

Case studies of business transformation through big data

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**DATA POWERS
THE NEVER BEFORE POSSIBLE**



Never Before Possible... Until Now

Real-Time Cyber Security

protects systems with superior threat detection

Smart Manufacturing

dramatically improves yields by managing more variables in greater detail

Connected, Autonomous Cars

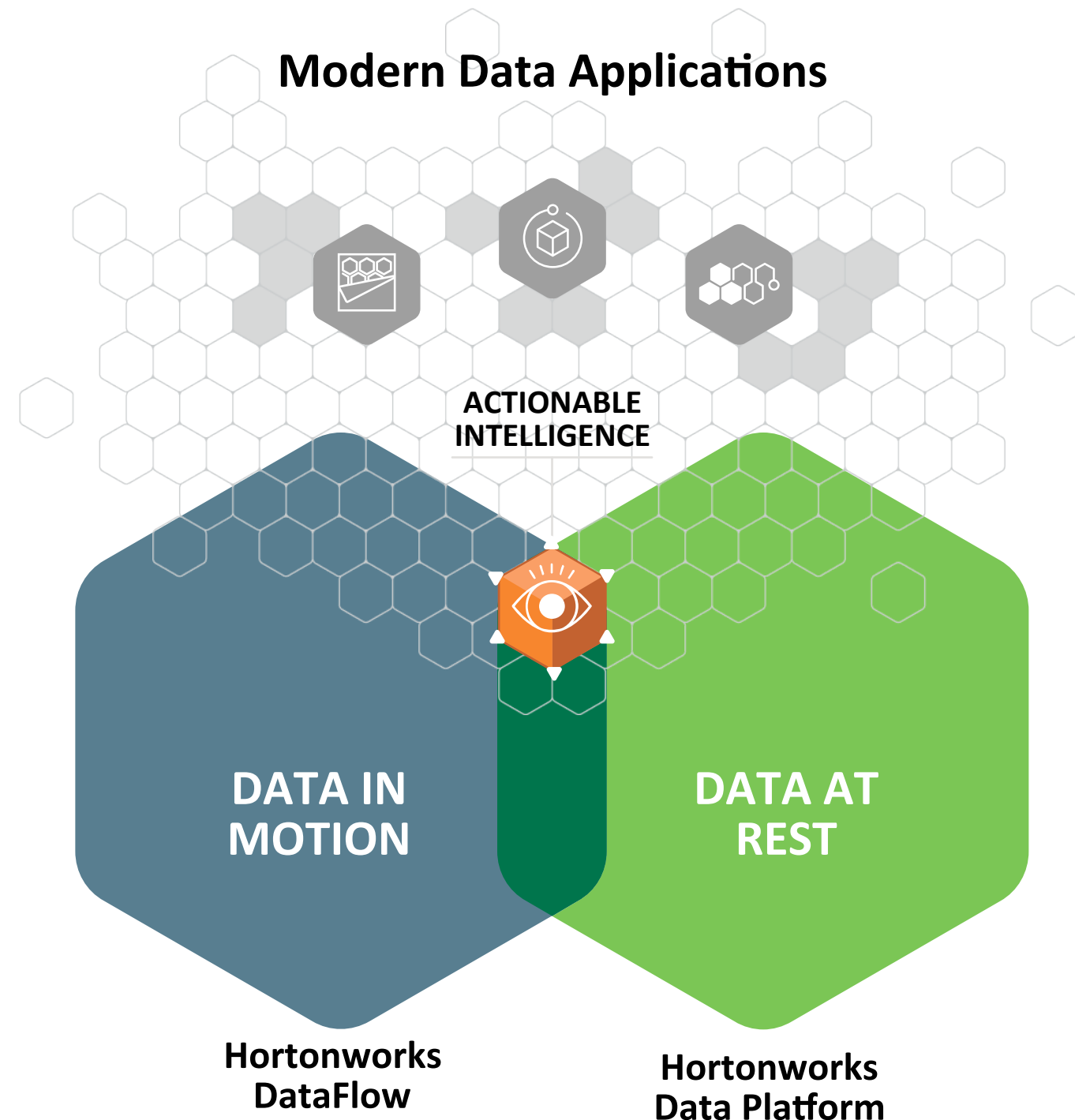
drive themselves and improve road safety

Targeted Energy Exploration

processing geological images and sensor data for well discovery and optimization

Automatic Recommendation Engines

match products to preferences in milliseconds

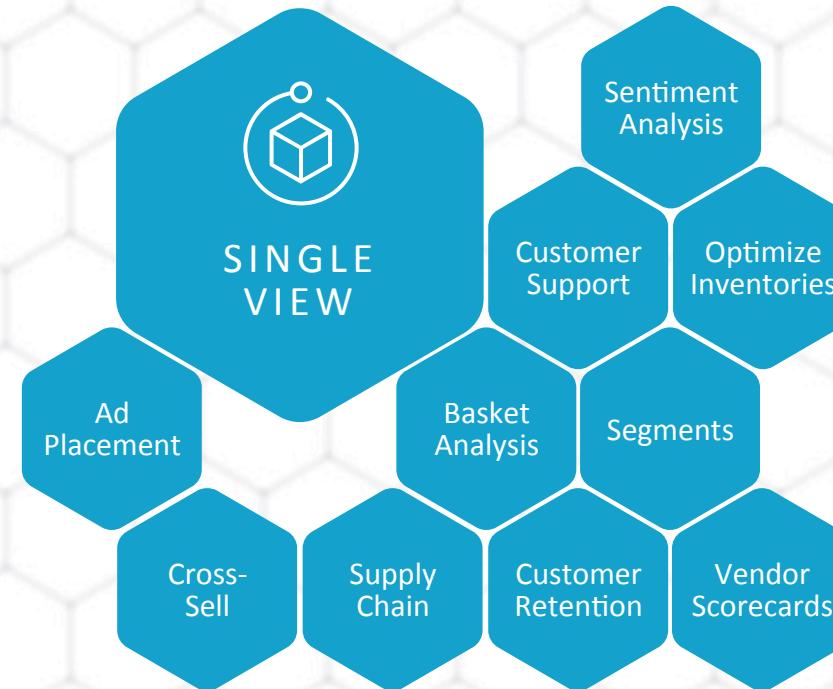
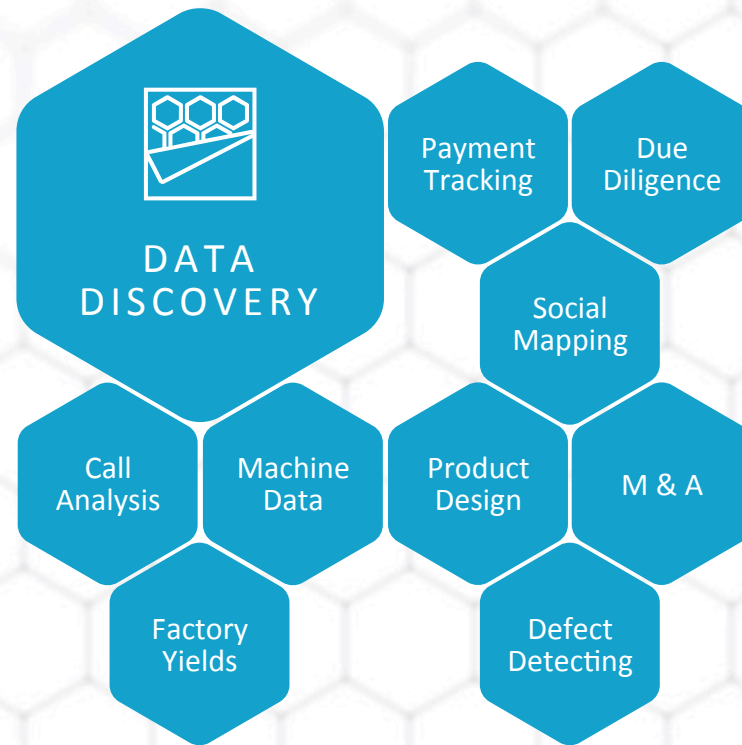


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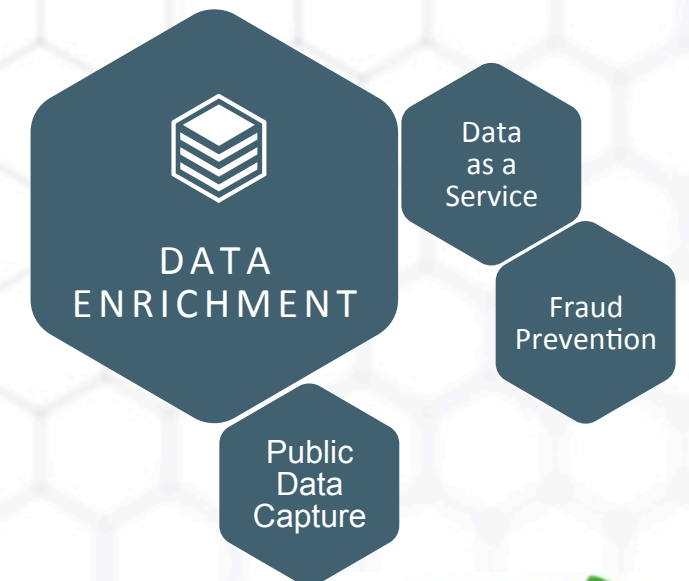
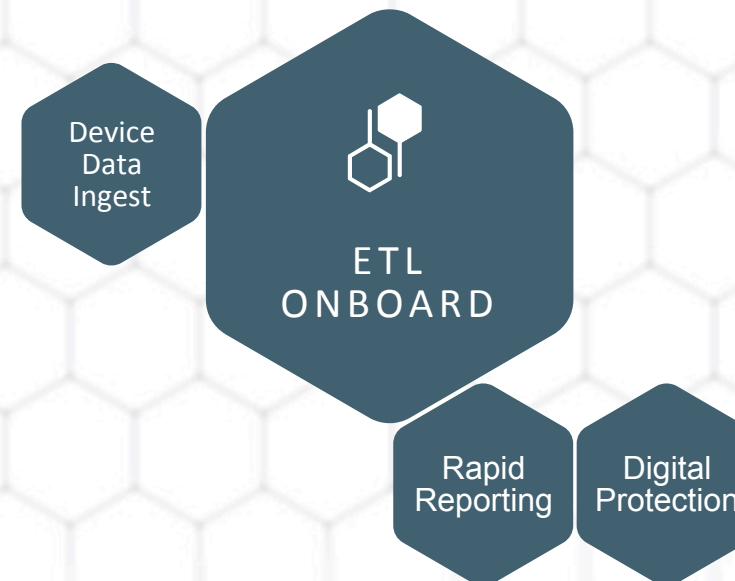
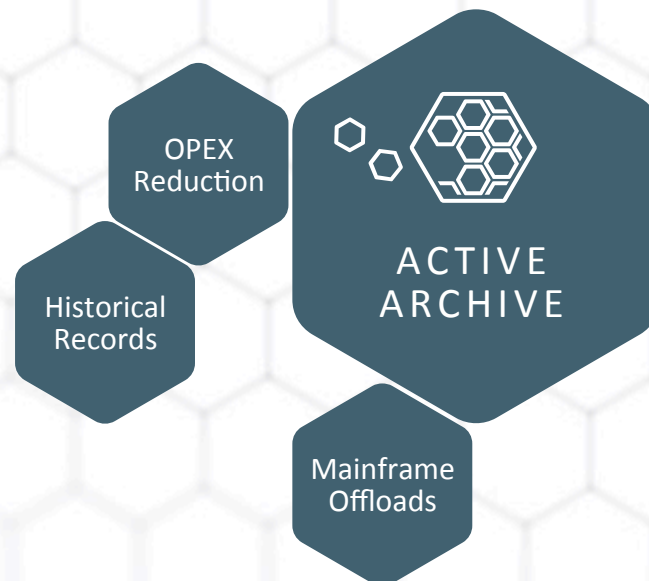
OPTIMIZE

TRANSFORM

INNOVATE



RENOVATE

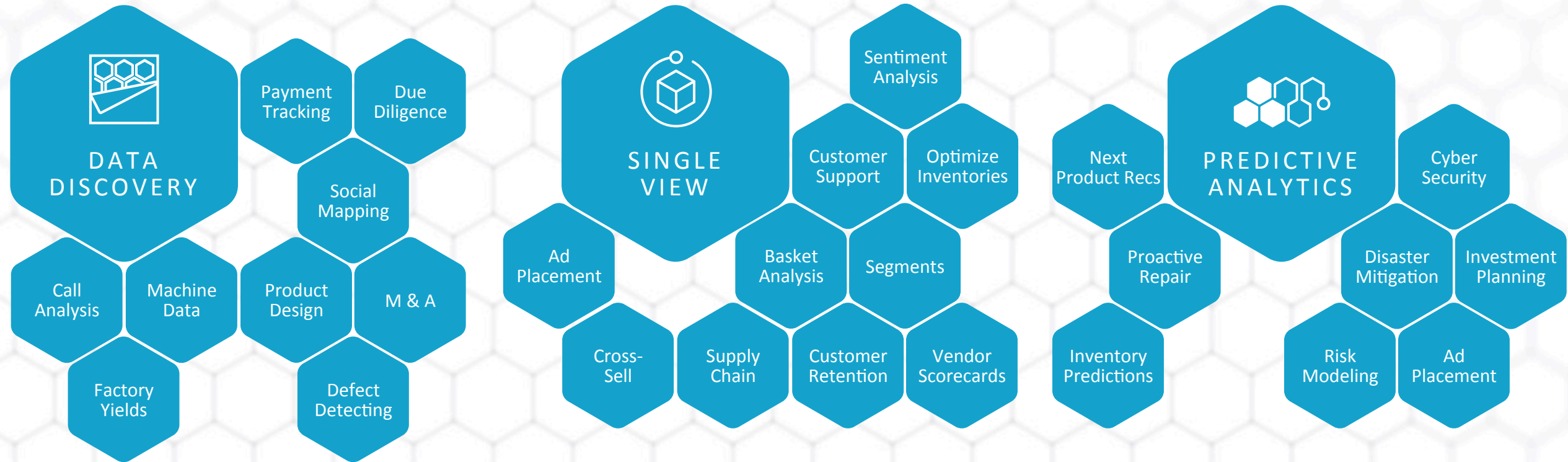


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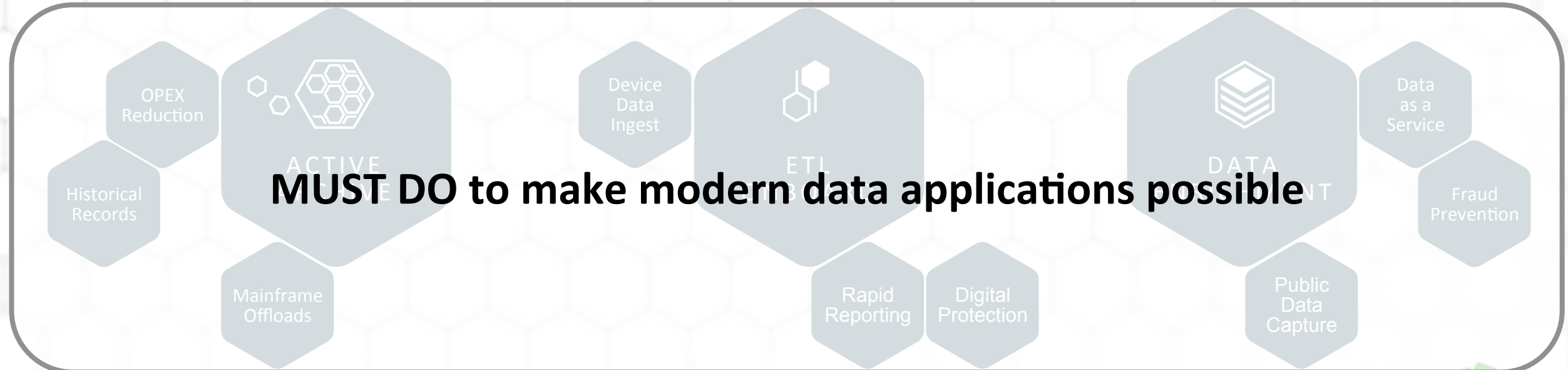
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MUST DO to make modern data applications possible

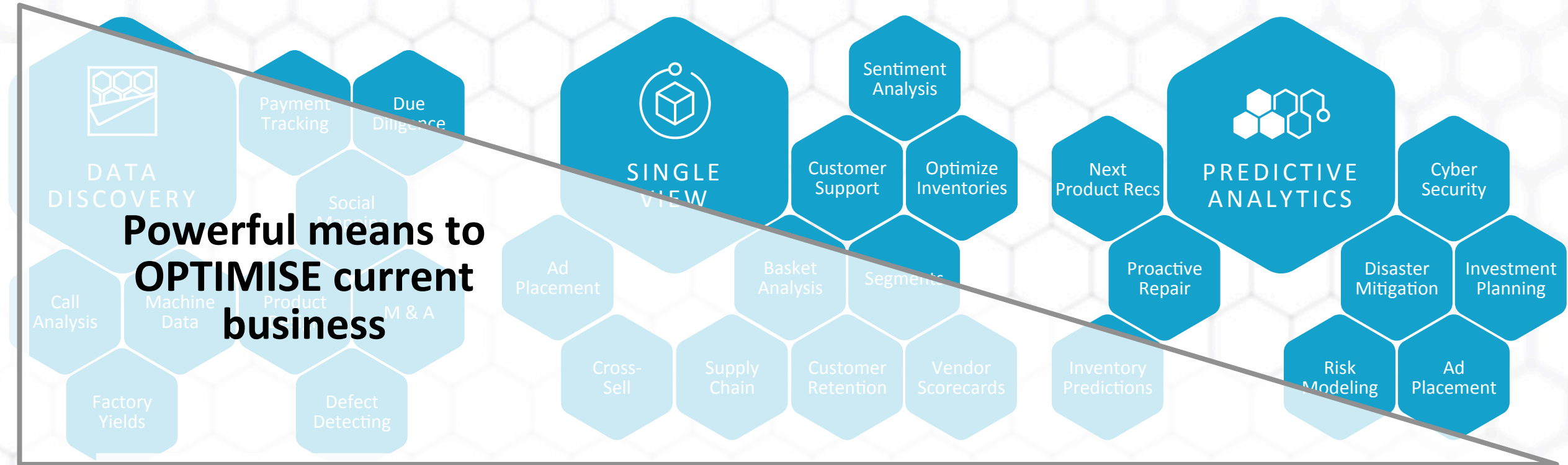
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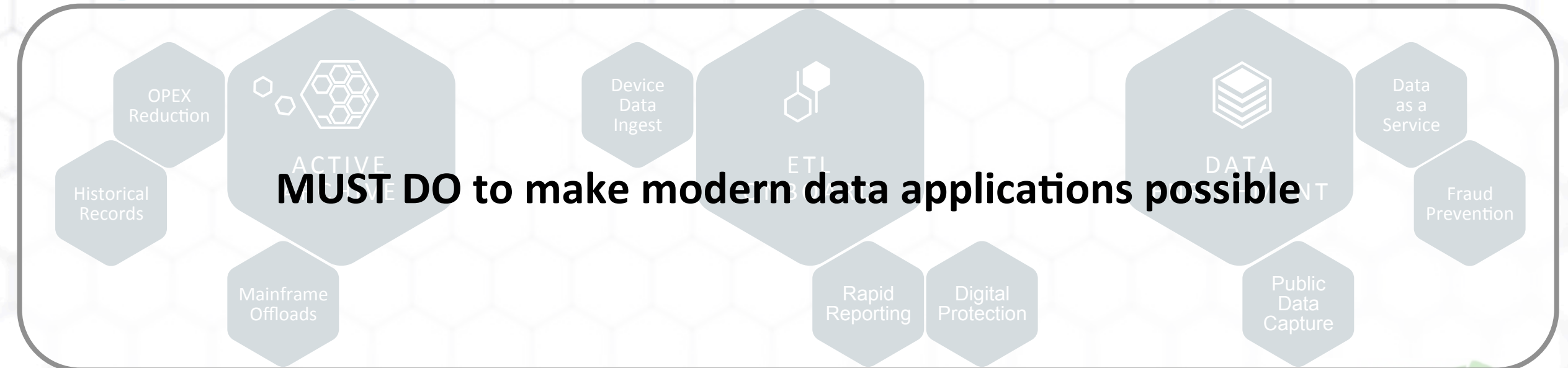
INNOVATE

**Powerful means to
OPTIMISE current
business**



RENOVATE

MUST DO to make modern data applications possible

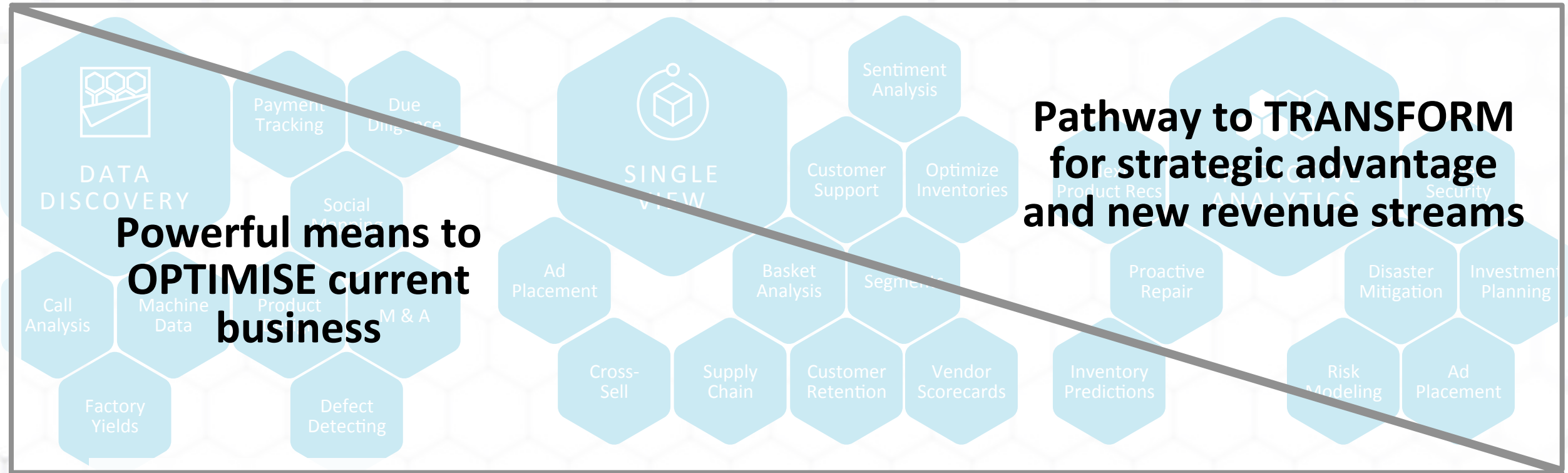


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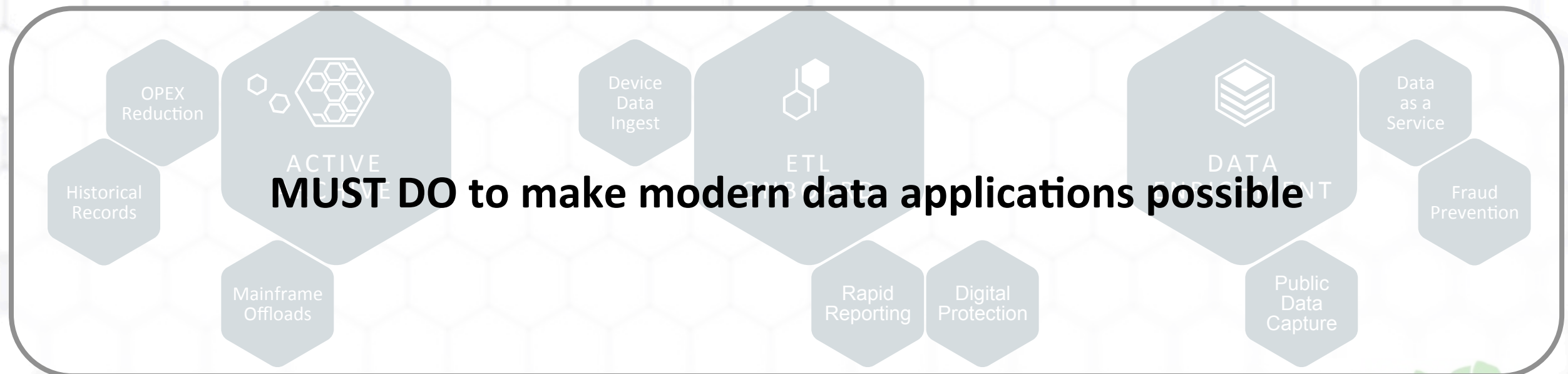
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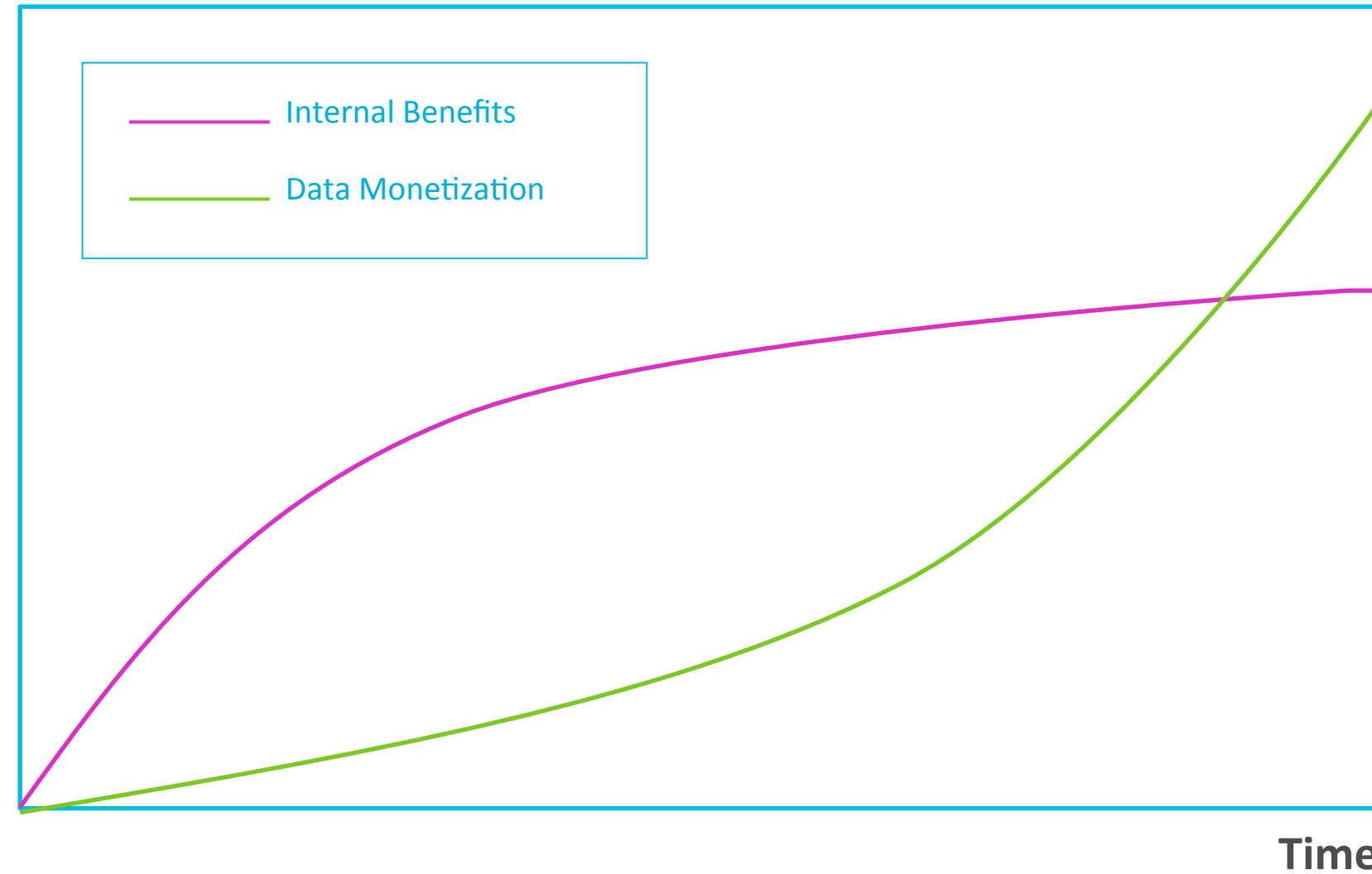


RENOVATE





Benefits



Data Monetization initially is a small byproduct of Telco Big Data initiatives, but in the long run has the potential to deliver significant revenue growth.

RENOVATION

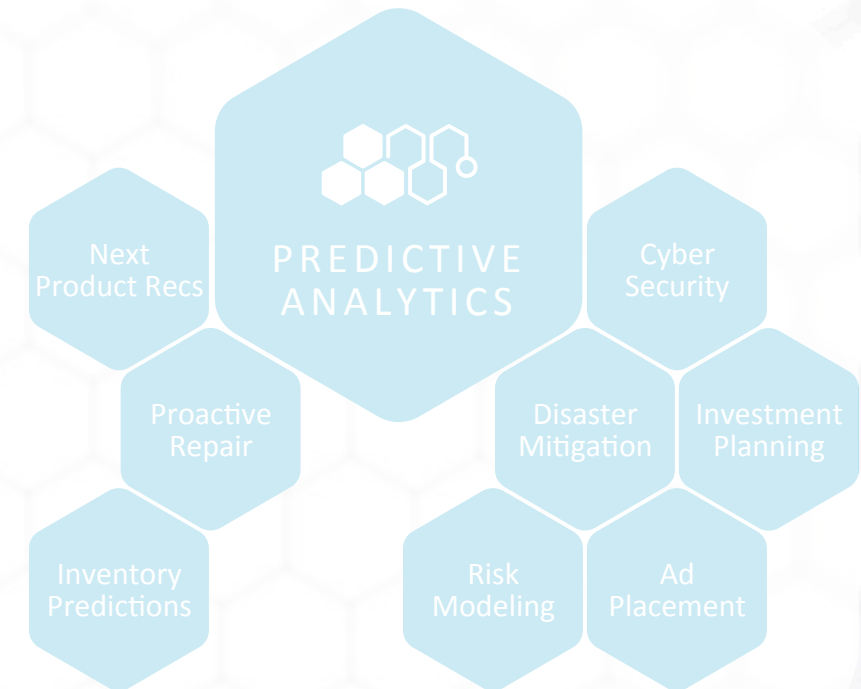
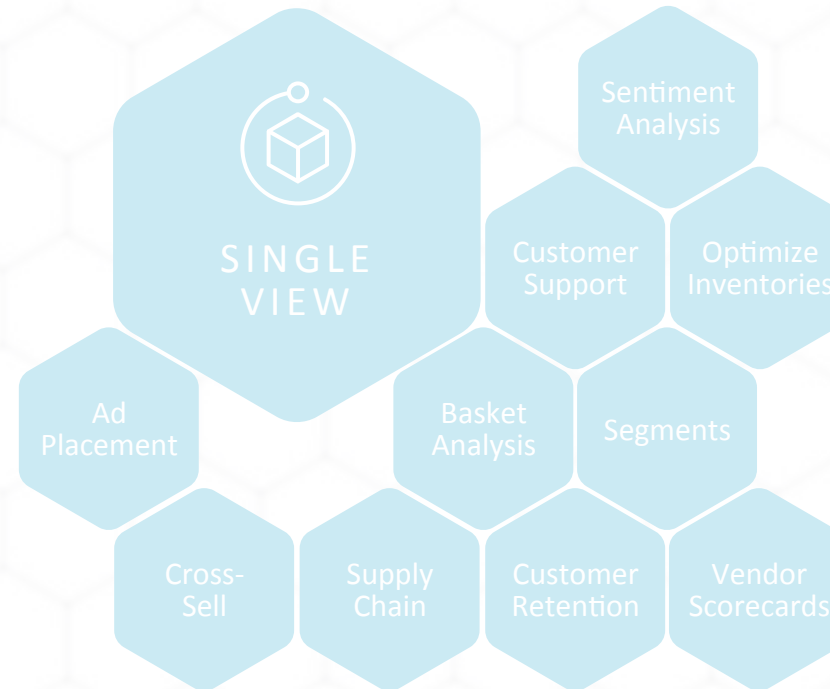
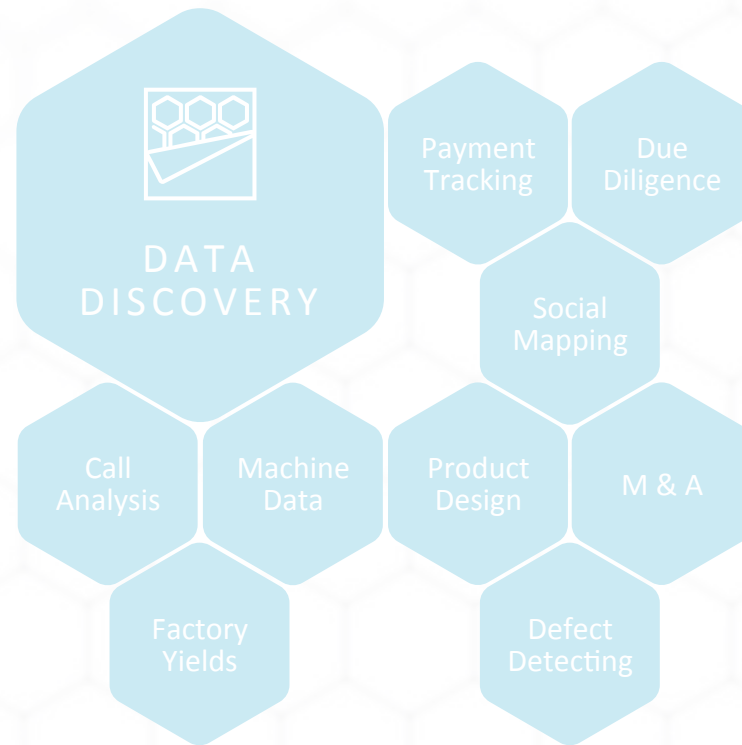


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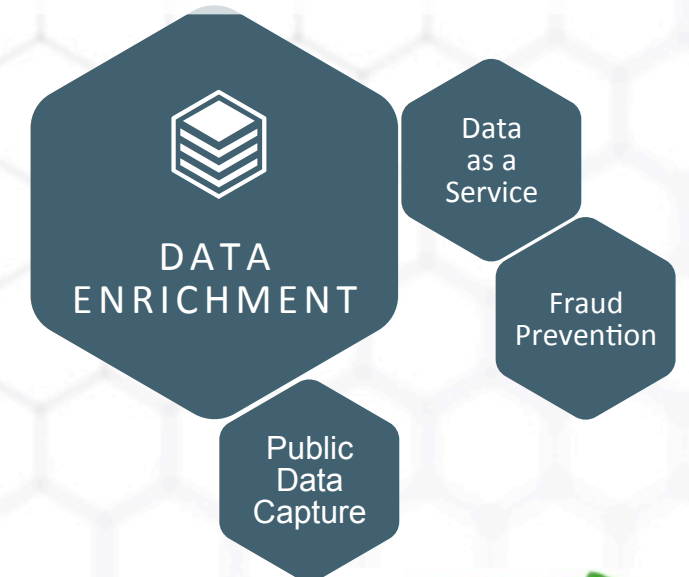
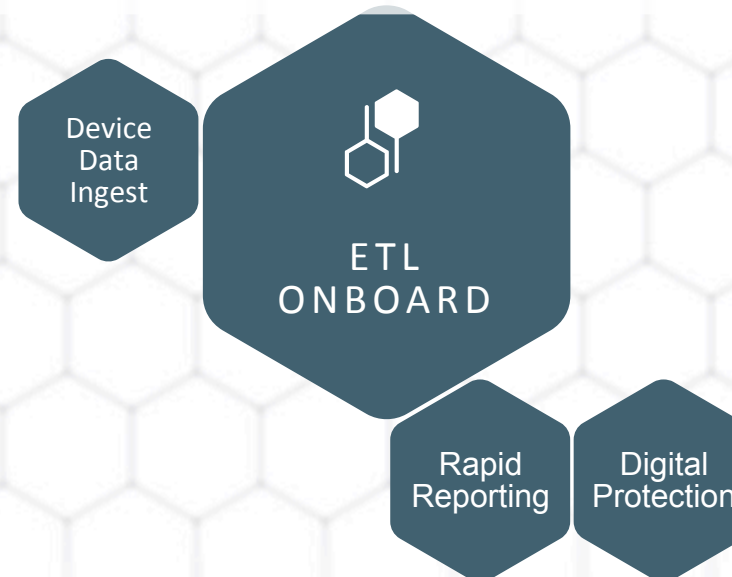
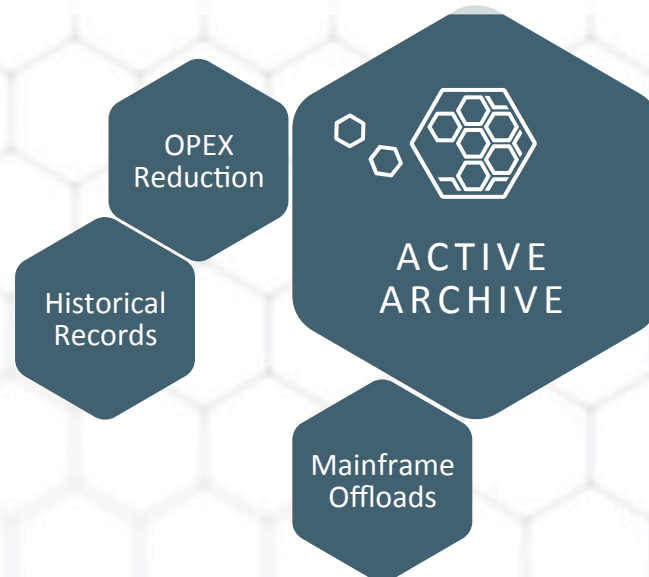
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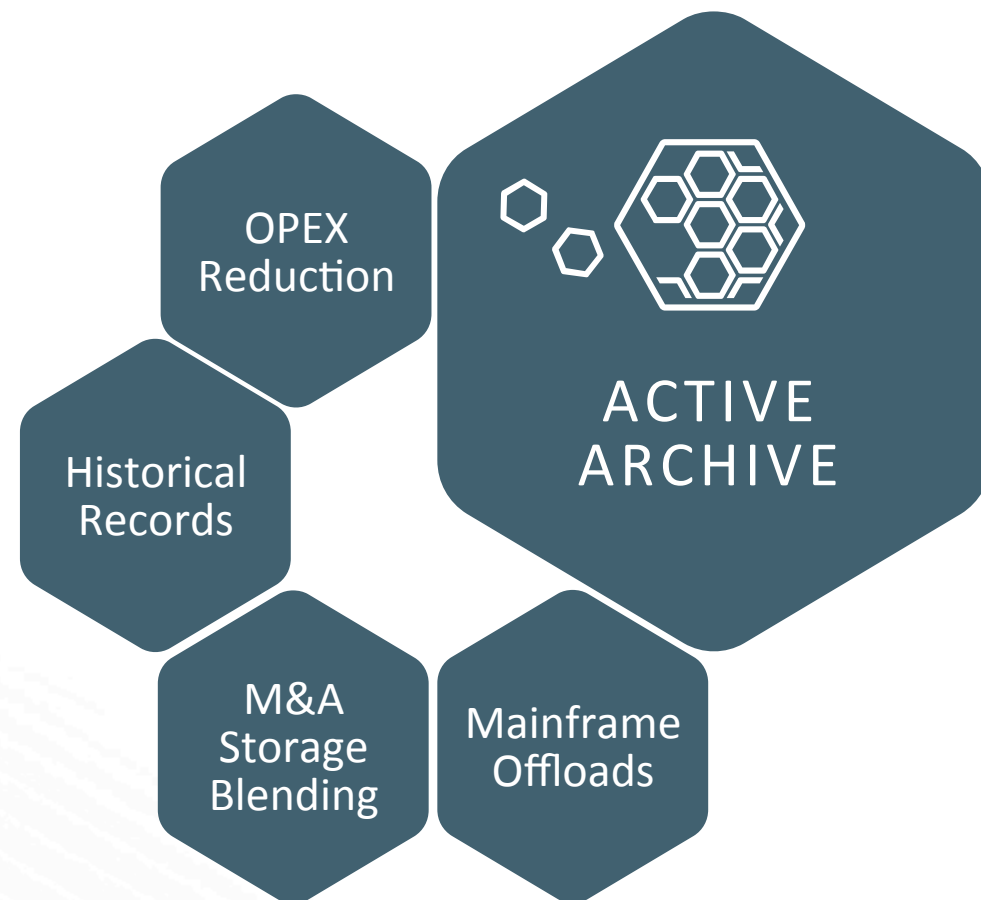
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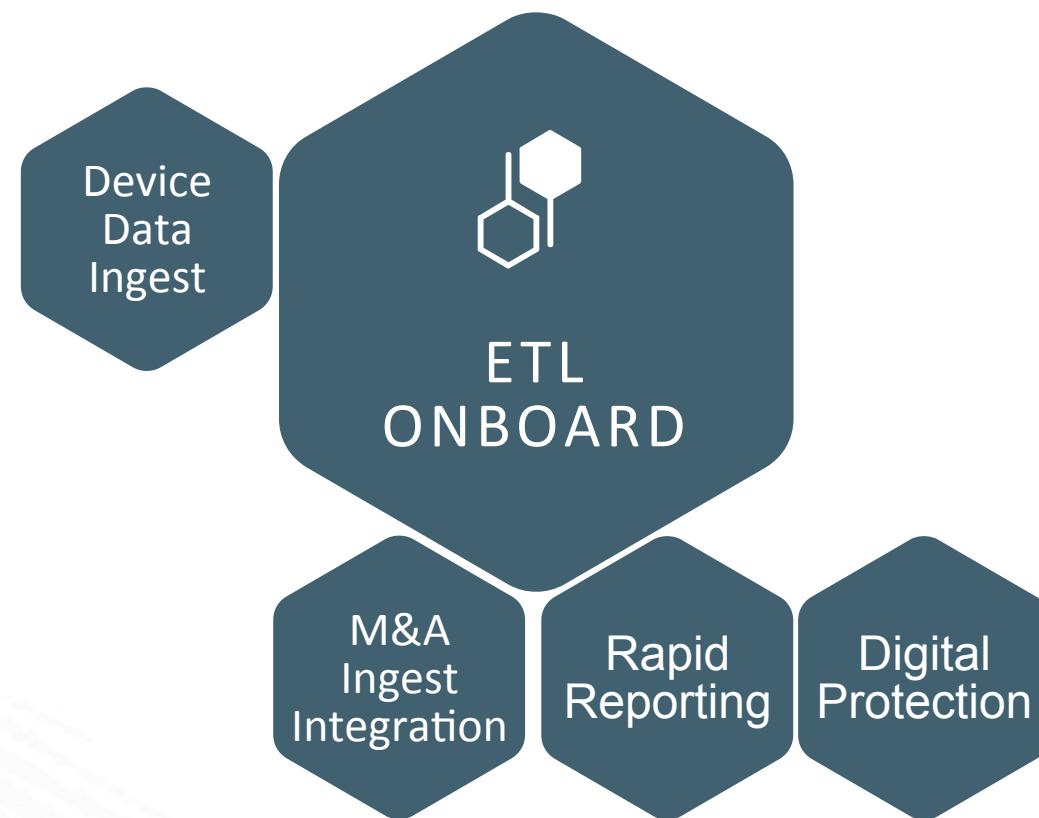
Active Archive Use Cases Reduce Data Storage Costs



Active Archive Drivers

- ◆ **Storage budgets challenged** by rapid growth in data volumes
- ◆ **New types of data** do not fit into pre-established schema
- ◆ **Difficult data access** with older archive technologies (e.g. “Send it to tape”)
- ◆ **Regulations** that require long retention of data that has limited functional value
- ◆ **Mergers and acquisitions** require blending storage of similar data in different formats

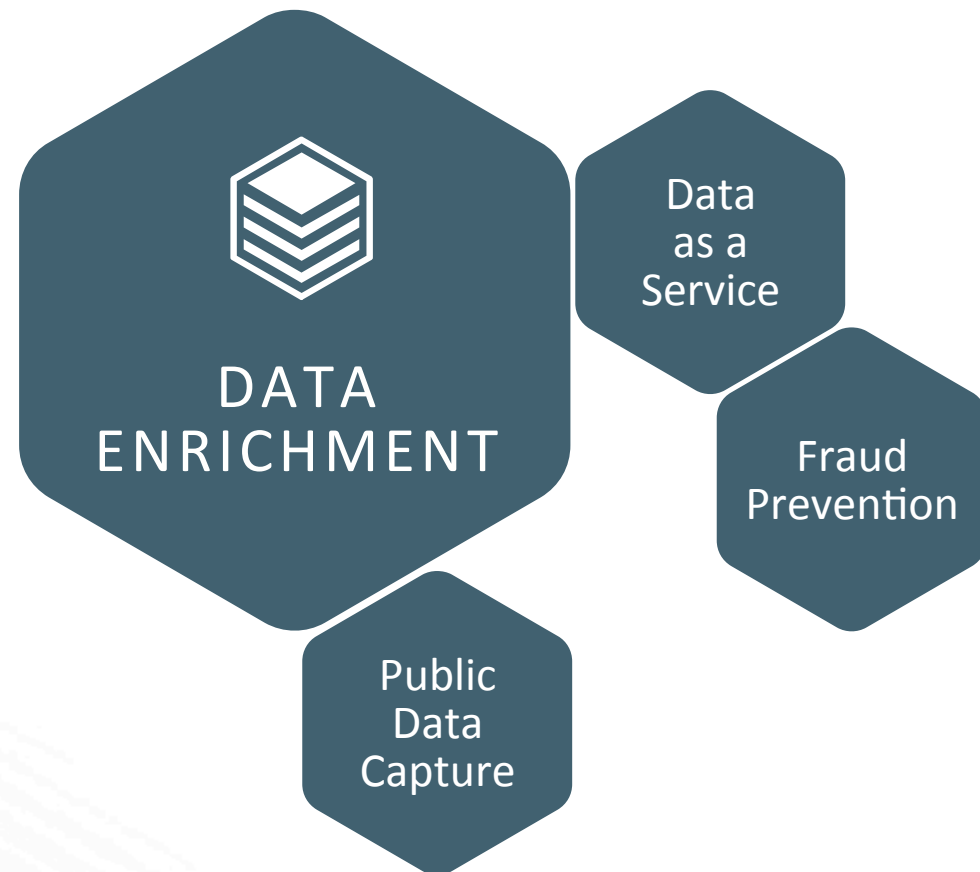
ETL Onboard Use Cases Reduce Data Transformation Costs



ETL Onboard Drivers

- ◆ **Poor allocation of capacity** when ETL consumes ~%50 of EDW cycles
- ◆ **Difficult ingest** that causes you to ignore potentially valuable data
- ◆ **Analytical uncertainty** caused by loss of raw data after ETL transformations
- ◆ **Innovation bottlenecks** when new applications don't have access to all the data they otherwise might use

Data Enrichment Use Cases Reduce Data Combination Costs



Data Enrichment Drivers

- ◆ **Valuable, free external data** goes unused due to high cost of ingest
- ◆ **Data gaps persist** because data that could complete the picture is hard to merge
- ◆ **Data becomes stale** because of infrequent refresh
- ◆ **Verification and validation processes** miss fraudulent data because it is costly to compare with other datasets



INNOVATION

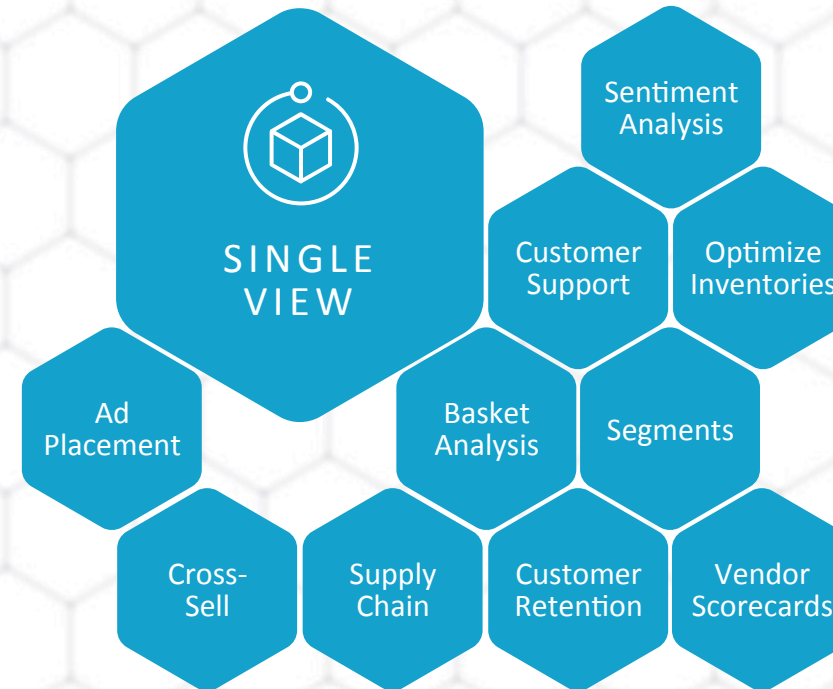
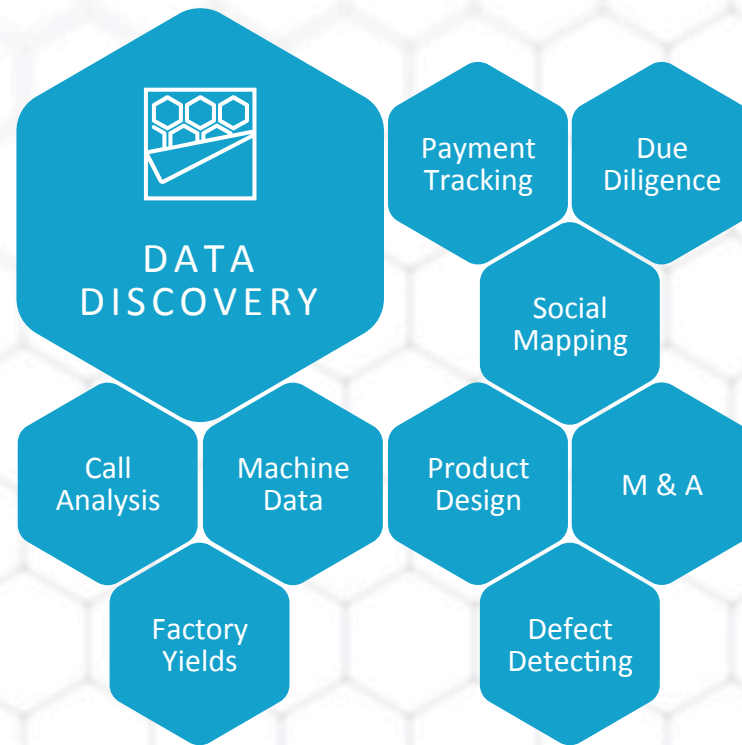


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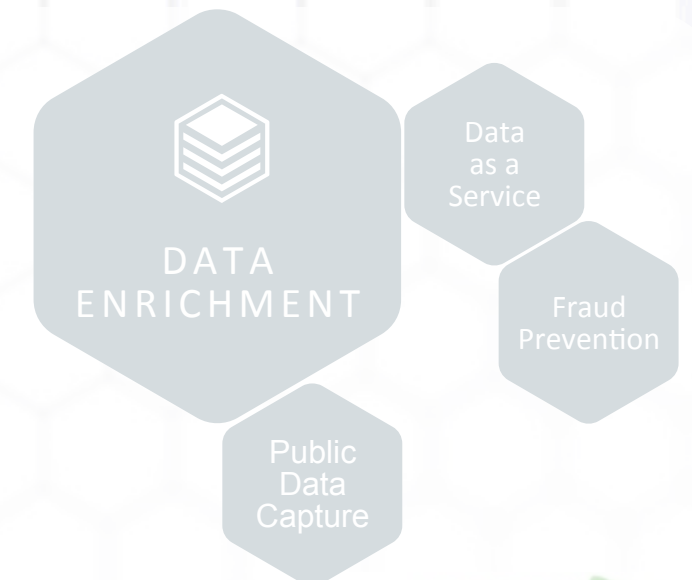
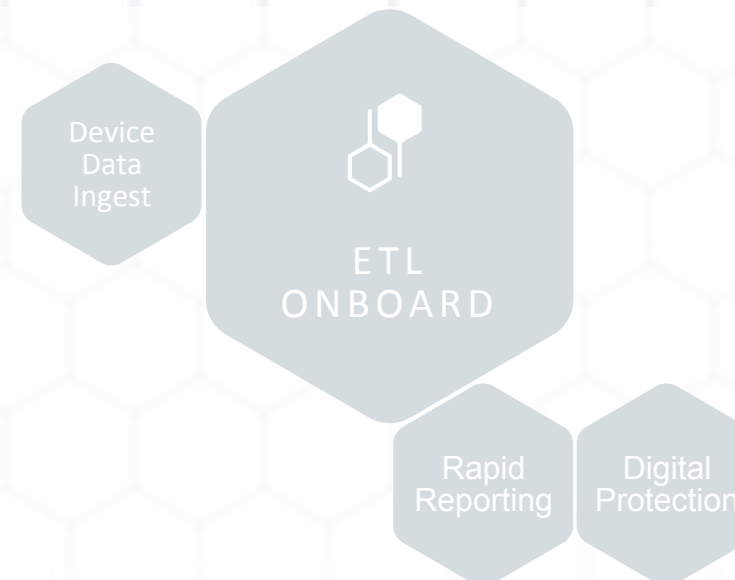
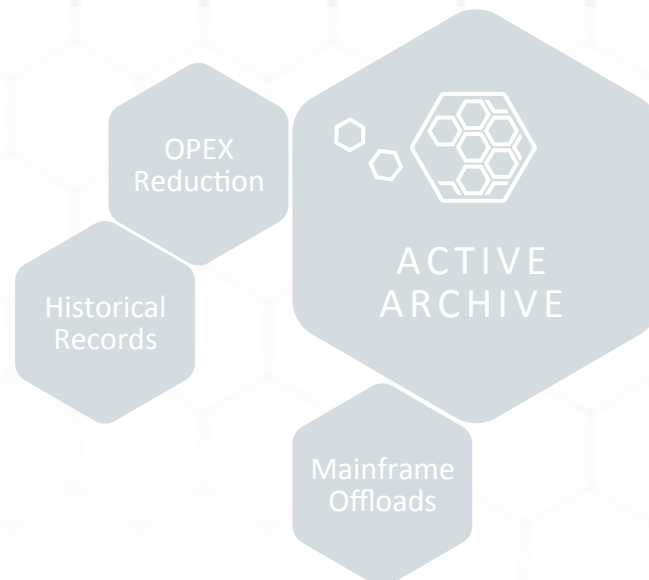
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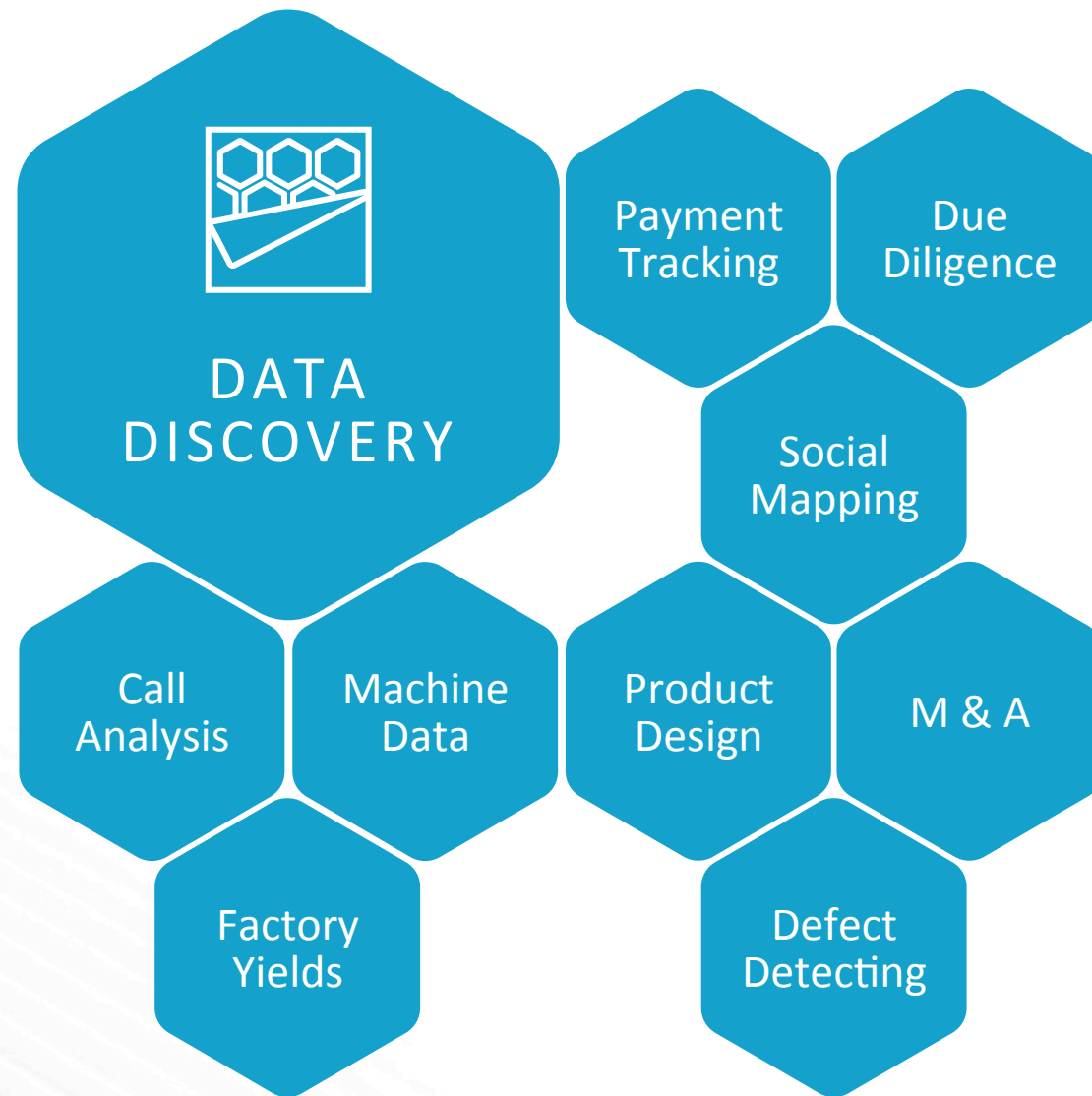
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RENOVATE



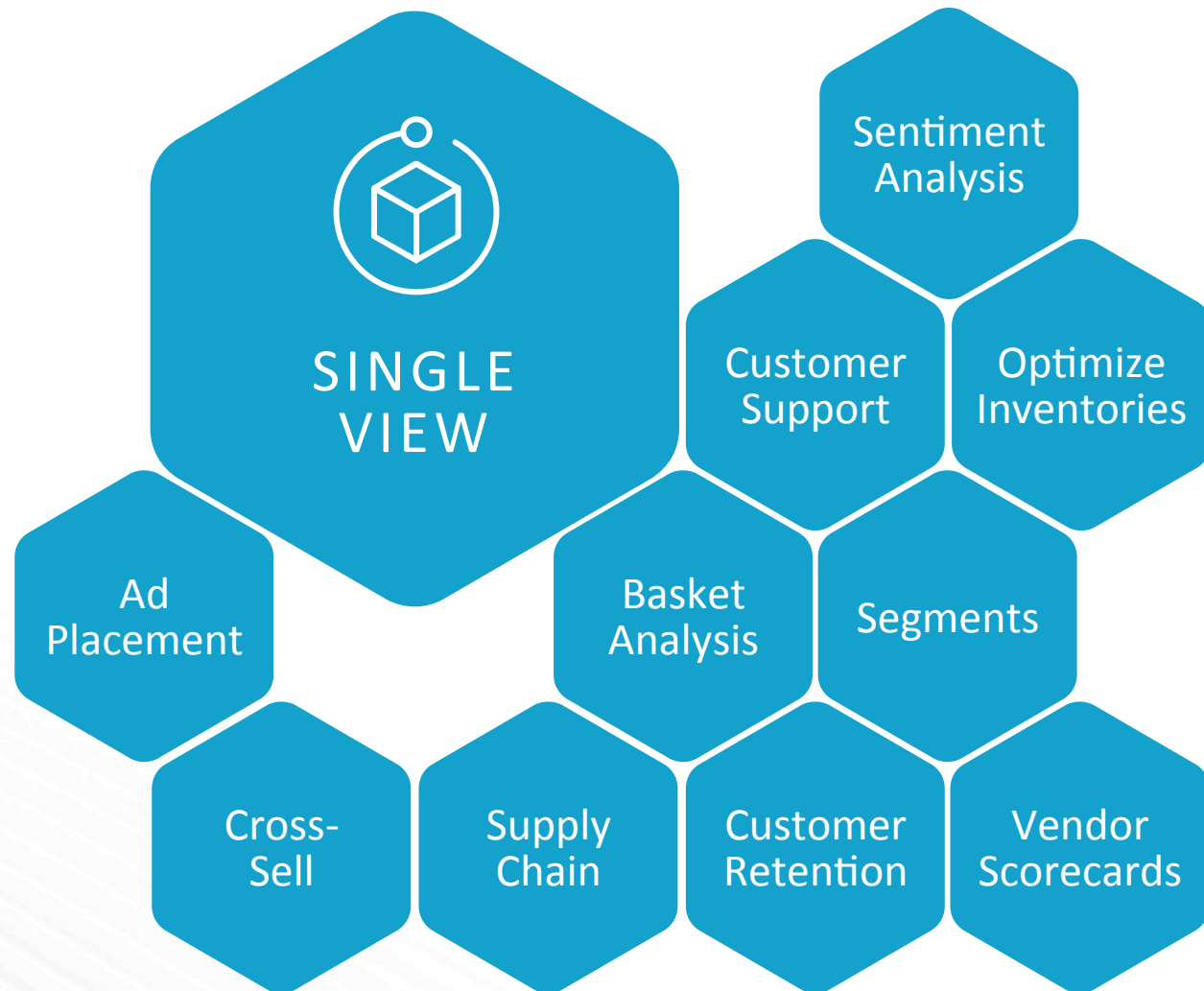
Data Discovery Use Cases Find Insight in New and Consolidated Data



Data Discovery Drivers

- ◆ **Data sources with unpredictable formats** such as text, images, video, clickstreams, sensor or machine data, social media and server logs cannot be stored easily in older, structured platforms
- ◆ **Legacy storage fragmentation** makes data exploration prohibitively difficult and expensive across company silos
- ◆ **Diseconomies with older licensed technologies** put financial pressure on the length of data retention timelines

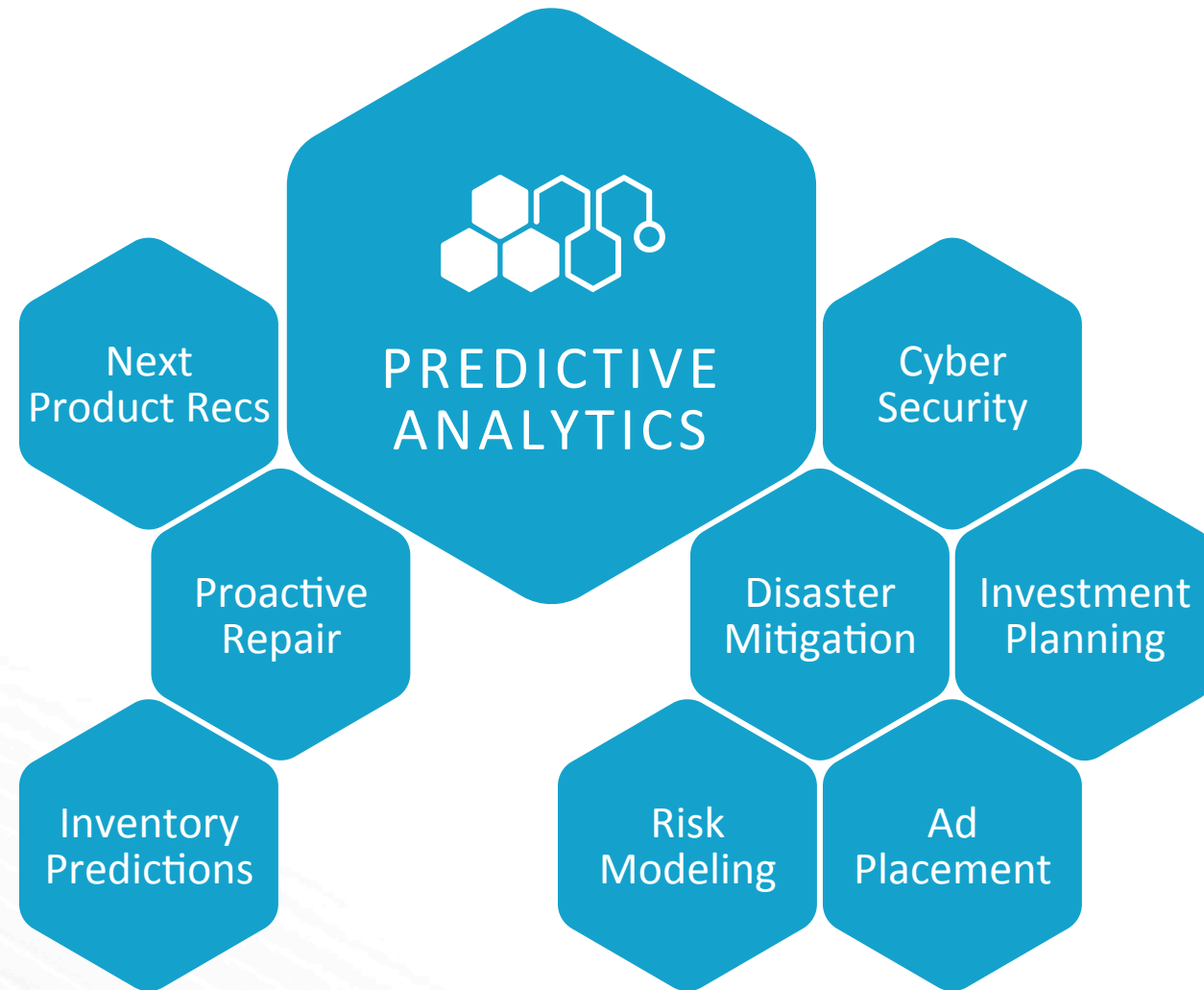
A Single View Gives You a Detailed, Current View of Your Business



Single View Drivers

- ◆ **Storage fragmentation** prevents you from seeing a single view of the truth
- ◆ **Other groups have the data you need**, forcing data requests that slow progress
- ◆ **Failure analysis is difficult** because you can only see a portion of the root cause
- ◆ **Your views quickly become stale** because ingesting new data is difficult and time-consuming

Predictive Analytics Convert Past Patterns into Just-in-Time Actions



Predictive Analytics Drivers

- ◆ **Risk from uncertainty** pervades decisions made with guesswork
- ◆ **Break-then-fix equipment maintenance** cost you too much time, money and risk
- ◆ **Variable staffing demands** leave you overstaffed during slow periods and short-handed during peak demand
- ◆ **Customers need recommendations** about the next product they should buy
- ◆ **“Familiar surprises”** occur repeatedly, but at unpredictable moments

Taking the Journey to Business Transformation

Every Organization Follows a Unique Journey

 Innovate

 Renovate



Lessons Learned

- Assess organizational maturity throughout the journey
- Invest time to discover use cases that will drive business value
- Start with a use case to deliver business value within six months
- Measure results, deliver use cases iteratively, and look for adjacent opportunities

Top Business-Driven Use Cases by Industry



Digital Bank
Risk Data Aggregation
Single View of Consumer



Single View of Consumer
Recommendation Engine
Enriched Basket Analysis



Dynamic Customer Profile
Target Marketing
New Digital Services



Single View of Asset
Predictive Equipment Maintenance
Real-time Operational Analytics



Predictive Analytics for Claims
Claims Analytics
Single View of Customer



Yield and Quality Optimization
Preventative maintenance
Connected Car (Automotive)

Common LOB Roles Involved in Big Data Projects Across Industries



Head of Capital Markets
Head of Retail Bank
Mgr of Basel Reporting



SVP Merchandising
Brand Manager
Merchant



President Consumer BU
CMO
Product Manager



VP Electric/Gas
VP Power Supply
Dir Smart Grid Tech



VP Underwriting
VP Product Development
Chief Actuary



VP Supply Chain Operations
VP Engineering/R&D
VP Manufacturing Innovation

The Data Journey to Safe Roads

PROGRESSIVE[®]

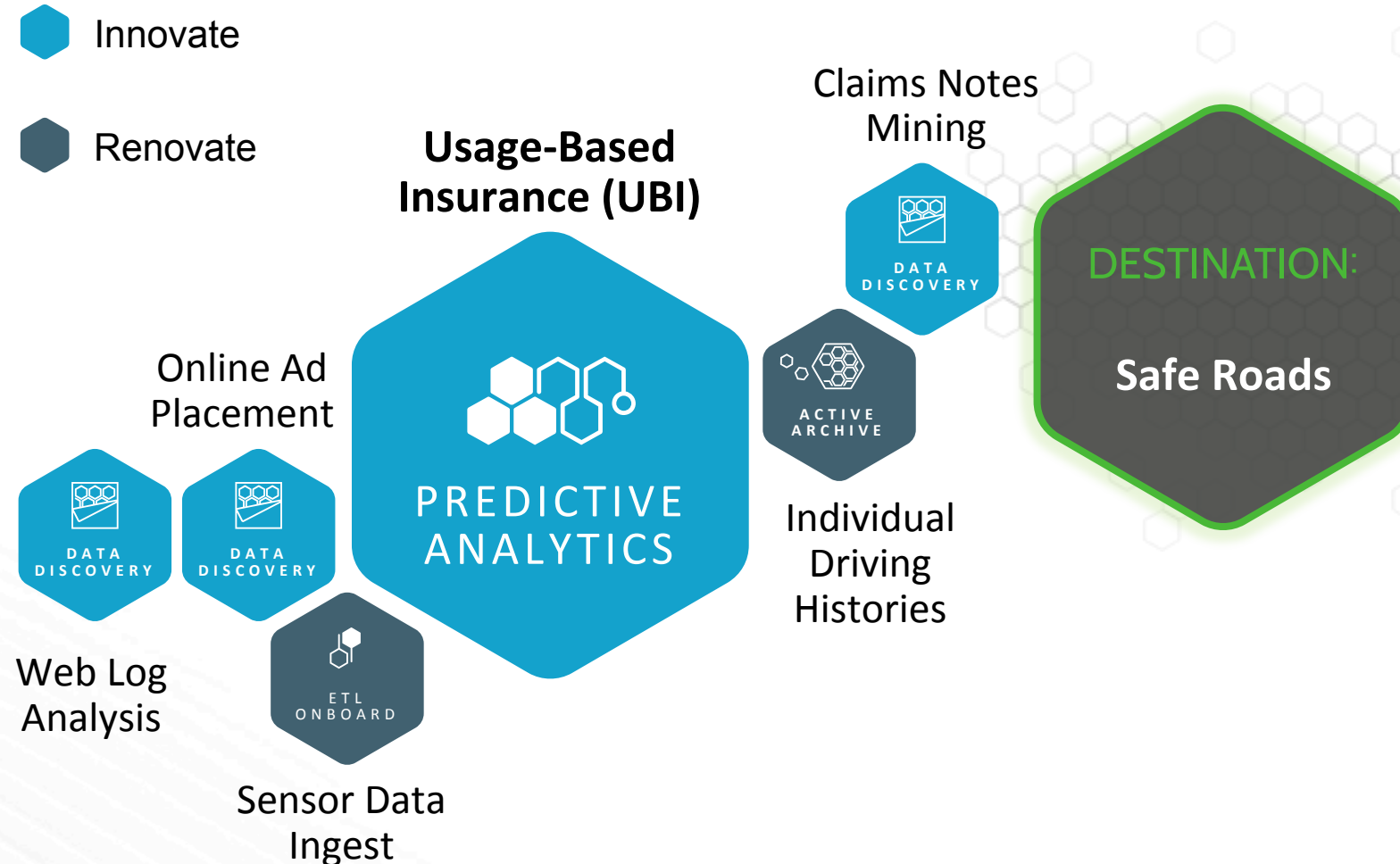


Progressive's Journey

Progressive Wanted to Ingest IoT Data to Predict Risk for its Usage-based Insurance Product

- ◆ Progressive Snapshot offers usage-based insurance through an in-car sensor that transmits IoT driving data
- ◆ Sensors collect up to six months of data from drivers and the data is archived for years, per regulatory requirements
- ◆ Progressive's existing systems were not scaling efficiently
- ◆ It took 5–7 days to transform only 25% of available UBI data

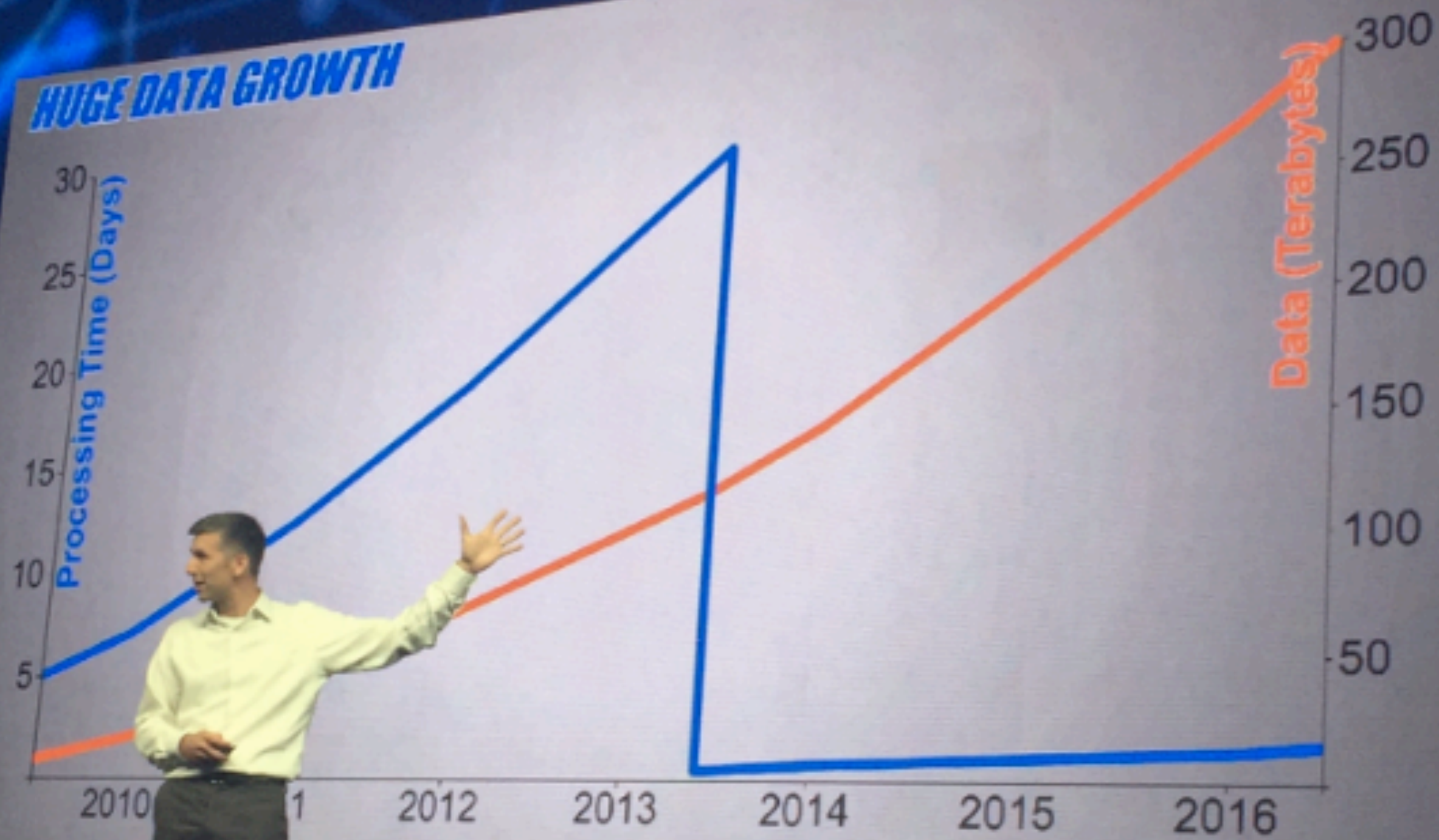
Progressive's Journey



Rewarding Safer Drivers and Improving Traffic Safety

- Snapshot plug-in devices capture driving detail
- Progressive stores more than 10 billion miles driven
- Through a web app, customers can review their own driving detail and improve their safety
- Snapshot and usage-based insurance drove \$2.6 billion in 2014 Progressive premiums

HUGE DATA GROWTH



The Data Journey to Energy Efficient Homes

centrica



Centrica's Journey

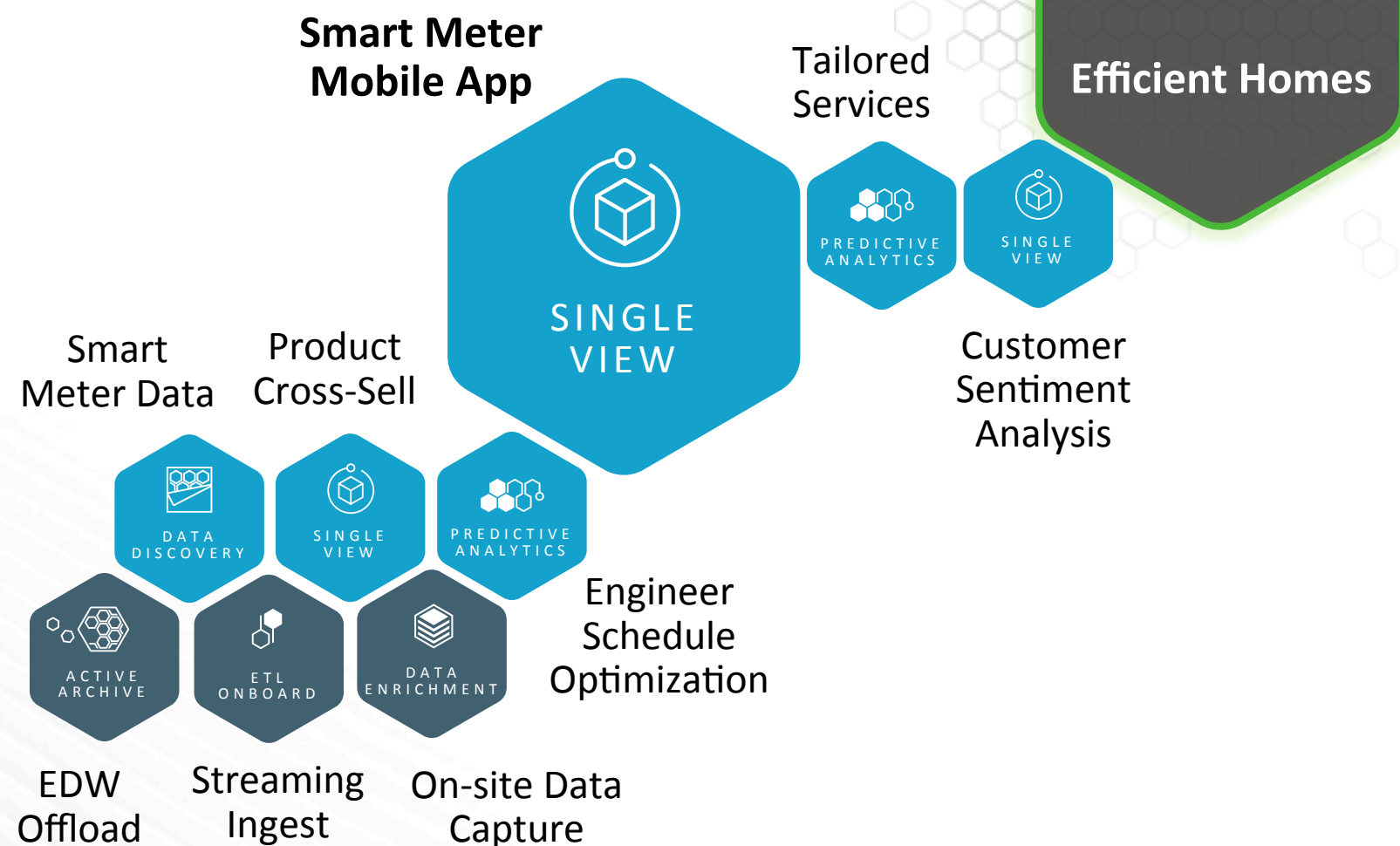
Centrica Delivers Energy, Services and Customer Satisfaction with a Single View of its Customer Households

- ◆ A leading energy and services company with brands including British Gas & Hive
- ◆ Traditional platforms were unable to cope with the variety, volume or speed of data coming into the business
- ◆ Centrica aimed to reduce costs, streamline processes and remove siloes that inhibited analysts' ability to recognize larger patterns across the business
- ◆ Investment in Hortonworks technologies aligned with company focus on customer satisfaction

Centrica's Journey

 Innovate

 Renovate



Building a Data-Driven Energy Utility Business

- Self-service analytics for 3M customers in UK & North America
- HDP and HDF simplified the IT architecture and decommissioned legacy EDWs
- Ingest of 300 GB/day rationalizes in-home maintenance jobs
- Personalized customer communications replaced impersonal up-sell messages

“What this journey has done for my team is modernise the culture of work. We’re seen as a team that innovates & that excites us all.... Focusing on innovation, learning to forget traditional legacy ways of working and approaching it in new ways creates unexpected behavioural changes, because people feel freer and they also feel valued”

diginomica

Daljit Rehal, senior systems director, Centrica



The Data Journey to better customer retention & monetising new services

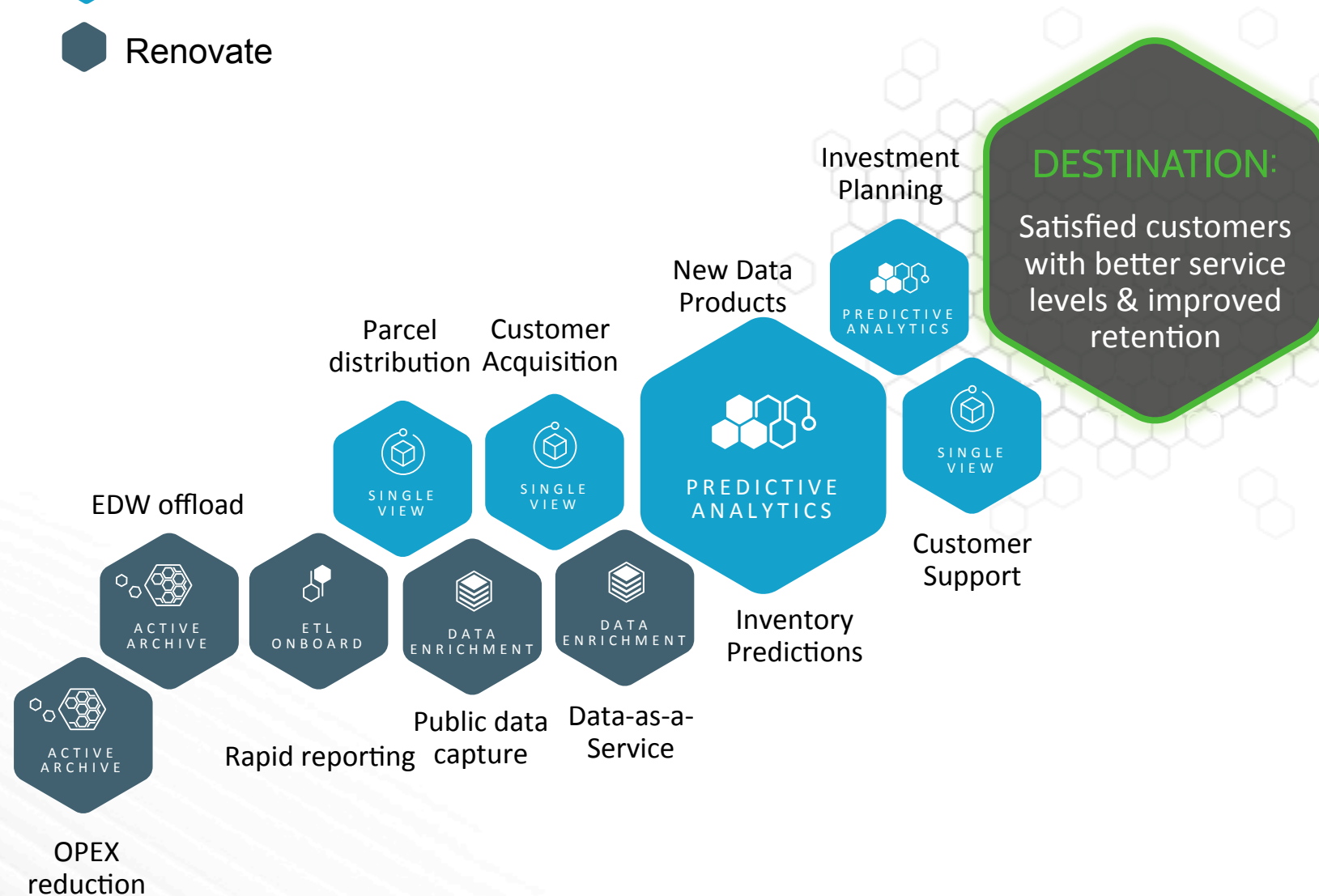


Case Study

Royal Mail's Journey



-  Innovate
-  Renovate



Actionable intelligence improves customer experience

- Data management transformed to deliver specific, actionable insights to line of business departments
- Analysis delivered within days & weeks rather than months per project deadlines
- Churn modelling project identified customers at risk by vertical sector in order to take preventative action
- Improved accuracy of delivery times for business customers & highlighted trends related to volumes of mail expected
- Governance & compliance simplified due to central data platform

Coca Cola Bottling Japan (CCEJ)

Connected Data Platform established to collate, enrich & utilise data from across CCEJ's finance, supply chain & commercial functions



By creating a single view of its operations, CCEJ has benefited from enhanced customer satisfaction by improving the:

- ◆ Effectiveness of replenishments through improved forecasting to reduce stock outages while optimising number of visits
- ◆ Assortment and optimisation of product by identifying saturated and growth locations right down to individual vending machines
- ◆ Access to data reconciliation to its business functions

AGL

Hortonworks Data Platform (HDP®) helps one of Australia's largest energy providers deliver a better customer experience

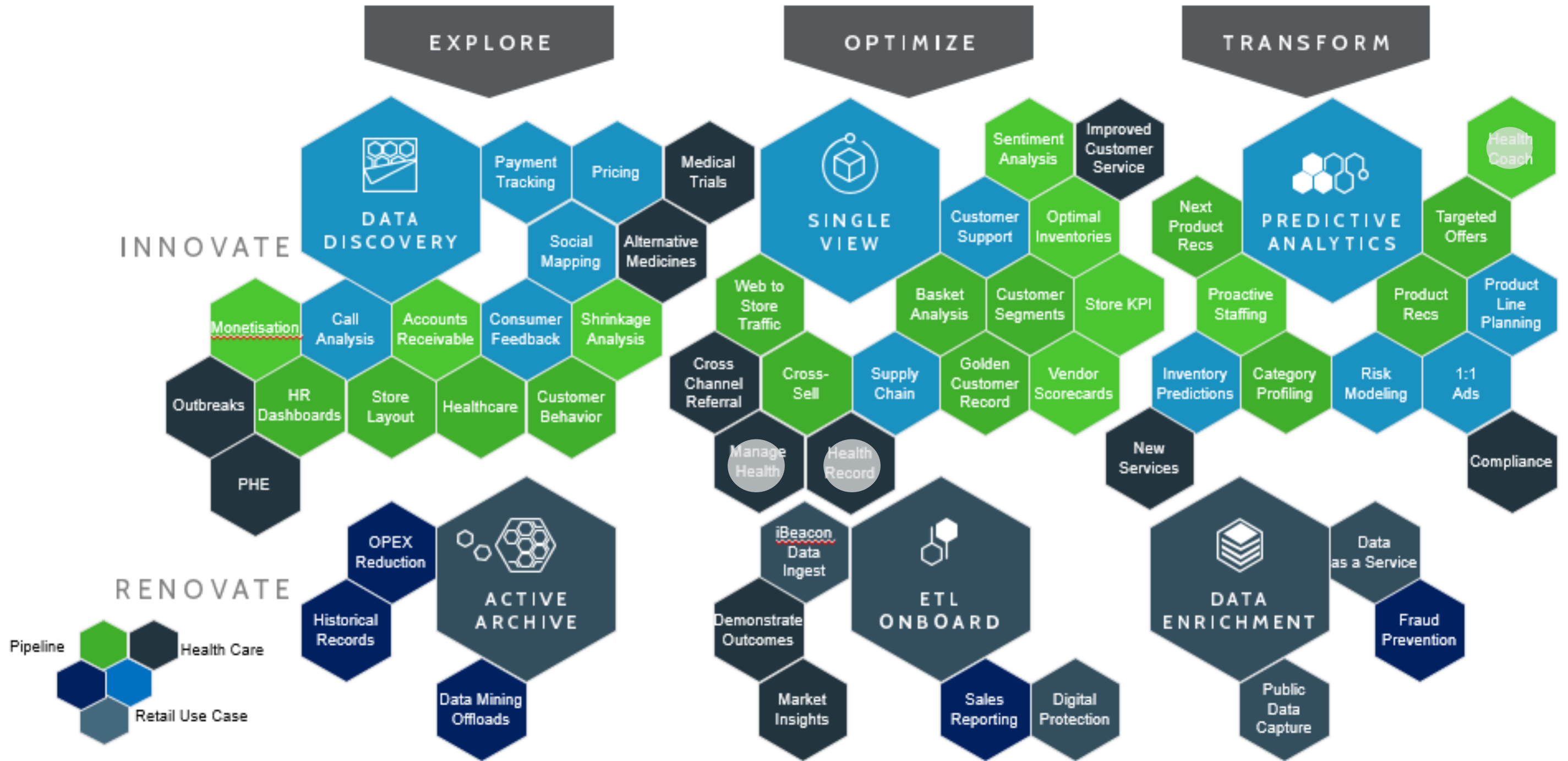


AGL will:

- ◆ Streamline business processes across its customer service, digital and marketing teams
- ◆ Complement its existing infrastructure while consolidating various data sources from siloed apps and databases
- ◆ Create a unified view for reporting and analysis by its data science & analytics teams

Customer journey planning

High Level Use Cases

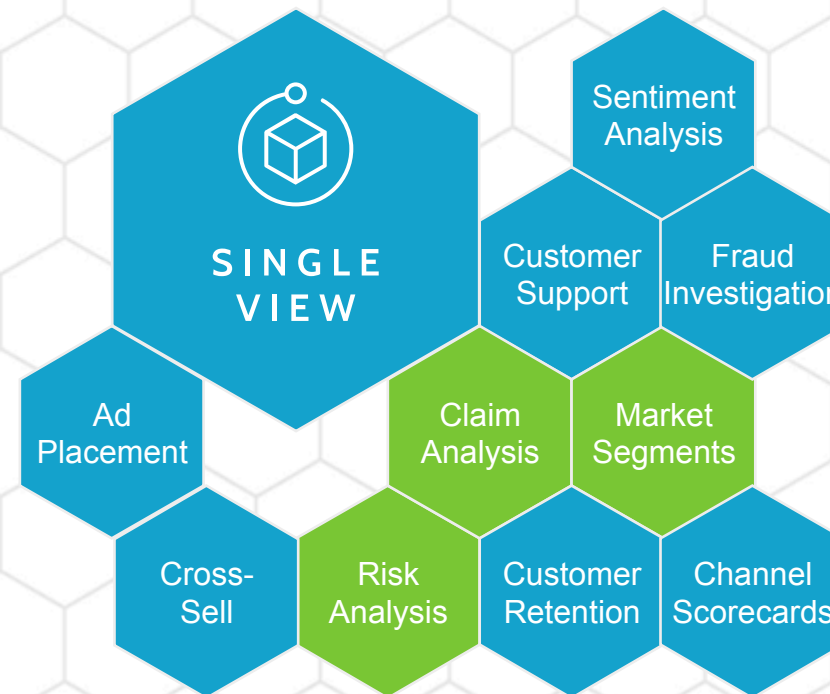


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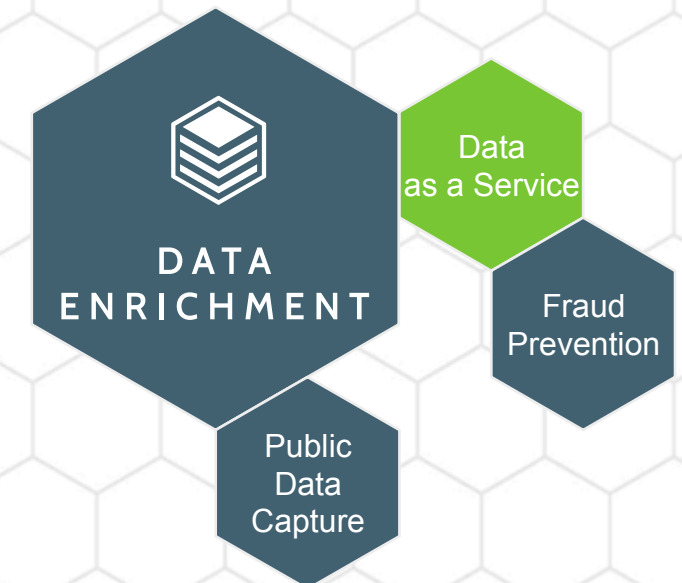
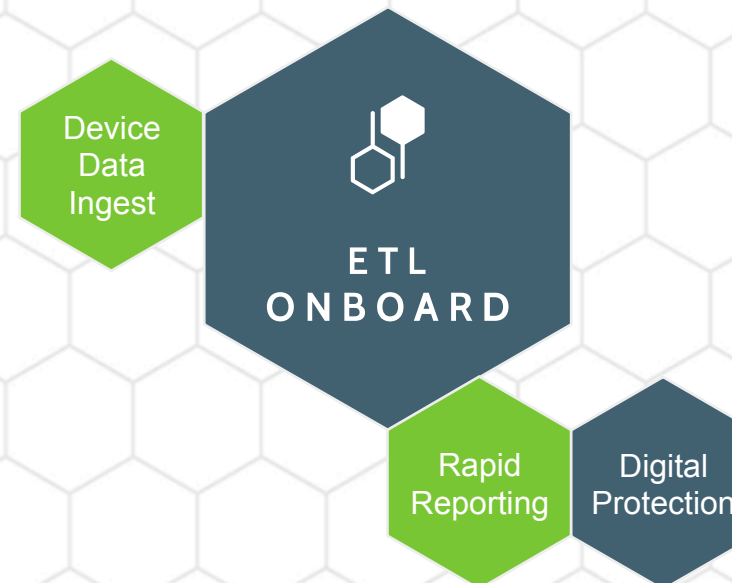
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Thank you!

Questions? Stop by the Hortonworks booth

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