



# Predictive Pricing Guidance in Tendering Using Machine Learning

**George Boretos**

Co-Founder & Co-CEO



# THE EUROPEAN UNION TENDER MARKET

IN NUMBERS



**670  
BILLION**

Total Tender Value across  
the EU Yearly



More than **250.000**  
Tenders published every year



The number of  
tenders is  
growing at **10%** Yearly



**€ 0.6M** Median Value  
per Tender



CUBE 

Source: Based on data (average values 2016-2018) from TED (Tender Electronic Daily), ©European Union, <http://ted.europa.eu>, 1998-2022

# The Manufacturing Tender market in the EU is big and growing but also very demanding



## It's big

**€70bn**

Annual value  
of tenders

**60,000**

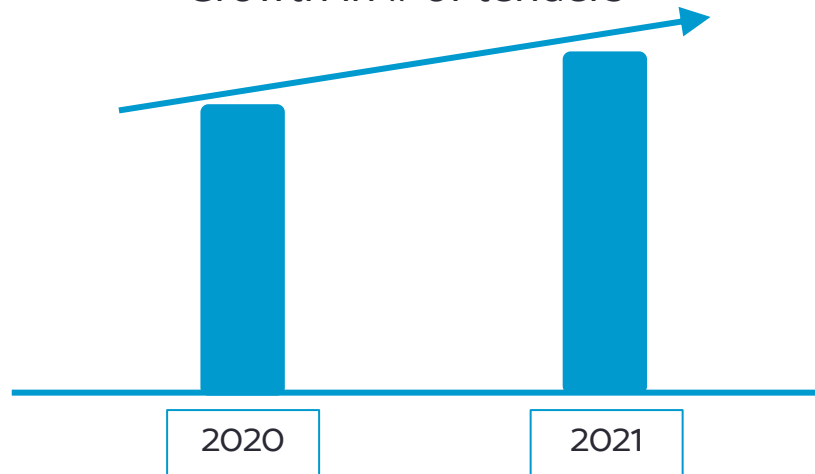
Annual number  
of tenders



## It's Growing

**6%**

Growth in # of tenders



## It's Demanding

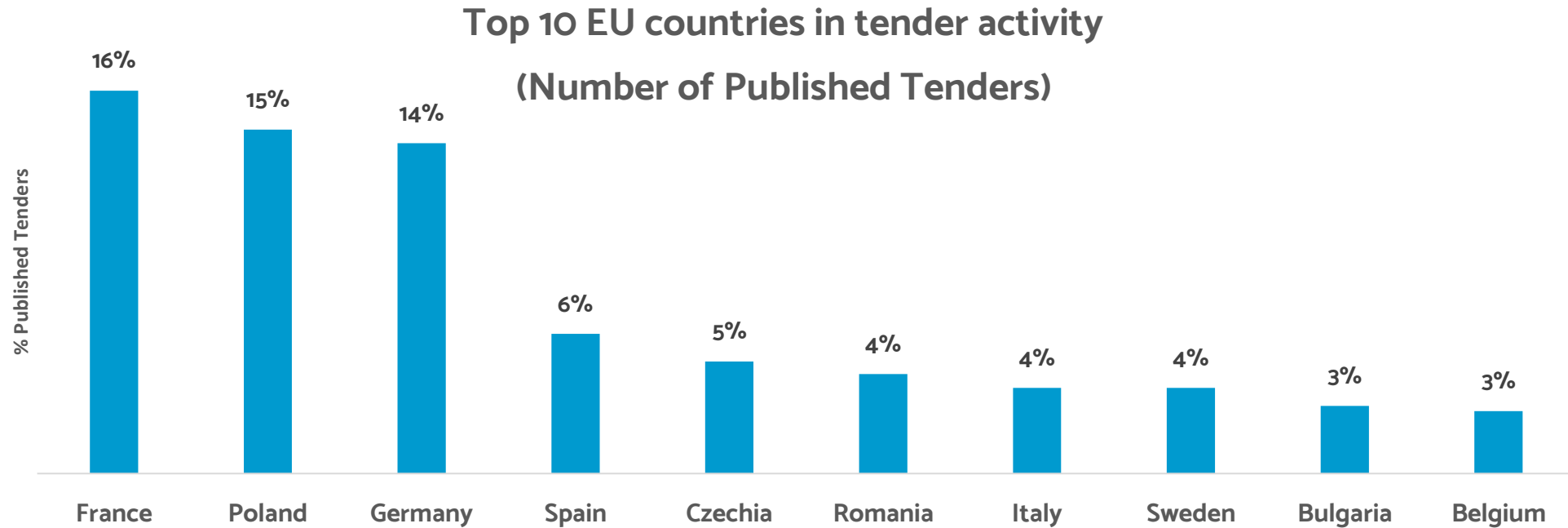
**66%**

Tenders with mixed  
price & qualitative criteria

**39days**

from publication  
to submission

# ...and it involves most countries but with varying levels of activity



Large diversity in Tender activity/country

**Having more information for the market and predictive insights can definitely help but..**



# CHALLENGES IN APPLYING PREDICTIVE MODELS



Predicting in absence of big data or data altogether!  
Quality criteria that make each & every tender unique

Lack of Data & a lot of Diversity



**Very difficult to identify patterns**

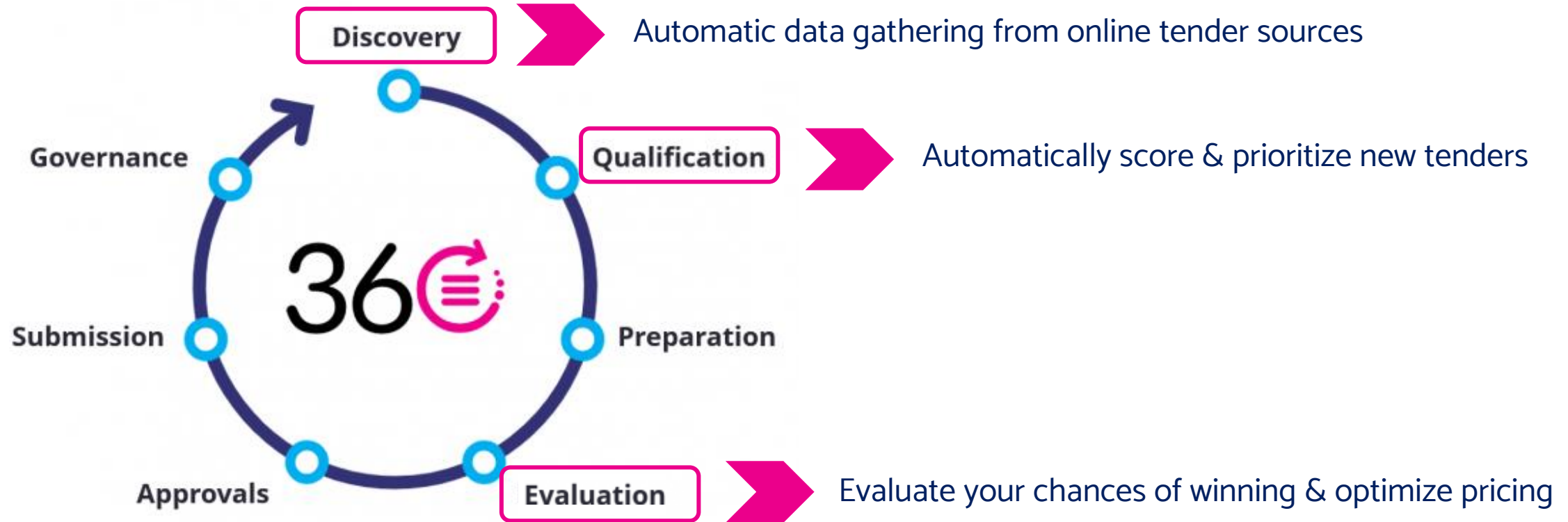


## WHAT WE NEED

**Highly specialized predictive models for tendering**

- They can work efficiently with less data
- They incorporate tender intelligence and can understand the criteria & evaluation rules used in tenders

# Cube RM Tender Central: Proactive & End to End tender management using AI



# Enabling AI Technologies

## Natural Language Processing (NLP)



- Smart search with keywords
- Similar & misspelled terms
- Check multiple languages
- Customer mapping
- Tender details

## Machine Learning



- Pricing guidance
- Probability to win
- Predict performance
- Sales scenarios



# Automated Data Gathering

**Step 1: Gather & Consolidate**  
information

**Step 2: Screen & Analyze** for  
relevance using **NLP**

Country	Date	Title	Source
DE	2020-09-23	Abteilung einer nicht-ärztlichen Rettungsabteilung nach § 130 a Abs. 9 SGB V zu F	2020-09-23
HR	2020-09-19	2020-09-19	2020-09-19
RO	2020-09-19	Sphincter Clinic de Urgenta „Agapele Inimii”	2020-09-24
FR	2020-09-19	GCS Achats de Centre	2020-09-24
ES	2020-09-19	Servicio General, Quilómetros	2020-09-25
ES	2020-09-18	Servicio Andalus de Salud, Área Hospitalaria Virgen del Rocío	2020-09-22
HR	2020-09-18	Klinika za Infektivnu bolest Dr. Fran Mihaljević	2020-09-21
PL	2020-09-18	Kliniczny Szpital Wojewódzki w Łodzi, Polysklepsy Chylnie w Roznowie	2020-09-25
PL	2020-09-18	Semodzialny Publiczny Zakład Opieki Zdrowotnej w Białym „Szpital Praski”	2020-09-24
SK	2020-09-18	Angros 115	2020-09-26
SK	2020-09-18	Angros 115	2020-09-25
RO	2020-09-18	Sphincter Municipal de Urgenta Roman	2020-09-24
DE	2020-09-17	Abteilung einer nicht-ärztlichen Rettungsabteilung nach § 130 a Abs. 9 SGB V zu F	2020-09-23
PL	2020-09-17	Centrum Diagnostyki Zębów Lubuskiej Wz. Sz. Jaw z D&B	2020-09-24
PL	2020-09-17	Semodzialny Publiczny Zakład Opieki Zdrowotnej	2020-09-24
CZ	2020-09-17	Kaučovní nemocnice Plzeň	2020-09-18
CZ	2020-09-16	Nemocnice Na Homolce	2020-09-04
RO	2020-09-16	Sphincter sublocului de Urgenta „Sfanta Ana din Nou” Suceava	2020-09-23
HR	2020-09-13	Angros 115	2020-09-25
RO	2020-09-13	Serviciul de Urgenta de Primarie	2020-09-21
PL	2020-09-13	Centrum Diagnostyki Zębów Lubuskiej Wz. Sz. Jaw z D&B	2020-09-21
PL	2020-09-13	Centrum Diagnostyki Zębów Lubuskiej Wz. Sz. Jaw z D&B	2020-09-21
SK	2020-09-11	Angros 2020-1-701 a	2020-09-21
CZ	2020-09-11	Lečiva přírodně a čistě přírodně s obsahem vitamínů B12 a B6	2020-10-06

Multiple Countries

Multiple Online Sources

Multiple Languages

Similar and misspelled terms

**NLP**  
Smart  
Keywords  
Search

Product categories & keywords

# Qualify New Tenders

	TYPE	QUALIFICATION	C...	LOTS	PUBLICATION	CUSTOMER
1	Active	★★★★★	DE	1	2019-09-23	GWQ ServicePlus AG
2	Active	★★★★★	MK	335	2019-09-19	JZU Opsta bolnica 'Borka Taleski' Prilep
3	Active	★★★★★	RO	76	2019-09-19	Spitalul Clinic de Urgență „Bagdasar-Arseni”
4	Active	★★★★★	FR	14	2019-09-19	GCS Achats du Centre
5	Active	★★★★★	ES	1	2019-09-19	Dirección General, Osakidetza
6	Active	★★★★★	ES	1	2019-09-18	Servicio Andaluz de Salud, Área Hospitalaria Virgen del Rocío
7	Active	★★★★★	HR	11	2019-09-18	Klinika za infektivne bolesti Dr. Fran Mihaljević
8	Active	★★★★★	PL	15	2019-09-18	Kliniczny Szpital Wojewódzki nr 1 im. Fryderyka Chopina w Rzeszowie
9	Active	★★★★★	PL	35	2019-09-18	Samodzielny Publiczny Zakład Opieki Zdrowotnej w Bochni „Szpital Powiatowy
10	Active	★★★★★	DK	2	2019-09-18	Amgros I/S
11	Active	★★★★★	DK	6	2019-09-18	Amgros I/S
12	Active	★★★★★	RO	113	2019-09-18	Spitalul Municipal de Urgențăș Roman
13	Active	★★★★★	DE	1	2019-09-17	GWQ ServicePlus AG
14	Active	★★★★★				
15	Active	★★★★★				
16	Active	★★★★★				
17	Active	★★★★★				
18	Active	★★★★★				



## Qualification score

Weighted score based on many criteria

### Keywords

Focus on tenders with more relevant keywords identified

### Budget

Focus on tenders with high or low budget values

### Success rates

Focus on tenders with high probability of winning

### Profitability

Focus on the most profitable tenders

### Supply capacity

Avoid tenders which may result in supply shortages

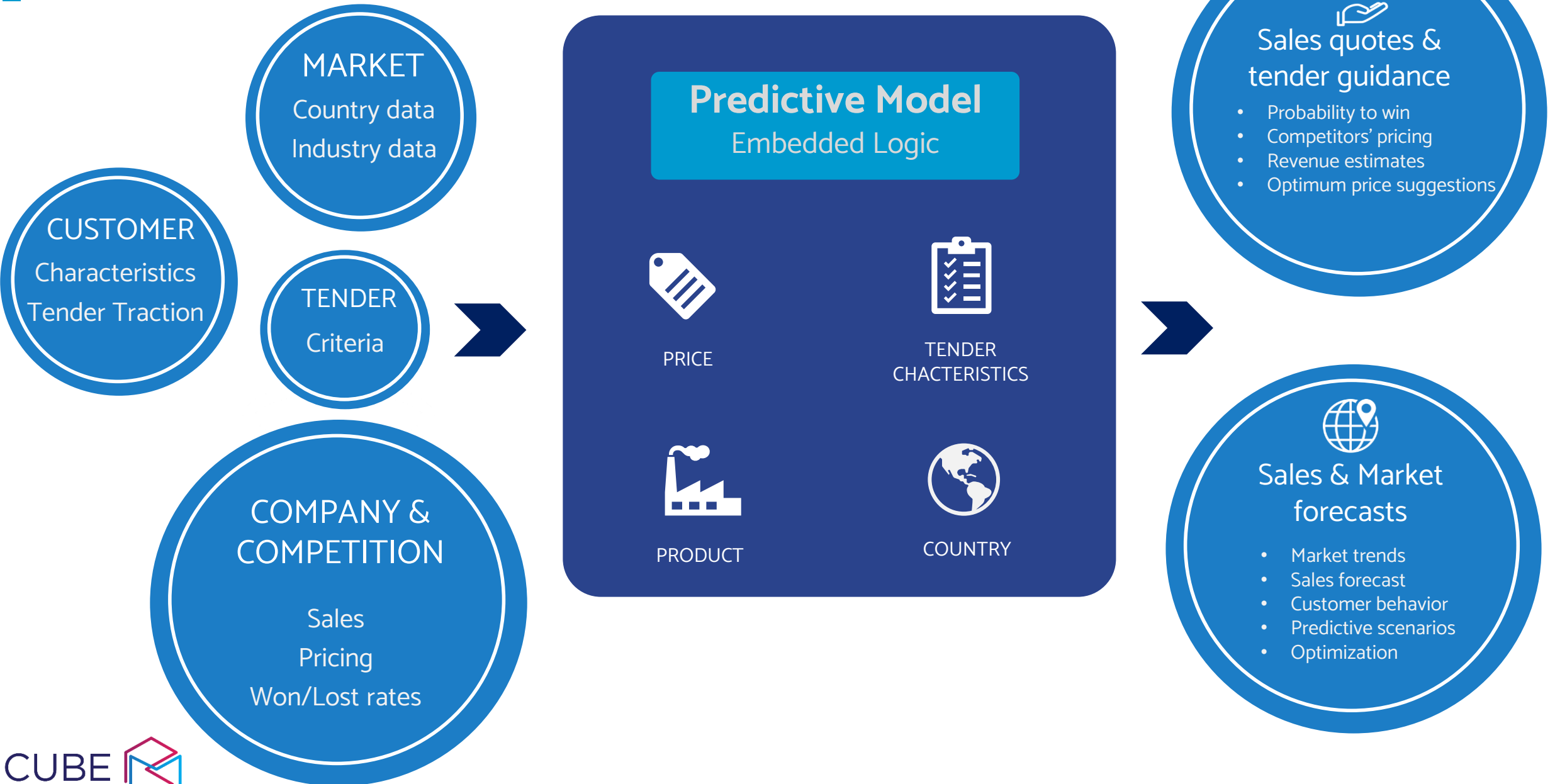
### Strategic criteria

Focus on tenders with strategic importance i.e. high growth markets, key customers, etc.

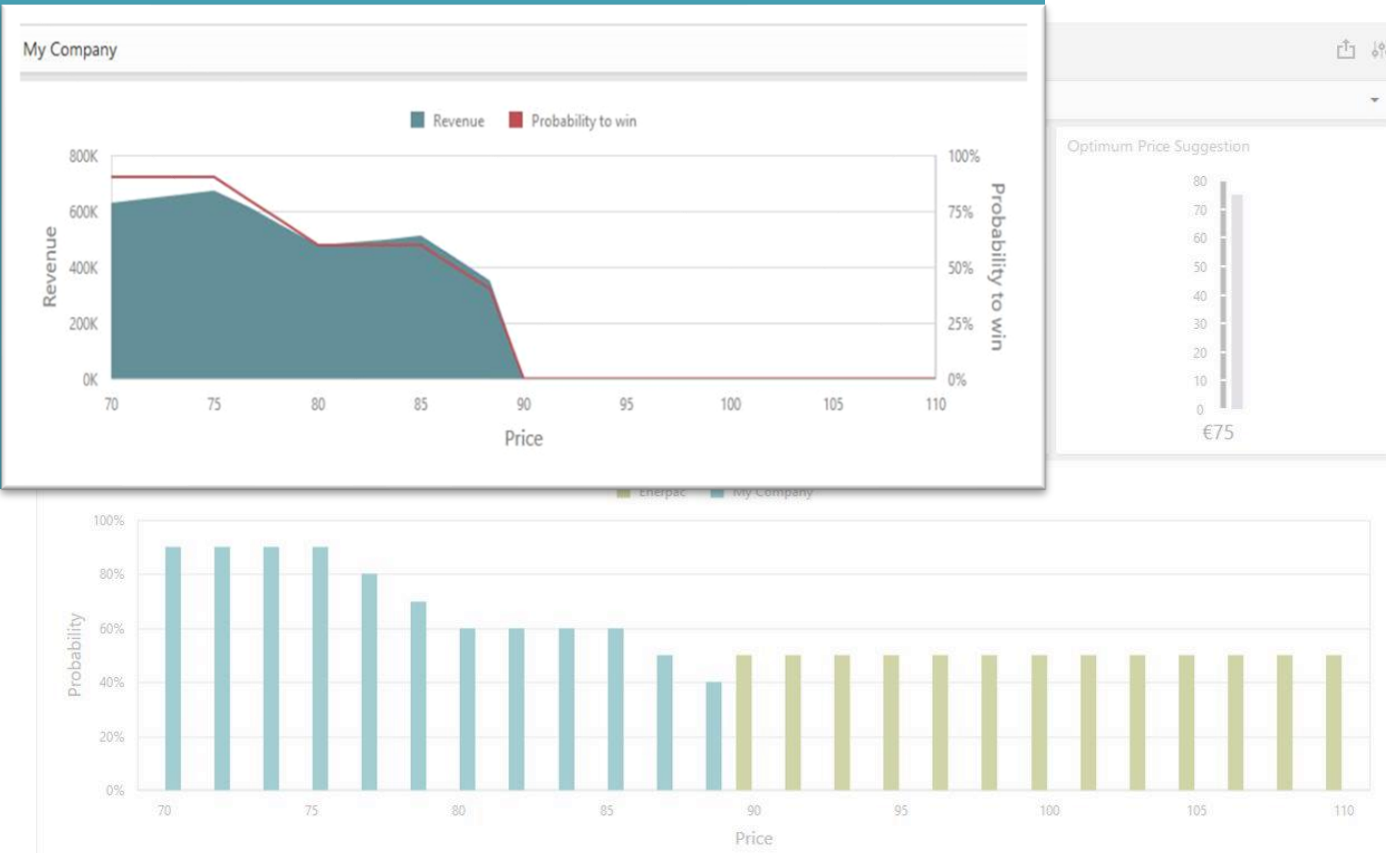


Automated self learning scoring for tenders using ML

# The predictive model



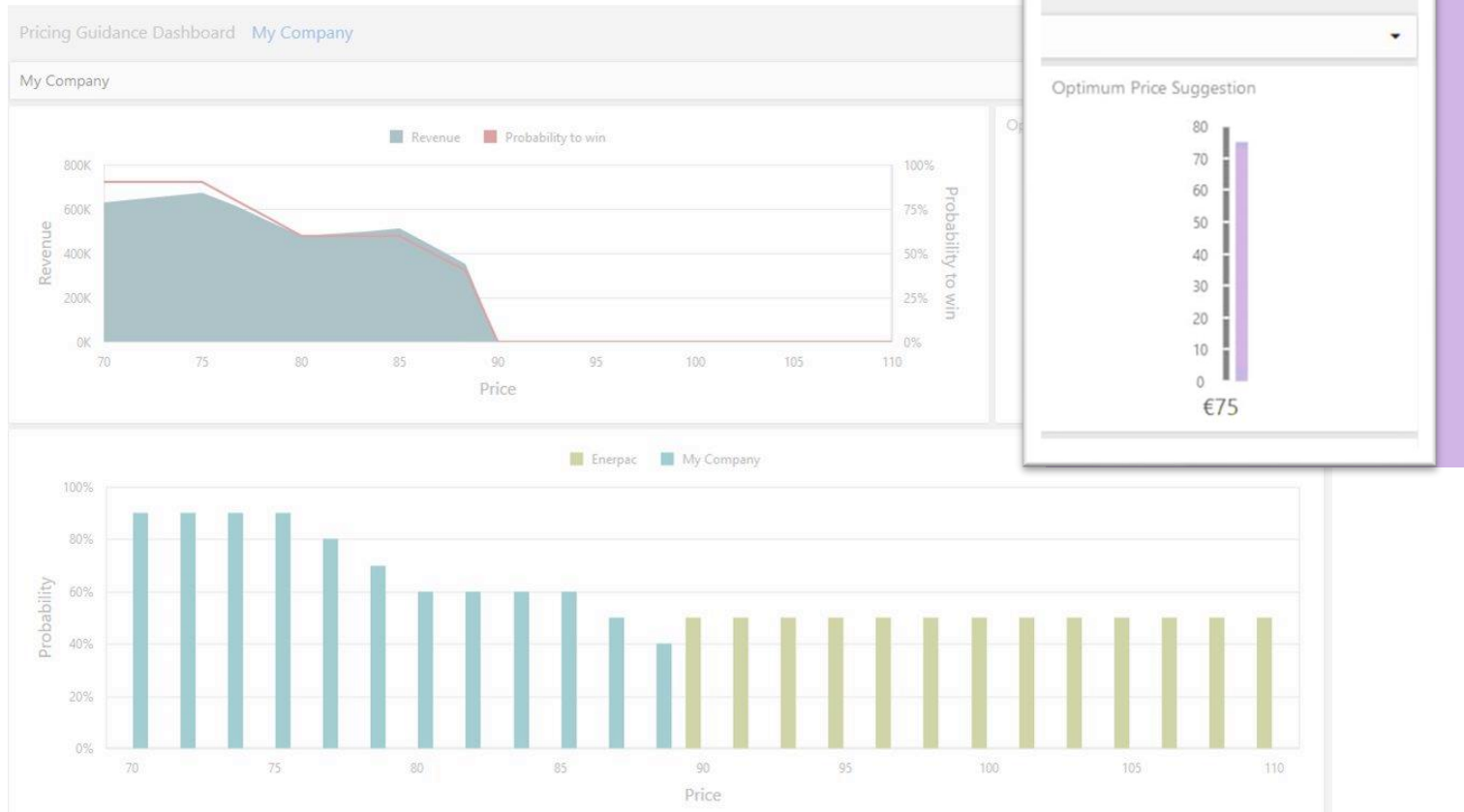
# Tender Predictive guidance using Machine Learning



## Forecast Performance

- ✓ Estimate probability to win, scores, and revenues
- ✓ Company and competition

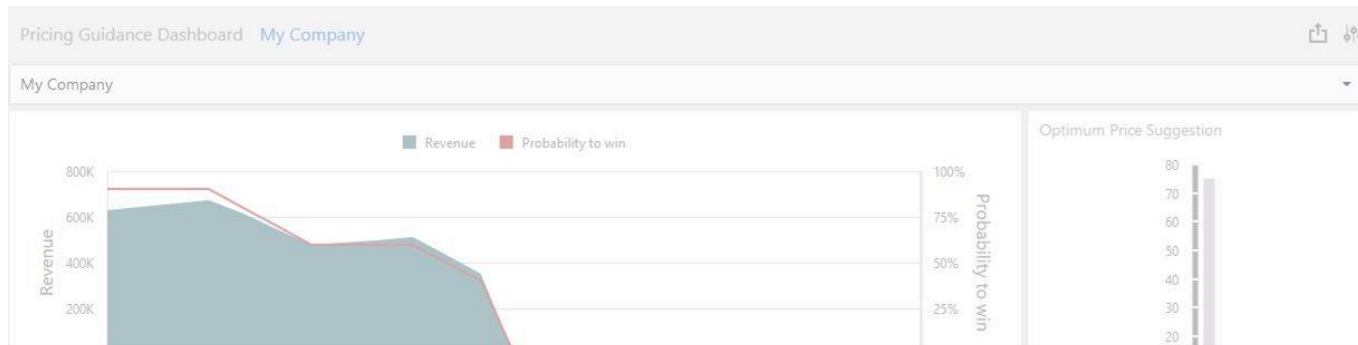
# Tender Predictive guidance using Machine Learning



## Pricing Guidance

- ✓ Get optimum price suggestions
- ✓ Maximize Revenue, Profit, or other KPIs

# Identify Key competitors

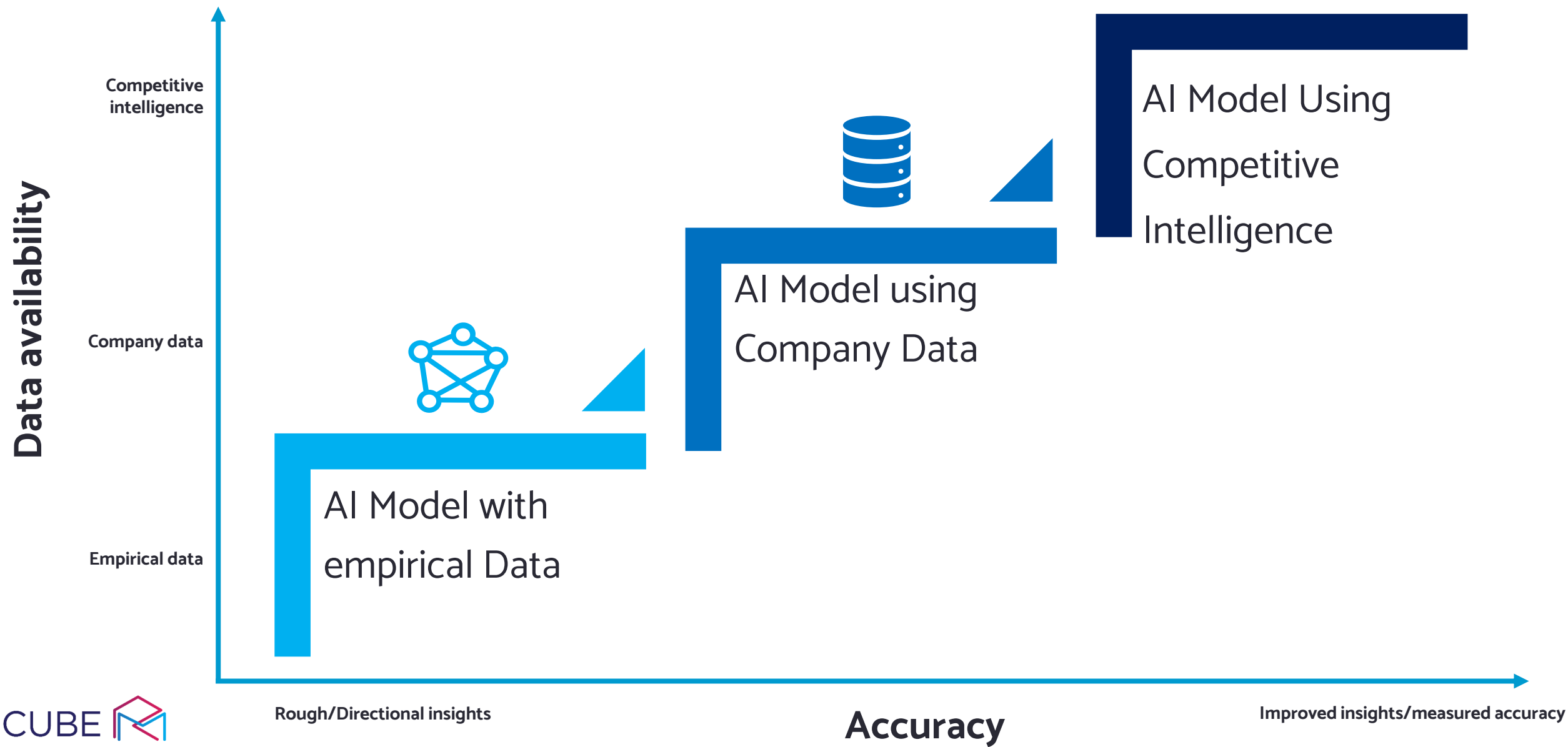


## Forecast Winners

✓ Find the most likely winner



# From simpler to more sophisticated AI models for pricing guidance



# Key takeaways & benefits for the Manufacturing sector



Tendering is a big, emerging & challenging market



Predictive insights can be handy, but most AI models won't work



**We can use specialized AI models for tendering, such as:**

- ✓ Use NLP to automate data gathering from online tender sources and score/prioritize tenders
- ✓ Use AI predictive guidance to optimize pricing & forecast the tender outcome



**Boost your tender performance by increasing:**

- ✓ Tender visibility and market share
- ✓ Revenue and profitability



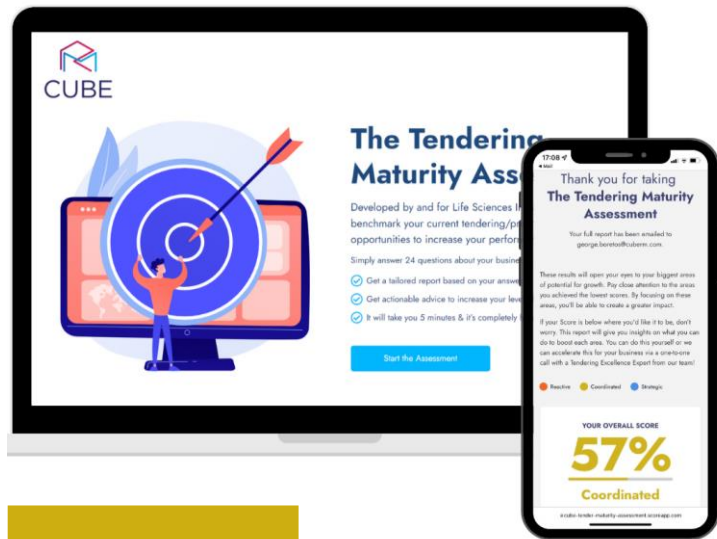
# Sweepstake: Enter the Cube RM Sweepstake and win an amazing gift!

You may be the winner of one 1 Amazon Echo Show 5 (2nd Gen) Smart display (+Alexa)

## 3 Simple steps to enter:

1. Scan the QR code on your brochure
2. Complete your business/professional contact details
3. Take the Cube RM Tender Maturity Assessment and assess your tender readiness against the market

That's it! Your name & details will automatically enter the sweepstake\*



Visit us at  
booth #5

**EPP MANUFACTURING PRICING FORUM 2022**  
PRICING IN A VOLATILE WORLD

13 JUNE 2022, WORKSHOPS  
14-15 JUNE 2022, CONFERENCE  
AMSTERDAM

Speakers

Dr. Steve Laborda  
CEO  
VALUEBIZBOOSTER

George Boretos  
Co-Founder & Co-CEO  
CUBE RM

Report Presentation  
**The current Tender Maturity Status of the Manufacturing Market**

EPP PRICING PLATFORM

Don't miss our next presentation at 13.00!

with Dr. Steve Laborda



\*The contest period will run until Wednesday June 15<sup>th</sup>, 2022, 11.30pm CET.

CUBE 

thank you!



[www.cuberm.com](http://www.cuberm.com)



[info@cuberm.com](mailto:info@cuberm.com)



[Cube RM](#)



[Cube RM](#)



+30 210 2832032