# Personalization in Telecommunications – Mission Impossible?

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# OUR KEY FACTS

26.1 mn
fixed-network lines

216,528
employees
worldwide*

€ 108.8 bn
revenue in 2021

21.6 mn
broadband
customers

248.2 mn
mobile
customers

Figures based on annual report 2021.
* Reporting date December 31, 2021

# OUR GUIDING PRINCIPLES IS OUR DRIVER

Delight our customers

Get things done

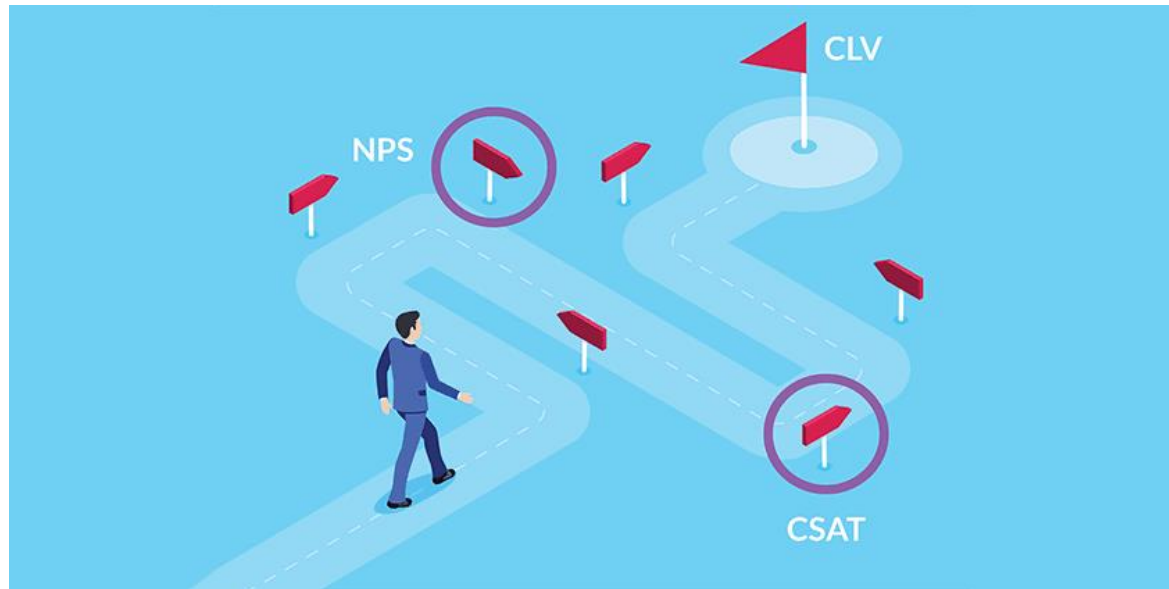Act with respect & integrity

Team Together – Team apart

I am T – Count on me

Stay curious & grow

# PARADIGM CHANGE FROM TURNOVER TO CUSTOMER CENTRIC KPI



https://customerthink.com/the-importance-of-customer-lifetime-value-for-cx-leaders/

- ⊖ Customer Lifetime Value (CLV)
- ⊖ Customer Satisfaction (CSAT) Score
- ⊘ Net Promoter Score (NPS)
- ⊘ Customer Churn Rate
- ⊘ Customer Acquisition Cost (CAC)
- ⊘ Customer Engagement Rate

# MARKETING CAMPAIGN PERSONALIZATION & TELCOS – INSIGHTS FROM A RECENT STUDY
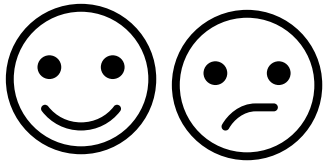
Personalization perception gap
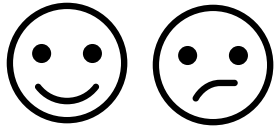
Lack of technology and data

Operators face challenges regarding personalization

Commitment of commercial towards personalization

SOURCE: Telcos, personalization, and the missing millions, Intent HQ, July 2022.

# HOW DO WE DO AT DEUTSCHE TELEKOM?

**Personalization perception gap**

- Many ML-based campaign use cases already in place
- Use cases are spread across company -> no coherent conversation with customer

**Operators challenges**

- Data Lake established to democratize data
- Not all data are real time available
- Operating systems often not capable of RTD
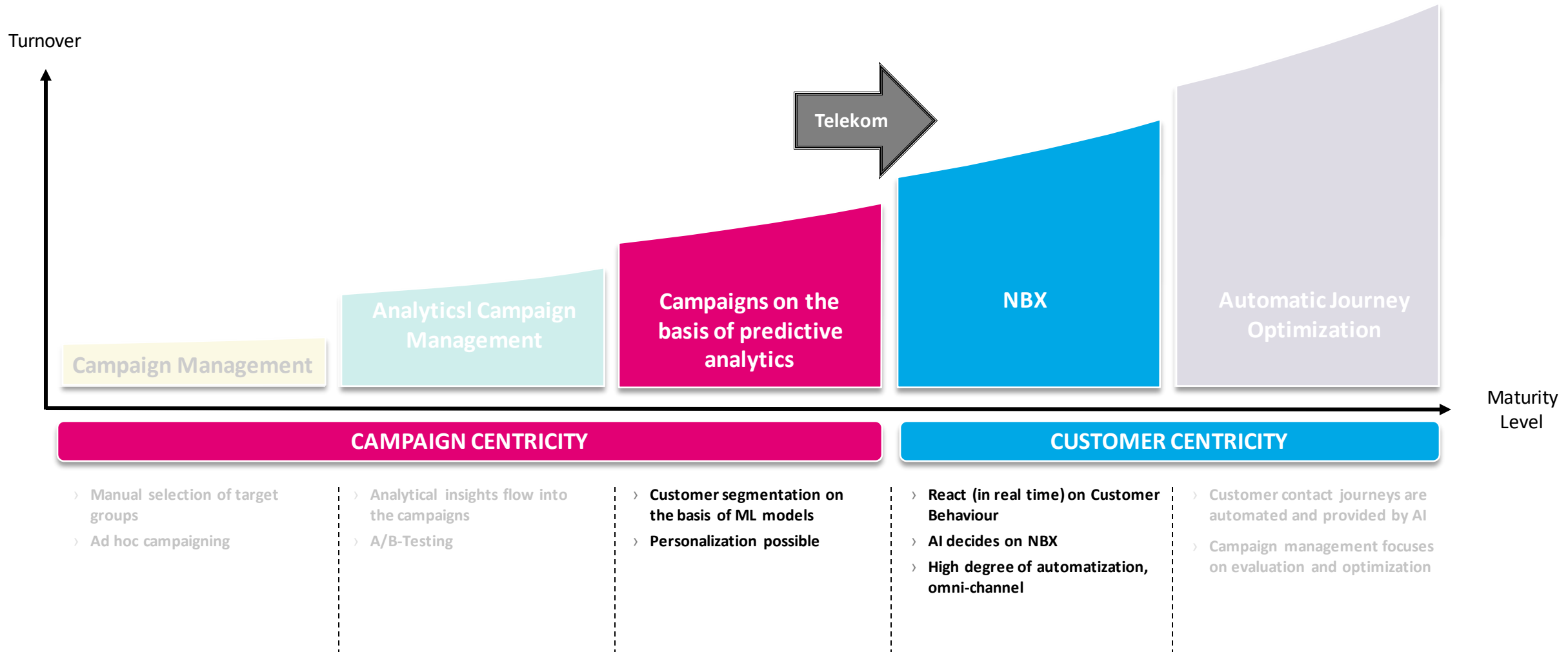
**Lack of technology and data**

- Data from various fields already available
- customer consent is crucial
- Data security issues hamper personalization efforts

**Commitment of Commercial**

- Mind change from mass campaigning towards personalized campaigning
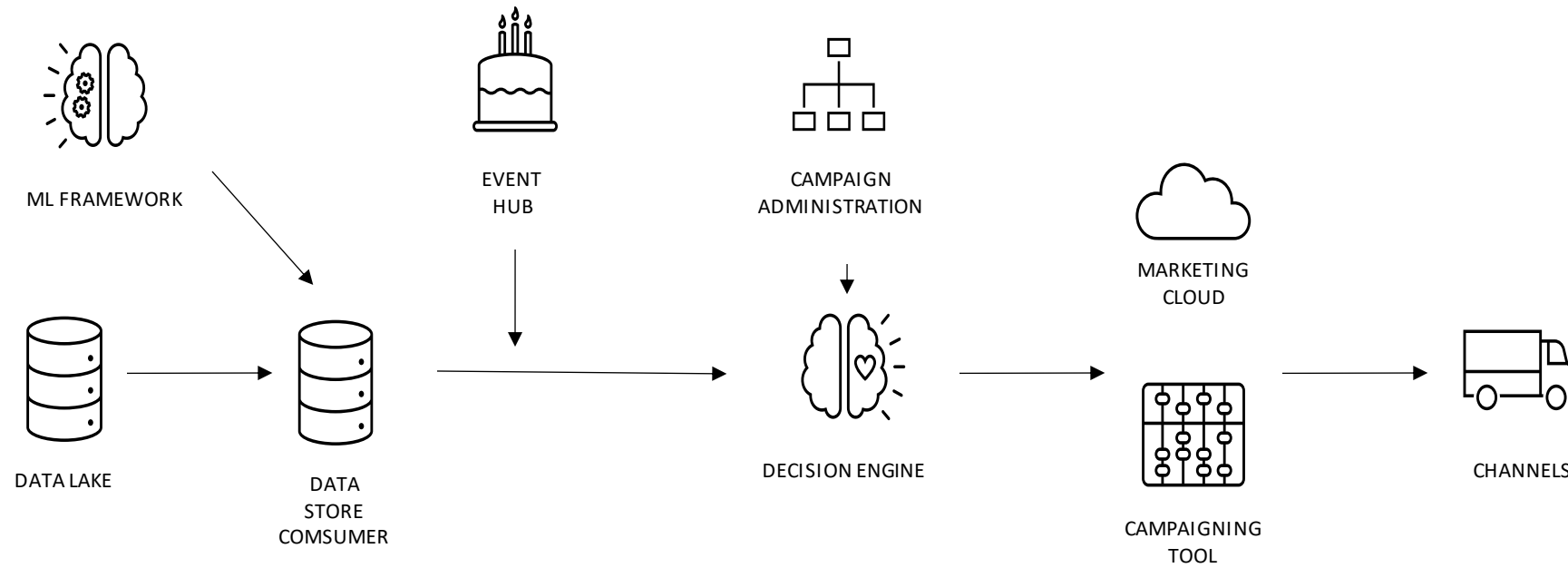- Some marketeers are still convinced that they can do better
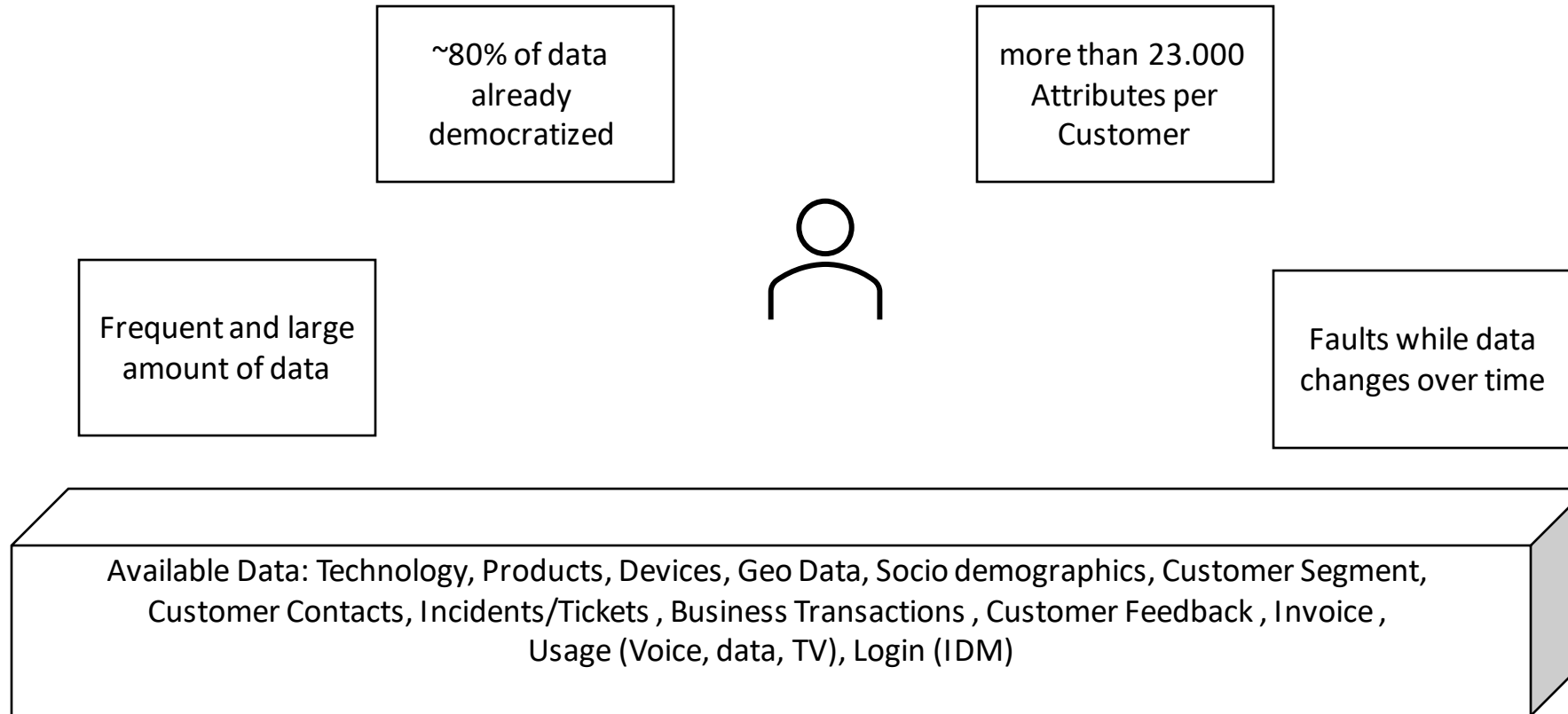
# NBX AS ANSWER FOR THE CAMPAIGN EVOLUTION

Turnover

**Telekom**

Campaign Management

Analyticsl Campaign Management

**Campaigns on the basis of predictive analytics**

**NBX**

Automatic Journey Optimization

Maturity Level

**CAMPAIGN CENTRICITY**

**CUSTOMER CENTRICITY**

| | | | | |
|---|---|---|---|---|
| › Manual selection of target groups | › Analytical insights flow into the campaigns | › **Customer segmentation on the basis of ML models** | › **React (in real time) on Customer Behaviour** | › Customer contact journeys are automated and provided by AI |
| › Ad hoc campaigning | › A/B-Testing | › **Personalization possible** | › **AI decides on NBX** | › Campaign management focuses on evaluation and optimization |
| | | | › **High degree of automatization, omni-channel** | |

# OUR NEW CUSTOMER OFFER STRATEGY

1. Offers are consistent in all channels

2. All customer dialogues will be personalized and if necessary real-time

3. Feedback from the customer or employee is processed for each offer or recommendation from the very beginning

4. The relevant offers and actions are data-driven and the processes are highly automated

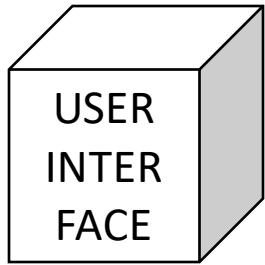5. Active customer contacts changes from mass campaigns to individual one-to-one approaches in all channels

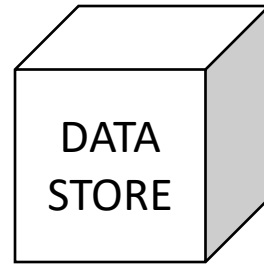# MAIN COMPONENTS TO ADRESS SOLUTION

# DATA AND IT'S COMMON CHALLENGES

~80% of data already democratized

more than 23.000 Attributes per Customer

Frequent and large amount of data

Faults while data changes over time

Available Data: Technology, Products, Devices, Geo Data, Socio demographics, Customer Segment, Customer Contacts, Incidents/Tickets , Business Transactions , Customer Feedback , Invoice , Usage (Voice, data, TV), Login (IDM)

# ML FRAMEWORK TO FEED DECISIONS AND INCREASE TRUST

**USER INTER FACE**

- Clarity and simplicity
- Feedback

**DATA STORE**

- Predefined data set
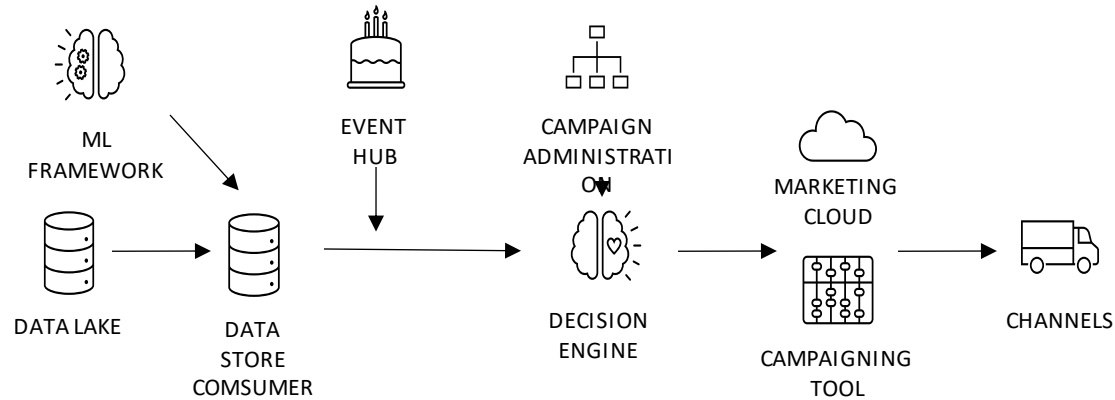- Accessibility
- Reliability

**ML FRAME WORK**
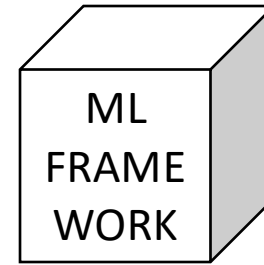
- Performance
- Ease of Use
- Flexibility

**RESULT ENGINE**
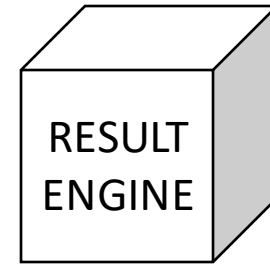
- Transparency
- Explainability
- Trust

# DECIDE ON NEXT STEP INCLUDING LATEST EVENTS



GUARDRAILS

1. Decisioning in Realtime
2. Decisioning for Omnichannel
3. Context is defined by customers experience, current touchpoint and place
4. Customer insights reflect needs and context of the customer

**Synchronous Decisioning**

Start with simple Bayes approach for combining affinity scores and conversion probabilities

**Interaction effects of affinities**

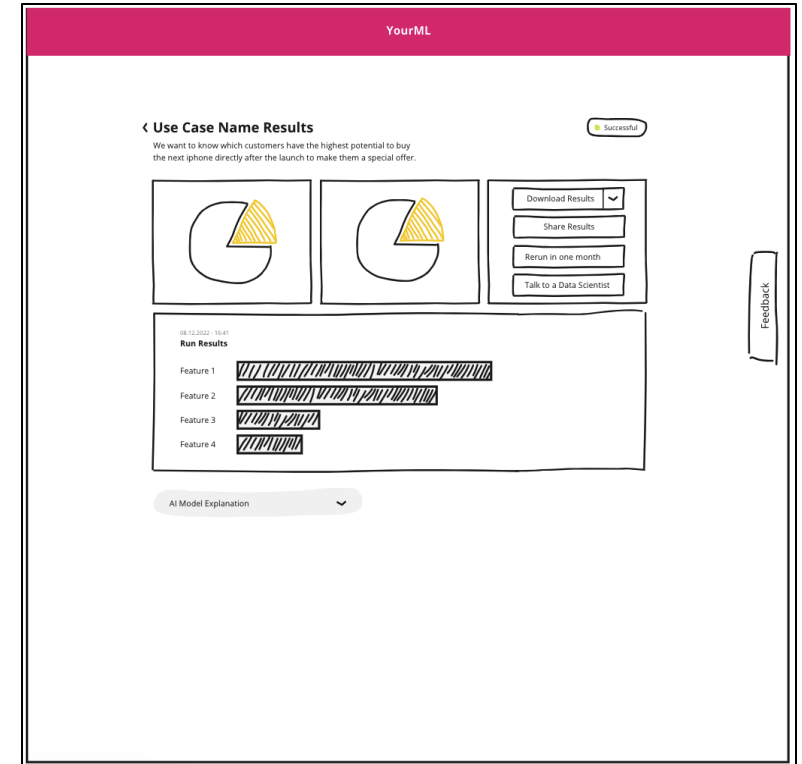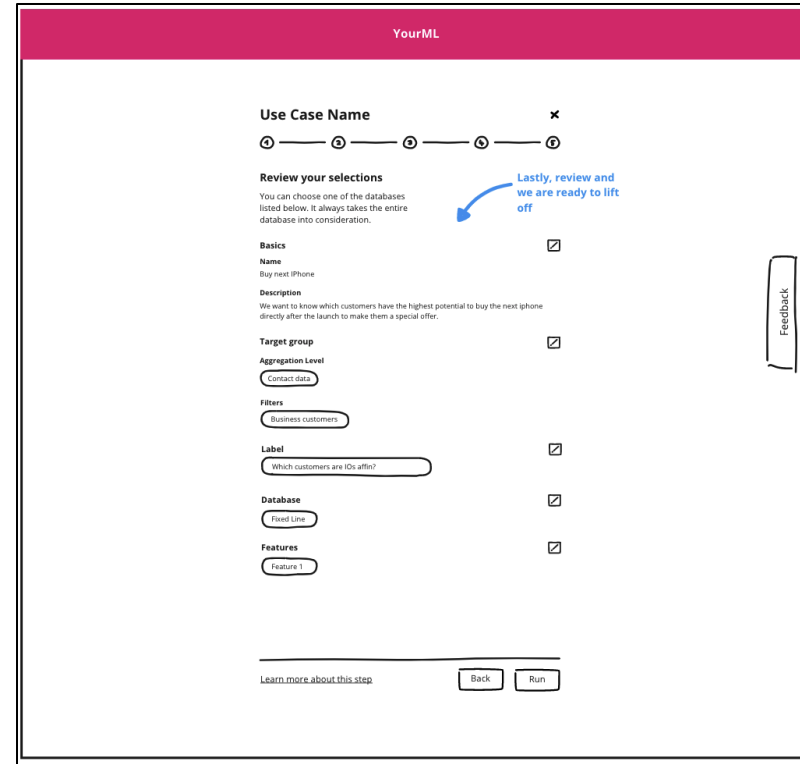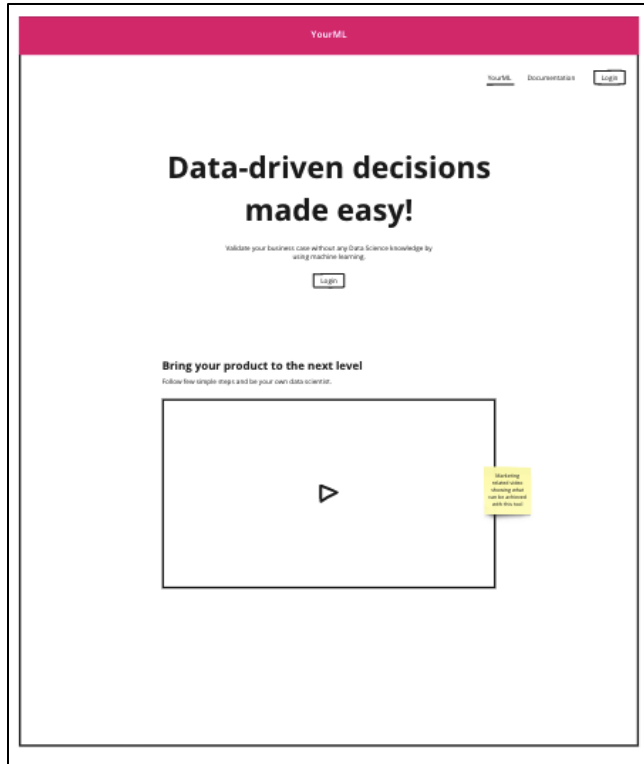Put ML Model on top of affinity scores and conversion probabilities

**Real time**

Integrate real time features into ML model and start testing RL for single touchpoints
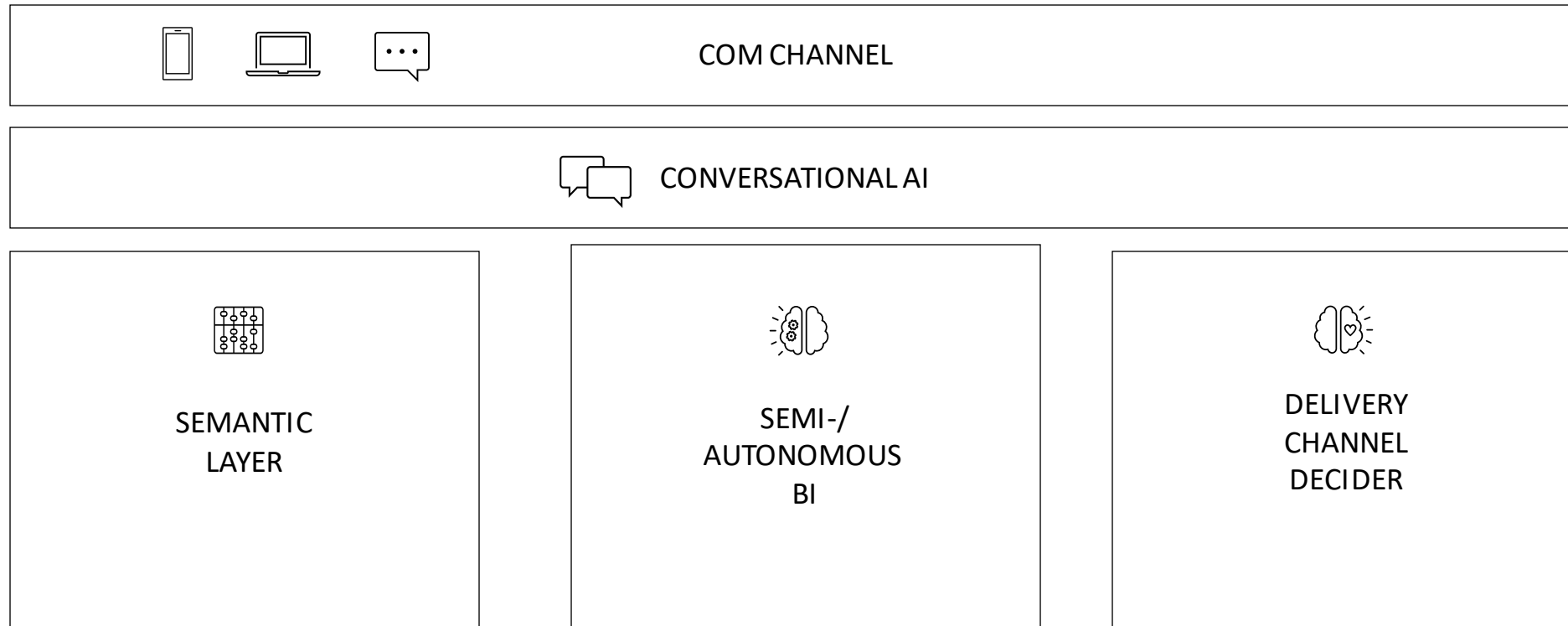
**One Central Decisioning**

One central RL model with a slow learner model (e.g. GBT) as backup

# HOW TO DEMOCRATIZE AND EDUCATE MARKETING

# TOMORROW OF CAMPAIGNING

COM CHANNEL

CONVERSATIONAL AI

SEMANTIC
LAYER

SEMI-/
AUTONOMOUS
BI

DELIVERY
CHANNEL
DECIDER

# MAIN TAKE AWAYS FROM THIS SESSION

YOUR CUSTOMER IS MORE THAN MONEY

ADRESS HER/HIM WITH THE MOST APPROPRIATE OFFER/ACTION

TAKE YOUR ORGANIZATION ON THE JOURNEY

TURN CAMPAIGNING INTO A LEARNING PROCESS