



Fourth Quarter 2018

Geospatial Analytics Market Overview

An introduction to ComCap

- The Geospatial Analytics space is receiving a tremendous amount of attention from large strategic buyers
- ComCap is a premier boutique investment bank focused on the intersection of commerce and capital, with key focus on B2B SaaS, B2C E-commerce, payments, mobile commerce, marketplaces and B2B services for retail technologies (Geospatial, IT and marketing services, in-store, fulfillment, logistics, call center, analytics, personalization)
- Headquartered in San Francisco with Australasia coverage from Singapore, European coverage from London & Moscow, and LATAM coverage from Sao Paulo. Our firm works with mid-cap public companies on buy-side initiatives and public and private growth companies on financing and strategic M&A
- In addition to being the only boutique focused on disruptive commerce models, we differentiate by:
 - Bringing bulge bracket techniques to emerging models;
 - A strong and uncommon buy-side/strategy practice;
 - Deep understanding of industry drivers and synergy analyses;
 - Deep relationships across the sector; and
 - Worldwide coverage with closed transactions in the United States, Japan, China, the ASEAN region, Western and Eastern Europe and Latin America
- If you'd like to connect with us over the phone and / or meet in person to be included in this report or to discuss your strategic initiatives, please contact us:



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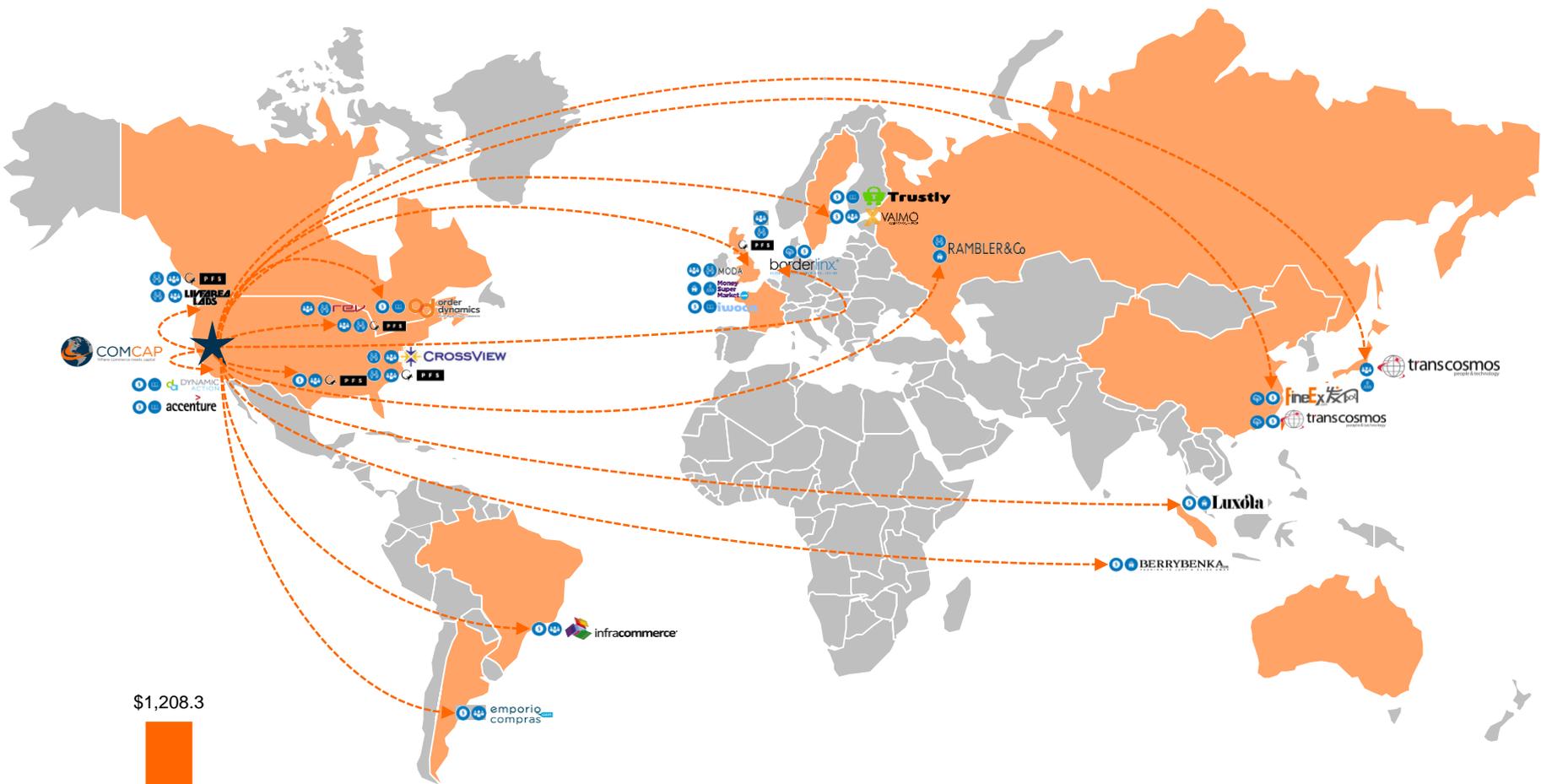


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ComCap's current thematic focus areas

Theme	Description	Select companies
Geospatial Analytics	Disruptive technologies in consumer location data and analytics that retailers and brands can use for 1:1 marketing and insights	   
Analytics	Disruptors in the analytics space focused on ecommerce, logistics, retail, predictive, payment, risk and marketing	   
AR/VR and content creation	Emerging technologies with retail applications that allow retailers to offer a differentiated customer experience and build brand awareness and loyalty	  
Beauty, health and wellness	The universe of beauty companies, including product manufacturers, retailers, disruptors and new entrants	   
Digitally Native Vertical Brands (DNVBs)	D2C digitally native brands covering clothing, accessories, personal care, home and kitchen, furniture, and other consumer-focused products	   
Digital Retail SaaS	Emerging and disruptive SaaS businesses in the digital retail sector	      
Fintech	Retail and commerce-related disruptors in the fintech universe. Current focus areas include payments, fraud prevention, and retail POS	      
Marketing suites	Emerging platforms in the digital marketing space	    
Mobile	Focused on mobile solution providers optimizing the mobile experience from desktop-to-mobile website conversions, targeted mobile marketing, to simplifying the mobile checkout experience	  
Outsourcing and service providers	Companies that provide outsourcing and end-to-end ecommerce services, such as contact centers, platform, marketing, photo services, logistics, warehousing etc.	     
Personalization	Emerging players in the ecommerce personalization space	    
Robotics	Robotics companies integrating into various aspects of supply chain and retail	 
Logistics	Emerging platforms and providers innovating and optimizing the many facets of the supply chain ecosystem	     
System Integrators	Systems Integrators with a particular focus on those standing up and supporting Demandware, Magento, and other ecommerce platforms	   

ComCap – Active in 14 countries, including 8 of the top 10 global ecommerce markets



¹Source: [Content26 report](#)

ComCap's perspectives on retail in-store technology is shared with 250+ financial and 100+ strategic investors

- ComCap's perspectives on various industries, including trends in Geospatial Analytics, is being shared with our large network of strategic and financial investors globally
- This facilitates a better understanding of sweet spots for these investors; and ultimately helps to better position a mandated client with selected players
- Unique disruptors are gaining additional global coverage via ComCap's reach

June 2017
ComCap: Retail Market Overview

In-store retail industry – key themes for 2017

- Consolidation will be driven by growth in ecommerce channel, over-capacity of retail sqft / capital, and migration of top retailers towards renovated properties
- Large retailers are investing in their online channel and seeking to differentiate through unique product and direct to consumer investments
- Consolidation continues with drive to attain scale, new capabilities, and entry into new geographies

Physical stores slowly adopting in-store tech (cont')

Com Cap proprietary analysis

	Select Disruptive / Specialty Retailers											
Digital Capabilities	Walmart	Amazon	Target	Costco	Home Depot	Best Buy	Home Goods	Ulta	CVS	Walgreens	CVS	Walgreens
Station technology	●	●	●	●	●	●	●	●	●	●	●	●
Click & collect	●	●	●	●	●	●	●	●	●	●	●	●
Cross-channel inventory view	●	●	●	●	●	●	●	●	●	●	●	●
Digital signage / price tags	○	○	○	○	○	○	○	○	○	○	○	○
Biometrics	○	○	○	○	○	○	○	○	○	○	○	○
Free in-store Wi-Fi	●	●	●	●	●	●	●	●	●	●	●	●
Customer reviews / person sites	●	●	●	●	●	●	●	●	●	●	●	●
Unsupervised payment (Samsung, Apple Pay)	●	○	○	○	○	○	○	○	○	○	○	○
Mobile Integration:												
• App-based mobile App (self-prod / 3rd party)	○	○	○	○	○	○	○	○	○	○	○	○
• Customer mobile app integration	○	○	○	○	○	○	○	○	○	○	○	○
• Mobile deals	○	○	○	○	○	○	○	○	○	○	○	○

COMCAP Where commerce meets capital

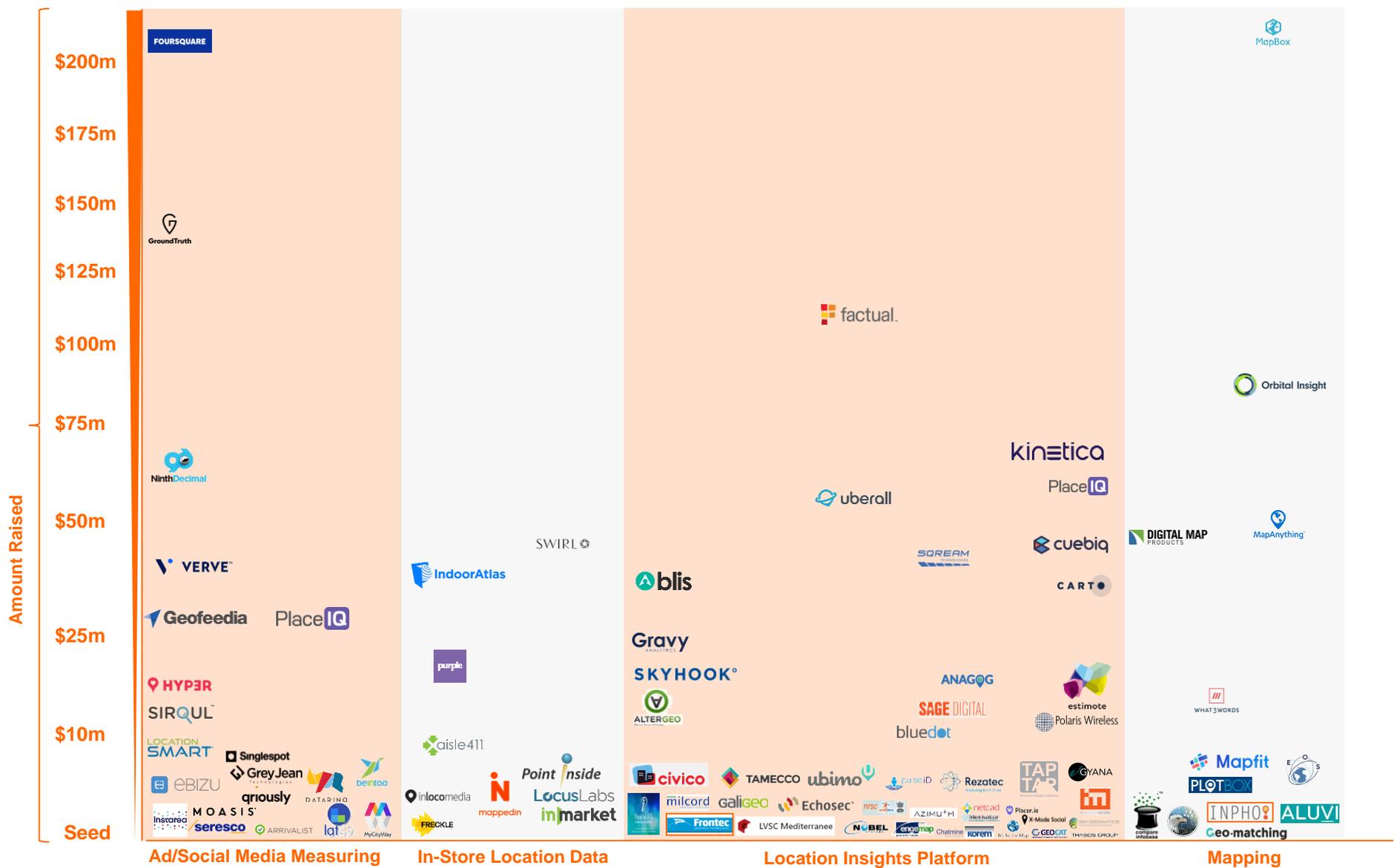
Select retail in-store disruptors can help retailers compete in an amazon world

ComCap's strategic partner landscape

Financial and corporate investors landscape

COMCAP Where commerce meets capital

Geospatial Analytics Funding Map



Geospatial Analytics – Key Themes

1

The location based analytics market is growing parabolically – with spend on these services expected to grow at 28% annually through 2023

2

Geospatial 1.0 is dead. Long live Geospatial 2.0: with the advent of advanced location tracking technologies – brands and retailers have a powerful tool at their disposal

3

Small geospatial platforms are delivering insights once exclusive to Silicon Valley darlings...

4

...And delivering big results for big companies

5

Beyond the CMO's office: Using geospatial insights to drive business strategy

6

The future: expected advances in Geospatial capabilities to drive vertical growth

7

Large companies are actively seeking to bolster their antiquated Geospatial capabilities

The Geospatial/Proximity Market is growing parabolically

Smartphone based proximity marketing is set to drive incremental growth in retail sales and geospatial services

North America is the largest market in the world

- As of 2017, global geospatial/proximity based analytics market is expected to grow from \$15.2bn in 2017 to ~\$52.0bn in 2023 at a CAGR of 28%.
- The growth is expected to come from increasing importance on business intelligence and growing competition in various sectors. In particular, increasing adoption of smartphone and development of analytical tools thereof is a key factor.
- At present, North America is the largest market due to the major presence of technology leaders in the region, followed by Europe due to adoption of advanced technology
- However, the geospatial/proximity marketing market in APAC is expected to have a promising future with tremendous opportunities, especially in the retail, ecommerce, and infrastructural sectors

Global Proximity/Geospatial Market forecasts¹



Key Players

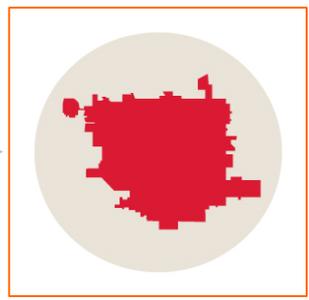


2 Geolocation 1.0 is dead, Long live Geospatial 2.0

The more narrower and specific the target audience, the more effective an ad campaign will be

The Early Ages: An Audience of Millions (Early 2000's)

- At this stage in time, the best option available was to target an audience based on a Designated Market Area (DMA)
- At that time, US had only 210 DMAs, so often businesses faced the issue of granularity, e.g. Assuming a avg. population of DMA being >1.5m in a major city, this was only a step down from targeting nationally—hardly ideal for a local business

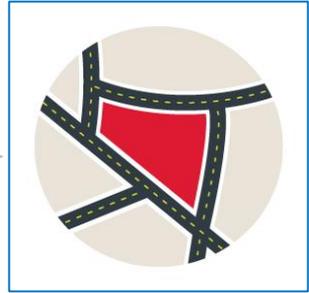


Narrowing It Down Further (Zip Code Tracking)

- Fast forward a few years and the advancements in location based marketing led to targeting potential customers based on Zip Codes. However, the targeting capabilities were still only as granular as the Zip Code level
- Since the goal is to serve ads to people within reasonable geo distance and an avg. zip code contain 10,000 people, zip code-based targeting was still a bit too broad

Geo-Targeting Gets Even Closer (Geo-Fencing)

- Geo-fencing was a revolution in location-based targeting, this allows you to serve digital ads to mobile users seen within a predefined geographic area
- Marketers could actually narrow the field even further and geo-fence a specific business, like a local competitor's lot or the neighborhoods surrounding. This is still a great way to reach local audience



The Future is Now (One-on-one Targeting)

- Today's technology aims at targeting at the household level, at scale and across all devices. The aim is to target at the individual address-level and specific target market by using 'Addressable geo-fencing'
- This technology uses GPS and plat line data to draw geo fences around a specific physical address thereby allowing mobile, video, OTT/CTV ads to be displayed to tgt. households

3 Small geospatial platforms are delivering insights once exclusive to Silicon Valley darlings...

Companies like Mogeant are using GPS data via app integration to give users "Google-like" consumer insights



Continuous GPS data collection

170M + Devices

Passive collection via 200+ apps

Patent pending collection technology



Proprietary point of interest database

20M + Points of interest

Powered by machine learning

Monitors dwell times and visit frequencies



Advanced data science and engineering

40B + Data points analyzed per month

Low latency

Real time intelligence

Historical pattern insights

Mogeant's "in real life" profiles complete the customer picture:

- *Where they go* • *What they do* • *When they do it* • *How often they do it* • *Who they do it with* •

Insights that were once available only to tech giants are quickly becoming democratized

...and delivering big results for bigger companies

The Challenges



Skepticism around campaign targeting and measurement



Lack of clarity around ad campaign ROI



No reliable means of attribution



The Mogean Solution



IP driven deterministic attribution
Proprietary data collection and contextualization engine



Mapping asset: Mogean's mapping asset provides clarity into the entire consumer journey

Illustrative Results



195% Lift
In website traffic

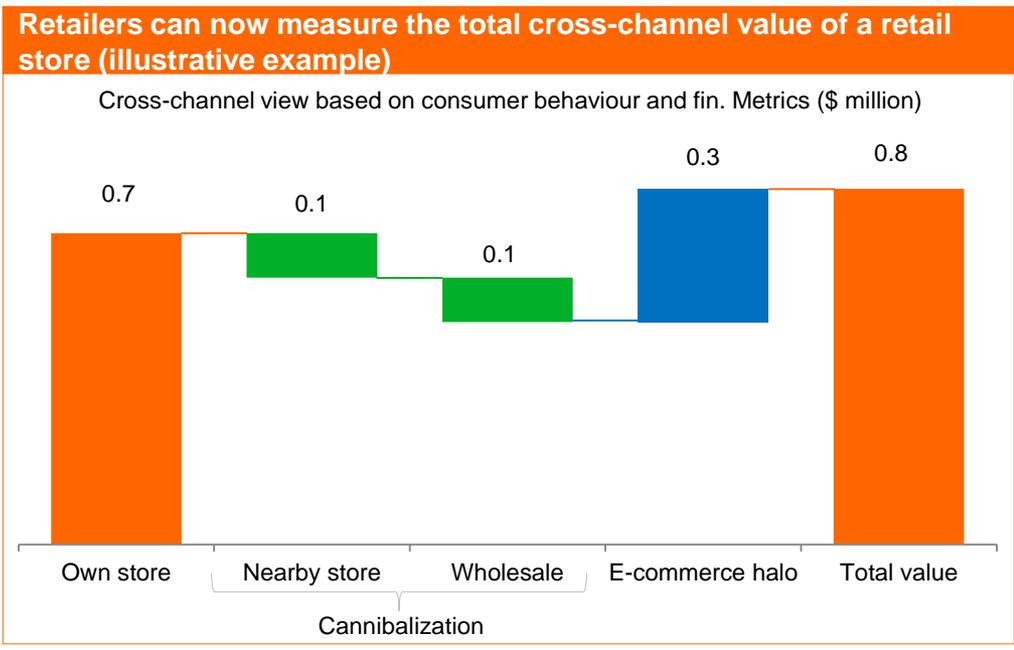
4x
Client return on ad spend

80%
Lift in ROI conversion

3.5% Conversion Rate
(80x Better than industry average)

4,000
Mobile devices confirmed visiting website from single ad

5 Beyond the CMO's office: Using geospatial insights to drive business strategy



- Today many retailers use a concept called “four-wall economics”, taking into account in-store sales and profits as driving metrics for their businesses
- However, the consumer retail experience has turned omnichannel. Consumers use multiple channels (mobile, web, in-store) to browse and buy products
- Oftentimes business decisions (expansion, growth, inventory related) are undertaken using the assumption of “four wall economics”, which does not capture the complete retail experience
- Nowadays many sophisticated retailers prefer to analyze interplay between offline and online customer decision journeys (taking an omnichannel view of store performance) allowing each store to record all the sales in which it played a role, regardless of channel of operation

Advanced geospatial analytics can help retailers quantify a store's effective economic value

Detailed consumer behavior data

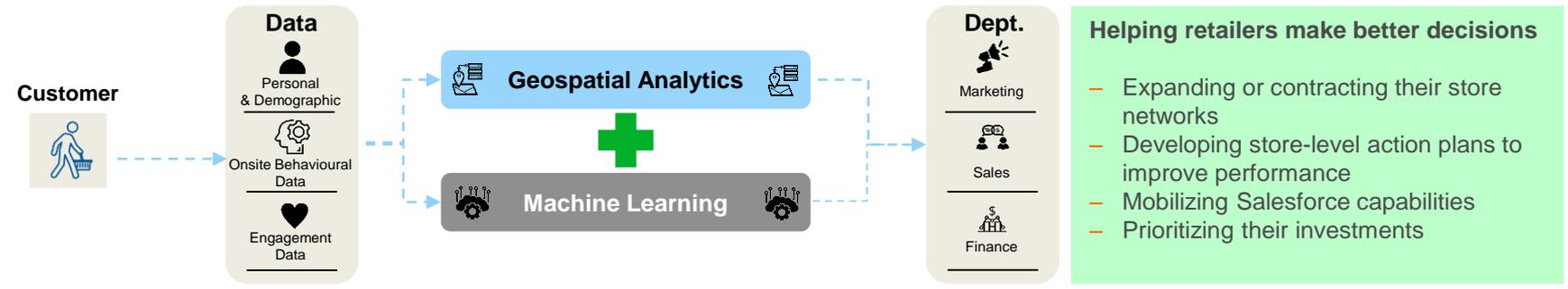
- Retailers have access to more *consumer-behaviour* data than ever before, in the form of opt-in e-receipt programs and anonymized mobile-phone location data
- The aggregated data can shed light on quantity as well as quality of customer traffic

Geospatial analytics + Machine learning

- The advanced information provides retailers with a detailed picture of how people move and interact within a market, as well as how they behave across multiple channels
- Machine learning models can provide increased analytical horsepower to retailers by mining big data assets and helping to generate granular, actionable insights at the small-market level

5 Beyond the CMO's office: Using geospatial insights to drive business strategy (continued)

How retailers are using geospatial analytics + machine learning to derive meaningful business insights



Case study: how retailers can use geospatial to unlock value in their target markets

USING GEOSPATIAL MACHINE LEARNING, THE RETAILER IDENTIFIED FACTORS THAT MOST AFFECT A ZIP CODE'S SALES POTENTIAL

Sales drivers in every zip code, most important to least important

Sales driver	Impact
Proximity to larger owned full-price stores	↑↑↑
High proportion of young, urban professionals	↑↑↑
Primary competitor store within 5 miles	↓↓
High number of wholesale stores within 5 miles	↓↓
High store-manager ratings in nearest owned stores	↑
High online spend in category	↑
Low tourist spending	↓
High weekend foot traffic around nearest owned store	↑

Omnichannel sales potential by zip code, \$

- Based on the results, the retailer was able to predict potential sales in each zip code and store, and compare it with actual sales
- Then using Geospatial simulation, it estimated each store's impact on wholesale and online sales
- The team was also able to isolate the unique factors that contribute to a strong ecommerce halo
- The retailer used these insights to identify which stores weren't living up to their sales and profit potential and which small markets contained untapped growth opportunities
- He could thus optimize the omnichannel value of its store network and achieve a 20% gain in EBITDA by closing, relocating, and reformatting stores

Glimpse into the future: expected advances in Geospatial technologies set to drive industry growth

VR/AR

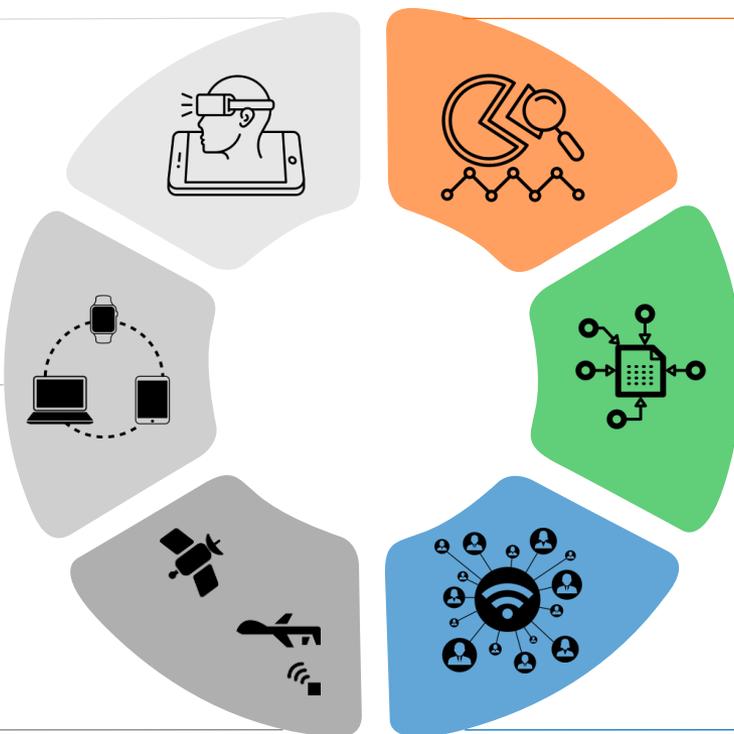
- VR/AR applications continue to grow in use and their foundation has its roots in geospatial technology
- Any business that plans to either start or continue using AR and VR technology will want to pay attention to the geospatial technology industry

Miniaturization of Technologies

- The capacity to create small and often inexpensive devices and sensors with wireless connectivity is driving an increased IoT presence
- Miniaturized and lower-cost sensors will lead to an increase in what, when, where, and how much data is collected and, more importantly, the ability to attune the sensor to the specific data collection needed

New Mobile Geospatial Sensor Platforms

- In the near future new modalities for sensor distribution, such as small satellites and unmanned aircraft systems, will be developed
- These mobile geospatial sensor platforms will greatly expand the abilities of individuals, businesses, and governments to collect volumes of remote data



Data Analytics

- Encompasses new technologies or methods that support analyzing multi-size data, multidimensional information, and spatiotemporal data.
- The emerging technologies of the future include human-guided and autonomous machine learning systems.

Data Collection and Generation

- Data collection includes technologies that enable collecting or processing spatial and spatiotemporal data, introduce new data types, and have other significant implications for data delivery and use
- Impacts affect existing and de facto standards, real-time data generation and use, data confidentiality and privacy, and big datasets generated using these new technologies

Wireless and Web Networks

- In the future, faster and broader wireless and web networks will address the growing demand for improved methods of data transmission and geospatial data distribution to users
- This will lay the groundwork for government clients and consumers around the world to more broadly share and use spatiotemporal data, such as real-time mobile applications

7 Large companies are actively seeking to bolster their antiquated Geospatial capabilities

ComCap has had extensive dialogue with strategic and financial parties around Geospatial opportunities



Why should you care?

- **Geospatial is en vogue:** Every aspect of the consumer's daily journey is becoming increasingly digital, and with the advent of advanced geolocation tracking capabilities and associated marketing tools– the consumer is gaining increased comfort with sharing their location data with brands
 - Millennials, who will make up the largest spending demographic in the world over the coming years, have fully embraced this development – as long as the data collected presents them with more relevant advertising
- **Capital Market Dynamics** for geospatial assets couldn't be more favorable – many strategic parties are waking up to the fact that geospatial insights will become a core part of their marketing / engagement strategies
 - Yet – many of these parties have woefully antiquated assets in the geospatial realm – and are actively **looking to acquire differentiated assets for premium multiples**
- **ComCap is at the forefront of the Geospatial industry...** we are in constant dialogue with strategic and financial parties looking to bolster their Geospatial capabilities
 - We're in advanced dialogues with a number of the strategic parties on the preceding page to acquire numerous Geospatial assets
- **...And we stand ready to help:** whether you're looking to bolster your geospatial capabilities, raise capital, or evaluate strategic alternatives – we are the only boutique investment banking advisor that intimately understands the geospatial sector – and how it fits into the broader digital retail ecosystem

ComCap is uniquely situated to assist you as you evaluate your capital/strategic needs, and we look forward to connecting with you!