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Q4 2017 | Prox.Report: State Of The Proximity & Location Industry

Location Intelligence in the Automotive Industry

How can different players of the automotive industry improve their business through location data and technology?

unacast.

TABLE OF CONTENTS

ABOUT THE REPORT

Purpose
Every Prox.Report aims to provide a state-of-the-industry update while also educating the market about the ever-growing, evolving proximity industry. In addition to industry status, each report zeroes in on a specific theme, taking a deep dive into the area of focus and showcasing real-life use cases from the companies that have signed up to Proximity.Directory.

Use
All information in the report is free to use and share, as our main goal is to give insights to the industry and educate the market.

Want access to more?
Interested in more details about the report? Please get in touch with us at info@Proximity.Directory

About Unacast
Unacast the leading location and proximity data platform, built the Real World Graph™ to understand how people and places are connected. Unacast data empowers the next generation of data-driven industries with unique and highly accurate data sets and insights, built on a foundation of double-deterministic™ proximity data.

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MESSAGE FROM THE CEO & CO-FOUNDER

Many industries have been disrupted by an ultimate shift toward online shopping. The automotive industry, however, is one of the few where in-person engagement in the showroom experience plays a crucial role in customer decisions. While the whole concept of driving a car is being re-invented by car-sharing companies and self-driving vehicles, consumers still go to car dealerships, interact with their favorite brands, and test-drive novelties before making a purchase. This situation creates a lot of opportunities to build long-term relations with customers, but not many market players in the automotive industry recognize the potential. Analyzing location data, communicating with current and potential clients through mobile apps, and offering additional services at the right place and time can drive revenues and customer loyalty in the automotive industry. At the moment, it seems that customers cannot find a simple, transparent, and satisfying experience. Most of the car buyers visit up to 5 stores before making a car purchase*. In this report, we explore how location data and technology can improve customer experience and be beneficial for car makers, dealerships, and other players in the automotive market.

Best,
Thomas

THOMAS WALLE
CEO & Co-founder of Unacast

EXECUTIVE SUMMARY

Location data and technology make it possible to minimize distribution costs, increase capital returns, and drive customer loyalty

A mobile app called ONE20 engages truck drivers to share their location and enhances their driving experience by providing real-time updates on availability of parking and weigh stations

A beacon-enabled mobile app helps an insurance company in England estimate car insurance premiums by measuring driving for smoothness, anticipation, cornering and speed

Volkswagen promoted its new Amarok model in Turkey by engaging with mall visitors through a third-party mobile app and beacon-enabled billboards. As much as 43% of invited customers accepted the test-drive when "the car was calling"

A leading Chinese car maker saves tens of millions of dollars each year on audits and inventory management through an automated location-tracking solution for all large components and finished vehicles

A transportation platform developed for a Norwegian transport provider allows to optimize fleet operations, improve safety and efficiency through on-board sensors, communicate within a team, track driving patterns, and reward individual truck drivers

476 companies from 60 different countries are registered on Proximity.Directory. North America and Europe are leading the game with 77% of the total number of companies coming from there

As of Q4 2017 18,763,000 sensors are registered on Proximity.Directory

Cooperation with mobile audience owners, data monetization, and online/offline retargeting drive scalable personalization, increase revenues, and improve satisfaction of final customers

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CHALLENGES OF THE AUTOMOTIVE INDUSTRY CAN BE SOLVED THROUGH LOCATION DATA AND TECHNOLOGY

Average returns in the automotive industry are low

The global automotive industry is more challenged than it seems to be from the first look. Even though profit margins of the top automakers are quite high, other key financial indicators signal about structural problems. Total shareholder return and return on invested capital in the automotive industry are extremely low. For instance, in 2016, the shareholder return in the automotive sector was 3 times lower than the average market return according to the Standard & Poors 500 Index*.

Why are the returns so low?

First, customers are demanding more and more technologically advanced components that are costly to make. Second, tough competition forces brands to keep consumer prices as low as possible. Third, car manufacturers struggle to understand what will drive profits in the future as the whole concept of owning and driving vehicles is under question. Car makers try to keep all activities in house, invest in R&D, and bet on acquiring tech partners. It seems that key players of the automotive industry are making decisions in a hectic rush not to fall behind the competitors instead of analyzing what really drives customers' decisions and following strategic long-term ambitions. As a result, the costs are high, but the returns are low.

What is the solution?

More than 15% of a car cost is related to sales and distribution*. Location data and technology make it possible to minimize these costs, increase capital returns, and drive customer loyalty.

Location technology for inventory management

Car makers and component suppliers that implement location tracking solutions for inventory management can save tens of millions of dollars each year on audits, control, and eliminate inventory losses.

Location data and technology for car dealerships

Although in the US and Europe car makers are legally tied into dealer relationships, there is still room for improvement. Smart positioning of car dealerships based on demographic and location trends can optimize expenses related to facility management. Moreover, location data and technology allow to choose the right mix of omnichannel marketing and target customers more effectively.

Mobile apps for personalization

Building direct relationships with customers through mobile apps allows not only for increased customer loyalty, but also provides the opportunity to get to know your audience better. Location data generated by mobile apps, where users live, work, and have fun on the weekends, combined with demographic data, provides insights on customer's needs and allows companies to establish a personal approach to every client. Developing additional services based on customer profiles in a certain area attracts additional sources of revenue. In other words, if car brands and dealerships truly understand their customers by leveraging data, they will not have to push their products to customers anymore. Instead, they can attract revenues by simply offering solutions to customer's problems.

HOW TO CREATE A PERSONALIZED LOCATION-BASED APPROACH TO CUSTOMERS?
Some Practical Tips

Create Customer Profiles
Based on Apps and Location Data

Smartphone apps can tell a lot about a customer. Customer segments can be created based on the mobile apps that are downloaded on a specific device and leveraged for contextualized targeting. For instance, imagine a person who actively uses apps related to a conscious energy consumption, stock market analyses, and fitness tracking. Also, imagine she travels a relatively short distance from home to work and lives in a medium-income neighborhood. We can suggest that this person would be interested in electrical and hybrid vehicles and should be invited to test drives to the nearest dealerships.

Geotargeting

Geotargeting allows to interact with specific customers when they are in a close proximity to a store and are likely to accept the offers. An average user spends more than 5 hours per day interacting with their mobile device and often asking for help. Technology such as GPS, geofences, and beacons allow to accurately determine when a customer is around a dealership. Serving relevant and contextualized ads on a mobile device should add simplicity to customer's life and solve their problems.

HOW TO CREATE A PERSONALIZED LOCATION-BASED APPROACH TO CUSTOMERS?
Some Practical Tips

Omnichannel Approach

Bringing a physical and an online world together is not a new concept anymore, yet most of the brands and marketers still struggle to do it. A car dealer or an automaker should know what car brands a user recently searched for, which criteria seem to be the pain points for her, when was the last time she visited a dealership, where did she go, etc. Having all the data on online and real-world customer behavior should let a dealership to approach a customer when she is in need. For instance, if a customer recently compared several electrical vehicles and searched information related to EV charging facilities, an ad that pops up when she approaches a dealership offering in-person consultation regarding hybrid and electrical vehicles will have a high acceptance rate.

Offering Additional Services

Additional services help companies develop long-term relationships with customers. Offering route mapping services and parking tips, analyzing traffic situation in specific areas, offering discounts to restaurants or car repair services based on a customer's location are just a few ways of developing a customer loyalty. Services offered through mobile apps not only drive additional sources of revenue for different market players, but also allow to better understand customers by analyzing their location, behavior, and demographic data.

LOCATION TECHNOLOGY
IN THE AUTOMOTIVE IDUSTRY

ONE20

Use case provided by Plot Projects

OBJECTIVE: To improve the life of American truckers on the road and help them save money

SOLUTION BY

PlotProjects

TECHNOLOGY USED

App   Geofencing

GEOGRAPHY

Netherlands

RESULTS

- Since ONE20 started using Plot Projects, they saw a 500% increase in parking status updates

- Parking availability is shared with their trucker community helping drivers to plan their trips better

ONE20 is on-the-road companion for truck drivers. They provide free services, technology solutions and mobile applications to individual american truckers. These tools make it easier for drivers to get to their destinations, save time and money. ONE20 is using Plot Projects' mobile location technology to further improve the experience of their customers.

ONE20 is working on several fronts:

1. Encouraging truckers with timely alerts to rate their on-the-road experiences

2. Helping truckers save money by promoting deals and discounts at travel centers

3. Updating truckers on the status of weigh stations using location data

Driver-sourced information is an important part of ONE20's service. For this reason, they want truckers to use their app more often and share more information with the trucking community. Using Plot Projects, they remind truckers to rate the parking availability upon the arrival to their everyday stops. Without these location-based notifications, drivers forget to use the app. This real-time information is shared with the community, helping other truckers plan their trips and find the right place to stop along the way.

Another pain point for truck drivers is weigh stations - they can be busy, the inspections can be very time-consuming. To help truckers plan their trip better, ONE20 is planning to share the status of weigh stations with their community. At the moment, this process is done manually. To automate it, ONE20 is planning to use location data generated by Plot Projects' geolocation technology to determine whether weigh stations are opened or closed.

AUTOLAND VAN DEN BRUG

Use case provided by Lightcurb

OBJECTIVE: To approach customers in a digital interactive manner and bring together the offline world with the online world

Lightcurb

App   Beacons

Netherlands

RESULTS

- Improved customer loyalty: customers receive up to date information about the nearest dealerships

- Individual approach: the dealership welcomes customers at a personal level and forms a sales strategy

Nowadays the process of purchasing a car happens more and more online. In the online world it is a must to have good search engine optimization and to be user friendly, but what about the real offline space? Physical people at a store deserve the same attention. The sales process is totally different compared to a few years ago. Customer experience is the key to offering a good service. Beacon technology in combination with the Lightcurb platform is an excellent fit in the gap between the online and offline worlds. How? Simply by placing beacons at the entrance the customer will receive a welcome notification on their phone. Simultaneously Autoland van den Brug receives a trigger telling a customer is about to enter the shop.

It is possible to extend the experience even further. When connecting a customer relationship system more information can be shown when a customer enters the shop. For example, the purchase history. With good information the customer can be well-informed, enhancing their experience.

In order to strengthen the delivery of information it is also possible to equip cars in the showroom with a beacon that sends personalized relevant content to the customer. For example, for one customer, information about the amount of horse powers and the torque may be shown. For another, information about the color possibilities and energy savings.

With the Lightcurb platform the information can be filled in easily and the capabilities are limitless. For example it is also possible to send a notification about a promotion video of the newest car in the showroom.

AUTOLINE INSURANCE COMPANY

Use case provided by Accent Systems

OBJECTIVE: To monitor the behavior of their clients on the road and record how well they drive, with the objective of rewarding the driver with lower premiums

App   Beacons

United Kingdom

RESULTS

- More than 3.750 beacons spread around UK cars

- The number of beacons is growing which proves the concept of use

- More accurate insurance premiums for both involved parties: the drivers and the insurance company

Autoline Insurance Group is one of the fastest growing financial services companies, offering a broad range of insurance, mortgage and financial products. The first time Autoline introduced beacons to their clients was in August 2015, under the motto: "Drive safely and make big savings on your car insurance".

Accent Systems' iBKS beacons allow to track all insured drivers' journeys. Beacons are placed in each car and, paired with the ChilliDrive app, monitor the behavior of drivers in the road. The mechanism works the following way. The beacon tells the smartphone app when a driver gets in the car, and then the app measures the driving for smoothness, anticipation, cornering and speed. Drivers get a score after each journey. The better they drive, the more they save.

Accent Systems, gives a personal and direct dealing to all their clients, with the objective of having the easiest and quickest communication. As David de Celis, in Business Development at Accent, said: "We like to empathize with the client; we try to understand what they want to give them the most accurate solution for their needs".

VOLKSWAGEN AND TURKCELL

Use case provided by Poi Labs

OBJECTIVE: To attract customers to test drive the new Volkswagen Amarok

POILABS

App   Beacons

Turkey

RESULTS

- 43% of the customers accepted the test drive

Turkcell is the largest mobile operator in Turkey having more than 35 million subscribers. PoiLabs ibeacon SDK was implemented in their Turkcell mobile applications which were mainly used by their subscribers to manage their accounts and use different services.

Turkcell was using its CRM data and mobile applications to target potential customers for promoting other brands.

Volkswagen wanted to promote its new Amarok model in a different way. They wanted to reach the potential customers and they partnered with Turkcell's to use their customer data.

Volkswagen inserted a large billboard inside a mall and beacons were installed around it. When the potential customers passed by the billboard, they got an IVR call from the "car". It was giving more information about itself and at the end of the call, it invited the customers to the parking area to see and test drive the car.

In this campaign, Turkcell's "Hesabım" mobile application was used to reach customers'. Instead of sending push notifications, IVR call was used to make the experience more unique.

You can watch the video of the campaign here.

A MAJOR AUTOMOTIVE COMPANY IN CHINA

Use case provided by Ubudu

OBJECTIVE: To run car stock inventory in an automated and secure way, across 2,000+ warehouses

ubudu asia

App   Beacons

China

RESULTS

- Better data, both in terms of accuracy (100% success rate) and of frequency (>1 audit/hour)

- The impact on the balance sheet amounts in tens of millions of euro

- Cost saved by not sending auditors onsite (1 trip/month to each 2,000 warehouse = 12 million euro)

Before the implementation of the Ubudu solution, the client had its auditors to browse the country and visit the 2,000 warehouses regularly in order to control the processes for irregularities such as cars sold but not reported, cars which disappeared, etc. Each of these visits cost money to the client, and they could not be run every day. Therefore, the client had poor visibility over the inventory, with high impact on its balance sheet.

Ubudu implemented a system to track cars automatically using BLE beacons plugged into the cars' electronic systems in order to report vehicle-specific data in addition to its proximity. Using mesh networking, vehicles could pass the data from one to another, with data being collected and shipped to headquarters using a smartphone in the dealerships.

Using this system, client's headquarters is able to monitor in real-time the stock across the country, query vehicles at any time, reward good dealers, and send people on site only when absolutely necessary.

TATA MOTORS

Use case from BeaconsTalk

OBJECTIVE: To Engage with visitors at EXCON 2017 Exhibition and drive traffic to the Tata Motors stall

beaconstalk

Beacons

India

RESULTS

- 23,000 impressions, ~4,500 clicks

- 20% CTR, 175+ selfies shared on social media (with audience reach of 50,000+)

- 300 visitors participated in the tipper activity

TATA MOTORS is amongst top-5 manufacturers of trucks in the world and the largest commercial vehicle OEM in India with global revenues of US$42bn. EXCON is South Asia's largest exhibition of commercial vehicles and construction equipment with over 1,000 exhibitors and 40,000+ business visitors from over 20 countries. EXCON 2017 showcased 300+ new product launches at the event. The campaign was designed to inform event attendees (fleet owners) at the EXCON 2017 exhibition about the launch of new range of trucks (Signa 3718, Signa 2518, Prima LX 3125) by Tata Motors and invited them to visit the Company's exhibition stall to have a look at the vehicles.

The campaign was delivered through beacons that were deployed across the venue covering an area of ~250,000 m^2. Visitors in proximity of these beacons received Nearby notifications (Eddystone) on their mobile phone about the trucks on display at Tata Motors stall and an invitation to visit the stall. On clicking the notifications, detailed information, including brochures was displayed on the mobile browser.

The beacons at the stall engaged visitors with branded infotainment such as taking branded selfies, videos and other socially shareable information.

CAR REPAIR CENTER

Use case from Navigine

OBJECTIVE: To improve logistics and maintenance processes

Navigine

App   Geofencing

Russia

RESULTS

- Employees spend up to 30% less time to perform their daily operations
- Greater maintenance process efficiency and cost savings

At car repair centers business processes violations sometimes take place. The biggest challenge is service interruptions that delay the whole maintenance process. As a result, such situations cause client's dissatisfaction and companies lose their customers. That is why Navigine have come up with a solution that helps:

- to notify controlling managers on the expiring terms of car repairing and track timely work performance
- to increase the efficiency of obtaining maintenance status
- to get analytical reports for any period of time, to detect delay time and stages
- to identify bottlenecks in maintenanca service based on analytics

When a client's car arrives at a service center, employees set Bluetooth Low Energy (BLE) radio tags inside a car with a transmission range of ~ 50 meters and self-powered. The premises are equipped with BLE gateways that collect signals from BLE tags and transfer it to the server where tags positioning is calculated. Real-time location information is displayed in a single web interface. The system allows car tracking in all zones with automatic calculation of dwell time. It can also provide notifications on potential business process violations, for example when a car is located at a parking lot for too long. Flexible web-interface allows managers to:

1. track the movement of cars (personnel, equipment) in real-time
2. receive analytical location reports in time
3. automatically get notifications about events related to downtime
4. demonstrate a high technological level of a service center to potential customers and partners

Using Navigine solution managers of the service center marked the whole center territory into 10 separate zones. Each time when a car crosses the zone boundary, managers get notifications. The system also tracks long-term presence/absence in a specific zone and detect any deviations from the technological processes. In total the center was equipped with 33 gateways that track up to 150 cars simultaniously.

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THE STATE OF PROXIMITY

The information contained in the following section has been aggregated from data provided by Proximity.Directory members.

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PROXIMITY SOLUTION PROVIDERS BY COUNTRY
Global distribution of Proximity Solution Providers

■	Europe	38%
■	North America	38%
■	Asia	14%
■	South America	3%
■	Oceania	3%
■	Africa	3%
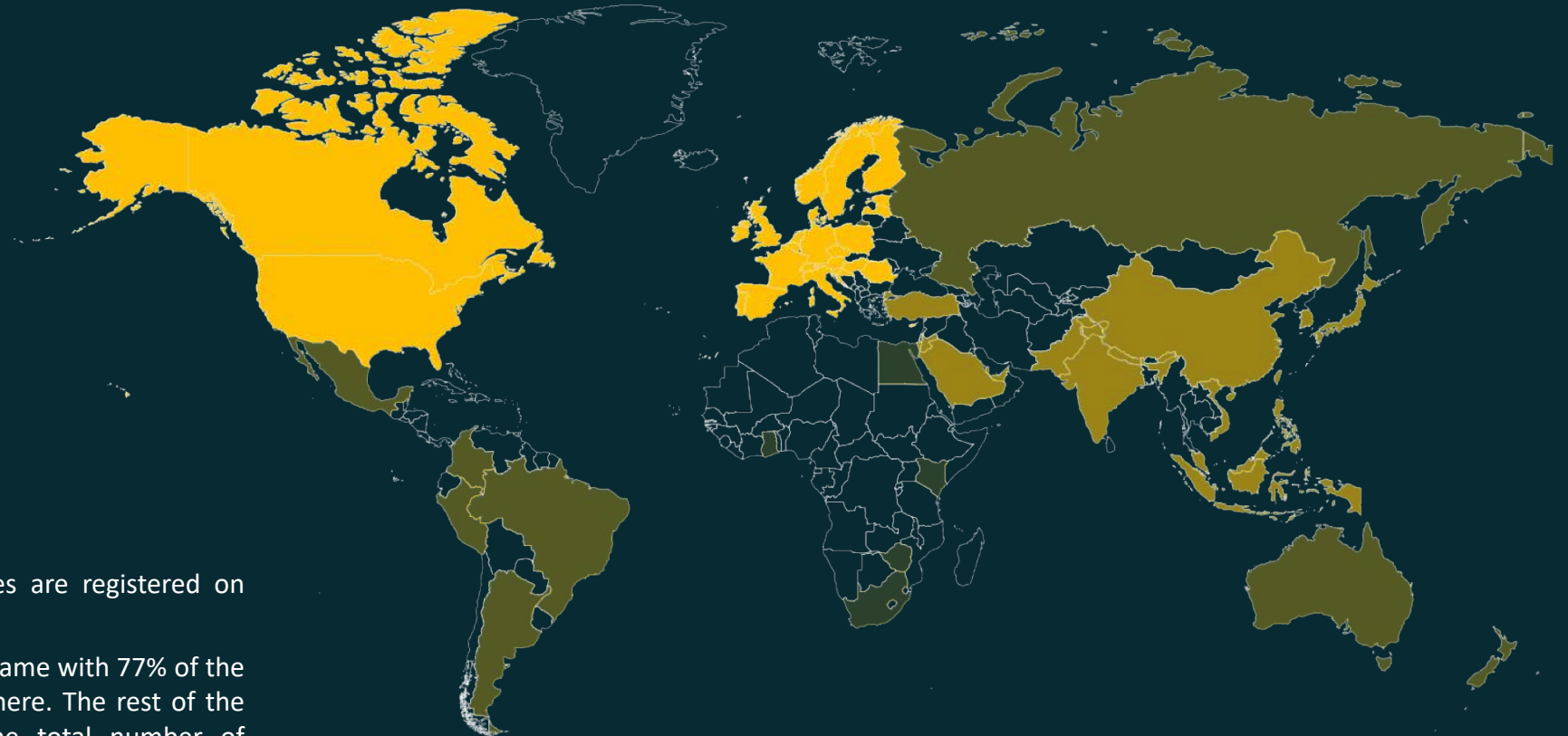
476 companies from 60 different countries are registered on Proximity.Directory.

North America and Europe are leading the game with 77% of the total number of companies coming from there. The rest of the world accounts for just over 20% of the total number of registered providers.

PROXIMITY SOLUTION PROVIDERS BY COUNTRY
Global distribution of Proximity Solution Providers

Most of the companies registered on Proximity.Directory are from the United States, 158 out of 476. United Kingdom is one the second place with 54 registered companies. India has caught up with Canada in this quarter, the two countries are sharing the third place.

Interesting to note that one of the largest gatherings of the international geospatial community, the Geospatial World Forum, took place in Hyderabad, India, in January 2018. Technological companies and industry leaders from more than 50 countries argued that geospatial technology is related to the 4th industrial revolution which will transform the way the world functions.

United States 33 %

United Kingdom 12 %

Canada 5 %

India 5%

France 3 %

Italy 3 %

Spain 3 %

Australia 3 %

Germany 2 %

Netherlands 2 %

Norway 2 %

China 2 %

Other 26 %
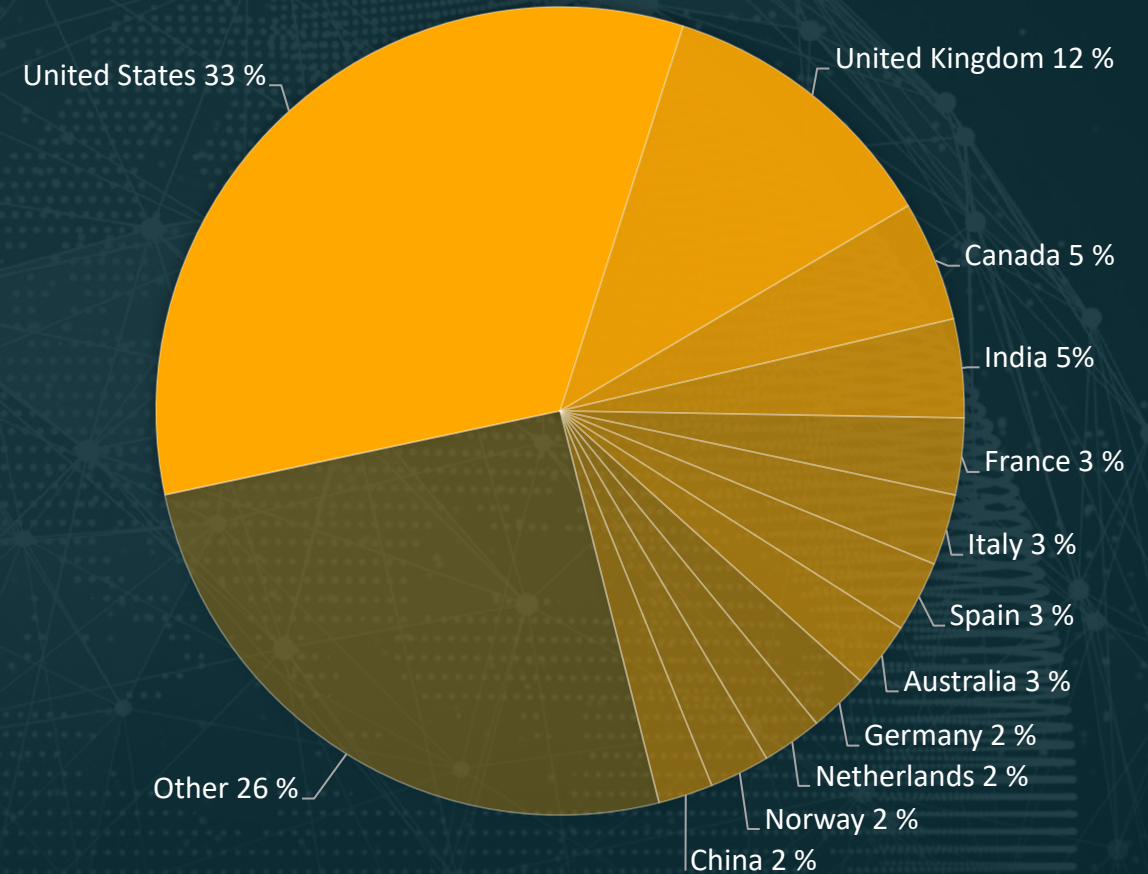
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The Proximity Solution Provider index (PSPi) is based on the information provided in company profiles and is not a scoring of the companies' success.

The following measurements are taken into account for the ranking: whether the company is in commercial or pilot stage (max 2 points), clients (max 1), sensors deployed (max 2), number of employees (max 0.5), geographic presence (max 0,5), number of use cases in the profile (max 3), when PSP last updated the profile (max 1). It is possible to get a total maximum of 10 points, and the scorings are weighed differently depending on what is most important. For example, having a company at a commercial stage is a more important aspect compared to the number of employees. In order to be classified at a commercial stage, it is mandatory to have at least one commercially launched use case in addition to listed client(s) in the Proximity.Directory profile.

We split the results into hardware and platform to make the comparison more valid.

You can see how companies have moved compared to the previous quarter with an increase/decrease value in the number next to the score.

PROXIMITY SOLUTION PROVIDER INDEX (PSPi)
Hardware Companies

The top-3 leaders of the PSPi hardware ranking have not changed their positions during the last year.

In the last quarter of 2017, Accent Systems, a Spanish-based IoT enthusiast, jumped up two steps forward in our ranking. The company has a wide expertise with IOT technologies such as Bluetooth, WiFi, 4G/LTE, SigFOX, LoraWAN and manufactures devices in a factory located close to Barcelona, Spain.

PSPi HARDWARE

Company	Score	Change
1. Kontakt.io (Poland)	8.2	(-)
2. Estimote (UK)	7.05	(-)
3. Cisco Meraki (US)	5.45	(-)
4. Accent Systems (Spain)	5.35	(+2)
5. BlueUp (Italy)	4.4	(-1)
6. Sensoro (US)	3.95	(1)
6. Shenzhen Minew (China)	3.95	(-1)

(+/-) Difference in company ranking compared to previous quarter

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PROXIMITY SOLUTION PROVIDER INDEX (PSPi)
Software Companies

Swirl has remained an absolute leader in the platform category for more than a year. The company focuses on the retail vertical and offers solutions to retail marketers, store operations managers, and owners of mobile audiences.

Plot Projects has climbed to the top-3 in our ranking for the first time in Q4 2017. The primary focus of the company is to provide location intelligence for mobile apps. Collecting location insights, sending notifications, building user profiles, and online/offline retargeting allow the company to be one of the leading players on the market.

Tamoco is another company that always remains among the leaders of the PSPi ranking. Tamoco provides location insights to businesses, brands, and developers and allows to make smarter decisions.

PSPi PLATFORM

Rank	Company	Score	Change
1.	Swirl (US)	7,6	(-)
2.	Plot Projects (Netherlands)	7,15	(+3)
3.	Tamoco (UK)	5,65	(-)
4.	Aruba (US)	5,55	(+6)
5.	Bleesk (Poland)	5,4	(+17)
6.	Beaconinside (Germany)	5,15	(-2)
7.	Spark Compass (US)	4,9	(-5)
8.	Smart Beacon (Italy)	4,85	(-)
9.	Cassia Networks (US)	4,7	(new)
10.	Purple (UK)	4,6	(-5)
10.	Wingu (Germany)	4,6	(+200)
11.	NearIT (Italy)	4,3	(+14)
11.	Poi Labs (Turkey)	4,3	(+3)
12.	ProximiPRO (Spain)	4,25	(new)
13.	Gimbal (US)	4,2	(-3)
13.	BluVision (US)	4,2	(-3)
14.	Leantegra (US)	4,15	(-8)
15.	Blesh (US)	4,05	(-3)
15.	Signal360 (US)	4,05	(-4)
16.	OnyxBeacon (Romania)	3,9	(-2)

(+/-) Difference in company ranking compared to previous quarter

SENSORS DEPLOYED GLOBALLY
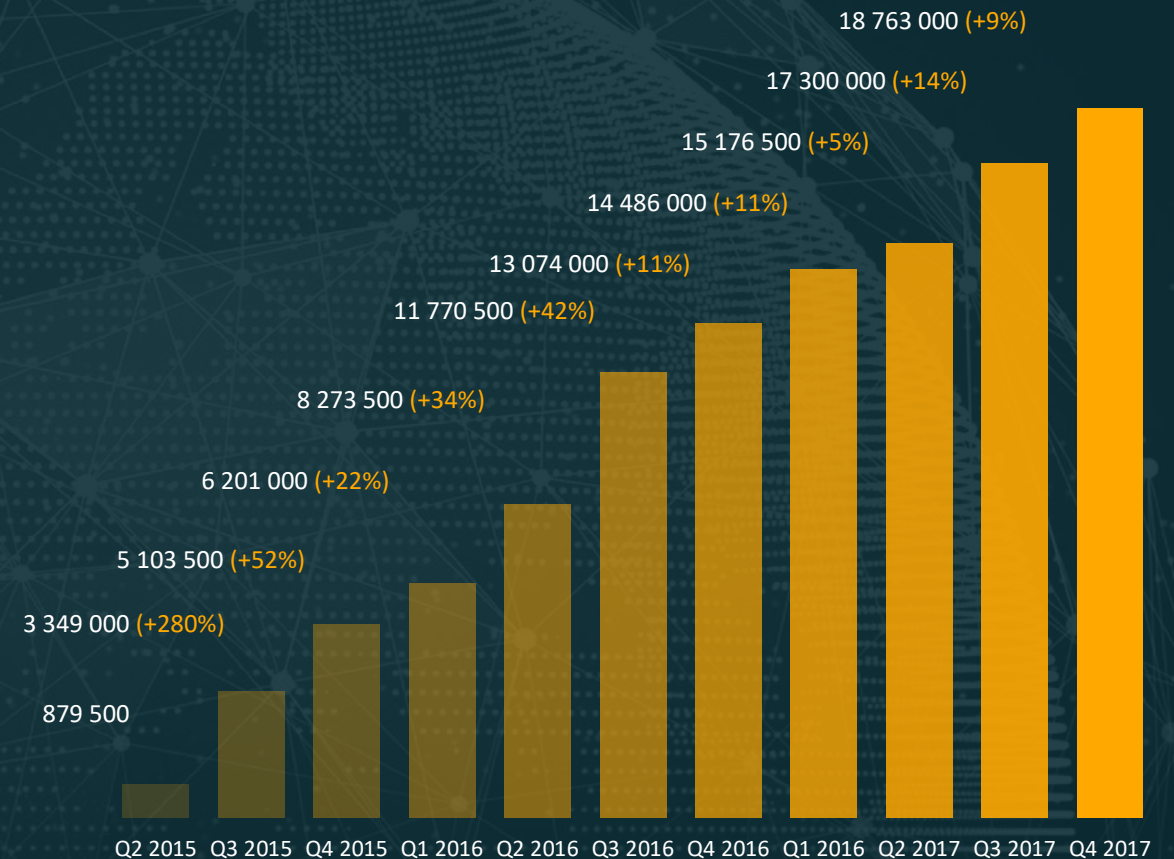## 9% increase in sensor growth in Q4 2017

The world is sensored up further, and as of Q4 2017, 18,763,000 sensors are registered on Proximity.Directory. Even more sensors will spread around the world in the future.

Speaking of automotive industry, modern vehicles have tens or even hundreds of sensors on board that collect all kinds of data. Route, speed, weather outside, tear condition are just of a few of the examples. This will have an enormous impact on the future of driving. Telematics and driver's behavior data can be analyzed in real time and be used to relieve traffic and reduce driver errors.

Nearly 1.3 million people die in road crashes each year, on average 3,287 deaths a day. An additional 20-50 million are injured or disabled*. Different types of sensors can prevent a large percentage of these accidents.

18 763 000 (+9%)
17 300 000 (+14%)
15 176 500 (+5%)
14 486 000 (+11%)
13 074 000 (+11%)
11 770 500 (+42%)
8 273 500 (+34%)
6 201 000 (+22%)
5 103 500 (+52%)
3 349 000 (+280%)
879 500

| Q2 2015 | Q3 2015 | Q4 2015 | Q1 2016 | Q2 2016 | Q3 2016 | Q4 2016 | Q1 2016 | Q2 2017 | Q3 2017 | Q4 2017 |

(+/-) Difference in company ranking compared to previous quarter

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BEACON STANDARDS: iBEACON VS EDDYSTONE
More emphasis on Apple as Google continues to push

POPULARITY OF DIFFERENT BEACON STANDARDS
number of companies on Proximity.Directory supporting a beacon standard

iBeacon can trigger notifications within mobile apps installed on a user's device and is natively supported on iOS.

Google's Eddystone can not only trigger notifications in mobile apps but also in URLs in browsers on smartphones. Eddystone protocol is supported by both, iOS and Android.

Proximity Solution Providers do not want to exclusively choose between iBeacon and Eddystone as most of the companies work with both protocols depending on the use cases. Eddystone is currently supported by the 258 companies on Proximity.Directory out of 476 and iBeacon by 387.

Eddystone: 7, 51, 93, 133, 163, 191, 206, 216, 227, 250, 258

iBeacon: 137, 196, 226, 264, 298, 315, 327, 338, 352, 381, 387

Q2 2015 | Q3 2015 | Q4 2015 | Q1 2016 | Q2 2016 | Q3 2016 | Q4 2016 | Q1 2017 | Q2 2017 | Q3 2017 | Q4 2017
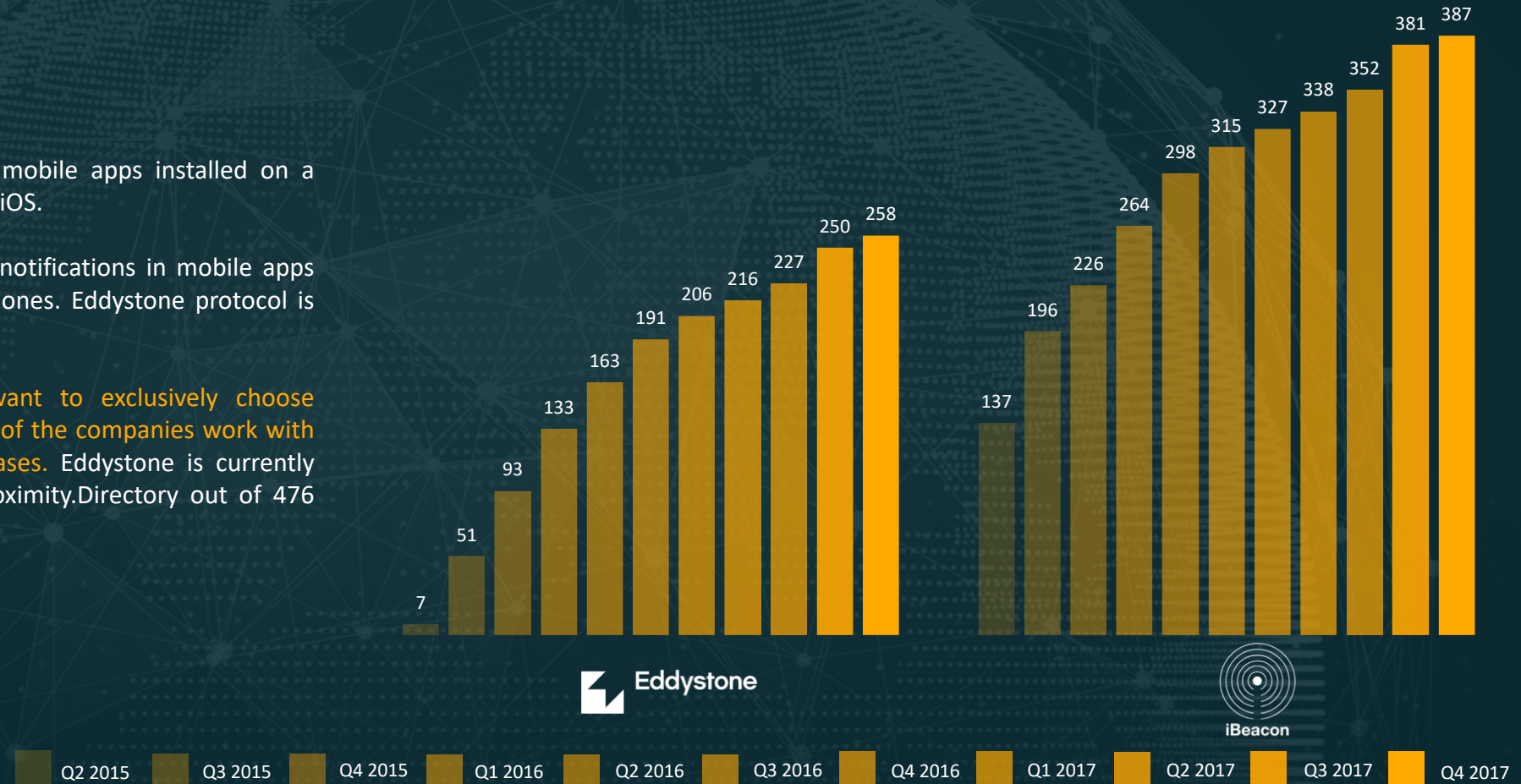
LOCATION TECHNOLOGY AND SOFTWARE
More companies are turning to mobile apps and data monetization

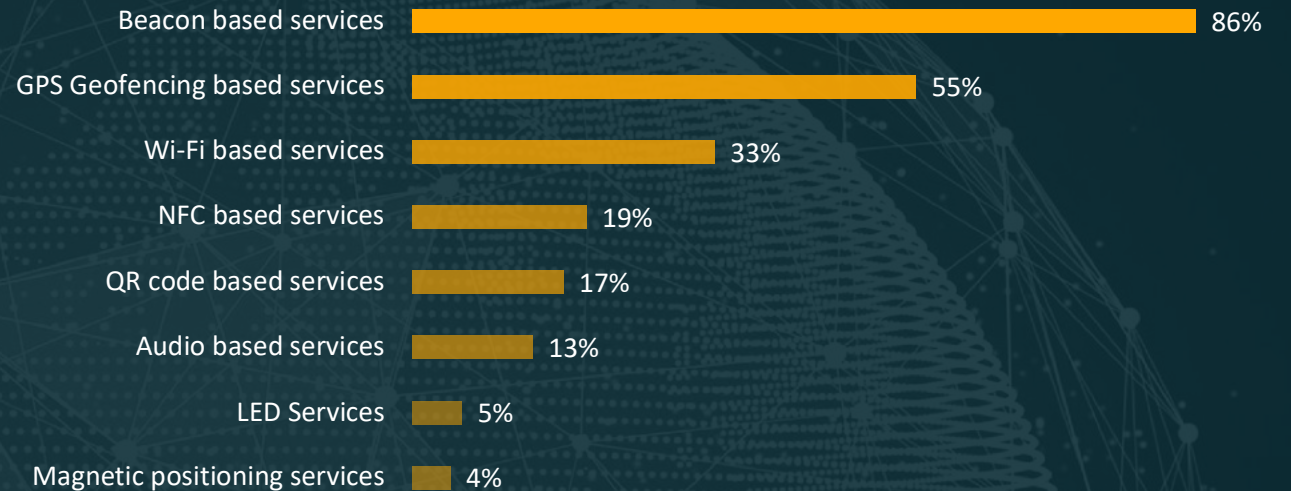To offer proximity solutions, companies rely on eight main proximity technologies and four categories of software. Choosing the type of technology depends on the desirable outcomes and customer preferences.

Even though beacons are still the most widely used technology among the companies registered on Proximity.Directory, we recognize that other types of technology and aggregated solutions find application in the geolocation industry.

"Hard" technology by itself can hardly be used without corresponding software services. Companies provide content management services (77%), analytics (74%), as well as development services related to mobile apps.

TECHNOLOGY

Service	%
Beacon based services	86%
GPS Geofencing based services	55%
Wi-Fi based services	33%
NFC based services	19%
QR code based services	17%
Audio based services	13%
LED Services	5%
Magnetic positioning services	4%

SOFTWARE

Service	%
Content management	77%
Analytics	74%
Mobile SDK	61%
Mobile App for consumers	43%

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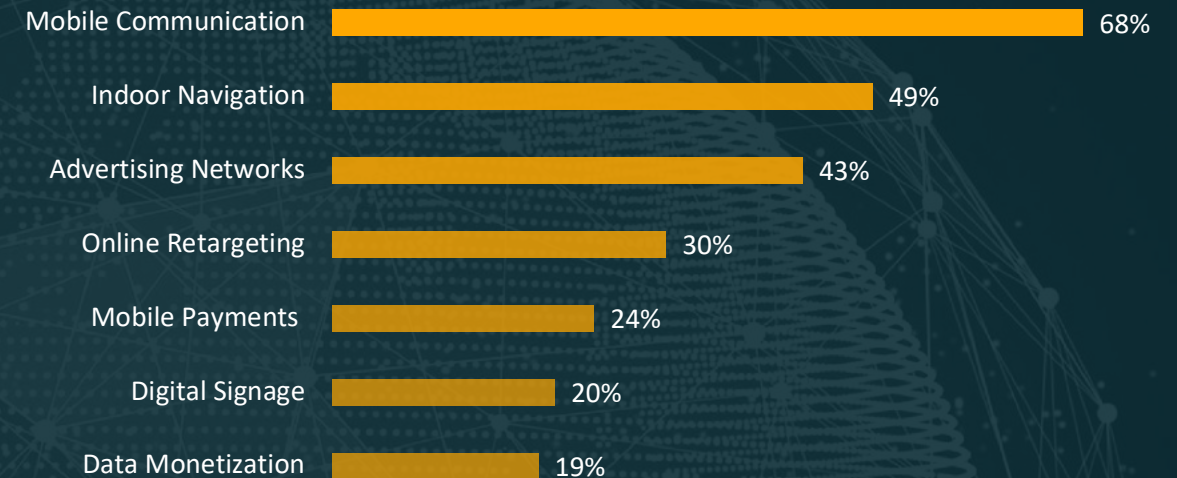
© Unacast 2018   24

PROXIMITY PRODUCTS AND SERVICES
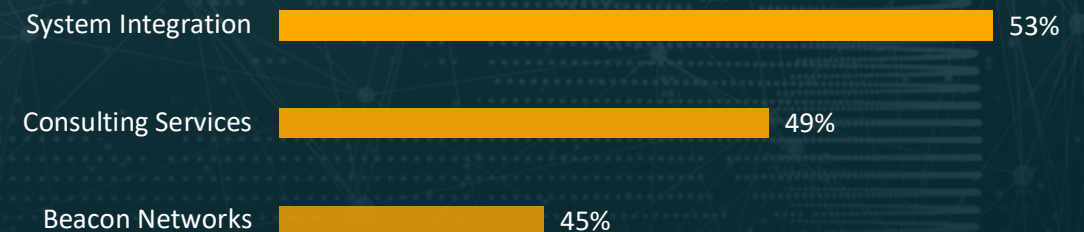## PSPs continue to add value to their product portfolios

As the demand for location data is growing, more and more companies offer location-related products. If before companies registered on Proximity.Directory were mostly focused on proximity marketing and mobile communication, now more and more market players are broadening there perspectives and look for new opportunities. Cooperation with mobile audience owners, data monetization, and online/offline retargeting drive scalable personalization, increase revenues, and improve satisfaction of final customers.

Products can be split into seven main and three additional categories. The most commonly offered services are mobile communication, indoor navigation, and proximity advertising networks. This relates to the fact that most of the clients of PSPs are from retail-related verticals. Companies also provide solutions to their clients through offering additional services such as project management, consulting, and established beacon networks.

PRODUCTS

Product	%
Mobile Communication	68%
Indoor Navigation	49%
Advertising Networks	43%
Online Retargeting	30%
Mobile Payments	24%
Digital Signage	20%
Data Monetization	19%

SERVICES

Service	%
System Integration	53%
Consulting Services	49%
Beacon Networks	45%

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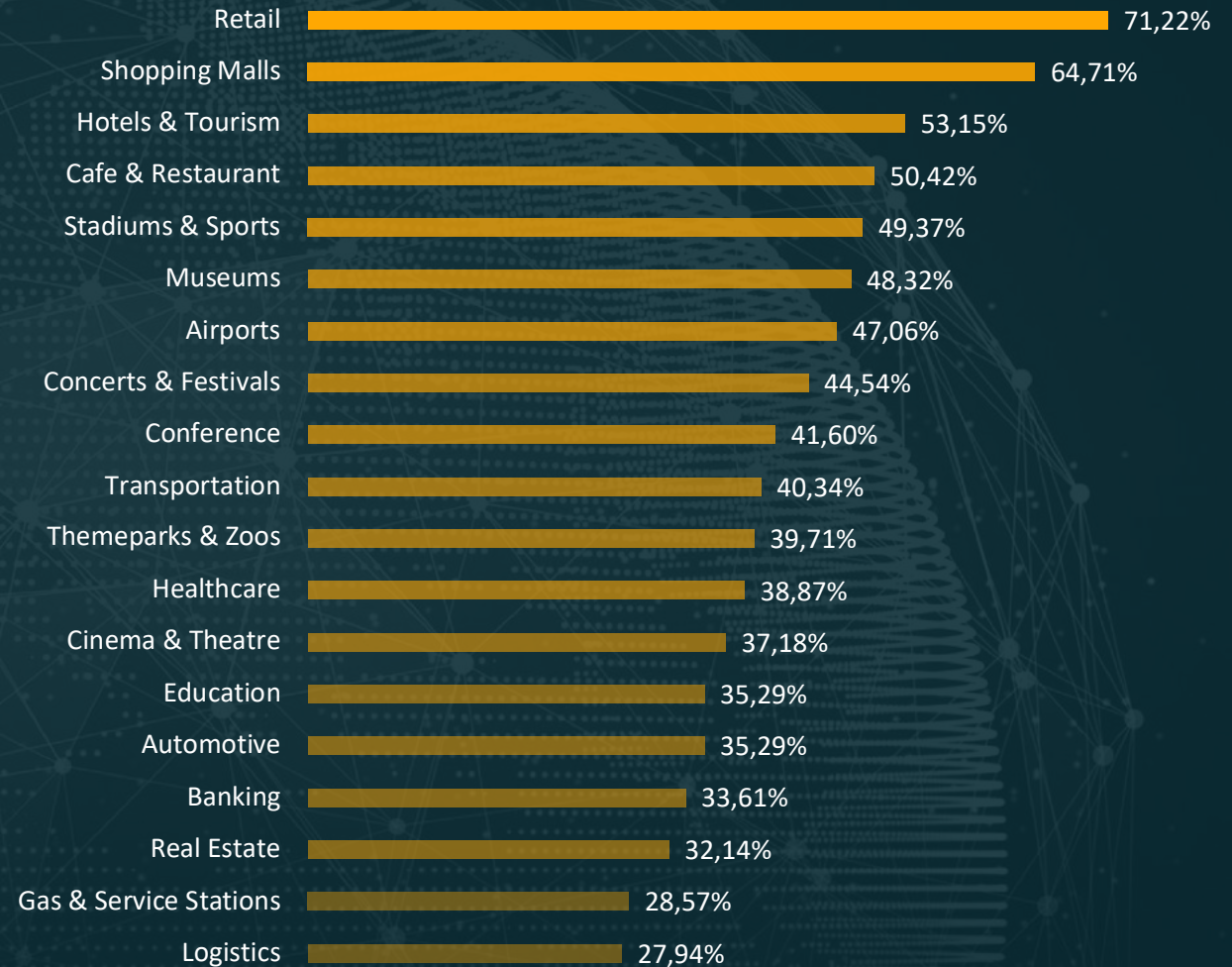
Companies decide to enter new industries and markets

Proximity.Directory covers 19 industry verticals where proximity and location technologies are leveraged. Retail, tourism, restaurants, sports, museums are the top five verticals where we see companies operating.

Companies continue to diversify their product offerings and enter new markets. Since the technology and analytics can be adapted across different industries, companies serve clients from multiple verticals.

Vertical	Percentage
Retail	71,22%
Shopping Malls	64,71%
Hotels & Tourism	53,15%
Cafe & Restaurant	50,42%
Stadiums & Sports	49,37%
Museums	48,32%
Airports	47,06%
Concerts & Festivals	44,54%
Conference	41,60%
Transportation	40,34%
Themeparks & Zoos	39,71%
Healthcare	38,87%
Cinema & Theatre	37,18%
Education	35,29%
Automotive	35,29%
Banking	33,61%
Real Estate	32,14%
Gas & Service Stations	28,57%
Logistics	27,94%

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CATEGORIES OF PROXIMITY SOLUTION PROVIDERS
There are five types of market players in the proximity industry

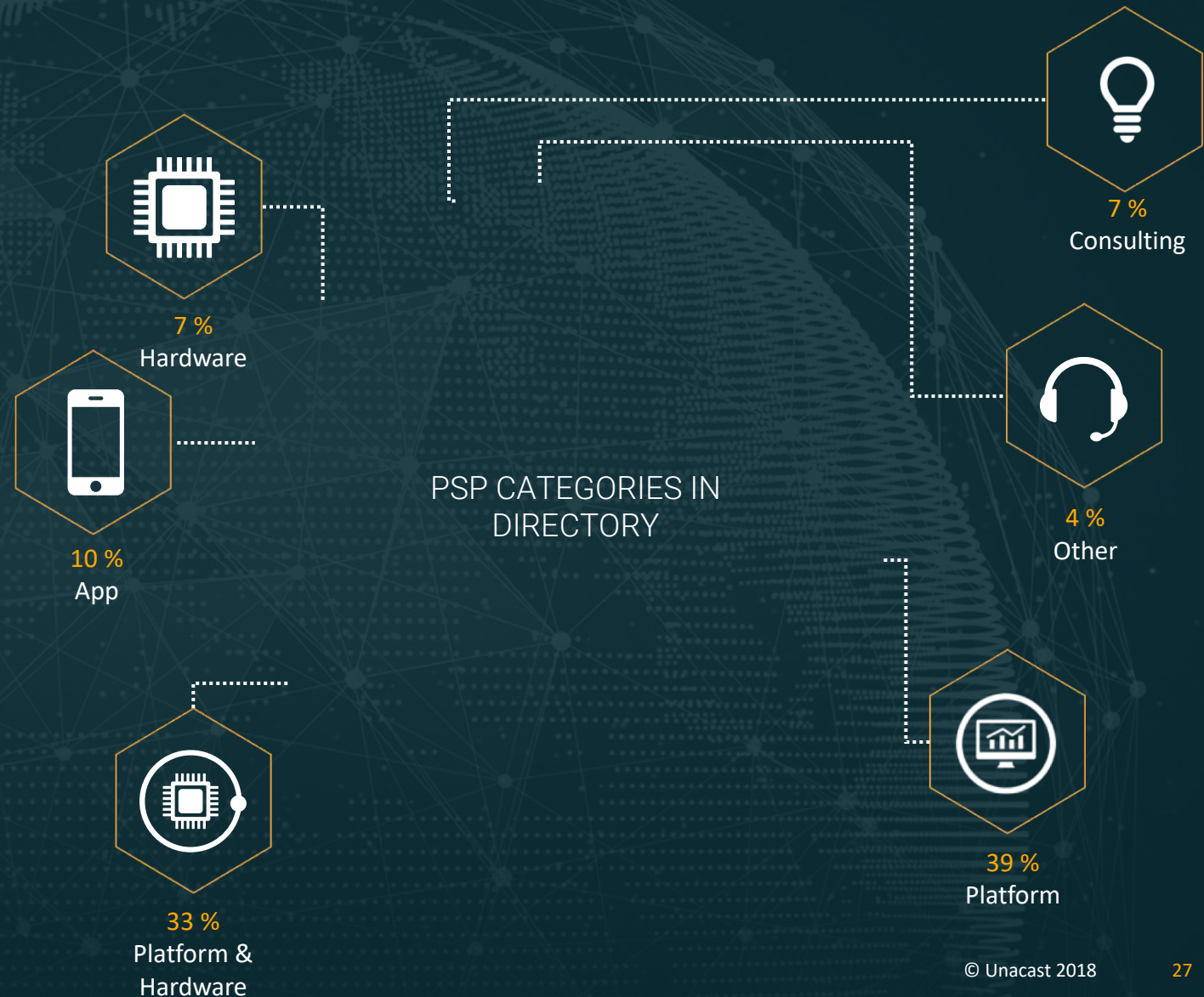185 companies are focused on providing platform solutions. Proximity platform is used to offer products like mobile communication, proximity advertising networks, data monetization, indoor navigation, digital signage, online retargeting and mobile payments. Examples of proximity platforms include Footmarks and Plot Projects.

31 proximity solution providers focus mainly on hardware. Proximity hardware provider typically provides beacons, NFC, Wi-Fi, RFID or other sensors. To manage the hardware, tools for fleet management and SDKs are provided. Examples of proximity hardware providers are Kontakt.io and Estimote.

157 members in the directory provide both a proximity platform and hardware. Examples of platform and hardware providers are Signal360 and Gimbal.

52 members focus on providing and distributing proximity apps (which are essentially proximity platforms). Examples of these apps are ShopAdvisor and Check.

33 companies focus on proximity solutions consulting, such as HeyBuy.

7 %
Hardware

10 %
App

PSP CATEGORIES IN DIRECTORY

7 %
Consulting

4 %
Other

39 %
Platform

33 %
Platform & Hardware

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27

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