

First Derivatives plc

Investor Day

Brian Conlon, CEO



www.firstderivatives.com

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The path we are on



MS&C practice

Provides vital support and enabling role for our Kx technology operations through FinTech domain expertise and data scientist resource pool



Become a leading global Capital Markets practice

Strategic Outcome

Deliver sustainable, high margin revenue growth into enormous addressable markets



Exploit Kx technology's leading position in Capital Markets software



Use Kx's performance advantages to penetrate other markets

Kx in FinTech

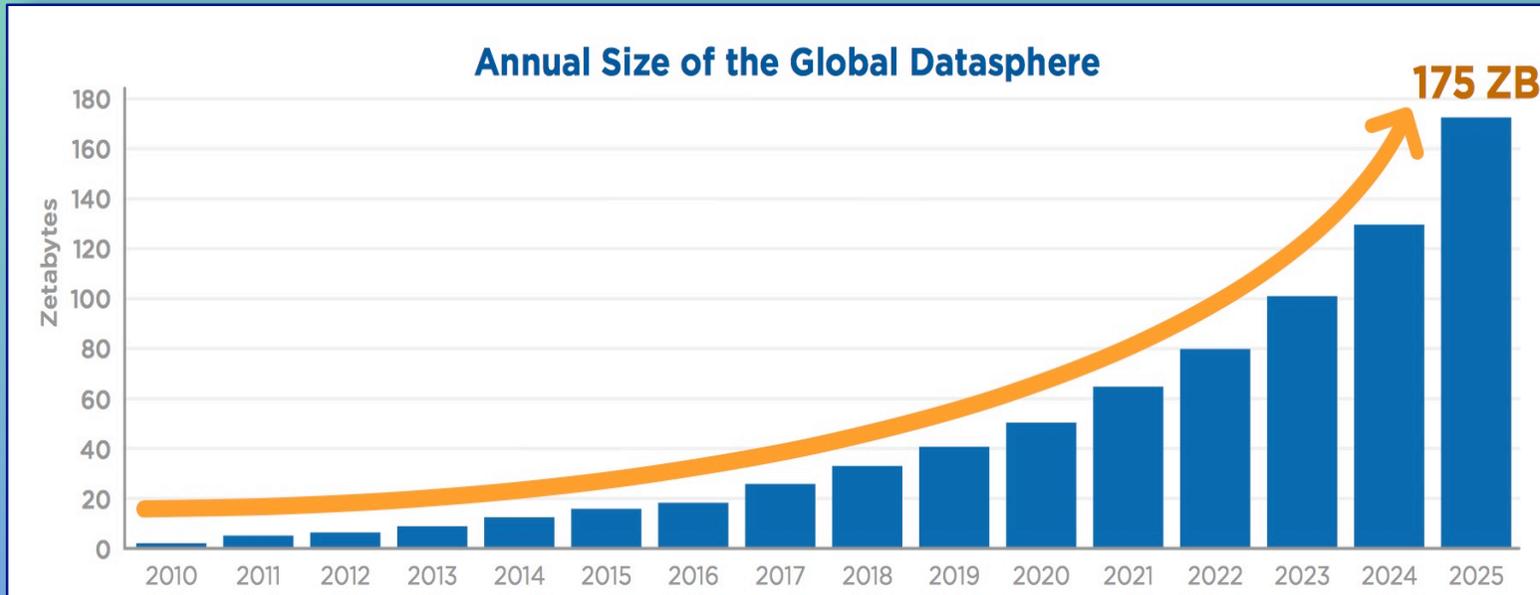
Core market with enormous growth potential and providing strategic solutions for our growing client base of banks, exchanges and regulators

Kx in other markets

Develop and commercialise solutions providing competitive advantage to clients across multiple industries utilising Kx's performance and TCO advantages



Data continues to grow exponentially



By 2019, 75% of cloud-native application development will use in-memory computing for high-performance, massively scalable applications (source: Gartner)



Spending on cognitive and AI systems will exceed \$50bn in 2021 (IDC) and AI-derived business value is forecast to reach \$3.9 trillion in 2022 (Gartner)



Internet of Things software spending in 2018 was expected to exceed \$80bn, led by analytics software and platforms (IDC)



Businesses are digitising...

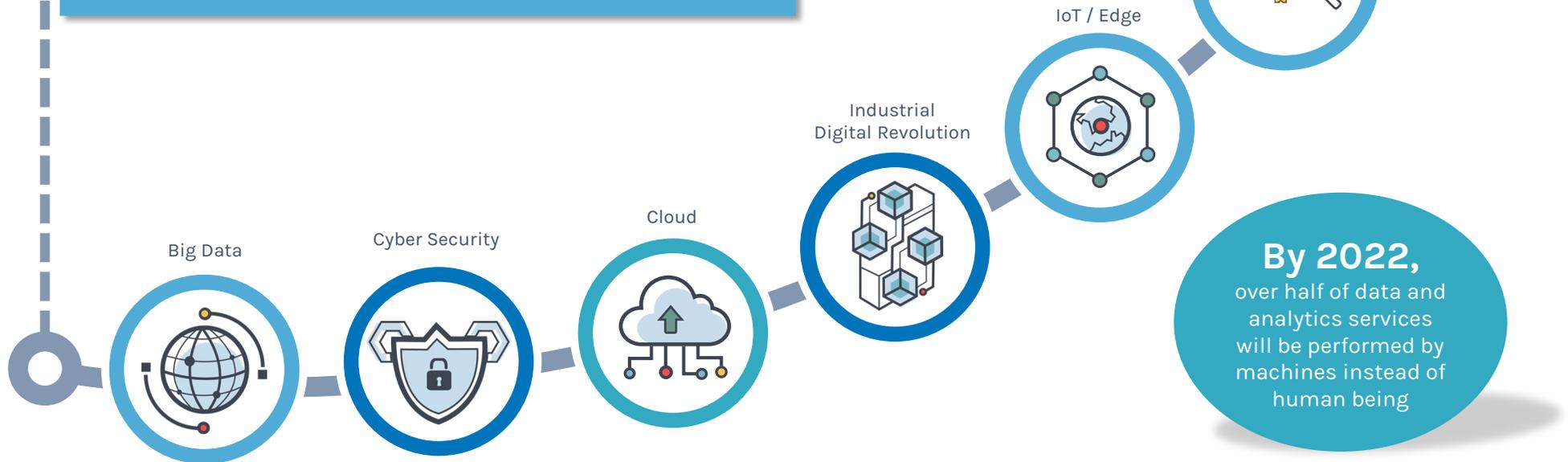
■ Trend towards In Memory Computing and Streaming Analytics

By 2019,

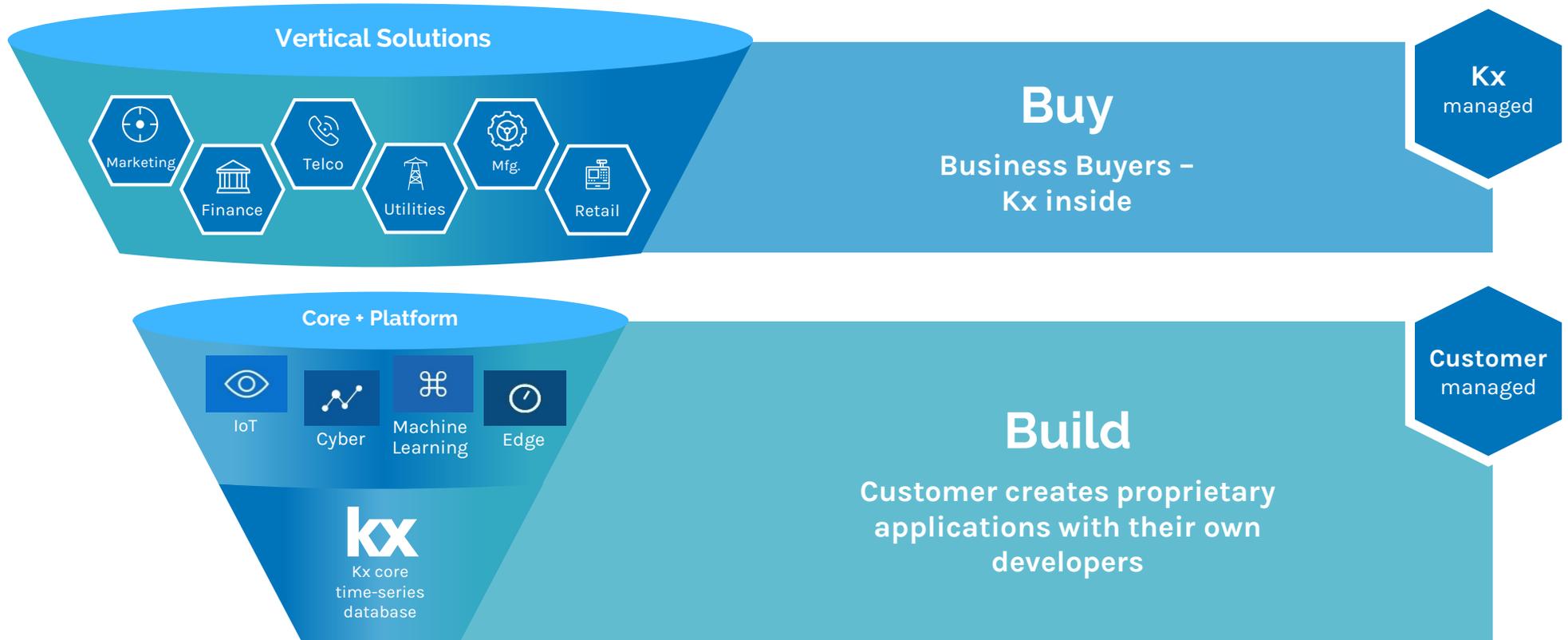
75% of cloud-native application development will utilize IMC

By 2021,

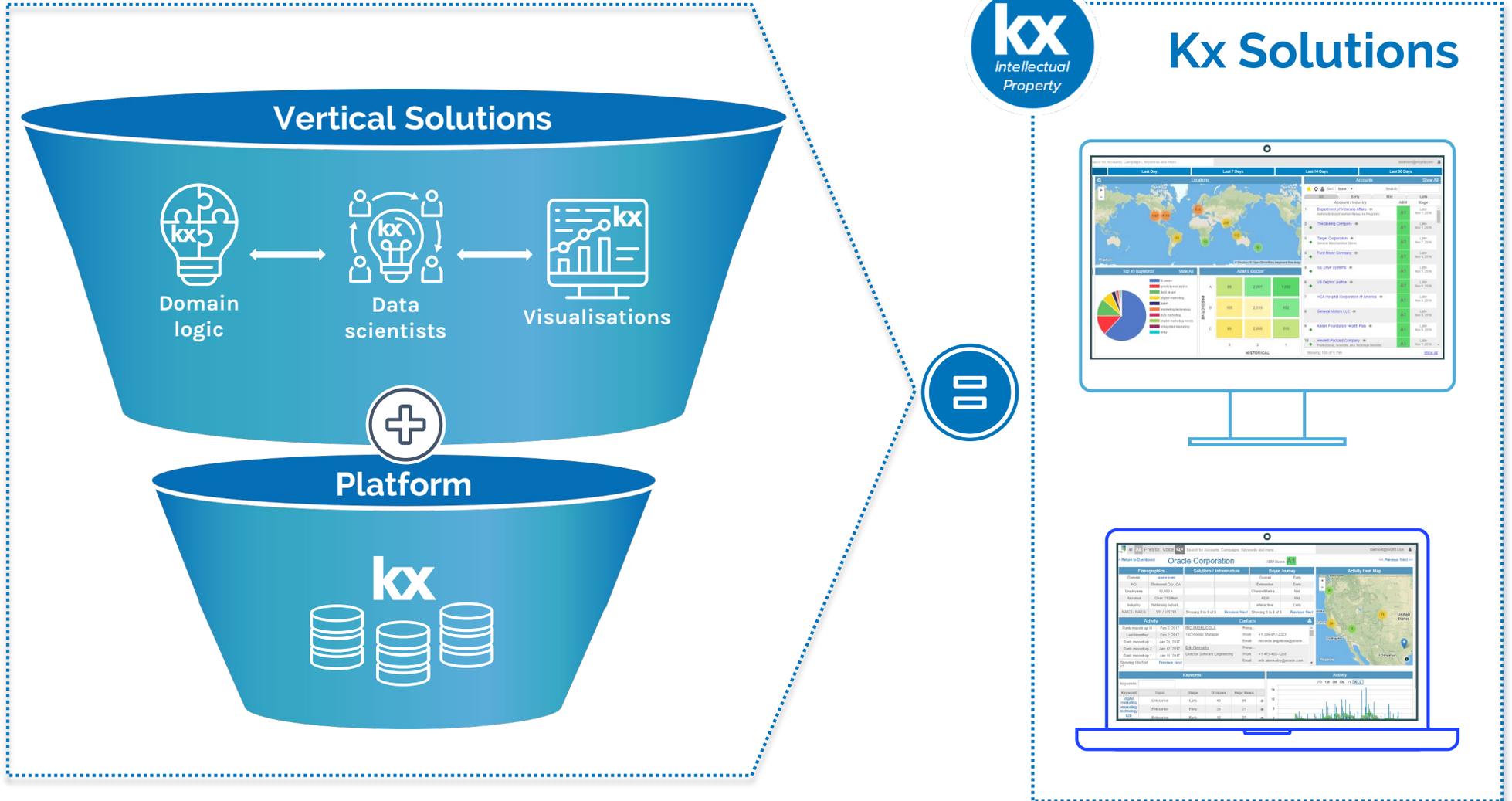
AI augmentation will generate \$2.9 trillion in business value and recover 6.2 billion hours of worker productivity



By 2022,
over half of data and analytics services will be performed by machines instead of human being



Single unified platform



Platform

building proprietary applications
with their own developers

\$51 bn

IDC forecast for database systems

Solutions

buying Kx managed and supported
applications

\$100s bn

Total addressable market for vertical
and horizontal applications



CORE MARKETS
FinTech and MarTech

EMERGING MARKETS
Utilities, Industry, Other



Themes for today



SESSION 1



JAMES CORCORAN
Head of Kx Solutions

Kx technology

Core strengths, competitive advantage, roadmap



JON ROBSON
Executive Director

FinTech

Solutions, customers and growth drivers



HUGH HYNDMAN
SVP, IoT Solutions

Industry

Creating disruption in sensor analytics

SESSION 2



KEVIN CUNNINGHAM
President, MRP Prelytix

MarTech

Competitive strengths, business model, future development



PAT BRAZEL
Chief Revenue Officer

Sales strategy

Success to date and winning in new markets



BRIAN CONLON
Chief Executive Officer

Wrap up

Business priorities

Break between sessions

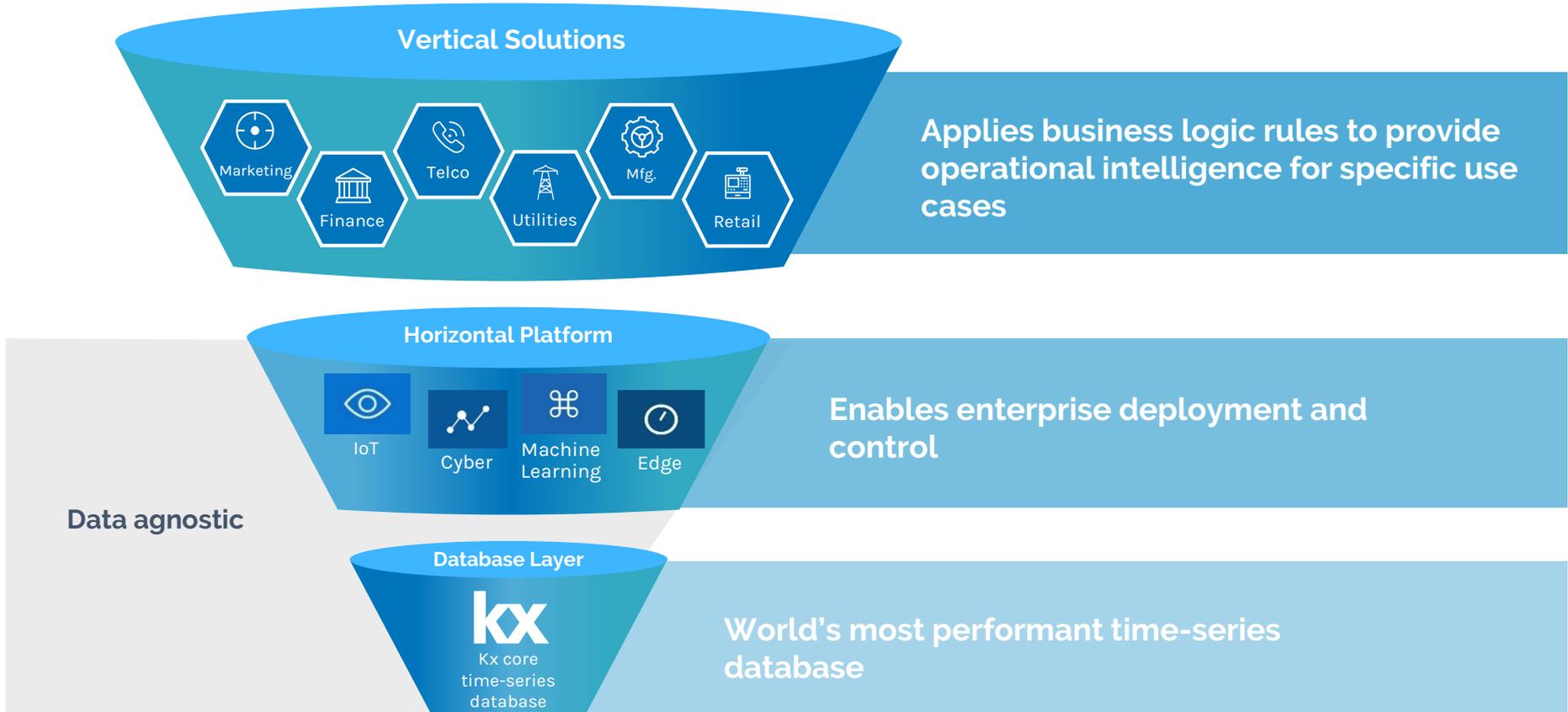
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Kx Technology

James Corcoran
Head of Kx Solutions

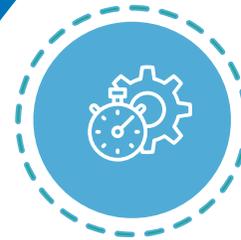
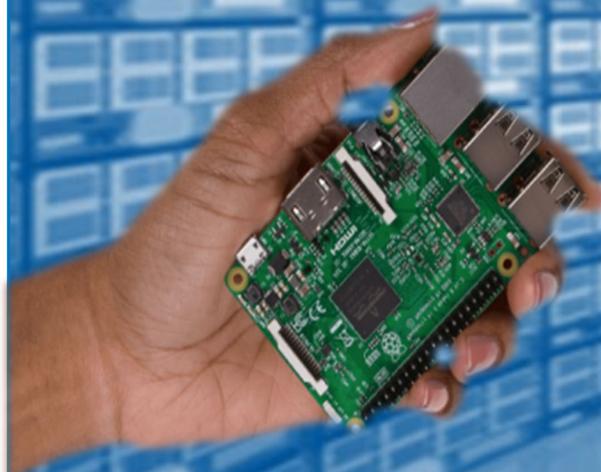


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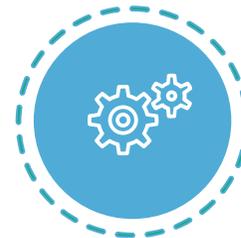
From Chip to Edge to Cloud

- World's most performant time series technology.
- Over a 130,000 times smaller code base than a competing open source product



Performance

A single core of Kx provides the equivalent performance of hundreds of competitor cores, providing huge operational and TCO benefits



Power

Lower total cost of ownership, less hardware required impacting overall TCO particularly in power costs



Scale

Small code base, highly optimized, highly efficient and fully scalable enabling to work on Chip, at Edge or in Cloud.



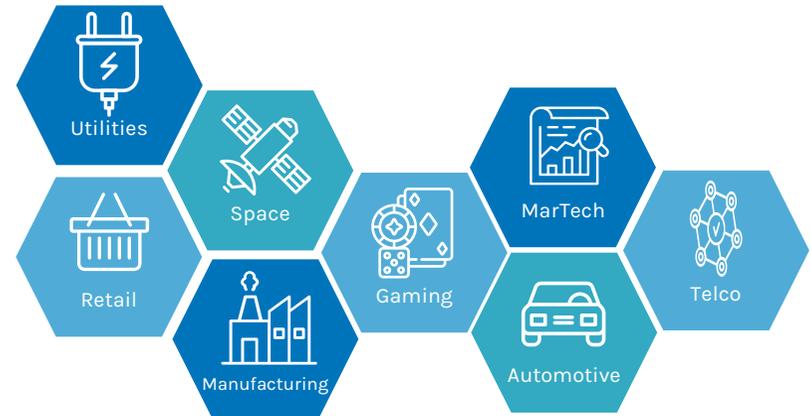
ORIGINAL MARKET FinTech



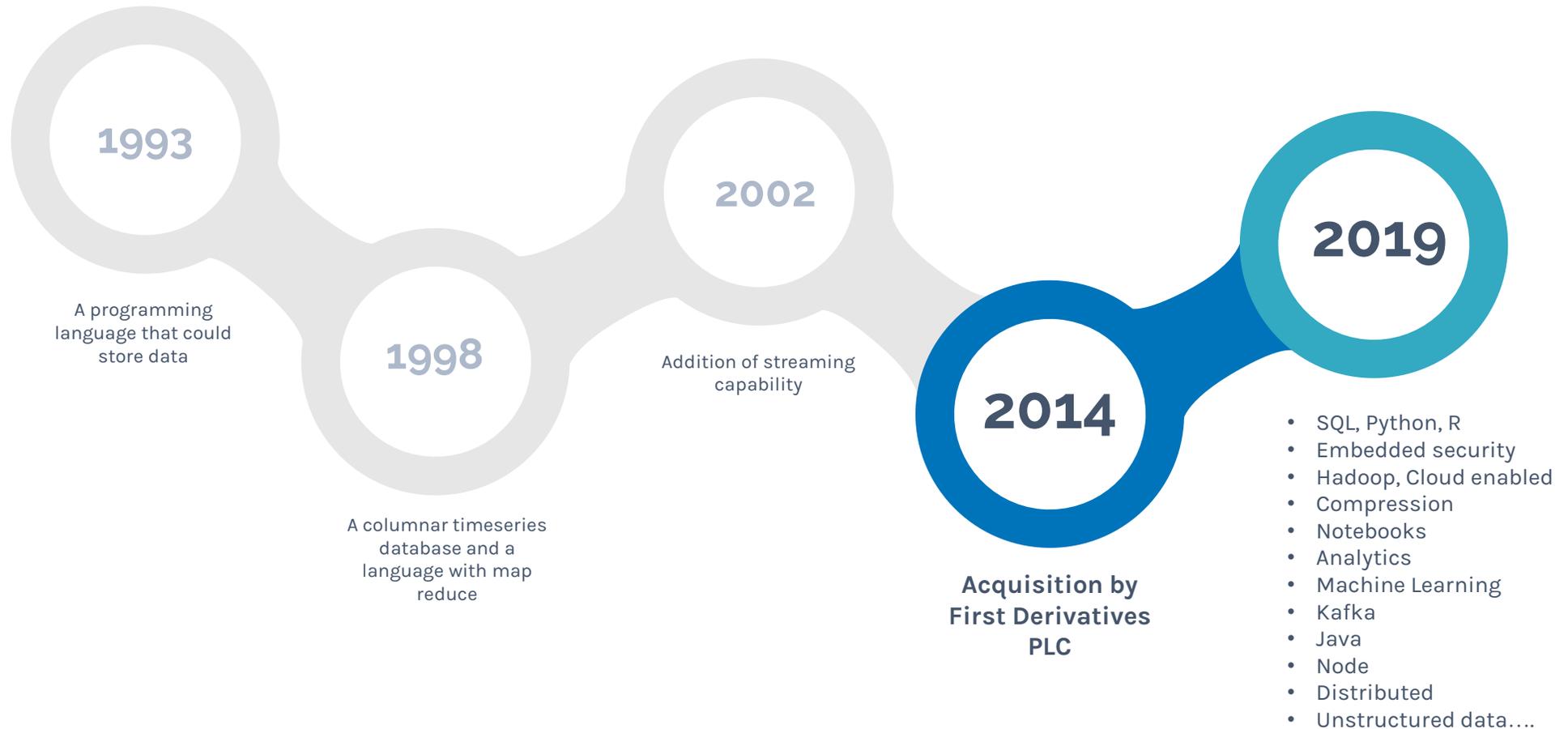
Philosophy was to solve a specific business need:

“ How to store & analyse a massive time-series data stream in real time ”

EMERGING MARKETS MarTech, Industry, Other



- ▶ Now, timeseries data is common - and the philosophy is the same
- ▶ All data is bigger and faster—and that won't stop





The world's leading time-series database



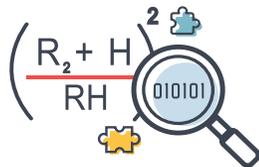
STAC is the only recognised independent benchmark for time-series data in Finance.



Holds the world record for **15** out of **15** tests for in-memory compute



Holds the world record for **33** out of **41** tests for massive data at rest



Only database selected by any cloud provider for benchmarking (Google)

First database to use Intel Optane storage (next generation)



Kx holds all records on this storage.



60,000,000

events per second at live installation.

Closest competitor claims
500,000 per second.



150,000,000

events per second
under test
at the moment.



Published transitive comparisons
from a popular test indicated
kdb+ was

Up to 400x faster

than an equivalent sized
Influx or Cassandra cluster



Current POC installation is projecting a

95% reduction

in electricity costs

(from \$3,000,000 per year to \$150,000)

As a result of less hardware needed than
competitor we are replacing.



Kx – a complete enterprise platform



Application development



Real-time data visualizations



Application DevOps



Suite of APIs



Data Exploration



Benefits of deploying Kx enterprise platform



COST REDUCTION

Database costs increase rapidly as data sets become larger and latency increases in importance. Kx delivers higher performance and a lower TCO than competing solutions

EASE OF USE

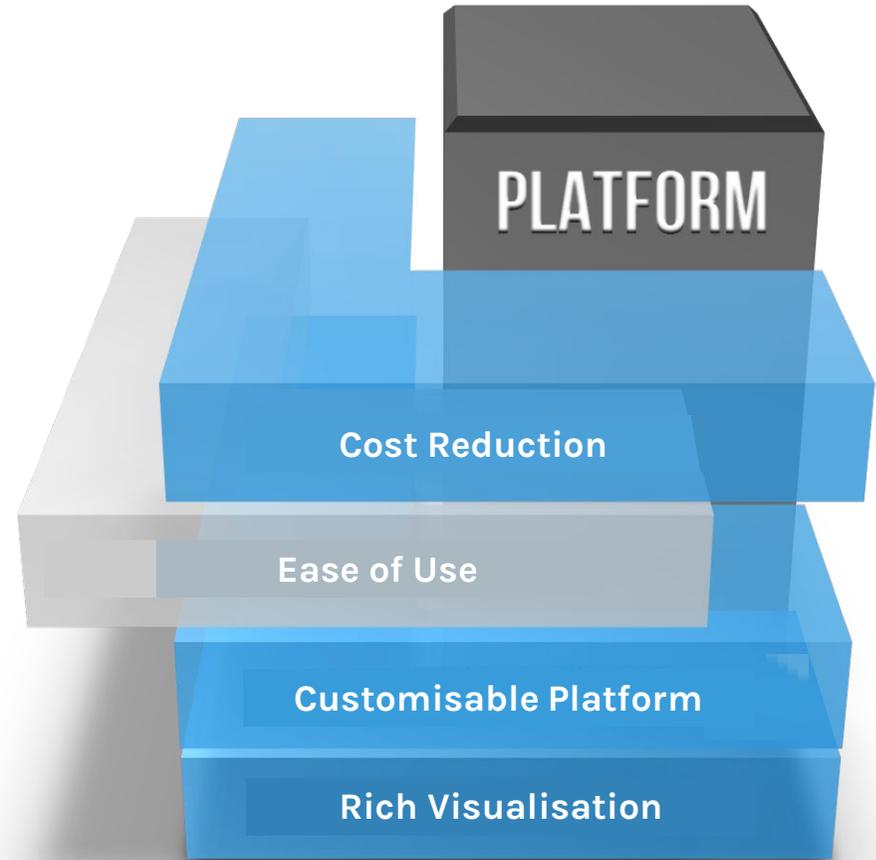
The platform provides real-time data transformation, exploration and discovery, enabling users to manipulate massive datasets without programming through the use of a point and click interface

CUSTOMISABLE PLATFORM

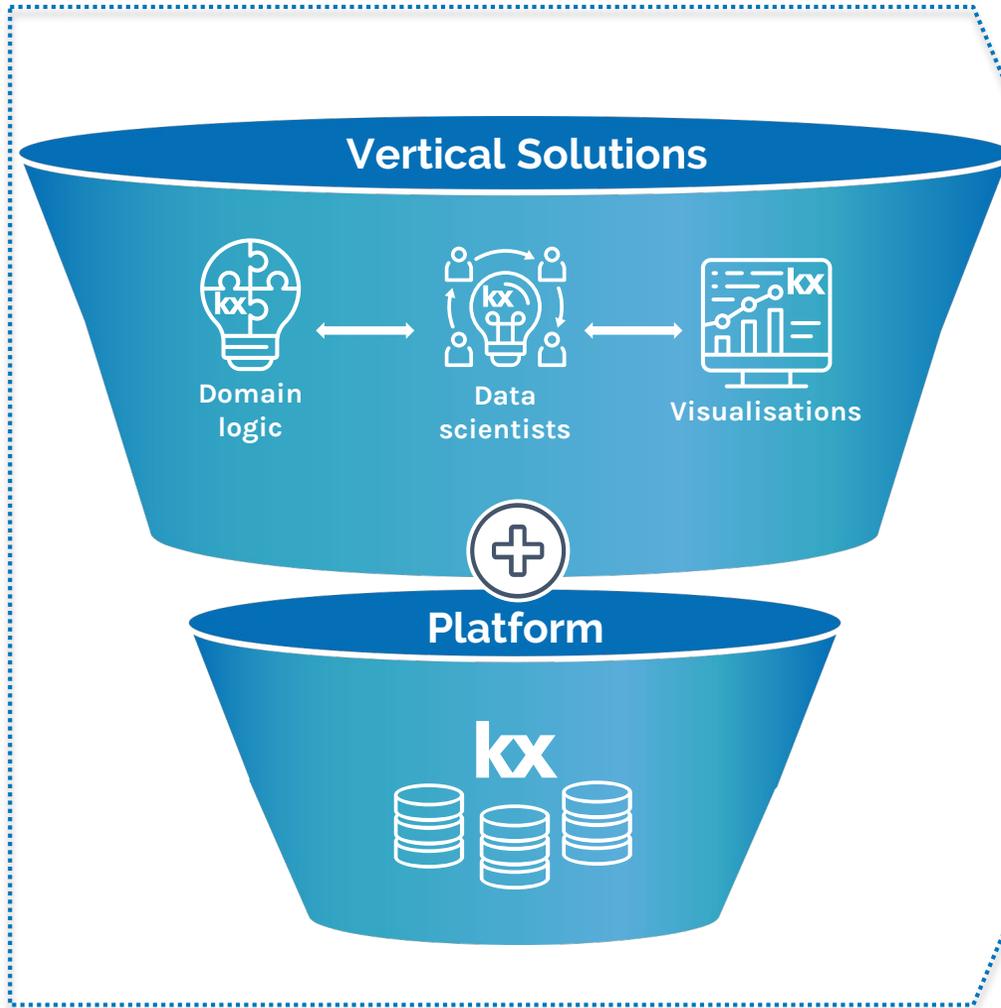
Enterprises can deploy Kx on premise, in the cloud or as part of a wider Big Data architecture and can rigorously manage their application landscape. The platform fuses real time and historical data from multiple sources

RICH VISUALISATION

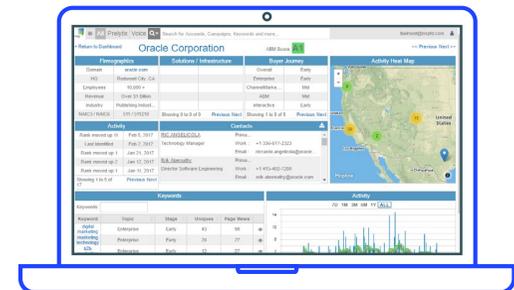
Dashboards for Kx provides rich visualization of real-time streaming, intraday and historical business data. Content can be displayed through a wide range of innovative widgets, enabling detailed filtering, aggregation and drill down



Kx platform enables rapid solution development



Kx Solutions



Key themes

- Continuous feedback and enhancement from field projects
- Leverage latest Kx Machine Learning libraries
- Best-of-breed front ends



SURVEILLANCE

- New scenarios
- Advanced analytics
- Global coverage
- Align to regulations



UTILITIES

- Smart meter analytics
- Usage forecasting
- Customer behaviour
- Network monitoring



MANUFACTURING

- Fault and anomaly detection
- Real-time plant performance
- Predictive maintenance

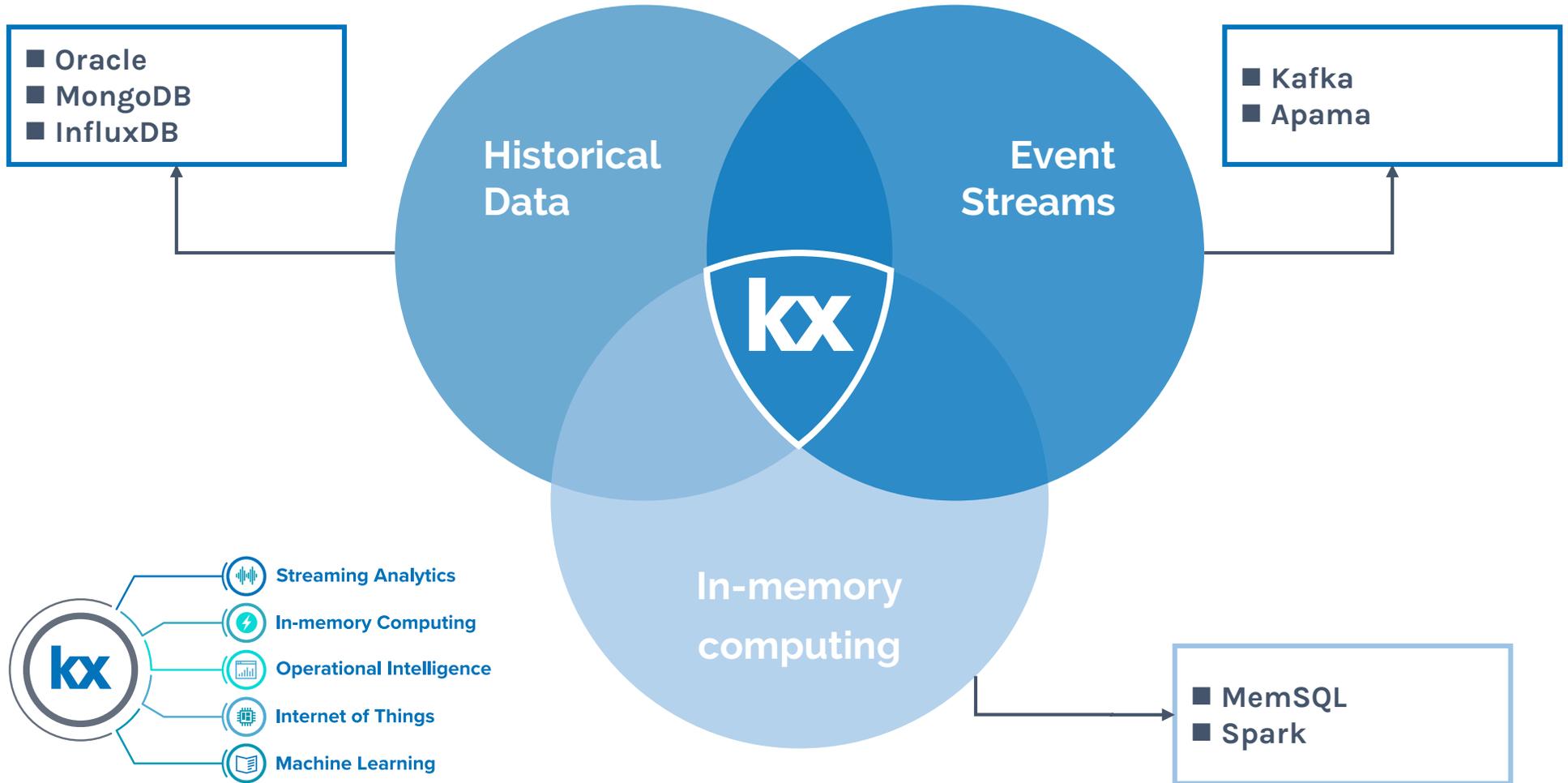
+ martech, telecoms, healthcare, cybersecurity, telemetry, space.....



Multiple deployment options



The image shows two overlapping screenshots. The background screenshot is the Google Cloud Platform interface, displaying the 'kdb+' product page. It includes a search bar, a navigation menu, and a 'LAUNCH' button. The foreground screenshot is the AWS Marketplace page for 'kdb+'. It features the AWS Marketplace logo, navigation tabs for 'Categories', 'Delivery Methods', and 'Solutions', and a search bar. The main content area shows the 'kdb+' product details, including the 'kx' logo, the product name 'kdb+', the provider 'Kx', and the latest version 'kdb+ v3.6'. The description states it is a 'Fast and flexible column-oriented data processing system'. The operating system is listed as 'Linux/Unix' with a star rating of 0. The 'Product Overview' section describes 'kdb+' as a time-series database at the forefront of high-performance streaming, real-time and historical analytics. A table below shows the version 'kdb+ v3.6'. The 'Highlights' section lists key features: 'Kx technology is designed for time in computing' and 'Our native support for time-series features is a rare capability'.





Could a competitor replicate Kx?



They would need to ignore all open source and current accepted best practice



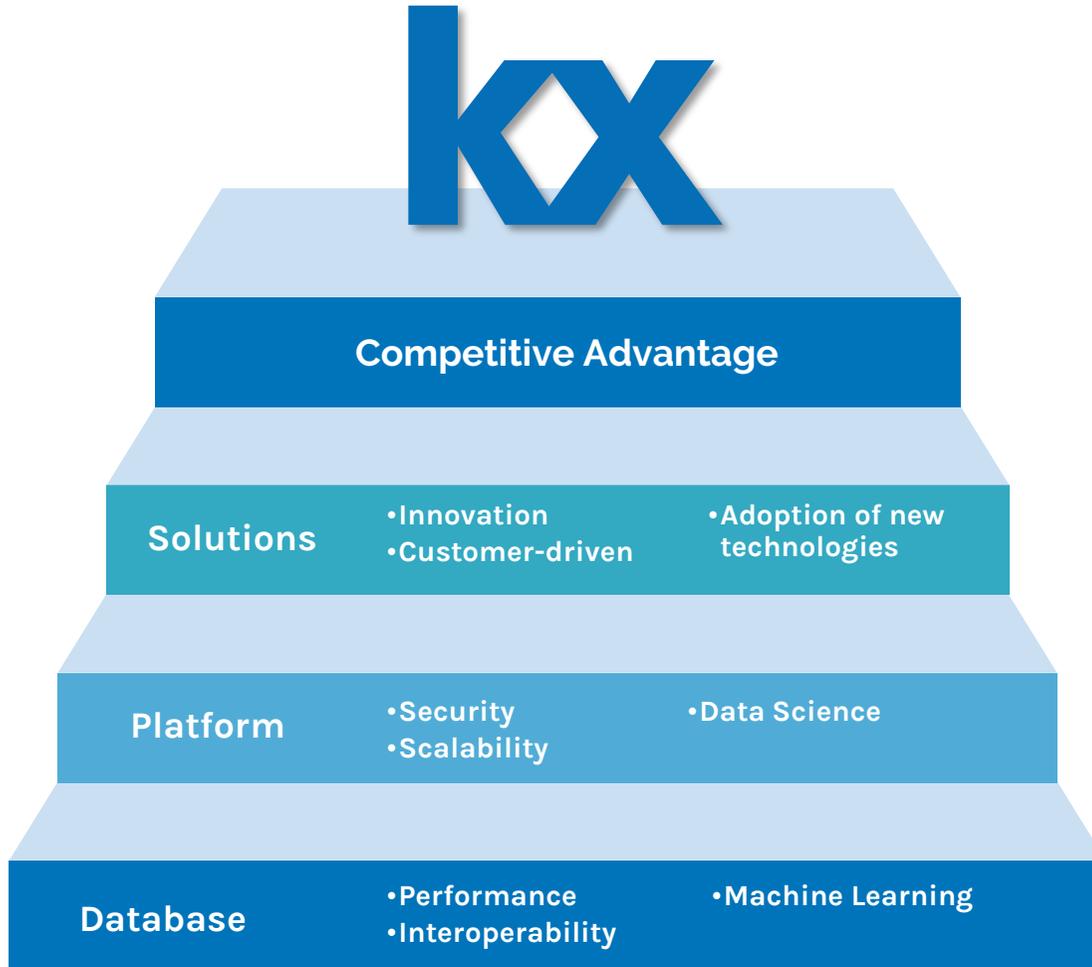
They would need design patterns that are not released outside of Kx and not known by anyone else



They would need to develop an optimised enterprise platform



They would need to establish a reputation for performance, scalability and being robust



Key themes

- Cyber security
- Machine learning
- Cloud
- Blockchain
- Natural Language Processing

Key summary messages

1

The kdb+ database is the smallest and fastest in the world – delivering environmental benefits

2

Kx is a single integrated platform from database to application, enabling easier development, deployment and support

3

The Kx platform enables us to be fast to innovate, and allows all our solutions to benefit from core R&D

4

The result is superior performance and TCO benefits for all our customers



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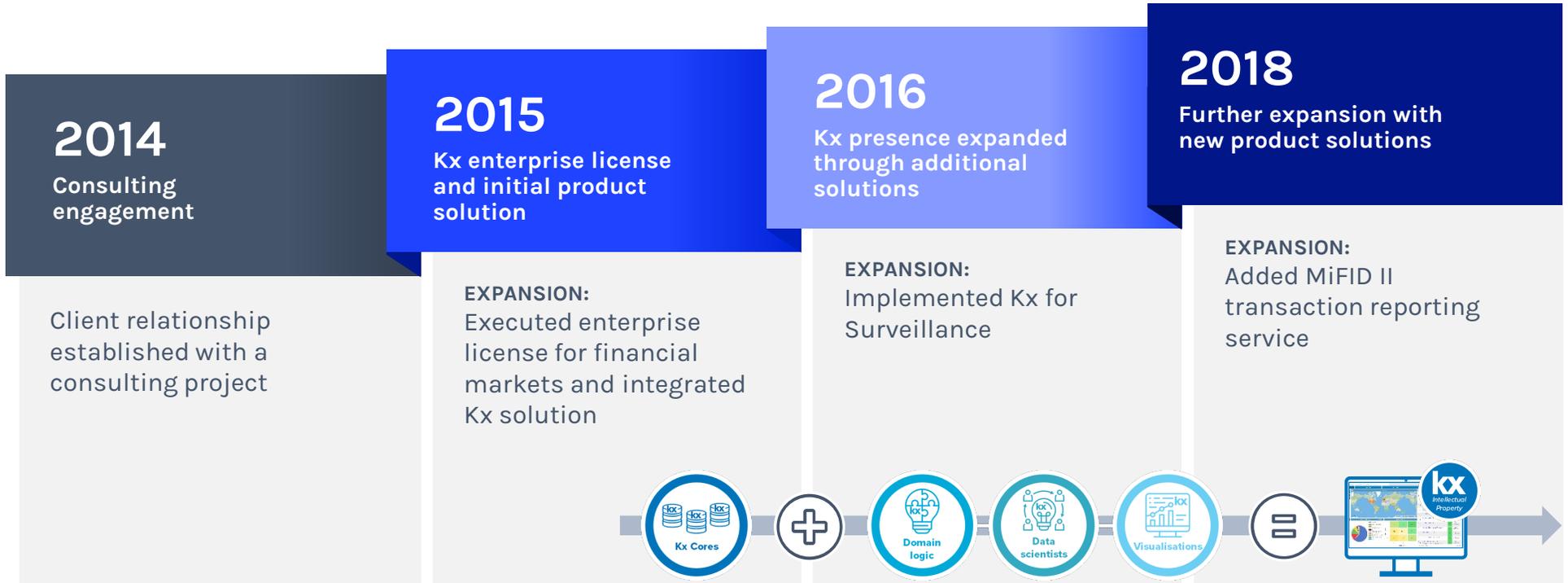
FinTech

Jon Robson
Executive Director

Peter Moylan
Head of EMEA sales



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 **6x increase in revenue from 2015 to 2018**

Client data challenges generate demand for Kx

Mass of real-time & historic data

Regulatory Scrutiny

Cost Pressure

Data quality



Problems with the validity, accuracy, timeliness and completeness of data

Complexity



Data is fragmented and does not provide the whole picture of operations

Integrity



Multiple reconciliation issues cause issues over data trust and integrity

Scalability



I am unable to explain things like risk measurement or report to my regulator

Integration



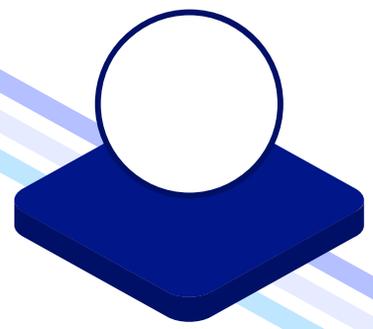
Mismatches in legal & counterparty data with transaction & instrument data



Kx powerfully solves big data challenges



Platform for capturing, storing and normalizing data



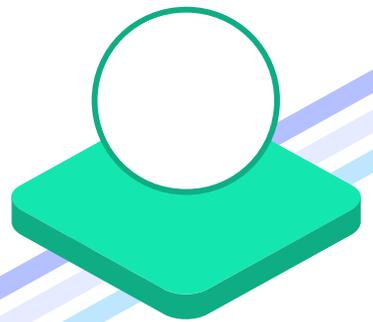
Lightning fast analytics on real-time and historic data



Best practices continuously harvested to improve Kx



Pre-built applications targeting common use cases



Services to implement and manage data across the enterprise





FinTech growth potential for Kx is significant



Multiple sales of packaged applications



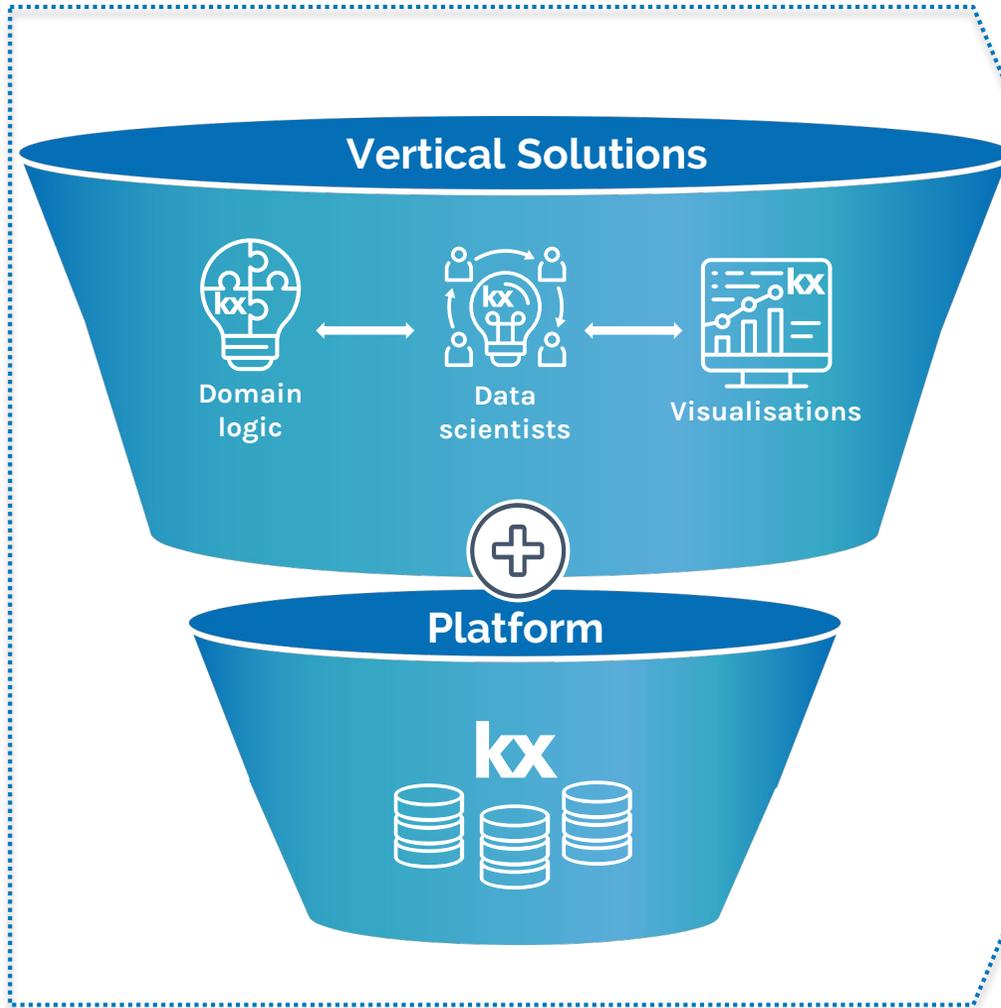
New regulatory initiatives



Adoption of cloud



Machine learning and AI innovation



Kx Solutions

Kx for Surveillance

- Tailored for banks, brokers, exchanges and regulators
- Extensive library of scenarios

Kx for Regulation

- Extensible, data-driven reporting solutions for prudential, conduct-related, and other market structural reforms

Kx for Flow

- Market Neutral FX Trading
- Direct Access to deep pools of liquidity

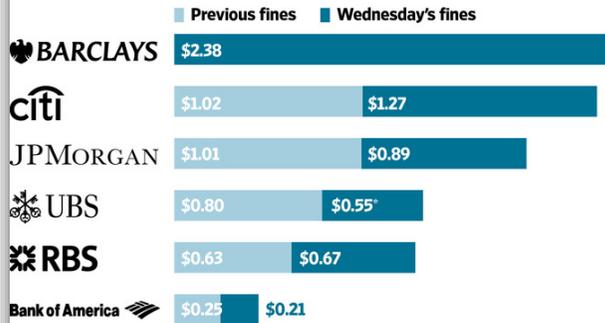
Kx for Analytics

- Real-time, streaming and historical data
- Pre-built analytics for profitability analysis, best execution & TCA

Regulatory response is a primary client driver

Penalty Phase

Total global bank fines for foreign-exchange probes, in billions



*Also includes Libor probe

Sources: Justice Department, New York State Department of Financial Services, Federal Reserve, Commodity Futures Trading Commission, Office of the Comptroller of the Currency, U.K. Financial Conduct Authority, Swiss Financial Market Supervisory Authority

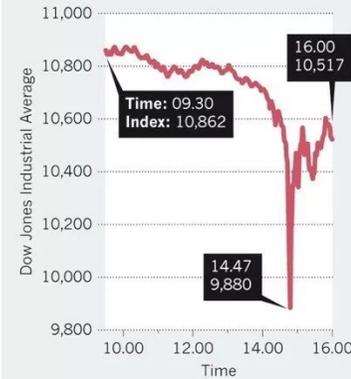
THE WALL STREET JOURNAL.

“TD Bank Fined \$52.5 Million: the bank failed to file timely suspicious activity reports related to nearly \$1 billion worth of suspicious transactions”
Banking Info Security, Sep-2012

“HSBC to pay \$1.9bn in US money laundering penalties: HSBC has confirmed it is to pay US authorities \$1.9bn (£1.2bn) in a settlement over money laundering, the largest paid in such a case.”
BBC News, Dec-2012

FLASH CRASH

On 6 May 2010, the market value of the Dow Jones Industrial Average index fell by 9%, but recovered in minutes. High-speed trading algorithms were in part to blame.



Other Wrong 'Uns

August 2012

\$440 m KNIGHT CAPITAL'S LOSS
NYSE: \$440 million loss for trading firm Knight Capital Group because of reactivation of a disused computer software



May 2012

FACEBOOK DEBUT
Nasdaq: Technical error left investors in the dark, resulting in losses



DERIVATIVE TRADE HALTS
NSE: Traders were unable to exit positions after an erroneous order cancellation request and a simultaneous technical glitch; no derivatives orders could be executed



April 2012

WRONG NIFTY ORDER
A wrong 'Sell' sent Nifty futures crashing from 5338 to 5000, triggering stop losses which accelerated the fall and extended investor losses



'BUY' TURNS 'SELL'
The same day a large Infosys Nifty futures 'Buy' order was wrongly punched as 'Sell'



Trades Gone Awry at 9.50 am

The fall of Nifty 50 components after Emkay Global's punching error

	Price (₹)	% Chg over Prev Close	Volumes Traded
Bharti Airtel	216	-20.00	347515
Larsen & Toubro	1307	-20.00	290104
Infosys	2061	-20.00	153987
HDFC	631	-20.00	860650
HDFC Bank	505	-20.00	344033
ICICI Bank	867	-20.00	308920
Reliance Inds	682	-20.00	361180

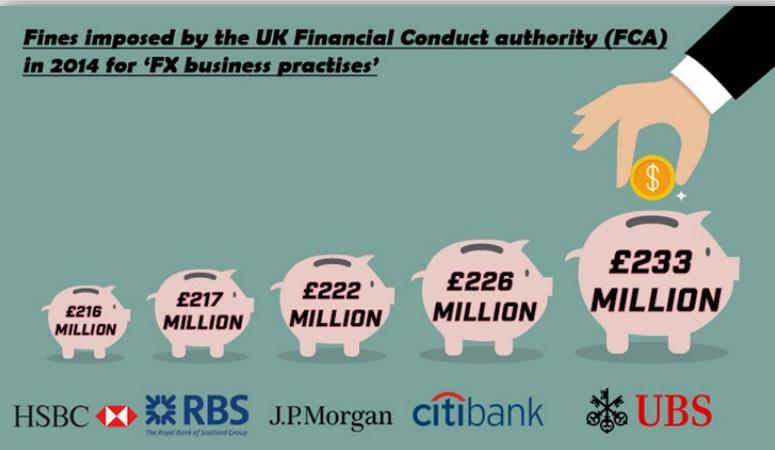
Prabhakar

Glitch resets multiple Nasdaq tech stocks to same price

Amazon, Microsoft and Apple among equities converging at \$123.47 after data error



Fines imposed by the UK Financial Conduct authority (FCA) in 2014 for 'FX business practises'





Kx for Surveillance



What it is and what it does

Analyses market and trading data to identify anomalies for further investigations by compliance staff in banks, exchanges and regulators



Why customers buy it

To ensure the integrity of markets (exchanges and regulators) and to avoid reputational and financial damage (banks)



Why FD is better

Flexible alert system, real-time capability and ease of market reconstruction / order book replay, comprehensive feature set, AI capability



Kx for RegTech– commercial success



Numerous global banks, exchanges and regulators as customers e.g.



Charging related to processing requirement
e.g. per asset
class, per geography for banks



Annual recurring license



Strong pipeline
of potential new clients



What it is and what it does

Automates the Consolidated Audit Trail (CAT) reporting requirements for banks, under which they will be obligated to file daily reports on equity and option trading and face punitive fines for errors



Why customers buy it

CAT is mandated by the SEC and while banks could develop internally, they lack internal resource and have reduced appetite for the risk involved in self-build



Why FD is better

Banks already store data in Kx; FD's deep domain expertise has enabled development of a comprehensive CAT solution out of the box



Kx for the Consolidated Audit Trail (CAT)



Kx for CAT is an interesting opportunity



Kx for Consolidated Audit Trail



1,650 organisations with CAT reporting responsibilities



Targeting top 150 based on data volume and reporting complexity



Expected range of value \$500k to \$2m per annum per client



Competition from bank internal development

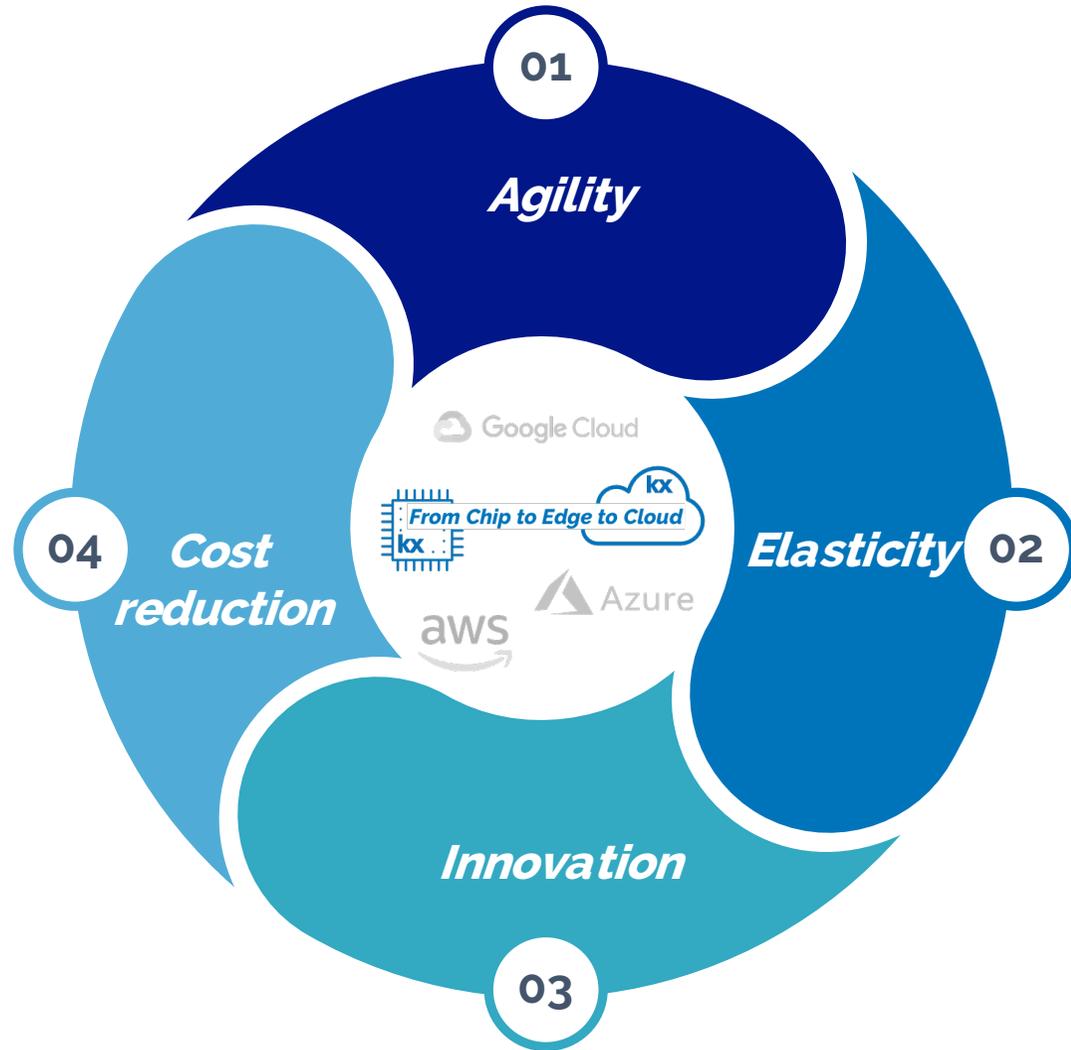


CAT is an essential 2020 project



Cloud adoption - drivers

- 01** **Agility**
The ability to add new applications and features more quickly in response to regulation and competition
- 02** **Elasticity**
The ability to cater for peaks in computing demand, particularly for trading and regulatory reporting needs
- 03** **Innovation**
Cloud adoption enables more rapid deployment of compute resources and take up of innovations such as AI
- 04** **Cost reduction**
Studies show that while cost savings are important they are not the driver for cloud adoption





Data refinery – clean data in the cloud



What it is and what it does.

A high-performance low-latency data processing platform providing flexible real-time access to data enabling users to execute queries and get responses in milliseconds, not hours



Why customers buy it

It is designed to automate the data management and processing burden and let them concentrate instead on exploiting the potential of their data



Why is FD better

Unrivalled speed at scale, all asset classes supported, comprehensive functionality, ad hoc query capability, best in class visualisation



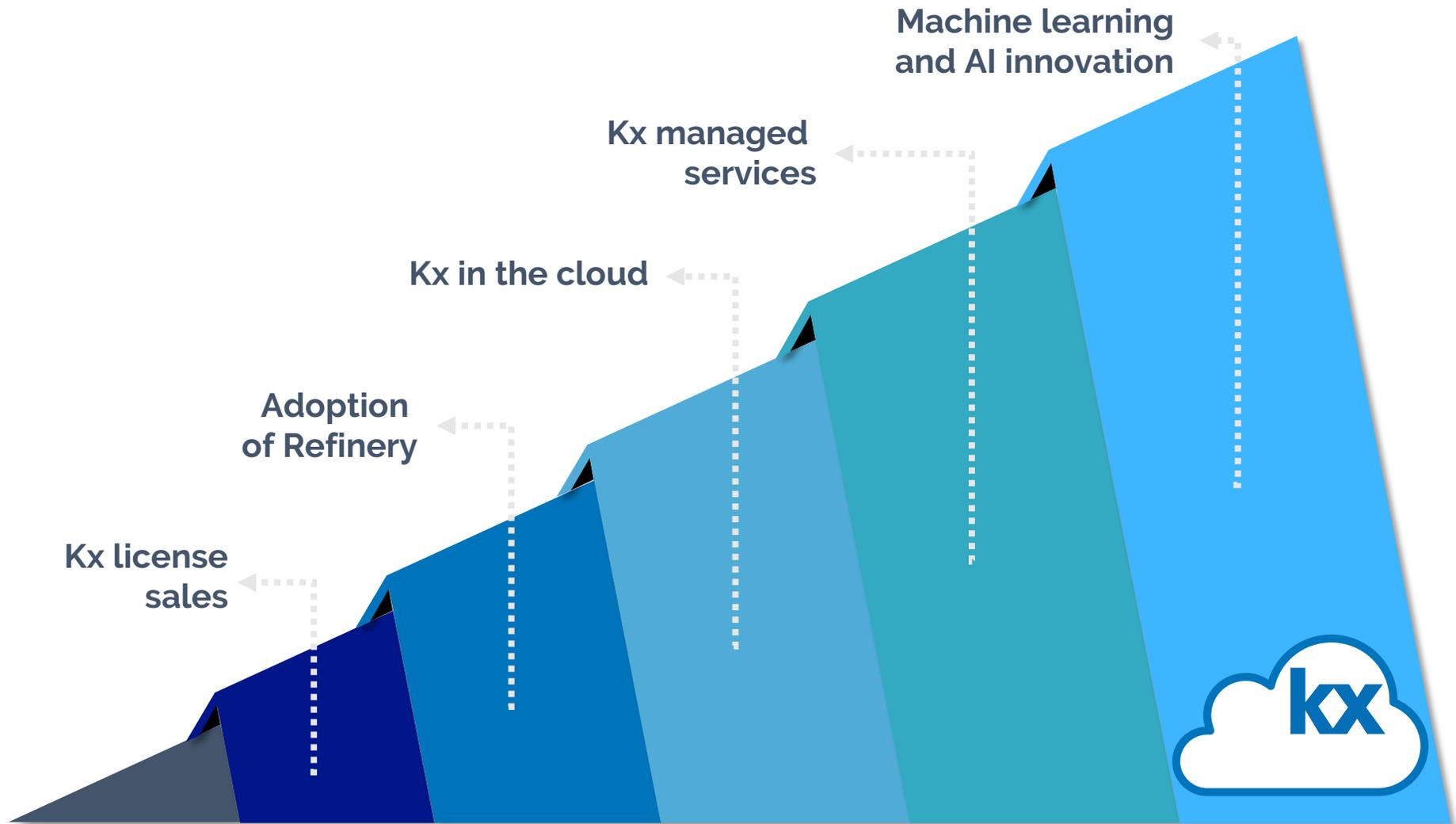
Simplify Data Management with Kx Data Refinery



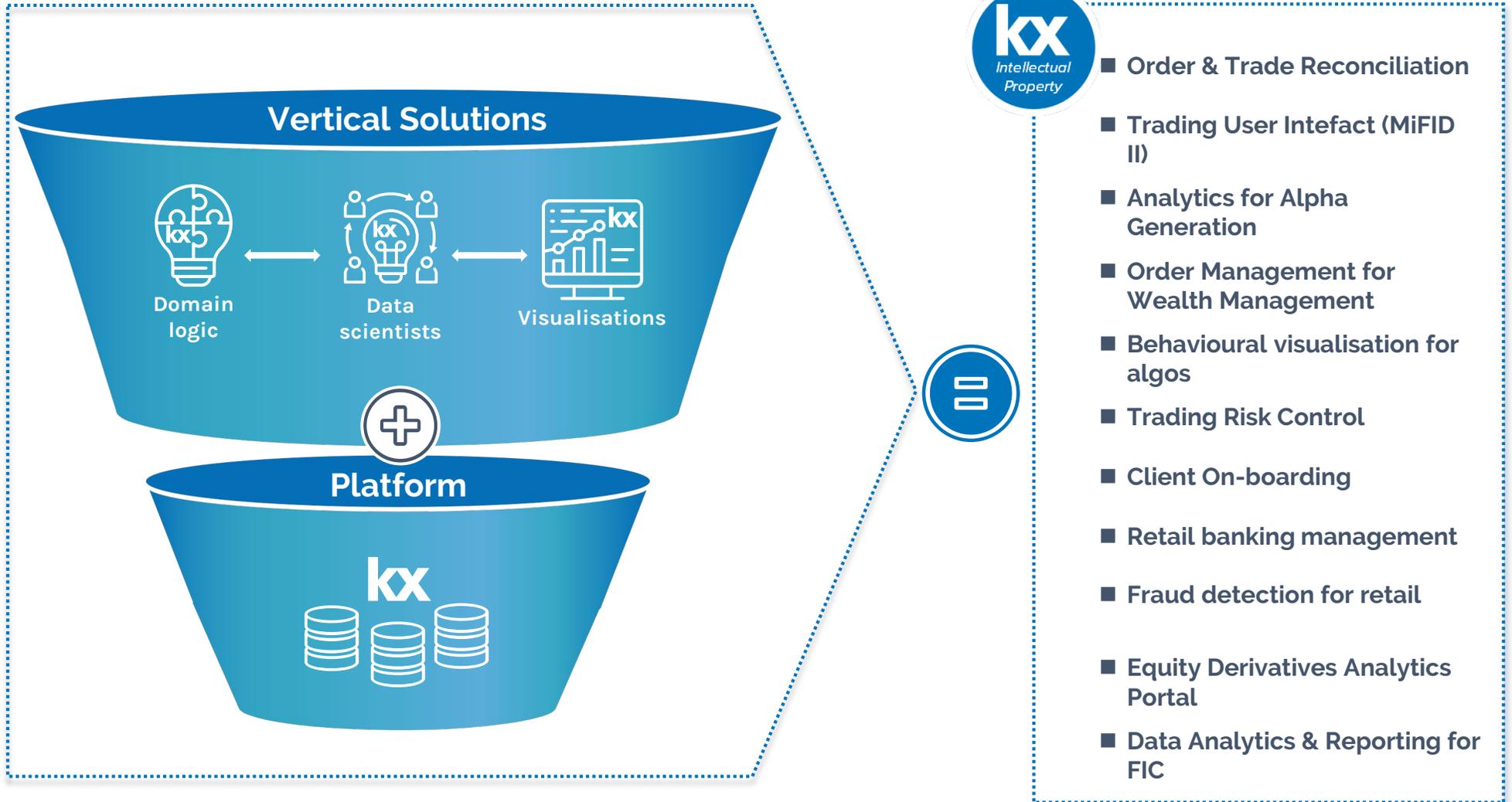
Matthew Hampson, Deputy Chief Digital Officer, Nomura



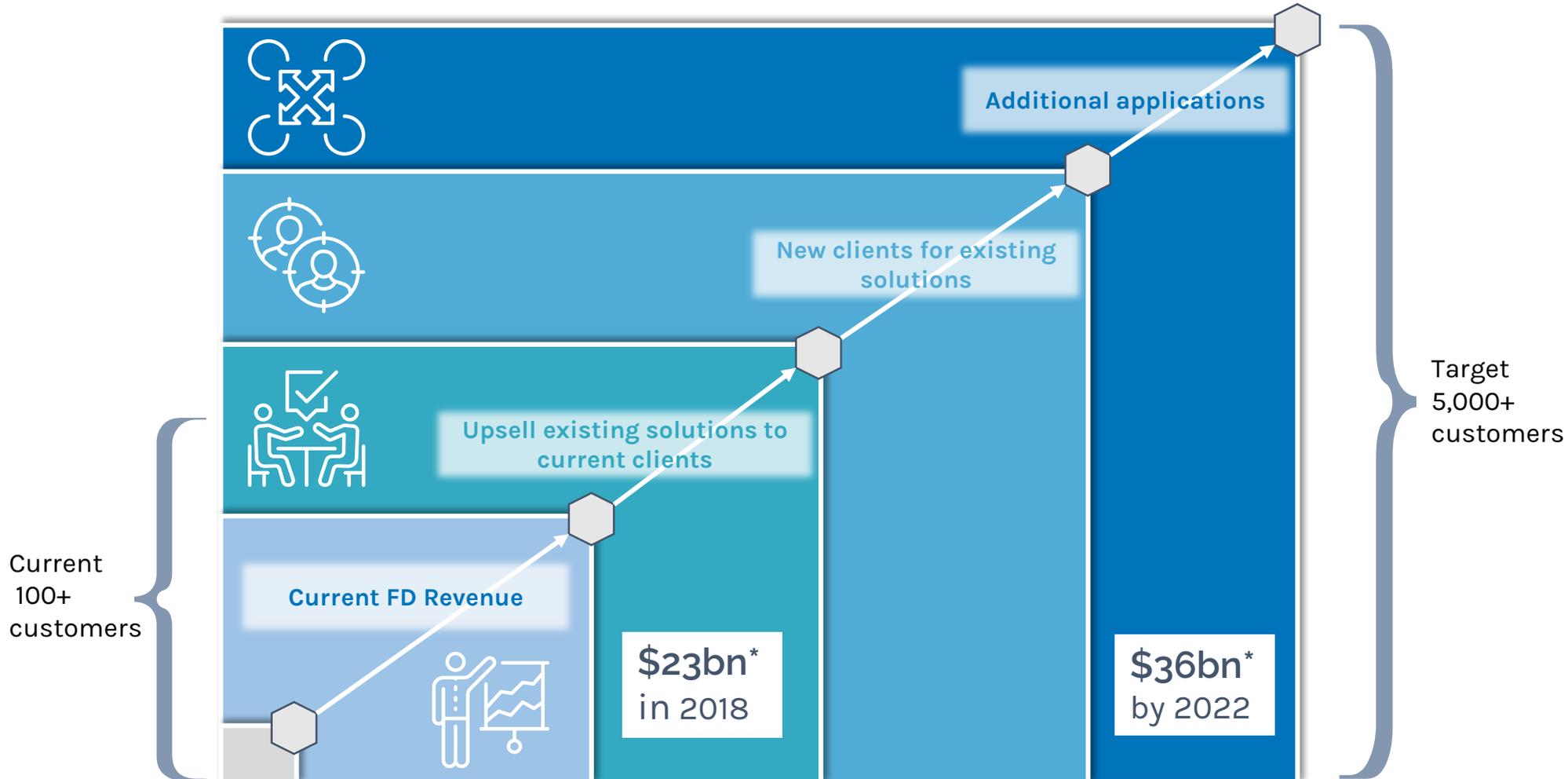
>> Kx in the cloud will drive continued strong growth



Potential FinTech applications



Massive expansion potential for Kx in FinTech



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Kx for Sensors Industrial Vertical

Hugh Hyndman
Director,
Industrial IoT Solutions



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Industry goals



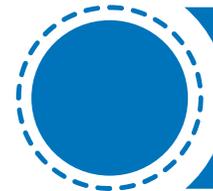
Improve quality



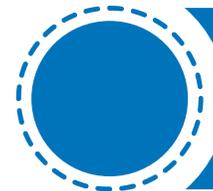
Increase yield



Reduce scrap



Increase uptime



Lower costs

Data challenges to meet goals

- Traditional sources
- New sources
- Ingest non-stop
- Increase frequency
- Combine OT/IT
- Store it all!

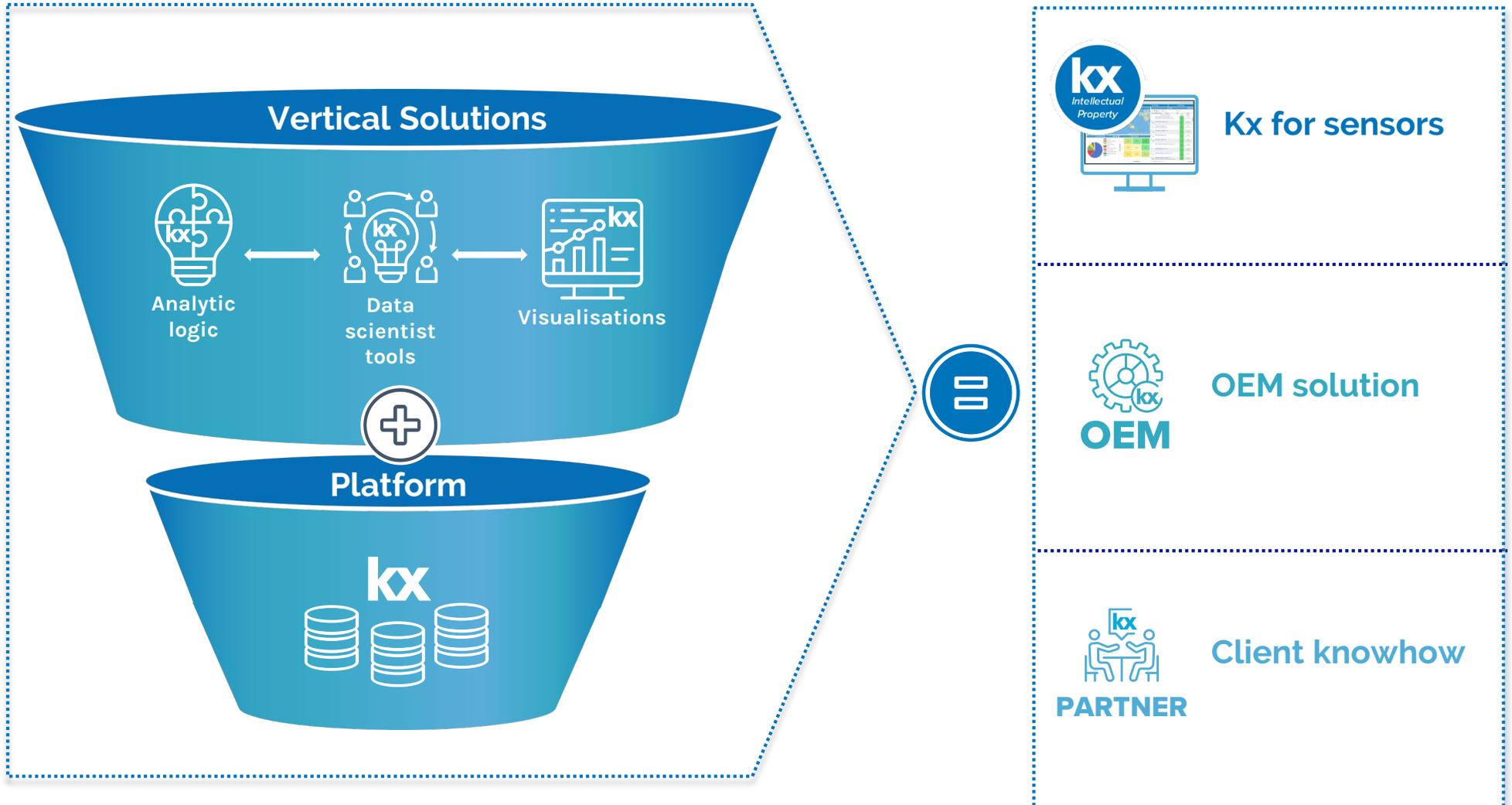
*Increase the use
of sensors*



Increasing challenges for existing systems

- Data frequency
- Sensor variation
- Low latency requirements
- Data volumes
- Data loss
- Responsiveness
- Data retention
- Costs
- Infrastructure

The answer – Kx for Sensors





Kx for Sensors - competitive advantages



Unmatched sensor data volumes and queries



Scales horizontally and vertically



Low-latency for process control and predictive analytics



Solutions for deployments in factories, utilities or cloud



Fault tolerant operations (24 x 7)

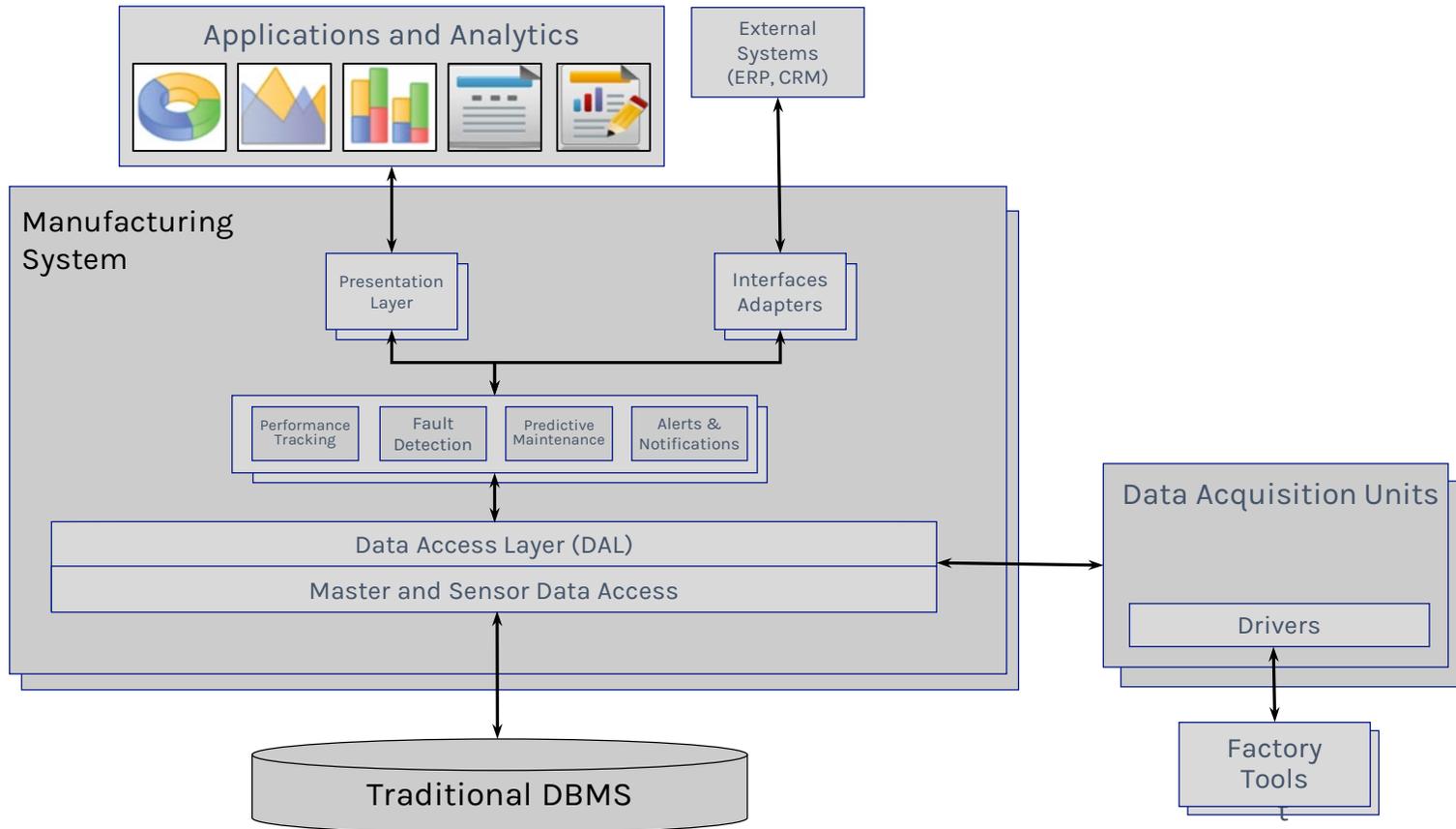


Simple integration with existing systems

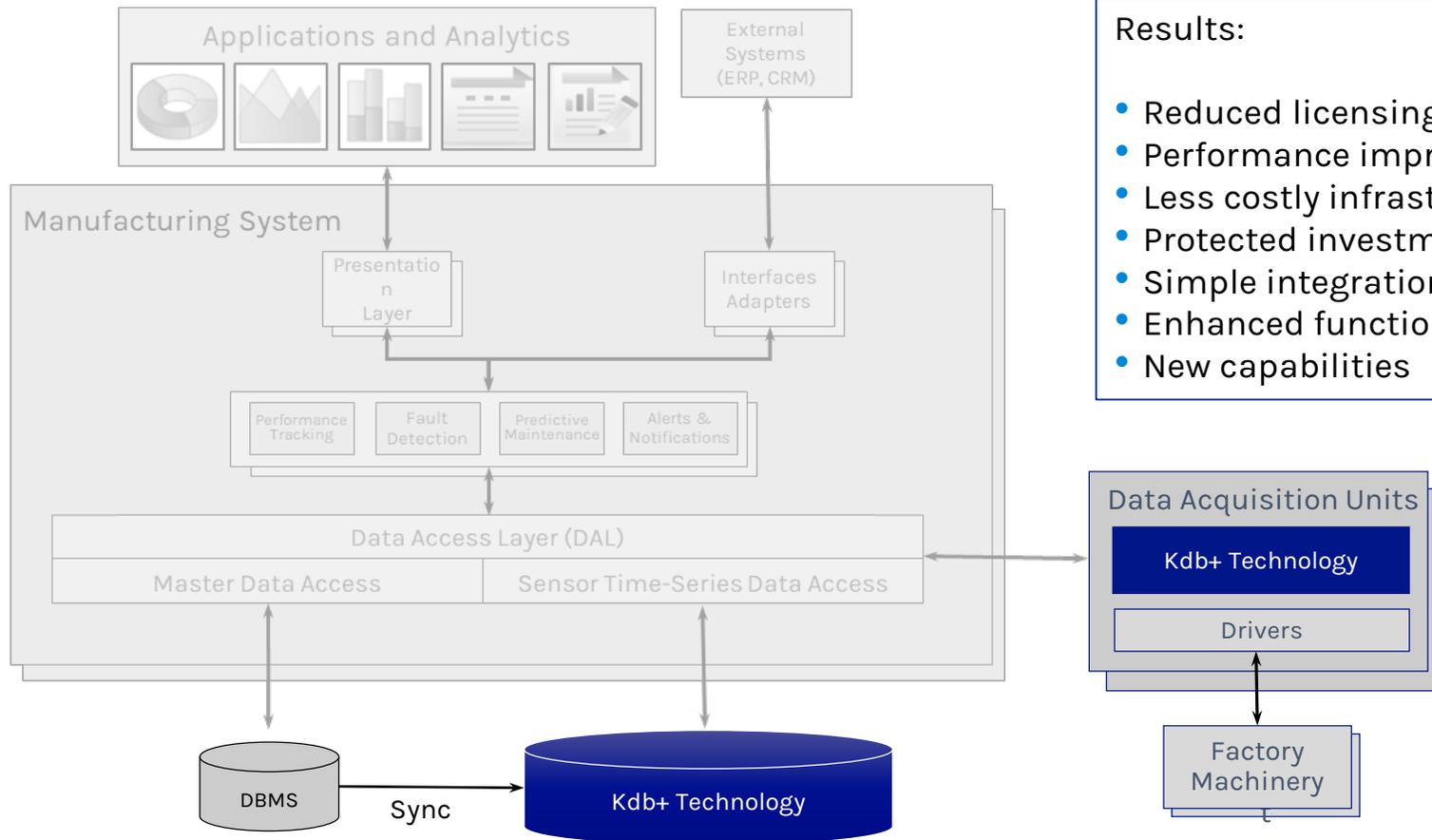




Existing Systems (before Kx for Sensors)



Existing Systems (after Kx for Sensors Integration)



Results:

- Reduced licensing
- Performance improvement
- Less costly infrastructure
- Protected investment
- Simple integration
- Enhanced functionality
- New capabilities



Business Problem

A high-tech manufacturer of healthcare products needed a system to determine product quality in less than 100 milliseconds



Injection Molding Machine

Kx for Sensors Solution

1. Ingest data from 1000 sensors
2. Apply models to determine quality test
3. Control machine to accept/reject component

Results



Applied ML to Quality checks



Enabled Machine Control



Improved Product Quality

Machine learning to identify equipment issues

Business Problem

A semiconductor fab had a chronic yield problem originating from a complex films process

Kx for Sensors Solution

1. Extracted historical tool data
2. Provided dashboards for data visibility
3. Integrated ML tools
4. Provided Kx data scientists
5. Enabled quick analysis iteration
6. Identified small voltage variance in relay switch

Data Engineering

Process Chambers Sensors: 60Billion data points and Yield/Test Data for thousands of chips over 1yr.

Feature Extraction

kdb+ transform enormous volume of streaming and historical timeseries data to many features.

Feature Selection

kdb+ fast calculation engine regresses top features.

Modeling

SciKitLearn ML python libraries exercised using kdb+ EmbedPy XGboost and Random Forest found to be best models.

Validation

5 fold cross validation with trained models. Dashboard views enable SME to quickly understand observations and turn them into solutions. 2 sensors from a process chamber was found to be the root cause problem.

Billions of Data Points

Thousands of Features

Tens of Features

1-2 Models

ROOT CAUSE

Results



Improved Yield



Fast Cycles of Learning



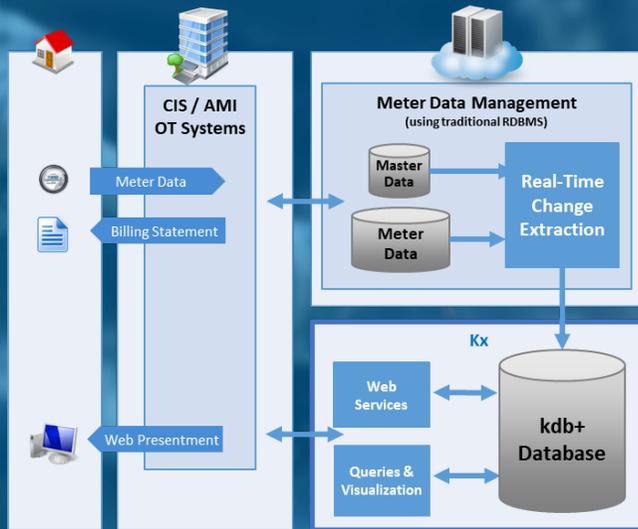
Visuals to Interpret Results



Seamless enterprise integration

Business Problem

Challenge providing processed meter data to utilities in timely manner, with growing volume and variety of data retrieval and analytics requests.



Kx for Sensors Solution

1. Migrated 7 years of history
2. Supported millions of sensors
3. Trillions of data points
4. Established real-time OT synchronization
5. Exposed enterprise-wide web services
6. Enabled ad-hoc analysis
7. Improved response from days to minutes

Results

- No production system impact**
- Sub-second query times**
- Scaled for 5m consumers**



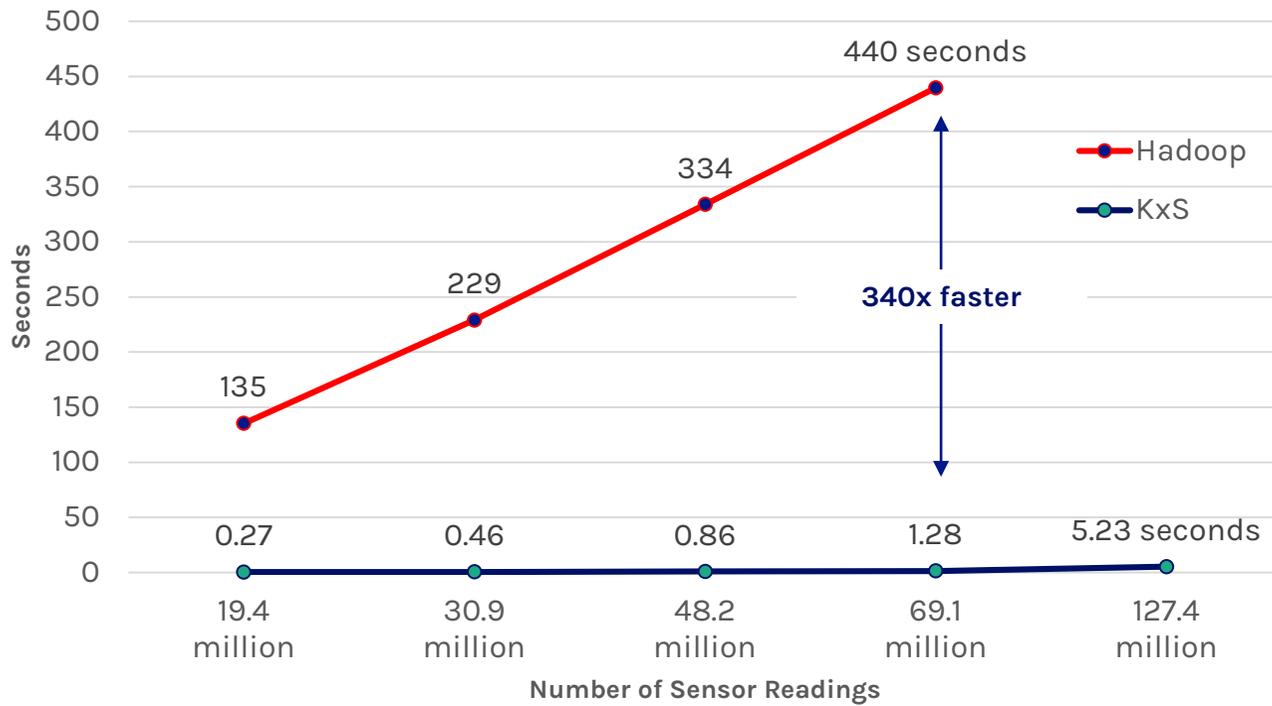
Provide access to smart meter data for utilities, end customers and third party application providers.



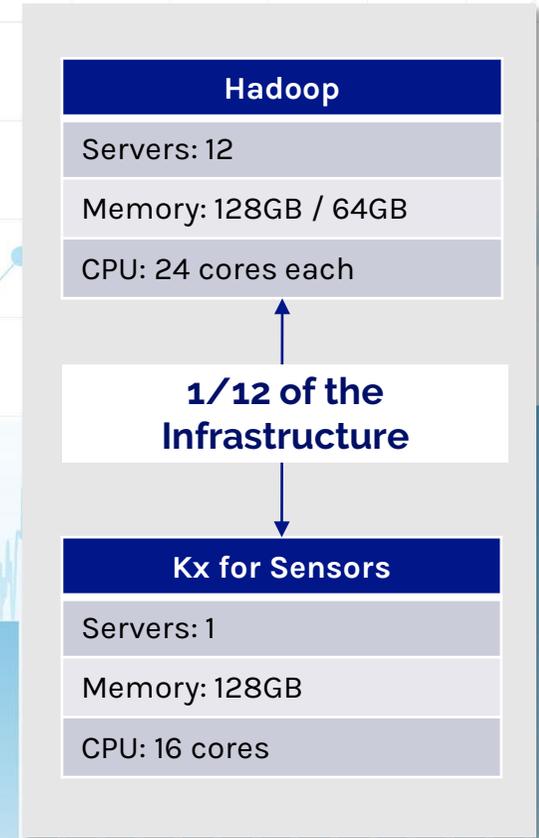
Kx for Sensors vs Hadoop



Historical Sensor Readings Queries

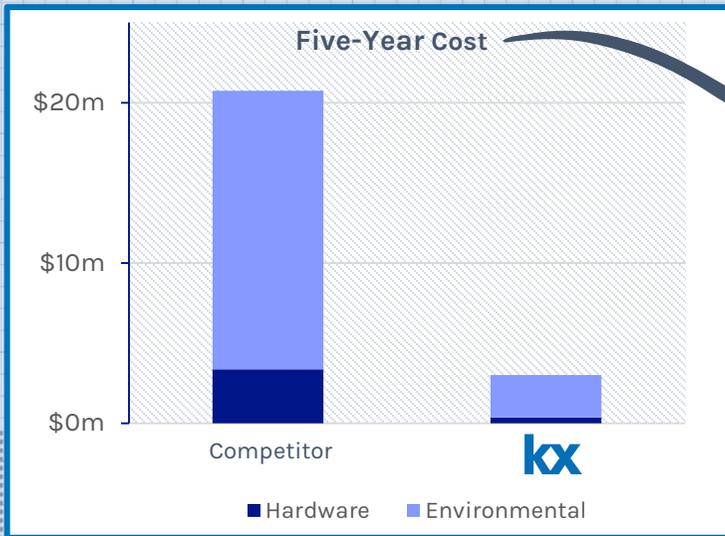


Note: Datastore of 60 billion sensor data points





Kx for Sensors provides disruptively low TCO

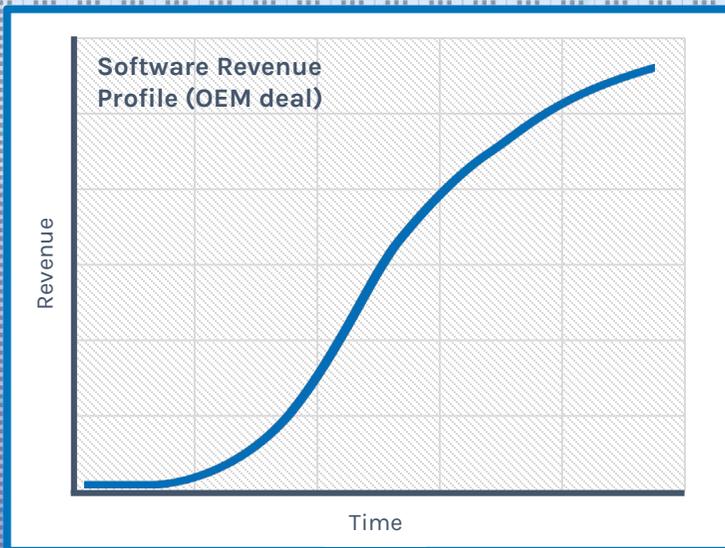


Cost Savings vs Leading Competitor

Hardware (including maintenance & support)	85%
Environmental (power, cooling, space)	90%

Data Volumes

- 5,000 tools (factory equipment)
- 3,000 sensors per tool
- 150 million sensor readings/sec ingestion
- 77 TB/day storage (compressed 15TB/day)
- Concurrent 1,250 queries/sec
- 6 months data retention (2.7 PB)





Recent OEM and contract wins



FORTUNE
500
Company

Division of a public equipment manufacturer – 250+ installations

- OEM agreement for rollout over the next 3 years to both their service organization and direct customers
- Kx for Sensors replaces well-known DBMS
- Most direct customers will require 9 months of testing before promoting to production systems. This is normal

BISTel

South Korean smart manufacturing solution provider

- OEM agreement to embed Kx in their range of solutions for their global customer base
- Kx for Sensors replaces well-known DBMS
- First deployments expected during Q1 2019

Survalent.

Utility system management Solution provider

- OEM agreement to augment the functionality in Survalent's solutions
- Generates royalty-like revenue as take up begins across customer base of 600+
- Product launched to market at Distributech 2019 in January

FINGRID

National transmission system operator

- Partnership win in conjunction with CGI
- Kx for Sensors powering a next-generation electricity information exchange for Finland
- Challenges facing Fingrid replicated across the industry

Kx for Sensors / Industrial Vertical



\$34bn*
in 2018

Manufacturing market scale

\$54bn*
in 2022

Source: IDC 2018 Worldwide Semiannual Big Data and Analytics Spending Guide (August 2018)

First Derivatives plc

MarTech

Kevin Cunningham
President, MRP Prelytix



www.firstderivatives.com



Evolving B2B Buyer Journey

- Evolving buyer pattern changing the way enterprises sell
- 98% of B2B buyers research online before buying
- 50% of sales go to the first sales contact



End-to-End ABM Delivers Return on Predictive Output

- Aligns marketing and sales team to target high potential clients
- Market need for proven solutions - today, only 9% of marketers have the proper tools for successful ABM strategies
- Sellers are challenged to meet the complex demands of B2B buyers

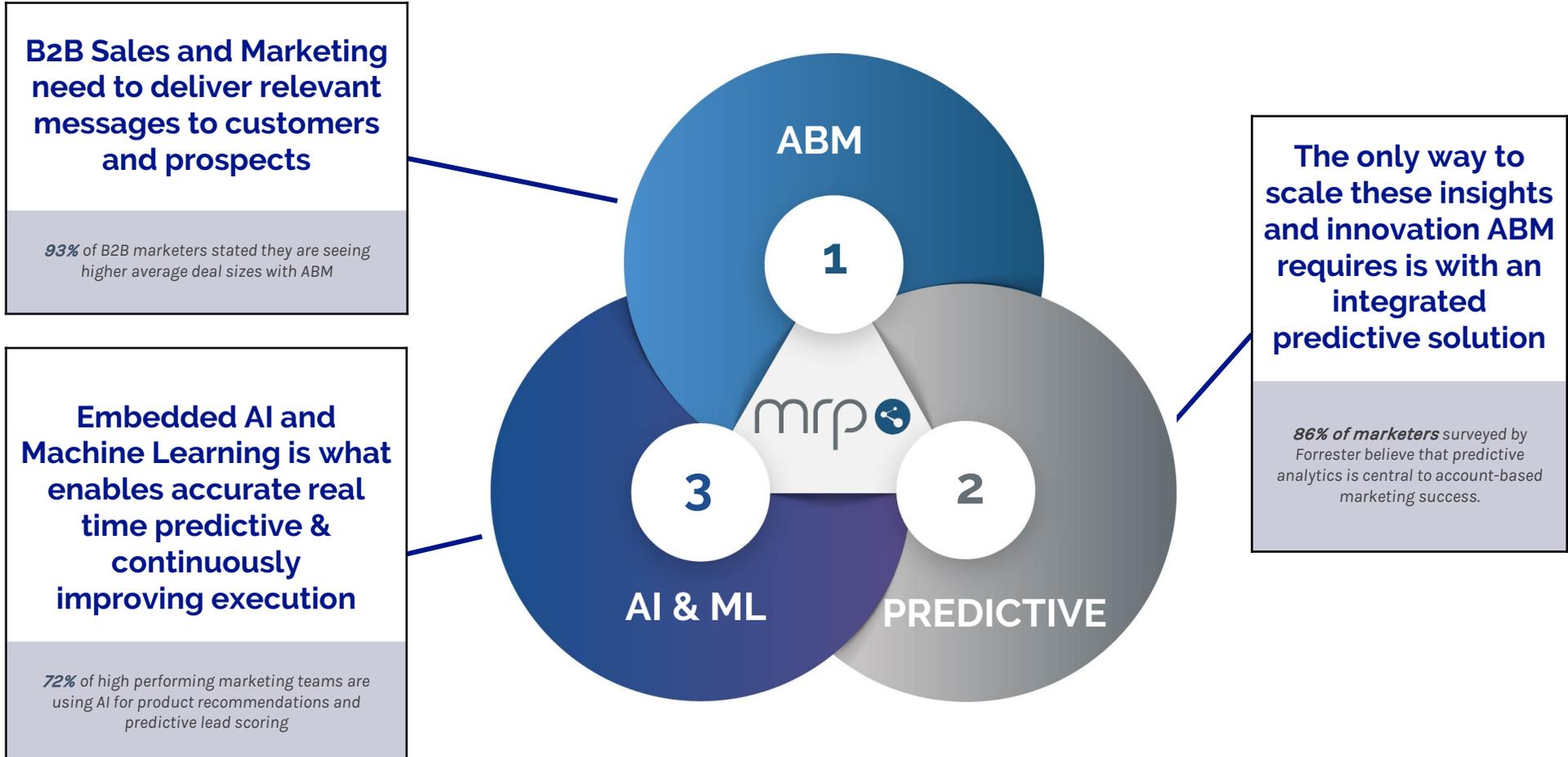


Predicting Buyer Intent

- The adoption of B2B predictive analytics in marketing is growing quickly
- Predictive expected to grow 27.4% CAGR from \$3.5bn to \$12.4bn in 2022
- Pulling through predictive output is the challenge

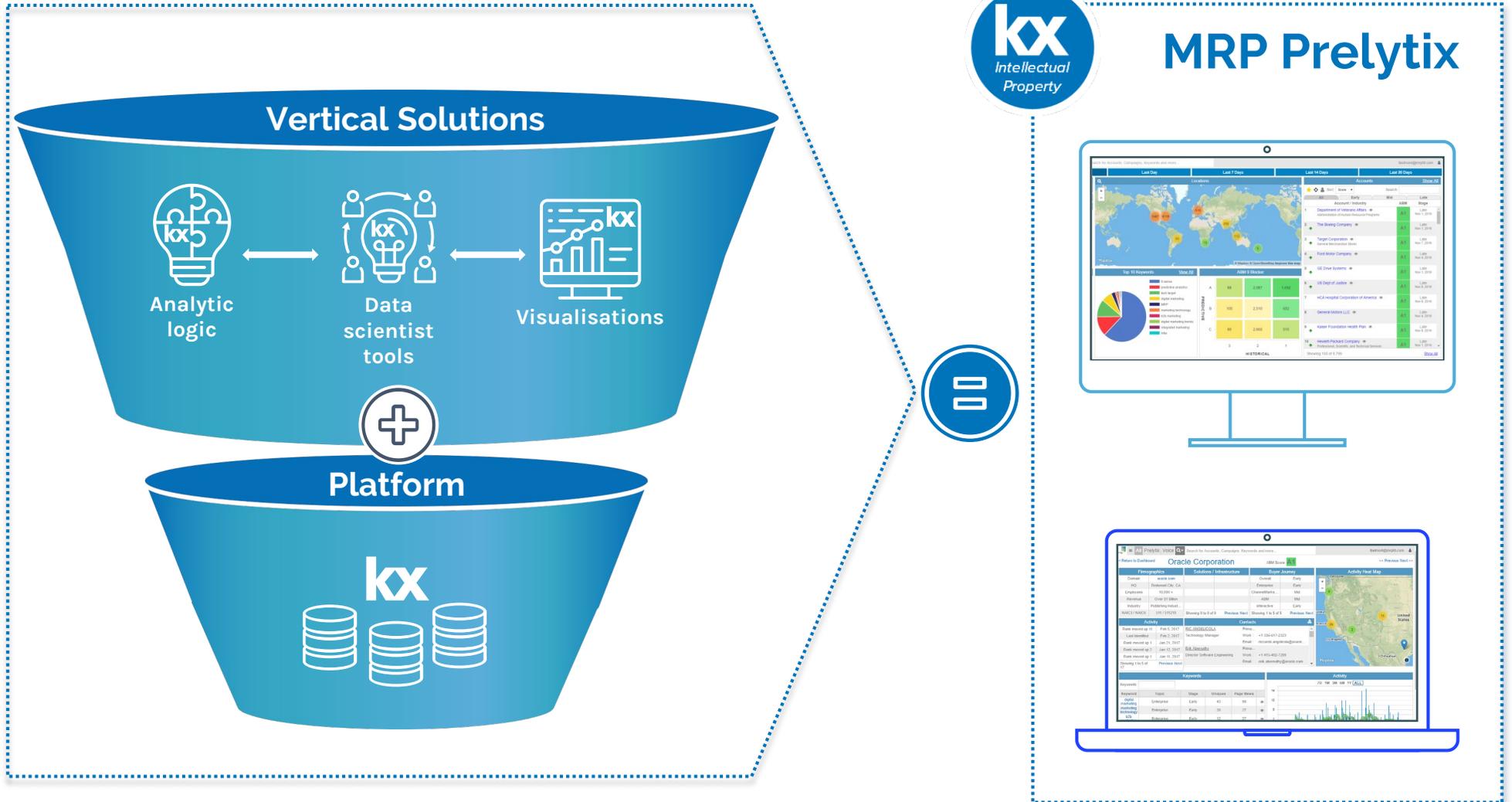
\$3.5bn*
in 2018

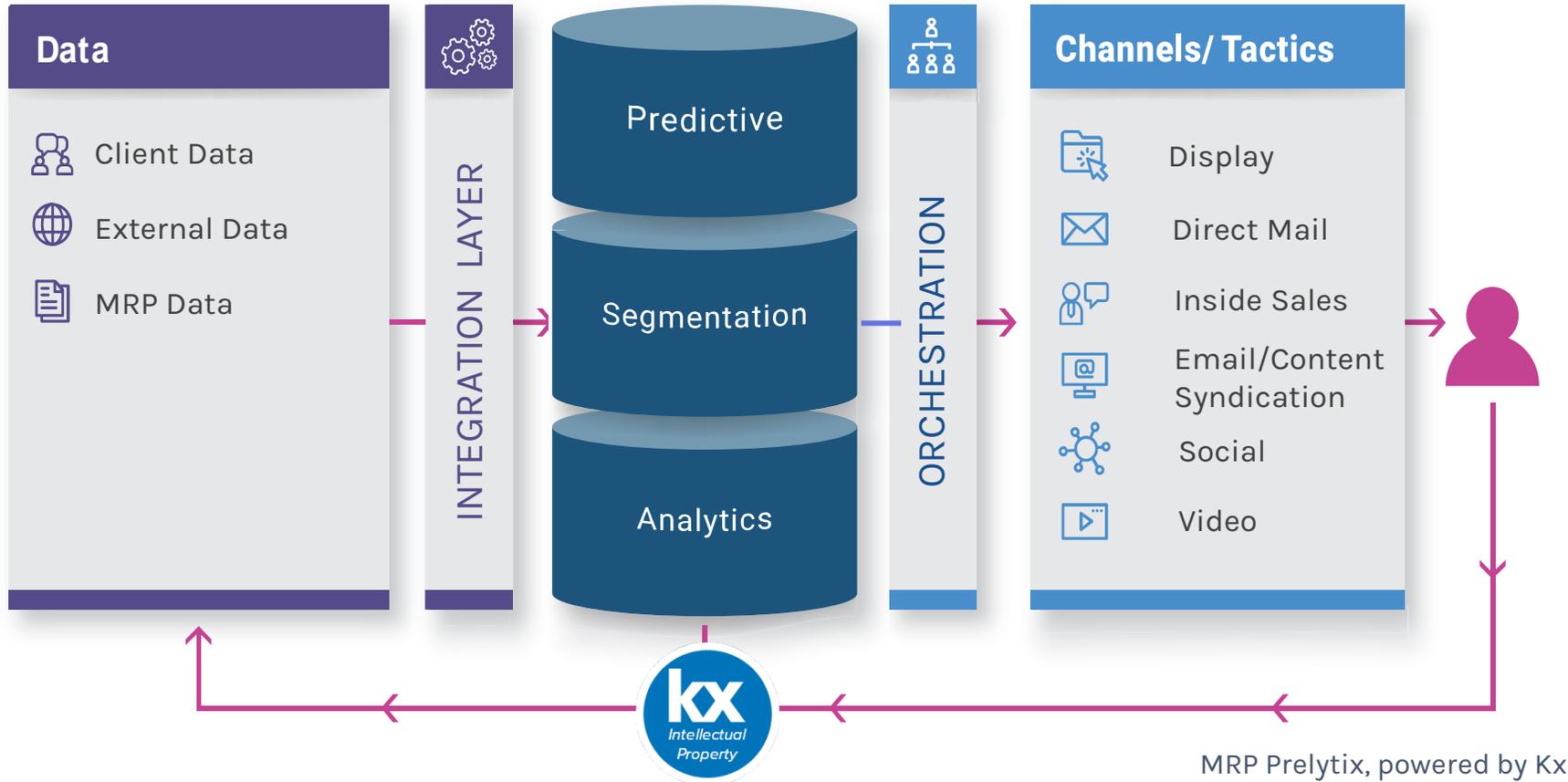
\$12.4bn*
by 2022

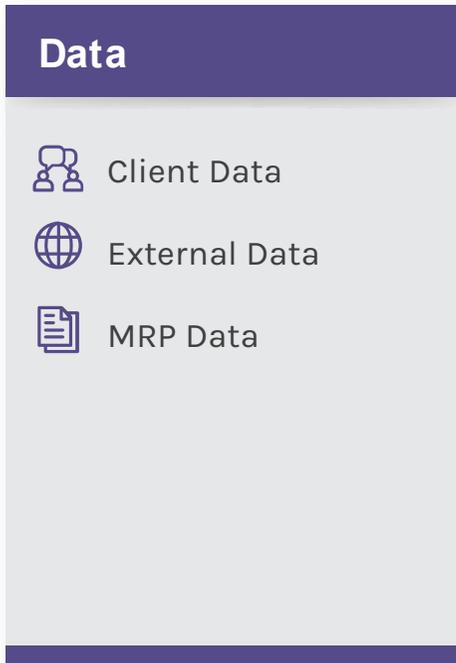




Kx for MarTech - MRP Prelytix







Client Data

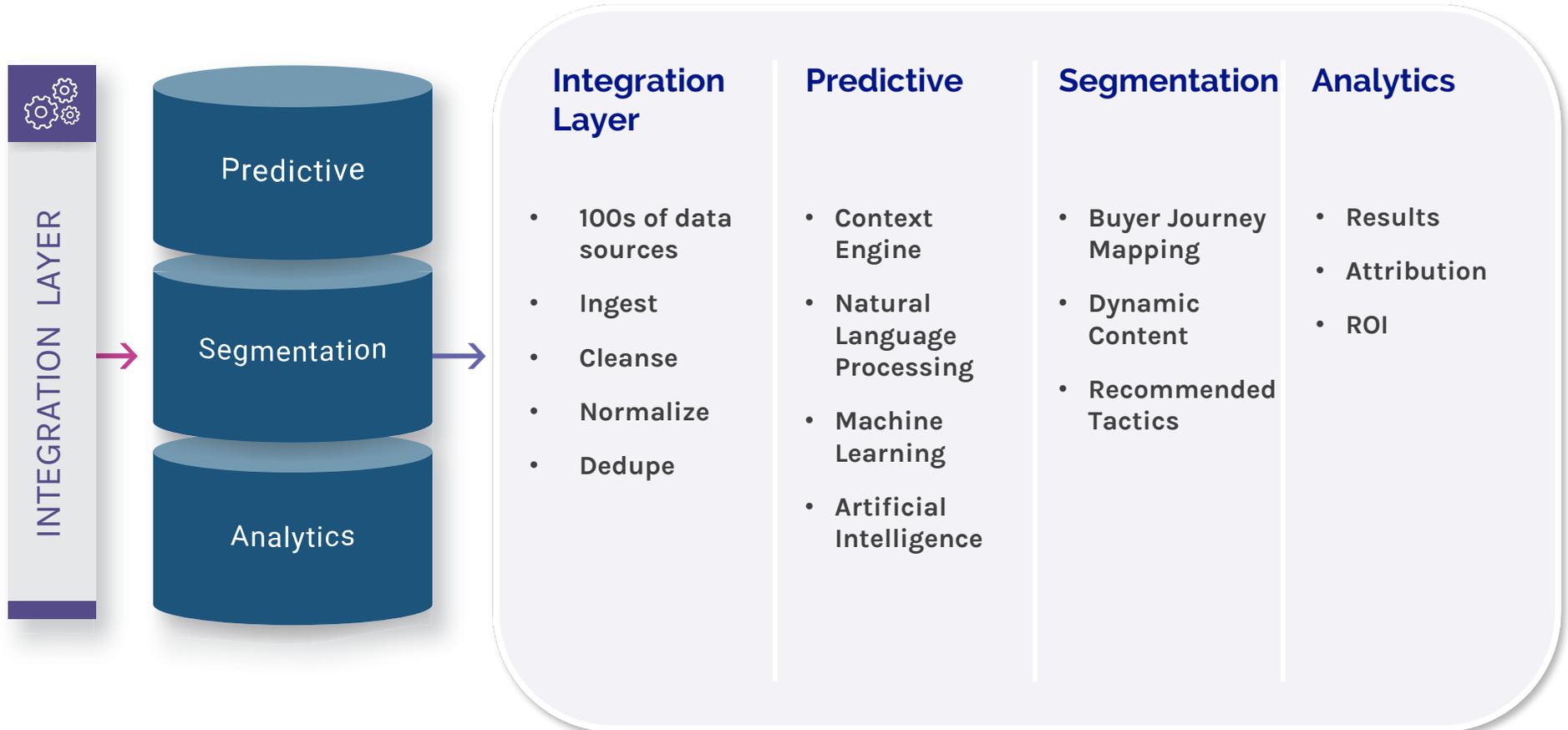
- Website visits and content consumption
- CRM
- Marketing Automation
- Current customers
- Client Surveys/Feedback

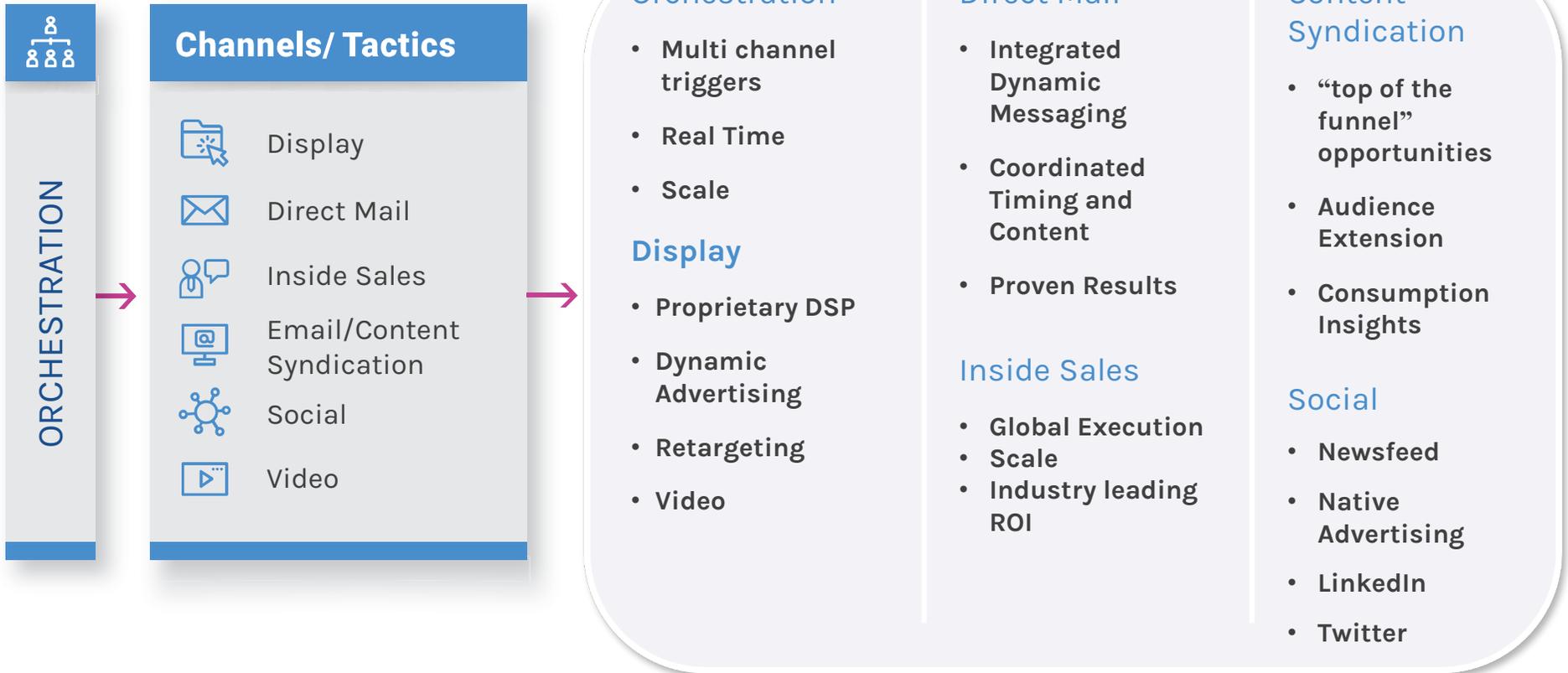
MRP Data

- 17 years – marketing execution
- Contact ability
 - Firmographic
 - Technographic

External Data

- Ad Impressions from DSP's
- Web Scraping
- News Articles
- Events
- Social



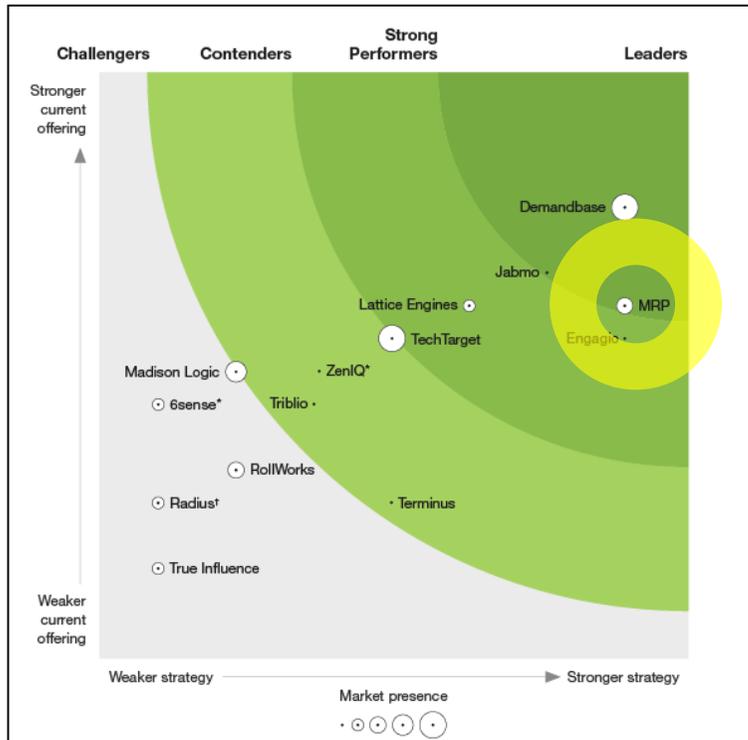




MRP named a leader in Forrester ABM wave



Forrester New Wave™: ABM Platforms, Q2 2018



Why MRP was named an ABM Leader:

- The most experienced, largest geo footprint, and is among the largest revenues of all ABM Platforms
- Success with sophisticated enterprise customers
- Unique ABM platform with actionable insights baked into the core, allowing clients to quickly action the highest value, truly personalized tactics in their ABM program
- Ultimate focus on Client Revenue Impact

“ MRP *leads* with *AI-powered insights*, orchestration, and engagement. MRP leverages its *legacy in predictive analytics* to [...]create and execute *dynamic engagement* workflows.

–FORRESTER® ”

Marquee client base



Key Metrics ⁽¹⁾:



Note: (1) Based on information as of 31/08/2018



Competitive differentiation

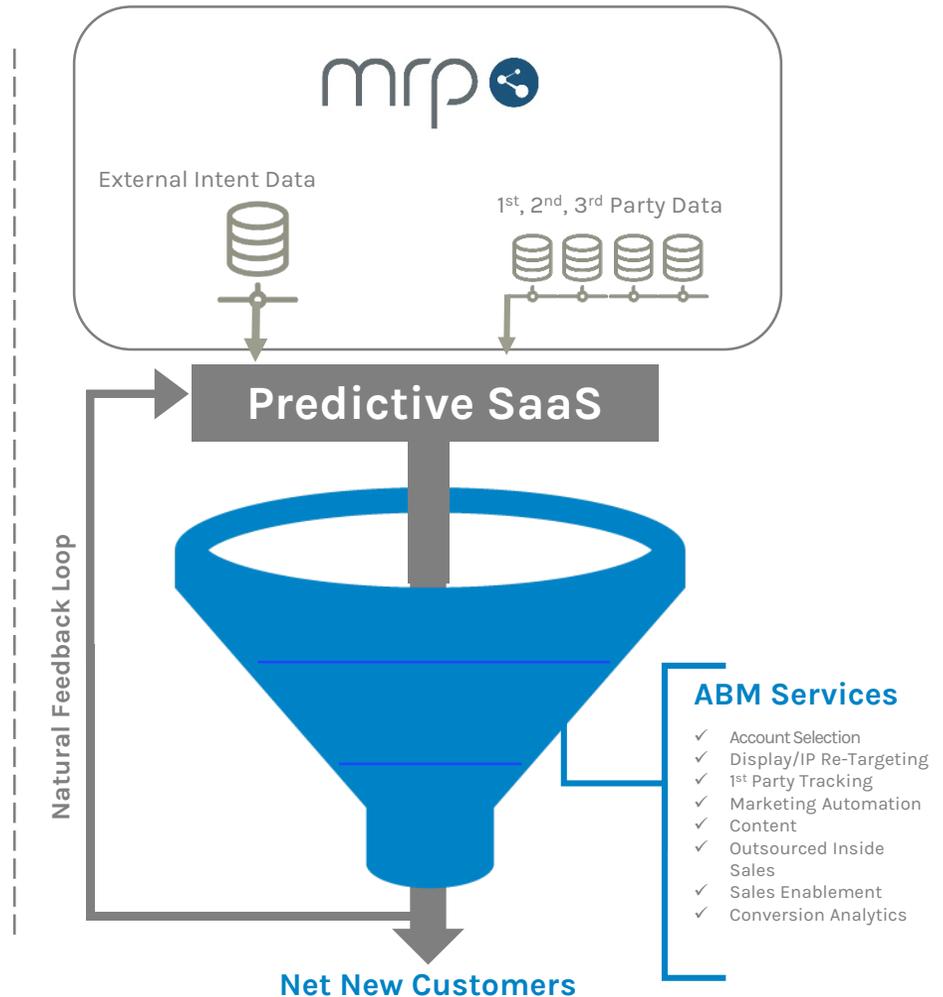
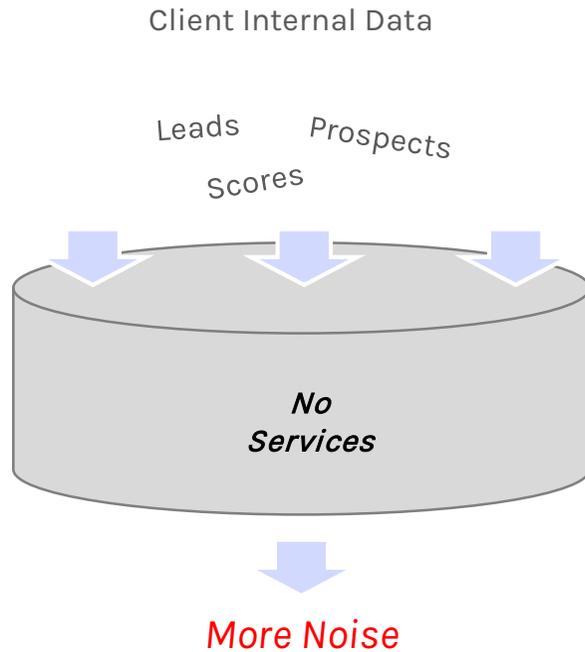


	competitor 1	competitor 2	competitor 3	MRP	competitor 4	competitor 5	competitor 6
Expertise	Predictive analytics and data management platform	Predictive analytics and data management platform	Intent data provider	End-to-end Account-Based sales and marketing platform	Account-Based display advertising and sales enablement platform	Account-Based display advertising platform	Demand Marketing Orchestration
Global Operations	X	X	✓	✓	✓	X	X
Company Size (employees)	142	98	104	650	321	169	196
Insights							
Predictive Analytics	✓	✓	X	✓	X	X	X
Intent	X	✓	✓	✓	✓	X	X
Data Management (CDP)	✓	✓	X	✓	X	X	✓
Real-Time Data Processing	X	X	X	✓	X	X	X
Lead Management (L2A)	✓	✓	X	✓	X	X	✓
Execution							
Multi Channel Orchestration	X	✓	X	✓	X	X	✓
Triggered, always on programs	X	✓	X	✓	X	X	X
Full Funnel	X	✓	X	✓	✓	✓	X
Channel - Display Ads	✓	✓	X	✓	✓	✓	✓
Channel - Content Syndication	X	X	X	✓	X	X	✓
Channel - Direct Mail	X	✓	X	✓	X	X	X
Channel - Inside Sales	X	✓	X	✓	X	X	X
Analytics							
Cross-Platform ABM measurement	✓	✓	X	✓	X	X	✓
Revenue attribution	X	X	X	✓	X	✓	✓
Cross-Channel impact measurement	X	X	X	✓	X	X	✓

Competitive differentiation

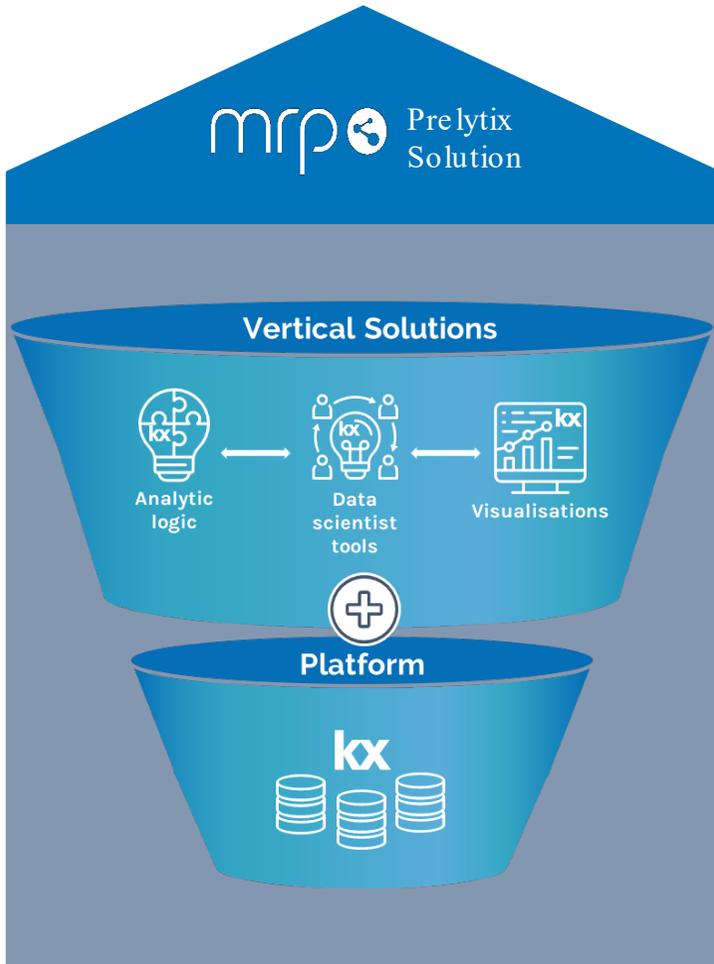
► MRP Prelytix, powered by Kx, makes sense of predictive big data in real time

Other Predictive Vendors

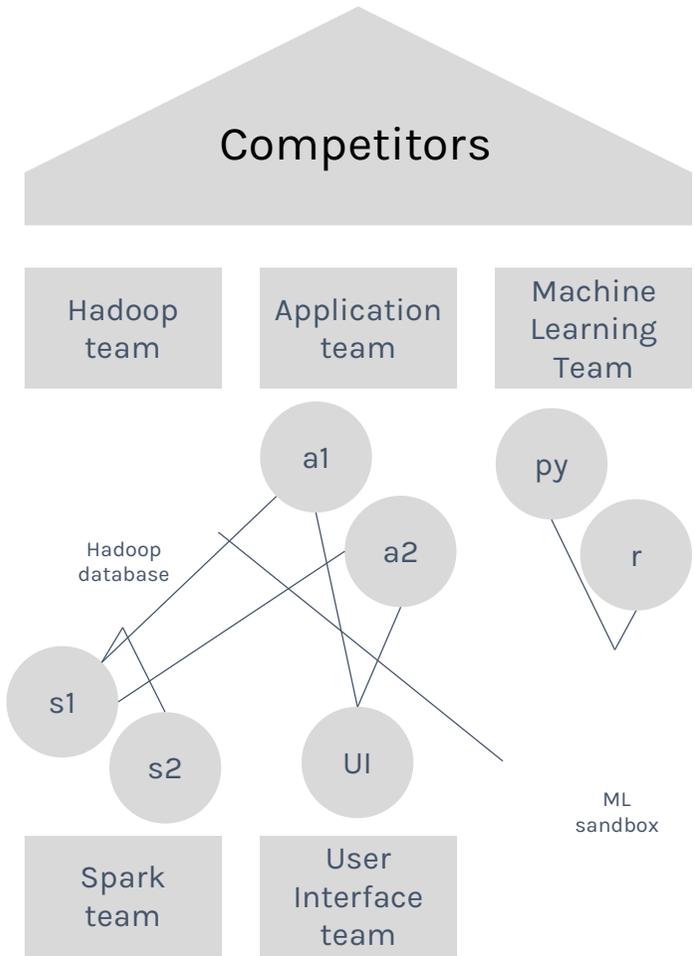




Single stack accelerates development and simplifies support



1 server	Typical number of servers deployed	100s
1 database	Unstructured and structured data	Multi
1 team	Speed of development	Many

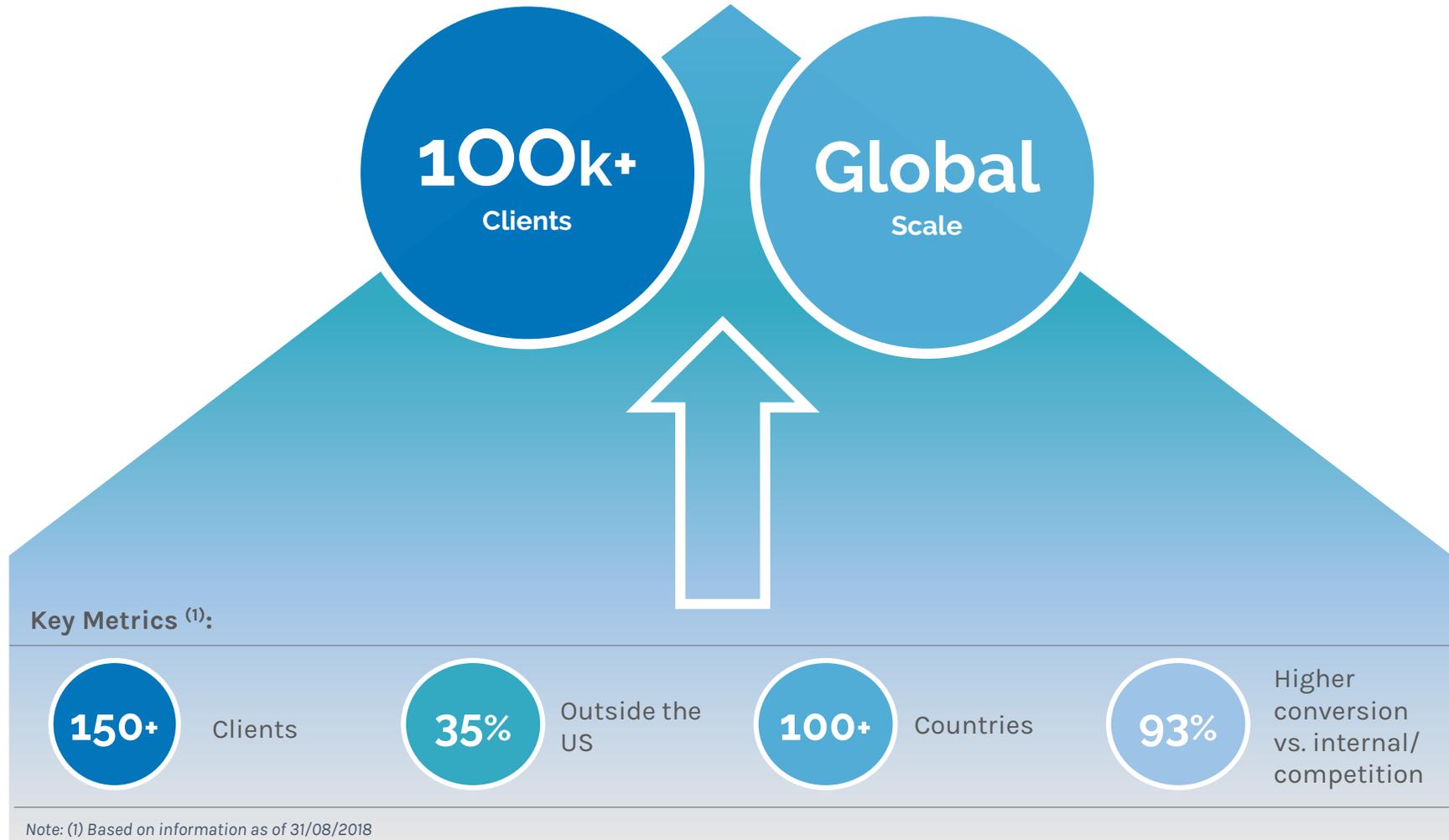




Scale of opportunity



Potential :



Note: (1) Based on information as of 31/08/2018

First Derivatives plc

Sales strategy

Pat Brazel
Chief Commercial Officer





Kx technology

- Storage and analysis of high frequency time-series and streaming market data
- Enterprise platform
- Applications that provide competitive advantage and insight for clients



First Derivatives

- Deep capital markets expertise
- Sales energy
- Implementation, support and development



Kx is the market standard and sustains that advantage through constant investment and focus

FinTech Expanding Opportunity

Streaming, high-frequency time-series data is becoming a mainstream challenge for banks, exchanges and regulators

Demand also growing in adjacent markets such as gaming and retail banking for:

- Fraud detection
- Anti-money laundering
- Bet-in-play markets



Consolidating our market position while expanding the market opportunity



FinTech success: more than technology



Global customers
as references and case
studies

While we have some partnerships, our sales strategy is predominantly a direct sales model delivering over \$100m of revenue at current run rate

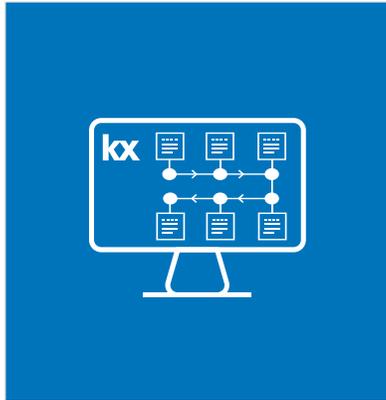


Local teams with local
relationships and domestic
domain knowledge



Ever deepening subject
matter expertise

**Our USP,
the barriers to entry
and overall competitive
advantage grows**



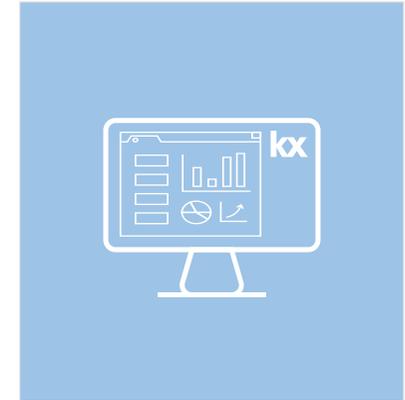
Surveillance



Data Refinery



Consolidated Audit Trail



Machine Learning



The opportunity

Volumes are exploding
Velocity is accelerating
Streaming, time-series
data is everywhere

Identifying the best markets

- Where do we have unique advantages?
- What order of magnitude is that advantage?
- Faster, cheaper?
- Enabling entirely new capabilities

In what sectors does that advantage generate value for our customers?



Search and Align to our USP and Value Add

- ▶ Business development in a broad range of verticals to identify early adopters
- ▶ Campaign with experienced In house lead generation teams armed with potential use cases
- ▶ MRP Preltyx to identify organisations already in “search and buy” mode

The goal:

- 1) Identify sectors which best satisfy the our criteria of **USP** and **Value**
- 2) Identify **external drivers** which accelerate early purchase decision



The first step to a commercial relationship

- ▶ PoC with real customer data - ideally but not necessarily paid for
 - Remove doubt
 - Build relationships
 - Develop domain expertise
 - Establish BANT
 - And if necessary Fail Fast
- ▶ Experienced PoC teams in Ireland and Canada
- ▶ Over 50 PoCs in the last 12 months
- ▶ History of success - almost all of our closed business involved an initial PoC



Pursue partnerships to increase capability and market opportunity

OEMs who embed our technology in the products

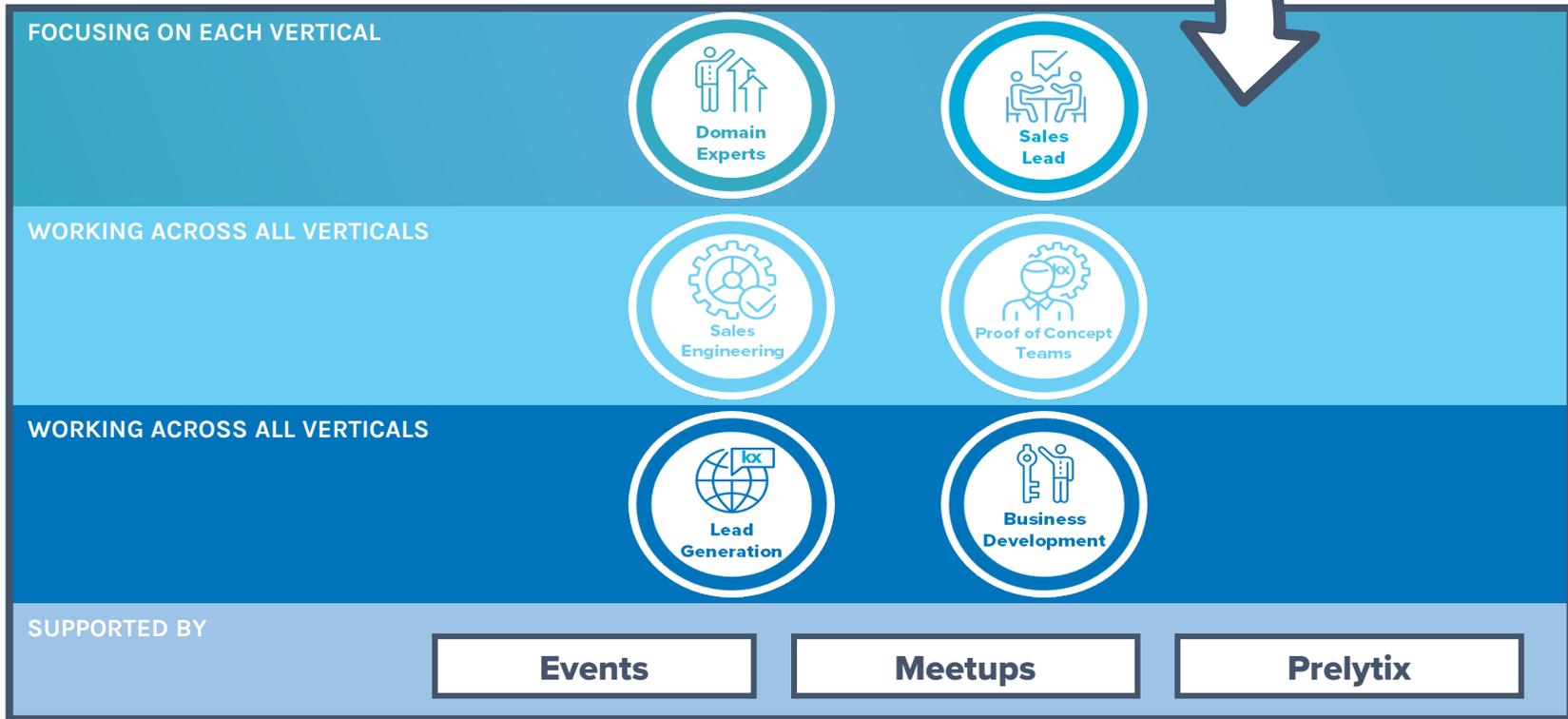
- Bistel
- Fortune 500 company
- Utilismart
- Survalent

Systems Integrators who resell our Technology

- CGI
- App Orchid

Rich Pipeline of new partners
in Cyber, Defense and Telco and Manufacturing

New markets: our process





Finding domain experts and sales talent to exploit identified opportunities globally



Steve Forsythe
Head of Sales EMEA Industry

Steven is an experienced director with a track record of achievement leading sales teams in telecoms, technology and software product markets.



Kris Inapurapu
SVP, Silicon Valley

Kris is currently VP of Corporate and Business Development. Kris is responsible for growing the company's business in Silicon Valley and the broader West Coast region.



Przemek Tomczak
SVP, IoT & Utilities

Przemek has over 24 years IT and business leadership experience, implementing and operating big data analytics systems, transformation initiatives, consulting, outsourcing and risk management in the energy and utility industries.



Bill Pierson
Semiconductors

Bill Pierson leads the Semiconductors and Manufacturing vertical as Vice President. Based in Austin, Texas, Bill held senior roles at Samsung, ASML and KLA. He has extensive experience in front-end manufacturing, process control and analytics.



Takeshi Tanimoto
Head of Sales Japan Industry

Takashi oversees industry solutions and business development in Japan. He has over 20 years' experience in the enterprise software industry.



Neeraj Maskara
Head of Sales APAC Industry

Neeraj is responsible for sales and business development across Asia. He has 20 years of experience in enterprise technology and a decade of experience delivering complex data management solutions.



Paul Colgan
SVP, Telco

Paul has more than 10 years of senior management experience in both private and public multinational tech companies. He joined FD as Head of Telco in Sept 2018.

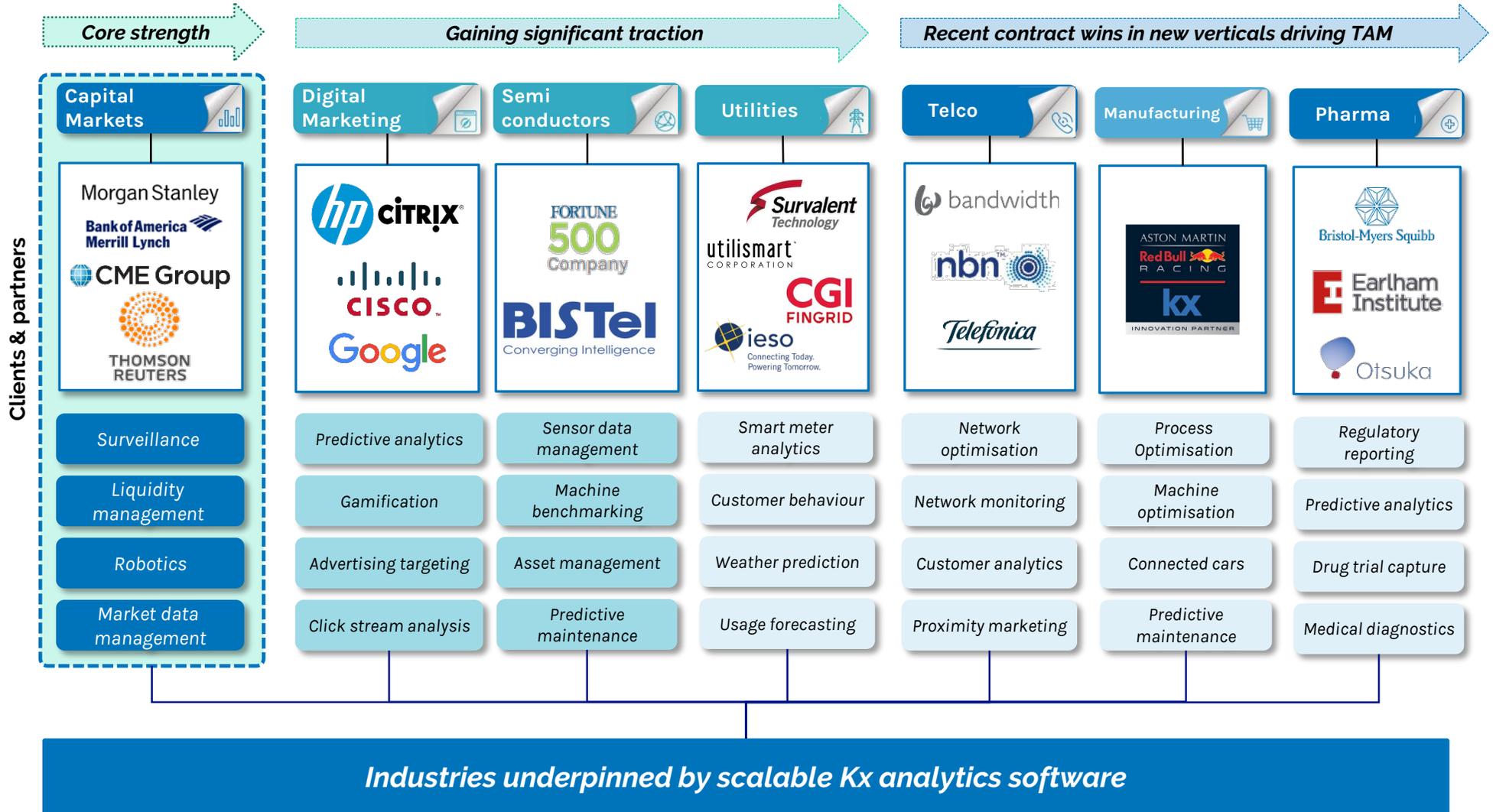
OEM / major contract sales lifecycle in new vertical



Subsequent contract lifecycles are expected to shorten as use cases become more defined and technical understanding increases

More than 50 Proofs of Concept completed in past 12 months

Expansion into new verticals increasing TAM





Growing the Kx ecosystem to drive revenue



Drive long-term, high margin software revenues by promoting Kx as a disruptive technology across multiple industries



A range of initiatives geared to academia and designed to showcase our technology

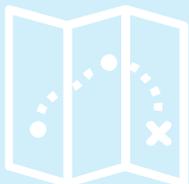


We are building strong alliances with key industry players to leverage their brand and global sales reach



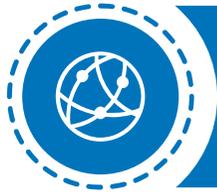
We bring the technology and our high-potential partners bring domain expertise. Together, we can deliver solutions to market fast

Working in partnership with leading organisations to provide innovative, new commercial products and services

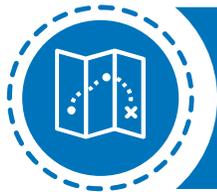




Pillars of success



Established market standard for streaming time-series technology



Established market penetration process



Experienced and motivated people



First Derivatives plc

Wrap up

Brian Conlon, CEO



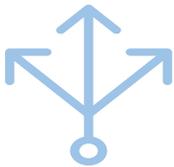
www.firstderivatives.com



Where are we today?



Own the world's most performant time-series database technology



Opening up valuable new markets for sensor analytics across utilities, manufacturing and automotive



Established presence in FinTech and MarTech - combined \$150m revenue run rate



Growing opportunities resulting from increasing awareness of Kx across the technology industry



Priorities for FinTech



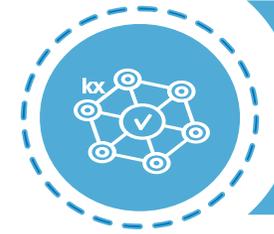
Cloud strategy

Supporting our clients as they transition their businesses



Kx Data Refinery

Helping our clients deploy a strategic data management solution to reduce complexity



Growing applications

Using our domain expertise to promote existing applications and launch new solutions



Growing subscription revenue
Making MRP a core element of our clients' sales and marketing strategy

Growing customer spend
Building out the functionality of the MRP platform

Opening new verticals
Extending our presence beyond global tech into other markets

Building on utilities and manufacturing successes



Deliver on our contract wins and partnerships to deliver revenue growth



Further develop our technology and domain partnerships



Use our reference client wins to continue to build our pipeline



Build applications for common problems across industries



Developing new vertical markets



Promoting awareness of Kx's performance capabilities across the technology industry



Constantly evaluating entry into new markets based on Kx's level of competitive advantage and size of addressable market



Evaluation process includes feedback from R&D and sales & marketing teams, proofs of concept and domain experts (internal, venture companies and technology partners)

Horizontal market opportunities



Working with customers and technology partners to prove our machine learning and AI credentials



Exploring opportunities to develop cybersecurity solutions in conjunction with industry partners



Constantly exploring opportunities for Kx to be the platform that powers emerging technologies e.g. blockchain



Research and development focus



Maintaining Kx's lead in performance and TCO



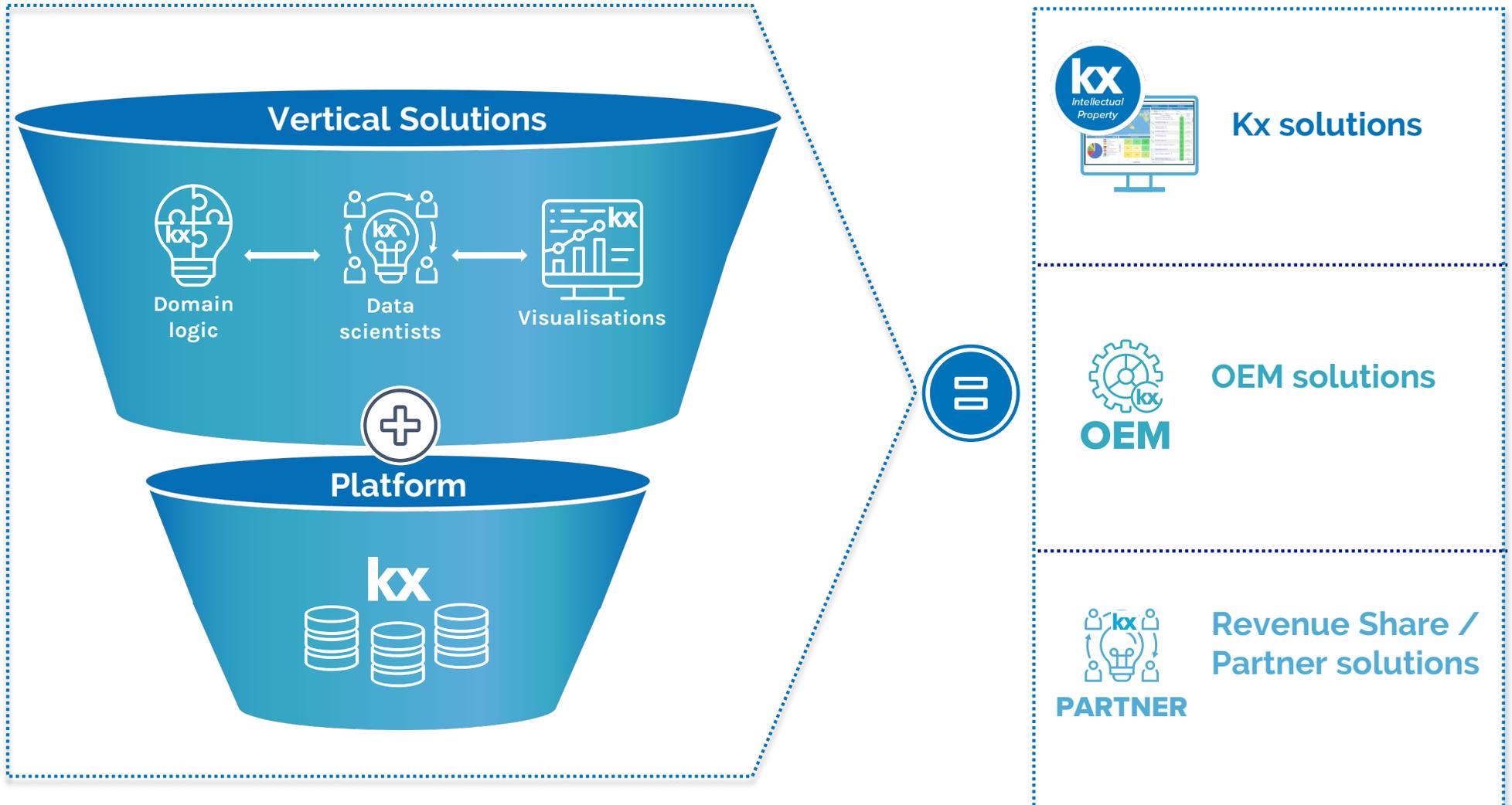
Making Kx easier to adopt and work with for partners and customers



Positioning Kx to benefit from industry developments e.g. AI and hybrid cloud



Single Unified platform - Building IP assets



Software TAM progression



Target clients 2015

Focus on Financial Services

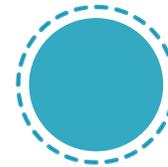
Target clients 2017

Adding MarTech Potential

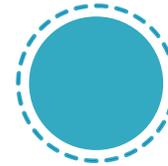
Target clients 2019



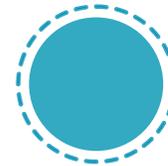
Our strategy is unchanged:



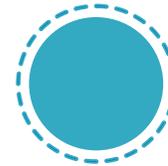
Continue to exploit Kx's leading position in FinTech and see the cloud and regulation as key growth drivers



We see considerable scope in other markets and will focus on adding domain expertise through partnership and OEM agreements



Our ventures program is key to driving wider understanding of our technology and industry leadership



We will continue to invest to build our market position, focusing on long term recurring revenue growth



We have a lot to do but are very excited by the opportunities in our pipeline

 **Q & A**

“ Understanding where you are and where you want to be; learning together; and remaining flexible and adaptable in implementation



First Derivatives plc

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FD provides a range of brochures on its products and services.
For more information please contact us via our website or the above numbers