spot trends and patterns

Create richer customer segments

Drive personalized experiences across channels
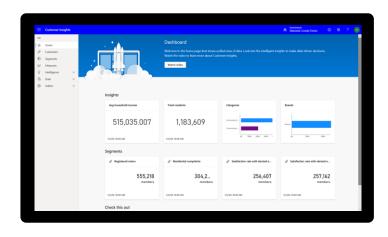
Automate customer-centric experiences and processes

Adapt and extend

Gain deeper insights

Connect to custom apps

Innovate and evolve

Rely on productive and trusted platform

Get started quickly

Maintain control of your data

Invest with confidence

The Microsoft customer data platform

Comprehensive
Unify customer data and enrich profiles with market insights and real-time product usage

Personalized
Use AI to inform business processes and outcomes across the customer journey

Customizable
Extend capabilities with Microsoft Power Platform for richer data processing and customization

Connected
Bring together virtual and physical worlds with out-of-the-box mixed reality apps and IoT solutions

Hyper-scalable
Run powerful analytics using AI and machine learning models built on Microsoft Azure

Powered by Microsoft Azure

Customers

Patti Melendez

↗ 89   HIGH ENGAGEMENT

VP of IT at Fourth Coffee
New York, New York

6 Interests

SPORTS   TRAVEL   SHOPPING   +3

Insights

- ⓘ Products used: Fabrikam dish machine
- ⊘ Errors in last 28 days: 0
- ✉ Last contacted via email a month ago

Brands (similar generic predictive profile)

Adatum
Contoso
Forth Coffee
Nod Publishers
Relecloud

0k   5k   10k

Churn risk

73.8%

75%
50%
25%
Jun   July   Aug   Sep   Oct   Nov

+ Create segment   + Create measure

Customer lifetime value

$15,000

300k
150k
50k
$1,000 $5,000 $10,000 $15,000 $20,000 $25,000 $ 30,000

Customers

+ Create segment   + Create measure

Average spending

$1,208

1500
1000
500
Mar Apr May Jun Jul Aug Sep

Food interests
this month

Budget 75%
Gourmet 23%
Street Food 2%

Engagement score

50
0   88.65   100

Average visits

8
per year

10
5
2013 2014 2016 2017 2018 2019

Timeline

Activities (119)

▽ Filter

🛒 5 Purchase   📱 17 App   👥 7 Social   ✉ 19 Email

TODAY   ⇅ By date

🛒 **Transaction** from Sales - 1 min ago REAL TIME
New purchase at New York City store.

✉ **Email** from Marketing - 8:20 PM
Opened email: "On sale now—our top picks are
going fast at your favorite store location!"

YESTERDAY

👥 **Social media** mention - 11:47 AM
New post with a negative sentiment.

Our approach

Internal | **External**

Internal:
- Contacts
- POS
- Cases
- Campaigns
- Web
- Email
- Mobile
- Surveys
- Usage

External:
- Partner data
- Events
- Loyalty
- Geo
- WIFI
- Social

CONNECTORS

- Ingest
- Map and Match
- Analytics
- Conflate
- Enrich
- AI and ML

DEMOGRAPHIC · TRANSACTIONAL · BEHAVIORAL

Microsoft Power BI
Microsoft Power Automate
Microsoft PowerApps
Microsoft Dynamics 365
3rd Party integration

Systems of engagement

- Mobile
- Web
- Social
- Bots
- In-person

Channels of engagement

DATA | UNIFICATION | INSIGHTS | ACTION

Power end-to-end customer experiences

1 Digital Engagement

2 Personalized and contactless shopping experiences

3 Omnichannel purchase and inventory visibility

4 Contextual digital and personal assistance

5 Intelligent and streamlined product fulfillment

6 Proactive post-sales service

7 Post-sales engagement

8 Advocacy

Working with companies across all industries

UNICEF saves and improves children's lives by accelerating donor engagement

"Dynamics 365 Customer Insights helps us to segment the right audiences, to focus on them, to engage them in a very relevant way, and to retain them."

Astrid van Vonderen
Head of Fundraising

Tivoli Gardens theme park delights and charms guests

"With Dynamics 365 Customer Insights, we can look back and forward to create a unique and unforgettable customer experience."

Bernt Bisgaard Caspersen
Head of Solution Team & Architecture

Marston's raises the bar for guest experiences

"Marston's has a long tradition of providing exceptional guest experiences. With Dynamics 365 Customer Insights, Marston's is transforming that tradition for the modern era."

Paul Hume
Head of Technology Development
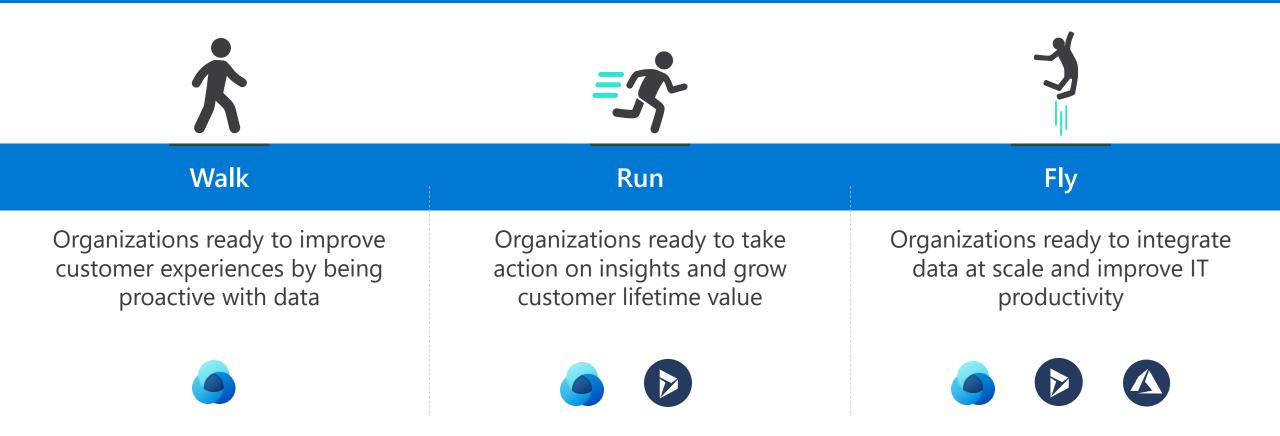
AEP Energy lights up personalized experiences

"Customer Insights is a way for us to be able to handle all the touch points we have with customers, and it'll help us get more customers, keep the customers we have, and keep them more satisfied.."

James Peterson
COO & President of Retail Services

Where is your customer on their data and CI journey?

Walk

Organizations ready to improve customer experiences by being proactive with data

Run

Organizations ready to take action on insights and grow customer lifetime value

Fly

Organizations ready to integrate data at scale and improve IT productivity

No cliffs extensibility with an enterprise grade and real-time customer data platform

Dynamics 365 Customer Insights website:
https://dynamics.microsoft.com/en-us/ai/customer-insights

Azure Synapse Analytics website:
https://azure.microsoft.com/en-us/services/synapse-analytics/

eBook: Digitally Transforming Customer Experiences:
https://info.microsoft.com/ww-Landing-Customer-Experiences-ebook.html?Lcid=EN-US

eBook: Buyer's Guide for CDP: Selecting the right customer data platform:
https://info.microsoft.com/ww-landing-CDP-buyers-guide-eBook.html?lcid=en-us

Personalized Experiences with a 360-Degree View of Your Customers:
https://info.microsoft.com/ww-landing-Personalized-Experiences-with-a-360-Degree-View-of-Your-Customers-Video.html?lcid=En-US

Personalized Experiences with a 360-Degree View of Your Customers:
https://cloudblogs.microsoft.com/dynamics365/tag/customer-data-platform/

Q & A

Next up: Product and Solution Architecture

Product and Solution Architecture

2.1 Customer Insights Product Architecture

2.2 Customer Insights Solutions Architecture

2.1 Product Architecture

Analytics Architecture

Detailed Architecture

Dynamics 365 Integration

Bring Your Own Data

CI Product Architecture

Evolving the Analytical landscape ...

Self-service BI

Telemetry & Operational Analytics

Dynamics 365
Transactional data

Customer Insights
DW REPLICATION
Behavioral (big) customer data

Enterprise Data Warehouse
Aggregated data

ERP
Legacy
External

Omnichannel CRM Process Execution

Analytical Apps

Enterprise Reporting

Web · Mobile · Social · Events · Email · SMS · POS · IoT · Call Center · Service Portal

Detailed Architecture

Consumption Layer

| Customer Insights App | Power BI embedded | Power BI | Power Apps | Flow | Contact Card (Sales) |

Api Layer

| Monitoring & Debugging | Intelligence | Entity Data/ Export | Segmentation | Configuration | Unified Profile |
| Control Plane | Search | Entity Metadata | Measures | Enrichment | Unified Activity |

Processing Layer

| Integration | Configuration | Segment Builder | KPIs, Measures Builder | Enrichment | Azure ML Integration | Profile Builder | Search |

Ingested

Ingested Data

Customer Insights Entities

Unified Customer | Segments | Measures | Enrichments | Intelligence

Azure ML

Your Models

Azure CosmosDB

Your Models | Unified Activities

Azure Search

Search Index

Dynamics 365 Integration

Bring Your Own Storage Account

Dynamics 365　　　　　　**Azure**　　　　　　**3rd party**

Data source 1

Data source 2

Data source N

DATA INGESTION WITH ADF OR OTHER

Customer Insights

- Data unification
- Measures
- Segmentation
- Visualization
- Intelligence

Unified (big) customer data
transactional + behavioral
Internal + external

TRAINING

SCORING

READ/WRITE

AML

ADLS

Data is stored in customer own Azure Subscription

ACTIVATION

- Campaign Management
- Sales
- Customer Service
- ...

Detailed Product Architecture

Consumption Layer

Customer Insights App	Power BI embedded	Power BI	Power Apps	Flow	Contact Card (Sales)

Api Layer

Monitoring & Debugging	Intelligence	Entity Data/ Export	Segmentation	Configuration	Unified Profile
Control Plane	Search	Entity Metadata	Measures	Enrichment	Unified Activity

Processing Layer

Integration	Configuration	Segment Builder	KPIs, Measures Builder	Enrichment	Azure ML Integration	Profile Builder	Search

Ingested

Ingested Data

Customer Insights Entities

Unified Customer | Segments | Measures | Enrichments | Intelligence

Azure ML

Your Models

Azure CosmosDB

Your Models | Unified Activities

Azure Search

Search Index

Solution Architecture

Customer Insights use case examples

Key elements of a successful solution

Consistent solution patterns

Customer Insights Use Case Examples

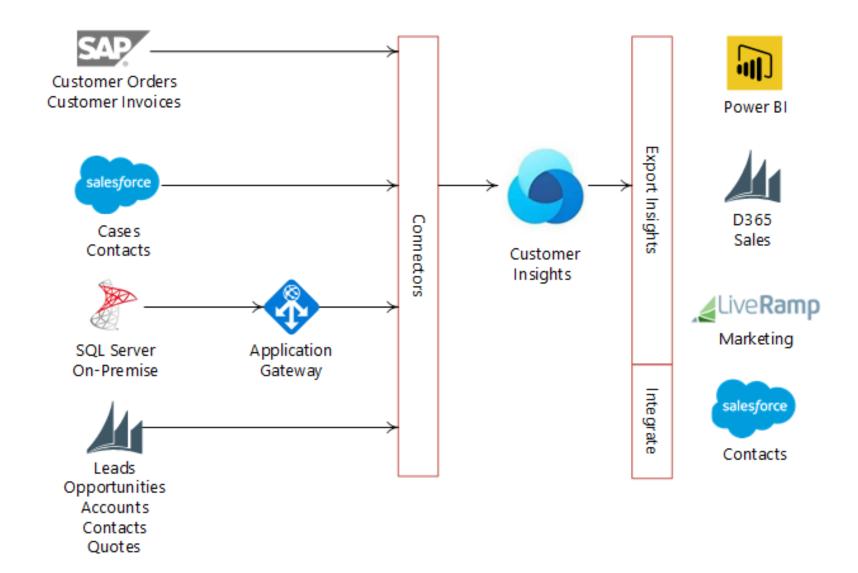|	
Respond to changing sales	**Respond to sales declining** • Proactively monitor revenue, sales, account quotes • Generate activities within Dynamics 365 if measures defined within Customer Insights decrease by X% quarter over quarter.
Support campaigns	**Execute campaigns for up-selling, renewals** • Monitor customer license expiration dates • Notify existing customers that their licenses are coming up for renewal. Include additional related products and discounts to support potential up-sell and cross-sell opportunities. Segments defined within Customer Insights if customer renewal is within N quarter/month/week.

Data Flows through Customer Insights

Key Elements Of A Successful Solution

01

Align customer and partner expectations

02

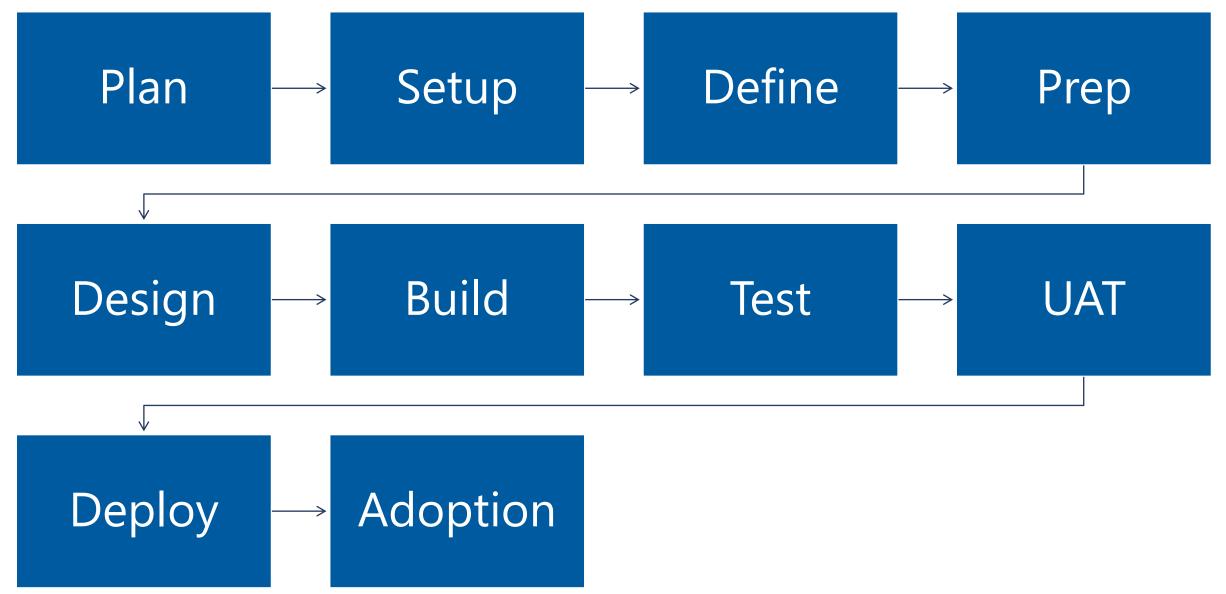Understand the customer vision, goals, KPIs, key stakeholders, support and governance models

03

Staff projects appropriately

04

Employ best practices

Consistent Solution Patterns

Plan → Setup → Define → Prep

Design → Build → Test → UAT

Deploy → Adoption

Planning: Use Cases

Define use cases	Define Customer rules and logic	Define KPIs
Define segments	Define Audience/Personas	Define activation scenarios
	Define export destinations	

Planning: Application Lifecycle Management

Identify Data Storage Approach

Plan CI Environments

Document SDLC/ALM plan

Define sample, QA, and full data ingestion approach

Develop go-live release plan

Planning: Architecture and Security

Define & document holistic architecture

Review encryption requirements

Identify system accounts for data sources

Identify data flow security requirements

Identify and document data privacy & compliance requirements

Setup: Environments

Provision CI environments:

Dev, Test, UAT, Production

Grant Environment Access

Define: Data Sources

Identify Customer source systems and data access methods	Design entities	Design relationships
Document Entity Relationship Diagram (ERD)	Design and document map/match/merge rules for unified profile	Define Sample & QA data criteria

Prep

Define & document data flow	Identify data quality	Identify data cleansing strategy
Execute data cleansing strategy	Validate data cleansing	Validate sample & QA criteria (for BYODL)
	Confirm rules for Map, Match, Merge (M3)	

Design – with Build and Test, an iterative process

Design unified customer profile	Design measures	Design segments
Design activities	Design export destinations	Define enrichments

Build – with Design and Test, an iterative process

Data

- Ingestion (Subset)
- Define entities
- Define relationships

Unified profile

- Configure map/match/merge rules
- (Optional) Apply self-conflation
- Execute M3

Activities, measures/KPIs, Segments, Outbound

- Configure activities
- Configure measures/KPIs
- Configure segments
- Configure export destinations
- Execute activities and measures/KPIs
- Execute segment creation and export

Test – with Design and Build, an iterative process

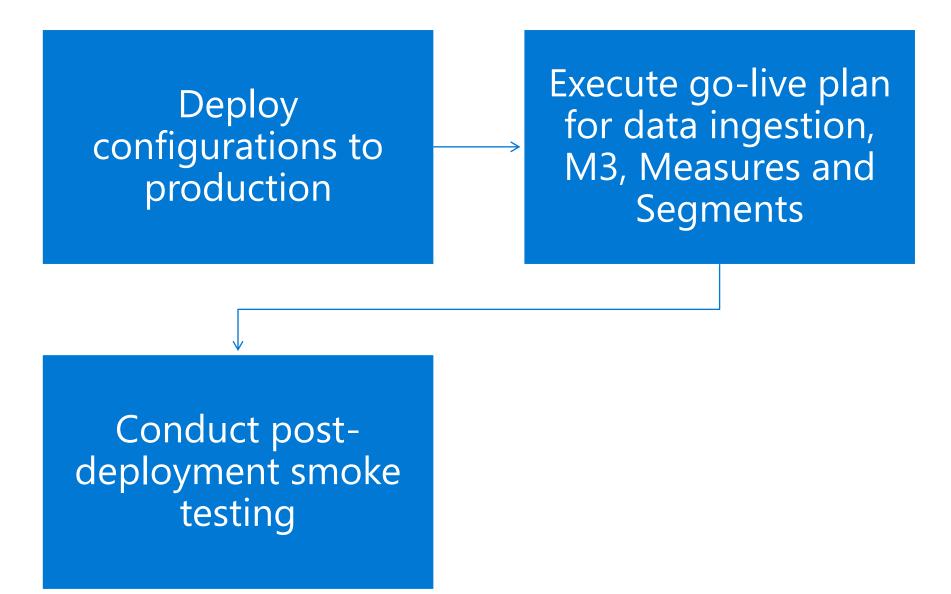| Validate data ingestion	Validate Customer Entity successfully created	Validate M3 rules
Validate activities and measures	Validate segment(s) export	Validate export destinations

User Acceptance Testing (UAT)

Execute

- Run ingestion, M3, Measures, and Segments for Full Data Load
- Execute user acceptance testing critiera

Arrow from →

Remediate

- Implement remediations
- Deploy remediations
- Validate remediations

Deploy

Deploy configurations to production → Execute go-live plan for data ingestion, M3, Measures and Segments → Conduct post-deployment smoke testing
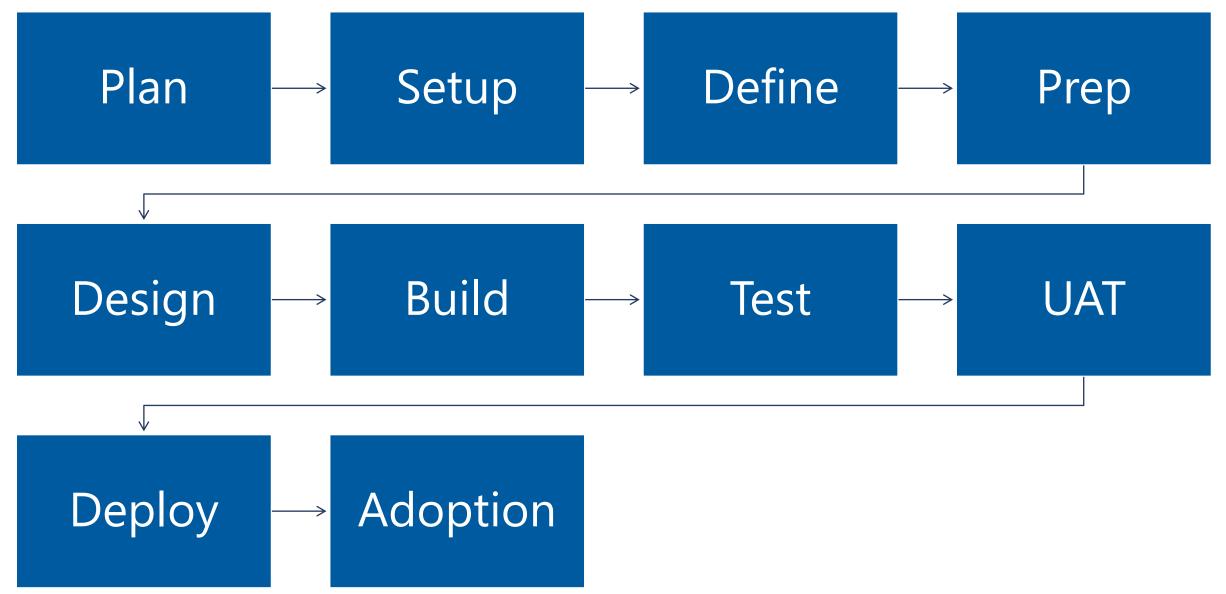
Post-Go-Live Care and Adoption

Support & Knowledge Transfer

- Post production go-live support
- IT hand off
- Business sponsorship
- Train the trainer

Business Adoption and Validation

- Validate Use Cases Success
- Train business champions
- Evaluate ROI using Segments
- Ongoing: CI Effectiveness and Feedback loop

Consistent Solution Patterns

Plan → Setup → Define → Prep

Design → Build → Test → UAT

Deploy → Adoption

Q&A

Next up:

Module 2: Data Ingestion, Unification, Relationships & Measures