









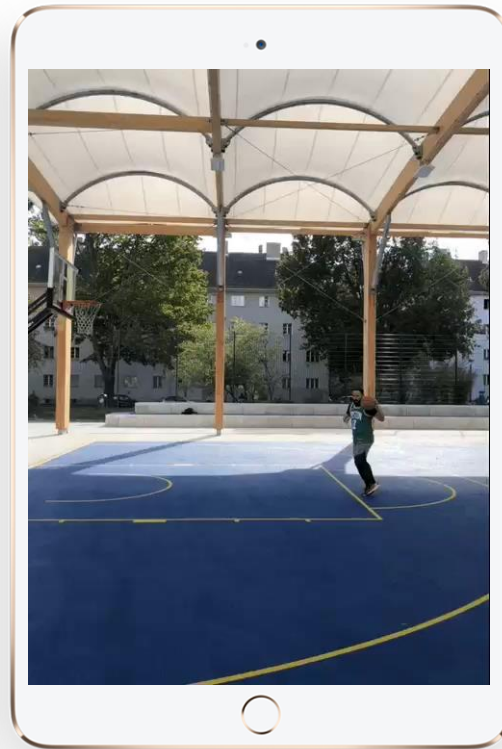
Is this exciting for you?








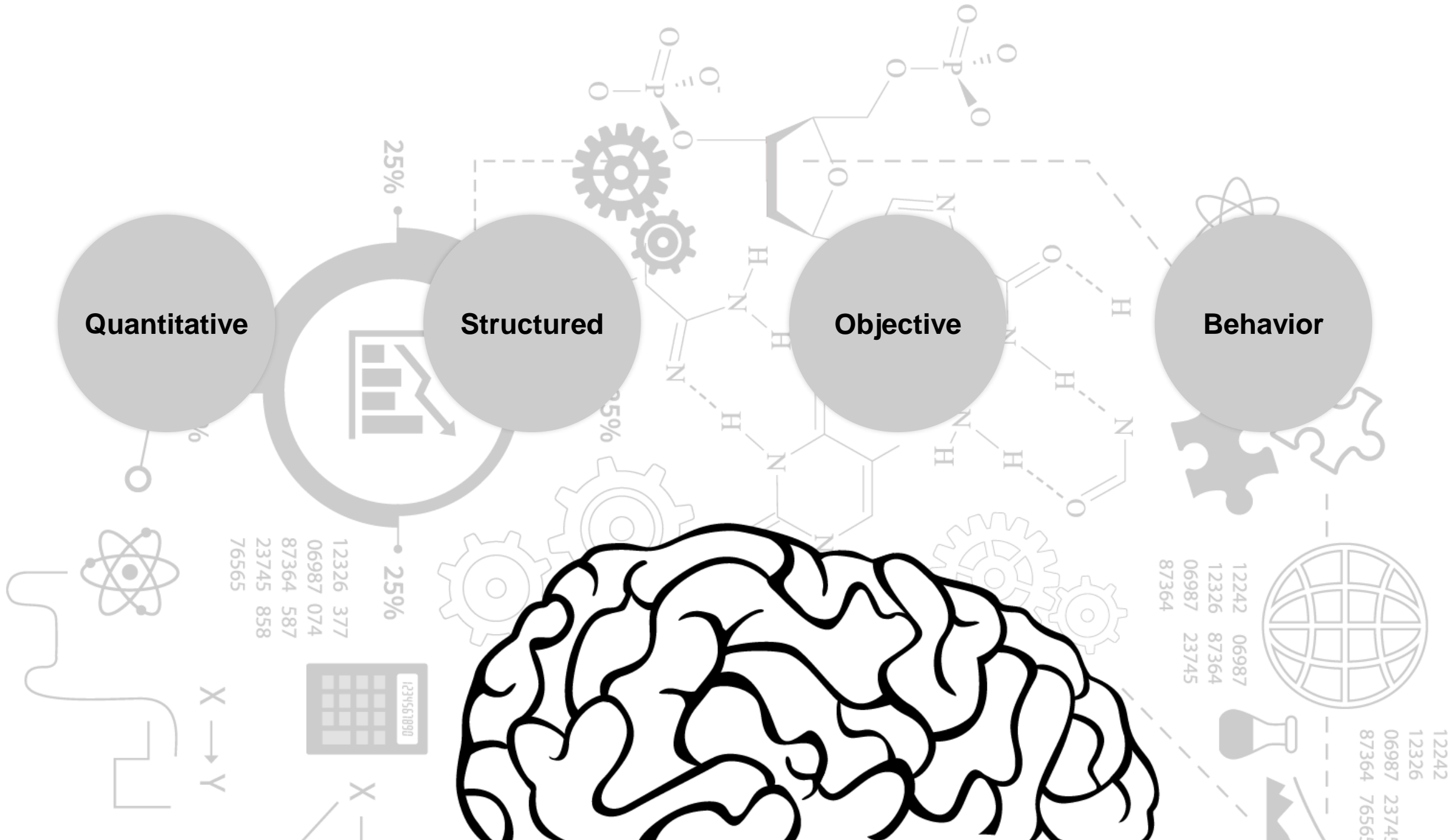
**THIS DOESN'T MAKE ME A BETTER PLAYER**



**BUT SURELY TURNED ME INTO A FAN & EMBASSADOR**

A woman with long brown hair, wearing a wide-brimmed straw hat, purple-rimmed glasses, and a grey sleeveless top, stands on a balcony with a white metal railing. She is looking out over a dense city with many buildings and red-tiled roofs under a clear blue sky. The image has a torn-paper edge effect on the right side. A white circular graphic with concentric circles is overlaid on the left side, containing the text.

**Empowered  
customers are  
demanding  
more**







Quantitative

Structured

Objective

Behavior

“

W

H

A

T

”



Qualitative

Unstructured

Subjective

Attitudes

“

W

H

Y

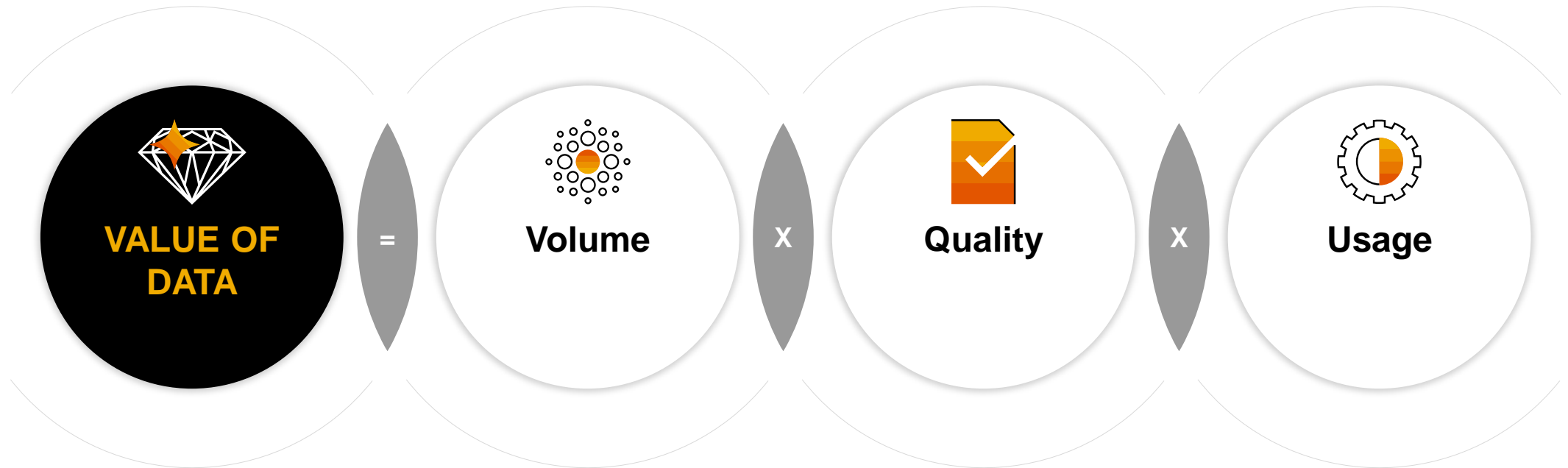
”





The way **value**  
**is created and**  
**measured is**  
**changing**

# ● VALUE CREATION FROM DATA

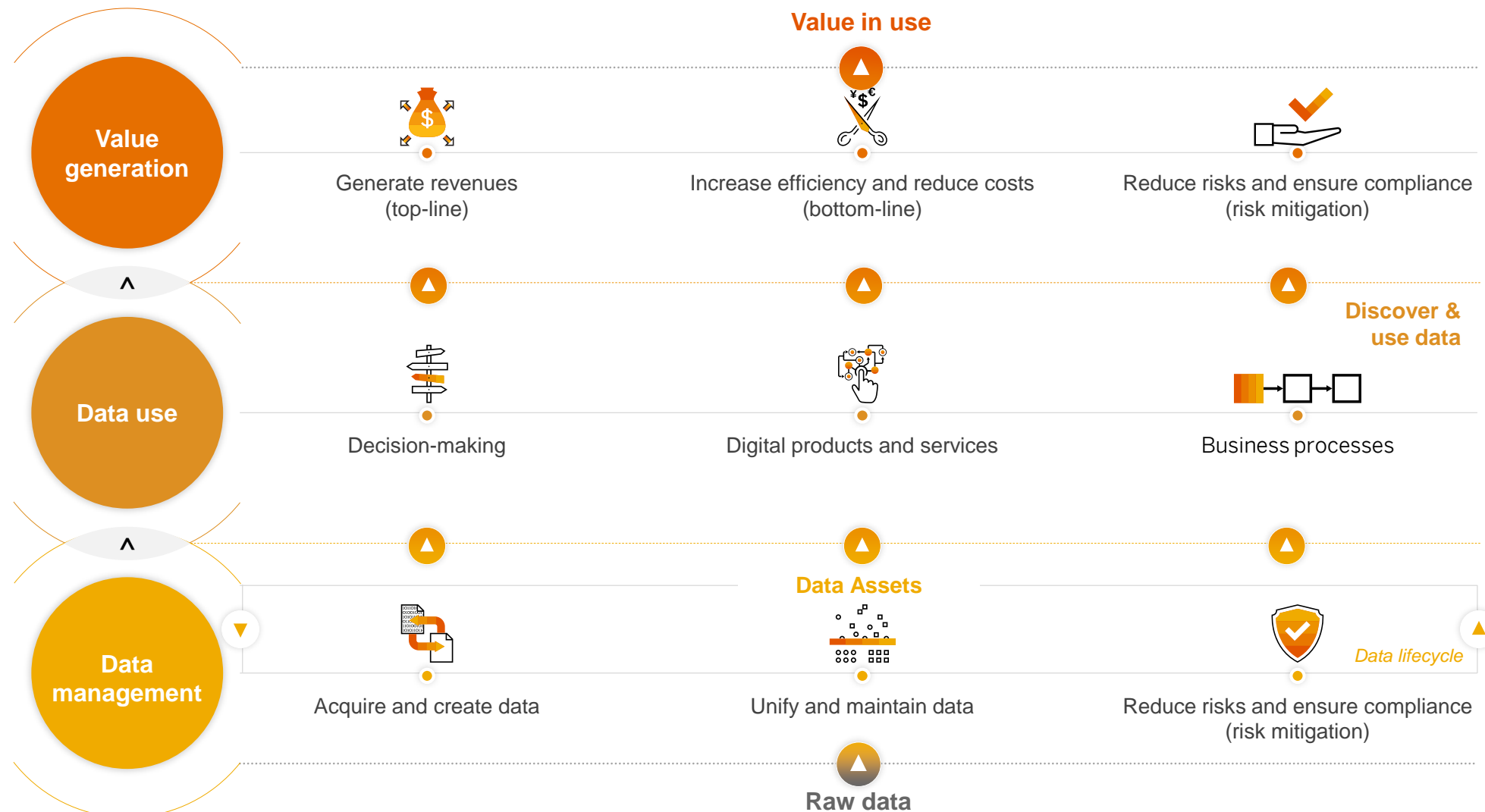






# The Data Value Chain

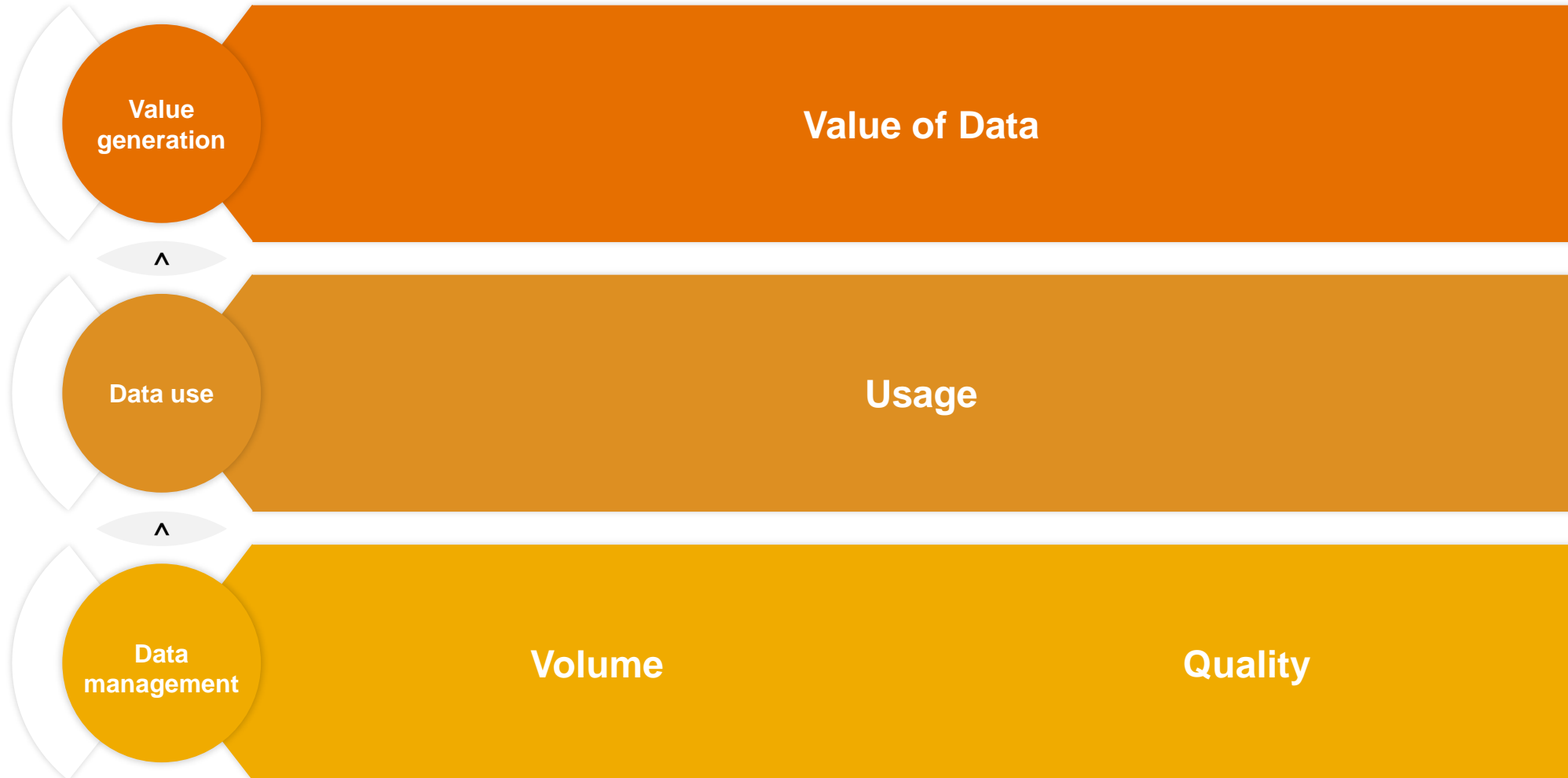
Value added from data takes place in several steps





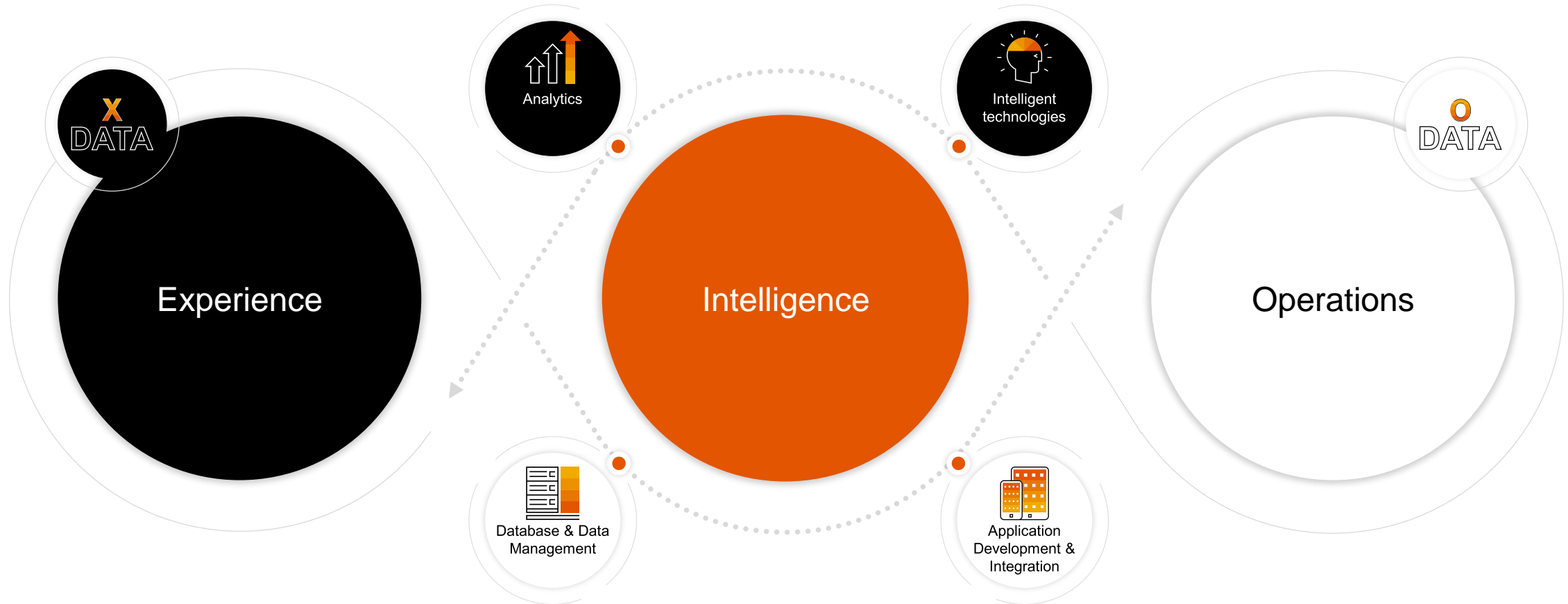
# The Data Value Chain

Value added from data takes place in several steps

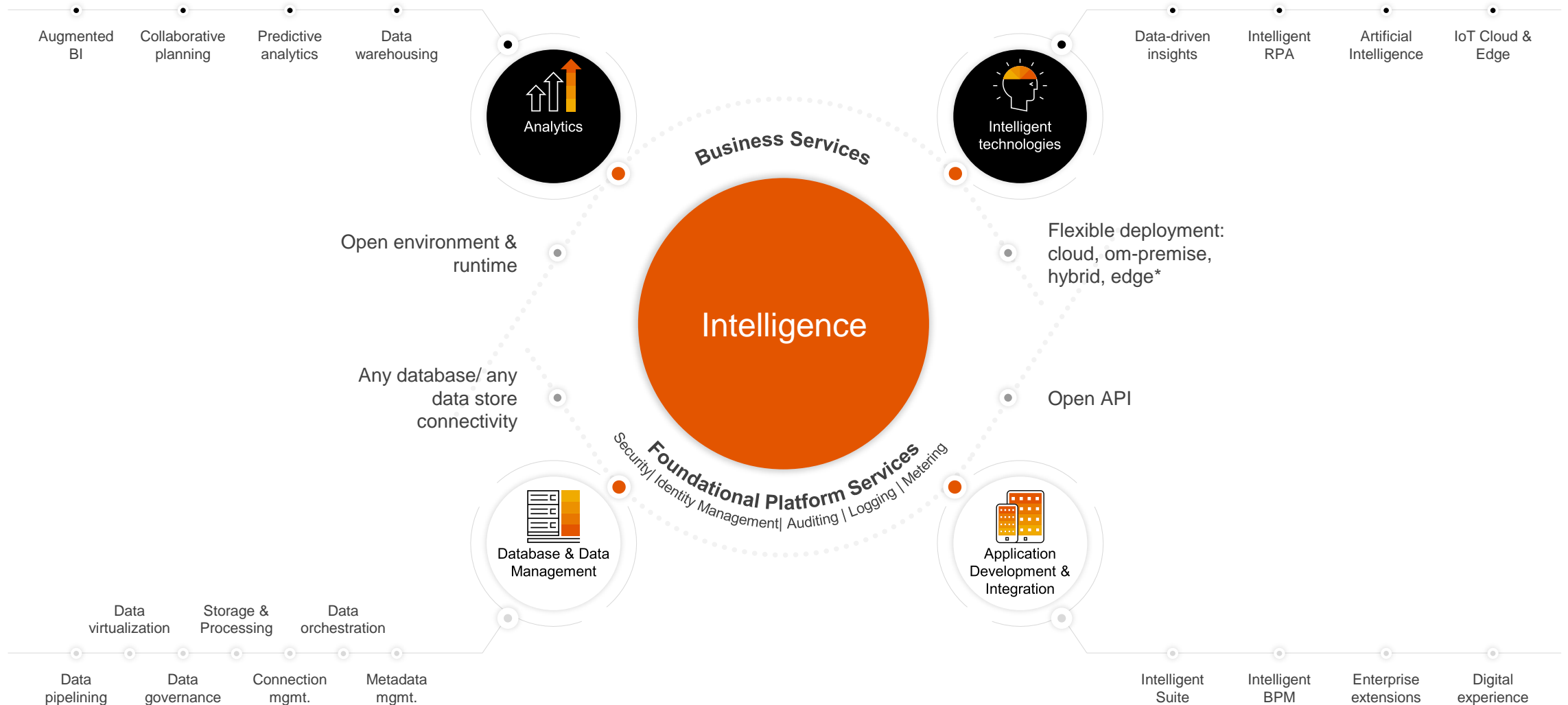




# Intelligent Enterprise



# Business Technology Platform





# Hajj Overview



## KEY REQUIREMENTS (ARTICULATED BY CUSTOMER):



Platform to measure movement of Pilgrims (IoT)



Platform to Analyze / Predict Congestion



Complex Event Stream Processing



CRM / Portal Capabilities



2.4 MILLION PILGRIMS



186 COUNTRIES



5 DAYS

## HIGH CRITICALITY



Mina (Tent City) – 3 days



Fixed schedule / route for pilgrims



Defined path to follow



Specific timeslots



Extremely small geographical area



Previous history of stampedes.

## CHALLENGES



Schedules not followed

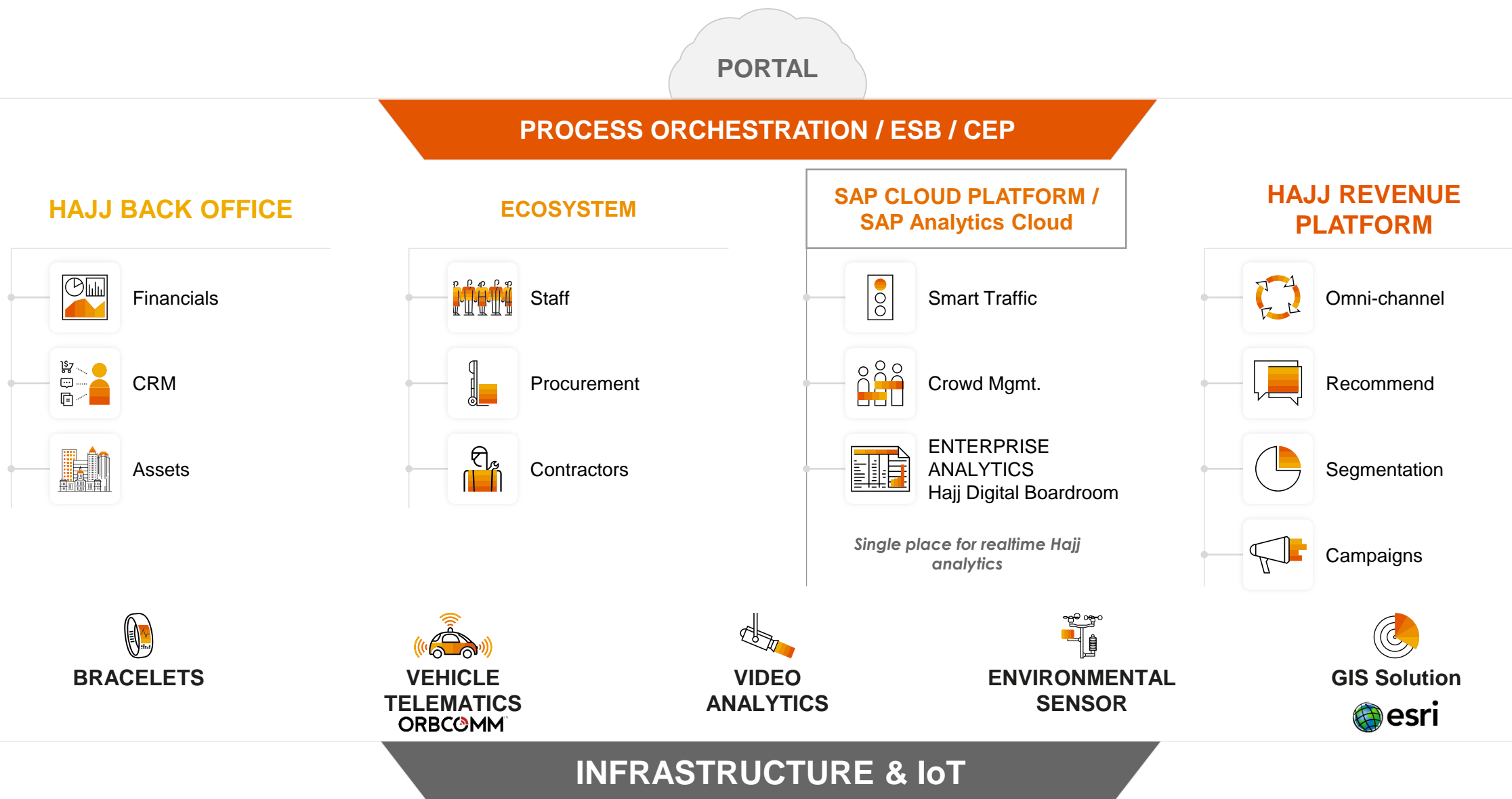


No way of measuring real-time density



No way of predicting dangerous situations

# Our Smart Hajj Vision







# Intelligent Crowd Management - Ministry of Hajj & Umra

**BIG DATA  
REAL TIME**



**SAP DATA  
SCIENCE  
TEAM**



**EMBEDDED  
PREDICTIVE**

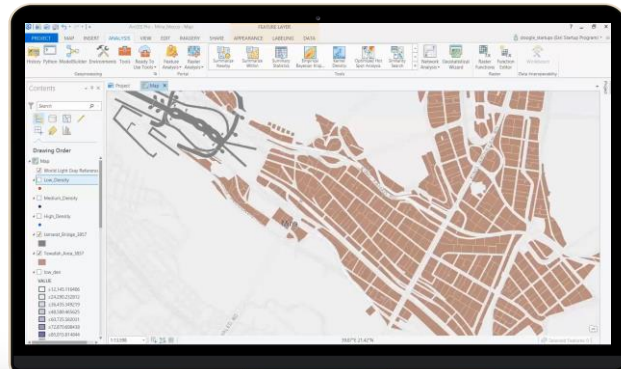
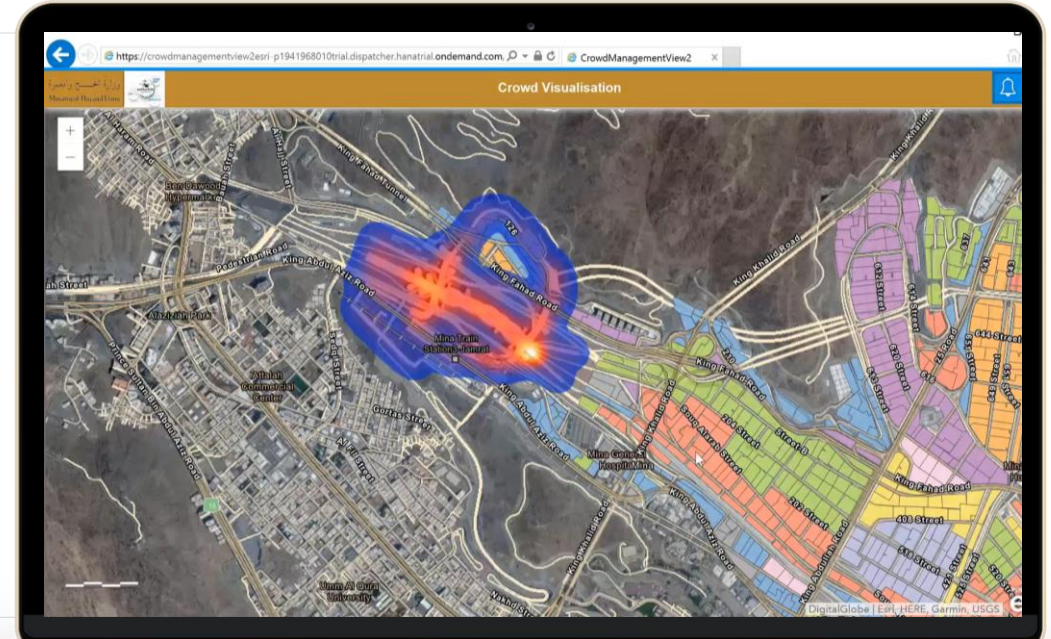


**CAPABILITIES  
DATA SCIENCE**



**EMBEDDED  
GEOSPATIAL**

**CROWD MANAGEMENT POC**  
SAP Data Science & MoHU Crowd Team



**NETWORK PATH OPTIMISATION POC**

SAP & ESRI



**SMART TRAFFIC**

SAP NANJING

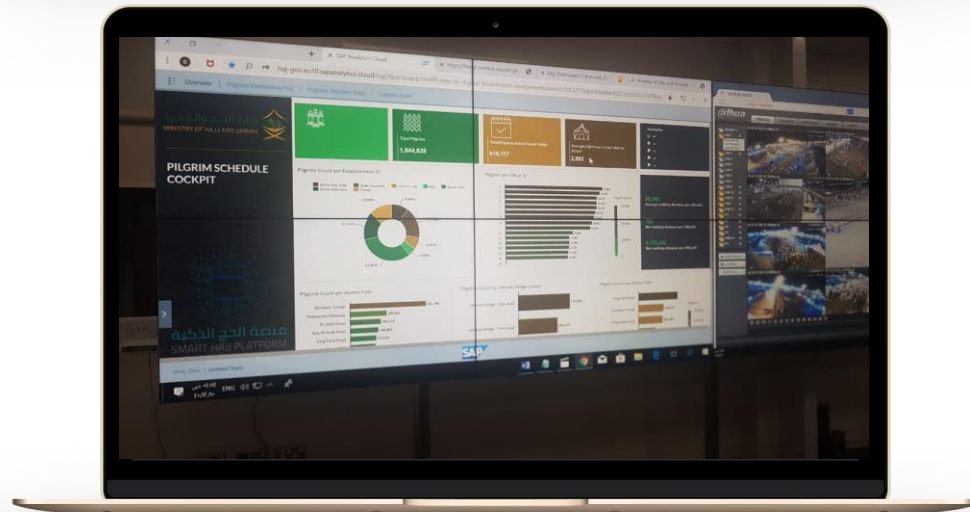
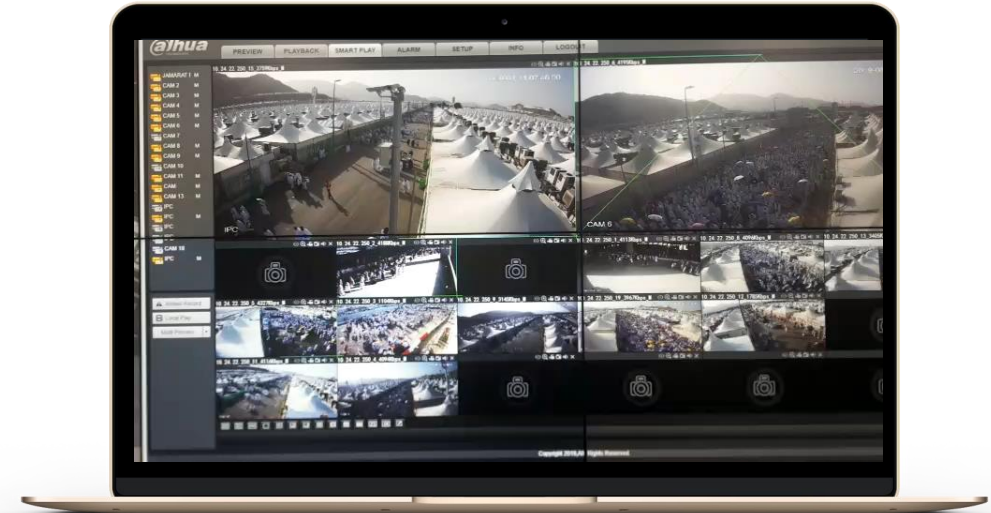


**DIGITAL BOARDROOM**

SAP Analytics CoE & MoHU Crowd Team



# August 11th Live from the Control Center @ Ministry of Hajj & Umra





# TRANSFORMATION AND PURPOSE FOR PORTUGAL



**DATA DRIVEN  
VALUE GENERATION**



**UNIQUE CUSTOMER  
EXPERIENCE**



**PURPOSE BASED  
INNOVATION**





**DATA  
INNOVATION  
TOUR '19**  
Powered by Platform &  
Technologies COE EMEA South

# DATA DRIVEN EXPERIENCE

**SAP's Strategy for Platform &  
Technologies**



**ANDRE BORCHERT**

Vice President, Platform & Technologies SAP EMEA South,  
Head of Center of Excellence & Regional PreSales



# Feedback

Valorizamos a sua opinião.  
**Avalie esta sessão.**