



bubo.ai

Using AI to change the pricing paradigm, charging what your **customer is willing to pay**

hello from **bubo.ai**



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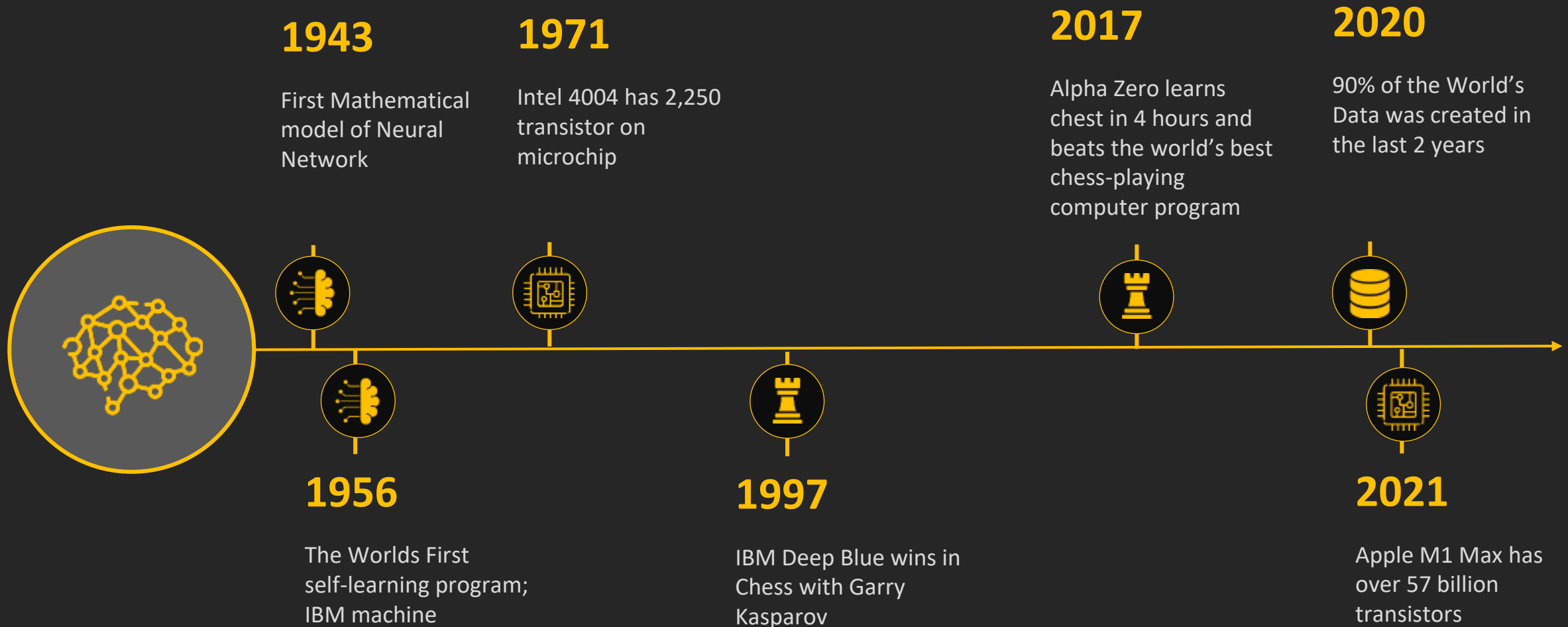
CHIEF DATA SCIENTIST

Key Takeaways

1. What are the key components **for the use of AI in pricing?**
2. How **AI can show a customer's willingness to pay**

Machine Learning is a last century invention...

... only in the recent years it became a feasible & commercialised option



EMERGING TECHNOLOGY is like a teenage sex

Artificial Intelligence

~~MACHINE LEARNING~~

~~BIG DATA~~ IS LIKE A **TEENAGE SEX**:

EVERYBODY TALKS ABOUT IT,
NOBODY REALLY KNOWS HOW TO DO IT,
EVERYONE THINKS, **EVERYONE** ELSE IS DOING
IT, SO **EVERYONE** CLAIMS
THEY ARE DOING IT...

What is AI? And why there is so much 'buzz' about it...

ARTIFICIAL INTELLIGENCE



algorithms that mimic intelligence of the human, with ability to reason, engage and learn

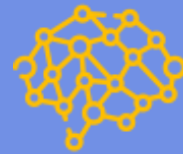
Rule based or Data Driven or Both

MACHINE LEARNING



algorithms that learns without being explicitly programmed and improve as they are exposed to more data

DEEP LEARNING



based on neural network that adapts and learn from vast amount of data



The paradox of a successful AI solution

You **CANNOT** successfully implement AI solution without **AI algorithm**

AI algorithm on its own **DOES NOT** guarantee a successful implementation

So what else...?

DATA



TECHNOLOGY



HUMAN
EXPERTISE



...and
AI ALGORITHM



Why is AI everywhere... really?

AI as

“Augmented Intelligence”,
“Aggregated Intelligence”

is **NOT** the same as true AI...

but visualization tools



ARTIFICIAL INTELLIGENCE



SOCIAL NETWORK ANALYSIS

TIME SERIES ANALYSIS

RECURRENT NEURAL NETWORK

COLLABORATIVE FILTERING

SUPPORT VECTOR REGRESSION

Is B2C and B2B pricing the same? – It's NOT...

B2C PRICING

- small value , high product frequency transactions
- dynamic prices, often changed daily
- discount/sales driven
- large data volume, large number of customers

B2B PRICING

- high volume, low product frequency transactions
- static prices, changed monthly/quarterly
- convenience & relationship
- small data volume, relatively small number of customers

Can AI solve all Pricing Challenges? ... No

Can AI help?

↳ **NO**

CATALOGUE PRICE LIST



50,000
price combination

NO

PRODUCT VS CUSTOMER GROUP DISCOUNT



≈ 300
discount rules

NO

CUSTOMER VS PRODUCT GROUP DISCOUNT



≈ 700
discount rules

YES

SPECIALS PRODUCT VS CUSTOMER DISCOUNT



≈ 300,000
discount rules

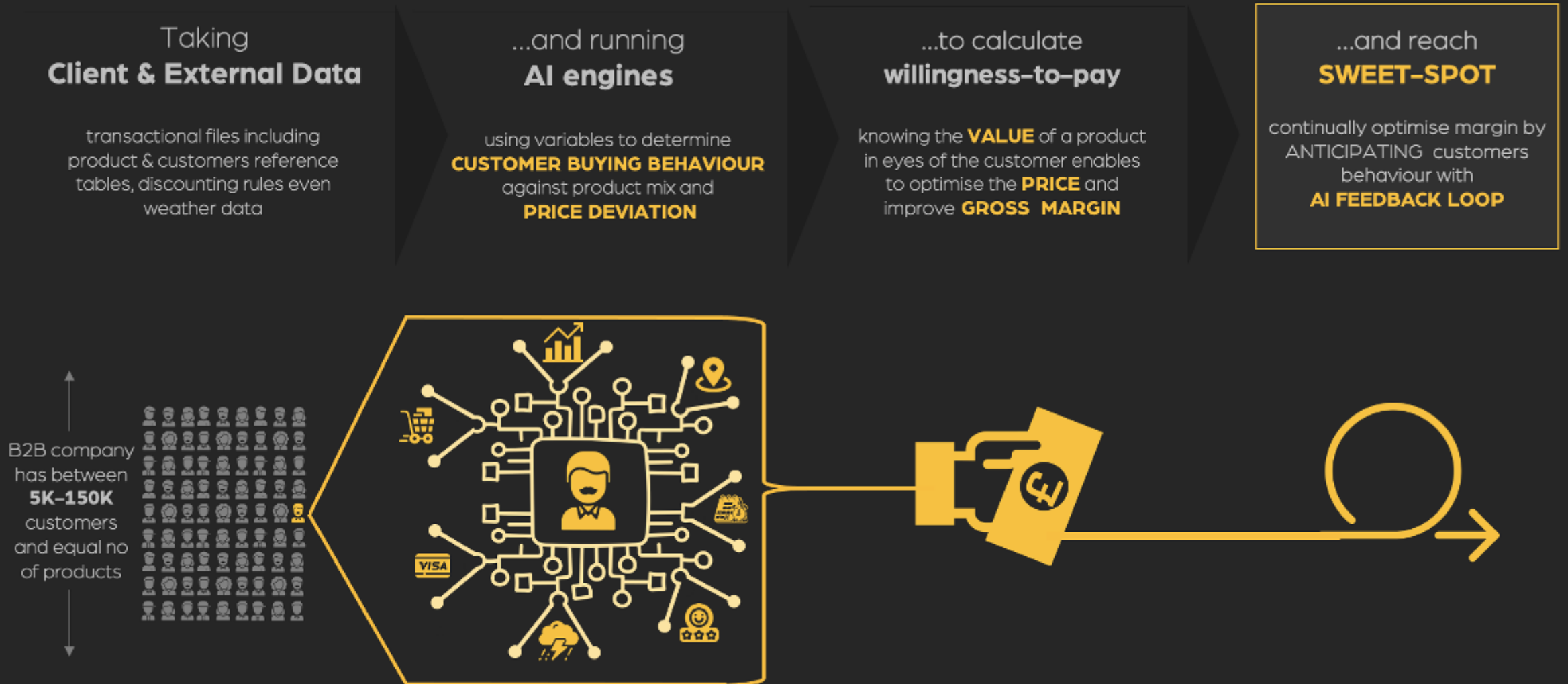
YES

PRODUCT VS CUSTOMER PRICE



750 millions
price combinations

So how AI can help with determine what customer will pay?



If the value-based pricing is the Holy Grail – how AI can help?

CUSTOMERS
MICRO
SEGMENTATION



DEMAND
FORECASTING &
SCENARIOS MODELING



CUSTOMERS
BEHAVIOUR CHANGES



CUSTOMER/ PRODUCT
PRICE OPTIMISATION



FEEDBACK LOOP,
LEARNING &
IMPROVEMENT



Putting all together – use case

BACKGROUND

European based Car Parts distributor with over €1 billion annualized revenue. Pricing strategy was driven by discount rules (over 2 millions) and manual price adjustment

OBJECTIVE

Improve Gross Margin by optimizing the price based on the customer willingness to pay.



over 200
branches



100,00
Customers



150,000
products



900
sales agents

Using AI to predict what the customer will pay and do



Customer micro-segmentation identified the product mix and vehicle types that each customer is likely to purchase, buying behavior & price sensitivity.



Each segment had simulated revenue, margin scenarios including likelihood & associated risks



Each customer was monitored to determine a potential drift or churn due to the price changes.



Optimum price was tuned based on the customer behaviour changes, including the conversion rate, price sensitivity, product seasonality & availability.



5% increase of gross margin value

10% reduction of the customer churn

3% increase of revenue

5% reduction of sales team price overstrike