

**intellect**  
**SEEC**<sup>TM</sup>

NEVER STOP  
**INNOVATING**



## FOCUS : DATA



# Why Data ?

	USD Millions
US Commercial Insurance Market	\$314,925
US Commercial IT Spend (@4%)	\$12,597
Estimated US Commercial Packaged Software spend	<u>\$1,575</u>
vs.	
Verisk insurance revenue	\$2,440
Transunion	\$2,317

# Why Data ?

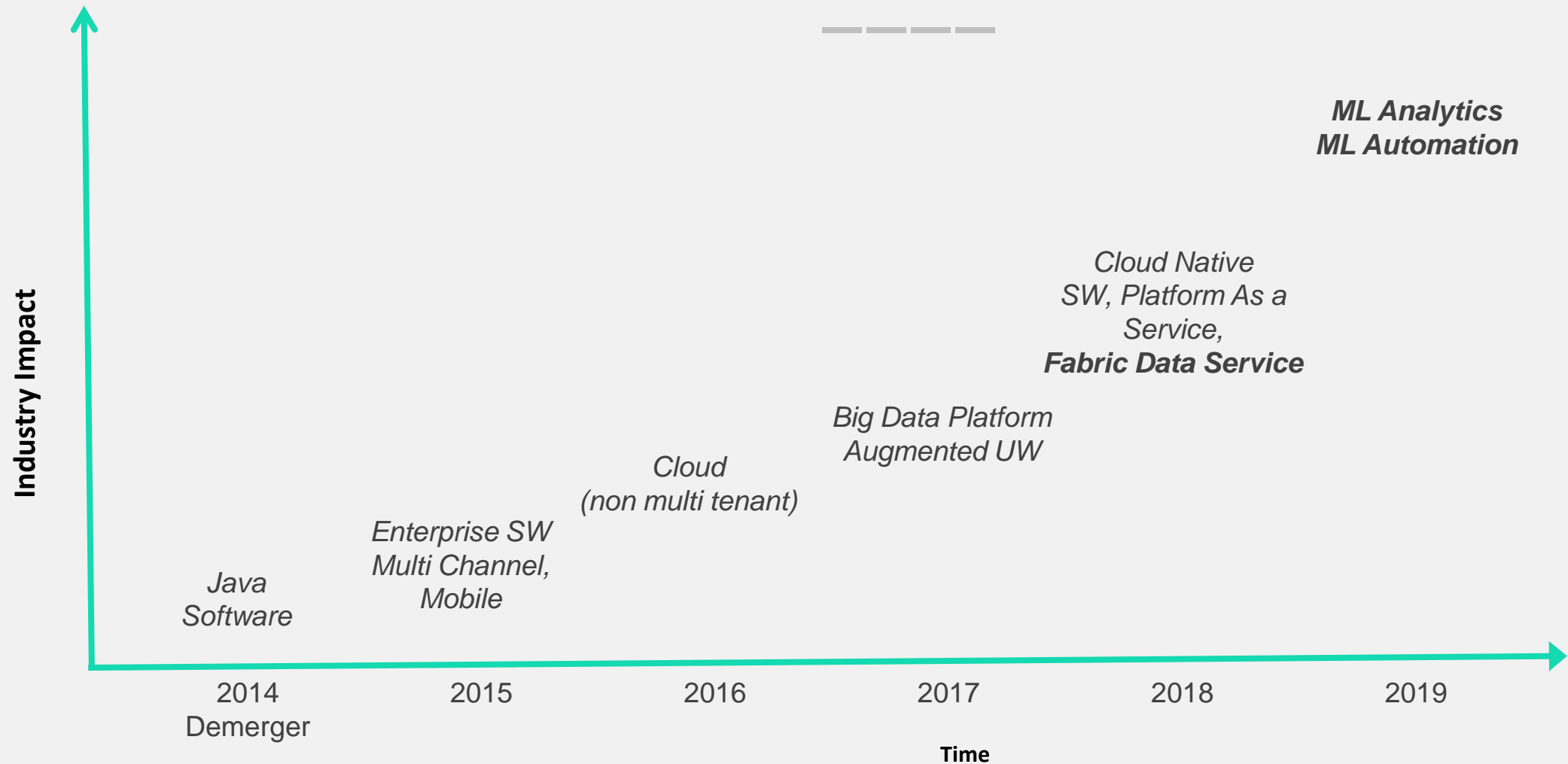
## The Big Business of Big Data

Global big data and business analytics revenue, 2015-2022



Source : IDC

# The Intellect Journey



## Fundamental Promise

Intellect is making investment in Tech an appreciating asset for Insurers

High Dimensional  
Streaming & Big Data



New Age ML  
Algorithms for  
core functions



Software  
That Automatically  
Evolves and Improves



# WHAT DO WE DO ?

Create Magic With Data, Analytics and Software

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## Data

*Platform designed to be default  
source of all 3<sup>rd</sup> party data :  
Assimilate new data sources*

## Analytics

*Partner to build, test, deploy  
and continuously refine  
predictive models with High  
Dimensional Data*

## Cloud Software

*Cloud Native SAAS for Intake  
of commercial  
submissions, Risk Assessment  
and end to end Underwriting  
workstation*

## Use Cases in Production with Major US Carriers

1. Prospecting
2. Quoting
3. Underwriting
4. Loss Control
5. Renewals
6. Actuarial modeling

# Business Model

Highly Scalable, Addictive and Value Growing

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## Data

- API Based
- Per Click (w minimum annual subscription)
- Different data packets of increasing cost and sophistication
- Creating new disruptive data elements (raw + derived score using AI)

## Analytics

- Per use license model to grow with scale
- Creating our own disruptive predictive score
- Co-creating lift models with Insurers
- Replacing traditional rating and underwriting models

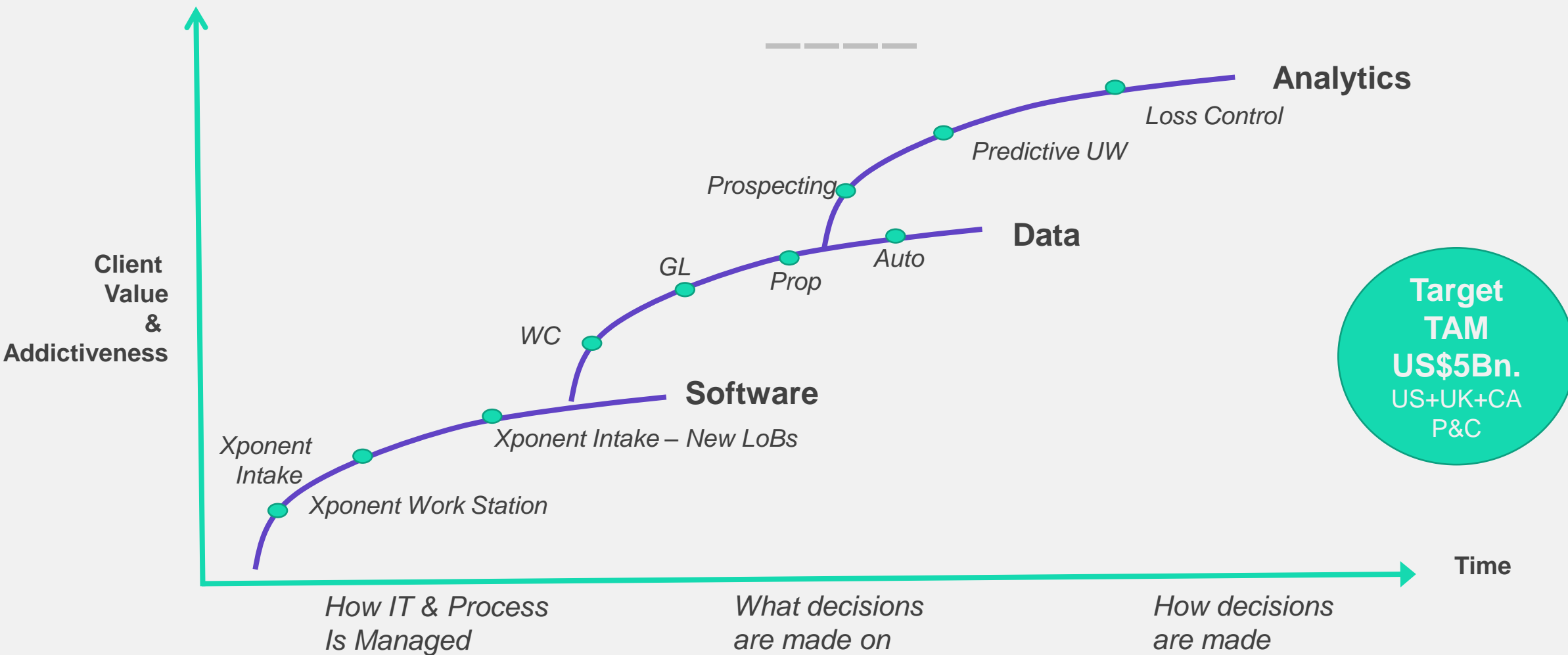
## Cloud Software

- SAAS Subscription
- Attractive entry level pricing
- Priced in premium bands to increase with client growth
- Creating opportunity for upsell of new APIs/ module
- Major price revision opportunity at renewal

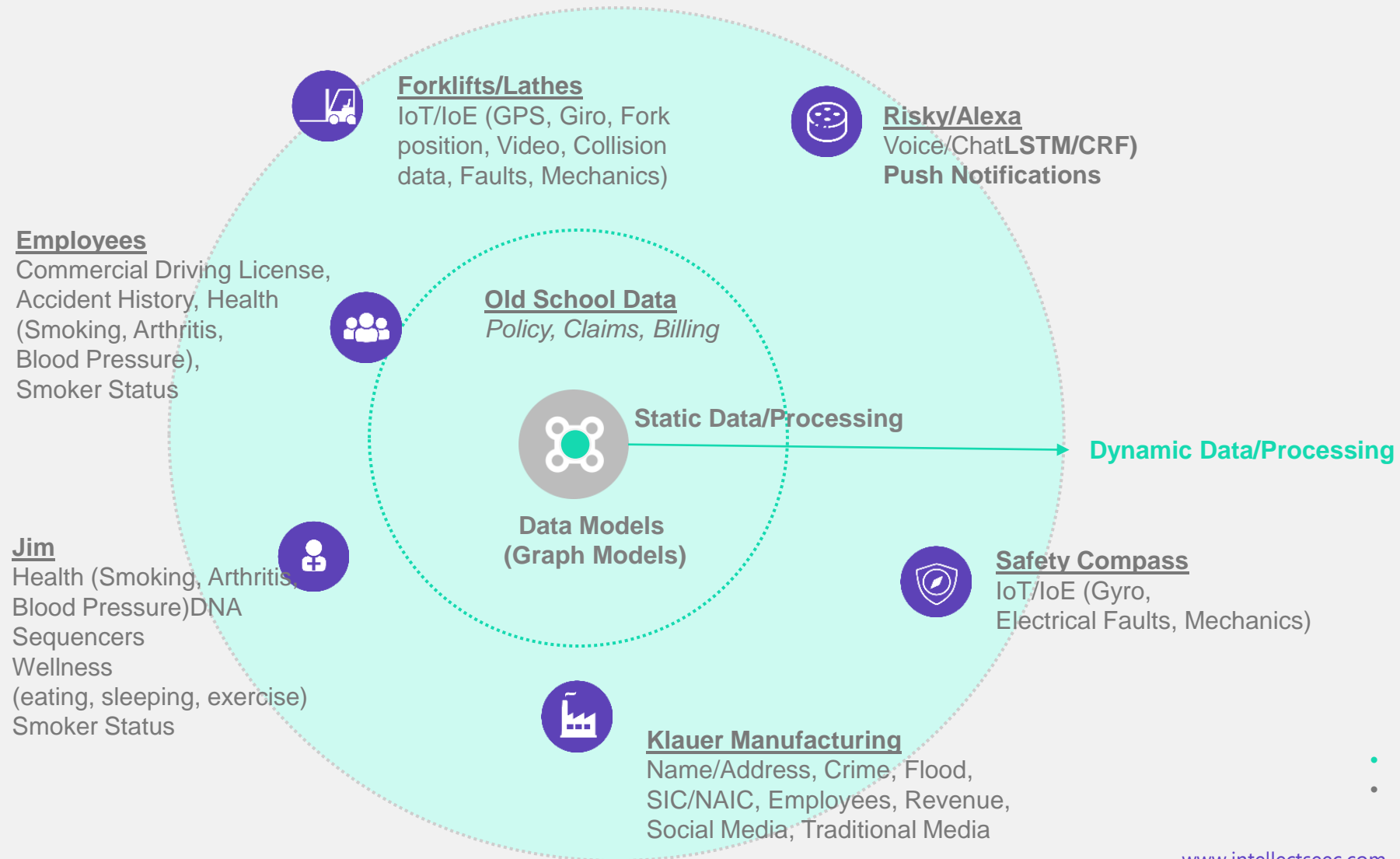
**AIM : Adoption today, Standardization tomorrow, driving Exponential Monetization**



# Client Journey



# Data world is exploding and enabling game changing use cases



- Data
- Data Type

# The Industry has a big Data Problem

Big Data & AI Should be the answer, but there are complications

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1. User submitted data, particularly from brokers is messy, inaccurate and biased against the carrier
2. Data quality from traditional sources is inaccurate, low coverage and expensive
3. Startups mostly have not setup partnerships with ecosystem providers - even open data needs permissions for commercial use
4. Modern aggregators data is simply dumped and not organized by Company, Locations & People
5. Curated databases are obsolete in weeks
6. Most traditional sources can not deal with Streaming / IoT

# Intellect FABRIC

## Enterprise Big Data Platform



*Chat bots  
No Fill UI  
Data Enrichment*

**Distribution**

### Intellect Fabric Data Service

Search > Match > Aggregate > Contextualize > Analyze

*Risk Analytics*

**Underwriting**

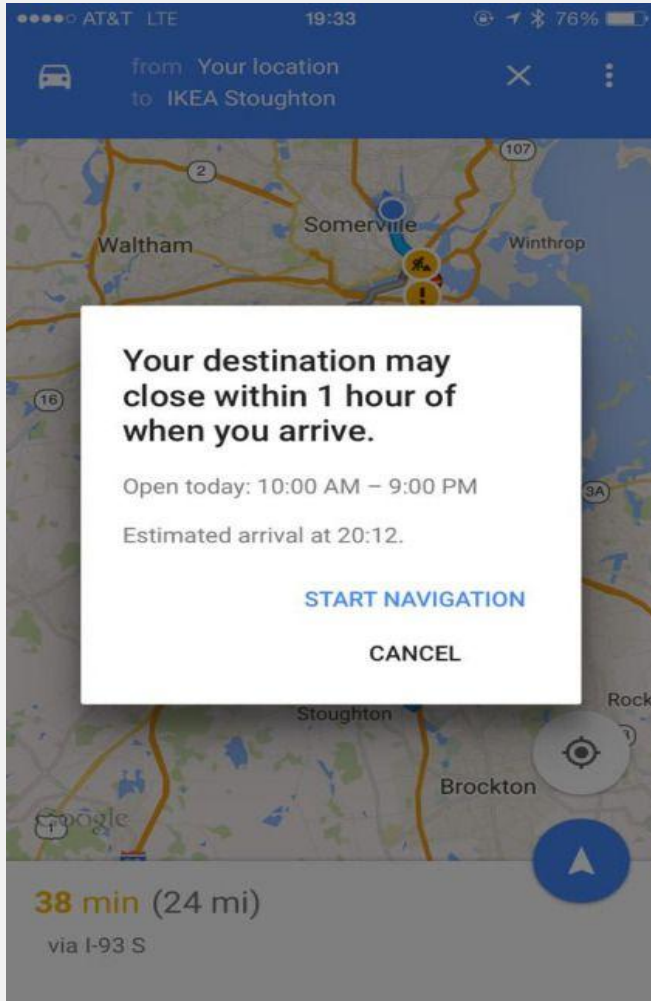
*Predictive Rating*

**Operations**

*Fraud Investigation  
Customer Feedback  
Intelligent Document Management  
Workflow Automation  
Call Centre Monitoring*



# Using Data to make magic : Insight + Foresight



- The trick is not that the app was able to trigger a some rule:  

```
if get_from_api(destination_close) < 1hr
  alert("Blah Blah")
```
- The trick was to infer you will arrive at **20:12** based on
  - Weather conditions
  - Road conditions
  - Historical traffic patterns vs. Current traffic patterns
- And the destination was only open from **10:00 AM – 9:00 PM**
- Key Point - Google collected 10 years of data to industrialize this use case

# Use Data to make magic : Insight + Foresight

**intellect SEEC** **XPON/NT** Underwriting Redefined

**RISK ANALYST** English

**KLAUER MANUFACTURING CO**

**SUMMARY**

**COMPOSITE SCORE**

Composite Score  
**9.93**  
Out Of 100

**LOCATION**

Street View  
1185 Roosevelt Street Extension, Dubuque, IA - 52001, US

**OVERVIEW**

Address : 1185 Roosevelt Street Extension, Dubuque, IA - 52001, US

Website : <http://www.klauer.com>

Phone : (563) 582-7201

Also Known As :

Employees : 35

Revenue :

Year Founded :

Paydex Risk Score :

Legal Status :

**INFORMATION SUBMITTED BY USER**

Company Name : Klauer Manufacturing Co | Business Type : MANUFACTURING | Address : 1185 Roosevelt Street Extension, Dubuque, IA 52001, US

NO DATA FOUND

AUTO REVIEWS  
IMAGES  
PERFORMANCE

Social Media: [Facebook](#)

Map Satellite

Map data ©2017



Computer vision

# A picture is worth a thousand words.....But...



...does your system know how to read?

## Computer Vision

# ...it can with Deep Learning!



roof (0.97624326)  
people (0.9719751)  
family (0.9543848)  
man (0.9538991)  
house (0.9445791)  
construction worker (0.930442)  
roofer (0.9325291)  
adult (0.9107766)  
action (0.9062755)  
business (0.9005916)  
safety risk(0.97167285)  
rooftop (0.92714784)

Image credit: [OSHA « Safety Training Resources News & Blog](#)



# The Intellect SEEC Difference?

Best and Most Insurance Data in the World



- 1. Velocity** Search based - Most recent and accurate results
- 2. Variety** Private data, open data, surface web, dark web, social and streaming
- 3. Veracity** Match the right entity + Triangulate the element of truth from multiple sources of "truth"
- 4. Volume** Data from any source on earth + cost engineered + commercially usable
- 5. Organized** Data entities and relationships are matched and ready to use – no need to build datalake
- 6. Accessible** Query Big Data like structured data with easy to configure packages + push alerts to guide end user
- 7. Insight + Foresight** Use the first proven "lift" elements derived from unstructured sources

## Variety

## 8000+ SOURCES FROM STRUCTURED TO UNSTRUCTURED

Company	Location	Person	Unstructured
120	22	13	8,155

## Company

Violations
Ratings
Industries
Financial
Recognitions
Vehicles
Reviews
Compliance
News
...etc.

## Location

Hazards
Toxic Sites
Geo Info
Images
Videos
Building Info
Permits
News
Legal
Location Details
...etc.

## Person

Vehicles Owned
Social Info
Employment History
Driver Information
Claims
Loss History
News
Legal
...etc.

## Volume

### Vast and Rapidly Growing Library of Raw & Triangulated Data and Predictive Insights

<div> Aggregation (Information) Data Value Chain Insights (Knowledge) </div>							
	Roadmap	Standard Data	Triangulated Data	Triangulated Score	Rule Based Insights	Big Data Insights	Grand Total
A - Company	324	818	77	3	23	136	1381
B - Location	384	345	49	15	10	2	805
C - Person	35	23	24	0	0	2	84
<b>Grand Total</b>	<b>743</b>	<b>1186</b>	<b>150</b>	<b>18</b>	<b>33</b>	<b>140</b>	<b>2270</b>

- We are collecting multi-year runs to develop Big Data based Predictive Scores (foresight)
- Industrial strength Big Data requires the time dimension – vendors/clients who have not started will be left behind

Data Type	Description
Standard Data	This data is pass through from the underlying data sources
Triangulated Data	This data has algorithmic (ML & Rules) calculations done to improve veracity
Triangulated Score	This data has algorithmic work (ML & Rules) for veracity and also modeling done to turn it into a score
Rule Based Insights	This data has been derived from domain based rules from sitting with key SMEs
Big Data Insights	This data has been derived from ML algorithms from unstructured/structured data (i.e. Question/Answer pairs)

# API Based Data Service Model

Company		Location	
Data Element ID	Data Element	Data Element ID	Data Element
C100011	Years in Business (Start Date)	L100003	Location Address
C100309	Legal Names	L100004	City
C100167	Legal Status	L100005	Zip
C100002	Annual Revenue	L100007	State
C100006	# Employees	L100038	Year Built
C100012	Industry (NAIC)	L100039	Square Footage- building
C100013	NAICS Description	L100050	Construction Type
C100014	Industry (SIC)	L100051	# Stories
C100015	SIC Description	L100158	FIPS Code
C100339	BBB Rating	L100334	Latitude
C100016	D&B #	L100335	Longitude
C100514	Any Product Recalls?	L100345	FPC code
C100140	Is the establishment open 24-hours?	L100209	Wildfire Risk
C100310	DBA Names	L100222	Earthquake
C100009	Social Media Score	L100244	Flood
C100157	Industry Information	L100201	Wind (Straight-line, Tornado, Hurricane)
C100158	Company Description	L100206	Hail
C100020	Organization - Headquarters	L100025	Distance to Shore
C101199	Hours of Operation	L100363	Tornado
C100159	Website	L100365	Lighting
C100479	Department of Transportation Number	L100441	Toxic Release Facility Distance
C100126	Have there been any health code violations in the past three years?	L100227	Crime
C101078	Approximate number of Locations	L100399	Forcible Robbery
C100774	Number of Employee Reviews	L100403	Motor Vehicle Theft
C100478	Type of cargo carried	L100397	Murder

## Disruption of Traditional Data Monopolies

# Intellect Data : August Release

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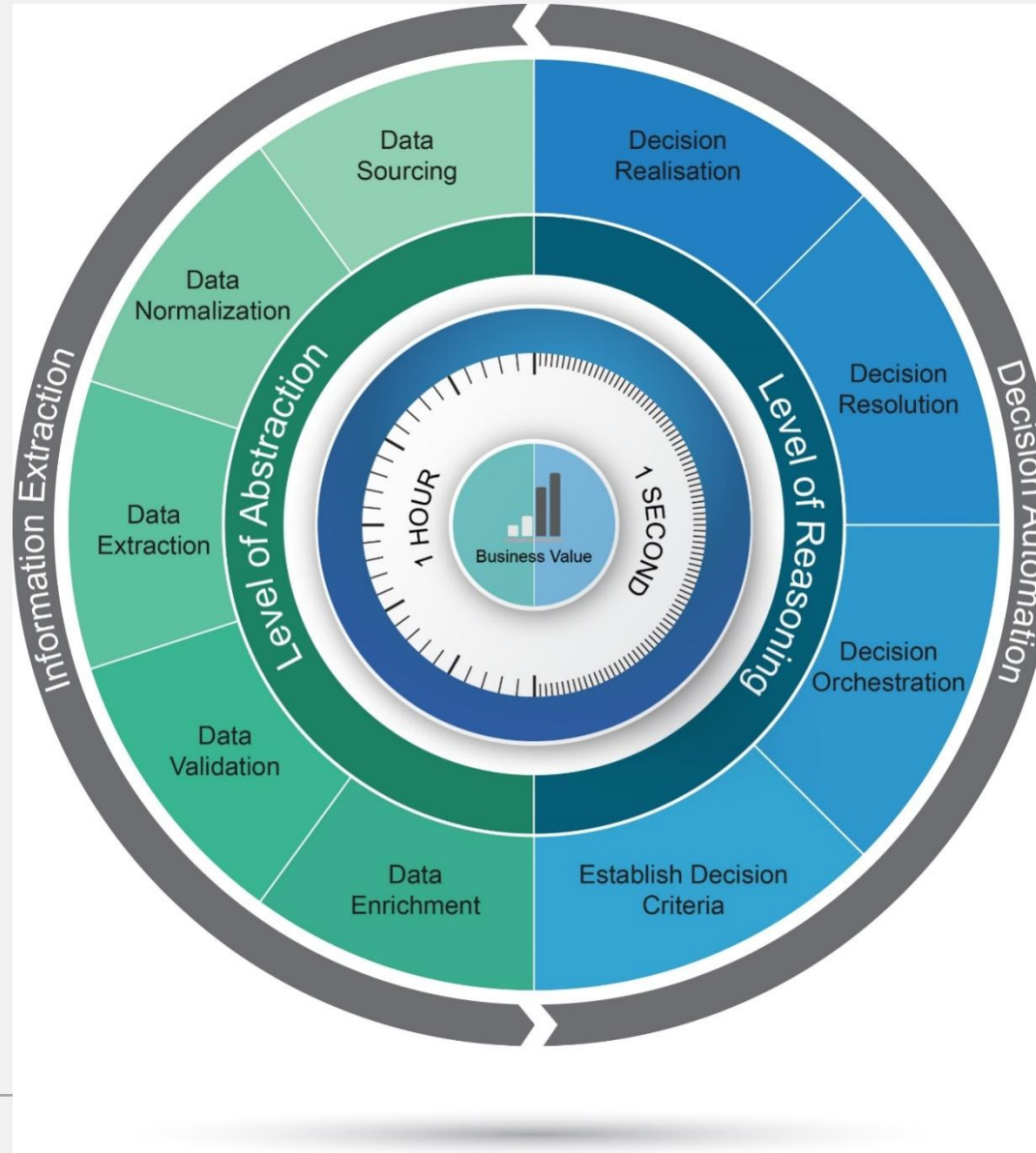
**Intellect Delinquency Score (C101329):** Underwriters can currently get information on past delinquent payments. But there has always been a concern regarding predicting the future occurrence of missed or late payments. Intellect's Delinquency Score predicts the probability of severe payment delinquency for the leading 12 months.

**Intellect Payment Grade (C101330):** Intellect Payment Grade is a six-point distribution indicating the change in payment behavior. The value of this field ranges from 1 to 6, where 1 represents the highest risk of failure and 6 represents the lowest risk of failure.

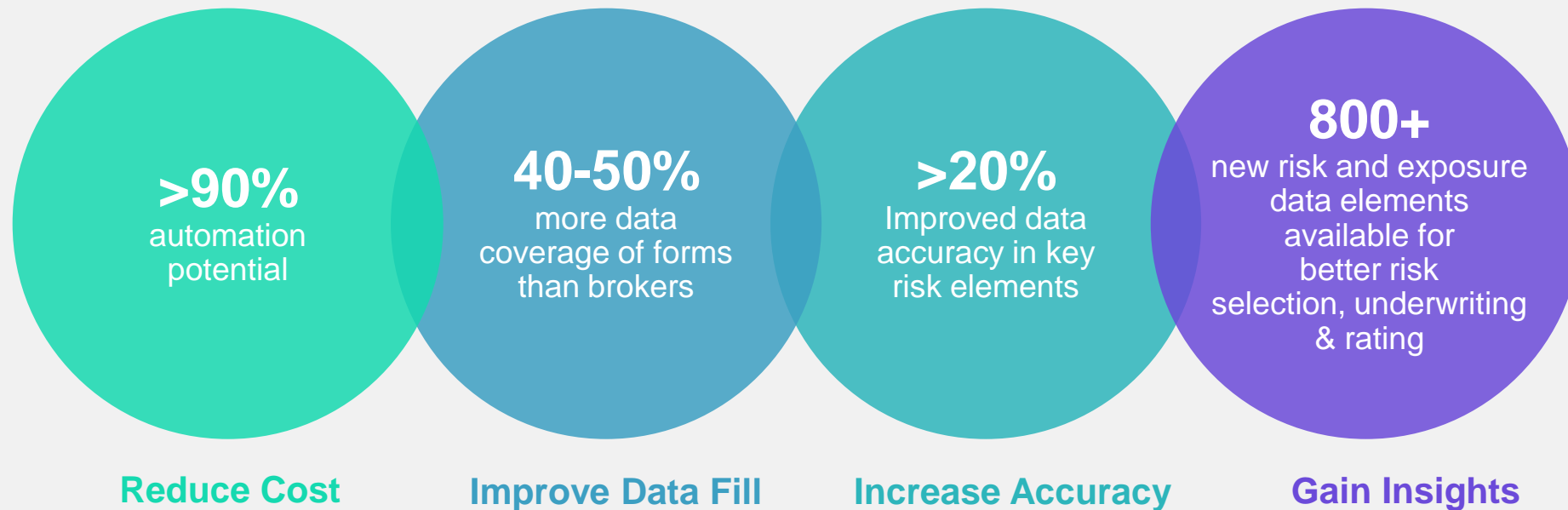
**Intellect Slow Pay Grade (C101331):** Intellect Slow Pay Grade assesses the probability of a company paying its bill before the due date, which ranges from a value of LOW to HIGH.

**Intellect Credit Grade (C101332):** Intellect Credit Grade is a composite score of multiple credit bureaus. The Credit Scores are binned into a rating of A to E where A represents a high credit score & E represents a low credit score.

# AI Opportunity - Automation Spectrum



# “Data First” strategy in automation



## 90% increase in automation alone can achieve a potential of:

- 60% reduction in median prep cost for new application and renewal (from \$112 to \$40 per submission)
- 80% reduction in median time to reach underwriter (from 3hrs to 25mins)



SAVE



COMMERCIAL INSURANCE APPLICATION  
APPLICANT INFORMATION SECTION

AGENCY		CARRIER		NAIC CODE	
CONTACT NAME:		COMPANY POLICY OR PROGRAM NAME		PROGRAM CODE	
PHONE (A/C, No, Ext):		POLICY NUMBER			
FAX (A/C, No):		UNDERWRITER		UNDERWRITER OFFICE	
E-MAIL ADDRESS:		STATUS OF TRANSACTION		QUOTE <input type="checkbox"/> ISSUE POLICY <input type="checkbox"/> RENEW <input type="checkbox"/>	
CODE:		SUBCODE:		BOUND (Give Date and/or Attach Copy):	
AGENCY CUSTOMER ID:		CHANGE		DATE	
		CANCELED		TIME	
				AM	
				PM	

INDICATE LINES OF BUSINESS		PREMIUM			PREMIUM			PREMIUM
<input type="checkbox"/>	BOILER & MACHINERY	\$	<input type="checkbox"/>	CYBER AND PRIVACY	\$	<input type="checkbox"/>	YACHT	\$
<input type="checkbox"/>	BUSINESS AUTO	\$	<input type="checkbox"/>	FIDUCIARY LIABILITY	\$	<input type="checkbox"/>		\$
<input type="checkbox"/>	BUSINESS OWNERS	\$	<input type="checkbox"/>	GARAGE AND DEALERS	\$	<input type="checkbox"/>		\$
<input type="checkbox"/>	COMMERCIAL GENERAL LIABILITY	\$	<input type="checkbox"/>	LIQUOR LIABILITY	\$	<input type="checkbox"/>		\$
<input type="checkbox"/>	COMMERCIAL INLAND MARINE	\$	<input type="checkbox"/>	MOTOR CARRIER	\$	<input type="checkbox"/>		\$
<input type="checkbox"/>	COMMERCIAL PROPERTY	\$	<input type="checkbox"/>	TRUCKERS	\$	<input type="checkbox"/>		\$
<input type="checkbox"/>	CRIME	\$	<input type="checkbox"/>	UMBRELLA	\$	<input type="checkbox"/>		\$

<input type="checkbox"/>	ACCOUNTS RECEIVABLE / VALUABLE PAPERS	GLASS AND SIGN SECTION	STATEMENT / SCHEDULE OF VALUES
<input type="checkbox"/>	ADDITIONAL INTEREST SCHEDULE	HOTEL / MOTEL SUPPLEMENT	STATE SUPPLEMENT (If applicable)
<input type="checkbox"/>	ADDITIONAL PREMISES INFORMATION SCHEDULE	INSTALLATION / BUILDERS RISK SECTION	VACANT BUILDING SUPPLEMENT
<input type="checkbox"/>	APARTMENT BUILDING SUPPLEMENT	INTERNATIONAL LIABILITY EXPOSURE SUPPLEMENT	VEHICLE SCHEDULE
<input type="checkbox"/>	CONDO ASSN BYLAWS (for D&O Coverage only)	INTERNATIONAL PROPERTY EXPOSURE SUPPLEMENT	
<input type="checkbox"/>	CONTRACTORS SUPPLEMENT	LOSS SUMMARY	
<input type="checkbox"/>	COVERAGES SCHEDULE	OPEN CARGO SECTION	
<input type="checkbox"/>	DEALERS SECTION	PREMIUM PAYMENT SUPPLEMENT	
<input type="checkbox"/>	DRIVER INFORMATION SCHEDULE	PROFESSIONAL LIABILITY SUPPLEMENT	
<input type="checkbox"/>	ELECTRONIC DATA PROCESSING SECTION	RESTAURANT / TAVERN SUPPLEMENT	

PROPOSED EFF DATE	PROPOSED EXP DATE	BILLING PLAN	PAYMENT PLAN	METHOD OF PAYMENT	AUDIT	DEPOSIT	MINIMUM PREMIUM	POLICY PREMIUM
		<input type="checkbox"/> DIRECT <input type="checkbox"/> AGENCY				\$	\$	\$

APPLICANT INFORMATION		GL CODE		SIC	NAICS	FEIN OR SOC SEC #
NAME (First Named Insured) AND MAILING ADDRESS (including ZIP+4)		BUSINESS PHONE #:		WEBSITE ADDRESS		
<input type="checkbox"/> CORPORATION	<input type="checkbox"/> JOINT VENTURE	<input type="checkbox"/> NOT FOR PROFIT ORG	<input type="checkbox"/> SUBCHAPTER "S" CORPORATION			
<input type="checkbox"/> INDIVIDUAL	<input type="checkbox"/> LLC NO. OF MEMBERS AND MANAGERS: _____	<input type="checkbox"/> PARTNERSHIP	<input type="checkbox"/> TRUST			

BROWSE




Acord-125\_2016\_Empty.pdf

Select Template


Accord 125(2016)

UPLOAD FILE



-  Dashboard
-  Applications
-  Settings

# New Application

Title 

No file selected.

CREATE APPLICATION

BACK

# Opportunity Space

## GTM Evolution

### Verticals

1. US Commercial Insurance
2. Secondary markets - commercial Insurance
3. Emerging Fintech
4. Established Banking
5. CRM
6. Other Mini verticals

### Use Cases

1. Data Validation
2. Data Enrichment
3. Document Extraction
4. Analytics based use cases (Underwriting, Claims Fraud, Risk Scores, etc)

Pilot Phase

### Channels

1. Complex Enterprise Sales
2. Simple Enterprise Sale
3. Market Place
  - Junto
  - AWS Marketplace
  - App Exchange
4. 3rd Party sales
  - Transunion
  - Verisk
5. Embedded in 3<sup>rd</sup> party software and analytics

Pilot

Pilot Q3/ Q4

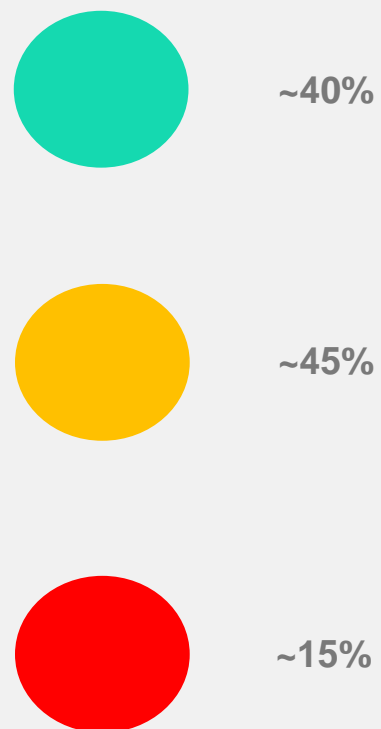


# Recent US Insurer Case Studies

## Example 1 : Sharpened prospecting and Prioritization

### Finding right prospects and prioritizing to top of que

#### Assumed Prospects Rating Before Intellect Data



#### Real view of Portfolio with Intellect Data



#### Best Risk

Investing resources in the wrong opportunities due to 25% classified incorrectly

#### Average Risk

Faster and better decisions where to invest

#### Bad Risk

Upto 35% companies that are a good fit could have been overlooked

## Example 2 : Data for Insights at Scale and Velocity

### Scan book in minutes for key risk elements

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- Extract data deep within public sources (OSHA/SAFER)
- > 1,300 elements on every account
- Apply NAICS/SIC rules for eligibility with upto 20+ codes including reverse engineered 6 digit codes from text (job adds, websites etc.)
- Get Insights from Unstructured. e.g. “mechanical bull” and alert risk control for interventions



### Example 3: Data Validation

## Correcting erroneous input data for key Rating and Underwriting fields

**Client Example : Classified as food services Vs. actual business is butchery**

**Standard Data :** SIC 2011 - Meat Packing Plant (general)

**Big Data Insights :** Slaughtering/butchering (identified from Groupon)

#### Results:

- Different Classification for WC
- Insurer suggested different coverages might be needed
- Benefit from risk control





## Example 4

## Text Mining to Accurately Answer key UW Questions : Liquor Example

[Foth awarded business for fast-growing casual tavern brand, sister company of: February 17, 2017](#) 02/17/2017

Source: [www.fox.com](#)

[bus Short North concepts](#)

Cameron Mitchell Restaurants is looking to add two fresh concepts in Columbus' Short North. The locally based restaurant chain has two stores in the works – DelMar at 705 N. High St. and Montauk at 711 N. High St. – according to documents filed with ...

Source: [www.fox.com](#)

[Podcast: Columbus' Short North seafood](#)

On this week's episode, we were joined by [Cameron Mitchell Restaurants](#) to discuss you should order if you aren't familiar with seafood and how the various restaurants under Cameron Mitchell Restaurants ...

Source: [www.fox.com](#)

[row his restaurants](#)

"The situation is all driven by [Cameron Mitchell Restaurants](#), and who founded [Cameron Mitchell Restaurants](#) LLC in 1993. He's a classic example in the restaurant business of going from the dish room to the board room. His first position was ...

Source: [www.fox.com](#)

[Food news: Latest Columbus' Short North house, opens Thursday](#)

The latest [Cameron Mitchell Restaurants](#) will be led by general manager [Cameron Mitchell](#), left, and executive chef [Cameron Mitchell](#), right. The restaurant opens Thursday in the new Short North. Photo courtesy ...

Source: [www.fox.com](#)

Unstructured Data collected

Show relevant &amp; meaningful data to users

encompasses 32 units spanning 14 different restaurant concepts, with locations in 12 states and further growth planned. Revenues approached \$200 million in 2017, and beverage alcohol makes up 30% of sales—roughly \$60 million a year. The company's diverse restaurant portfolio is a great asset; instead of being known as a chain operator, it has earned a reputation for distinct, high-quality venues.

Y/N text alert (simple UW alert)

Is onsite alcohol consumption allowed	Y
Has alcohol serving permit	Y

Expert standardized context  
(coaching and insights with recommended interventions)

## Example 5

# Cut Manual Underwriting Effort Cut from hours to minutes

— — — —

### Quantitative Benefit : Automation of Manual UW Effort

- Underwriter searches of 2 hours per account on source research
- Finding nothing in 30% of the cases
- Now guiding underwriters to actions within seconds
  - OSHA review ~ 15 minutes to seconds
  - SAFER review ~ 15 minutes to seconds
  - Internet search ~ 1.5 hours to seconds



### Qualitative Benefits

- Consistency among UW staff
- Expert level guidance and calibration
- Arm every underwriter with the best knowledge



## Major analyst Recognitions

CELENT

Intellect SEEC's among Early Adopters of AI in Insurance Underwriting features.

NOVARICA

Risk Analyst is one of the leading Predictive Analytics Solutions for US Insurers.

Aite

Risk Analyst rated the strongest in its ability to synthesize internal carrier data and present relevant customized data analysis.

One of the top four vendors globally in the report, 'Hype Cycle for P&C Insurance, 2016

Gartner

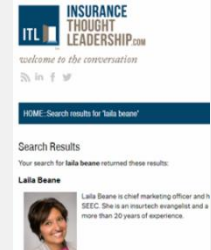
Intellect SEEC featured for IT initiatives undertaken by LIC, one of the world's largest insurers.



## Major Industry Awards & Recognition



Munich RE







# CREATE FUTURE

Get a different perspective

