IATA AVIATION DATA SYMPOSIUM

ATHENS, GREECE   25 – 27 JUNE 2019

PASSENGER

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Opening Remarks

Aleksander Popovich, SVP, Financial Distribution Services, IATA

The digital airline vision

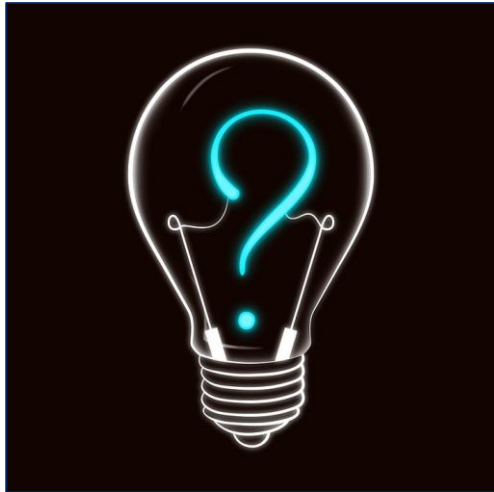| Digital Retailers	Digital financial organizations
Airline Industry Retailing (AIR) Portfolio	Financial simplification and disruption

Digital Infrastructures

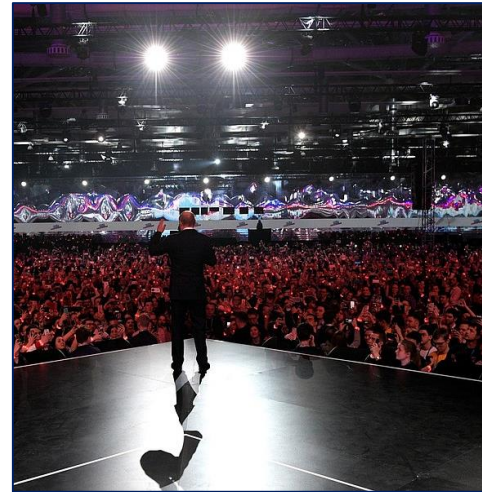Innovation ecosystem, Airline Industry Data Model, API Ecosystem

The innovation ecosystem

Ideation

Incubation

Developer Lab

Communication

Partnership

Digital transformation

	Offers	Ticketing	Payment	Check-in	Supply chain invoicing
Legacy process	Filed fares, inventory	Paper Ticket	Plastic cards	Paper Boarding Pass	Paper invoice
Electronic	Automation	E-Ticket	E-wallets	Mobile Boarding Pass	E-invoicing
Digital	No filed fares	No ticket	No cards	No check-in	No invoice
IATA Projects	Dynamic Offers	NDC / OO	IATA Pay	One ID	Digital Finance

Digital transformation

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Digital	No filed fares	No ticket	No cards	No check-in	No invoice
IATA Projects	Airline Industry Data Model, API Ecosystem				

Matching supply and demand – data driven network optimization

Moderator: **Henry Coles**, Head of Airline Distribution Standards, IATA

Eric Nordling, COO, Revenue Management Systems, Inc, an Accelya Group Company

Jorga Ahlborn, Head of Business Development & Analytics, Network Management, Lufthansa Group

Vadim Skritskiy, Data Scientist, Infare

Networking Break

SITAONAIR

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The Future of Offers and Orders: Industry Opportunities with Dynamic Offer
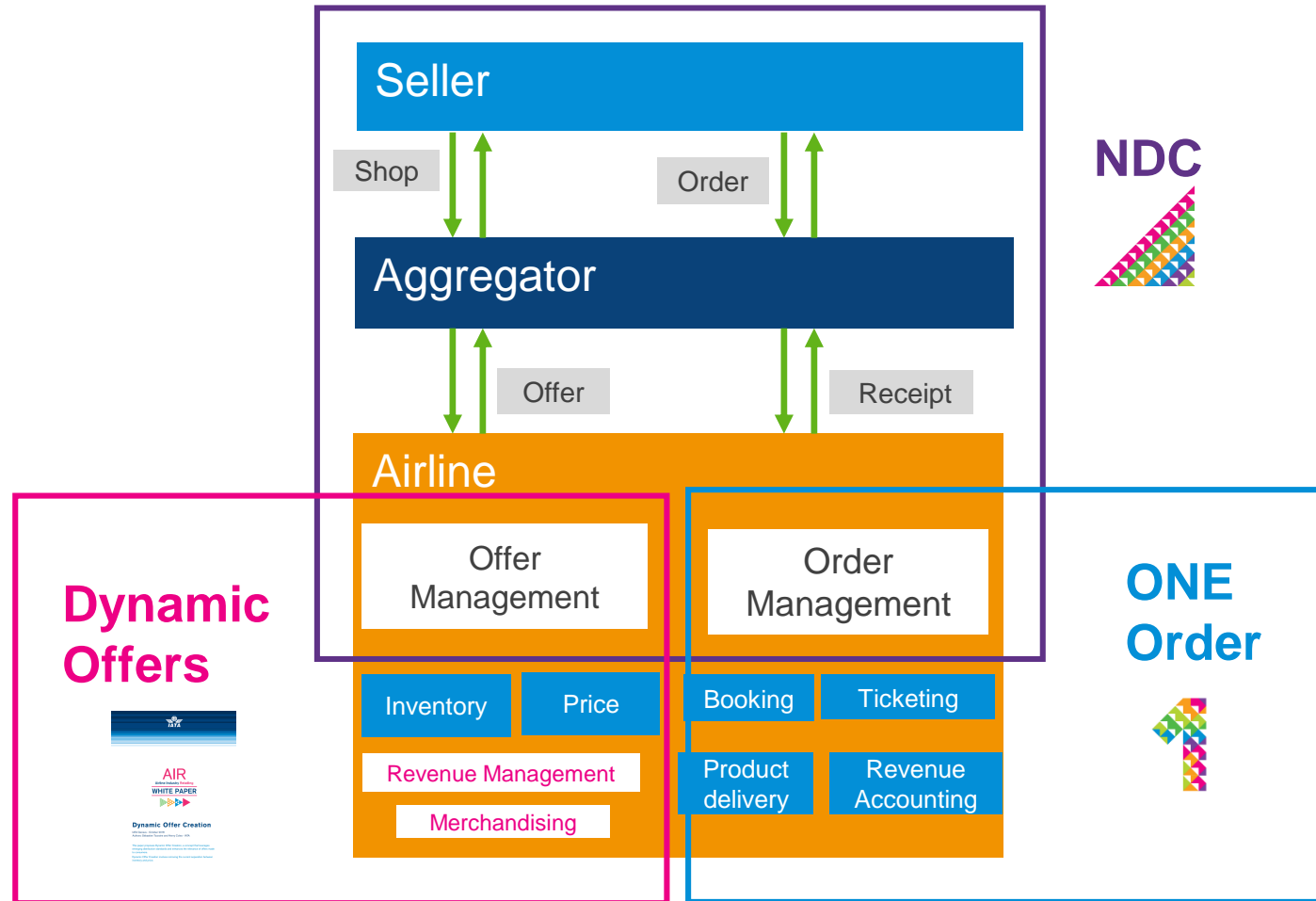
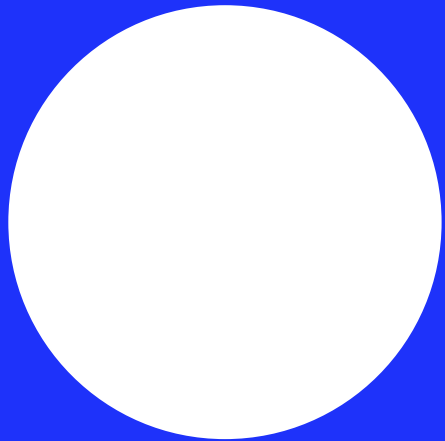**Sébastien Touraine**, Head, Dynamic Offer, IATA

The Future of Offers and Orders

Sébastien Touraine
IATA FDS Transformation
Head - Dynamic Offers Project

IATA Aviation Data Symposium
Athens- 29. June 2019

IATA

Airline Retailing Vision

Dynamic Offers

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Challenge #1
Granularity of price points

To RBD or not to RBD ?
this is the question !

Suboptimal results with today's
fares filing ?

Continuous or Discreet Price point?

Challenge #2
Total Revenue management

Overlapping systems and processes

Optimizing revenue of a complete offer

Control over interline and 3rd party partners

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Challenge #3
Personalization

Knowing "who is asking?" with EDIFACT

Shopping context is key

Agility to change product characteristics for contextualization

Dynamic Offers scope

Relevant offers based on shopping context

Continuous price points

Total offer management

AIR
Airline Industry Retailing
WHITE PAPER

Dynamic Offer Creation

IATA Geneva - October 2018
Authors: Sébastien Touraine and Henry Coles - IATA

This paper proposes Dynamic Offer Creation, a concept that leverages emerging distribution standards and enhances the relevance of offers made to consumers.

Dynamic Offer Creation involves removing the current separation between inventory and price.

The next chapter in Revenue Management ?

1980   2000   2020

Yield Management

O&D Revenue Management

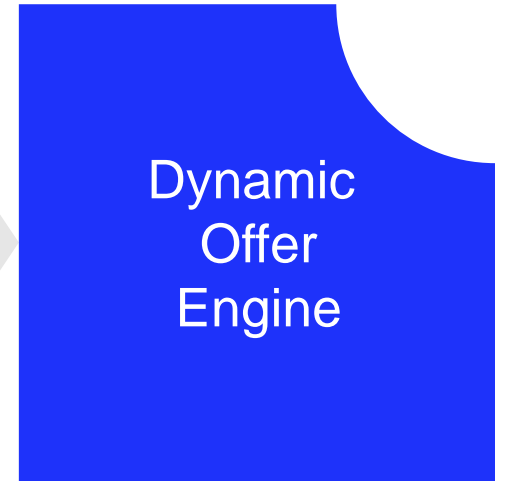**Merchandising**

Dynamic Offer Engine

- Capacity control
- Leg based
- Fare rules segmentation
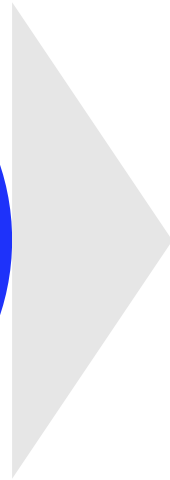
- Network optimization
- BidPrice
- Dynamic Availability

- Ancillaries
- Fare families
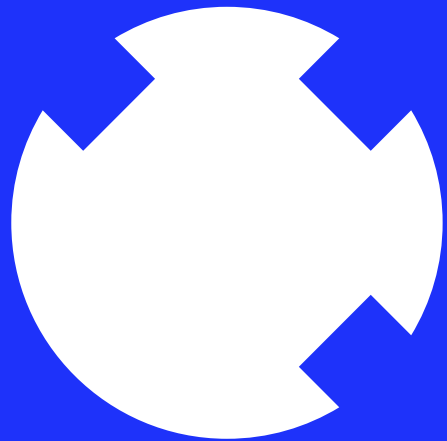
- Continuous Pricing
- Dynamic bundles
- Total Offer Management

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ONE Order

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Industry today: two references

Booking

What: in general a 6 character-code

Why: proof that a reservation has been made

Electronic ticket

What: in general a 15 figure code

Why: proof that a payment has been made (receipt)

A third reference – EMD – is used as payment receipt for ancillaries

ONE Reference

- Consistent **communication** between airlines, travel partners and service delivery suppliers

- **Improved** customer service

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Simplified ecosystem

- **Modernize** travel **ecosystem** to cater with **digital** processes

- **Facilitate** product delivery with real time tracking of services

- **Reduce** processes and systems **complexity**

Expanded partnership

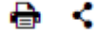- **Connect** with wider industries and enable **greater interoperability**

- Take travel retailing to the next level

ONE Order Certification – Status

ONE Order Registry

This registry lists the companies having gone through the ONE Order certification program.

○ **Airlines** – Any airline that deploys and support ONE Order communication messaging and capability

○ **Vendors and IT providers** – any vendor that offers ONE Order solutions and services (OMS, Delivery Provider, Accounting) can become ONE Order capable

Please see the ONE Order Registry Disclaimer and Terms of Use (pdf).

Search Registry

Company Type	All ▼
Certification/Registration Type	All ▼
Category	☐ Delivery
	☐ ONE Order Delivery - Flight
	☐ ONE Order Delivery - Ancillaries
	☐ ONE Order Delivery - Flight & Ancillaries
	☐ Accounting
	☐ ONE Order Accounting - Flight
	☐ ONE Order Accounting - Ancillaries
	☐ ONE Order Accounting - Flight & Ancillaries
Schema Version	All ▼
Company Name	

SEARCH **RESET** **EXTRACT TO EXCEL**

Search Results (14 companies)

IATA AVIATION DATA SYMPOSIUM

Future of
analytics
with

Offers & Orders

IATA
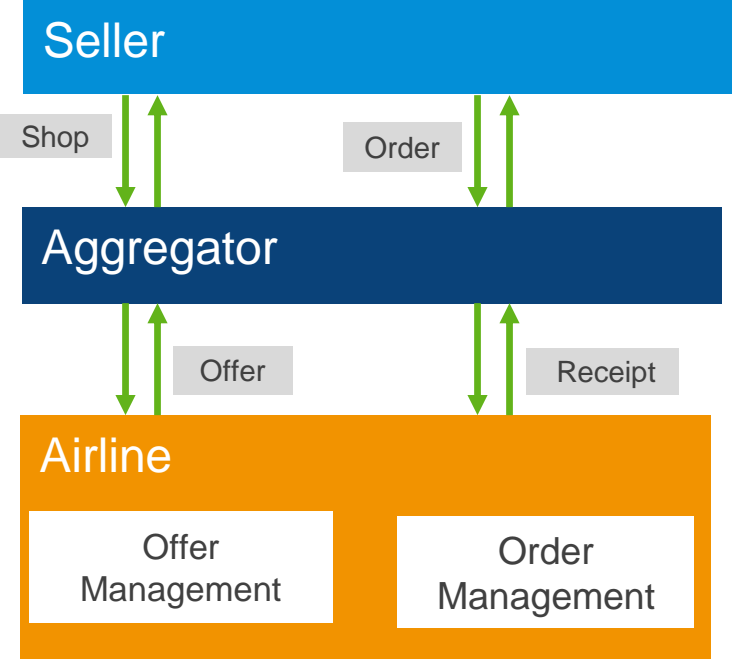AVIATION
DATA
SYMPOSIUM

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Opportunities with Offers

Know "who is asking?"

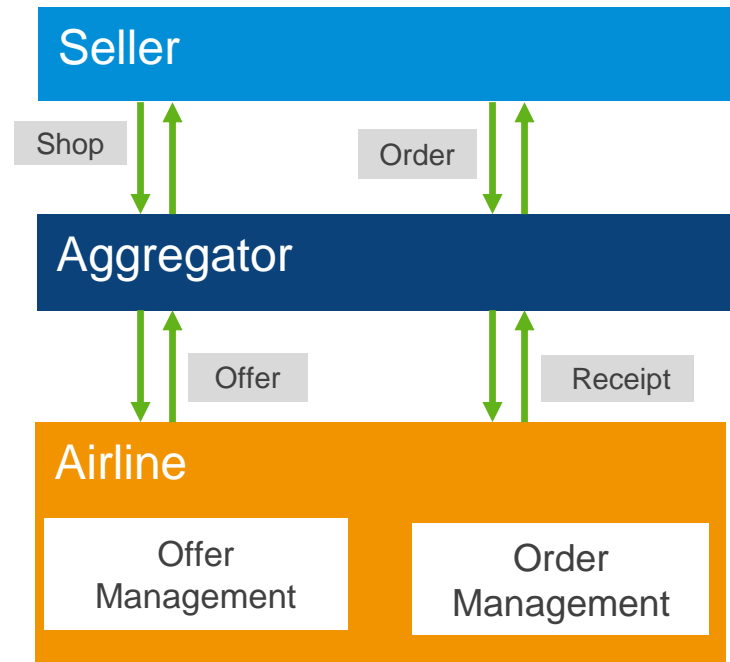Store offers not accepted with shopping context

More data & dimensions in Revenue Management algorithms

Seller

Shop   Order

Aggregator

Offer   Receipt

Airline

| Offer Management | Order Management |

RBD Less Pricing Distribution

Opportunities with Orders

Seller

Shop   Order

Aggregator

Offer   Receipt

Airline

Offer Management

Order Management

Consolidated flight and ancillaries

Real time reporting

Structured data feeding Revenue Management systems

Freedom to create and fulfil any retail-oriented products

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Thank you

Sébastien Touraine

touraines@iata.org

www.iata.org

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Monitoring/Comparing Retailing Offers

Nils Gelbjerg, CEO, Infare

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PRICING INTELLIGENCE | THE REASONS WHY

- On-demand driven charges ⋯ Bundles
- Personalisation
- Holistic offer management
- External effects
- **Supply driven** ⋯ Ancillaries

INFARE

WHAT THE FUTURE HOLDS

New Revenue Sources

Ancillaries & Fare Families

Leverage "unbundled" Pricing Insight to maximise new revenue streams

New Channels

NDC

The technical "backbone" of offer management

An increased need for

Pricing Intelligence solutions

&

More Frequency & more Data

Personalisation

The ability to change pricing according to various factors

Targeting

Dynamic Pricing

The ability to change pricing according to various factors

Speed

INFARE

THE RISE OF ANCILLARY REVENUES

Global Airline Ancillary Revenue Represented an Even Larger Share of Total Revenue in 2018
In Billions

- Ancillary Revenue
- Percent of Total Global Revenue

$22.6 (2010) · $32.5 (2011) · $36.1 (2012) · $42.6 (2013) · $49.9 (2014) · $59.2 (2015) · $67.4 (2016) · $82.2 (2017) · $92.9 (2018)

*Estimates as of November 27, 2018 Source: IdeaWorks, CarTrawler, U.S. Global Investors

Ancillary Revenue/PB +41% CAGR

PAX Revenue/PB -2% CAGR

2009 — 2016

AIRLINE REVENUE MIX
The airline revenue mix is changing due to the global growth of low-cost carriers.
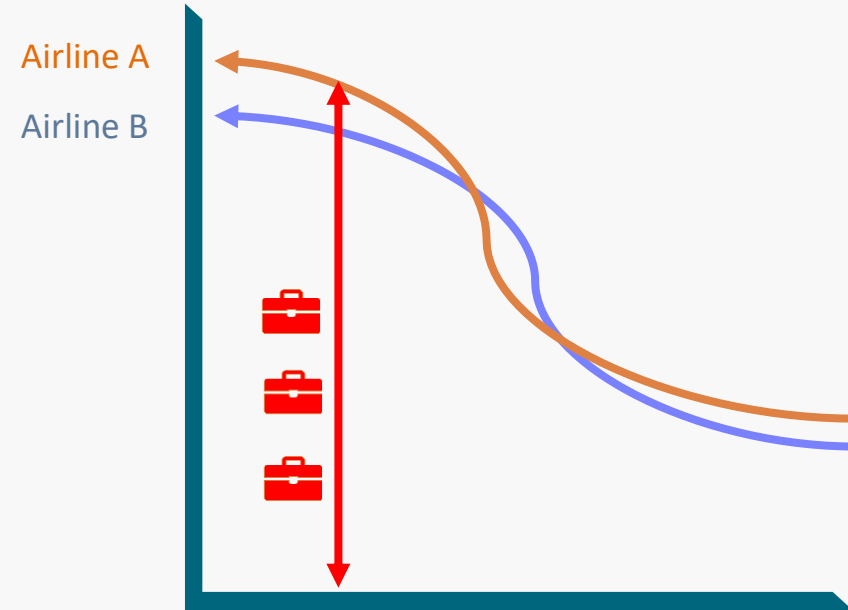
INFARE

ANCILLARY REVENUE & THE FARE COMPARISON DILEMMA
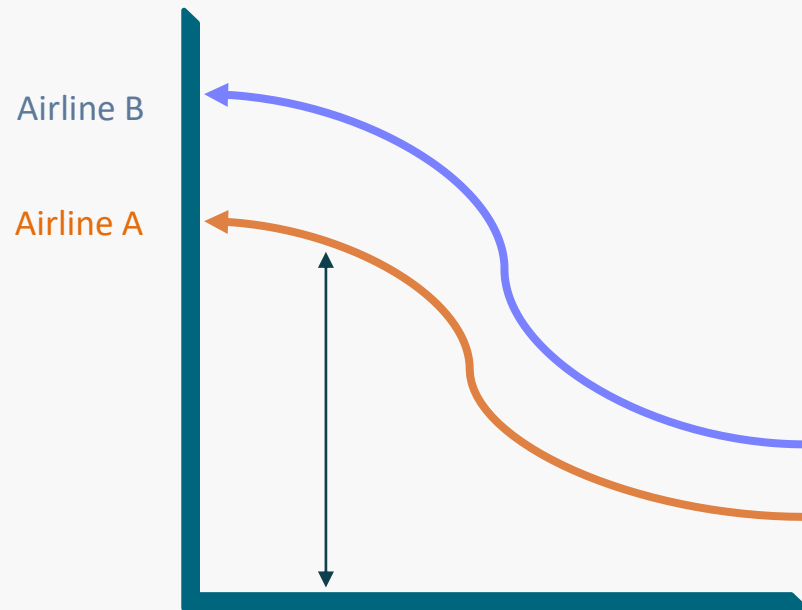
Pricing Curve

Pricing Curve _after_ baggage price is added

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MEANINGFUL BAGGAGE ANCILLARY BREAKDOWN

Selected Route

Airline X Fare 1 Fare 2 Fare 3

Airline X Economy   RT   7

Airline Y Economy   RT   7

Fare 1 Fare 2 **Airline Y**
€40

? | Airline A Economy   RT   7

Airline B Economy   RT   7 | ?

? | Airline C Economy   RT   7

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COMPLETE DATA INSIGHT TO MAXIMISE YIELD

INFARE Airfare Data

3rd Party Ancillary Information

Baggage
Priority boarding
Seat upgrades
Flight change fees
Fast track security
Meals/sandwiches/snacks
Drinks
Much more…

INFARE
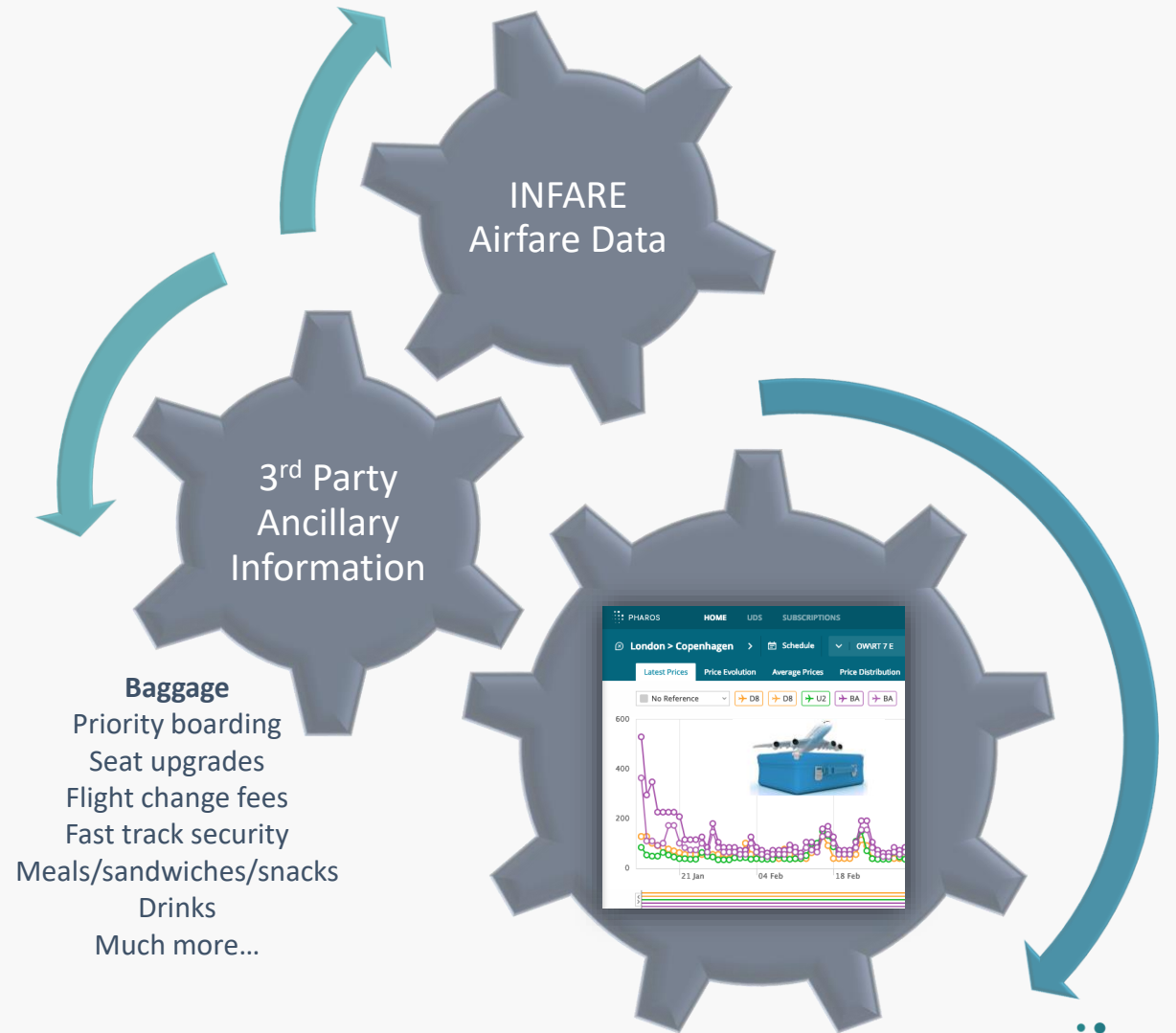
PARTNERING TO OFFER "UNBUNDLED" PRICING INSIGHT

INFARE & ATPCO

BRINGING TRANSPARENCY TO FARE COMPARISON

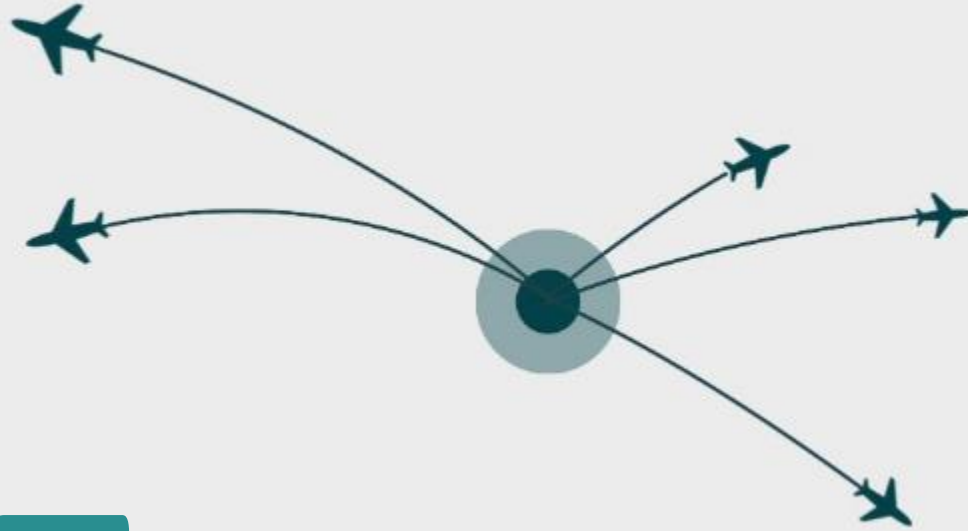Non-transparent Bundled fares

Hybrid models

Shrinking profits

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Enhanced **fares comparability**

Offer more relevant **products and services** for succesful **ancillary revenue strategy**

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WE ARE INFARE

The leading supplier of
airfare data and pricing intelligence tools
in the aviation industry worldwide

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WHAT WE DO| OUR UNIQUE GIVE-TO-GET MODEL

~2 Billion
unique airfares
collected daily

**From 1.300+
online Sources**

Covering 90%
of commercial
aircraft routes

Which equals
130.000+ routes

~3.5 Billion
observations
distributed daily

Via bespoke
data files and
our flagship
BI Tools

Spark™

Machine
Learning &
Artificial
Intelligence

Among our
major areas of
investments

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Thank you!

RELEVANCE

travel in motion.

$$R = W + C$$

travel in m**o**tion.

Relevance = Who + Context

The Formula...

Conversion
Loyalty ———————————————→ REVENUE

DYNAMICALLY OPTIMISED OFFER

Dynamic
Segmentation

How When
What Where

Relevance = Who + Context

RELEVANCE

Key Performance Indicators
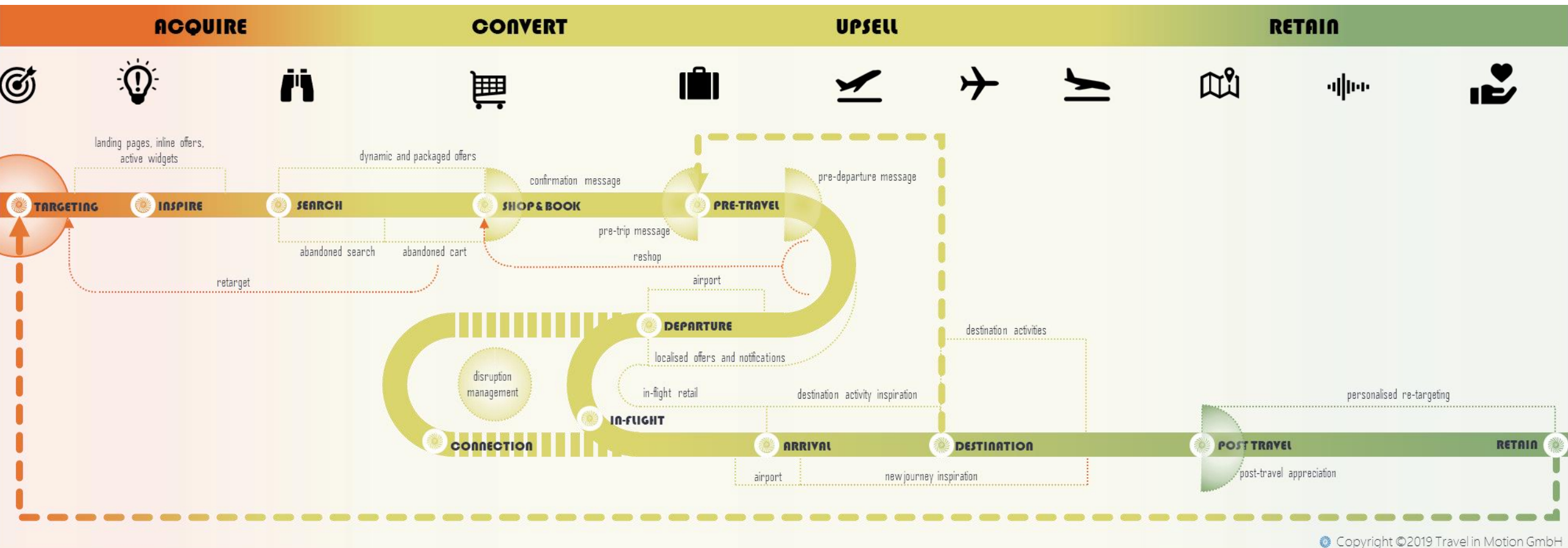
CONTEXT

Derive Context from Environmental Variables
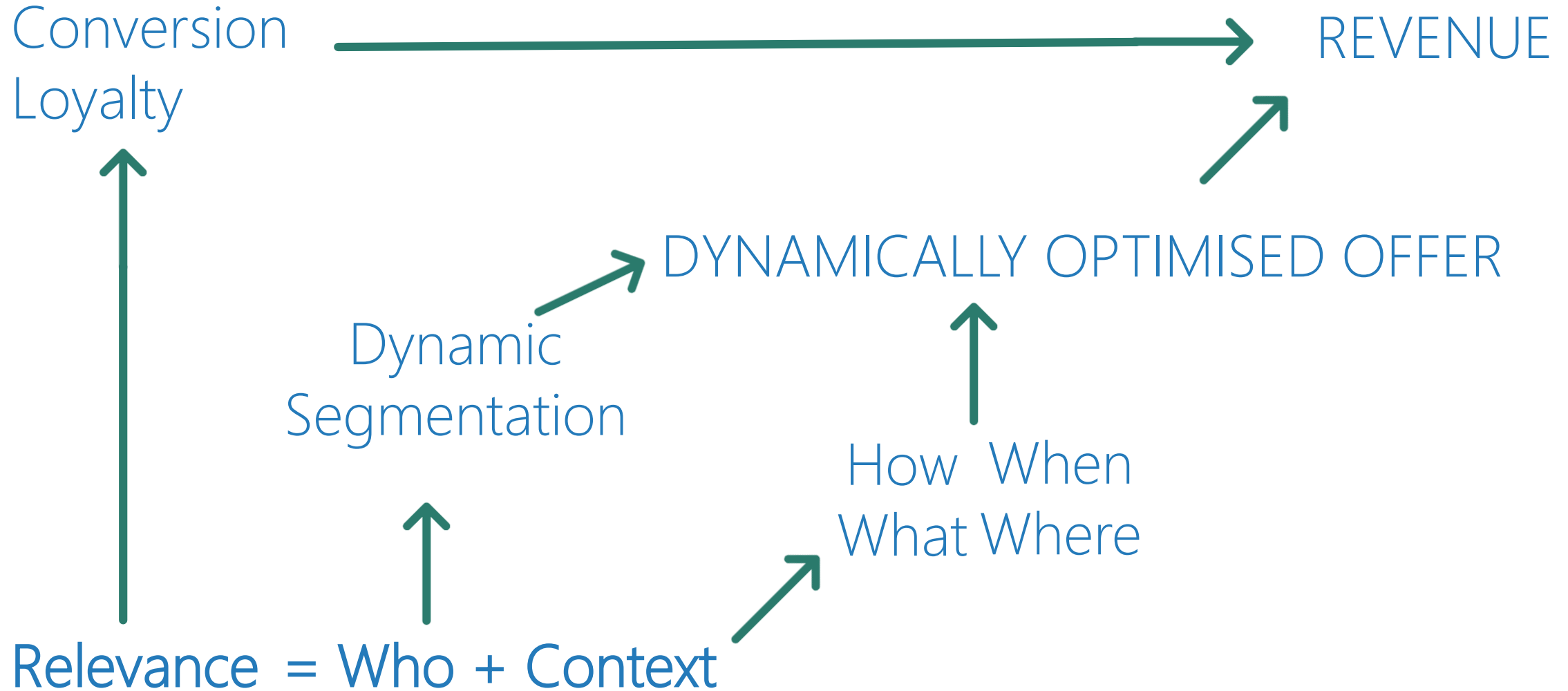
HOW   How is the contact being made (channel, device, etc.)?

WHAT   What are they asking for – what do they really want – Need and Desire

WHEN   When, in the customer journey lifecycle, is the traveller contacting us?

WHERE   Can we understand where this person is on the context of the journey or question they are asking us?

To answer many of these questions, it may be helpful to take external factors such as weather, geopolitics, events, social trends and other factors into account.
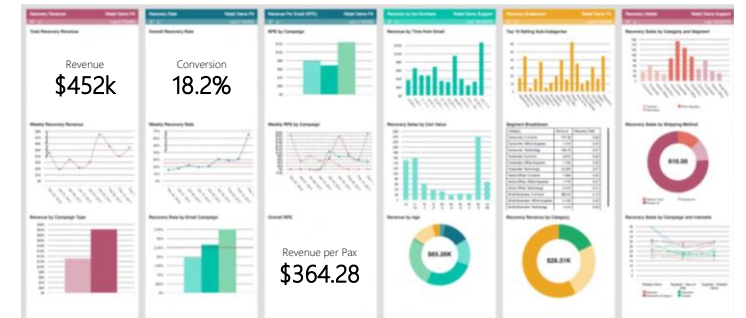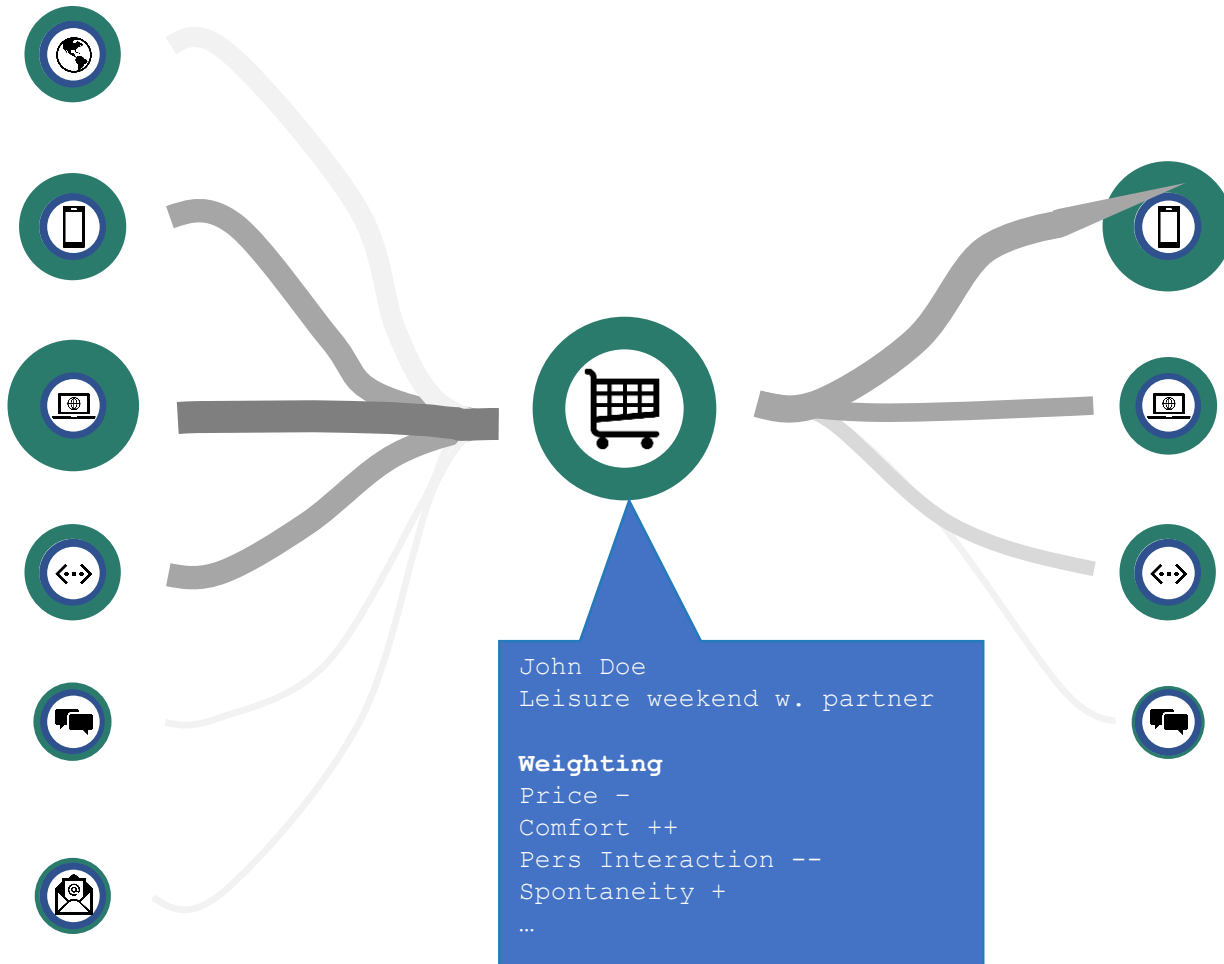
Focus on different aspect of context at different stages of the customer journey
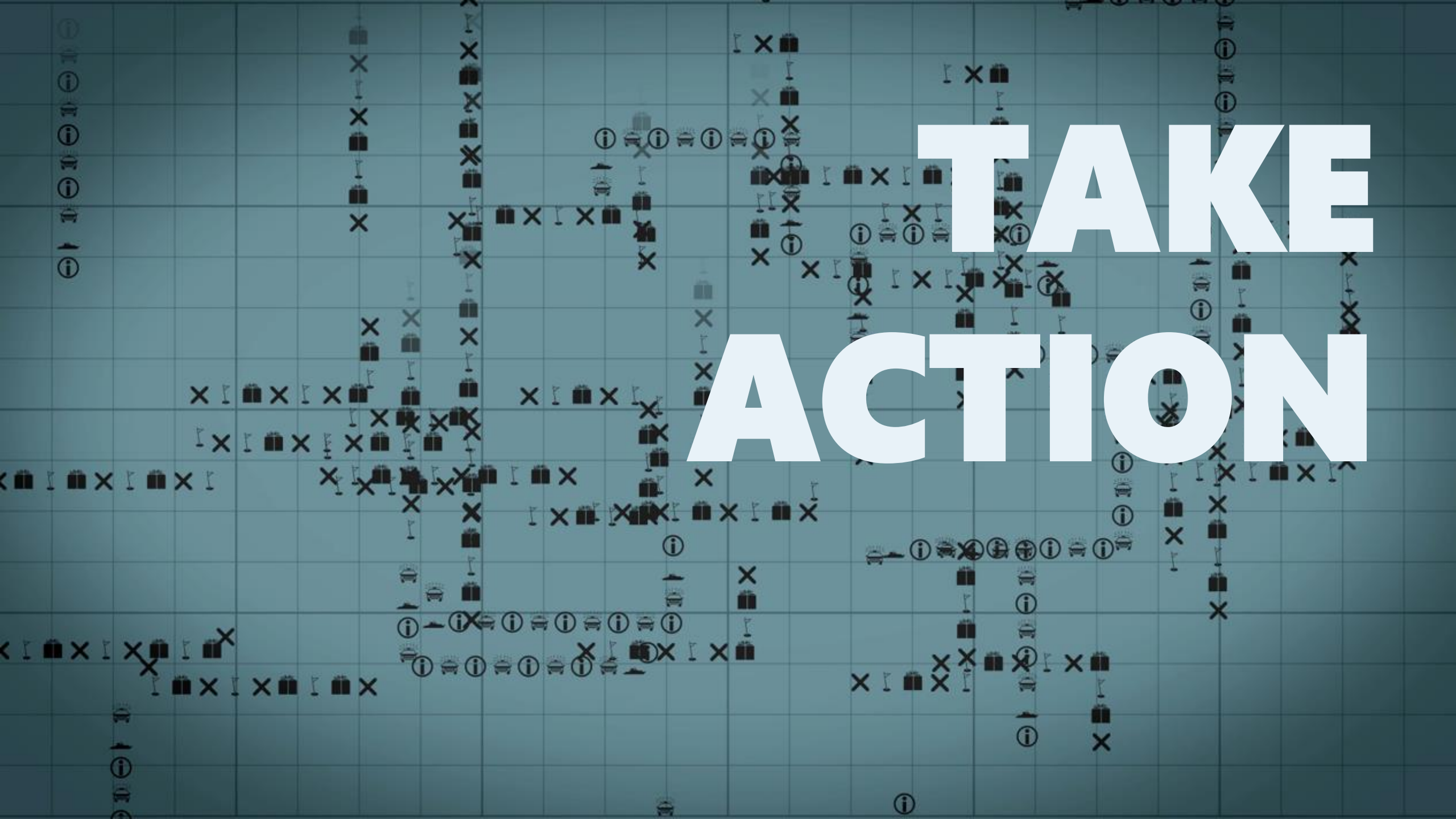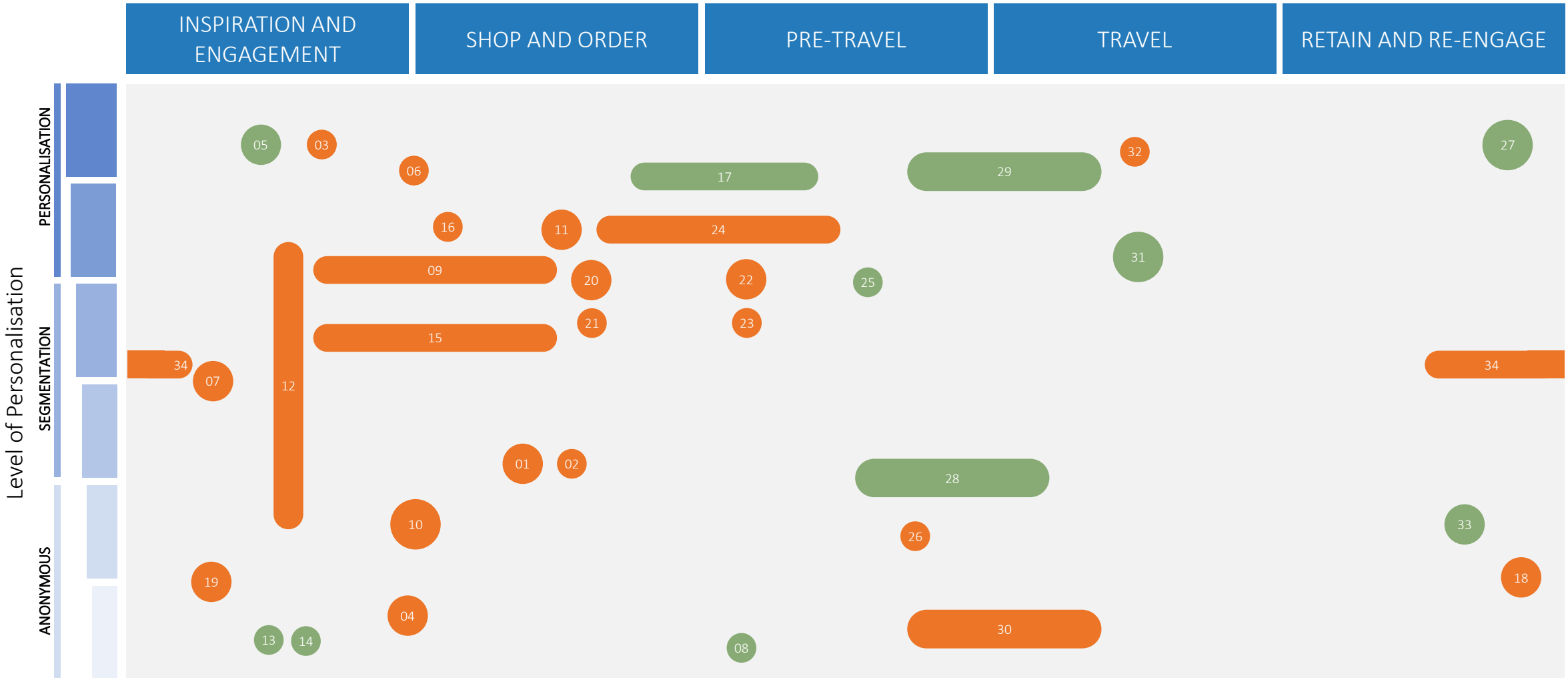
WHO

Dynamic Customer Segmentation

John Doe
Leisure weekend w. partner

Weighting
Price –
Comfort ++
Pers Interaction --
Spontaneity +
…

Revenue
$452k

Conversion
18.2%

Revenue per Pax
$364.28

travel in motion.

TAKE
ACTION

Recipes for Success

- Start simple, but start
- Use the data at hand
- Value and evaluate the use cases
- Think of the complete customer interaction / customer journey

Use Cases throughout the customer journey

Level of Personalisation

PERSONALISATION

SEGMENTATION

ANONYMOUS

| INSPIRATION AND ENGAGEMENT | SHOP AND ORDER | PRE-TRAVEL | TRAVEL | RETAIN AND RE-ENGAGE |

Customer Experience

Revenue and Conversion

In conjunction with OpenJaw — A TravelSky Company

Recipes for Success

UC

→ VALUE →

REVENUE
- Conversion
- Wallet share

CUSTOMER EXPERIENCE
- Better service
- Seamless experience

→ OUTPUT →

EVALUATIONS
- Reports
- Statistics

REAL-TIME
- Inject into processes
- Trigger actions

→ INGREDIENTS →

FEEDS
- Bookings
- Offer requests

REAL-TIME
- Weather, news
- Social media

→ COST →

FIX COSTS
- Setup costs
- Licenses
- Data Subscriptions

VARIABLE COSTS
- Connectors
- Success
- Transactions / Compute Power / Service

$$R = W + C$$

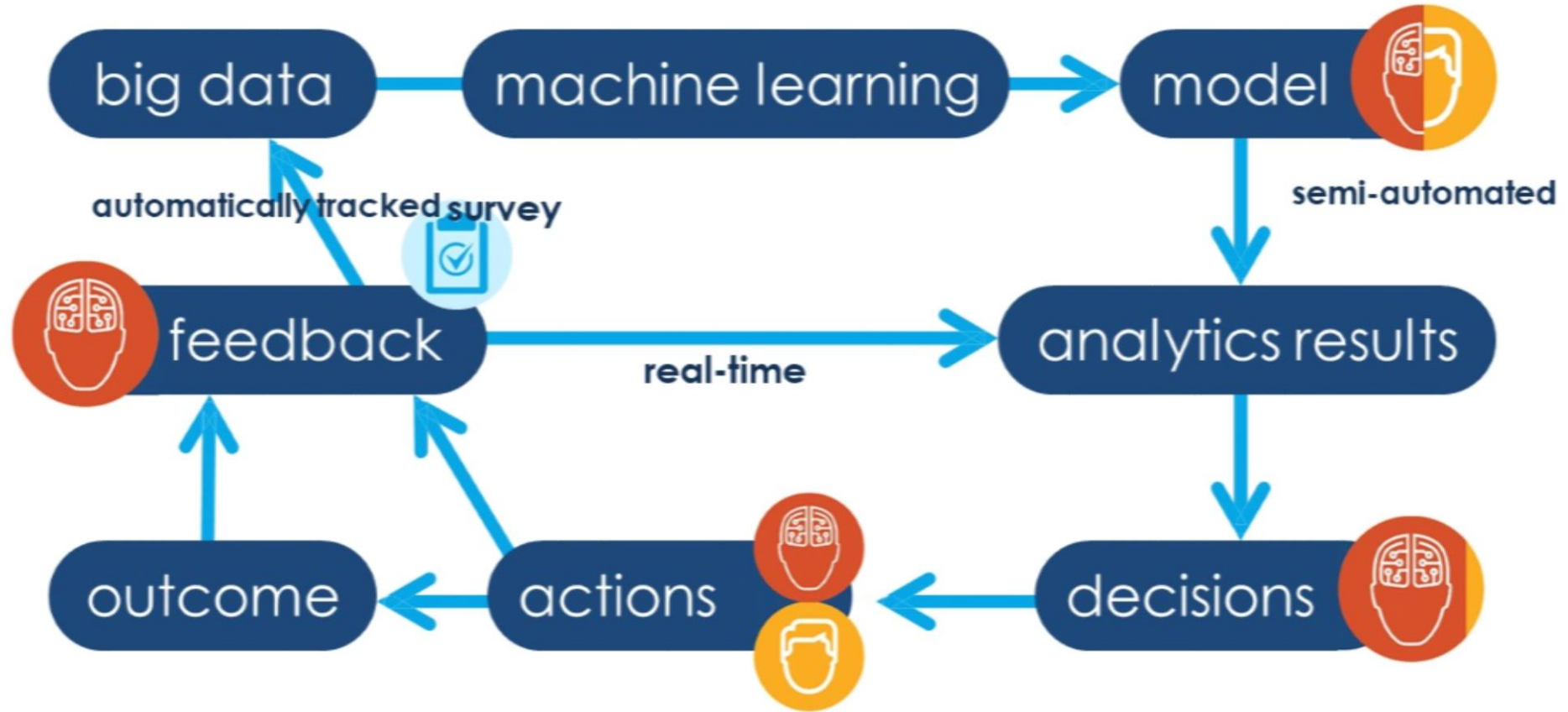# Relevance = Who + Context

Advancing pricing capabilities with data

Tom Gregorson, Chief Strategy Officer, ATPCO

Empirical measurement of disutility costs

observe customer choices

 Big Data
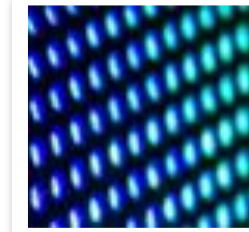
 Bayesian Statistics

 Machine Learning

Possible use case for big data and machine learning

Calculate customer disutility

Disutility cost – perceived inconvenience cost associated with an attribute of a purchased item

Examples of air travel attributes perceived as inconvenient
- Lack of adequate leg room
- No food
- No onboard entertainment
- No WIFI

atpco **+** routehappy by atpco

Example

Assume customer has 3 choices:

- FAR-CLE NONSTOP ECONOMY- $200
- FAR-CLE NONSTOP EXTRA LEG ROOM - $240
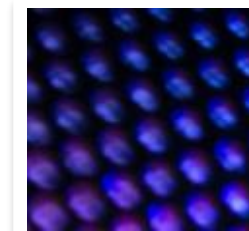- FAR-CLE NONSTOP EXTRA LEG ROOM WIFI - $250

Customer disutility
(perceived cost of not having it)

WIFI = $5.00, Extra Leg Room = $50

$200 fare	$240 fare (with extra leg room)	$250 fare (with extra leg room/WIFI)
$50 disutility of no extra legroom	$0 disutility of no extra legroom	$0 disutility of no extra legroom
$5 disutility of no WIFI	$5 disutility of no WIFI	$0 disutility of no WIFI
Total $255	Total $245	Total $250

Calculation Logic

Empirical measurement of disutility costs: observe customer choices

Complete documentation all attributes of each option

- Origin/Destination
- Passenger attributes
- Path quality
- Timing
- Aircraft type
- Marketing/operating airline
- Seat

- Food
- Entertainment
- WIFI
- Fare restrictions
- Baggage
- Point of sale
- Etc.

Calculation Logic

1. Capture all attributes of each option considered

2. Note purchased product

3. Calculate probability distributions (Bayesian Statistics) to characterize the disutility associated with various attributes by contrasting attributes considered versus chosen along with the cost of each option.

Where it can be used

- Digital customer experience (Internet)
- Airline offer optimization (Business)

What else can we do?
Better understand Willingness to Pay (WTP)

But is WTP constant?
- Weather
- Purpose of the trip
- Events
- Emotional factors
- Short-term surplus of funds

atpco + routehappy by atpco

How do we move forward?

- We need to test and learn!
- Data sharing
- Comprehensive data
- Access to data, open API
- Data usability (data dictionaries, data cleansing, data normalization)

Big data is at the core of your big idea
Let's innovate together

atpco.net/bridge-labs

MENTORING, EXPERTISE, ACCESS TO BIG DATA

Analytics with Offers & Orders

Moderator: **Sébastien Touraine**, Head, Dynamic Offer, IATA

Roland Jaggi, CCO, Aegean Airlines

Jost Daft, Manager Revenue Management & Distribution Strategy, Lufthansa Group

Julia Reichel, VP Sales t-Data, OpenJaw

Tom Gregorson, Chief Strategy Officer, ATPCO

George Khairallah, CEO, JR Technologies

Networking Dinner

Buses depart from the Lobby at 19:00 Sharp

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