

Activate Your Data The Most Popular Analytics, Business Intelligence, & Insights Tools in 2022

Turn Your Data into a Strategic Business
Advantage



Introduction

Data Technology Insights and Research from Companies Around the World

ABOUT THIS REPORT

BuildOps is excited to share this global technology usage report that focuses on analytics, data mining, business intelligence, and other digital technologies. **Our goal is to help construction industry professionals understand the best technology tools and platforms focused on data, analytics, and insights.** Our team identified hundreds of platforms and tools and we invite you to explore, compare, and learn how they can benefit your business.

Some of the largest infrastructure projects produce an average of 130 million emails, 55 million documents, and 12 million workflows. With vast amounts of data being captured from many sources, many firms can't manage and process this much information, which is why right now **95.5% of all data captured goes unused in the Engineering and Construction (E&C) industry.** (Source Aconex Group and Xpera Group).

This report highlights construction companies' analytics, business intelligence, and data technologies used across the following categories:

- Business Intelligence solutions
- Predictive Analytics
- Construction Management
- Big Data
- Customer Data Platforms

Learn how the top companies, including the construction industry, are activating their data to fuel their growth.

Executive Summary

Discover the Tools, Technologies, and Tactics Leading Commercial Construction Companies Use to Win More Customers and Drive Revenue

TOP FINDINGS

This report reveals how construction companies are adopting business intelligence, analytics, and data mining technologies to help grow revenue through new customer acquisitions. Below is a summary of the results.

BUSINESS INTELLIGENCE

Historically companies have invested 3-4% of revenue into IT, software infrastructure, and innovation. Construction companies, however, have been spending **less than 1%** on innovation and tech, but this trend is starting to change.

Construction companies are catching up and understand that data is the new success currency and it is not enough to just capture it - the ability to make data-driven decisions is becoming an even bigger factor for revenue growth. It is no surprise there are over **400 platforms and technologies to choose from** - business intelligence is a major tool that helps companies gain a competitive advantage.

Interest in business intelligence technology is skyrocketing among construction industry companies in the past 4 years, according to Google Trends data.

The top 5 most used solutions: Mode, Tableau, Microsoft SQL Server Reporting, SAP Crystal Reports, and Microsoft Power.

PREDICTIVE ANALYTICS

71% of construction executives rated prioritizing digital skills and making data-driven decisions as a winning move for businesses in the future construction industry ecosystem (Source - McKinsey).

Companies, like Skanska, are using employee, equipment, and material tracking to optimize the location of tools and resources (without this type of optimization - workers would walk an average of 6 miles per day to get equipment and materials needed for work). It's simple optimizations like these that create the most impact on revenue.

The top 5 most used solutions: IBM SPSS, 6sense, Radius, IBM SPSS Statistics, and Appier.

CONSTRUCTION MANAGEMENT PLATFORMS

53% of construction businesses implemented a new construction-specific project management tool in the past 12 months (Source - SoftwareAdvice, 2021). If you are not investing in a construction management platform - you are falling behind the competition.

In the past two years, there has been a significant increase in **interest in construction management software among construction companies. In 2020, the interest index went up from an average of 50 to 100** - according to Google Trends data (1 to 100 scale).

The top 5 most used solutions: Assemble, Sigma, Built, HCSS, and 12d.

BIG DATA

In 2022, Google predicts the popularity index of big data topics rising from 35 to 65 within the construction industry (1 to 100 scale). This means that a large number of construction companies are starting to either adopt or research this technology.

Interesting facts about big data and the construction industry:

- **90% of data generated in the E&C industry is unstructured**. This includes photos, customer reviews, purchase history, and even customer service call logs (Source - FMI).
- **13% of working hours are spent looking for project data and information**. While 30% of E&C companies are using applications that don't integrate with one another. (Source - FMI)
- **"Material waste and remedial work represent 35% of costs in the construction industry**. In this sector, big data analysis can be used to significantly reduce unnecessary costs". (Source - dsxhub.org)

The top 5 most used solutions: Apache Hadoop, Apache Kafka, Apache Apex, Apache Spark, Cloudera.

CUSTOMER DATA PLATFORMS

In the past 6 years, customer data platforms and tools started increasing in popularity in the industry. **Google revealed that the popularity index went from 0 to 100 in the past 6 years for customer data platforms within the construction industry (1 to 100 scale)**.

The top 5 most used solutions: Segment, Bridg, ActTag Commander, Signal, and Ensignten.

BuildOps' customer management and field service management capabilities support your business from top to bottom. [Find out more today.](#)

BUILDOPS

The All-In-One Platform for Commercial Contractors

Capterra ★★★★★ Software Advice ★★★★★

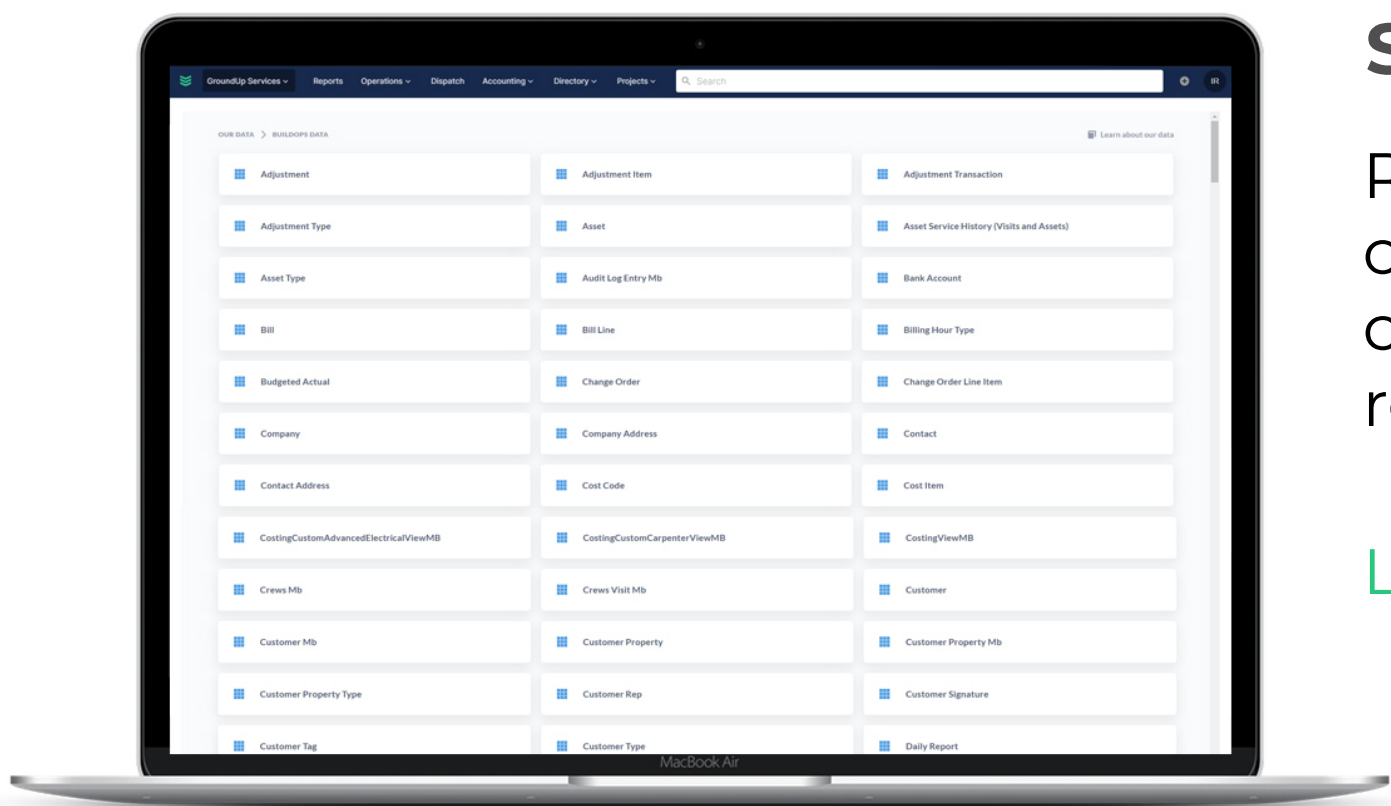
At BuildOps, we are on a mission to bring a true **all-in-one commercial contractor software platform solution**: field service management, scheduling and dispatching, construction project management, quotes and proposals, invoicing, customer management, service agreements and more.

DISCOVER BUILDOPS REPORTING & ANALYTICS

95% of data in the construction industry goes unused! BuildOps Reporting & Dashboards module helps you capture, store, report on, and gain insights from your data.

With thousands of companies around you adopting new technologies - can you afford to not invest in innovation? It doesn't have to be complex - if you are not ready for big data and artificial intelligence, start by capturing data and using our standard reports and views that have worked for many other construction businesses, just like yours.

Package your key metrics and push them to live dashboards. Or, reach out to our team who will help you get value and insights from your data.



STANDARD REPORTING LIBRARY

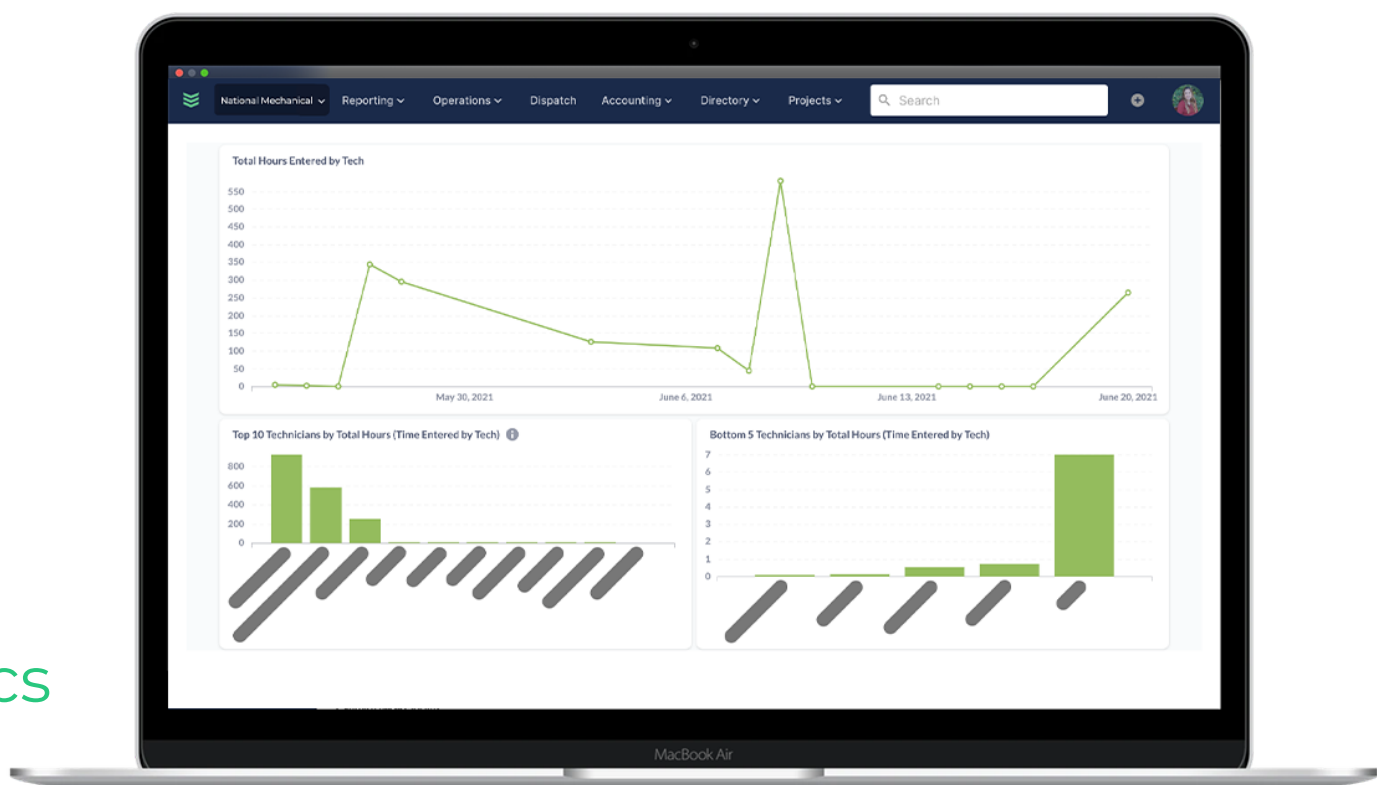
Reporting doesn't have to be difficult - start with our library of reports that help countless construction companies get started with their reporting and analytics.

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VISUALIZE & DISCOVER GROWTH OPPORTUNITIES IN YOUR DATA

Let us help you leverage your data and find insights that create growth opportunities. Standard or custom field data - generate reports and get your insights in seconds.

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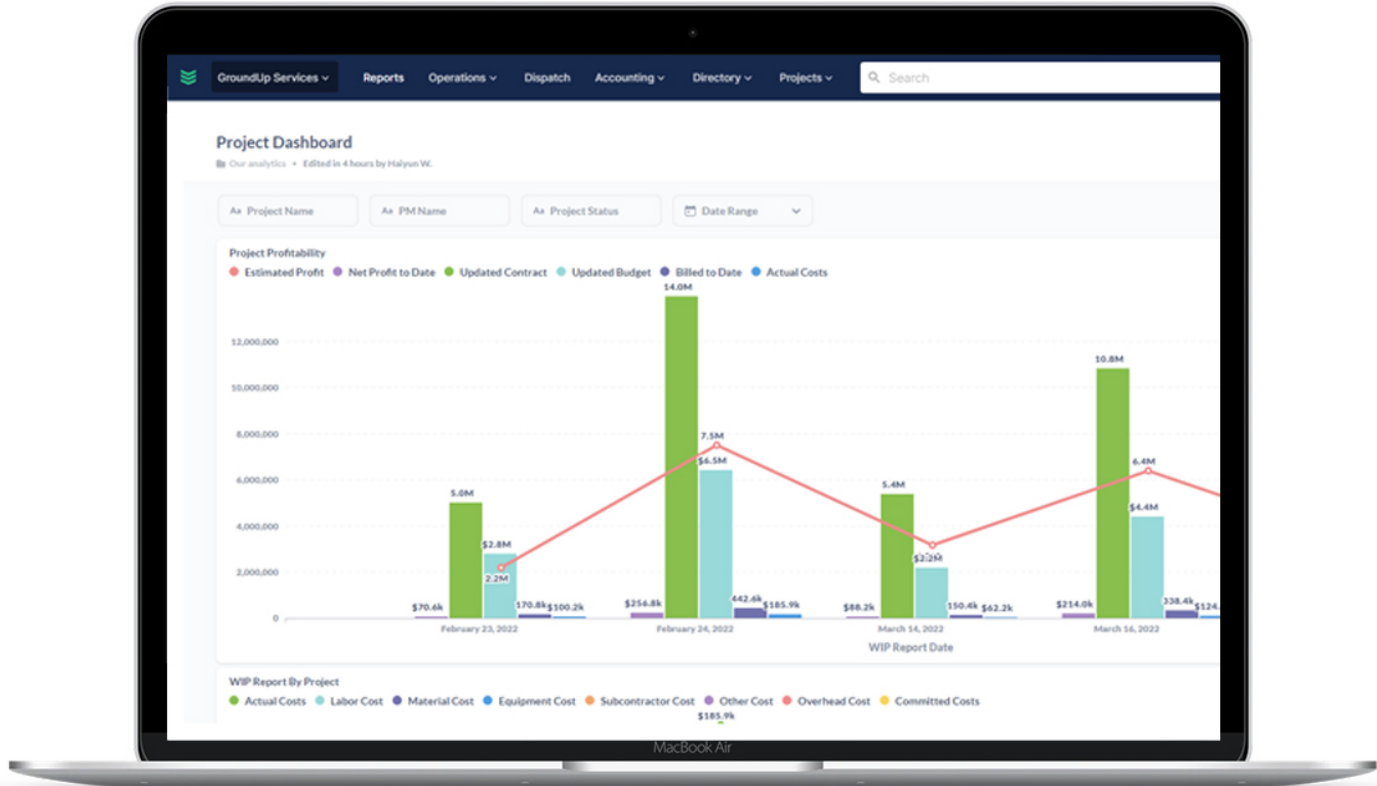
Produce a data dashboard and share metrics in a way that's most useful for you and your team. Don't want to reinvent the wheel? No problem, we have a library of dashboards inspired by our customers that you can start from.

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"CENTER OF TRUTH" FOR YOUR DATA

BuildOps platform enables data flexibility - simply track everything from one place.

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At **BuildOps**, we are on a mission to bring a true all-in-one commercial contractor software platform solution: **field service management, scheduling and dispatching, construction project management, quotes and proposals, invoicing, customer management, service agreements and more.**

LEARN MORE

Trusted By Leading Commercial Contractors



BUSINESS INTELLIGENCE TOOLS

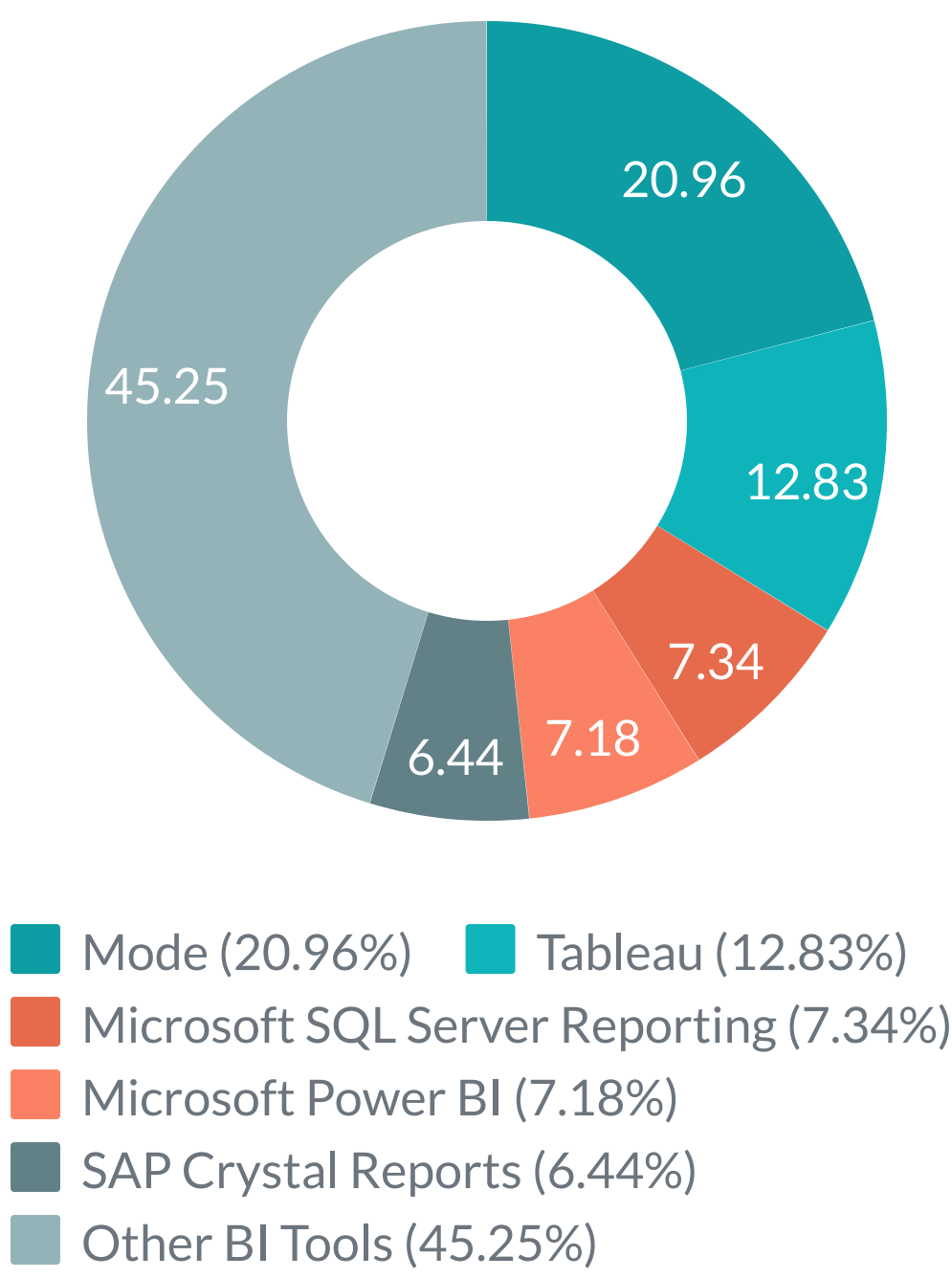
There are over 420 Business Intelligence platforms on the market today and over 260,000 companies around the world that are leveraging them, including many construction companies.

What's a Business Intelligence (BI) platform? A BI platform helps businesses gather, understand, and visualize their data. It serves as the backbone of a company's business intelligence strategy, which is how a company uses the information to make strategic decisions. The purpose of BI platforms is to help companies compete in today's data-saturated world by turning data into a competitive advantage.

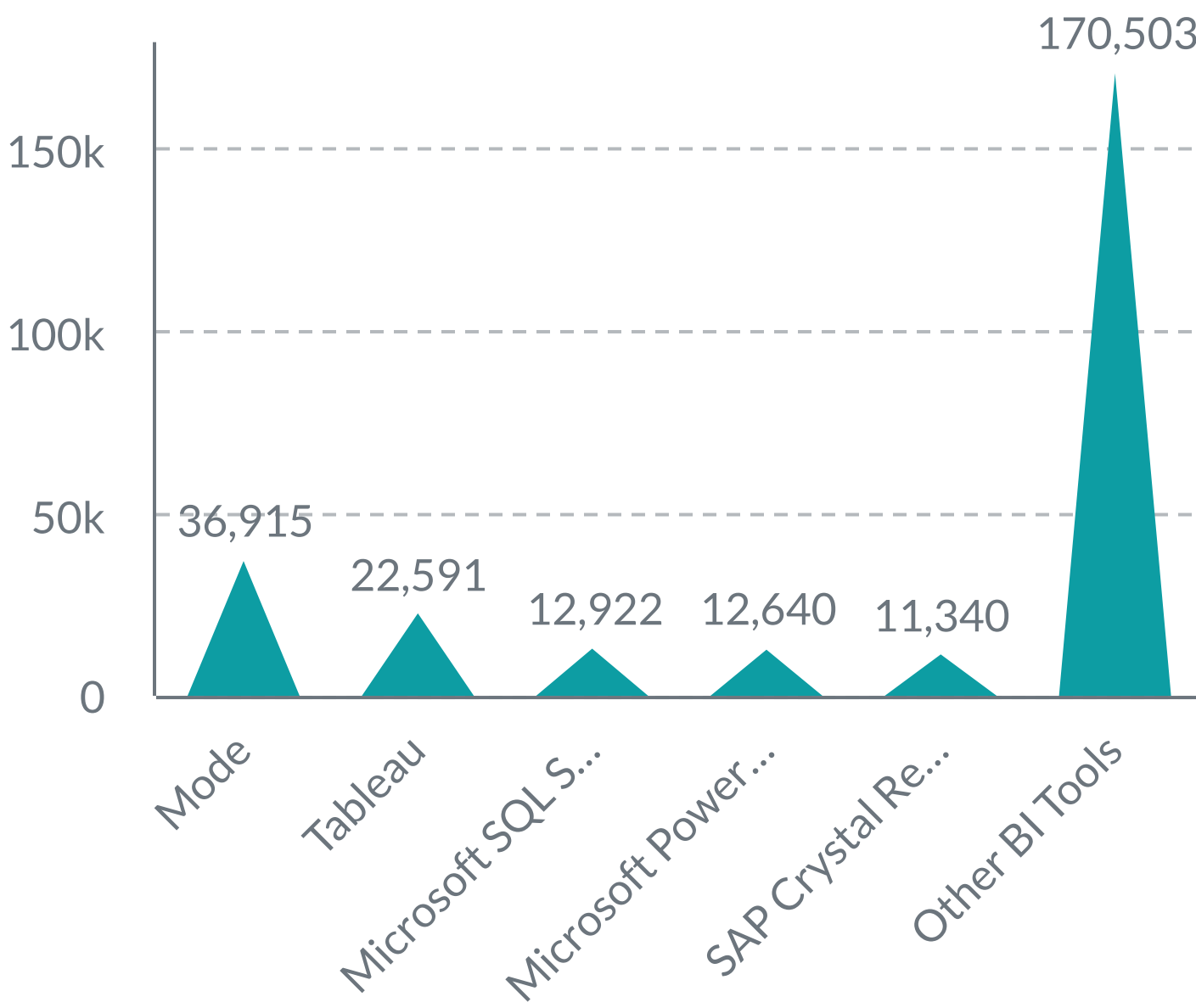
Construction Competitive Advantage Application - In the construction industry, companies use BI tools for pre-construction analysis, visualization of complex data, preparing accurate estimates and bids, real-time resource management and forecasting (estimating manpower, materials, etc.), asset tracking and optimization, fuel cost reduction and other cost controls, and more.

TOP FINDINGS

- Mode, Tableau, Microsoft SQL Server Reporting, SAP Crystal Reports, and Microsoft Power BI are the top 5 most used solutions.
- There is a significant interest in "Business Intelligence" as a topic within the Construction industry. In the past 4 years, Google tracks popularity going from 22 to 92 popularity index (1 to 100 scale).
- Top tools, like Mode and Tableau, are deeply focused on various data visualization techniques. The popularity of these tools in construction is also associated with the ability to visualize complex data and make it simple for everyone to comprehend.
- 71% of executives rated prioritizing digital skills and making data-driven decisions as a winning move for businesses in the future construction industry ecosystem (Source - McKinsey).

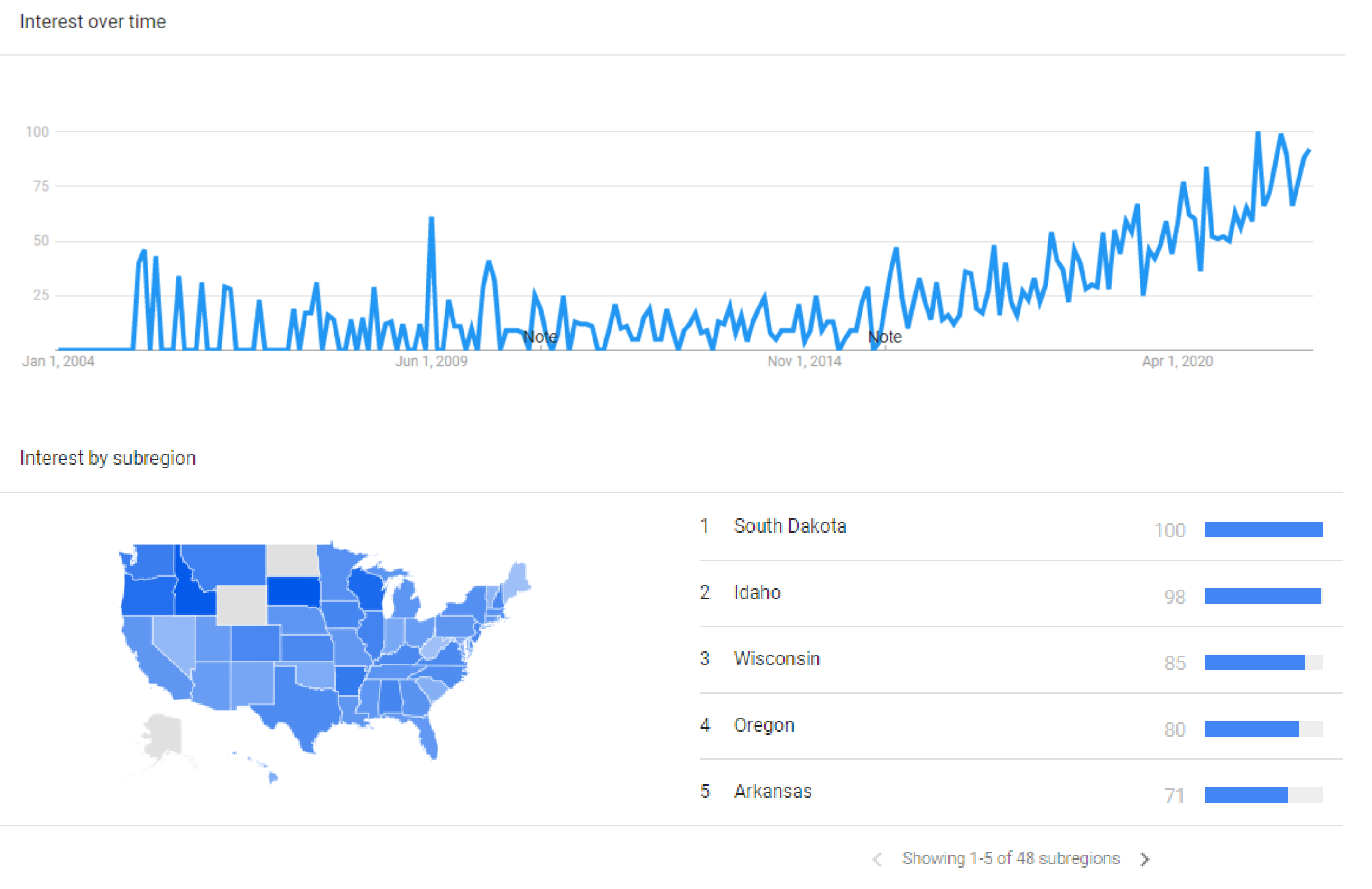


Number Of Companies Using BI



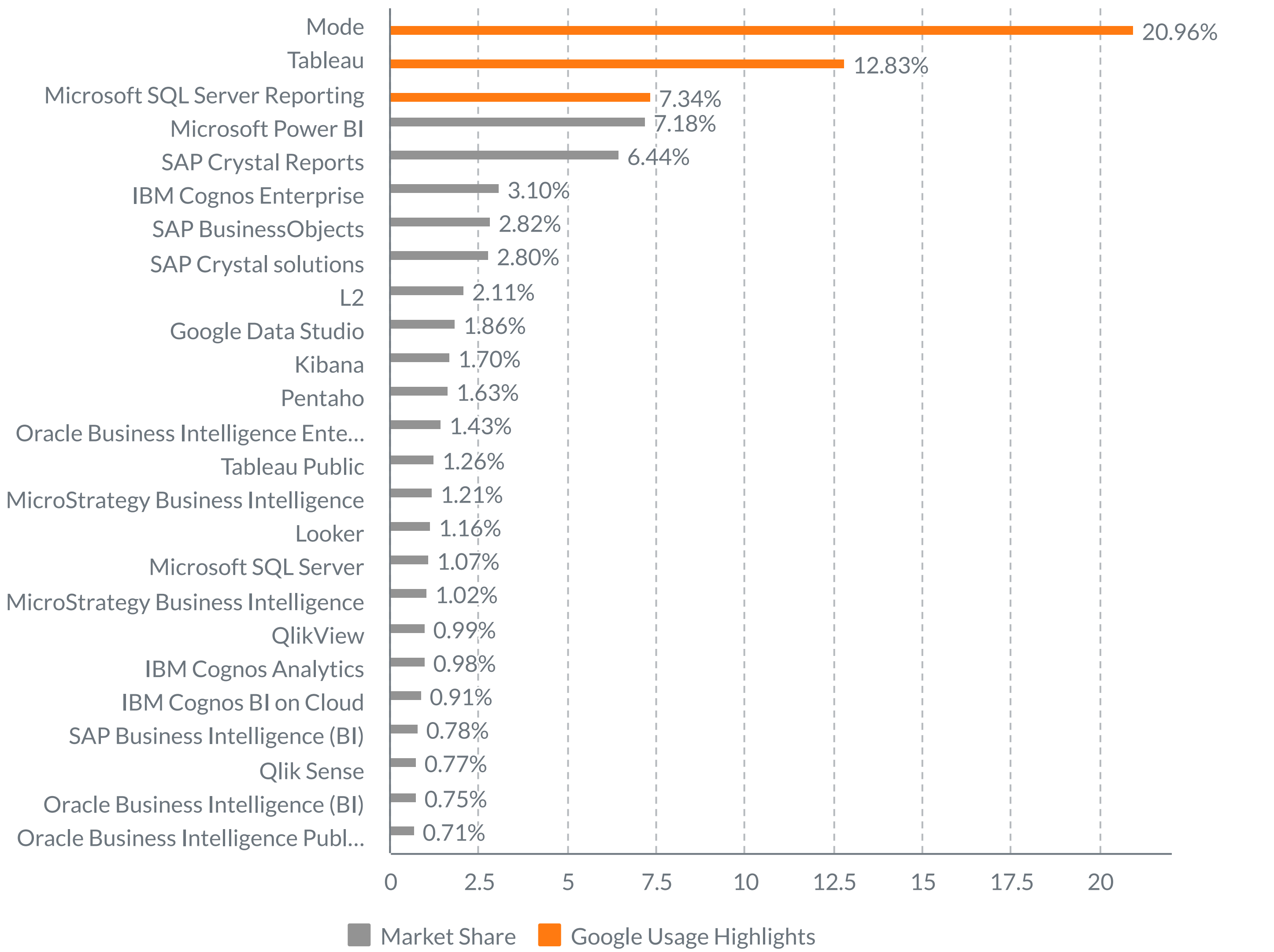
GLOBAL DATA

How popular are of BI tools in the construction industry? Take a look at this Google Trends chart - it highlights the popularity of the BI topic among construction companies with interest skyrocketing in the past 4 years. Google tracks popularity going from 22 to 92 popularity index (1 to 100 scale).



Below are the global Business Intelligence platform usages across 6 million-plus websites. Compare and see whether construction companies differ when it comes to web analytics tools. Here are the top 25 technologies across the top few million websites on the Internet:

Global Business Intelligence Platform Usage Chart



400 business intelligence platforms with lower usage were not included in the above chart

COMMENTS & OTHER FINDINGS

- GlobalData predicts that "construction companies will spend \$1bn. on AI platforms by 2024. This is up from \$436MM in 2019, representing a compound annual growth rate (CAGR) of 19.2% between 2019 and 2024".
- Digital twins are digital versions of objects and systems and are used to make investment decisions based on actionable data such as assessing the performance of buildings in real-time. Digital twins are one of the factors driving BI and AI technology adoption in construction.

PREDICTIVE ANALYTICS TOOLS

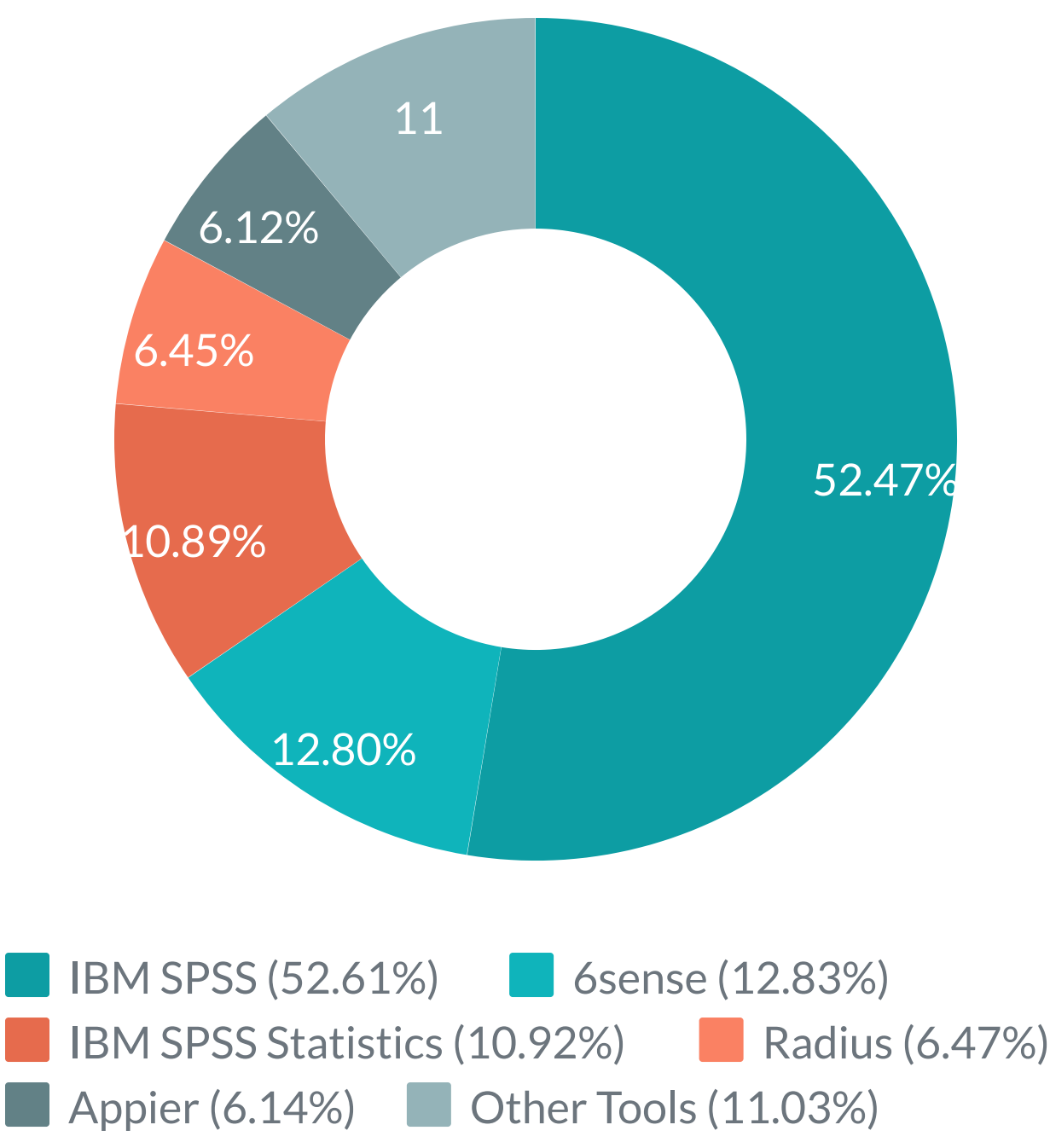
There are over 40 predictive analytics platforms on the market today and over 29,000 companies around the world that are leveraging them including a multitude of construction companies.

What's a Business Intelligence or a BI platform? Predictive analytics is the use of data, statistical algorithms, and machine learning techniques to identify the likelihood of future outcomes based on historical data. The goal is to go beyond knowing what happened in the past to provide the best assessment of what will happen in the future.

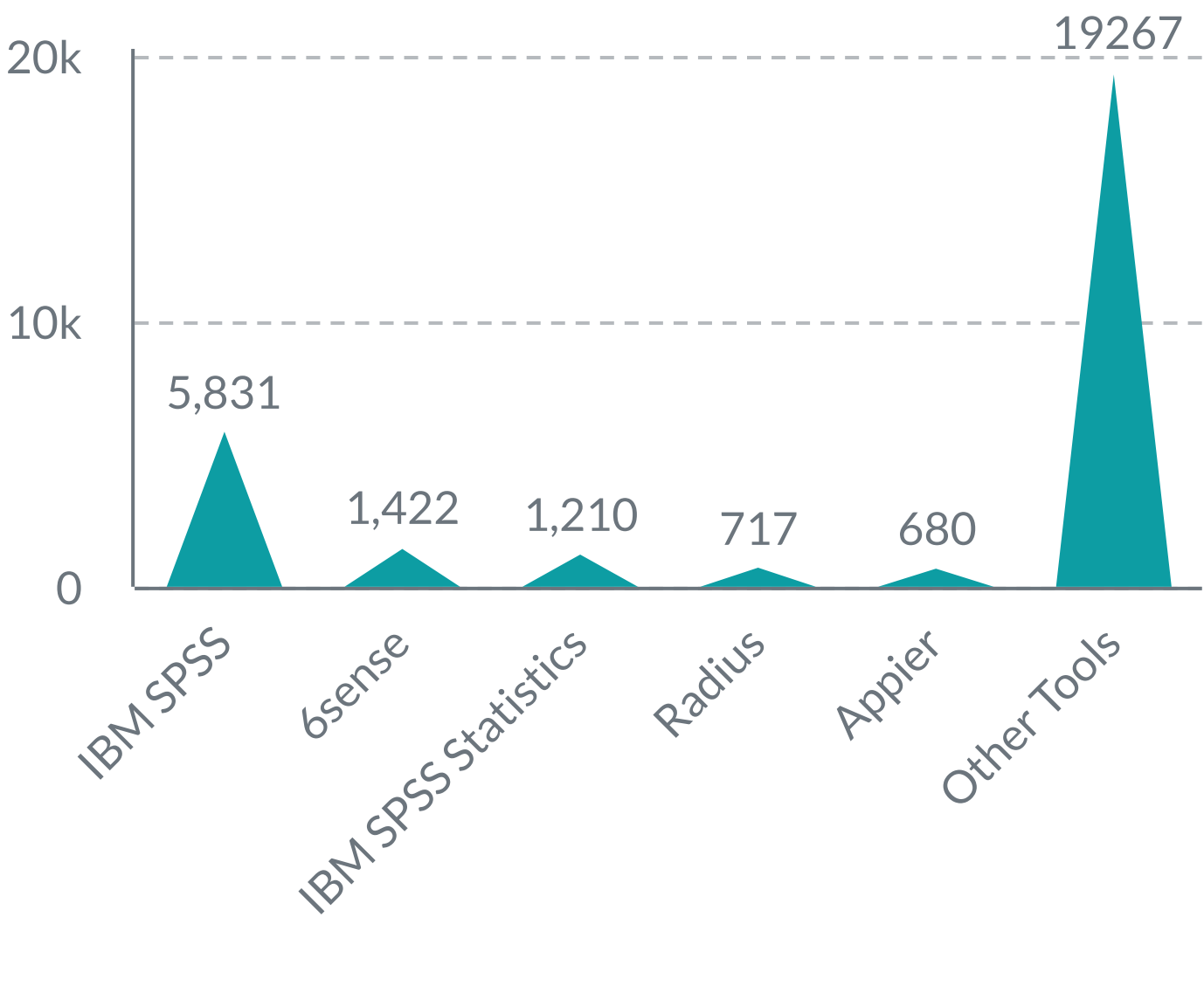
Construction Competitive Advantage Application - One example of predictive analytics in construction is the ability to create budgets that consider all possible factors that could emerge during a project, including regional labor and material costs. Predictive analytics can help you forecast how much of a particular material you'll need for a job or estimate seasonal cash flow needs based on historical data and more.

TOP FINDINGS

- IBM SPSS, 6sense, Radius, IBM SPSS Statistics, and Appier are the top 5 most used solutions.
- In the past 10 years, we are seeing low to mid-level interest from construction companies in predictive analytics. (Google Trends data)
- Interest in predictive analytics among construction companies is widespread with a significant level of interest around the country (See Google Trends data in the next section).
- Predictive analytics and big data are a winning combination. Companies that used big data analytics in construction reported an 8% average increase in revenue (Source - BARC).

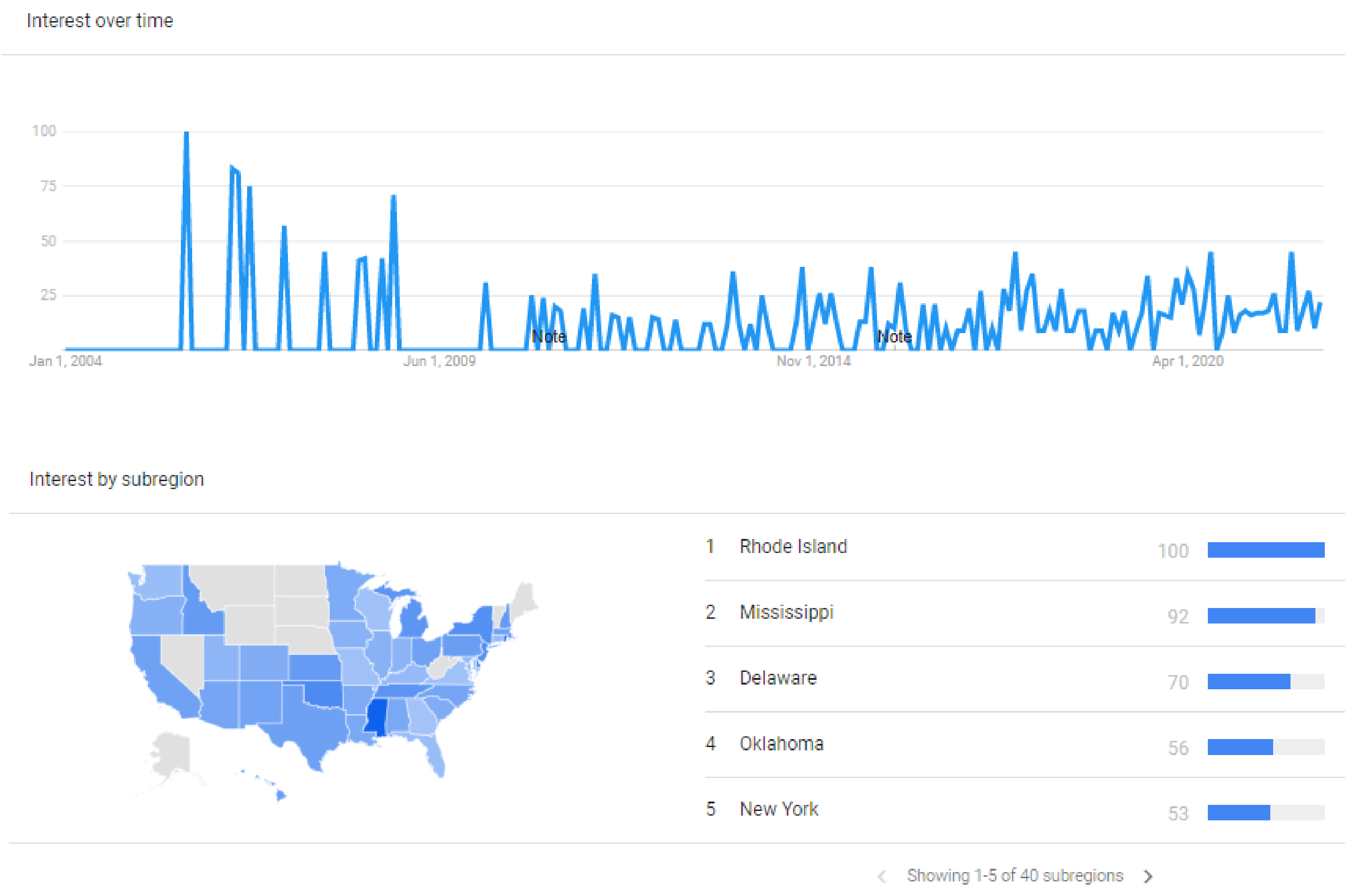


Number Of Companies Using Each Predictive Analytics Tech



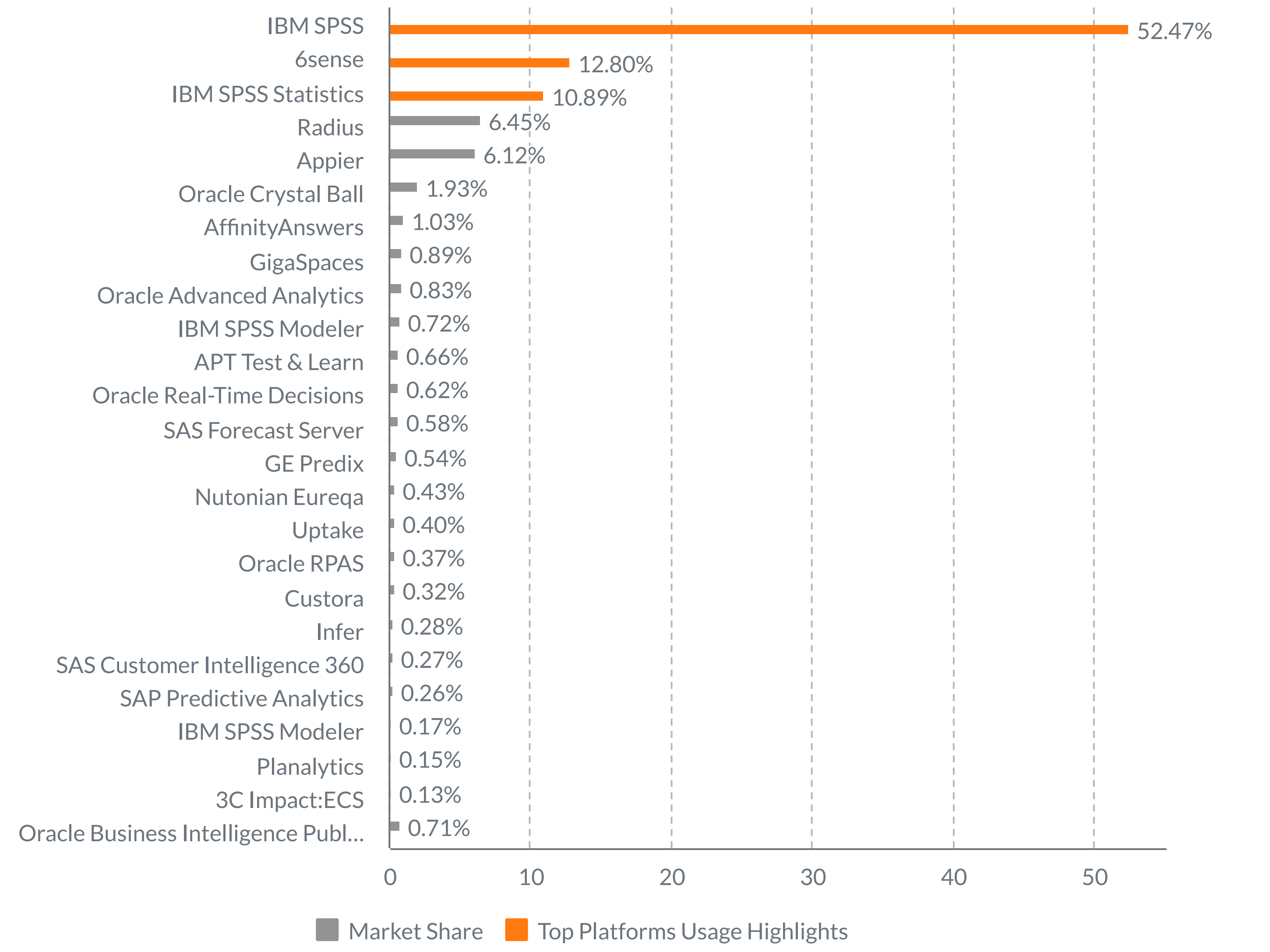
GLOBAL DATA

How popular are predictive analytics tools in the construction industry? This Google Trends chart highlights the popularity of the predictive analytics topic among construction companies with interest barely existing about 10 years ago. For the past 7 years, there is a steady interest in the subject, Google tracked popularity ranging from 10 to 50 on the popularity index (1 to 100 scale) over the past few years (the chart below highlights the beginning of the interest in these tools among construction companies).



Below are the global predictive analytics platform usages across 6 million-plus websites. Compare and see whether construction companies differ when it comes to web analytics tools. Here are the top 40 technologies across the top few million websites on the Internet:

Global Predictive Analytics Usage Chart



15 predictive analytics platforms with lower usage were not included in the above chart

COMMENTS & OTHER FINDINGS

- Consider companies, like Skanska, are using employee, equipment, and material tracking to optimize tools and resources locations (if not for this type of optimization - workers would walk an average of 6 miles per day to get equipment and materials needed for work).
- 40% of construction companies mention that frequent changes in worker safety regulations have been the top labor challenge during the pandemic (According to SoftwareAdvice). Companies with predictive analytics and planning capabilities were able to gain an advantage vs. non-users.
- Predictive visualization systems used with analytics tools reduce project timelines for construction projects, especially during the pre-construction phase.

CONSTRUCTION MANAGEMENT

There are over 120 construction management platforms on the market today and roughly 150,000 companies around the world leveraging them.

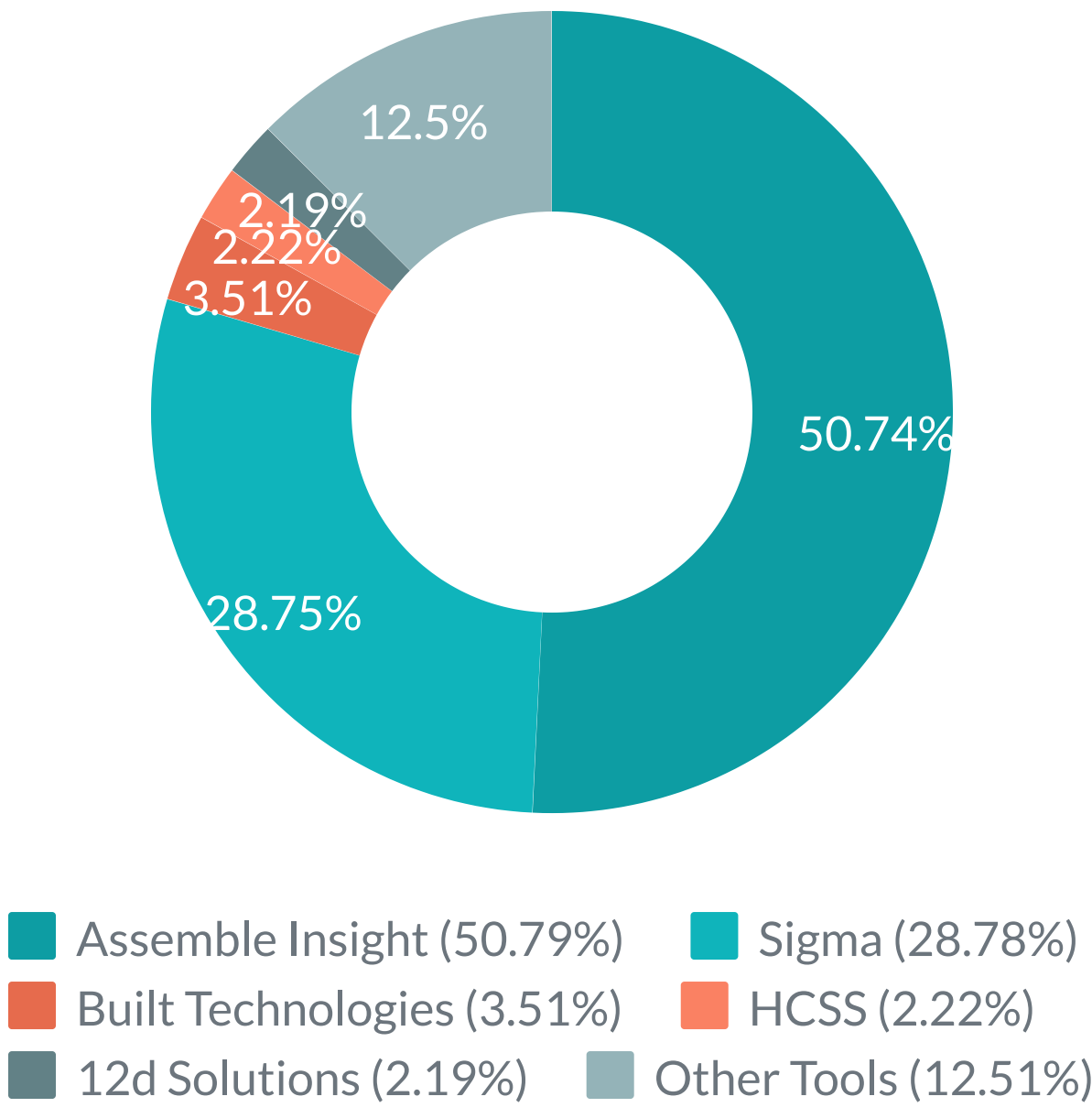
Construction management and construction project management software coordinate business processes for contractors and builders and is a major growth area for revenue expansion. Organizations use construction management systems to enable collaborative workflow and data access and integrate multiple teams and office locations into a shared work environment. Most of these types of tools include reporting, analytics, and BI capabilities.

Construction Competitive Advantage Application - These solutions provide scheduling and real-time completion data, including monitoring of product status, start and finish dates, budgets, and expenditures. They also offer data organization and presentation tools, such as construction templates. Construction management software is related to construction accounting software, architectural drafting software, construction CRM software, and construction estimating software.

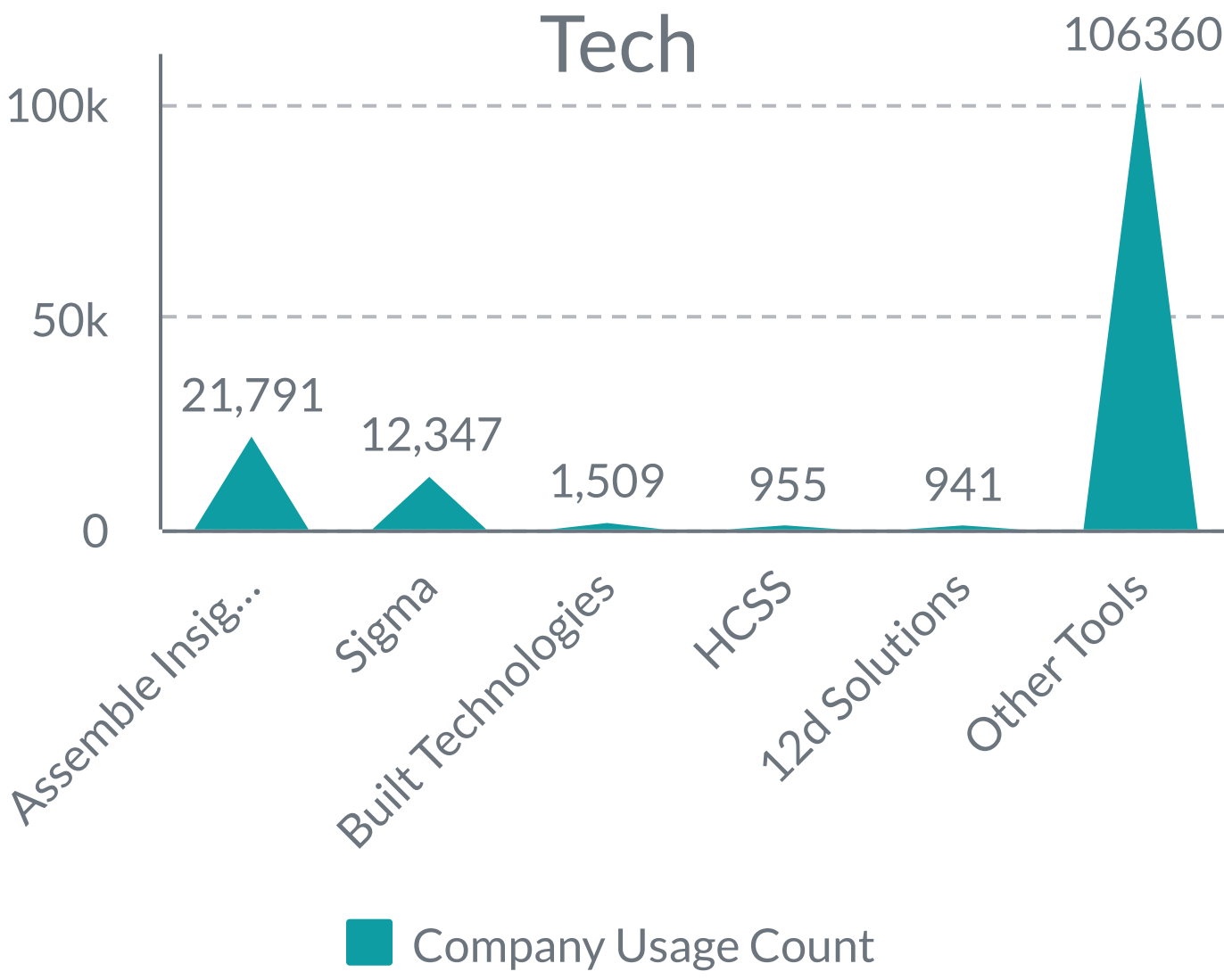
TOP FINDINGS

- Assemble, Sigma, Built, HCSS, and 12d are the top 5 most used solutions in this category.
- In the past two years, construction companies have been showing a high level of interest in construction management platforms (See Google Trends data in the next section)
- According to Coherent Market Insights, the global construction management software market was valued at \$1.4bn. in 2020 and is expected to reach \$2.6bn. by 2028 at a CAGR of 8.2% between 2021 and 2028.
- 53% of construction businesses implemented a new construction-specific project management tool in the past 12 months (Source - SoftwareAdvice, 2021)

Market Share

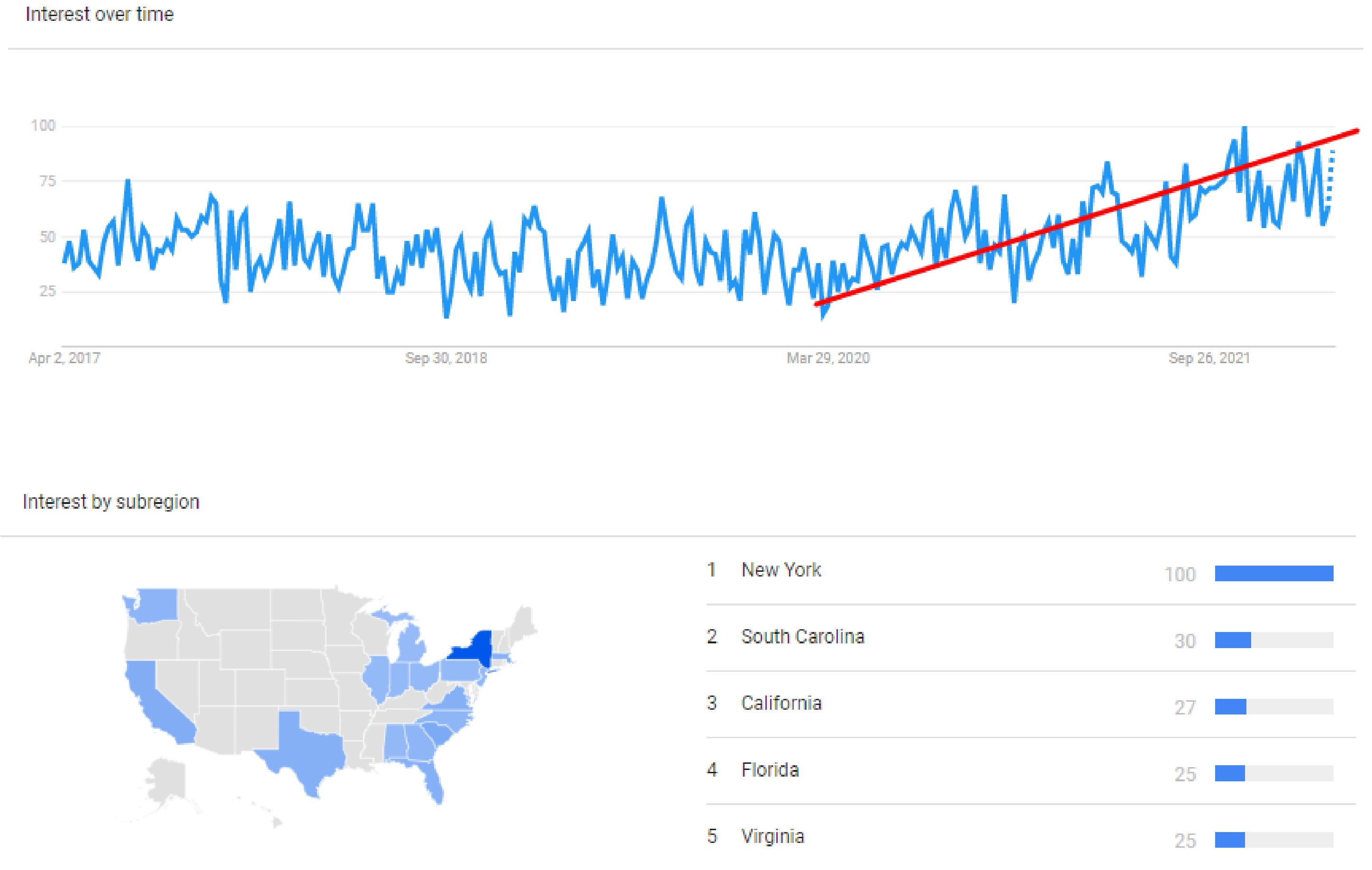


Number Of Companies Using Each Construction Management Tech



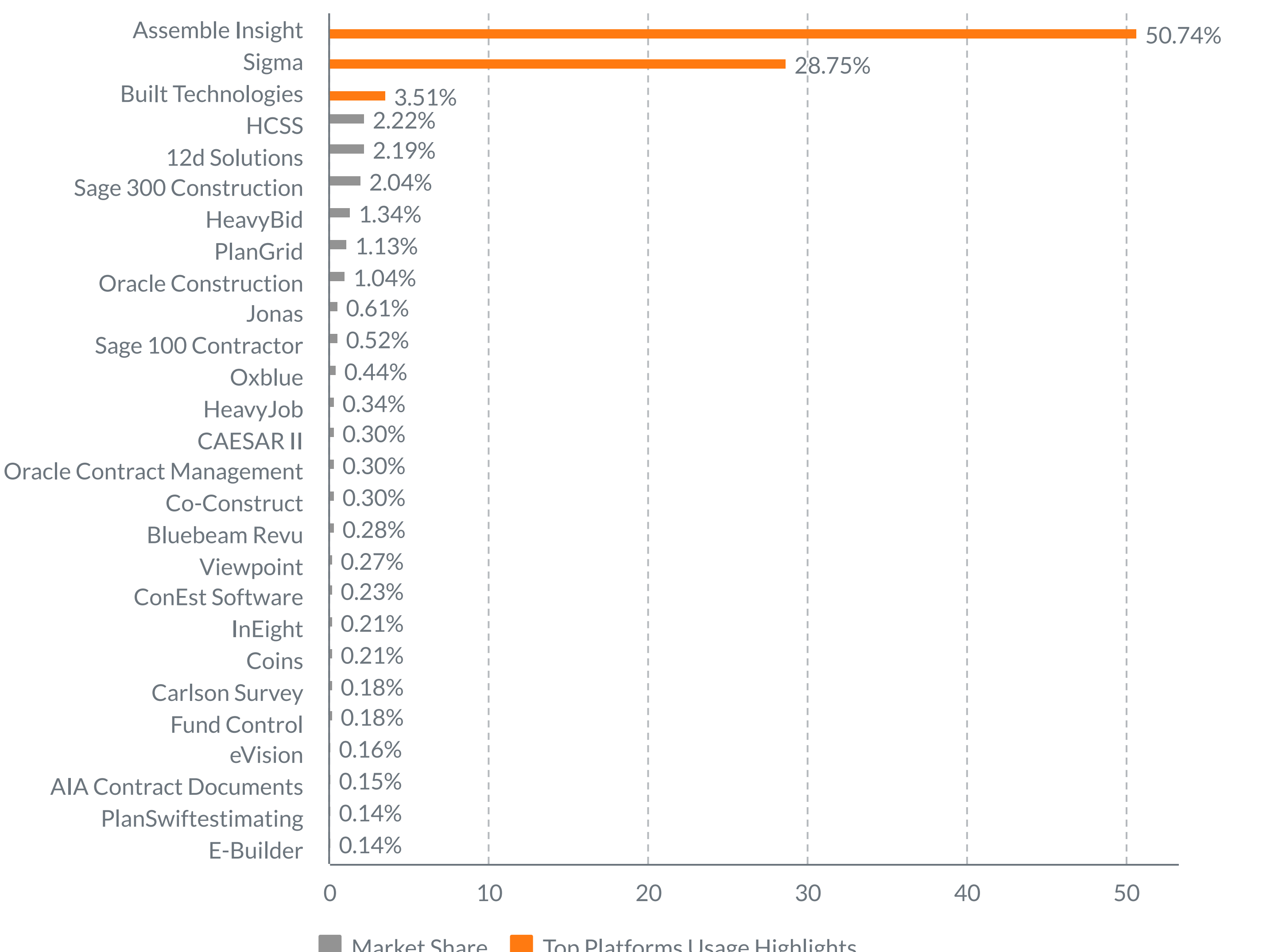
GLOBAL DATA

How popular are construction management platforms in the construction industry? This Google Trends chart highlights the popularity of the construction management platforms topic among construction companies since 2017. In the past two years, there has been a significant increase in interest among construction companies. As of 2020, the interest index went up from an average of 50 to 100 - according to Google Trends data (1 to 100 scale).



Below are the global Construction Management platform usages across 6 million-plus websites. Compare and see whether construction companies differ when it comes to web analytics tools. Here are the top 25 technologies across the top few million websites on the Internet:

Global Construction Management Tools Usage Chart



100 construction management platforms with lower usage were not included in the above chart

COMMENTS & OTHER FINDINGS

- COVID-19 crisis pushed the construction industry toward embracing digital innovation and transformation. Construction management, field service management, BIM tools, and other tools - helped offset some of the labor shortages and remote work challenges that the industry faced.
- According to SoftwareAdvice - 57% of construction businesses, that expected a fall in revenue last year, reported delays in obtaining raw materials. This is where companies with planning, material management, and optimization tools gained a competitive advantage vs. non-users.

There are over 117 big data processing tools and technologies on the market today and roughly 68,000 companies around the world are investing and using big data including the construction industry.

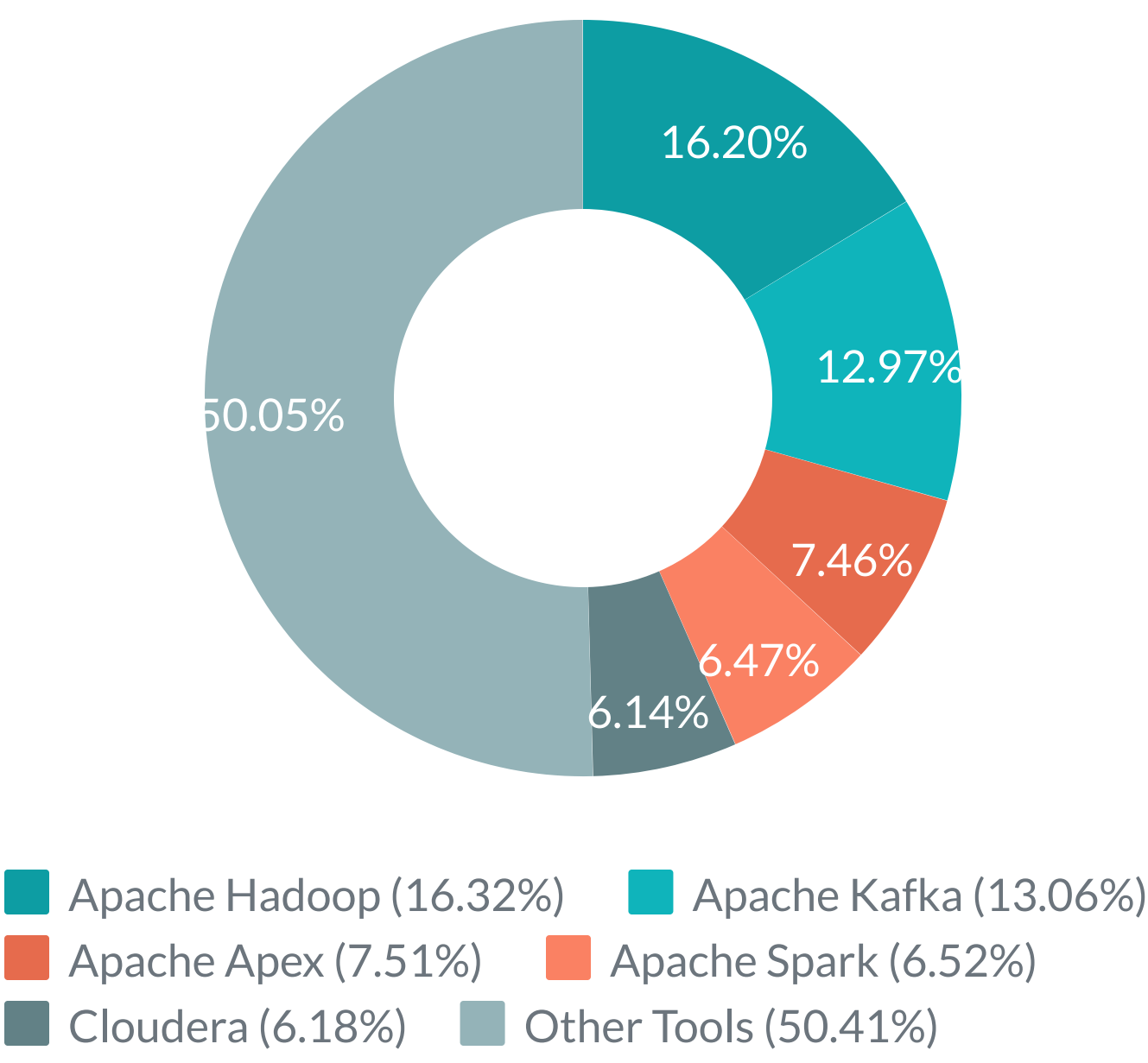
Big data are data sets that are too large or complex to be dealt with by traditional data-processing application software. The value of big data is expected to increase by \$30bn. in 2021 and 2022, making it one of the most valuable commodities in the world. Current usage of the term "big data" tends to refer to the use of predictive analytics, user behavior analytics, or certain other advanced data analytics methods that extract value from big data, and rarely to a particular size of data set.

Construction Competitive Advantage Application - Big data is being used in every stage of the construction process to increase efficiency and productivity. Data analytics tools are designed to pull information from large data repositories and make it accessible to everyone involved in the construction process, including contractors, architects, tradesmen, and clients.

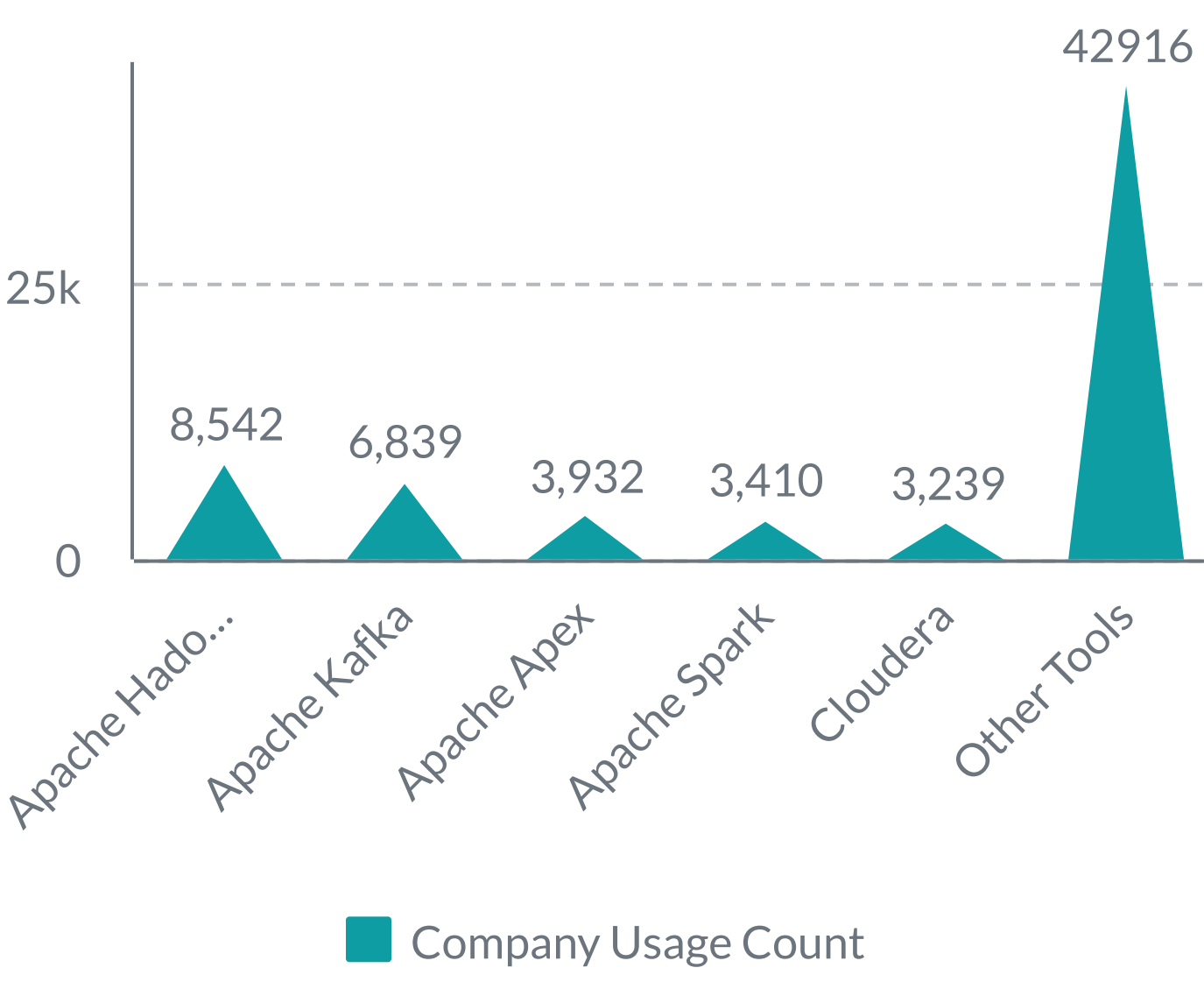
TOP FINDINGS

- Apache Hadoop, Apache Kafka, Apache Apex, Apache Spark, Cloudera are the top 5 most used solutions.
- 96 % of construction and engineering data went unused in 2018. (Souce - FMI)
- "Material waste and remedial work represent 35% of costs in the construction industry. In this sector, big data analysis can therefore be used to significantly reduce unnecessary costs" (Source - dsxhub.org).
- According to Google Trends data, big data didn't exist in the construction industry 10 years ago.

Market Share

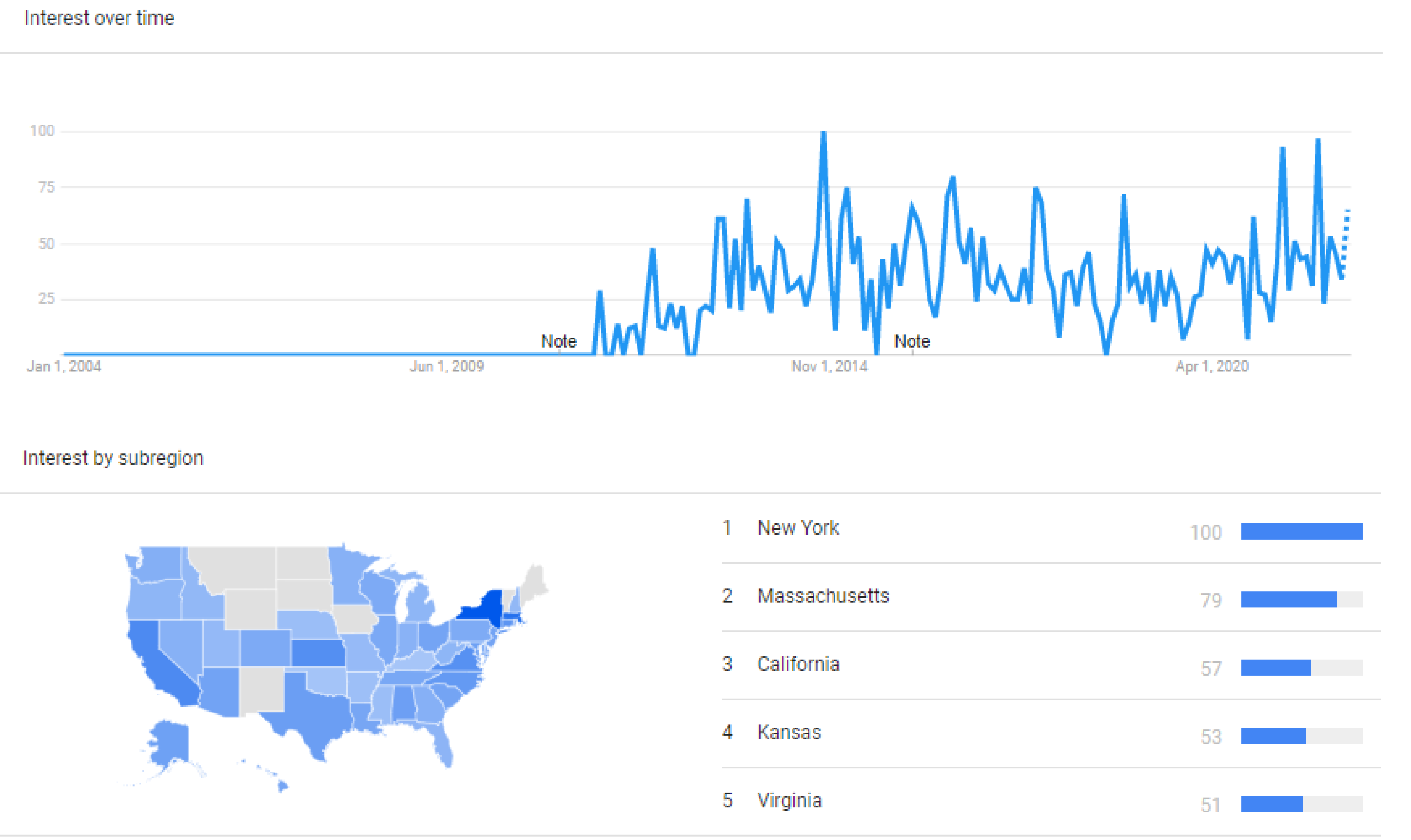


Number Of Companies Using Big Data Tools & Tech



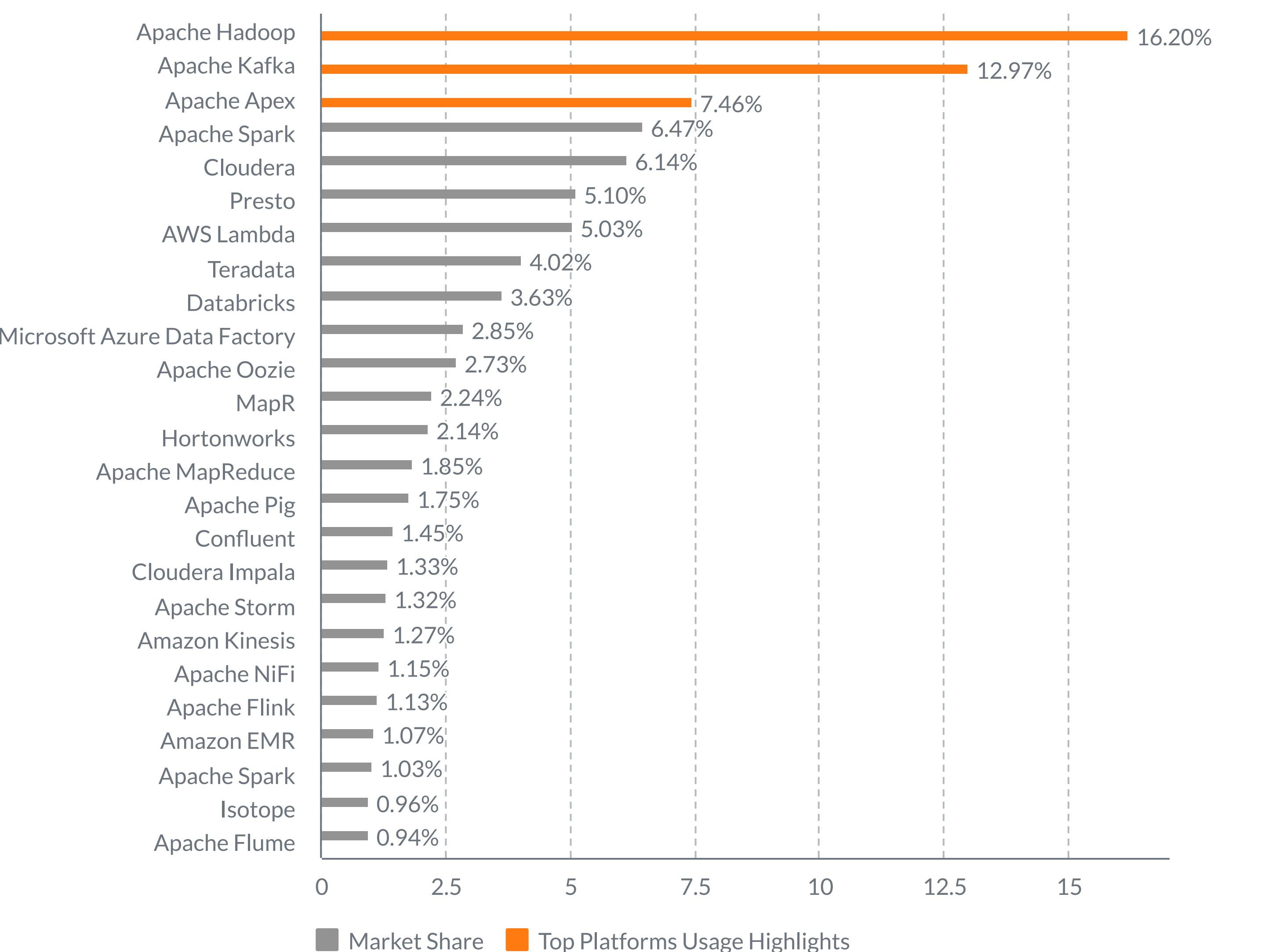
GLOBAL DATA

How popular is the subject of big data in the construction industry? This Google Trends chart highlights the popularity of the big data Topic among construction companies for the past 10 years. This year, Google predicts the popularity index for big data rising from 35 to 65 within the construction industry (1 to 100 scale).



Below are the global Big Data tools and technology usages across 6 million-plus websites. Compare and see whether construction companies differ when it comes to web analytics tools. Here are the top 25 technologies across the top few million websites on the Internet:

Global Big Data Tech & Tools Usage Chart



90 big data tools and tech providers with lower usage were not included in the above chart

COMMENTS & OTHER FINDINGS

- 90% of data generated in the E&C industry is unstructured. This includes photos, customer reviews, purchase history, and even customer service call logs (Source - FMI).
- In the past two years, interest in big data technology in the construction industry spiked twice to 100 interest index level - according to Google Trends data (highest possible interest level)
- 8% of E&C firms have real-time, full project management information systems that allow for dashboard reporting. (Source - FMI).
- New York, Massachusetts, and California are the top 3 states where construction companies show the most interest in big data technology. At the same time, you can see interest almost across all of the states - this highlights industry-wide interest in this tech.

Customer Data Platforms

There are over 40 customer data platforms on the market today and roughly 51,000 companies around the world are investing and using these types of tools including the construction industry.

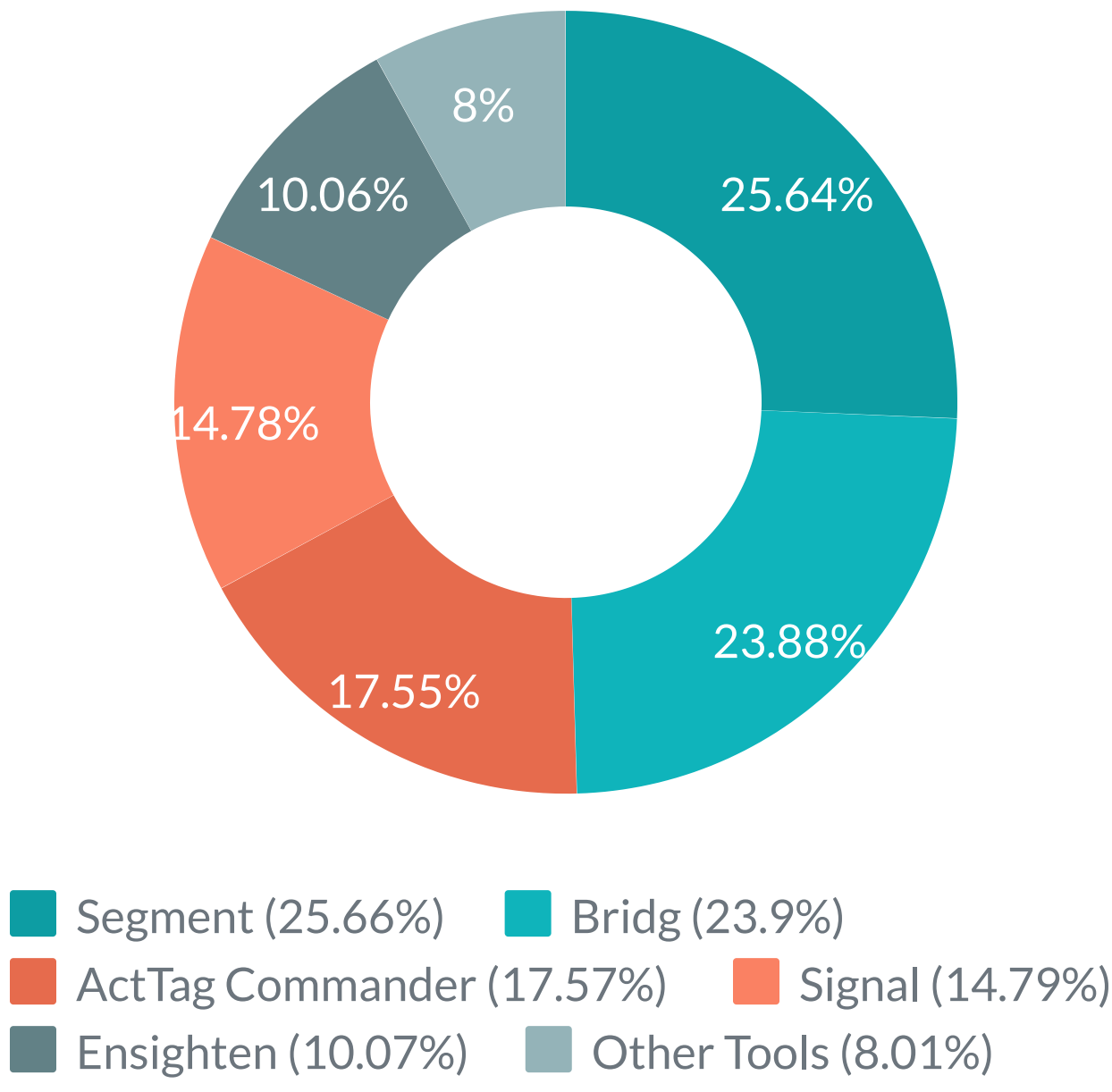
What is a customer data platform? It is a technology that centralizes your client's data from multiple sources, aggregates and unifies this data into customer profiles, and makes this data available and accessible to other systems. This includes customer care, marketing, data and analytics initiatives, and more.

Construction Competitive Advantage Application - the main purpose is to source, aggregate, and make customer data available to other platforms and people.

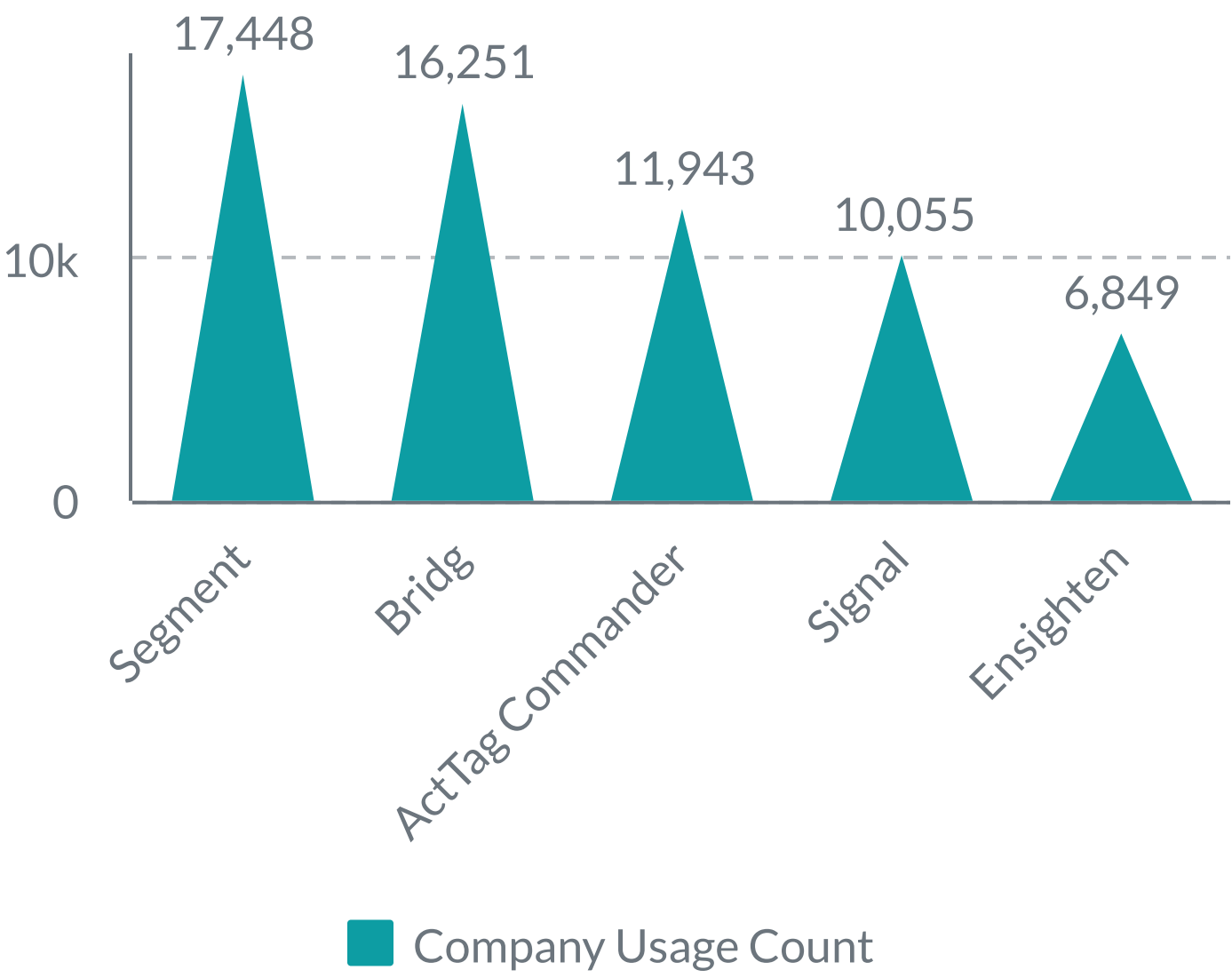
TOP FINDINGS

- Segment, Bridg, ActTag Commander, Signal, and Ensignten are the top 5 most used solutions.
- 30% of E&C companies are using applications that don't integrate with one another. (Source - FMI) This is a strong roadblock when you are working with customer audience data.
- A significant interest in customer data platforms started appearing among construction companies about 6 years ago.
- In the span of 6 years - according to Google Trends data, interest went from 0 to 100 popularity index (highest possible interest for the topic).

Market Share

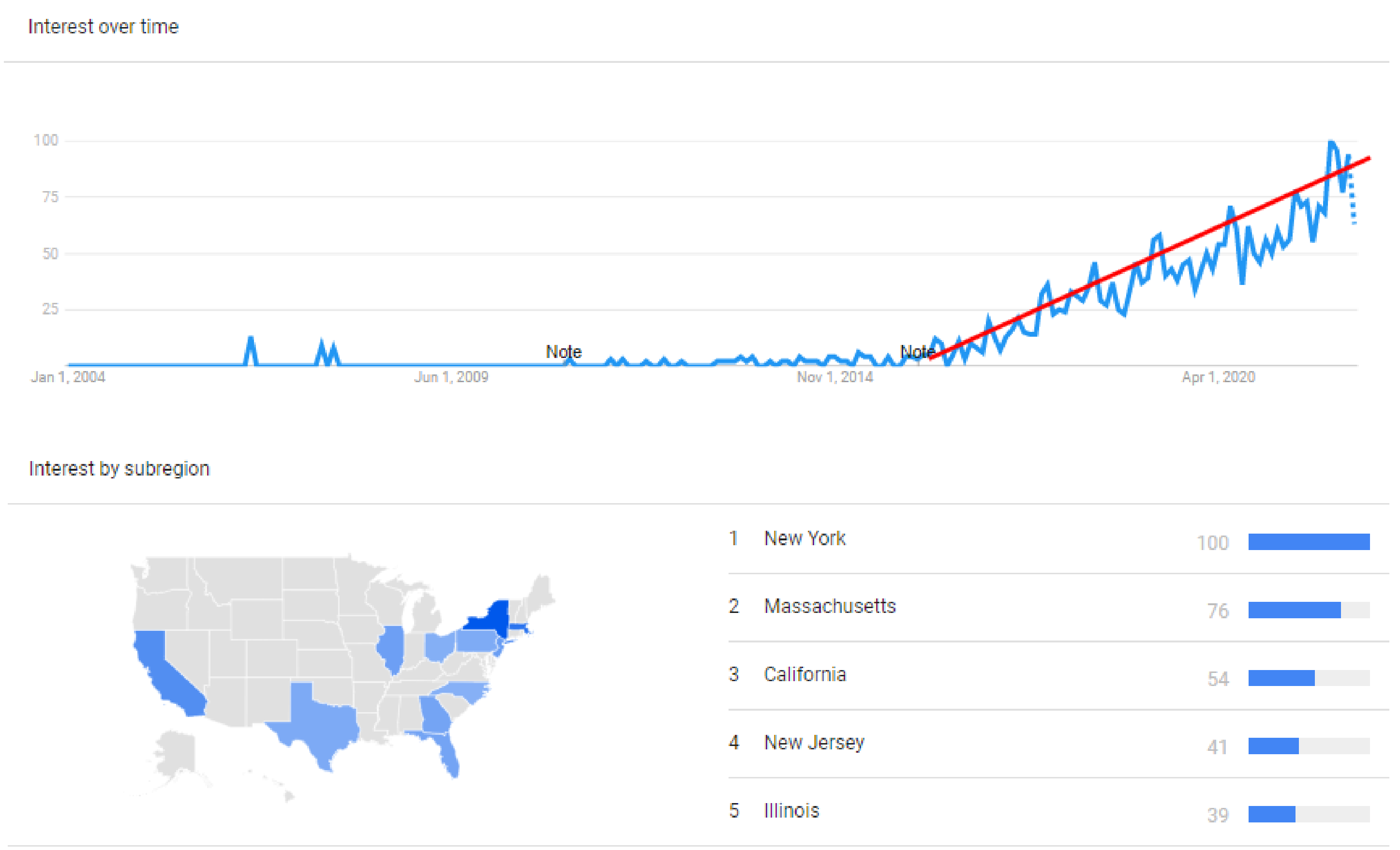


Number Of Companies Using Customer Data Platforms



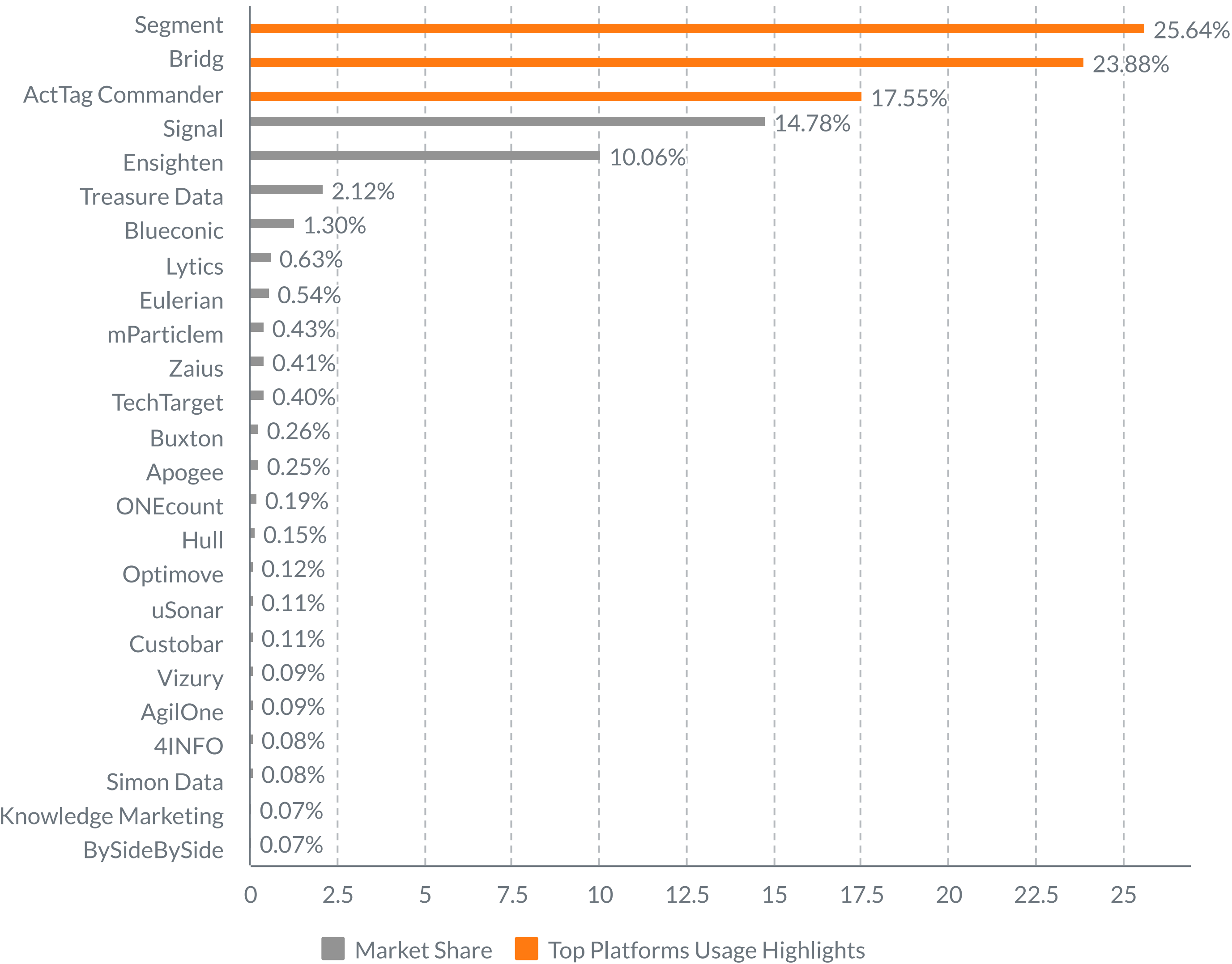
GLOBAL DATA

How popular is the subject of customer data platforms in the construction industry? This Google Trends chart highlights the popularity of customer data platforms among construction companies since 2004. Over the past 6 years, this type of platform started becoming more popular in the industry. Google reveals that the popularity index went from 0 to 100 in the past 6 years (1 to 100 scale).



Below are the global Customer Data Platforms and technology usages across 6 million-plus websites. Compare and see whether construction companies differ when it comes to customer data platforms. Here are the top 25 technologies across the top few million websites on the Internet:

Global Customer Data Platforms Usage Chart



19 customer data platforms with lower usage were not included in the above chart

COMMENTS & OTHER FINDINGS

- Segment, Bridge, and ActTag are the first three choices and hold more than 67% market share.
- If you look at the geographic interest data for customer data platforms - New York, California, and Massachusetts are the top 3 states with the highest level of interest in this technology among construction companies.

ABOUT BUILDOPS

BuildOps is an all-in-one cloud-based software solution that empowers commercial HVAC, plumbing, electrical, and mechanical contractors to efficiently and effectively manage operations and field service on a single platform while maximizing efficiency and driving profitability. Founded in 2018, BuildOps has gone on to transform the lives of commercial contractors across the industry.

- Every part of your business managed in one platform
- Revenue growth by up to 35%
- Use BI to optimize estimates, real-time resource management, and forecasting
- Translate complex data reports into simple-to-understand visualizations
- Higher technician productivity results in more jobs
- Standardized workflows to increase efficiency and data accuracy
- Easy and accurate asset management
- ...and much more

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