

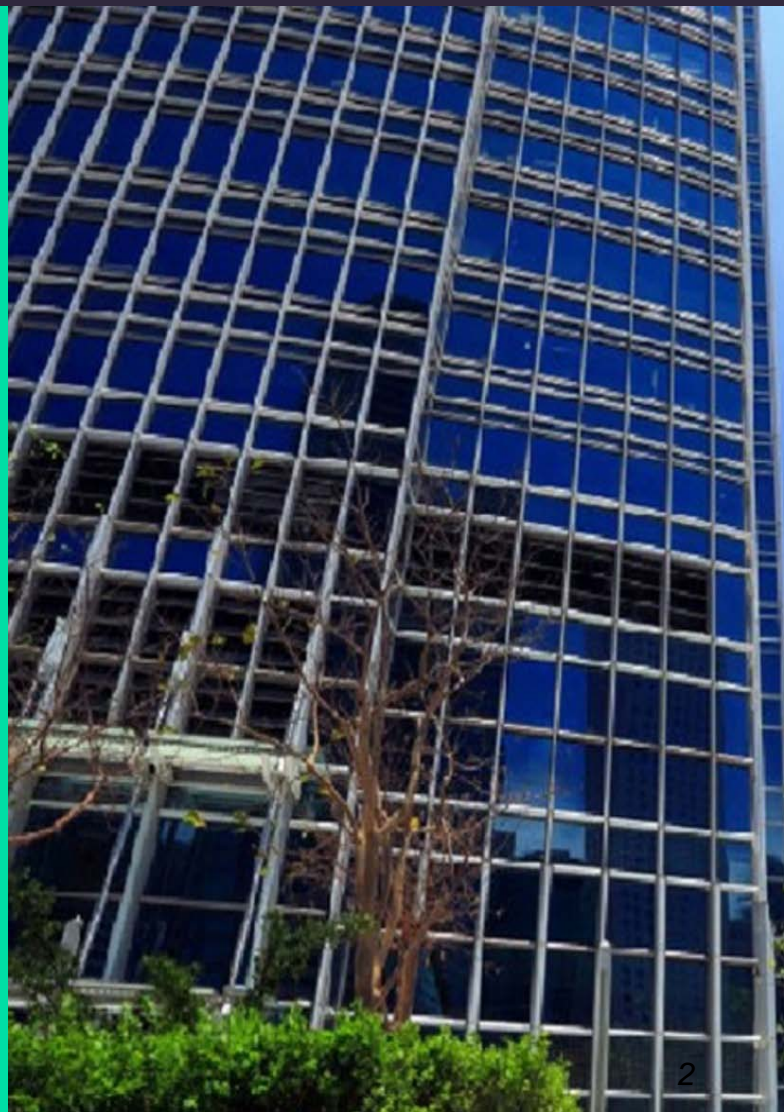
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Google LLC

Strategic SWOT Analysis Review

Report Code: GDT2633703SA
Published: July 2018



Company Snapshot

1600 Amphitheatre Parkway	Phone	+1 650 2530000	Revenue	109,652 (million USD)
Mountain View, CA	Fax		Net Profit	NA
94043	Website	www.google.com	Employees	NA
United States	Exchange		Industry	Technology and Communications

Company Overview

Google LLC (Google), a subsidiary of Alphabet Inc., is a leading provider of search and advertising services on the internet. The company focuses on business areas such as advertising, search, platforms and operating systems, and enterprise and hardware products. Its portfolio of products and services include Google Web Search, Google Chrome, Google Docs, Google Calendar, Google Images, Google Finance, Google Books, Google News, Google Earth, Google Play, AdMob, Google Maps, Google Videos, Google Reader, Blogger, Google Wallet, Gmail, Google Groups, and YouTube. The company offers online display advertising services through its AdSense and AdWords programs.

Key Executives

Name	Title
Sundar Pichai	Chief Executive Officer
Nick Fox	Vice President, Communications Products
Diane B. Greene	Senior Vice President
Ruth M. Porat	Chief Financial Officer
Caesar Sengupta	Vice President, Product Management

Source: Company Website, Primary and Secondary Research, GlobalData

Key Competitors

Microsoft Corp
Salesforce.Com Inc
International Business Machines Corp
Facebook Inc
Baidu, Inc.

Source: Company Website, Primary and Secondary Research, GlobalData

SWOT Analysis

Google LLC, SWOT Analysis	
Strengths	Weaknesses
Revenue Performance	Legal Proceedings
Penetration of Android Operating System	Boycott by Major Advertisers
Opportunities	Threats
Next Billion Users Initiative	Regulatory Affairs: EU Antitrust Rules
Exploring Artificial Intelligence (AI)	Intense Competition

Source: Company Website, Primary and Secondary Research, GlobalData

Recent Developments

Jul 17, 2018	Google in Last Ditch Effort to Avoid Colossal Android Antitrust Fine
Jul 17, 2018	Personalised Google Jobs Comes to the UK
May 29, 2018	E.ON brings innovative 'Project Sunroof' technology to Britain in partnership with Google and Tetraeder
May 18, 2018	E.ON and Google deepen solar partnership around Project Sunroof

Source: Annual Report, Company Website, Primary and Secondary Research, GlobalData

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Section 1 - About the Company

Google LLC - Key Facts

Google LLC, Key Facts			
Corporate Address	1600 Amphitheatre Parkway, Mountain View, CA, 94043, United States		
Telephone	+1 650 2530000	No. of Employees	NA
Fax		Fiscal Year End	December
URL	www.google.com	Revenue (in USD Million)	109,652
Industry	Media, Technology, Telecommunications		
Locations	Argentina, Australia, Belgium, Brazil, Canada, China, Colombia, Czech Republic, Denmark, Egypt, Finland, France, Germany, Ghana, Greece, Hong Kong, Hungary, India, Ireland, Israel, Italy, Japan, Kenya, Malaysia, Mexico, Netherlands, New Zealand, Nigeria, North Korea, Norway, Poland, Portugal, Russia, Senegal, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States		
Source: Company Website, Primary and Secondary Research			GlobalData

Google LLC - Key Employees

Google LLC, Key Employees				
Name	Job Title	Board Level	Since	Age
Sundar Pichai	Chief Executive Officer	Executive Board	2015	45
Nick Fox	Vice President Communications Products	Senior Management		
Diane B. Greene	Senior Vice President	Senior Management	2015	62
Ruth M. Porat	Chief Financial Officer, Senior Vice President	Senior Management	2015	60
Caesar Sengupta	Vice President Product Management	Senior Management		
Clay Bavor	Vice President Augmented and Virtual Reality	Senior Management		
Daniel Alegre	President Global Partnerships	Senior Management		
Donald Harrison	President Global Partnership and Corporate Development	Senior Management		
Eileen Naughton	Vice President People Operations	Senior Management		
Hiroshi Lockheimer	Senior Vice President Android, Chrome OS and Play	Senior Management		
Jen Fitzpatrick	Vice President Product and Engineering	Senior Management		
Kent Walker	General Counsel, Senior Vice President	Senior Management		
Kristen Gil	Vice President Business Operations	Senior Management		
Lorraine Twohill	Senior Vice President Global Marketing	Senior Management		
Philipp Schindler	Chief Business Officer, Senior Vice President Global Sales and Operations	Senior Management		
Rick Osterloh	Senior Vice President Hardware	Senior Management		
Sridhar Ramaswamy	Senior Vice President ADS and Commerce	Senior Management		
Susan Wojcicki	Chief Executive Officer YouTube	Senior Management		
Urs Holzle	Senior Vice President Technical Infrastructure	Senior Management		
Tian Lim	Vice President Google Play	Senior Management	2017	
Diane Bryant	Chief Operating Officer	Senior Management	2017	
Mzamo Masito	Chief Marketing Officer Sub-Saharan Africa	Senior Management	2018	
Injong Rhee	Head Internet of Things (IoT) Business	Senior Management	2018	
Jeff Dean	Head Search and AI	Senior Management	2018	

Jerry Dischler	Vice President Management	Product Senior Management
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Source: Company Website, Primary and Secondary Research	GlobalData
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Google LLC - Key Employee Biographies

Google LLC, Key Employee Biographies

Sundar Pichai

Job Title: Chief Executive Officer

Board Level: Executive Board

Since: 2015

Age: 45

Mr. Sundar Pichai has been the Chief Executive Officer of the company since 2015. Prior to this, he served as the Senior Vice President of Products from 2014 to 2015, and the Senior Vice President of Android, Chrome and Apps at Google from 2013 to 2014. He held several positions with Google including the Senior Vice President, Chrome and Apps; Senior Vice President, Chrome; and Vice President, Product Management. He joined Google in April 2004. Prior to this, he served in engineering and product management at Applied Materials, Inc., and management consulting at McKinsey & Company. Previously, Mr. Pichai served as a Director of Jive Software, Inc., from 2011 to 2013.

Ruth M. Porat

Job Title: Chief Financial Officer, Senior Vice President

Board Level: Senior Management

Since: 2015

Age: 60

Ms. Ruth Porat has been the Chief Financial Officer and Senior Vice President of the company since 2015. Prior to this, she served as the Senior Vice President and Chief Financial Officer of the Alphabet since 2015. She also served as the Chief Financial Officer and the Executive Vice President of Morgan Stanley in 2010. Previously, she served as the Vice Chairman of Investment Banking from 2003 to 2009 and as Global Head of the Financial Institutions Group from 2006 to 2009.

Philipp Schindler

Job Title: Chief Business Officer, Senior Vice President Global Sales and Operations

Board Level: Senior Management

Mr. Philipp Schindler is the Chief Business Officer and the Senior Vice President of the Google. Prior to this, he served as the Senior Vice-President, Marketing & Sales, AOL Germany; Head of Marketing at CompuServe.

Diane Bryant

Job Title: Chief Operating Officer

Board Level: Senior Management

Since: 2017

Ms. Diane Bryant has been the Chief Operating Officer of the company since November 2017. Prior to this, she served as a Vice President at Intel Corp. She also serves at United Technologies.

Source: Company Website, Primary and Secondary Research

GlobalData

Google LLC - Key Operational Employees

Google LLC, Key Operational Employees			
Name	Job Title	Since	Age
Lily Peng	Product - Google Brain AI research		
Source: Company Website, Primary and Secondary Research			GlobalData

Google LLC - Major Products and Services

Google is a global technology provider for connecting people with information. The major products and services offered by the company include the following:

Google LLC, Major Products and Services

Products:

Gmail

Toolbar

Custom Search Engines

Google Chrome

Webmasters/Site owners

Google Checkout Buyer

YouTube

Google Image Search

Google Book Search

Google Scholar

Google Base

Google Finance

Google News

Search Google Co-op

Custom Search

Google Video

Google Docs and Spreadsheets

Google Calendar

Google Desktop

Google Pack

Google Earth

Google Maps

Google Sketchup and Sketchup Pro

Google Checkout

Google Mobile

Google Labs

Google AdWords

Google AdSense

Android Operating System

Google Play

Google Wallet

Google Translate

Google Home

Google Drive

Daydream View

Gmail

Services:

Web Search

Social Networking

Online Services

Brands:

Google

YouTube

Source: Company Website, Primary and Secondary Research

GlobalData

Google LLC - History

Google LLC, History

2018	Acquisitions/Mergers/Takeovers	In February, Google agreed to acquire LogMeIn's division, Xively.
2018	Acquisitions/Mergers/Takeovers	In January, Google announced the acquisition of Relay Media to convert ordinary web-pages to AMP web-pages.
2018	Acquisitions/Mergers/Takeovers	In January, the company announced the acquisition of Redux to focus on audio and haptics services.
2018	Acquisitions/Mergers/Takeovers	In March, the company plans to acquire a GIF platform, Tenor, for Android, iOS and desktop.
2018	Acquisitions/Mergers/Takeovers	In May, the company agreed to acquire Velostrata, a cloud migration startup based in Israel.
2018	Commercial Operation	In April, the company opened a US\$600 million data center on TVA Widow's Creek coal plant site in Bridgeport, Jackson County, Alabama, the US.
2018	Commercial Operation	In May, Google and NetApp partnered to integrate NetApp's flash-powered data services with Google's cloud platform.
2018	Contracts/Agreements	In April, Google and American Medical Association (AMA) partnered to support inspire some new solutions for mobile health technology.
2018	Contracts/Agreements	In April, Google and Fitbit partnered for the innovation and transformation in digital health and wearables.
2018	Contracts/Agreements	In April, Google and Jobillico partnered to use Google for job search experience.
2018	Contracts/Agreements	In April, Google and McClatchy collaborated to develop a new subscription tool to easily access online McClatchy's 30 newsrooms.
2018	Contracts/Agreements	In April, Google Express and Christmas Central partnered to provide a universal shopping cart, Google Express Cart.
2018	Contracts/Agreements	In April, Google partnered with CyArk for preserving historical sites in Virtual Reality using CyArk's laser-scanning technology.
2018	Contracts/Agreements	In April, KBank partnered with Google Thailand, LINE and the Electronic Transactions Development Agency (ETDA) to launch the "K SME Good to Great" programme.
2018	Contracts/Agreements	In April, the company and Saudi Arabia partnered for cybersecurity training.
2018	Contracts/Agreements	In April, the company and Target partnered for a voice-activated coupon on Google Assistant.
2018	Contracts/Agreements	In February, Airtel partnered with Micromax and Lava to provide 4G smartphones on Google's Android Go platform.
2018	Contracts/Agreements	In February, Essence's WeR@Home technology integrated with the Google Assistant, for WeR@Home customers to use the Google Assistant on their phone, voice-activated speaker to operate their Essence-based IoT solutions.
2018	Contracts/Agreements	In February, Google and Healthcare Ready partnered for the development of a proof of concept to refine future disaster response through data analytics and collaboration.
2018	Contracts/Agreements	In February, Google partnered with ARM, Cisco, and Intel to launch managed service for IoT device connecting and control, Cloud IoT Core.
2018	Contracts/Agreements	In February, Google partnered with State Bank of India for its mobile payments app, Tez.
2018	Contracts/Agreements	In February, the company and Amazon partnered for huge bills in a major shake-up of the UK tax system.

2018	Contracts/Agreements	In February, the company and Getty Images signed a global licensing partnership to use Getty Images' content within its various products and services for the company.
2018	Contracts/Agreements	In February, the company partnered with Xiaomi, Huawei and Samsung to provide its augmented reality services ARCore in China.
2018	Contracts/Agreements	In January, Google and Yocale collaborated for Google to launch Reserve in Canada.
2018	Contracts/Agreements	In January, Google Assistant agreed to collaborate with D-Link for its mydlink cameras.
2018	Contracts/Agreements	In January, Google Cloud and Globant collaborated to provide an end-to-end OTT platform solution for the media and entertainment industry.
2018	Contracts/Agreements	In January, Google Cloud and Tyco Retail Solutions collaborated for expanding its market presence in next-generation real-time analytics, and store execution and performance solutions.
2018	Contracts/Agreements	In January, Innit integrated with the Google Assistant to power Kitchen of the Future.
2018	Contracts/Agreements	In January, MobileIron and Google Cloud collaborated on a new end-to-end platform for enterprise cloud services.
2018	Contracts/Agreements	In January, Tyco Retail Solutions collaborated with Google Cloud for strengthening its market leadership in real-time analytics and store execution and performance solutions.
2018	Contracts/Agreements	In January, YI Technology collaborated with Google's Virtual Reality (VR) for YI Horizon VR180 Camera.
2018	Contracts/Agreements	In July, Google selected TE SubCom as its supplier to design and utilize its Dunant submarine cable system.
2018	Contracts/Agreements	In July, Deloitte collaborated with Google Cloud and SAP to support customers to migrate their SAP applications to Google Cloud Platform and to manage entire cloud environment.
2018	Contracts/Agreements	In July, Dish Network integrated with Google Assistant for hands-free TV experience.
2018	Contracts/Agreements	In July, Google and Innovid partnered to measure their YouTube video advertisements.
2018	Contracts/Agreements	In July, Google, Baidu, Intel, AMD, Stanford and Harvard, together develop a new benchmark suite, MLPerf for machine learning.
2018	Contracts/Agreements	In July, the company partnered with Hyundai Motor and Kakao to launch an automobile app, Android Auto, for in-car infotainment market in Korea.
2018	Contracts/Agreements	In July, the company selected TE Connectivity to design and deploy Dunant Cable System, a four-fiber pair cable system.
2018	Contracts/Agreements	In July, the company's traffic maps app Waze partnered with Allianz to provide emergency roadside assistance to its European users at the touch of a button.
2018	Contracts/Agreements	In June, Fashwire partnered with Google to launch its Fashion Discovery app to support optimize user acquisition channels.
2018	Contracts/Agreements	In June, Google and Carrefour partnered for launching Carrefour on a new Google shopping website and Google Assistant in France, to create a Carrefour-Google innovation lab and to digitize acceleration of the Carrefour Group.
2018	Contracts/Agreements	In June, Google and PLDT signed a deal to expand its mesh WiFi offering bringing Google Wifi to the Philippines.

2018	Contracts/Agreements	In June, Google partnered with the Centre for Investigative Journalism to support journalists to use digital tools for news.
2018	Contracts/Agreements	In June, Google's Cloud division partnered with Unity for simplifying game development that supports big developer migrate over its infrastructure to Google.
2018	Contracts/Agreements	In June, the company and Paysafe partnered for online shopping using Paysafe's prepaid business, paysafecard.
2018	Contracts/Agreements	In June, the company introduced a new Google Marketing platform for an easy access to advertising process.
2018	Contracts/Agreements	In March, Google and Amazon partnered for developing their own air traffic control network for low-level altitudes.
2018	Contracts/Agreements	In March, Google and Asda partnered to connect online groceries service with Google Assistant-enabled smartphones, Google Home devices, Chromebook and Android TVs.
2018	Contracts/Agreements	In March, Google and Daimler signed strategic research partnerships in the quantum computing area.
2018	Contracts/Agreements	In March, Google and J&J partnered to launch low cost surgical robots.
2018	Contracts/Agreements	In March, Google and Rolls-Royce partnered to establish autonomous drone vessels.
2018	Contracts/Agreements	In March, Google entered into a license agreement with GIATA to utilize its descriptions and mapping content in Hotel advertisements.
2018	Contracts/Agreements	In March, Google introduced a new cloud-based API to address challenges in healthcare industry.
2018	Contracts/Agreements	In March, Google partnered with the US retailers in a new initiative that helps to boost sales in the online retail sector.
2018	Contracts/Agreements	In March, Syntel and Google Cloud partnered to deliver digital business solutions to adapt its cloud service offerings.
2018	Contracts/Agreements	In March, the company and Alibaba Cloud partnered for the cloud war with new Quantum computing moves.
2018	Contracts/Agreements	In March, the company and Tata Trusts signed an agreement to explore options to use latest solutions to access primary health and cancer care for poor in India.
2018	Contracts/Agreements	In March, the company and TravelClick partnered for enabling hoteliers for more direct bookings and revenue.
2018	Contracts/Agreements	In March, the company Carrefour partnered to develop an online voice assistant for its shoppers called Lea.
2018	Contracts/Agreements	In March, the company partnered with the US Department of Defense on machine learning for analyzing drone footage.
2018	Contracts/Agreements	In May, BBVA and Google partnered to launch Android Pay in Spain.
2018	Contracts/Agreements	In May, Google and AT&T collaborated to optimize cloud networking for business customers.
2018	Contracts/Agreements	In May, Google and Confluent partnered to introduce Confluent Cloud to the Google Cloud Platform (GCP).
2018	Contracts/Agreements	In May, Google and NBCUniversal partnered to produce virtual reality content that gives a unique experience to audiences on some of their favorite networks and shows.
2018	Contracts/Agreements	In May, Google and Qualcomm partnered to tackle obstacles, using Project Treble.

2018	Contracts/Agreements	In May, Intel, Google and Volvo Cars partnered to launch the new Android Operating System (OS) running through Google applications.
2018	Contracts/Agreements	In May, the company and Bravatek Solutions signed a marketing partnership to promote Bravatek's Tuitio digitally.
2018	Contracts/Agreements	In May, the company and KPMG signed an alliance to support organizations to transform their business and operating models with secure cloud computing, machine learning, enterprise mobility and advanced analytics technologies.
2018	Corporate Changes/Expansions	In April, the company launched the new Google Home, Home Mini smart speakers in New Delhi, India.
2018	Corporate Changes/Expansions	In January, Google launched the new Google Audiobooks in India.
2018	Corporate Changes/Expansions	In January, Google opened an office in Shenzhen, Guangdong Province, China.
2018	Corporate Changes/Expansions	In January, the company plans to open a new research center based on artificial intelligence in France.
2018	Corporate Changes/Expansions	In July, the company opened a new 100 desk office in Melbourne, Australia.
2018	Corporate Changes/Expansions	In March, the company launched the new online resource center.
2018	Financing Agreements	In January, Trifacta raised US\$48 million in venture financing led by the company, Ericsson, and others.
2018	Financing Agreements	In June, Google awarded US\$22 million in Series A investment to KaiOS Technologies.
2018	Financing Agreements	In March, Ubiquity6 raised US\$10.5 million in Series A funding led by Google's Gradient Ventures, LDVP, Kleiner Perkins and WndrCo.
2018	New Products/Services	In April, Google Analytics launched data retention control that are adjustable by the admins.
2018	New Products/Services	In April, the company developed prototype for a microscope system with artificial intelligence that automatically detects aid in cancer.
2018	New Products/Services	In April, the company launched the new TensorFlow hub for reusable machine learning models.
2018	New Products/Services	In February, Google introduced a custom silicon slab, the tensor processing unit, to improve the reading of street signs for the StreetView software.
2018	New Products/Services	In February, Google launched a new flight feature, to save time in booking a flight.
2018	New Products/Services	In February, Google launched the new mobile payment solution, Google Pay.
2018	New Products/Services	In February, Google launched the new virtual assistant, Assistant Go, for entry level Android devices users.
2018	New Products/Services	In February, the company introduced the new Pixel Visual Core, the artificial intelligence in Pixel 2 smart phone.
2018	New Products/Services	In February, the company launched the new Cloud IoT Core service that connects and manages IoT devices.
2018	New Products/Services	In February, the company launched the new lightweight Gmail Go app for Android, that allows to read and reply to messages offline.
2018	New Products/Services	In January, Google introduced a new AI tool, Cloud AutoML Vision, designed to simply train its machine learning systems on a photo dataset of their choosing.
2018	New Products/Services	In January, Google introduced the new Google "Clips" camera, that uses Artificial Intelligence (AI) to figure out when it should take a picture or video.

2018	New Products/Services	In January, the company developed a text-to-speech artificial intelligence system, Tacotron 2, that generates human-like articulation.
2018	New Products/Services	In January, the company introduced the new facial recognition feature on its Google Arts & Culture app.
2018	New Products/Services	In January, the company merged payment platforms under Google Pay brand with a new brand.
2018	New Products/Services	In July, Google introduced a new suite of tools that leverages its new developments in machine learning for marketers.
2018	New Products/Services	In July, Google introduced various ad tools based on artificial intelligence (AI), that helps marketers to automate and develop effective advertising campaigns.
2018	New Products/Services	In July, Google launched drones and balloons to deliver internet access from the sky via balloons and to deliver items via drones.
2018	New Products/Services	In July, Google released a new ad in Google Ads that uses machine learning for an increased performance.
2018	New Products/Services	In July, Google released a range of new features and tools over its advertising and market toolkits to support efficient customers to bricks and mortars stores.
2018	New Products/Services	In July, Google released the new Morse Code as an input method on Gboard for Android (iOS).
2018	New Products/Services	In July, the company introduced a new tool that enables companies to improve device security in the company.
2018	New Products/Services	In June, Google launched a new Knowledge Graph card type in search results that appears when users search for the US colleges.
2018	New Products/Services	In June, Google launched a new Measure Tool for Google Earth available on Chrome.
2018	New Products/Services	In March, Google introduced a new education tablet designed with Chrome OS.
2018	New Products/Services	In March, Google launched a machine learning education, Learn with Google AI, to support learning concepts, and to develop skills and apply Artificial Intelligence (AI) to real-world problems.
2018	New Products/Services	In March, Google launched a new open-source project, Agones, using cloud-based Kubernetes platform.
2018	New Products/Services	In March, Google launched its Cloud Text-to-Speech service that converts text to speech in IoT devices, voice systems.
2018	New Products/Services	In March, Google launched its new Bristlecone quantum processor, a gate-based processor.
2018	New Products/Services	In March, the company added a new service to its Google Assistant that helps its users to send and request money from the contacts in Android phone or iPhone.
2018	New Products/Services	In March, the company introduced a free app, Just a line, that helps to doodle in AR mode.
2018	New Products/Services	In March, the company launched new tools to introduce and discover Indian addresses on Google Maps adding voice navigation in six additional Indian languages.
2018	New Products/Services	In May, Google launched a new file managing tool, Files Go, in various Chinese app stores for smartphones.
2018	New Products/Services	In May, Google launched a new social app that aims to build neighborhood communities.

2018	New Products/Services	In May, the company introduced a Appy Pie, a mobile application building platform, on G Suite Marketplace.
2018	Plans/Strategy	In February, the company plans to launch the new Cloud TPU machine learning accelerators on the google Cloud Platform.
2018	Plans/Strategy	In January, Google announced it plans to merge its Android Pay and Google Wallet into a single service, Google Pay.
2018	Plans/Strategy	In July, Google announced its plans to develop an online game streaming service, code-named, Yeti.
2018	Plans/Strategy	In July, Google announced its plans to launch new tools based on machine learning for advertisers.
2018	Plans/Strategy	In June, Google announced its plans to invest US\$550 million in JD.com, a Chinese e-commerce powerhouse.
2018	Plans/Strategy	In June, Google announced its plans to open an Artificial Intelligence center in Ghana, Africa.
2018	Plans/Strategy	In March, Google plans to develop its data consulting services in Brazil.
2018	Plans/Strategy	In May, the company announced its plans to invest EUR150 million to expand data center in Ireland.
2017	Acquisitions/Mergers/Takeovers	In August, Google acquired Senosis Health.
2017	Acquisitions/Mergers/Takeovers	In August, the company acquired artificial intelligence and selfie app startup, AIMatter.
2017	Acquisitions/Mergers/Takeovers	In January, the company acquired Fabric, mobile app developer platform, from twitter to join in Google's Developer Products Group.
2017	Acquisitions/Mergers/Takeovers	In July, the company acquired Halli Labs., a Bengaluru-based (Artificial Intelligence) startup.
2017	Acquisitions/Mergers/Takeovers	In March, Google acquired AppBridge, a Canada startup, to help in moving files from physical servers to G Suite apps including Google Drive.
2017	Acquisitions/Mergers/Takeovers	In March, the company acquired Kaggle Kernels, a data science community to Google cloud.
2017	Acquisitions/Mergers/Takeovers	In October, the company acquired Tiny Garage Labs, Inc., which develops a mobile application.
2017	Acquisitions/Mergers/Takeovers	In September, the company acquired the identity management company, Bitium.
2017	Acquisitions/Mergers/Takeovers	The company acquired Limes Audio, a Swedish sound company.
2017	Contracts/Agreements	In April, Android Pay joined with several banks including Bank of America, Bank of New Zealand, Discover, mBank and USAA for facilitating linking of cards with Android Pay
2017	Contracts/Agreements	In April, Google entered into an agreement with PayPal for allowing its consumers to use PayPal as payment process in Android Pay.
2017	Contracts/Agreements	In April, the company announced a collaboration agreement with comScore, to provide advertisers with greater visibility into the context in which their ads appear.
2017	Contracts/Agreements	In April, the company announced a partnership with Neustar, Inc., to help marketers more accurately analyze their marketing investments across multiple brands, channels and regions.
2017	Contracts/Agreements	In April, the company entered into a partnership with PayPal Holdings, Inc., on digital payments.
2017	Contracts/Agreements	In August, HARMAN International, subsidiary of Samsung Electronics Co Ltd,

		entered into agreement with Google for provision of three-month free subscription trial of the Google Play Music services to customers in 47 countries in Asia- Pacific, the Americas and Europe.
2017	Contracts/Agreements	In August, Pivotal collaborated with VMware and the company to launch the Pivotal Container Service (PKS) at VMworld.
2017	Contracts/Agreements	In August, the company and Codefresh collaborated to streamline application deployments on Kubernetes.
2017	Contracts/Agreements	In August, VMware announced expansion of partnership with Google for enabling unified endpoint management of Chrome devices by VMware workspace ONE powered by AirWatch.
2017	Contracts/Agreements	In August, Wal-Mart entered into a partnership with Google for provision of voice based shopping services to customers on Android.
2017	Contracts/Agreements	In December, DNAnexus partnered with Google to develop DeepVariant bioinformatics tool for genomic variation analysis.
2017	Contracts/Agreements	In December, MATRIX Software launched its MATRIX Digital Commerce on the Google Cloud Platform.
2017	Contracts/Agreements	In December, the company entered into an agreement with EDF Renewable Energy and Avangrid Renewables to purchase 396MW of clean energy.
2017	Contracts/Agreements	In February, CLX Communications and Waterfall signed a partnership with Google to offer the messaging services to brand marketers using Rich Communication Services (RCS).
2017	Contracts/Agreements	In February, FCA partnered with Google on the next-generation connected car systems powered by android.
2017	Contracts/Agreements	In February, LG Electronics in partnership with the company to launch two new smartwatches, the LG Sport and LG Style.
2017	Contracts/Agreements	In January, Google and Fiat Chrysler Automaker collaborated to launch Android Nougat 7.0 powered 8.4-inch automotive infotainment in the vehicles.
2017	Contracts/Agreements	In July, Google entered into an agreement with Eneco to purchase green electricity from Sunport Delfzijl in Netherlands.
2017	Contracts/Agreements	In July, the company and Citrix extended their strategic relation, which helps to enables the customers to use Citrix Cloud platform.
2017	Contracts/Agreements	In June, the company to launch art and fashion platform along with the collaboration of 180 institutions.
2017	Contracts/Agreements	In March, Dome9 Security integrated with the Google Cloud Platform.
2017	Contracts/Agreements	In March, Google and SAP partnered to offer an innovative solution to privacy of customers' sensitive data on a public cloud platform.
2017	Contracts/Agreements	In March, Google and Veritas partnered for 360 Data Management capacities to Google Cloud Platform and G Suite customers.
2017	Contracts/Agreements	In March, Google entered into a collaboration with Rackspace to offer new managed services for Google cloud platform customers.
2017	Contracts/Agreements	In March, Google partnered with Emirates to showcase virtual reality 3D painting tools and an e-book reading lounge at its Emirates Airline Festival of Literature.
2017	Contracts/Agreements	In March, Google signed a partnership with SAP to offer its in-memory database SAP HANA through other solutions.
2017	Contracts/Agreements	In March, Looker introduced a suite of Looker Blocks compatible with Google BigQuery Data Transfer service, designed to provide the tools for enhancing critical data analysis for marketers.

2017	Contracts/Agreements	In March, the company and Trifacta, Inc., collaborated to build Google Cloud Dataprep.
2017	Contracts/Agreements	In May, CIBC partnered with Google to launch Android Pay for all its clients.
2017	Contracts/Agreements	In May, the company announced a partnership with Google Maps.
2017	Contracts/Agreements	In May, the company entered into a partnership with E.ON, to introduce Sunroof, a solar-energy data platform, outside the US.
2017	Contracts/Agreements	In May, the company partnered with Volvo Cars to build Android into next generation connected cars.
2017	Contracts/Agreements	In May, the company's self-driving-car technology company and signed a deal with Lyft for the development and testing of autonomous-car technology.
2017	Contracts/Agreements	In May, the company and Qualcomm Technologies, Inc., collaborated to develop a daydream standalone VR headset developed by the Qualcomm Snapdragon 835 VR platform.
2017	Contracts/Agreements	In November, Kroger Co. entered into a collaboration agreement with Google Cloud Platform.
2017	Contracts/Agreements	In November, the company and Nautilus Medical collaborated for secure radiology storage and image exchange.
2017	Contracts/Agreements	In November, the company and Zebra Medical Vision collaborated to bring a transparent all-in-one model to healthcare.
2017	Contracts/Agreements	In November, the company collaborated with CANDI to simplify the connection of smart building devices and data to Apps
2017	Contracts/Agreements	In November, the company entered into a partnership with Volkswagen Group, on quantum computers.
2017	Contracts/Agreements	In November, the company signed a long-term renewable energy sales agreement with Iberdrola SA.
2017	Contracts/Agreements	In October, Target Corporation announced deepening of partnership with Google for expansion of Target's voice- activated shopping on Google Express and addition of Target REDcard as a payment option in 2018.
2017	Contracts/Agreements	In October, the company and Cisco signed a partnership to deliver a hybrid cloud solution.
2017	Contracts/Agreements	In October, the company and Time Inc., partnered to launch Adapt Video, a proprietary video advertising tool.
2017	Contracts/Agreements	In October, the company entered into a partnership with Target, for voice-assisted shopping and nationwide delivery.
2017	Contracts/Agreements	In October, the company paired up with Rolls-Royce to develop autonomous ship solutions.
2017	Contracts/Agreements	In September, Ayla Networks selected Google Home voice integration added to its offerings that supports smart home cloud-based voice services.
2017	Contracts/Agreements	In September, Cleartrip and Google Flights entered into an agreement for expansion of services of Google Flights in India.
2017	Contracts/Agreements	In September, Google entered into an agreement to acquire a part of HTC Corp.'s engineering and design teams for US\$1.1 billion to support the US internet giant's nascent hardware business.
2017	Contracts/Agreements	Puppet entered into collaboration with Google Cloud for quick access of Google Cloud Platform (GCP) services to its customers.
2017	Corporate Changes/Expansions	In February, Google established a new office in the Philippines.
2017	Corporate Changes/Expansions	In February, the company announced the launch of its smart speaker in the

		UK.
2017	Corporate Changes/Expansions	In July, the company opened a new cloud Platform (GCP) in London.
2017	Corporate Changes/Expansions	In June, the company launched its cloud platform in Singapore.
2017	Corporate Changes/Expansions	In November, Google launched Android Pay in Brazil and the Czech Republic.
2017	Corporate Changes/Expansions	In November, Google launched its contactless payment service, Android Pay in Ukraine.
2017	Corporate Changes/Expansions	In November, the company announced to open a new office in Tokyo, Japan.
2017	Corporate Changes/Expansions	In September, the company announced to open a new cloud platform in Germany.
2017	Corporate Changes/Expansions	In September, the company announced to open a new office in Berlin.
2017	Corporate Changes/Expansions	In September, the company changed its name from Google Inc. to Google LLC.
2017	New Products/Services	In April, the company announced to provide its reach in India with neural machine translation technology.
2017	New Products/Services	In April, the company launched new translation technology for nine Indian languages.
2017	New Products/Services	In August, the company and Xiaomi paired up to launch Xiaomi A1smartphone.
2017	New Products/Services	In August, the company collaborated with Litera Corp to bring professional document comparison to G suite.
2017	New Products/Services	In August, the company launched a reality platform for Android.
2017	New Products/Services	In December, Google introduced an open source artificial intelligence tool, Deep Variant, that is used to create a picture of a person's genetic blueprint using sequencing data.
2017	New Products/Services	In December, the company launched a new cryptocurrency pricing tool.
2017	New Products/Services	In December, the company launched new screening system to fight fake news.
2017	New Products/Services	In July, the company and Tri Alpha Energy (TAE) announced to develop a new computer algorithm to accelerate experiments on plasmas.
2017	New Products/Services	In July, the company launched its new Backup and Sync desktop application, which helps to upload files and photos to the cloud.
2017	New Products/Services	In July, the company launched Trusted Contacts location sharing app on the iOS App store.
2017	New Products/Services	In June, the company announced to launch Daydream view VR headset in India.
2017	New Products/Services	In June, the company introduced its third developer preview of Android O.
2017	New Products/Services	In June, the company launched YouTube party app for the iPhone.
2017	New Products/Services	In March, Google introduced its new globally distributed database, Cloud Spanner.
2017	New Products/Services	In March, the company announced to offer new Android wear 2.0 connect smartwatch.
2017	New Products/Services	In March, the company announced to offer P2P payments to Gmail Android app customers.

2017	New Products/Services	In March, the company introduced the new Google Pixel 2.
2017	New Products/Services	In May, Rambus company paired up with Google and Interac Association to enable Interac debit card support for Android Pay in Canada.
2017	New Products/Services	In May, the company and PayPal Holdings, Inc. announced the launch of new joint mobile shopping strategy using fingerprints.
2017	New Products/Services	In May, the company announced a partnership with Weebly to offer Android Pay to digital enabled customers.
2017	New Products/Services	In May, the company announced the availability of its Android Pay app in Russia.
2017	New Products/Services	In May, the company announced to offer a new machine learning service.
2017	New Products/Services	In May, the company launched its mesh Wi-Fi system in Canada.
2017	New Products/Services	In May, VMware introduced Workspace ONE, a new initiative for Chromebooks in enterprise by entering into a partnership with Google
2017	New Products/Services	In November, the company launched Resonance Audio, a new spatial audio SDK.
2017	New Products/Services	In October, the company announced to launch a personalized phishing protection and updated security checkup tool.
2017	New Products/Services	In October, the company launched a new Chromebook called the google Pixelbook.
2017	New Products/Services	In October, the company launched NoSQL document database Firebase platform for app developers.
2017	New Products/Services	In September, the company and Levi's announced to launch a smart jean jacket for US\$350.
2017	New Products/Services	In September, the company launched a mobile payments and commerce app called Tez.
2017	New Products/Services	In September, the company launched Android One Moto X4 smartphone for Fi users.
2017	Plans/Strategy	In April, Google plans to build a new data center in Reno, Nevada, the US.
2017	Plans/Strategy	In August, the company planned to invest US\$50 million in the U.S. and Europe to train job seekers.
2017	Plans/Strategy	In December, the company plans to open an artificial intelligence research center in China.
2017	Plans/Strategy	In February, Google plans to expand its carpool service on its Waze navigation app, to compete with Uber and Lyft and similar apps.
2017	Plans/Strategy	In February, the company announced plans to divest its Terra Bella business, to Planet Labs.
2017	Plans/Strategy	In February, the company announced to sells Terra Bella, a satellite imaging business, to Planet Labs, a San Francisco-based private satellite operator.
2017	Plans/Strategy	In February, the company plans to introduce its wearable platform, Android Wear 2.0.
2017	Plans/Strategy	In June, the company planned for King's Cross Campus in London.
2017	Plans/Strategy	NetEase announced to launch Google Play in China.
2016	Acquisitions/Mergers/Takeovers	The company acquired Cronologics a smartwatch technology company, to boost the search giant's ailing Android Wear platform.

2016	Acquisitions/Mergers/Takeovers	The company acquired Synergys a provider of interactive training services for google apps.
2016	Acquisitions/Mergers/Takeovers	The company acquired Web-based URL scanner VirusTotal, to improve browser security.
2016	Acquisitions/Mergers/Takeovers	The company announced the acquisition of Pie, a Singapore-based business messaging start-up.
2016	Contracts/Agreements	In April, Google and the Hong Kong Trade Development Council partnered to provide online marketing channels to support Hong Kong small- and medium-sized enterprises.
2016	Contracts/Agreements	In April, the company and TIE Kinetix entered into a strategic collaboration for Google Adwords.
2016	Contracts/Agreements	In January, the company and Kronos SaaS, Inc., entered into a partnership to develop innovative workforce management solutions to small and midsize businesses.
2016	Contracts/Agreements	In November, Vodafone Business Services, enterprise arm of Vodafone India, entered into alliance with Google to provide cloud based G Suite access services to Vodafone enterprise customers in India.
2016	Contracts/Agreements	In October, Google partnered with three shopping platforms; Magento, BigCommerce, and PrestaShop, to offer easy online selling.
2016	New Products/Services	In February, the company paired up with Agiloft, Inc., to offer top-rated security option.
2016	Other	The company along with Alibaba Group and other investors invested US\$793.5 million in Magic Leap, Inc., a startup company.
2016	Patent Grant	The company secured patent for bus detection on autonomous vehicles.
2015	Acquisitions/Mergers/Takeovers	The company acquired Granata Decision Systems, a Toronto-based technology start-up company.
2015	Acquisitions/Mergers/Takeovers	The company acquired intellectual property of JVL Ventures, LLC.
2015	Acquisitions/Mergers/Takeovers	The company acquired Launchpad Toys, a mobile app maker.
2015	Acquisitions/Mergers/Takeovers	The company acquired Odysee, a photo backup and sharing app for smartphones.
2015	Acquisitions/Mergers/Takeovers	The company acquired Pixate, a mobile app prototyping tool.
2015	Acquisitions/Mergers/Takeovers	The company acquired Pulse.io Inc., which specializes in making applications faster and more responsive.
2015	Acquisitions/Mergers/Takeovers	The company acquired Red Hot Labs Inc., a provider of Toro service for application developers.
2015	Acquisitions/Mergers/Takeovers	The company acquired Skillman & Hackett and Thrive Audio.
2015	Acquisitions/Mergers/Takeovers	The company acquired Timeful to increase its mobile services and product offerings.
2015	Acquisitions/Mergers/Takeovers	The company acquired Toro, a mobile marketing company, which helps developers market their apps on social media platforms like Facebook.
2015	Acquisitions/Mergers/Takeovers	The company announced the acquisition of Agawi., a specialist in streaming native mobile apps.
2015	Acquisitions/Mergers/Takeovers	The company announced the acquisition of Lumedyne Technologies.
2015	Acquisitions/Mergers/Takeovers	The company announced the acquisition of Softcard Technology, an NFC-based mobile payment service.

2015	Acquisitions/Mergers/Takeovers	The company sets plans to acquire minority stake in the Lake Turkana Wind Power Project in Kenya.
2015	Acquisitions/Mergers/Takeovers	The company was acquired by Alphabet Inc., a conglomerate company based in the US.
2015	Contracts/Agreements	In August, Google and ClearStory Data collaborated for speed data analysis on large, diverse data to answer latest business questions.
2015	Contracts/Agreements	In December, Google purchased wind and solar power projects totalling 842MW.
2015	Contracts/Agreements	In December, Google signed a deal with EDF Renewable Energy to purchase renewable energy for its data center.
2015	Contracts/Agreements	In October, Google partnered with Udacity to launch a new program, the Tech Entrepreneur Nanodegree, that helps in teaching students on how to develop sustainable revenue-generating businesses.
2015	Contracts/Agreements	In September, Eolus entered into a power purchase agreement with Google to purchase all of the clean, renewable electricity generated by the new 76MW wind farm at Jenasen in Sweden.
2015	Contracts/Agreements	The company agreed to join forces with The US Federal Railroad Administration to enable rail crossings safer for drivers and passengers.
2015	Contracts/Agreements	The company along with Facebook, Inc., LinkedIn and Twitter partnered with BNP Paribas to expand its digital presence worldwide.
2015	Contracts/Agreements	The company collaborated with SolarCity Corp., to jointly establish a fund worth US\$750 million in residential solar projects.
2015	Contracts/Agreements	The company entered into a co-development agreement with Toumaz Limited for Cast-for-Audio technology.
2015	Contracts/Agreements	The company entered into a partnership with ChowNow, an online ordering platform, to bring Google Wallet for thousands of independent restaurants across the US.
2015	Contracts/Agreements	The company entered into a partnership with Johnson & Johnson Limited for development of innovative robotics tools.
2015	Contracts/Agreements	The company entered into a strategic collaboration with Ethicon, Inc., to work with the Life Sciences team on advancing surgical robotics.
2015	Contracts/Agreements	The company extended its partnership with TravelClick, Inc., to allow 'one-click' mobile web bookings through Google Wallet.
2015	Contracts/Agreements	The company joined forces with BlackBerry Limited to manage the devices equipped with Android.
2015	Contracts/Agreements	The company joined forces with CBT Nuggets, an on-demand video training programme provider, to deliver training courses for Google Cloud Platform.
2015	Contracts/Agreements	The company joined forces with Ingenico Group to assist online merchants strengthen their business abroad with Export Accelerator joint program.
2015	Contracts/Agreements	The company joined forces with Lending Club, a peer-to-peer lending firm, to deliver its partners with small business loans.
2015	Contracts/Agreements	The company partnered with ClearStory Data, Inc., to combine their Spark-Powered Data Analysis with its Cloud Dataflow to speed data analysis on large, diverse data.
2015	Contracts/Agreements	The company partnered with JDA Software Group, Inc., where the company will provide a uniquely scalable and flexible technology platform via the cloud to support JDA's future application development and delivery.
2015	Contracts/Agreements	The company partnered with Nestle to launch YouTube my break limited edition KITKAT packs.

2015	Contracts/Agreements	The company signed a definitive agreement to collaborate with Google, Inc., to work with the Life Sciences team on advancing surgical robotics to benefit surgeons, patients and health care systems.
2015	Contracts/Agreements	The company signed a memorandum of understanding with the state government of Telangana to construct the biggest campus of Asia in Hyderabad, Telangana, India, with an investment of US\$155.5 million.
2015	Contracts/Agreements	The company signed an agreement with WePay whereby WePay will provide payment services to integrate Google Wallet Instant Buy into its checkout experience.
2015	Contracts/Agreements	The company's Google Earth Outreach program entered into a partnership with Aclima, Inc., to map and understand urban air quality.
2015	Corporate Changes/Expansions	The company launched Gmail payment service in the UK.
2015	Corporate Changes/Expansions	The company launched Google Compare Auto Insurance website to compare car insurance and buy policies.
2015	Corporate Changes/Expansions	The company opened 'The Google shop' in London
2015	Corporate Changes/Expansions	The company opened a new campus at Boulder, Colorado.
2015	New Products/Services	In December, Google has unveiled a new tool, the tool, Google Cloud Vision API.
2015	New Products/Services	The company announced to launch a new information kit on health and fitness in the search tool as well as through a new app.
2015	New Products/Services	The company introduced a new user consent policy for publishers and site visitors of European Union.
2015	New Products/Services	The company launched a new feature called 'Purchases on Google,' which allows shopper to buy items directly from mobile search ads.
2015	New Products/Services	The company launched a specialized Android tablet, where doctors could record medical info from inside the high-risk zone and then send it wirelessly to servers on the outside.
2015	New Products/Services	The company launched Classroom-Labeled Mobile Application.
2015	New Products/Services	The company launched Eddystone, an open source and cross-platform Bluetooth LE beacon standard.
2015	New Products/Services	The company launched its Google Play Gift Cards in India.
2015	New Products/Services	The company launched PerfKit, an open-source cloud-benchmarking tool.
2015	New Products/Services	The company launched the Android M Developer Preview 2, an improved version of its Android M preview.
2015	Other	The company announced to invest US\$600 million in new data center on Tennessee Valley Authority coal plant site.
2015	Patent Grant	The company secured patent grant from the US Patent and Trademark Office for pedestrians protection system.
2015	Plans/Strategy	In November, the company plans to launch Google Play store in China.
2015	Plans/Strategy	The company announced to acquire Dunnhumby.
2015	Plans/Strategy	The company announced to establish a data centre at former coal-burning power plant in Jackson County, Alabama, the US.
2015	Plans/Strategy	The company announced to launch Android Pay, a mobile payments system.
2015	Plans/Strategy	The company announced to launch self-driving cars by 2020

2015	Plans/Strategy	The company announced to launch solar-powered planes to provide wireless Internet service in the world's unconnected areas.
2015	Plans/Strategy	The company announced to restart its Glass project.
2015	Plans/Strategy	The company planned to launch a 'modular' smartphone in Puerto Rico, a United States territory.
2015	Plans/Strategy	The company planned to sell wireless phone service directly to the customers.
2014	Acquisitions/Mergers/Takeovers	Google announced the acquisition of cyber security start-up Imperium in a bid to improve its abuse monitoring efforts.
2014	Acquisitions/Mergers/Takeovers	The company acquired Baarzo, a video search startup.
2014	Acquisitions/Mergers/Takeovers	The company acquired cloud monitoring service Stackdriver.
2014	Acquisitions/Mergers/Takeovers	The company acquired drone maker Titan Aerospace, a solar-powered drone maker.
2014	Acquisitions/Mergers/Takeovers	The company acquired Firebase, a cloud service provider, to assist developers build realtime apps.
2014	Acquisitions/Mergers/Takeovers	The company acquired Gecko Design, a mechanical engineering and product design company.
2014	Acquisitions/Mergers/Takeovers	The company acquired Jetpac, a popular photo analyzing application.
2014	Acquisitions/Mergers/Takeovers	The company acquired Lift Labs and as a result of transaction Lift Labs will continue to make and sell the product, and Lift Labs team will be incorporated into Google X's life sciences group.
2014	Acquisitions/Mergers/Takeovers	The company acquired Rangespan, a retail forecasting firm in the UK.
2014	Acquisitions/Mergers/Takeovers	The company acquired RelativeWave for the development of Mac app called Form.
2014	Acquisitions/Mergers/Takeovers	The company acquired restaurant website builder, Appetas.
2014	Acquisitions/Mergers/Takeovers	The company acquired stake in a Silicon Valley-based robotics company, Savioke.
2014	Acquisitions/Mergers/Takeovers	The company acquired Zync Inc., a Video, Special-Effects Startup company.
2014	Acquisitions/Mergers/Takeovers	The company entered into an agreement to acquire Nest Labs, Inc. for US\$3.2 billion.
2014	Business / Operations Closure	The company closed its first social network, Orkut.
2014	Contracts/Agreements	The company agreed to acquire equity interest in Panhandle II Wind farm situated in the US, from Pattern Energy Group Inc., for a purchase consideration of US\$75 million.
2014	Contracts/Agreements	The company collaborated with Tata Communications to provide 'Cloud Interconnect' over the Internet.
2014	Contracts/Agreements	The company entered into 10-year cross-license agreement with LG Electronics to cover a broad range of products and technologies.
2014	Contracts/Agreements	The company entered into a partnership with SkyTruth, a digital mapping firm and Oceana, ocean conservation and advocacy organization, to develop Global Fishing Watch.
2014	Contracts/Agreements	The company entered into an agreement with Lenovo under which Lenovo will acquire Motorola Mobility smartphone business from Google.
2014	Contracts/Agreements	The company's Google Wallet was selected by Blackhawk Network, Inc., a prepaid and payments network, it allows the customers to spend and track

		gift card balances on mobile devices.
2014	Contracts/Agreements	The company-owned Nest Labs acquired Revolv, a developer of smart-home automation products.
2014	Corporate Changes/Expansions	The company launched Android TV.
2014	New Product Approvals	The company launched Chromecast Web TV streaming dongle.
2014	New Products/Services	The company along with SunPower Corp. launched a new program which will provide financing to support approximately US\$250 million of residential solar lease projects in the US.
2014	New Products/Services	The company introduced Street View Imagery feature in Google Maps, which allows users to see the latest image of a particular place and an older image of the same place.
2014	New Products/Services	The company launched 'Google Fit Health Tracking App', a health and fitness software application.
2014	New Products/Services	The company launched first 'Android Wear update' it offers support for GPS features, offline music playback and Bluetooth.
2014	New Products/Services	The company launched Gmail 5.0 latest version of the Gmail app.
2014	New Products/Services	The company launched Nexus 9 tablet and Nexus 6 smartphone.
2014	Other	A consumer rights law firm, filed a national class-action lawsuit against Google, claiming that the company unlawfully denies payments to thousands of website owners and operators who place ads on their sites sold through Google AdWords.
2014	Patent Grant	Google and Apple agreed to settle patent litigation.
2014	Plans/Strategy	The company announced to merge Wallet application with Google Glass.
2014	Plans/Strategy	The company planned to enhance its shopping service
2014	Plans/Strategy	The company planned to invest US\$1 billion to launch satellites.
2013	Acquisitions/Mergers/Takeovers	The company acquired a Canadian startup, which specializes in getting machines to understand what people are trying to say.
2013	Acquisitions/Mergers/Takeovers	The company acquired a portfolio of U.S. patents and patent applications from SR Tech Group LLC.
2013	Acquisitions/Mergers/Takeovers	The company acquired Flutter, a gesture recognition company.
2013	Acquisitions/Mergers/Takeovers	The company acquired Israeli mapping startup Waze, an online real-time mapping service provider.
2013	Acquisitions/Mergers/Takeovers	The company acquired WIMM Labs, a android smartwatch manufacturer.
2013	Contracts/Agreements	The company entered into an agreement with GROUPE OPEN SA, pursuant to which Groupe Open SA will its customers a cloud-based multi-services solution.
2013	Contracts/Agreements	The company entered into an agreement with Himax Technologies Inc, pursuant to which Google will invest in Himax Technologies Inc's subsidiary, Himax Display Inc.
2013	Contracts/Agreements	The company's Google Play and Telenor ASA's Telenor Norway entered into a collaboration to enable Android mobile users to find relevant apps in Google Play.
2012	Acquisitions/Mergers/Takeovers	Google acquired Nik Software, which makes photo editing application Snapseed.

2012	Acquisitions/Mergers/Takeovers	Google completed the acquisition of Motorola Mobility Holdings, a manufacturer of telecommunications equipment. The acquisition was mainly focused at strengthening the Android ecosystem and improving mobile computing capabilities.
2012	Acquisitions/Mergers/Takeovers	The company acquired a BufferBox, a provider of lockers to receive e-commerce shipments.
2012	Acquisitions/Mergers/Takeovers	The company acquired mobile office software company, Quickoffice.
2012	Acquisitions/Mergers/Takeovers	The company acquired TxVia, a payment services company.
2012	Acquisitions/Mergers/Takeovers	The company acquired Wildfire, a provider of social media marketing tools.
2012	Acquisitions/Mergers/Takeovers	The company completed the acquisition of VirusTotal, a provider of anti-virus engines from third-party providers.
2012	Asset Purchase	The company acquired Milk Inc., for worth USD30 million.
2012	Contracts/Agreements	The company also entered into a definitive agreement with John Wiley & Sons Inc, to procure the assets of its Travel business.
2012	Contracts/Agreements	The company also signed an Internet AdSense advertising agreement with Jobookit Holdings Ltd, under which, the company will add its advertising links to Jobookit's Exact Me website.
2012	Contracts/Agreements	The company extended its desktop search agreement with Opera Software ASA for a period of 2 months.
2012	Contracts/Agreements	The company extended its strategic partnership with Daimler. Under the terms of the partnership, Google will provide Daimler with an access to a suite of application programming interfaces (APIs) for map-related applications in Daimler vehicles.
2012	Contracts/Agreements	The company signed a strategic agreement with Opera Software ASA to integrate the Opera mobile and desktop browsers with Google search.
2012	New Products/Services	The company launched a new platform, Google Play. Under this platform, the company integrates all its application such as books, music and movies.
2011	Acquisitions/Mergers/Takeovers	Google and Real Estate Opportunities Limited entered into an agreement to sell Montevetro, Dublin's tallest commercial office building, to Google.
2011	Acquisitions/Mergers/Takeovers	The company acquired digital coupon and loyalty program provider, Zave Networks.
2011	Acquisitions/Mergers/Takeovers	The company acquired eBook Technologies Inc, to deliver richer reading experience to its customers on electronic readers, tablets and other portable devices.
2011	Contracts/Agreements	The company entered into a low-income housing tax credit investment partnership with AEGON USA Realty Advisors, LLC, a commercial real estate investment and management arm of AEGON companies.
2011	Contracts/Agreements	The company entered into a partnership with Booktopia Pty Ltd., an online retailer, to sell ebooks.
2011	Contracts/Agreements	The company entered into a partnership with Gilt City, delivers access for unique lifestyle experience, to provide expanded deal services.
2011	New Products/Services	The company's Android team launched Ice Cream Sandwich with focus on improved sharing through Google+.
2010	Acquisitions/Mergers/Takeovers	Google acquired Widevine, an anti-piracy company.
2010	Acquisitions/Mergers/Takeovers	The company acquired On2 Technologies, Inc. valued at approximately US\$124.6 million.

2010	Acquisitions/Mergers/Takeovers	The company acquired Picnik, a site enabling you to edit your photos in the cloud, without leaving your browser.
2010	Acquisitions/Mergers/Takeovers	The company acquired Slide, a social technology company with an extensive history of building new ways for people to connect with others across numerous platforms online.
2010	Acquisitions/Mergers/Takeovers	The company signed an agreement to acquire ITA, a software company specializing in organizing airline data, including flight times, availability and prices.
2010	Contracts/Agreements	Google Inc., Brocade Communications Systems, Inc., Santur Corporation and JDS Uniphase Corporation entered into a multi-source agreement (the 10X10 MSA) to establish compatible sources of low-power, low-cost, pluggable 100G optical transceivers based on 10 optical lanes at 10G.
2009	Acquisitions/Mergers/Takeovers	Google announced to acquire On2 Technologies, a leading developer of video compression technology. The transaction is valued at approximately US\$106.5 million.
2009	Acquisitions/Mergers/Takeovers	The company signed an agreement to acquire AdMob, a mobile display ad technology provider, to enhance its existing expertise and technology in mobile advertising.
2009	Contracts/Agreements	The company entered into a retail partnership with Best Buy Mobile, a unit of Best Buy Co. Inc., to distribute Google Mobile App on smartphones.
2009	Contracts/Agreements	The company entered into partnership with Verizon.
2009	New Products/Services	Google announced the launch of Google Toolbar 6 Beta for Internet Explorer to host new features and making search and navigation faster, stronger, and easier.
2009	New Products/Services	The company launched its Picasa for Mac, free software that helps Mac users easily organize their photos in one place, edit pictures, and share them online with friends, family, and the world.
2008	Acquisitions/Mergers/Takeovers	Google completed the acquisition of DoubleClick
2008	Contracts/Agreements	The company's Google Health product partnered with CVS Caremark, retail and health care firm, to securely store, organize and manage medical records of users.
2008	New Products/Services	A new version of Google Earth was launched.
2008	New Products/Services	Google Sites was launched following the acquisition of JotSpot.
2008	New Products/Services	The company launched Google Finance China, which enables Chinese investors to get stock and mutual fund data.
2008	New Products/Services	The company launched Google Health, enabling people to collect, store, and manage their medical records and health information online.
2007	Contracts/Agreements	Google entered into a partnership with LG Electronics.
2007	Contracts/Agreements	The company signed a strategic alliance with Salesforce.com.
2007	Corporate Awards	The company received 'Ritz Interactive Partner of the Year Award' from Ritz Interactive.
2006	Acquisitions/Mergers/Takeovers	Google signed partnership with Warner Music Group Corporation and Sony BMG.
2006	Acquisitions/Mergers/Takeovers	The company acquired YouTube, an online video-sharing site.
2006	Contracts/Agreements	Google and eBay signed a multi-year agreement to benefit both companies' collective communities of users, merchants and advertisers around the globe.

2006	Contracts/Agreements	Google signed a partnership agreement with MTV Networks.
2006	Incorporation/Establishment	The company established its operations in India and China.
2006	New Products/Services	The company launched Checkout, a merchant payment solution.
2006	New Products/Services	The company launched Google Docs & Spreadsheets.
2006	New Products/Services	The company launched Google Video Store, its open video marketplace.
2005	Acquisitions/Mergers/Takeovers	Google acquired Urchin Software, a web analytics company.
2005	Contracts/Agreements	Google and NASA signed a memorandum of understanding (MOU).
2005	Contracts/Agreements	The company signed an agreement with Sun Microsystems (Sun Micro).
2005	New Products/Services	Google Sitemaps, Google Talk, Google Desktop, and Google Blog were launched by the company.
2005	New Products/Services	The company launched Google Video, Google Maps, and Google Web Accelerator.
2004	Acquisitions/Mergers/Takeovers	The company acquired Keyhole, a digital and satellite mapping company.
2004	Acquisitions/Mergers/Takeovers	The company acquired Picasa, a California-based digital photo management company.
2004	Contracts/Agreements	The company signed agreements with the libraries of Harvard, Stanford, the University of Michigan, the University of Oxford, and The New York Public Library.
2004	New Products/Services	Google launched its desktop search, a beta-based web application.
2004	New Products/Services	The company launched its Gmail service.
2004	Stock Listings/IPO	The company issued Initial Public Offerings and listed on the NASDAQ Stock Exchange.
2003	Acquisitions/Mergers/Takeovers	The company acquired Pyra Labs.
2002	New Products/Services	The company launched online shopping service, Froogle, news feeds, and Google News.
2001	Acquisitions/Mergers/Takeovers	Google acquired Deja.com's Usenet archive.
2001	New Products/Services	The company launched Google Labs to develop new products.
2001	New Products/Services	The company released wireless search technology for i-Mode mobile phones.
2000	Contracts/Agreements	The company signed partnership agreements with Yahoo, Chinese portal NetEase and NEC's Biglobe portal.
2000	Corporate Awards	Google was awarded the Webby Award and a People's Voice Award for technical achievement.
2000	Corporate Changes/Expansions	The company moved its headquarters to Mountain View, California.
1999	Corporate Changes/Expansions	The company moved its headquarters to University Avenue in Palo Alto, California.
1998	Incorporation/Establishment	Google LLC was incorporated.

Source: Company Website, Primary and Secondary Research

GlobalData

Google LLC - Locations And Subsidiaries

Head Office

Google LLC
1600 Amphitheatre Parkway
Mountain View
CA
94043
United States
Tel: +1 650 2530000

Other Locations & Subsidiaries

Google LLC, Other Locations

Google Kirkland	Roppongi Hills Mori
777 6th Street South	PO Box 22, 6-10-1 Roppongi, Minato-ku
Kirkland	Tokyo
Washington	106-6126
98033	Japan
United States	Tel: +81 3 63849000
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Fax: +1 425 9689399	

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California	Sweden
92612	
United States	
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Accra
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Google Mexico
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117371
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7 Fragoklissias St, 2nd floor
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Greece

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Fax: +1 303 5355592

Source: Company Website, Primary and Secondary Research

GlobalData

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Xively
United States

Google International LLC
DE
United States

YouTube LLC
901 Cherry Avenue
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94066
United States
Url: www.youtube.com

Relay Media, Inc.
3634 South Court
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CA
94306
United States
Url: www.relaymedia.com

Teracent Corporation

Adscape Media, Inc.
600 Townsend Street, Suite 242 E
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United States
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Tel: +1 732 2140747

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94124
United States
Tel: +1 415 8945438
Url: www.google.com/liftware

Senosis Health
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WA
United States
Url: <https://www.senosishealth.com/>

AppBridge Software, Inc.

Tenor Inc
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525 Brannan Street
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94107
United States
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Google France SarL

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Google Germany GmbH
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Quay
Dublin
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Tiny Garage Labs, Inc (60dB)
2421 Park Boulevard
Palo Alto, CA 94306
United States
Url: 60db.co

Source: Company Website, Primary and Secondary Research

GlobalData

Section 2 – Company Analysis

Google LLC - Business Description

Google LLC (Google) is a global technology company, which provides internet products such as Search, Ads, Commerce, Maps, YouTube, Google Cloud, Android, Chrome, Google Play and hardware products.

The company operates through three business segments: Google Properties, Google Network Members' Properties, and Others. In FY2017, Google Properties accounted for 71% of the company's total revenue, followed by Google Network Members' Properties (16%) and Others (13%).

The company conducts research and development (R&D) activities on improving the performance of products and developing new technologies. The R&D team of the company initiated several projects to enhance and develop various products and technologies in the areas of artificial intelligence (AI), virtual reality, Big Data, and others.

The company has business presence worldwide and its products and services are available in several languages and in various countries, regions, and territories.

Business Description - Google Network Members properties

Google Network Members properties - Overview

Offers services such as AdWords, AdSense, AdMob and DoubleClick's AdExchange.

AdWords is an auction-based advertising program that allows advertisers to create suitable text-based advertisements. Google AdSense comprises Google AdSense for Search, an online service for distributing related ads from the company's advertisers for displaying the search results on the Google network members' websites and Google AdSense for Content analyzes the meaning of the content on the web page and provide related ads based on the meaning of such content. AdMob enables app developers to generate insights about their users. An AdExchange is a technology platform that facilitates the buying and selling of media advertising inventory from multiple ad networks.

Business Description - Google Properties

Google Properties - Overview

Provides services through its owned and operated properties such as Gmail, Maps, YouTube, Google Chrome, and Google Play.

Google Maps offers services such as GPS navigation, traffic alerts, and transit directions. Gmail is a free, advertising-supported email service developed by Google. Through Google Play, customers can subscribe to access millions of songs. The users can discover, watch, and share favorite videos and music through YouTube. Google Chrome is a simple and secure browser.

Business Description - Others

Others - Overview

Provides apps, in-app purchases, and digital content in the Google Play store; and hardware services. Google's apps include Google Allo, a smart messaging app and Google Duo, a video calling app.

Google LLC - Corporate Strategy

Google focuses on establishing itself as a major enterprise vendor supplying future technology. The company leverages its cloud platform to meet the requirements of developers and penetrate into the enterprise market. It focuses on strategic enterprise business drivers such as cost savings through its Google Cloud Platform to increase value proposition of its customers. Google also plans to create and manage digital apps for both segments of customers including enterprise digital professional and the enterprise developer.

The company adopts inorganic growth strategy to expand its expertise in engineering and other functional areas. Google's major acquisitions are focused on strengthening its cloud customer base, app-based solutions, life-science businesses, and broaden its portfolio of patented technology. In March 2018, the company acquired Tenor Inc., a developer of the GIF keyboards, which could complements its services that are offered to the users.

Google LLC - SWOT Analysis

SWOT Analysis - Overview

Google LLC (Google) is global technology leader focused on web search and advertising services. Strong revenue performance, dominance in search engine market, and robust research and development capabilities are the company's major strengths, whereas involvement in lawsuits, and update patching issues remain major areas of concern. Focus on artificial intelligence market; next billion users' initiative and cloud computing market are likely to offer growth opportunities to the company. However, intense competition, security breaches, and stringent regulations could affect its business operations.

Google LLC - Strengths

Strength - Revenue Performance

The company's total revenue increased from US\$89,463 million in FY2016 to US\$109,652 million in FY2017, an annual growth of 22.5%. Revenue growth was due to 20.1% increase in advertising revenue, which increased from US\$79,383 million in FY2016 to US\$95,375 million in FY2017. Growth in the advertising revenues was contributed from the increase in the YouTube engagement ad's and mobile search queries. Growth in the revenue was also due to improvements made to ad formats and delivery related initiatives. Higher advertising revenue also resulted from growth in the higher programmatic advertising buying and AdMob. There was also US\$4,197 million increase in the Google Other revenue from Google cloud offerings, hardware sales, and Google Play app.

Strength - Penetration of Android Operating System

Google's Android operating system (OS) has emerged as the leading mobile OS worldwide. The OS is expected to gain more market share in the global smartphone market in the future. According to Google, the monthly activation of Android devices reached over two billion worldwide. The Android users download over 1.5 billion apps and games from the Google Play store monthly. In addition to this, the company introduced an enhanced version of android operating system- Android P equipped with new gesture navigation, screen notch support, AI powered smart replies, task predictions extended battery life, and tools that stops smartphone addictions. In May 2018, the Google collaborated with Qualcomm Technologies, Inc., on project Treble, which aims at making Android P accessible on Snapdragon platforms. Android holds strong market share across various geographies worldwide. According to in-house research, it has 85% share in smartphone OS market in Asia-Pacific and Latin America each, 79% in Central and Eastern Europe, 68% each in Western Europe, and Africa and Middle East, 64% in North America, and 56% in Australia.

Strength - Research and Development (R&D) Capabilities

Strong R&D capabilities enable the company to implement innovative technologies and deliver advanced products and services that meet its customers' critical needs. Google has robust research and development (R&D) capabilities, which focus on improving the performance of products and developing new technologies. The company's R&D activities endeavor to develop new online advertising offerings and enhance its technological advantages. It enables to overcome the technical barriers encountered in the commercialization of search, advertising, operating systems and platforms, and enterprise. The R&D team of the company initiated several projects to enhance and develop various products and technologies. Google focuses on improving the performance of its Voice Search to enable users to quickly find what they look for. Its Google Assistant allows users to type or talk with in a natural conversational way to search and find actual results.

Google LLC - Weaknesses

Weakness - Legal Proceedings

The lawsuits filed against the company could affect the company's bottom line performance. In April 2018, Google was sued by its competitor, Oracle America Inc., for copying of 37 packages of Java application programming interface (API) for use in its Android platform. In January 2018, the company was sued by its former employee James Damore. In this lawsuit, Google was alleged for systematic race, gender, and political bias against white, male, and conservative employees. In March 2018, Google was sued by Oracle America, Inc in the US District Court for the Northern District of California. In the lawsuit, Oracle alleged Google for infringing copyrights of its 37 packages of its Java Application programming interface (API Packages) into Google's Android operating system. In addition to this, in February 2018, lawsuit was filed against Google for selling defective Pixel and Pixel XL smartphones by its users. In this case, the company was alleged for knowingly selling Pixel and Pixel XL smartphones to its users although several users had given complaints about the faulty microphones.

Weakness - Boycott by Major Advertisers

Google has recently faced boycott of its search engine and video platform YouTube by major advertisers such as AT&T, Verizon, Johnson & Johnson, Wal-Mart, L'Oreal, Tesco, Sainsbury Lloyd's of London, Audi, Volkswagen, the BBC, the Guardian newspaper, Marks & Spencer, HSBC, RBS, Havas and the British government. In March 2017, these advertisers pulled their ads after finding their ads were running alongside extremist and hate-filled content. Though Google ensured its clients for not placing their ads alongside unsavory videos, it needed improvement of its automated programs to place advertisement on videos.

Google LLC - Opportunities

Opportunity - Next Billion Users Initiative

Google plans to provide equal access to the internet to people living in any part of world under its initiative of reaching the next billion users. As part of its initiative, the company focuses on addressing the issues of connectivity and low bandwidth in emerging countries. It has launched a project, CSquared to build fiber and wifi networks across various cities of Uganda and Ghana to provide faster and reliable network to the users. Its Project Loon comprises a network of balloons, which are sent up to the stratosphere for providing internet services in rural and remote areas worldwide where traditional means fails to reach. The company develops low cost operating system to help mobile manufacturers develop cheap smartphone. It also focuses on improving results of Google searches in developing countries by increasing search speeds and reducing data usages. Google intends to strengthen its presence in Southeast Asia especially Singapore, which strengthens its network to serve emerging markets such as India and Indonesia. The company decentralizes its decision making process that enable managers to localize products to meet the requirements of relevant market. In FY2017, Google strengthened its NBU initiative by introducing Google Assistant, Files Go, a file management app and Tez, an easy bill payments app in India, which already had 400 million internet users as of December 2017.

Opportunity - Exploring Artificial Intelligence (AI)

The company's open-source software library for Machine Intelligence (ML), TensorFlow allows it to explore the capabilities of AI to conduct numerical computation using data flow graphs. Google rebranded its research division as Google AI, which develops TensorFlow for facilitating ML and deep neural networks research. It helps in detecting skin cancer and preventing blindness in diabetics along with making language translation easier. In November 2017, the company introduced TensorFlow v1.4, which is equipped with the additional functionalities such as eager execution for interactive imperative style programming, XLA, an optimized compiler, and TensorFlow Lite, a lightweight solution for mobile and embedded devices. The company also expanded its TensorFlow model repository with various models, including TensorFlow Lattice and TensorFlow Object Detection API. In addition to this, Google introduced deeplearn.js, an open-source hardware implementation of deep learning API's in the browser. It also plans to deploy TensorFlow models directly into the deeplearn.js environment in FY2018. In December 2017, the company planned to establish a new Google AI Center in Beijing, China. In July 2017, Google acquired Halli Labs, a Bengaluru-based start-up, which leverages AI and ML techniques to allow people to solve old age problems.

Opportunity - Cloud Computing Market

Cloud-based operations enable enterprises to scale their operations instantly, handle demand fluctuations, and access systems and services over a variety of devices at a lower cost. According to an in-house research, the global cloud computing market is expected to grow at a CAGR of 28.3% to reach US\$69,929.6 million by 2022 from US\$18,687.2 million in 2017. During 2017-2022 forecast period, in terms of variants of cloud, Software-as-a-Service (SaaS) is expected to be the major contributor with market share of 53.2%, followed by Infrastructure-as-a-Service (IaaS) with 24.3%, and Platform-as-a-Service with 22.5% respectively. The US is expected to account for 58.3% market share, followed by Europe (19.6%), Asia-Pacific (12.8%), Rest of the World (9.2%), and the Middle East (0.2%) during 2017-2022. The company undertook several initiatives to improve the performance of its cloud platform. In January 2018, Google introduced a new digital store, which offers cloud-based software to all organizations. In line to this, the company collaborated with MobileIron, Inc., to integrate its cloud Orbitera commerce platform with MobileIron's app distribution, security and analytics capabilities.

Google LLC - Threats

Threat - Regulatory Affairs: EU Antitrust Rules

In February 2018, Google was imposed a fine of INR1,360 million by the India's antitrust regulator for infringing anti-trust conduct. The company was fined for using unfair business practices in the Indian local market for online search. The penalty amounted to 5% of the company's average revenue generated from India. The complaint was filed by Matrimony.com and Consumer Unity and Trust Society (CUTS) against Google LLC, Google India Pvt. Ltd and Google Ireland Ltd. In June 2017, the European Union (EU) levied a penalty of EUR2.4 billion on Google to create dominant position in comparison shopping service market by artificially manipulating its search engine results. In its investigation, the commission found that Google was dominating general internet search markets with a market share of approximately 90% in all 31 countries in EU. It alleged that the company created this dominating position by promoting its own comparison shopping service in its search results, and demoting those of competitors. The commission found that Google's practice resulted in sudden decline in traffic on some of the competitors' websites ranging from 85% in the UK, to 92% in Germany and 80% in France. The commission gave 90 days to the company to adopt legal trade practices and comply with its decisions. Any non-compliance will result in imposition of fine upto 5% of the average daily worldwide turnover of its parent company, Alphabet. Though Google plans to appeal against the commission's decision such issues could affect its operational performance.

Threat - Intense Competition

Google operates in a highly competitive market which could affect its business and operating results. The company witnesses competition from general purpose search engines including Baidu, Inc. and Microsoft's Bing. It also witnessed competition from recently introduced Google Assistant and competitors AI apps such as Siri, Cortana and Alexa. In June 2018, Apple introduced MacOS 'Mojave', an operating system with unique features, which is more user-friendly and secured compared to Google's Android. In January 2018, Microsoft announced to acquire Avere Systems, a hybrid cloud data storage service provider to strengthen its presence in media and entertainment industry.

Google faces stiff competition in cloud computing business where top 10 vendors attract a significant proportion of the overall market. According to in-house research, the top ten cloud computing vendor accounts for 55.7% to the total market size. The market is dominated by vendors such as Amazon Web Services (AWS), Salesforce.com, Microsoft, IBM, and SAP with respective market share of 11.9%, 9.4%, 7%, 6.8%, and 3.8%. Google holds a market share of just 3.7%, requiring the company to increase investments in this market, which has been witnessing consolidation.

Threat - Security Breaches

The company's products and services involve in the storage and transmission of users' and customers' proprietary information. Google's security measures could be breached due to the actions of outside parties, employee error, malfeasance, and as a result an unauthorized party could obtain access to the company's data or users' data. Also, its clients are subject to laws and regulations in the US and other jurisdictions designed to protect privacy of their personal information. The experienced computer programmers and hackers could pierce its network security and misappropriate confidential information, create system disruptions and cause shutdowns.

In May 2017, the Google Docs users received an email accompanying an invitation to open and edit a Google documents with subject line, 'has shared a document on Google Docs with you'. The mail had a HTML code, if clicked, providing hackers the access of reading, sending, deleting and managing emails connected to the Google Docs account.

NOTE:

The above strategic analysis is based on in-house research and reflects the publishers opinion only

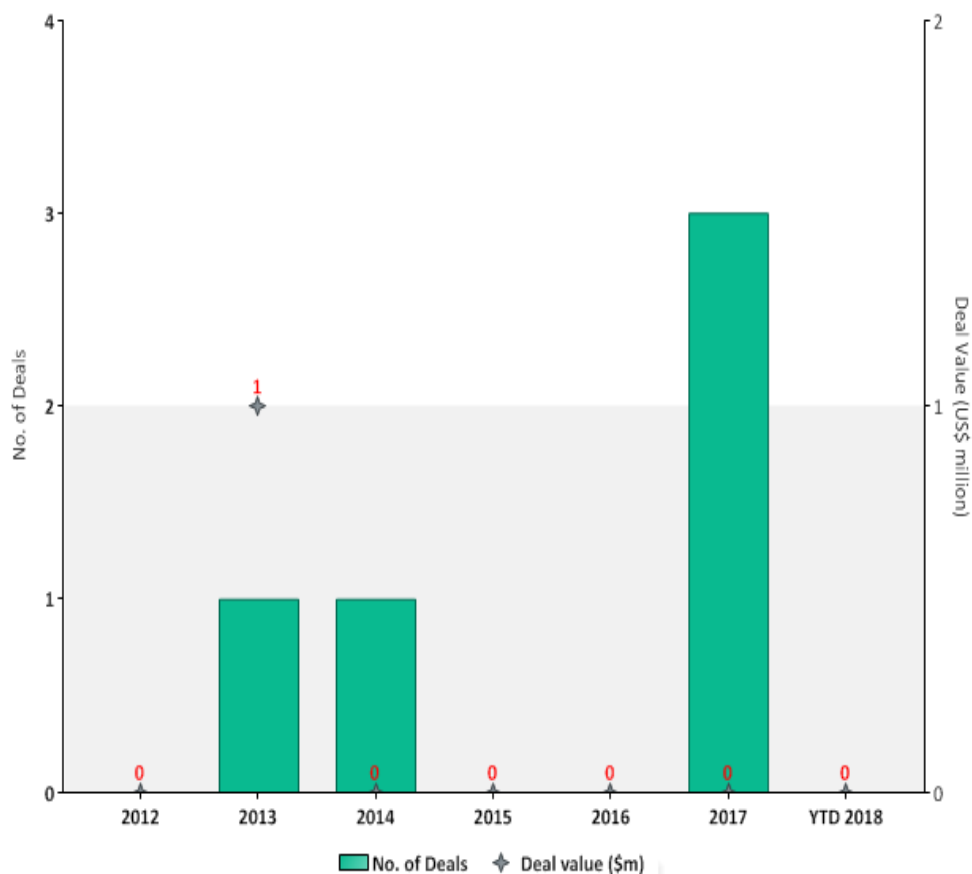
Google LLC - Key Competitors

Google LLC, Key Competitors		
Name	Headquarters	Revenue (US\$ m)
Amazon.com Inc	United States	177,866
Baidu, Inc.	China	12,549
Facebook Inc	United States	40,653
Fujitsu Limited	Japan	37,838
International Business Machines Corp	United States	79,139
Microsoft Corp	United States	89,950
Oracle Corporation	United States	39,831
Salesforce.Com Inc	United States	8,392
SAP SE	Germany	26,450
Source: Company Website, Primary and Secondary Research		GlobalData

Section 3 – Company's Mergers & Acquisitions, Capital Raising and Alliances

Google LLC, Transactions by Year, 2012 to YTD 2018

Google LLC, Transactions by Year, 2012 to YTD 2018



Note: Deals include all announced deals from 2011 onwards, deal values included wherever disclosed.
Above data is extracted from GlobalData's Deals and Alliances Profile.

GlobalData

Google LLC's, deal volume increased from zero deals in 2016 to three deals in 2017. No deals were reported by the company in YTD 2018.

Google LLC, Transactions by Year, 2012 to YTD 2018

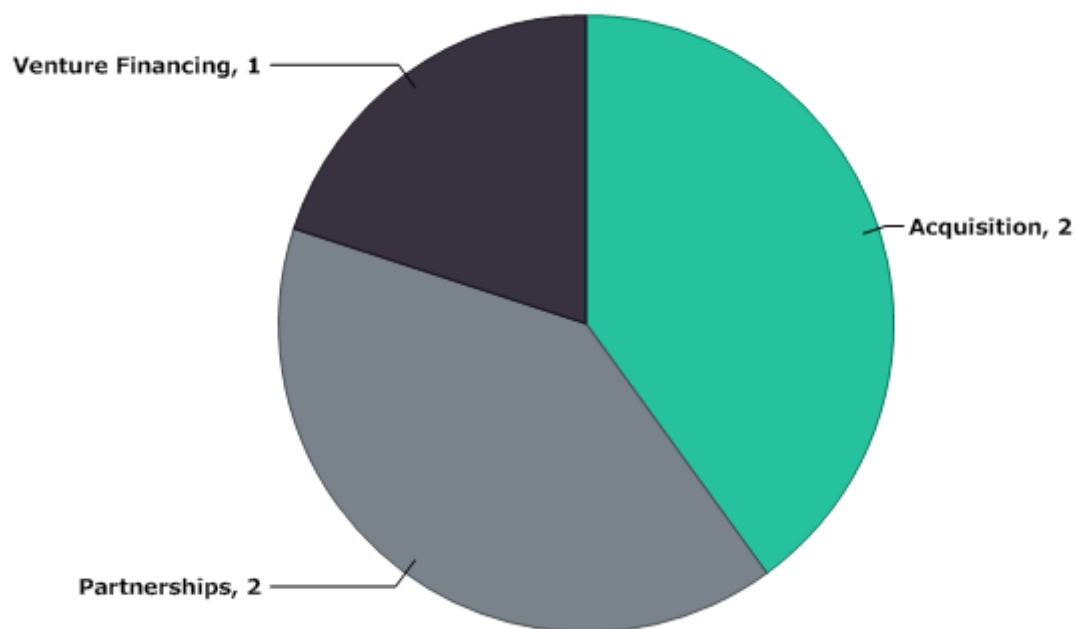
YEAR	No. of Deals	Deal value (\$m)
2012	0	NA
2013	1	1
2014	1	NA
2015	0	NA
2016	0	NA
2017	3	NA
YTD 2018	0	NA

Note: Deals include all announced deals from 2011 onwards, deal values included wherever disclosed. Above data is extracted from GlobalData's Deals and Alliances Profile.

GlobalData

Google LLC, Transactions by Type, 2012 to YTD 2018

Google LLC, Transactions by Type, 2012 to YTD 2018



Note: Deals include all announced deals from 2011 onwards
Above data is extracted from GlobalData's Deals and Alliances Profile.

GlobalData

Google LLC's deals activity has been reportedly focusing on acquisition and partnerships with two deals each during the period 2012 to YTD 2018.

Google LLC, Transactions by Type, 2012 to YTD 2018

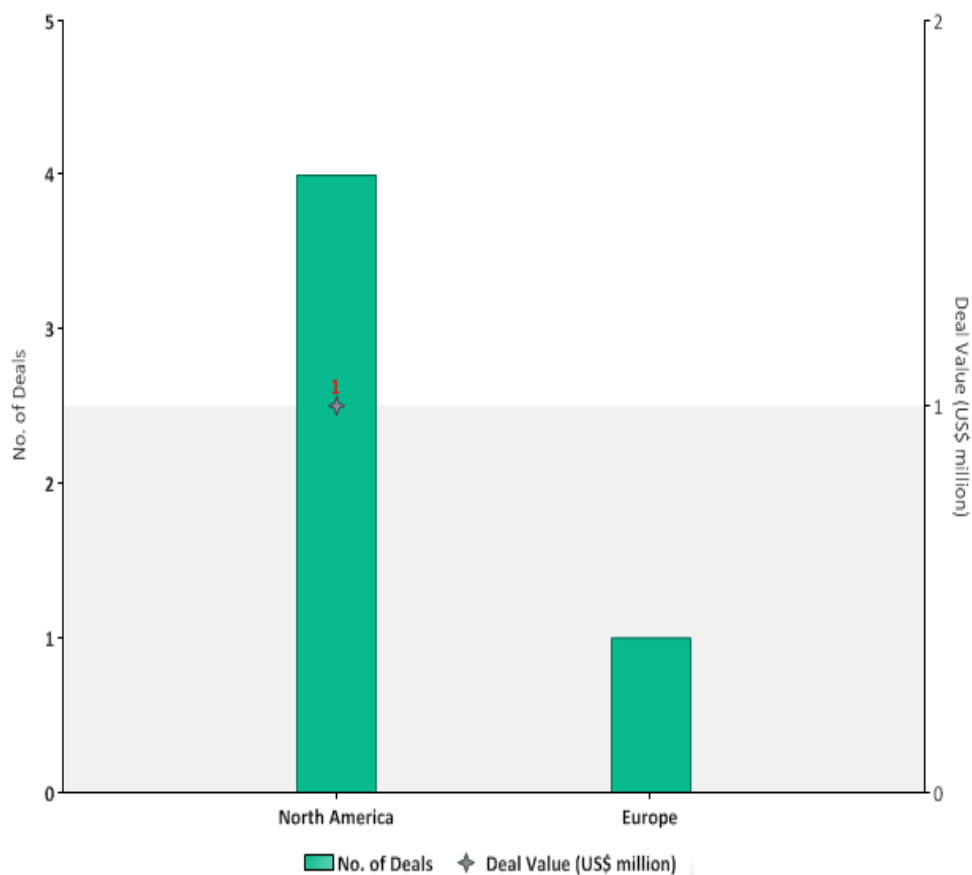
Deal type	No. of Deals	Deal Value (US\$ million)
Acquisition	2	
Partnerships	2	
Venture Financing	1	1

Note: Deals include all announced deals from 2011 onwards, deal values included wherever disclosed. Above data is extracted from GlobalData's Deals and Alliances Profile.

GlobalData

Google LLC, Transactions by Region, 2012 to YTD 2018

Google LLC, Transactions by Region, 2012 to YTD 2018



Note: Deals include all announced deals from 2011 onwards, deal values included wherever disclosed.
Above data is extracted from GlobalData's Deals and Alliances Profile.

GlobalData

Google LLC, deals activity has been reportedly focusing on North America with four deals worth \$1 million during the period 2012 to YTD 2018.

Google LLC, Transactions by Region, 2012 to YTD 2018

Region	No. of Deals	Deal Value (US\$ million)
North America	4	1
Europe	1	

Note: Deals include all announced deals from 2011 onwards, deal values included wherever disclosed. Above data is extracted from GlobalData's Deals and Alliances Profile.

GlobalData

Google LLC, Recent Transactions Summary

Google LLC, Recent Transactions Summary				
Deal Date	Deal type	Deal Status	Deal Headline	Deal Value (US \$ million)
16-Nov-2017	Partnerships	Completed	Candi Controls Forms Partnership with Google Cloud Platform	
13-Aug-2017	Acquisition	Completed	Alphabet Acquires Senosis Health	
03-May-2017	Partnerships	Completed	E.ON Forms Partnership with Google	
10-Sep-2014	Acquisition	Completed	Google Acquires Lift Labs, Tremor-Canceling Device Company	
18-Sep-2013	Venture Financing	Completed	Lift Labs Raises US\$1 Million In Seed Funding	1.00
Note: Deals include all announced deals from 2011 onwards, deal values included wherever disclosed. Above data is extracted from GlobalData's Deals and Alliances Profile.				GlobalData

Acquisition

Alphabet Acquires Senosis Health

Alphabet Acquires Senosis Health			
Deal Type	Acquisition	Deal Sub Type	100% Acquisition
Deal in Brief			
Alphabet Inc., a global technology company and a holding company of Google, has acquired Senosis Health, a health start up company.			
Deal Information			
Deal Status	Completed		
Completed Date	13-Aug-2017		
% Acquired	100		
Companies Information			
Acquirer Company Information			
Company Name	Alphabet Inc		
Business Description			
Alphabet Inc. (Alphabet), the holding company of Google, is a global technology company. It offers a wide range of products and platforms including Search, Maps, Ads, Gmail, Google Play, Android, Commerce, Google Cloud, Chrome, YouTube and hardware products such as Pixel 2 phone, Pixelbook laptop and other related products. The company also provides Internet products such as Access, Calico, CapitalG, GV, Nest, Verily, Waymo, and X. It also offers online advertising services through its AdSense and AdWords, Internet and TV services and licensing and research and development services. Alphabet is also involved in investing in infrastructure, data management, analytics and artificial intelligence (AI). The company has business operations worldwide. Alphabet is headquartered in Mountain View, California, the US.			
Target Company Information			
Company Name	Senosis Health	Parent	Google LLC
Source: GlobalData			

Google Acquires Lift Labs, Tremor-Canceling Device Company

Google Acquires Lift Labs, Tremor-Canceling Device Company			
Deal Type	Acquisition	Deal Sub Type	100% Acquisition
Deal in Brief			
Google Inc., a provider of search and advertising services on the Internet, through its division Google X, has acquired Lift Labs, a health technology company. Following the transaction, Lift Labs will continue to make and sell the product, and Lift Labs team will be incorporated into Google X's life sciences group. Lift Labs developed a special spoon designed to make it easier to eat for people with diseases like Parkinson's or essential tremor. Lift Lab's product, called Liftware, vibrates to stabilize tremors, countering the movements of a patient's hand as he or she raises the spoon to the mouth. This transaction enables Google to expand healthcare focus by providing Liftware system for people with Parkinson's or essential tremor who could benefit from using tremor-canceling devices.			
Deal Rationale			
This transaction enables Google to expand healthcare focus by providing Liftware system for people with Parkinson's or essential tremor who could benefit from using tremor-canceling devices.			
Deal Information			
Deal Status	Completed		
Completed Date	10-Sep-2014		
% Acquired	100		
Companies Information			
Acquirer Company Information			
Company Name	Alphabet Inc		
Business Description			
Alphabet Inc. (Alphabet), the holding company of Google, is a global technology company. It offers a wide range of products and platforms including Search, Maps, Ads, Gmail, Google Play, Android, Commerce, Google Cloud, Chrome, YouTube and hardware products such as Pixel 2 phone, Pixelbook laptop and other related products. The company also provides Internet products such as Access, Calico, CapitalG, GV, Nest, Verily, Waymo, and X. It also offers online advertising services through its AdSense and AdWords, Internet and TV services and licensing and research and development services. Alphabet is also involved in investing in infrastructure, data management, analytics and artificial intelligence (AI). The company has business operations worldwide. Alphabet is headquartered in Mountain View, California, the US.			
Target Company Information			
Company Name	Lift Labs	Parent	Google LLC
Source: GlobalData			

Partnerships

Candi Controls Forms Partnership with Google Cloud Platform

Candi Controls Forms Partnership with Google Cloud Platform			
Deal Type	Partnership		
Deal in Brief			
Candi Controls, Inc., (CANDI) a clean technology company, has formed partnership with Google Cloud Platform, to launch a new solution that simplifies the connection of smart building devices and data to apps. Through the integration of Google Pub/Sub and CANDI's PowerTools, IoT developers and service providers can more easily connect to edge data, link directly into Google's Cloud Platform toolset, and drive business value across the IoT ecosystem. The solution is designed with out-of-the-box support for smart buildings, which includes reference designs and sensor kits for energy, HVAC, and equipment management using Intel BMP gateways.			
Deal Information			
Deal Status	Completed		
Completed Date	16-Nov-2017		
Companies Information			
Partner Company Information			
Company Name	Candi Controls Inc		
Business Description			
Candi Controls, Inc. is a cloud-based software as a service (SaaS) company that connects devices and data in mainstream commercial buildings to cloud-based services for energy and facilities management.			
Company Name	Google LLC	Parent	Alphabet Inc
Business Description			
Google LLC (Google), a subsidiary of Alphabet Inc., is a leading provider of search and advertising services on the internet. The company focuses on business areas such as advertising, search, platforms and operating systems, and enterprise and hardware products. Its portfolio of products and services include Google Web Search, Google Chrome, Google Docs, Google Calendar, Google Images, Google Finance, Google Books, Google News, Google Earth, Google Play, AdMob, Google Maps, Google Videos, Google Reader, Blogger, Google Wallet, Gmail, Google Groups, and YouTube. The company offers online display advertising services through its AdSense and AdWords programs. Google is headquartered in Mountain View, California, the US.			
Source: GlobalData			

E.ON Forms Partnership with Google

E.ON Forms Partnership with Google			
Deal Type	Partnership	Deal Sub Type	Other
Deal in Brief			
<p>E.ON SE, a power generation, distribution and transmission company, a renewable energy company, has formed partnership with Google, Inc., a US-based Internet technology and advertising company, to jointly offer the Sunroof platform in Germany. Under the partnership, around seven million buildings are covered by the sunroof platform, including those in major urban areas like Munich, Berlin, Rhine-Main and the Ruhr. Using this technology, homeowners can easily and precisely determine their home's potential solar capacity and generate plans for installing a solar system. The sunroof platform brings together technologies like Google Earth & Maps, 3D models, and machine learning in order to answer inquiries as precisely as possible. Sunroof calculates how much sunlight falls on a roof during the course of a year. It takes into account weather data, the position of the sun in different seasons, the area and slope of the roof as well as shadows from surrounding buildings or trees. Then sunroof converts the data on sunlight into energy and calculates the potential cost savings. On May 18, 2018, E.ON and Google have announced that they have extended the one-year program until the end of 2018. In addition, E.ON and Google are making their sunroof platform available to the homeowners in Great Britain. At the same time, E.ON and Google are preparing the market launch in Italy.</p>			
Deal Information			
Deal Status	Completed		
Completed Date	03-May-2017		
Companies Information			
Partner Company Information			
Company Name	E.ON SE		
Business Description			
<p>E.ON SE (E.ON), formerly E.ON AG, is an energy company that generates electricity, produces, stores, transports and supplies gas, and conducts trading, carbon sourcing, and electricity and gas distribution. It generates power from diverse fuel sources including wind, hydro, nuclear, coal, natural gas, oil, solar and biomethane. The storage and transport operations of the company include underground gas storage reservoirs and interests in the Nord Stream AG. The company trades gas, electricity, biomass, coal, freight and carbon allowances. It operates an electricity distribution network in Europe and the US and gas distribution network in Europe. E.ON is headquartered in Essen, Germany.</p>			
Company Name	Google LLC	Parent	Alphabet Inc
Business Description			
<p>Google LLC (Google), a subsidiary of Alphabet Inc., is a leading provider of search and advertising services on the internet. The company focuses on business areas such as advertising, search, platforms and operating systems, and enterprise and hardware products. Its portfolio of products and services include Google Web Search, Google Chrome, Google Docs, Google Calendar, Google Images, Google Finance, Google Books, Google News, Google Earth, Google Play, AdMob, Google Maps, Google Videos, Google Reader, Blogger, Google Wallet, Gmail, Google Groups, and YouTube. The company offers online display advertising services through its AdSense and AdWords programs. Google is headquartered in Mountain View, California, the US.</p>			
Source: GlobalData			

Venture Financing

Lift Labs Raises US\$1 Million In Seed Funding

Lift Labs Raises US\$1 Million In Seed Funding			
Deal Type	Venture Financing	Deal Sub Type	Seed
Deal in Brief			
Lift Labs, a developer of a suite of home health hardware, raised US\$1m in seed funding round. This finance was provided by Silicon Valley-based angel investors. The company intends to use the proceeds to launch Liftware, a spoon that detects and autocorrects for hand tremors, in the market; and to expand its business. Anupam Pathak, CEO of Lift Labs, said, "It's a first round of private money after being funded by the grant. The government is now handing off support to private investors. A lot of it is going to our manufacturing costs. There's significant amount of capital required, especially since we're doing the bulk of our manufacturing here. The funding is basically just to pay engineering support, manufacturing support and also help with marketing and developing the business. It's a modest amount, but we think that it will get us out there and allow us to begin to expand the business to future products we'll be developing."			
Deal Rationale			
The company intends to use the proceeds to launch Liftware, a spoon that detects and autocorrects for hand tremors, in the market; and to expand its business.			
Deal Information			
Deal Status	Completed		
Deal Finance	None		
Completed Date	18-Sep-2013		
Deal Financials			
Deal Value (US\$ m)	1		
Companies Information			
Target Company Information			
Company Name	Lift Labs	Parent	Google LLC
Source: GlobalData			

Section 4 – Company's Recent Developments

Jul 17, 2018: Google in Last Ditch Effort to Avoid Colossal Android Antitrust Fine

Google's CEO Sundar Pichai was due to speak to the European Union's competition Commissioner Margrethe Vestager Tuesday in a last ditch effort to avoid being hit with an anticipated record-breaking antitrust fine for the conditions it imposes on mobile manufacturers using Android.

That's according to two sources close to the investigation, speaking to Bloomberg. They claimed the pending European Commission fine, believed to be announced on Wednesday, will be larger than last year's record EUR2.4 billion (£2.1 billion) penalty in Google's shopping-search investigation.

Google Antitrust Allegations: What's the BeefA 2016 investigation by the European Commission raised three main issues.

Search Dominance¹: Google forces mobile phone manufacturers to set Google Search as a default search provider and pre-install Google's Chrome browser if they want to run Play Store on the devices: "The Commission seeks to ensure that manufacturers are free to choose which apps they pre-install on their devices. This is especially important since the Commission's analysis has shown that consumers rarely download applications that would provide the same functionality as an app that is already pre-installed, the EC said at the time.

Big Forking Fight²: Android is open source and can be freely tweaked to create a modified mobile OS (a so-called "Android fork). The European Commission alleges that if a manufacturer wishes to pre-install Google proprietary apps, including Google Play Store and Google Search, on any of its devices, Google requires it to enter into an "Anti-Fragmentation Agreement" that commits it not to sell devices running on Android forks. With Play Store so dominant, this is a major concern, it says: "Google has also closed off an important way for its competitors to introduce apps and services.

Exclusivity³: Finally, the EC alleges that Google has granted "significant financial incentives to major smartphone manufacturers and mobile network operators, on condition that they exclusively pre-install Google Search on their devices: "The Commission takes issue not with financial incentives in general but with the conditions associated with Google's financial incentives, in particular with the condition that the financial incentive is not paid if any other search provider than Google Search is pre-installed.

The Android case was triggered by a 2013 complaint by lobbying group FairSearch whose members at the time included Oracle and Microsoft.

Shopping HeadacheGoogle's remedy for the shopping antitrust case remains contested, with the Competition Commissioner sending rivals a list of questions earlier this year to see if they had benefited from the remedy.

FairSearch claims Google's current remedy proposal has made matters worse and does "nothing to address the demotion half of Google's illegal Conduct—the penalty algorithms, such as Panda, that are prone to demoting competing services.

In June last year Vestager said: "Google abused its market dominance as a search engine by promoting its own comparison shopping service in its search results, and demoting those of competitors. What Google has done is illegal under EU antitrust rules. It denied other companies the chance to compete on the merits and to innovate. And most importantly, it denied European consumers a genuine choice of services and the full benefits of innovation.

Google has been contacted for comment.

Jul 17, 2018: Personalised Google Jobs Comes to the UK

Google Jobs, anyone

Google has teamed up with a swathe of the UK's leading job sites to offer personalised job opportunities, in a function previously available in the US and Spain.

Local job portals Guardian Jobs, Haymarket, Reed, and Totaljobs.com have joined global sites LinkedIn and Glassdoor to support the customised jobs search, which automatically shows the "freshest and most relevant openings based on a user's location and other data when they type relevant terms into Google Search.

The function may prove useful for job seekers: according to the British Chambers of Commerce, it found that the UK itself was facing a talent shortage in filling people in the right positions.

Dr Adam Marshall, Director General for the British Chambers of Commerce commented that: "Labour and skills shortages are set to be the biggest potential drag anchor on business in 2018, since ultimately it is people that make businesses work.

"Business itself must do more – by training and investing wherever possible in people – but government must also give firms the confidence to put their livelihoods on the line and go for growth.

Google Jobs: The Options Google's job search feature uses artificial intelligence (AI) that helps the user find their ideal job by typing in a few key phrases. These phrases can range from "jobs near me, "software engineer jobs" or similar queries that are related to positions in the UK.

Alongside this, there is the option to click on a feature that allows the jobseeker to find out about jobs that meet specific requirements and skills. You can find out about the job's salary information, review and ratings of a potential employer before applying for the position. There is the opportunity to also save individual jobs with a single tap, thus making it accessible to keep track of the job search through multiple devices.

The feature is currently being offered for free to UK job sites – although for how long remains an open question.

May 29, 2018: E.ON brings innovative 'Project Sunroof' technology to Britain in partnership with Google and Tetraeder

Ground-breaking solar technology, 'Google's Project Sunroof', is being made available to residents in Britain for the first time, thanks to a partnership between E.ON, Google and software provider Tetraeder. Project Sunroof from Google is an easy-to-use online tool which allows homeowners to calculate the savings they could make by installing solar technology in their homes.

As the first energy supplier to offer a personalised solar savings estimator in Britain, E.ON is giving homeowners the opportunity to take power into their own hands and get the detailed information they need to make informed decisions about whether solar technology could be a viable option for them. This initiative supports the UK's target to produce 30% renewable energy by 2020¹.

E.ON is committed to providing smarter, sustainable solutions for its customers. The innovative Project Sunroof tool uses Google Earth, Google Maps and Machine Learning to estimate how much solar potential a house has by examining the property's surroundings, weather data, sun positioning, and roof area/angle. Believed to be the most advanced technology of its kind, the tool can even assess the impact of shade from a single tree on the solar output potential of a particular property.

Michael Lewis, Chief Executive of E.ON UK said: "Last year, we successfully launched Google's Project Sunroof in Germany and we're delighted to bring this exciting new technology to British homeowners too. At E.ON, we're aiming to create a better tomorrow by offering customers smarter, innovative solutions like Google's Project Sunroof and Solar and Storage, our solar PV and battery offering.

"The launch of Project Sunroof is also part of our ongoing efforts to bring fresh digital solutions to market for the benefit of our customers. We're proud to be the first company, working with Google and Tetraeder, to launch Project Sunroof – a service which is easy to use and highly effective in giving people the in-depth and personalised information they need to make well-informed decisions about whether solar technology is the right solution for them.

Homeowners in certain regions² can now visit eon-solar.co.uk to use Google's Project Sunroof to learn about the solar potential for their home. The tool not only calculates potential cost savings quickly, it also allows people to sign up and begin their solar panel installation process.

People who take E.ON Solar and Storage could make significant savings on their electricity bills as well as earning money through the FIT scheme. Together this could save and earn typical customers £630 a year³.

Nicole Lombardo, Business Development & Partnerships of Google, said: "At Google, we're deeply committed to sustainability and having a positive impact on the environment. We are excited to help people in the UK make more informed choices about installing solar panels on their rooftops and transition to renewable energy sources.

Stephan Wilforth, Managing Director of Tetraeder, said: "Since the beginning of the 2010's, we've been developing our own software for the most accurate and efficient forecast of solar yield on roofs to help calculate the cost-effectiveness of PV installations. Our goal is to give homeowners the best possible support when deciding on their own PV system. We are proud to be able to provide our outstanding technology in partnership with E.ON and Google for the British people.

May 18, 2018: E.ON and Google deepen solar partnership around Project Sunroof

The solar partnership between E.ON and Google is developing into a European success story. Since May 2017, the joint Sunroof platform, which determines the solar potential of millions of buildings, has been bringing new solar energy systems onto German roofs. Homeowners can be happy: the one-year programme will be extended until the end of 2018.

In addition, the success in the European pioneer market of Germany is now being exported. Over the coming weeks, Sunroof is being made available to homeowners in Great Britain. At the same time, E.ON and Google are preparing the market launch in Italy. As in Germany, E.ON will be the first energy company in Britain and Italy to offer its customers a digital assessment of the PV potential of their homes – simple, free of charge and personally tailored.

In Germany the website www.eon-solar.de has established itself as the first address for interested parties who want to take their power supply into their own hands. Well over 10,000 customers have requested a detailed initial analysis of their roof's solar potential. Sunroof is thus making a significant contribution to E.ON's strong annual revenues growth of 150 percent in its solar business. E.ON's goal is to become Germany's market leader in photovoltaics in 2019 the latest.

All you have to do is enter your address online. Based on a few additional parameters, the construction of a solar energy system can be planned. Sunroof's websites combine technologies such as Google Earth and Google Maps, 3D models and machine learning, i.e. automated software improvement, to provide an accurate estimate of a home's individual solar potential. Sunroof calculates how much sunlight falls on each roof during the year. It takes into account weather data, the position of the sun at different seasons, the area and inclination of the roof as well as the shade of surrounding buildings or trees. In the end, Sunroof "translates" the determined amount of light into energy and the potential cost savings. The data are calculated by the software company tetraeder as an additional Partner in the sunroof project.

Based on this data, customers in Germany can request a complete package consisting of a photovoltaic module and the E.ON SolarCloud, optionally with Aura battery storage. In addition, E.ON provides a "sunshine guarantee" to ensure that the solar system achieves the calculated yields. The company compensates for lower values financially.

May 15, 2018: Buying renewables the new way to get businesses back in the black

While President Trump is trying to recapture the glory days of coal, some of the biggest companies in the United States are helping to move the country towards the future by buying and using more clean energy.

Tech giants Google and Apple had both set a target to get all of their power from clean energy, and they both exceeded that target this year – well ahead of schedule.

By signing power purchase agreements (PPAs) to buy their power from big wind and solar farms, Google and Apple are now the world's largest buyers of renewable energy, with Google currently pipping Apple for top spot. This has allowed both corporations to clean up their emissions while also controlling their costs.

Google paves the path to PPAs

Google began to explore PPAs in 2009, and signed its first agreement with a 114 MW wind farm in Iowa in the following year. Over the next six years, Google signed an additional 20 agreements, totalling nearly 2.6 GW of renewable energy generation around the world. By 2017, Google was buying more renewable energy than it needed to power its entire business, including its offices and data centres. This is a remarkable achievement considering that in 2015 its data centres consumed a similar amount of energy to the entire city of San Francisco.

Apple takes a bite out of emissions

Less than a week after Google announced that it had reached its 100 per cent renewable energy goal, Apple CEO Tim Cook also announced that his company's global facilities were now completely powered by renewable energy. This includes Apple's retail stores, data centres, offices and co-located facilities in 43 countries. And the tech giant has also taken the next step by asking its suppliers to do the same.

To date, Apple has 25 operational renewable energy projects globally, adding up to 626 MW of generating capacity. With another 15 projects currently under construction, Apple's clean energy generation will eventually total 1.4 GW across 11 countries. In addition, Apple has signed a PPA with the Montague Wind Power Project, a 200 MW wind farm in Oregon that is set to come online by the end of 2019. Apple's emission reduction efforts resulted in the company stopping 1.5 million metric tons of greenhouse gases from being emitted into the atmosphere in 2017.

Corporate PPAs Down Under

Back in Australia, it's clear that the wheels are in motion when it comes to corporate PPAs. The Melbourne Renewable Energy Project (MREP) is a prime example of this, with 14 organisations coming together to purchase renewable energy from various projects. This ground-breaking agreement between different sectors in the economy is guaranteed to bring returns for the entire renewable energy industry. MREP involves organisations such as RMIT University, NAB and the City of Melbourne joining with energy partner Pacific Hydro through its retail arm Tango Energy. Pacific Hydro will build an 80 MW wind farm in the north-west of Victoria that will sell clean energy to the MREP partners. This will translate into an emission reduction of 96,800 tonnes per year over the lifespan of the decade-long deal.

Corporate PPAs are a sophisticated way for businesses to enter the renewable energy market and drive down their emissions and power costs. Whether you're a large global player such as Google or Apple, a participant in an innovative new renewable energy partnership in Melbourne or a large beer brewer such as Carlton United Breweries (CUB), corporate PPAs are a win-win for all involved. Corporate PPAs allow renewables to flourish due to increased demand and investment, while reducing emissions and costs at the same time. As a recent report by the Climate Council found, almost half of Australia's major businesses are moving towards clean energy in some form.

So maybe it's time to stop trying to resurrect the glory days of our coal-driven past and start thinking forward to the glory days of clean energy. They're just around the corner.

Apr 24, 2018: Total To Develop Artificial Intelligence Solutions With Google Cloud

Total and Google Cloud have signed an agreement to jointly develop artificial intelligence (A.I.) solutions applied to subsurface data analysis for oil and gas exploration and production.

The agreement focuses on the development of A.I. programs that will make it possible to interpret subsurface images, notably from seismic studies (using Computer Vision technology) and automate the analysis of technical documents (using Natural Language Processing technology). These programs will allow Total's geologists, geophysicists, reservoir and geo-information engineers to explore and assess oil & gas fields faster and more effectively.

Under this partnership, Total geoscientists will work side-by-side with Google Cloud's machine learning experts within the same project team based in Google Cloud's Advanced Solutions Lab in California.

"Total is convinced that applying artificial intelligence in the oil and gas industry is a promising avenue to be explored for optimizing our performance, particularly in subsurface data interpretation. We are excited to work with Google Cloud towards this goal. This builds on the strategy being developed at Total, where A.I. is already used, for example, in predictive maintenance at facilities," said Marie-Noëlle Semeria, Senior Vice President, Group CTO at Total.

"We believe that the combination of Total's geoscience expertise and Google's artificial intelligence skills will ensure the project's success. Our ambition is to give our geoscience engineers an A.I. personal assistant in the next few years that will free them up to focus on high value-added tasks," said Kevin McLachlan, Senior Vice President Exploration for Exploration & Production at Total.

"We are thrilled to welcome Total in our Advanced Solutions Labs for the development of A.I. solutions," said Paul-Henri Ferrand, President of Global Customer Operations Google Cloud. "We are keen to engage our best A.I. engineers to work with Total's geosciences' experts."

Artificial Intelligence Applied to Exploration & Production at Total

Total started applying artificial intelligence to characterize oil & gas fields using machine learning algorithms in the 1990s.

In 2013, Total used machine learning algorithms to implement predictive maintenance for turbines, pumps and compressors at its industrial facilities, thus generating savings of several hundred million dollars.

Today, Total teams are exploring multiple machine learning and deep learning applications such as production profile forecasting, automated analysis of satellite images or analysis of rock sample images.

Apr 12, 2018: Scientists teach computers how to analyze brain cells

In the early days of neuroscience research, scientists painstakingly stained brain cells and drew by hand what they saw in a microscope. Fast forward to 2018 and machines may be able to learn how to do that work. According to a new study in *Cell*, it may be possible to teach machines how to pick out features in neurons and other cells that have not been stained or undergone other damaging treatments.

According to a new study in *Cell*, it may be possible to teach machines how to pick out features in neurons and other cells that have not been stained or undergone other damaging treatments. The study was partially funded by the National Institute of Neurological Disorders and Stroke (NINDS), part of the National Institutes of Health.

"This approach has the potential to revolutionize biomedical research," said Margaret Sutherland, Ph.D., program director at the NINDS.

"Researchers are now generating extraordinary amounts of data. For neuroscientists, this means that training machines to help analyze this information can help speed up our understanding of how the cells of the brain are put together and in applications related to drug development.

A dish, or culture, of neuronal cells appears uniform to the naked eye and the different, individual cells in it cannot be seen. Ever since the late nineteenth century when pioneering neuroscientists, Santiago Ramon y Cajal and Camillo Golgi, drew the earliest maps of the nervous system, scientists have been developing dyes and staining methods to help distinguish the structures in the brain, including different types of cells and their state of health. However, many of these methods involve harsh chemicals that fix, or freeze, cells in an unnatural state or damage living cells after multiple stains have been applied. The traditional techniques also limit the details scientists can observe.

A team led by Steven Finkbeiner, M.D., Ph.D., director and senior investigator at the Gladstone Institutes in San Francisco, and professor of neurology and physiology at the University of California, San Francisco, explored whether computers could be trained to identify structures in unstained cells.

"Every day our lab had been creating hundreds of images, much more than we could look at and analyze ourselves. One day, a couple of researchers from Google knocked on our door to see if they could help us," said Dr. Finkbeiner, the senior author of the study.

The researchers used a method called Deep Learning, which relies on principles of machine learning, a type of artificial intelligence in which machines can learn from data and make decisions. Facial recognition software is an example of machine learning.

Using Deep Learning, Dr. Finkbeiner's team trained a computer program to analyze brain cells by showing it stained and unstained images. Then, to test whether the program had learned anything, the researchers challenged it with new unlabeled images.

After the first round of training, the program identified where cells were located in the culture dish by learning to spot a cell's nucleus, a round structure that contains genetic information and serves as the cell's command center. During additional experiments, Dr. Finkbeiner's group increased the complexity of the features the program was looking for and successfully trained it to distinguish dead cells from living cells, as well as to identify specific types of brain cells. In addition, the program learned to differentiate between axons and dendrites, which are two specific types of extensions on neurons. According to the results, the program was successful in predicting structures in unlabeled tissue.

"Deep Learning takes an algorithm, or a set of rules, and structures it in layers, identifying simple features from parts of the image, and then passes the information to other layers that recognize increasingly complex features, such as patterns and structures. This is reminiscent of how our brain processes visual information," said Dr. Finkbeiner. "Deep Learning methods are able to uncover much more information than can be seen with the human eye.

Dr. Finkbeiner and his team noted that the main drawback to using this technology is that the training datasets need to be very large, ideally around 15,000 images. In addition, there may be a risk to overtraining the programs, that they become so specialized they can only identify structures in a particular set of images or in images generated in a particular way, and not make predictions about more general images, which could limit the use of this technology.

Dr. Finkbeiner and his colleagues plan to apply these methods to disease-focused research.

"Now that we showed that this technology works, we can start using it in disease research. Deep Learning may spot something in cells that could help predict clinical outcomes and can help us screen potential treatments,said Dr. Finkbeiner.

More research is needed to refine the technology and make it more widely available.

This study was supported by NINDS (NS091046, NS083390, NS101995), the NIH's National Institute on Aging (AG065151, AG058476), the NIH's National Human Genome Research Institute (HG008105), Google, the ALS Association, and the Michael J. Fox Foundation.

Apr 11, 2018: Google breaks ground on \$600m data centre in Alabama

Google has broken ground on a \$600m data centre on the old TVA Widow's Creek coal plant site in Bridgeport, Jackson County, Alabama. The project, being established as part of Google's expansion to 14 new data centres and offices across the US, will create as many as 100 full-time jobs with potential for growth in the future.

The Bridgeport data centre, being constructed on a 360-acre site, will be a hub for Internet traffic and Alabama's first large-scale data centre. The project was announced in June 2015.

Construction of the new data centre is expected to take 12 to 15 months.

The Tennessee Valley Authority (TVA) is working with Google to provide renewable energy for the facility.

Google Cloud head of global technology partnerships Nan Boden said: "Google is committed to investing in Jackson County to create new economic and educational opportunities for the people of Alabama and the surrounding region.

"As a native Alabamian, I am so proud to be part of the effort to bring this Google data centre to life in the coming months and years.

The company said that the new data centre will feature modern energy efficiency. The Alabama facility will become Google's 14th data centre globally and the eighth in the US.

Alabama Governor Kay Ivey said: "As one of the world's most dynamic and innovative technology companies, Google's products touch billions of people across the globe every single day.

"We're proud that Alabama is playing an important role in Google's future growth, and we look forward to seeing this data centre operation help power that growth.

Mayor David 'Bubba' Hughes said: "This is a big day for Bridgeport because it helps our city in many different ways. Having Google in our community will bring us great jobs and offer real opportunities for our young people.

"Google is a generous supporter of schools, and the company's presence will help us recruit other high-tech companies.

Apr 04, 2018: Buying 100 percent renewable energy: Google

A little over a year ago, we announced that we were on track to purchase enough renewable energy to match all the electricity we consumed over the next year. We just completed the accounting for Google's 2017 energy use and it's official—we met our goal. Google's total purchase of energy from sources like wind and solar exceeded the amount of electricity used by our operations around the world, including offices and data centers.

Today, we have contracts to purchase three gigawatts (3GW) of output from renewable energy projects—no corporate purchaser buys more renewable energy than we do. To date, our renewable energy contracts have led to over \$3 billion in new capital investment around the world.

The road to 100 percent

We've been working toward this goal for a long time. At the outset of last year, we felt confident that 2017 was the year we'd meet it. Every year, we sign contracts for new renewable energy generation projects in markets where we have operations. From the time we sign a contract, it takes one to two years to build the wind farm or solar field before it begins producing energy. In 2016, our operational projects produced enough renewables to cover 57 percent of the energy we used from global utilities. That same year, we signed a record number of new contracts for wind and solar developments that were still under construction. Those projects began operating in 2017—and that additional output of renewable energy was enough to cover more than 100 percent of what we used during the whole year.

We say that we "matched" our energy usage because it's not yet possible to "power" a company of our scale by 100 percent renewable energy. It's true that for every kilowatt-hour of energy we consume, we add a matching kilowatt-hour of renewable energy to a power grid somewhere. But that renewable energy may be produced in a different place, or at a different time, from where we're running our data centers and offices. What's important to us is that we are adding new clean energy sources to the electrical system, and that we're buying that renewable energy in the same amount as what we're consuming, globally and on an annual basis.

Looking ahead

We're building new data centers and offices, and as demand for Google products grows, so does our electricity load. We need to be constantly adding renewables to our portfolio to keep up. So we'll keep signing contracts to buy more renewable energy. And in those regions where we can't yet buy renewables, we'll keep working on ways to help open the market. We also think every energy buyer—individuals and businesses alike—should be able to choose clean energy. We're working with groups like the Renewable Energy Buyers Alliance and Re-Source Platform to facilitate greater access to renewably-sourced energy.

This program has always been a first step for us, but it is an important milestone in our race to a carbon-free future. We do want to get to a point where renewables and other carbon-free energy sources actually power our operations every hour of every day. It will take a combination of technology, policy and new deal structures to get there, but we're excited for the challenge. We can't wait to get back to work.

Apr 04, 2018: Google hits clean energy target

Google has achieved the 100% renewable energy target it committed to more than a year ago. The internet giant's senior vice-president of technical infrastructure Urs Holzle said that over the course of 2017, for every kilowatt hour of electricity consumed,...

Apr 03, 2018: Google shakes up leadership to sharpen focus on AI

John Giannandrea will step down as the company's AI and search chief.

Internet giant Google is making changes at the top to become a leading player in artificial intelligence (AI).

As part of a top level shake up, John Giannandrea will exit from his role as Google's AI and search chief.

Google, which had combined its search and artificial intelligence units in early 2016, is now taking a U-turn by splitting them into two separate divisions to sharpen its focus on the emerging technology.

Giannandrea was earlier responsible for both the units and he will now be making way for two new leaders for the search and AI divisions.

Jeff Dean, who is currently leading Google Brain project, will get the additional responsibility of heading a dedicated AI unit for the search engine company.

On the other hand, Ben Gomes, the current head at search engineering will lead Google's search division as vice president.

As far as Giannandrea is concerned, the veteran computer scientist will stay on with Google, serving the company in a different role.

Known for his expertise in machine learning, Giannandrea had joined in Google about eight years ago, following the search engine company's acquisition of Freebase developer Metaweb Technologies.

The technology, which was developed by Giannandrea and others at the San Francisco-based startup, is considered to be the basis of the "Knowledge Graph" feature that was introduced by Google in 2012.

Knowledge Graph, which is shown on the right side of the search engine results page, was launched to improve Google's search results by pulling out information collected from multiple sources into a box.

In the recent times, Google has made it clear that improving its artificial intelligence capabilities will be its top strategy. To support that, its parent company Alphabet has pumped in huge amounts of money into machine learning and other capabilities.

Mar 20, 2018: AkzoNobel, DSM, Google and Philips receive first power from new Dutch wind farm Bouwdokken

AkzoNobel Specialty Chemicals, DSM, Google and Philips have started receiving power from the Bouwdokken wind farm in the Netherlands – a milestone achievement resulting from a unique green energy purchasing consortium they jointly established. All four companies consume a substantial amount of power in the Netherlands, and by working together they are making a significant contribution to delivering on the Netherlands' renewable energy target of 14% by 2020.

In October 2016 and January 2017, the companies signed two long-term power purchase agreements (PPAs) that enabled construction of two Dutch wind farm projects – Krammer and Bouwdokken. These wind farms, both of which are located in the southwest of the Netherlands, have a total capacity of over 140 MW, enough to power approximately 140,000 households.

It is the first time that a group of multinationals in the Netherlands have teamed up to negotiate long-term PPAs directly with project developers, bypassing the involvement of an energy utility company. The Rocky Mountain Institute's (RMI) Business Renewables Center, a leading independent authority on sustainability, says the consortium is among the earliest examples of aggregated corporate demand successfully participating in clean energy markets worldwide.

"This marks the next big step towards a new way of supplying energy for Dutch industry, said Marcel Galjee, Energy Director at AkzoNobel Specialty Chemicals, on behalf of the consortium. "We brought together a group of companies that is united in its sustainability leadership. We believe it is of utmost importance to join forces and come up with innovative partnerships to achieve the sustainability goals of our companies as well as those set out in the Paris climate agreement.

Harry Coorens, VP Procurement Sustainability at Royal DSM added: "The collaboration and progress as shown in this initiative is well recognized outside the Netherlands. I receive questions from all over the world to explain this success story. It is a prime example to show an industry drive and collaboration that supports a mutual goal creating a cleaner environment for people today and generations to come. Looking back historically, it's interesting to note that this project was developed near the Delta Works, another visionary feat that is highly regarded outside the Netherlands.

Marc Oman, &IrmEU Energy Lead, of Google Global Infrastructure said: "In 2017, Google purchased enough renewable energy to match 100 percent of our consumption for global operations. Success with this consortium plays a meaningful part in our global clean energy plans, and as a company, we are continuing to push innovation for corporate renewable energy procurement.

As a purpose-driven health technology company, a healthy planet is central to our mission, and we are making good progress to decouple economic growth from our environmental impact. All our operations in the United States are already powered by wind energy, and through this unique consortium, also our operations in the Netherlands will soon be completely powered by green electricity.

Simon Braaksma

Senior Director of Group Sustainability at Philips

Simon Braaksma, Senior Director of Group Sustainability at Philips said: "As a purpose-driven health technology company, a healthy planet is central to our mission, and we are making good progress to decouple economic growth from our environmental impact. All our operations in the United States are already powered by wind energy, and through this unique consortium, also our operations in the Netherlands will soon be completely powered by green electricity.

All four companies are also members of the RE100, a collaborative global initiative uniting more than 100 businesses committed to 100% renewable electricity, working to massively increase demand for - and delivery of - renewable energy.

AkzoNobel Specialty Chemicals, which already sources some 45% of its energy from renewable sources, will use the green energy chiefly to produce chlorine, caustic soda and 'green' hydrogen at its site in Rotterdam, all essential raw materials in the chemical industry.

DSM uses the renewable energy as an addition to its commitment to purchase electricity from renewable sources to manufacture products in health, nutrition and materials and create solutions that nourish, protect and improve performance.

Google will supply its datacenter in the Netherlands with energy from the grid on which the wind farms are producing electricity.

When both Dutch windfarms are fully operational, 100% of Philips' activities in the Netherlands will be powered by Dutch wind energy, an important milestone in the company's ambition to become carbon neutral by 2020.

The Bouwdokken wind farm is owned and constructed by E-Connection on the Neeltje Jans artificial island, which is part of the so-called Delta Works – a series of construction projects that protect the southwest of the Netherlands from the sea. Wind Cooperation Zeeuwind is a 25% shareholder of the wind farm, which consists of 7 turbines of 4.2 megawatt each.

Feb 27, 2018: Healthcare Ready Partners with Google to Help Improve Future Disaster Response Efforts

Healthcare Ready, a nonprofit focused on improving the resiliency of healthcare systems to better meet health needs amid disaster, today announced its partnership with Google to develop a proof of concept for refining future disaster response through data analytics and collaboration. Healthcare Ready developed a case study that outlines the impact of its partnership to help improve the future of disaster relief and response.

Google's aggregated search trends, paired with Healthcare Ready's Rx Open data, an interactive map that shows the operating status of pharmacies in areas impacted by disaster, provided a better understanding of where limited healthcare access and high-density patient areas were centered in relation to open pharmacies, shelters and dialysis centers. This intersection of information helped Healthcare Ready prioritize where to direct resources and send patients.

"The goal of our partnership is to automate and refine available data that can be utilized during future disasters and to ensure we are addressing patient needs in real time," said Nicolette Louissaint, Ph.D., executive director of Healthcare Ready. "The results of our work together provide an excellent example of how leveraging health data and technology can improve public health efforts, especially in times of disaster and uncertainty. We are thrilled to continue this collaboration into the future with the goal of improving our ability to meet patient needs amid disasters."

Rx Open tracked more than 16,000 chain and community pharmacies from California to Florida and Puerto Rico during the 2017 hurricane season. The tool, which is free to use, helps direct patients and first-responders to vital medications, while providing public agencies and private sector partners insight into pharmacy status and healthcare recovery. Daily updates for more than 100 days of activation ensured that Rx Open remained a useful tool for quick decisions during the 2017 response and recovery efforts.

"During Hurricane Harvey, Google partnered with the Pharmaceutical Research and Manufacturers of America (PhRMA) and Healthcare Ready to provide real-time medical Search Trends in the Houston area," said Courtney Rose, industry director for Google Government, Advocacy, and Elections. "This allowed the Healthcare Ready team to find patterns in zip codes affected by the hurricane and deploy resources to increase access to medicine. Users turn to Google Search for information in their moments of need and we're thankful to partner with PhRMA and Healthcare Ready on the analysis of this data, and for their real-time response to the people in Houston."

By partnering with Google, Healthcare Ready strengthened its Rx Open data by overlaying a map with aggregated Google Search Trends from hurricane-impacted communities searching for healthcare and hurricane assistance. In the future, this data could pinpoint strained areas early in response and recovery efforts so that facilities can be resupplied before medication shortages and life-threatening situations arise.

Healthcare Ready works through its member organizations, including PhRMA, the Biotechnology Innovation Organization (BIO), the Healthcare Distributors Alliance (HDA), the National Association of Chain Drugs Stores (NACDS), Amgen, and the American Red Cross to protect patient access to medicines and healthcare during emergencies.

Jan 12, 2018: Google maps visionary joins Clearpath advisory board

Clearpath is proud to welcome former vice president of Google's and Uber's Mapping divisions, Brian McClendon, to its board of advisors. McClendon will provide insight and expertise on mapping technologies to the company's OTTO Motors industrial division and Clearpath Robotics research solutions division. He joins advisory board member and Tesla co-founder Marc Tarpenning, who currently advises on electric vehicle technologies.

"It's often overlooked, but self-driving vehicles rely upon digital mountains of very specialized mapping data in order to operate,said Matt Rendall, Chief Executive Officer at Clearpath. "Brian is a visionary in the world of mapping technology. His expertise and mentorship will help us build truly world-class mapping technology and we could not be more excited to have him join us.

McClendon has built a career as an entrepreneur and technical leader in geographic information systems (GIS). In 2004, his digital mapping startup, Keyhole, was acquired by Google and became the foundation for Google Earth. During a 10-year tenure at Google, he became the vice president of Google Maps, Earth and Street View. He joined Uber in 2015 as vice president of Mapping and most recently stepped down to return to his hometown in Kansas to become a research professor at the University of Kansas. McClendon serves on the advisory board for the University of Kansas, was inducted into the National Academy of Engineering in 2015 and has also been recognized by the United Nations as a "Champion of the Earth," its top environmental prize.

McClendon will advise the team on mapping technologies, software architecture and engineering leadership as they continue to develop strategies for accurate, scalable mapping capability of the OTTO self-driving vehicle.

"What's exciting to me about Clearpath is that they are building their mapping system and database from scratch,explains McClendon. "This presents a really exciting opportunity to innovate and guide the next generation of technology with the next generation of company.

Dec 12, 2017: DNAnexus Integrates Google Brain's DeepVariant, a New Deep Learning Technology, onto Its Cloud-Based Platform

DNAnexus, the global leader in genome informatics and data management, announced the availability of the DeepVariant bioinformatics tool on the DNAnexus Platform.

Developed by researchers at Google, DeepVariant is a deep learning technology that uses deep neural networks to call genetic variants from next-generation sequencing data. An earlier version of DeepVariant won the PrecisionFDA Truth Challenge Award for overall accuracy in calling variants in individual genomes. This process is essential to determine what makes an individual genetically unique, and is essential in helping scientists locate genes associated with disease. The release from Google marks the first time this deep learning method has been made fully available to the community.

"The tools of machine intelligence promise to increase the productivity of our life sciences discovery and development pipelines, and to improve the efficacy and efficiency of healthcare delivery," said Dr. Vikram (Vik) Bajaj, Managing Director at Foresite Capital Management and former Chief Scientific Officer at Verily Life Sciences. "DeepVariant is one of the first tools to deliver on that promise by making the critical first step to more accurately identify genetic differences among individuals. By making a reference implementation broadly accessible, I believe Google and DNAnexus will accelerate a growing body of research that requires high quality genomic information."

DeepVariant applies the Inception TensorFlow framework, which was originally developed to perform image classification. This represents the information as images like what a clinician would look at from a genome browser and then learns the signatures of variant and non-variant images. By cross-applying this technology in only a short development time, DeepVariant can outperform methods that developers have been working on for a decade. The technology was initially described in a December 2016 pre-publication paper hosted on bioRxiv (doi: 10.1101/092890).

"Deep learning-based data analysis tools have tremendous potential in driving further advances in our understanding of disease biomarkers. DNAnexus is able to host scalable architecture to support these complex technologies," said Richard Daly, CEO of DNAnexus. "We are pleased to offer DNAnexus customers integrated access to DeepVariant, a significant advance in the state-of-the-art."

DNAnexus is providing early access to DeepVariant through an initial Pilot Program. To request access to DeepVariant on DNAnexus please sign up [here](#). For more information about DeepVariant and the DNAnexus Platform, please visit our [blog](#).

Dec 04, 2017: DeepVariant: Highly Accurate Genomes With Deep Neural Networks

Across many scientific disciplines, but in particular in the field of genomics, major breakthroughs have often resulted from new technologies. From Sanger sequencing, which made it possible to sequence the human genome, to the microarray technologies that enabled the first large-scale genome-wide experiments, new instruments and tools have allowed us to look ever more deeply into the genome and apply the results broadly to health, agriculture and ecology.

One of the most transformative new technologies in genomics was high-throughput sequencing (HTS), which first became commercially available in the early 2000s. HTS allowed scientists and clinicians to produce sequencing data quickly, cheaply, and at scale. However, the output of HTS instruments is not the genome sequence for the individual being analyzed – for humans this is 3 billion paired bases (guanine, cytosine, adenine and thymine) organized into 23 pairs of chromosomes. Instead, these instruments generate ~1 billion short sequences, known as reads. Each read represents just 100 of the 3 billion bases, and per-base error rates range from 0.1-10%. Processing the HTS output into a single, accurate and complete genome sequence is a major outstanding challenge. The importance of this problem, for biomedical applications in particular, has motivated efforts such as the Genome in a Bottle Consortium (GIAB), which produces high confidence human reference genomes that can be used for validation and benchmarking, as well as the precisionFDA community challenges, which are designed to foster innovation that will improve the quality and accuracy of HTS-based genomic tests.

Today, we announce the open source release of DeepVariant, a deep learning technology to reconstruct the true genome sequence from HTS sequencer data with significantly greater accuracy than previous classical methods. This work is the product of more than two years of research by the Google Brain team, in collaboration with Verily Life Sciences. DeepVariant transforms the task of variant calling, as this reconstruction problem is known in genomics, into an image classification problem well-suited to Google's existing technology and expertise.

We started with GIAB reference genomes, for which there is high-quality ground truth (or the closest approximation currently possible). Using multiple replicates of these genomes, we produced tens of millions of training examples in the form of multi-channel tensors encoding the HTS instrument data, and then trained a TensorFlow-based image classification model to identify the true genome sequence from the experimental data produced by the instruments. Although the resulting deep learning model, DeepVariant, had no specialized knowledge about genomics or HTS, within a year it had won the the highest SNP accuracy award at the precisionFDA Truth Challenge, outperforming state-of-the-art methods. Since then, we've further reduced the error rate by more than 50%.

DeepVariant is being released as open source software to encourage collaboration and to accelerate the use of this technology to solve real world problems. To further this goal, we partnered with Google Cloud Platform (GCP) to deploy DeepVariant workflows on GCP, available today, in configurations optimized for low-cost and fast turnarounds using scalable GCP technologies like the Pipelines API. This paired set of releases provides a smooth ramp for users to explore and evaluate the capabilities of DeepVariant in their current compute environment while providing a scalable, cloud-based solution to satisfy the needs of even the largest genomics datasets.

DeepVariant is the first of what we hope will be many contributions that leverage Google's computing infrastructure and ML expertise to both better understand the genome and to provide deep learning-based genomics tools to the community. This is all part of a broader goal to apply Google technologies to healthcare and other scientific applications, and to make the results of these efforts broadly accessible.

Nov 30, 2017: EDF Renewable Energy Signs Agreement with Google to Supply 200 Megawatts of Wind Energy

EDF Renewable Energy has signed an agreement to supply Google, a subsidiary company of Alphabet with 200 megawatts (MW) of wind energy generated from the new Glaciers Edge Wind Project in Iowa.

Glaciers Edge Wind Project, located in Cherokee County in the northwest portion of the state, is expected to create more than 150 jobs during the construction phase along with millions of dollars injected into the local economy. Once the wind farm comes online, anticipated in December 2019, the additional capacity will help Google reach its goal of purchasing enough renewable energy to match its energy consumption for global operations.

Dai Owen, Director, Power Marketing for EDF RE commented, "The strong U.S. wind market relies in part on America's corporate sector and companies like Google, who through the purchase of wind energy demonstrate leadership in the drive for a low-carbon economy. Their commitment allows Glaciers Edge to proceed, providing an economic boost to the Iowa economy, through new construction and operations jobs, expanded tax base, and recurring, long-term income for participating landowners.

"Renewables from projects like Glaciers Edge bring value to our business as we scale and accelerate investment in the communities where we operate," said Gary Demasi, Google's director of global infrastructure. "With solar and wind declining dramatically in cost and propelling significant employment growth, the transition to clean energy is driving unprecedented economic opportunity and doing so faster than we ever anticipated.

EDF RE and Google forged a relationship in December 2012, when Google made an approximate \$200 million equity investment in EDF RE's Spinning Spur Wind Project, located in Oldham County, Texas. The business partnership progressed in 2016 with the power purchase agreement for the Great Western Wind Project in Oklahoma which supplies Google with 225 MW of clean electricity.

EDF RE is a leading developer among corporate buyers of renewables which demonstrates the trust that environmentally-conscious companies place in EDF RE to deliver value. The Company's growing North America portfolio of corporate purchasers includes Google, Microsoft, Salesforce, Procter & Gamble, Kimberly-Clark, Walmart and Yahoo.

Glaciers Edge will bring the EDF RE's portfolio of wind project development in Iowa to 1.1 GW.

Nov 30, 2017: Avangrid inks PPAs with Google for South Dakota wind farms

Avangrid Renewables has signed its first major wind contracts with Google for 196MW of new South Dakota wind power.

The power purchase agreements will cover the full output of Avangrid Renewables' Coyote Ridge and Tatanka Ridge Wind Farms in Brookings and Deuel counties, each 98 MW, just northeast of Brookings, east of I-29. The two wind farms would produce enough energy each year to power the equivalent of more than 50,000 average households with clean, homegrown energy. Once the wind farms come online, the additional capacity will help Google reach its goal of purchasing enough renewable energy to match its energy consumption for global operations.

"Renewables from projects like Coyote Ridge and Tatanka Ridge bring value to our business as we scale and accelerate investment in the communities where we operate," said Gary Demasi, Google's director of global infrastructure. "With solar and wind declining dramatically in cost and propelling significant employment growth, the transition to clean energy is driving unprecedented economic opportunity and doing so faster than we ever anticipated."

Avangrid Renewables anticipates that the two wind farms would contribute more than \$40 million over their lifetimes in combined land lease and tax payments.

"Working with partners like Google who have made a commitment to 100% renewable energy for their global operations is exciting and inspiring," said Avangrid Renewables President and CEO Laura Beane. "This partnership creates a positive impact in these local communities, delivering jobs, new investment and economic development for rural America while advancing our country's energy independence."

In addition to these new projects, Avangrid Renewables already owns and operates the 210 MW Buffalo Ridge II project in Brookings and Deuel counties, the 50.4 MW Buffalo Ridge I project southeast of the proposed Coyote Ridge project, and 50 MW from the 150 MW MinnDakota Wind Farm in Brookings County. Upon commercial operation for Coyote Ridge and Tatanka Ridge, the company will own and operate more than 500 MW of wind power in South Dakota. Avangrid Renewables is finalizing its development work at the Coyote Ridge and Tatanka Ridge projects and expects to be in full construction by 2019.

Nov 30, 2017: Grand River Dam Authority to supply even more renewable energy to Google with new Oklahoma wind farm

The Grand River Dam Authority (GRDA) announced that it has signed a contract with Google for 140 megawatts (MW) of The Red Dirt Wind Farm.

The Red Dirt Wind Farm is a 300-megawatt facility located in Oklahoma's Kingfisher and Logan counties. Constructed by the project owner and eventual operator, Enel Green Power North America, Inc., the wind farm will be operational by the end of 2017 and will bring GRDA's total wind generation capacity (combined across several wind farms in Oklahoma) to approximately 385 MW.

"This is another important milestone in GRDA's continued pursuit of more renewable energy in our generation portfolio,said GRDA Chief Executive Officer Dan Sullivan. "The commitment that our partner Google has made to utilizing renewables has always been an important factor in that pursuit.

Once the wind farm comes online, by the end of 2017 the additional capacity will help Google reach its goal of purchasing enough renewable energy to match its energy consumption for global operations.

"Renewables from projects like Red Dirt bring value to our business as we scale and accelerate investment in the communities where we operate,said Gary Demasi, Google's director of global infrastructure. "With solar and wind declining dramatically in cost and propelling significant employment growth, the transition to clean energy is driving unprecedented economic opportunity and doing so faster than we ever anticipated.

In addition to its power purchase agreement with Red Dirt, GRDA also has a power purchase agreement with the Canadian Hills Wind Farm, near El Reno, Oklahoma. GRDA has been supplying Google's electricity needs in MAIP since the data center began operations in 2011.

Nov 30, 2017: Iberdrola signs a long-term renewable energy sales agreement with Google

Iberdrola, through its subsidiary Avangrid Renewables, has signed its first two large contracts for the supply of renewable energy with the American multinational Google.

Under the terms of the agreement signed between the two companies, Iberdrola will supply Google with a total of 196 megawatts (MW) of renewable energy from the Coyote Ridge and Tatanka Ridge wind farms. Each of them will have 98 MW of installed capacity.

These two new facilities, which will be located in the counties of Brookings and Deuel in the state of South Dakota, will produce renewable energy equivalent to the average annual consumption of more than 50,000 North American households.

Through this agreement, Google will move towards meeting its ambitious energy consumption targets through renewable sources in all of its global operations.

"Renewables from projects like Coyote Ridge and Tatanka Ridge bring value to our business as we scale and invest in the communities where we operate," said Gary Demasi, Google's director of global infrastructure.

Contracts such as the one signed with Google are denominated in the United States as Power Purchase Agreements (PPAs) and guarantee the profitability of the energy facilities in this country in the long term.

Iberdrola has already signed PPAs in most of its US renewable facilities, which have provided great stability to its investments in this strategic market for the company, being one of the main pillars of its commitment to the country.

Nov 23, 2017: Nautilus Medical collaborates with Google Cloud for secure radiology storage and image exchange

Nautilus Medical in collaboration with Google Cloud Technology Partner program is releasing a more robust image exchange and DICOM and patient information storage and distribution system.

The release will be available at the 2017 RSNA Show at Chicago's McCormick Place November 26th-30th.

As one of the largest exchange providers, Nautilus Medical is utilizing the broad technology within Google services to provide a comprehensive image management platform that is used by hundreds of imaging sites today.

"Our focus is to bring best in breed services, speed and security to the healthcare market in a platform that anyone can use without the typical high expense and lack of features," says Nautilus CEO Timothy Kelley. He continued, "Our customers don't have concerns over security, large upfront costs and lengthy commitments."

Nautilus' easy to use medical information exchange solutions utilize hardware signatures, key strokes, and mouse movements to create unique private keys that ensures foolproof data security.

The company's million-dollar insurance policy for breach protection is testimony to their security capability. An extensive number of features are included that quickly improve workflow and the ability of caregivers to assemble and distribute patient images and data easily.

With built-in routing, editing, and anonymization features, Nautilus improves communication between caregivers and patients. Utilizing their 'print to DICOM' feature, users can print documents, reports, or images of various types as a DICOM file into a patient folder to ensure a complete view of the patient.

The relationship between Nautilus and Google will deliver more capabilities to more sites including underserved professionals in offices that could use this powerful platform, but do not have a budget for more expensive offerings.

Nautilus' pay-per-use model is very attractive to facilities and individuals looking to reduce cost while not sacrificing quality.

For more information about the new collaboration, come visit us at Google Cloud booth 8161 at the Radiological Society of North America (RSNA) annual meeting in Chicago from November 26 to December 1.

Healthcare Tech Outlook recently named Nautilus Medical "Top 10 Medical Imaging Solution Providers - 2017" since Nautilus will have a vital impact on medical imaging for saving cost, speed to care, security and ease of use. Nautilus software is used by more than 700 sites with thousands of users including 33 of the top 50 medical centers in the US.

Nov 08, 2017: Zebra Medical Vision to Collaborate with Google Cloud to Bring a Transparent All-in-One Model to Healthcare

Zebra Medical Vision, a leading deep learning imaging analytics company, is announcing that all its current and future radiology algorithms will be enabled on the Google Cloud as part of its new AI1 offering to global health providers.

A pioneer in the field of machine and deep learning for medical imaging, Zebra-Med is driving transparency in its business model to encourage faster global adoption of advanced tools that can improve health. With over 450 new petabytes per year in imaging data, based on IDC's health insights 2017, the amount of imaging storage is expected to double in the next 5 years and substantially challenge health providers to keep track of scaling their storage and IT infrastructure, hence the cloud opportunity.

Over the last two decades, the demand for imaging services has been increasing, outpacing the supply of qualified physicians, stretching providers and radiologists to constantly produce more output, without compromising patient care. By adopting new technology, health providers can significantly enhance the capabilities of radiologists and enable better population health management. Automated Imaging Analytics tools such as Zebra-med's Deep Learning Engine will provide the needed clinical and computational horsepower to allow radiologists to make the next leap in patient care.

Using millions of longitudinal high quality imaging scans, Zebra-Med has been developing a deep learning engine that can automatically detect various medical findings in imaging scans. Current capabilities include automatic detection of liver, lung, cardiovascular, and bone disease all while new capabilities are constantly being released – covering breast cancer, lung cancer, brain trauma, hypertension, and other clinical areas. Zebra-Med's findings are integrated into the PACS system running on Google Cloud Platform, allowing radiologists to include them in their reading and reporting workflow. This automated assistance contributes to more comprehensive, quantitative, and consistent reporting, improving the output of radiologists and contributing to overall improved patient care. The company's Analytics Engine is deployed in more than 50 hospitals globally, and has analyzed more than 1M patient scans to date.

"With the AI1 all-in-one offering, enabled on Google Cloud, we can offer health providers ongoing population-health and clinical insights to improve patients' lives and reduce healthcare costs," says Elad Benjamin, Co-founder and CEO of Zebra Medical Vision. "We are making a commitment to provide our current tools, and all future ones, for a flat \$1 USD per scan. By doing so we believe that a true difference can be made in the provision of radiology services worldwide."

Oct 23, 2017: EPA Honors 2017 Green Power Leaders

The U.S. Environmental Protection Agency (EPA) announces its 17th annual Green Power Leadership Awards, recognizing 19 Green Power Partners across the country – including Amphitheater Public Schools (Tuscon, AZ), Apple, Bainbridge Island (Washington), Capital One, the City of Houston (Texas), Google, Intel, L’Oreal, Microsoft, Lockheed Martin, and University of Missouri – for achievements in advancing the nation’s voluntary green power market.

The award winners are being recognized for their efforts in expanding the domestic voluntary green power market. From using enough green power to meet 100 percent of electricity needs to signing long-term contracts to enable new green power projects, these organizations are demonstrating leadership by furthering the case for accessible, affordable green power use.

The winners for each of four award categories are:

Green Power Partner of the Year

-City of Houston, Texas purchased wind renewable energy certificates equal to 80 percent of the city's annual power use in 2016, and also entered into a power purchase agreement (PPA) that will supply the city with the output from 50 megawatts (MW) of solar power generated at a facility in Alpine, Texas, with anticipated savings to consumers of more than \$1.9 million per year over the 20-year term.

-L’Oréal USA's manufacturing operation has since 2016 increased its use of green power from 33 percent up to 100 percent, and installed on-site solar panel arrays at its factories in Florence, Kentucky and North Little Rock, Arkansas, bring L’Oréal's total number of solar energy installations to 16 across the United States.&emsp

Green Power Community of the Year

-Bainbridge Island, Washington holds one of the highest community participation rates in the Puget Sound Energy's green power program, and all city facilities use 100 percent green power.

Direct Project Engagement

- Amphitheater Public Schools entered into a 25-year power purchase agreement for installed solar across 24 school sites and support facilities in 2016, supplying more than 65 percent of the school district's electricity demand.

-Apple Inc. generates more than 228 million kWh at its facilities and has built or contracted for 580 megawatts (MW) of solar PV and 200 MW of wind power to support its data centers and corporate offices in California, Oregon, Nevada, Arizona and North Carolina.

- Intel Corporation uses more than 3.8 billion kWh or green power annually in the U.S., through on-site projects, utility programs, and renewable energy certificates, and in 2016 added a 6.5 megawatt (MW) solar carport at its Folsom campus to its green portfolio.

-Iron Mountain Information Management, LLC's green power use accounts for 40 percent of its power requirements and is encouraging the development of new green power generation in the Mid-Atlantic region.

- Lockheed Martin Corporation procured green power for 20 percent of its total U.S. operations' electricity needs, and has 11 operational on-site green power installations.

-Stanford University's cutting-edge energy supply facility has district-level heat-recover and 72 megawatts of solar capacity, meeting more than 50 percent of the university's electricity needs.

- University of Missouri currently combines on-site generation and an innovative wind power purchase agreement (PPA) to purchase more than 90 million kilowatt-hours of green power, representing 36 percent of the university's campus electricity.

- Victor Valley Wastewater Reclamation Authority produced nearly 7.5 million kilowatt hours on-site, representing 74 percent of its own electricity, through an innovative Biogas-to-Energy Program.

Excellence in Green Power Use

- Capital One achieved its corporate energy goals three years early, including powering the company 100 percent with green power.

- Clif Bar & Company has sourced 100 percent green power for all its owned and operated facilities since 2003, and has developed innovative programs to support green power for its supply chain and employees.

- Equinix, Inc. was the first interconnection and data center to announce a goal of using 100 percent green power across its global footprint and has signed financial power purchase agreements for wind power that will, as of 2016, cover 80 percent of its U.S. load.

- Google Inc. procures more than 1.7 billion kilowatt-hours of green power for its operation, and is on track to achieve its commitment to power all of its operations with green power in 2017.

- Microsoft Corporation procured more than 3.3 billion kilowatt hours of green power last year for its domestic operations to expand its ongoing investment in building a cleaner, more responsible cloud.

- TOTO USA / Morrow, Georgia Facility uses green power for 100 percent of its facility electricity use, and was the first large-volume participant in Georgia Power's Simple Solar Program to meet 100 percent of its use through the purchase of RECs from certified solar power.

- University of California has made numerous large-scale investments in green power, including long-term power purchase agreements for 80 megawatts of with solar energy projects in California's Central Valley that began to come online in 2016 and represent the largest solar purchase ever made by a university in the United States.

- University of Tennessee, Knoxville became the largest college or university green power user in the partnership as of 2016, purchasing more than 250 million kilowatt hours of green power annually.

The U.S. Environmental Protection Agency (EPA) established the Green Power Partnership (GPP) in 2001 to protect human health and the environment by increasing organizations' voluntary green power use to advance the American market for green power and development of those resources. The program provides a framework that includes credible usage benchmarks, market information, technical assistance, and public recognition to companies and other organizations that use green power.

Oct 12, 2017: Puppet adds new products, partnerships and executives as company ushers in new era of automation

Puppet, the standard for automating the delivery and operation of the software that powers everything around us, announced new products, partnerships and executives as the company expands its global footprint and product portfolio.

"At Puppet, we strive to help our customers be successful on their automation journey, every single day," said Sanjay Mirchandani, CEO, Puppet. "I'm proud of the investments that we've made to deliver on Puppet's vision of making our customers more powerful through software. Today's announcements put Puppet in an even better position to help solve our customers' needs -- of today and tomorrow -- as they evolve their automation and DevOps practices."

In today's world where every company needs to behave like a software company, more than 75 of the Fortune 100 rely on Puppet to ship software faster. Puppet is helping its customers drive automation and deliver an unprecedented level of innovation for solving IT's toughest challenges. To help customers transform pockets of automation to automation that's pervasive throughout the software delivery lifecycle, Puppet is making new investments in product, strategic alliances, its leadership team and global expansion.

New products and offerings

As part of the company's strategic plans to make the shortest path to better software a reality for enterprises, Puppet also today announced a number of new products and updates to existing offerings. Recently, Puppet acquired Distelli, an innovative continuous delivery platform for developers and enterprises to expand automation across the entire software delivery lifecycle. Today, Puppet is introducing Distelli's products into Puppet's automaton portfolio:

Puppet Pipelines for Applications provides continuous integration and continuous delivery (CI/CD) capabilities for traditionally packaged applications. Puppet Pipelines for Containers, a platform for continuously delivering container-based applications across multiple Kubernetes clusters running on any cloud, or on-premises. Puppet Container Registry, an open source container registry that provides an easy way for software teams to host Docker images within their infrastructure and get a unified view of all their images stored in local and remote repositories. Puppet Discovery

In addition, Puppet today introduced Puppet Discovery, a new product that enables frictionless discovery of on-premises, cloud and container infrastructure, provides deep insights about that infrastructure, and helps customers bring it all under control. Download the technical preview here: <https://puppet.com/products/puppet-discovery>

Puppet Tasks

Released today, Puppet Tasks is a family of offerings which encompasses a new open source, agentless product as well as a set of capabilities in Puppet Enterprise that make it easy for organizations to get started with automation and expand its use across their infrastructure and applications.

Available today is Puppet Bolt, a simple, agentless open source task runner that enables users to execute ad hoc tasks such as troubleshooting systems, executing sequenced actions, or stopping and restarting services across remote machines via a command line interface (CLI) over SSH (Linux) or WinRM (Windows). Bolt can run scripts written in any framework and execute them on any supported platform. Available today in Puppet Enterprise 2017.3 is the Task Management capability. Task Management adds scale to execute tasks across hundreds of thousands of nodes, governance to enable control and auditability, and flexibility to run tasks from a web UI and filter and target infrastructure. Puppet Tasks are now supported and available in several modules on the Puppet Forge.

Puppet Enterprise 2017.3

In addition to the new Task Management capability, Puppet Enterprise 2017.3 also includes major enhancements:

Package Inspector: Makes it even easier to browse and search for packages discovered on nodes connected to Puppet Enterprise. Now you can quickly determine whether a package is already managed by Puppet Enterprise, and if so, identify its location and remediate any known vulnerabilities with Task Management. **Puppet 5 Platform:** The components of the core Puppet platform -- Puppet Agent, Puppet Server and PuppetDB -- have now moved to a more coordinated release model, with compatibility guarantees and consistent versioning among them. This enables customers to download, implement and upgrade the Puppet platform more easily without requiring additional testing and troubleshooting. **Configuration Data:** This new capability, Configuration Data, improves code reusability and makes it easier to configure nodes using either the node classifier or Hiera from the user interface. **Japanese language support:** Japanese language support has been enhanced to include additional translations of Task Management, module READMEs for Apache, Azure, and PostgreSQL, error and informational messages

displayed when using the MySQL module, the text-based installer used to install Puppet Enterprise, the Learning VM, and the Code Manager user guide. New partnerships and strategic alliances

New offerings with Splunk, Google Cloud and Arm, plus new Technology Alliance Partners, make it easier for joint customers to spread automation across their organizations.

New alliance with Google Cloud: Puppet recently announced a new collaboration that enables Puppet customers to quickly adopt Google Cloud Platform (GCP) services, including its advanced machine learning and data analytics capabilities, while reducing IT costs and gaining the agility and flexibility of the cloud. Customers are now able to leverage a set of Google-developed modules that automate the provisioning, configuration, and ongoing management of GCP services to help Puppet customers quickly and effectively take advantage of GCP, including: Google Cloud Spanner, Google Cloud Pub/Sub and Google Stackdriver. Puppet Tasks are now included in several Google Cloud modules, including Google Compute Engine, Google Container Engine, Google Cloud Storage, and Google Cloud SQL. **New Splunk Partnership:** IT teams need a foundation for continuous analysis and automation across their entire organization. Splunk and Puppet have partnered to offer complementary solutions that address the need for real-time analysis and automation to help organizations transform their business and achieve success. This collaboration has resulted in a new integration new app and new technical add-on, available as the Splunk ITSI Module for Puppet Enterprise and the Splunk App and Add-On for Puppet Enterprise. The new Splunk IT Service Intelligence (ITSI) integration gives Splunk users the ability to take immediate action with the power of Puppet as the underlying action engine to remediate any vulnerability concerns without leaving Splunk, leading to the elimination of manual steps and faster delivery. **New partners for DevOps:** Puppet has added eleven important partners as part of its Technology Alliance Partner Program (TAPP): Barracuda, CloudPassage, Conjur/CyberArk, Cumulus Networks, Electric Cloud, F5, Intelliment Security, Onyx Point, Splunk, Praecipio Consulting, and Sensu. **Collaboration with Arm:** Arm® technology is at the heart of a computing and connectivity revolution that is transforming the way people live and businesses operate. Arm technology is enabling intelligence in over 100 billion devices today and securely powering products from the sensor to the smartphone to the supercomputer. In collaboration with Arm, later this year Puppet will release and support a new agent to manage infrastructure built on the 64-bit Arm architecture. **Cloud and Container Updates**

Puppet continues to invest in the cloud and container ecosystem with new offerings that enable customers to migrate to the cloud and adopt containers.

- **New Blueshift modules:** Puppet remains committed to helping enterprises adopt next generation technologies.
- **Kubernetes module:** Installs and configures Kubernetes in a secure and highly reliable way.
- **Helm module:** Installs, configures and manages the Helm package manager, and enables users to manage applications running on Kubernetes.
- **Docker module:** The new Docker module includes major enhancements, including support for Puppet Code Manager, Docker Swarm mode and Docker Secrets.
- **Kream tool:** A new open source tool that enables users to install and manage Kubernetes and Helm, and build a local development cluster.
- **Updates to Puppet Azure module:** The Puppet Azure module has been updated to include enhanced Disk storage and networking support and support for Azure tags.

New additions to Puppet's leadership team

Puppet is experiencing unprecedented growth in 2017 as adoption of Puppet Enterprise expands globally. Today, the company announced two executive appointments to strengthen its product and business development leadership. Sam DiStasio has been appointed vice president of business development and Matt Waxman has been named vice president of product management.

Giving back at PuppetConf 2017

Giving back is part of the fabric of Puppet's annual event which features programs that are connected to the company's vision to make people more powerful through software. At PuppetConf 2017, Puppet is giving back through a partnership with iDTech, a leading computer technology educator. Together Puppet and iDTech will donate nearly 40 scholarships globally to kids who otherwise can't afford to attend iDTech's coding camps.

Section 5 – Appendix

The data and analysis within this report is driven by GlobalData.

GlobalData gives you key information to drive sales, investment and deal making activity in your business.

Our coverage includes 200,000 + reports on 185,000+ companies (including 150,000+ private) across 200+ countries and 29 industries. The key industries include Alternative Energy, Oil & Gas, Clean Technology, Technology and Telecommunication, Pharmaceutical and Healthcare, Power, Financial Services, Chemical and Metal & Mining.

Methodology

GlobalData company reports are based on a core set of research techniques which ensure the best possible level of quality and accuracy of data. The key sources used include:

- Company Websites
- Company Annual Reports
- SEC Filings
- Press Releases
- Proprietary Databases

Notes

- Financial information of the company is taken from the most recently published annual reports or SEC filings
- The financial and operational data reported for the company is as per the industry defined standards
- Revenue converted to USD at average annual conversion rate as of fiscal year end

About GlobalData

GlobalData is one of the world's leading providers of company operational data and strategic analysis, providing detailed information on tens of thousands of companies globally. Our highly qualified team of Analysts, Researchers, and Solution Consultants use proprietary data sources and various tools and techniques to gather, analyze and represent the latest and the most reliable information essential for businesses to sustain a competitive edge. Data is continuously updated and revised by large teams of research experts, so that it always reflects the latest events and information. With a large dedicated research and analysis capability, GlobalData employs rigorous primary and secondary research techniques in developing unique data sets and research material for this series and its other reports. GlobalData offers comprehensive geographic coverage across world's most important sectors, focusing particularly on energy and healthcare.

Contact Us

If you have any queries about this report or would like further information, please contact info@globaldata.com

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The facts of this report are believed to be correct at the time of publication but cannot be guaranteed. Please note that the findings, conclusions and recommendations that GlobalData delivers will be based on information gathered in good faith from both primary and secondary sources, whose accuracy we are not always in a position to guarantee. As such GlobalData can accept no liability whatever for actions taken based on any information that may subsequently prove to be incorrect.



The Leader in Stock Valuation and Forecasting

RATING AND FORECAST REPORT

Company Name: ALPHABET INC-A

Ticker: GOOGL

Jul. 23, 2018

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www.valuengine.com

Rating and Forecast Report

ALPHABET INC-A (NSDQ: GOOGL)



Report Date: Jul 23, 2018

DATA SUMMARY

Sector: Computer and Technology

Industry: Internet Services

Last Close: \$1197.88

Trade Date: Jul 20, 2018

1-Yr Forecast: 7.89%

1-Yr Momentum: 20.73%

Valuation: 17.44%

Trailing P/E: 30.94

Market Cap (bil): 814.76

Forward P/E: 27.99

EPS Growth: 10.54%

PEG Ratio: 2.94

P/S Ratio: 6.95

M/B Ratio: 5.81

5-Yr Avg Return: 18.84%

Volatility: 19.79%

Sharpe Ratio: 0.95

Beta: 1.03

52-Wk High: \$1221.59

52-Wk Low: \$918.60

Avg Volume: 1952683

Alpha: 0.08

VALUENGINE RECOMMENDATION

NEGATIVE underperform NEUTRAL match POSITIVE outperform

**ValuEngine
Rating**



ValuEngine recommendation covers more than 5000 companies. The recommendations are based on the proprietary ValuEngine one-year forecast return model output for each individual equity. ValuEngine's Five-Engine rating stocks have an averaged annual return of 12.98% since 2002.

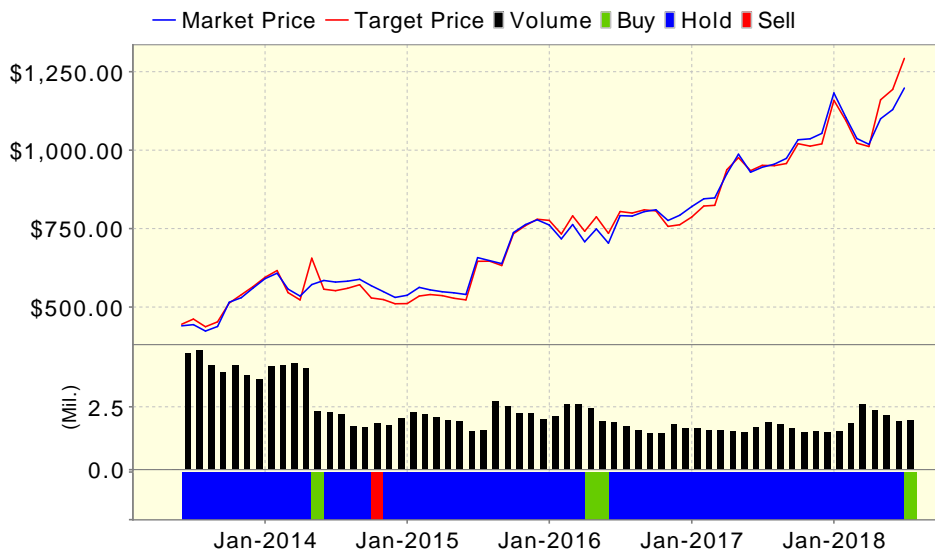
FORECAST ANALYSIS

	Target Price	Exp. Return
1-Month	\$1205.76	0.66%
3-Month	\$1220.32	1.87%
6-Month	\$1248.31	4.21%
1-Year	\$1292.36	7.89%
2-Year	\$1350.19	12.71%
3-Year	\$1368.56	14.25%

The predictive variables used in ValuEngine's forecast model include both proprietary and well-established variables derived from credible financial studies and publications. We use a distinct forecasting model for each time horizon and apply the most advanced statistical/econometric techniques to ensure that our stock return forecasts are as reliable as possible.

[Click for more information on ValuEngine's models.](#)

PRICE AND RECOMMENDATION HISTORY



Most Recent Recommendation Changes

Jul 02, 2018

Upgrade to Buy

Jun 02, 2016

Downgrade to Hold

Apr 04, 2016

Upgrade to Buy

Past Performance

Last One Month 5.54%

Last Three Month 11.19%

Last Six Month 4.76%

Last One Year 20.73%

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ValuEngine's fundamentally-based, quant-derived research is now available to private investors. ValuEngine's research will enhance your ability to evaluate individual stocks, manage your portfolio and allocate capital for maximum returns. ValuEngine currently covers @5500 US equities as well as most major Canadian stocks.

Rating and Forecast Report

ALPHABET INC-A (NSDQ: GOOGL)



Report Date: Jul 23, 2018

VALUENGINE EVALUATION & RANKINGS

	Value	Rank
1-Yr Forecast	7.89%	91
Valuation	17.44%	24
1-Yr Momentum	20.73%	73
P/E Ratio	30.94	44
Market Cap	814.76B	100
EPS Growth	10.54%	35
5-Yr Avg Return	18.84%	88
Volatility	19.79%	68
Sharpe Ratio	0.95	92
P/S Ratio	6.95	17
M/B Ratio	5.81	25
Surprise	7.83%	62

Just as important as the percentages shown for our predictive variables for each stock is the way they are ranked against @7000 stocks in our database. This is sometimes confusing to newcomers to ValuEngine. Each of these quantitative measurements is ranked on a scale of 1 to 100. Generally the higher the ranking, the more positive the influence each measurement has on the overall attractiveness of the stock. In other words a high rank is always better. For example:

Forecast rank 91: 9% of stocks have higher forecast returns.

Valuation rank 24: 76% of stocks are more undervalued.

Momentum rank 73: 27% of stocks have higher momentum.

P/E rank 44: 56% of stocks have lower P/E ratios.

Size rank 100: 0% of stocks have higher market capitalization.

Volatility rank 68: 32% of stocks have less volatility.

COMPARISON TO INDUSTRY

1-Yr Forecast		Rank
GOOGL	7.89%	91
Industry	3.09%	66
Sector	3.21%	66

1-Yr Momentum		Rank
GOOGL	20.73%	73
Industry	46.84%	60
Sector	24.37%	57
S&P 500	13.28%	64

Valuation		Rank
GOOGL	17.44%	24
Industry	15.07%	45
Sector	16.54%	39

P/E Ratio		Rank
GOOGL	30.94	44
Industry	38.84	34
Sector	32.11	44

Market Cap (bil.)		Rank
GOOGL	814.76	100
Industry	29.00	50
Sector	9.17	50

Volatility		Rank
GOOGL	19.79%	68
Industry	62.91%	33
Sector	56.01%	39
S&P 500	19.24%	69

EPS Growth		Rank
GOOGL	10.54%	35
Industry	46.18%	53
Sector	45.13%	52

5-Yr Avg Return		Rank
GOOGL	18.84%	88
Industry	4.34%	55
Sector	3.87%	57
S&P 500	3.05%	56

P/S Ratio		Rank
GOOGL	6.95	17
Industry	4.03	48
Sector	4.34	50

M/B Ratio		Rank
GOOGL	5.81	25
Industry	10.50	41
Sector	8.23	40

Surprise		Rank
GOOGL	7.83%	62
Industry	0.80%	53
Sector	4.78%	55

SharpeRatio		Rank
GOOGL	0.95	92
Industry	0.10	51
Sector	0.16	54
S&P 500	0.16	59

Rating and Forecast Report

ALPHABET INC-A (NSDQ: GOOGL)



Report Date: Jul 23, 2018

COMPARISON WITH PEERS

Return Forecast : Expected Return

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOGL	ALPHABET INC-A	4	0.66%	1.87%	4.21%	7.89%	12.71%	14.25%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
AAPL	APPLE INC	4	0.56%	1.01%	3.41%	6.67%	15.82%	21.98%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%

1-Yr Forecast

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOGL	ALPHABET INC-A	4	0.66%	1.87%	4.21%	7.89%	12.71%	14.25%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
AAPL	APPLE INC	4	0.56%	1.01%	3.41%	6.67%	15.82%	21.98%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%

1-Yr Momentum

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOGL	ALPHABET INC-A	4	0.66%	1.87%	4.21%	7.89%	12.71%	14.25%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
AAPL	APPLE INC	4	0.56%	1.01%	3.41%	6.67%	15.82%	21.98%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%

Valuation

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOGL	ALPHABET INC-A	4	0.66%	1.87%	4.21%	7.89%	12.71%	14.25%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
AAPL	APPLE INC	4	0.56%	1.01%	3.41%	6.67%	15.82%	21.98%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%

P/E Ratio

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOGL	ALPHABET INC-A	4	0.66%	1.87%	4.21%	7.89%	12.71%	14.25%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
AAPL	APPLE INC	4	0.56%	1.01%	3.41%	6.67%	15.82%	21.98%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%

Market Cap (bil.)

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOGL	ALPHABET INC-A	4	0.66%	1.87%	4.21%	7.89%	12.71%	14.25%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
AAPL	APPLE INC	4	0.56%	1.01%	3.41%	6.67%	15.82%	21.98%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%

Volatility

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOGL	ALPHABET INC-A	4	0.66%	1.87%	4.21%	7.89%	12.71%	14.25%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
AAPL	APPLE INC	4	0.56%	1.01%	3.41%	6.67%	15.82%	21.98%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%

EPS Growth

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOGL	ALPHABET INC-A	4	0.66%	1.87%	4.21%	7.89%	12.71%	14.25%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
AAPL	APPLE INC	4	0.56%	1.01%	3.41%	6.67%	15.82%	21.98%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%

5-Yr Avg Return

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOGL	ALPHABET INC-A	4	0.66%	1.87%	4.21%	7.89%	12.71%	14.25%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
AAPL	APPLE INC	4	0.56%	1.01%	3.41%	6.67%	15.82%	21.98%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%

P/S Ratio

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOGL	ALPHABET INC-A	4	0.66%	1.87%	4.21%	7.89%	12.71%	14.25%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
AAPL	APPLE INC	4	0.56%	1.01%	3.41%	6.67%	15.82%	21.98%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%

M/B Ratio

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOGL	ALPHABET INC-A	4	0.66%	1.87%	4.21%	7.89%	12.71%	14.25%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
AAPL	APPLE INC	4	0.56%	1.01%	3.41%	6.67%	15.82%	21.98%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%

Surprise

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOGL	ALPHABET INC-A	4	0.66%	1.87%	4.21%	7.89%	12.71%	14.25%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
AAPL	APPLE INC	4	0.56%	1.01%	3.41%	6.67%	15.82%	21.98%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%

SharpeRatio

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOGL	ALPHABET INC-A	4	0.66%	1.87%	4.21%	7.89%	12.71%	14.25%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
AAPL	APPLE INC	4	0.56%	1.01%	3.41%	6.67%	15.82%	21.98%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%

Rating and Forecast Report

ALPHABET INC-A (NSDQ: GOOGL)



Report Date: Jul 23, 2018

ANALYST OPINIONS

Strong Buy

The mean recommendation was calculated from the numbers provided by Zacks.

Current Mean: 4.73

Number of Analyst: 30

Strong Buy: 24

Buy: 4

Hold: 2

Sell: 0

Strong Sell: 0

Recommendation Mean Trend

Three Month Ago: 4.61

Two Month Ago: 4.72

One Month Ago: 4.72

Current: 4.73

EPS CONSENSUS EXPECTATIONS

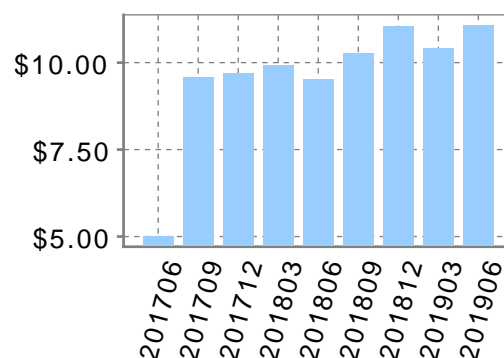
Quarter	201806	201809	201812	201903	201906
Mean	\$9.51	\$10.26	\$11.05	\$10.41	\$11.07
# of Estimates	14	13	13	3	3
High	\$10.21	\$10.85	\$11.80	\$11.30	\$11.49
Low	\$9.05	\$9.08	\$10.38	\$9.68	\$10.38
Same Qtr Last Yr	\$5.01	\$9.57	\$9.70	\$9.93	\$9.51
% Growth	89.75	7.22	13.89	4.87	16.48

Qtr/Year/LTG	201806	201809	2018	2019	LTG
Mean - Current	\$9.51	\$10.26	\$40.80	\$48.21	17.21%
Mean - 7 Days Ago	\$9.51	\$10.26	\$40.80	\$48.21	17.21%
Mean - 30 Days Ago	\$9.52	\$10.29	\$40.84	\$48.21	17.21%
Mean - 60 Days Ago	\$9.52	\$10.29	\$40.97	\$47.96	17.21%
Mean - 90 Days Ago	\$9.78	\$10.78	\$41.16	\$48.62	22.73%

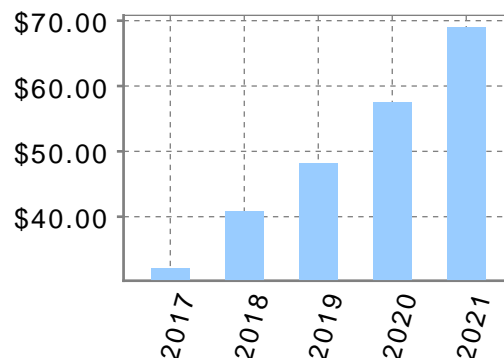
Year/LTG	2018	2019	2020	2021	LTG
Mean	\$40.80	\$48.21	\$57.51	\$68.97	17.21%
# of Estimates	13	16	6	2	7
High	\$42.78	\$52.00	\$61.45	\$74.86	21.00%
Low	\$39.76	\$42.96	\$54.73	\$63.07	13.00%
Previous Year	\$32.05	\$40.80	\$48.21	\$57.51	
% Growth	27.31	18.15	19.29	19.93	

Quarter	201706	201709	201712	201803
Estimated EPS	\$4.39	\$8.43	\$10.12	\$9.21
Actual EPS	\$5.01	\$9.57	\$9.70	\$9.93
Difference	\$0.62	\$1.14	\$-0.42	\$0.72
% Surprise	14.12	13.52	-4.15	7.82

Quarterly EPS Trend



Annual EPS Trend



BUSINESS SUMMARY

Alphabet Inc. is engaged in technology business. The Company provides web-based search, advertisements, maps, software applications, mobile operating systems, consumer content, enterprise solutions, commerce and hardware products through its subsidiaries. Alphabet Inc., formerly known as Google Inc., is headquartered in Mountain View, California.

Rating and Forecast Report

ALPHABET INC-A (NSDQ: GOOGL)



Report Date: Jul 23, 2018

ANNUAL FINANCIALS (All numbers in millions)

Balance Sheet	201012	201112	201212	201312	201412	201512	201612	201712
Cash	13630	9983	14778	18898	18347	16549	12918	10715
Marketable Securities	21345	34643	33310	39819	46048	56517	73415	91156
Receivables	5002	6172	8585	9390	11556	13909	14232	18705
Inventory			505.00	426.00			268.00	749.00
Raw Materials			77.00	115.00				
Work in Progress								
Finished Goods			428.00	311.00				
Notes Receivable								
Other Current Assets	1585	1960	3276	4353	4734	3139	4575	2983
Total Current Assets	41562	52758	60454	72886	80685	90114	105408	124308
Property, Plant & Equipment	11771	14400	17697	23837	32746	40146	47527	59647
Accumulated Depreciation	4012	4797	5843	7313	8863	11130	13293	17264
Net Property, Plant & Equipment	7759	9603	11854	16524	23883	29016	34234	42383
Investment & Advances	523.00	790.00	1469	1976	3079	5183	5878	7813
Other non-current Assets								
Deferred Charges	265.00					251.00	383.00	680.00
Intangibles	7300	8924	18010	17558	20206	19716	19775	19439
Deposits & other assets	442.00	499.00	2011	1976	3280	3181	1819	2672
TOTAL ASSETS	57851	72574	93798	110920	131133	147461	167497	197295
Notes Payable	3465	1218	2549	3009	2009	3225		
Accounts Payable	483.00	588.00	2012	2453	1715	1931	2041	3137
Current Portion of Long-term Debt								
Current Portion of Capital Leases								
Accrued Expenses	3256	4356	6968	7986	9455	10636	13062	18733
Income Taxes Payable	37.00	197.00	240.00	24.00	96.00	302.00	554.00	881.00
Other Current Liabilities	2755	2554	2568	2436	3530	3216	1099	1432
Total Current Liabilities	9996	8913	14337	15908	16805	19310	16756	24183
Mortgages								
Deferred Charges (taxes/income)	35.00	331.00	1972	2086	2075	340.00	428.00	770.00
Convertible Debt								
Long Term Debt		2986	2988	2236	3228	1995	3935	3969
Non-Current Capital Leases								
Other Long-Term Liabilities	1579	2199	2786	3381	4525	5485	7342	15871
TOTAL LIABILITIES	11610	14429	22083	23611	26633	27130	28461	44793
Minority Interest (liabilities)								
Preferred Stock								
Common Stock, Net	0.32	0.33	0.33	0.34	0.68	0.69	0.69	0.69
Capital Surplus	18235	20264	22835	25922	28766	32981	36306	40246
Retained Earnings	27868	37605	48342	61262	75706	89223	105131	113247
Treasury Stock								
Other Liabilities	138.00	276.00	538.00	125.00	27.00	-1874	-2402	-992.00
SHAREHOLDERS' EQUITY	46241	58145	71715	87309	104500	120331	139036	152502
TOTAL LIABILITES & SHAREHOLDERS	57851	72574	93798	110920	131133	147461	167497	197295

Rating and Forecast Report

ALPHABET INC-A (NSDQ: GOOGL)



Report Date: Jul 23, 2018

ANNUAL FINANCIALS (All numbers in millions)

Income Statement	201012	201112	201212	201312	201412	201512	201612	201712
Net Sales or Revenues	29321	37905	50175	59825	66001	74989	90272	110855
Cost of Goods Sold	10417	13188	20634	25858	25691	28164	35138	45583
Gross Profit	18904	24717	29541	33967	40310	46825	55134	65272
Research & Development Expense	3762	5162	6793	7952	9832	12282	13948	16625
Selling, General, & Admin. Expense	4761	7813	9988	12049	13982	15183	17470	22501
Income Before Deprec., Depletion, Amort.	10381	11742	12760	13966	16496	19360	23716	26146
Depreciation, Depletion, Amortization								
Non-Operating Income	415.00	584.00	626.00	530.00	763.00	291.00	434.00	1047
Interest Expense								
Pretax Income	10796	12326	13386	14496	17259	19651	24150	27193
Provision for Income Taxes	2291	2589	2598	2282	3331	3303	4672	14531
Minority Interest								
Investment Gains (Losses)								
Other Income								
Income Before Extraordinaries & Disc	8505	9737	10788	12214	13928	16348	19478	12662
Extraordinary Items & Discontinued			-51.00	706.00	516.00			
Net Income	8505	9737	10737	12920	14444	16348	19478	12662
EPS - Basic, net	13.35	15.09	16.41	19.41	21.37	23.11	28.32	18.27
EPS - Diluted, net	13.16	14.88	16.16	19.07	21.02	22.84	27.85	18.00
EPS - Diluted, before non-recurring items	13.16	14.88	17.01	18.21	20.82	22.84	27.85	32.05
Cash Flow Statement	201012	201112	201212	201312	201412	201512	201612	201712
Net Income (Cash Flow)	8505	9737	10737	12920	14444	16348	19478	12662
Depreciation, Depletion, Amortization-CF	1396	1851	2962	3939	4979	5063	6144	6915
Net Increase (decrease) in	-99.00	630.00	898.00	-31.00	364.00	-409.00	3300	9246
Cash from (used in) Discontinued								
Other Adjustments - Net	1279	2347	2022	1831	2589	5022	7114	8268
Net Cash from (used by) Operating	11081	14565	16619	18659	22376	26024	36036	37091
(increase) Decrease in Prop, Plant, &	-4018	-3438	-3273	-7358	-10959	-9915	-9972	-13085
Acquisition/disposition of subsidiaries, othr	-1067	-1900	-10568	1077	-4502	-236.00	-986.00	-287.00
Increase (decrease) in investments	-7956	-13349	1119	-7099	-6997	-13210	-17779	-19448
Other Cash inflow from investment	2361	-354.00	-334.00	-299.00	1403	-350.00	-2428	1419
Net Cash from (used by) investment	-10680	-19041	-13056	-13679	-21055	-23711	-31165	-31401
Issuance (purchase) of equity shares	-801.00					-1780	-3693	-4046
Issuance (repayment) of debt securities		726.00	1328	-557.00	-18.00	-23.00	-1335	-86.00
Increase (decrease) in bank & other	3463							
Payment of dividends & other cash								
Other cash from (used by) financing	388.00	81.00	-99.00	-300.00	-1421	-1874	-3304	-4166
Net Cash from (used by) Financing	3050	807.00	1229	-857.00	-1439	-3677	-8332	-8298
Effect of Exchange Rate Changes on	-19.00	22.00	3.00	-3.00	-433.00	-434.00	-170.00	405.00
Net Change in Cash & Cash Equivalents	3432	-3647	4795	4120	-551.00	-1798	-3631	-2203
Cash & Equivalents at beginning of year	10198	13630	9983	14778	18898	18347	16549	12918
Cash & Equivalents at year end	13630	9983	14778	18898	18347	16549	12918	10715

Rating and Forecast Report

ALPHABET INC-A (NSDQ: GOOGL)



Report Date: Jul 23, 2018

QUARTERLY FINANCIALS (All numbers in millions)

Balance Sheet	201606	201609	201612	201703	201706	201709	201712	201803
Cash	13627	9406	12918	18132	15711	10581	10715	12658
Marketable Securities	64833	73650	73415	74307	79002	89562	91156	90227
Receivables	12762	12395	14232	12969	14877	15577	18705	16814
Inventory		559.00	268.00	280.00	398.00	765.00	749.00	636.00
Raw Materials								
Work in Progress								
Finished Goods								
Notes Receivable								
Other Current Assets	3016	2536	4575	3106	2398	2860	2983	3426
Total Current Assets	94238	98546	105408	108794	112386	119345	124308	123761
Property, Plant & Equipment	43904	46094	47527	50321	53341	56358	59647	67801
Accumulated Depreciation	12491	13341	13293	14385	15665	16238	17264	18956
Net Property, Plant & Equipment	31413	32753	34234	35936	37676	40120	42383	48845
Investment & Advances	5820	5705	5878	6131	6642	7269	7813	10976
Other non-current Assets								
Deferred Charges	253.00	273.00	383.00	365.00	376.00	505.00	680.00	678.00
Intangibles	19293	19395	19775	19684	19537	19614	19439	20671
Deposits & other assets	3275	3276	1819	1846	2004	2683	2672	2004
TOTAL ASSETS	154292	159948	167497	172756	178621	189536	197295	206935
Notes Payable	2219							1329
Accounts Payable	1716	2175	2041	2306	2488	2674	3137	3526
Current Portion of Long-term Debt								
Current Portion of Capital Leases								
Accrued Expenses	10256	11054	13062	10999	14838	16529	18733	17600
Income Taxes Payable	185.00	171.00	554.00	803.00	133.00	221.00	881.00	1343
Other Current Liabilities	2965	923.00	1099	1148	1226	1269	1432	1596
Total Current Liabilities	17341	14323	16756	15256	18685	20693	24183	25394
Mortgages								
Deferred Charges (taxes/income)	802.00	562.00	428.00	927.00	714.00	497.00	770.00	709.00
Convertible Debt								
Long Term Debt	1984	3938	3935	3937	3955	3964	3969	3973
Non-Current Capital Leases								
Other Long-Term Liabilities	6286	7022	7342	7687	6981	7282	15871	16034
TOTAL LIABILITIES	26413	25845	28461	27807	30335	32436	44793	46110
Minority Interest (liabilities)								
Preferred Stock								
Common Stock, Net	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.70
Capital Surplus	34292	35336	36306	37697	38508	39608	40246	41486
Retained Earnings	94737	99798	105131	109420	111505	118237	113247	120008
Treasury Stock								
Other Liabilities	-1151	-1032	-2402	-2169	-1728	-746.00	-992.00	-670.00
SHAREHOLDERS' EQUITY	127879	134103	139036	144949	148286	157100	152502	160825
TOTAL LIABILITES & SHAREHOLDERS	154292	159948	167497	172756	178621	189536	197295	206935

Rating and Forecast Report

ALPHABET INC-A (NSDQ: GOOGL)



Report Date: Jul 23, 2018

QUARTERLY FINANCIALS (All numbers in millions)

Income Statement	201606	201609	201612	201703	201706	201709	201712	201803
Net Sales or Revenues	21500	22451	26064	24750	26010	27772	32323	31146
Cost of Goods Sold	8130	8699	10661	9795	10373	11148	14267	13467
Gross Profit	13370	13752	15403	14955	15637	16624	18056	17679
Research & Development Expense	3363	3596	3622	3942	4172	4205	4306	5039
Selling, General, & Admin. Expense	4039	4389	5142	4445	7333	4637	6086	5639
Income Before Deprec., Depletion, Amort.	5968	5767	6639	6568	4132	7782	7664	7001
Depreciation, Depletion, Amortization								
Non-Operating Income	151.00	278.00	218.00	251.00	245.00	197.00	354.00	3542
Interest Expense								
Pretax Income	6119	6045	6857	6819	4377	7979	8018	10543
Provision for Income Taxes	1242	984.00	1524	1393	853.00	1247	11038	1142
Minority Interest								
Investment Gains (Losses)								
Other Income								
Income Before Extraordinaries & Disc	4877	5061	5333	5426	3524	6732	-3020	9401
Extraordinary Items & Discontinued								
Net Income	4877	5061	5333	5426	3524	6732	-3020	9401
EPS - Basic, net	7.11	7.36	7.73	7.85	5.09	9.71	-4.38	13.53
EPS - Diluted, net	7.00	6.78	8.05	7.73	5.01	9.57	-4.31	13.33
EPS - Diluted, before non-recurring items	7.00	7.25	7.56	7.73	5.01	9.57	9.70	9.93
Cash Flow Statement	201606	201609	201612	201703	201706	201709	201712	201803
Net Income (Cash Flow)	9084	14145	19478	5426	8950	15682	12662	9401
Depreciation, Depletion, Amortization-CF	2861	4457	6144	1503	3128	4889	6915	1986
Net Increase (decrease) in	1087	2724	3300	-79.00	205.00	-81.00	9246	1065
Cash from (used in) Discontinued								
Other Adjustments - Net	3746	5297	7114	2698	4668	6333	8268	-810.00
Net Cash from (used by) Operating	16778	26623	36036	9548	16951	26823	37091	11642
(increase) Decrease in Prop, Plant, &	-4551	-6908	-9972	-2467	-5285	-8796	-13085	-7269
Acquisition/disposition of subsidiaries, othr	-72.00	-324.00	-986.00	-101.00	-143.00	-273.00	-287.00	-1250
Increase (decrease) in investments	-8432	-16803	-17779	-1033	-6014	-16777	-19448	673.00
Other Cash inflow from investment	-363.00	-2428	-2428	750.00	1419	1419	1419	
Net Cash from (used by) investment	-13418	-26463	-31165	-2851	-10023	-24427	-31401	-7846
Issuance (purchase) of equity shares	-3693	-3693	-3693	-647.00	-2265	-1945	-4046	-2173
Issuance (repayment) of debt securities	-1048	-1322	-1335	-18.00	-56.00	-64.00	-86.00	1313
Increase (decrease) in bank & other								
Payment of dividends & other cash								
Other cash from (used by) financing	-1610	-2425	-3304	-1009	-2093	-3111	-4166	-1158
Net Cash from (used by) Financing	-6351	-7440	-8332	-1674	-4414	-5120	-8298	-2018
Effect of Exchange Rate Changes on	69.00	137.00	-170.00	191.00	279.00	387.00	405.00	165.00
Net Change in Cash & Cash Equivalents	-2922	-7143	-3631	5214	2793	-2337	-2203	1943
Cash & Equivalents at beginning of year	16549	16549	16549	12918	12918	12918	12918	10715
Cash & Equivalents at year end	13627	9406	12918	18132	15711	10581	10715	12658

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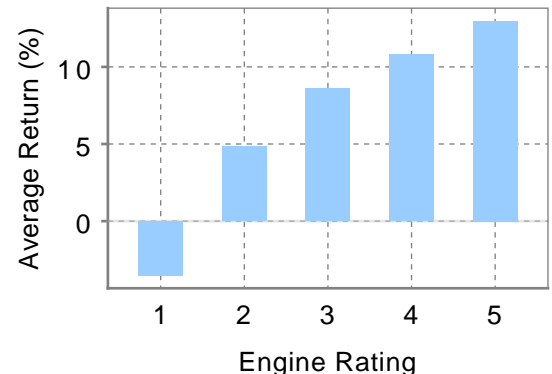
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Engine Rating and Average Annual Return
(Jan 2002 - Jun 2018)



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2. Hold: Expected to perform in line with the SP500 with average returns.
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The Leader in Stock Valuation and Forecasting

RATING AND FORECAST REPORT

Company Name: ALPHABET INC-C

Ticker: GOOG

Jul. 23, 2018

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Rating and Forecast Report

ALPHABET INC-C (NSDQ: GOOG)



Report Date: Jul 23, 2018

DATA SUMMARY

Sector: Computer and Technology

Industry: Internet Services

Last Close: \$1184.91

Trade Date: Jul 20, 2018

1-Yr Forecast: 5.27%

1-Yr Momentum: 22.39%

Trailing P/E: 43.84

Market Cap (bil): 402.09

Forward P/E: 22.47

EPS Growth: 95.14%

PEG Ratio: 0.46

P/S Ratio: 3.43

M/B Ratio: 2.87

5-Yr Avg Return: 18.08%

Volatility: 18.67%

Sharpe Ratio: 0.97

Beta: 1.06

52-Wk High: \$1204.50

52-Wk Low: \$903.40

Avg Volume: 1535228

Alpha: 0.08

Shares Outs(mil): 339.34

VALUENGINE RECOMMENDATION

NEGATIVE underperform	NEUTRAL match	POSITIVE outperform
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**ValuEngine
Rating**



ValuEngine recommendation covers more than 5000 companies. The recommendations are based on the proprietary ValuEngine one-year forecast return model output for each individual equity. ValuEngine's Five-Engine rating stocks have an averaged annual return of 12.98% since 2002.

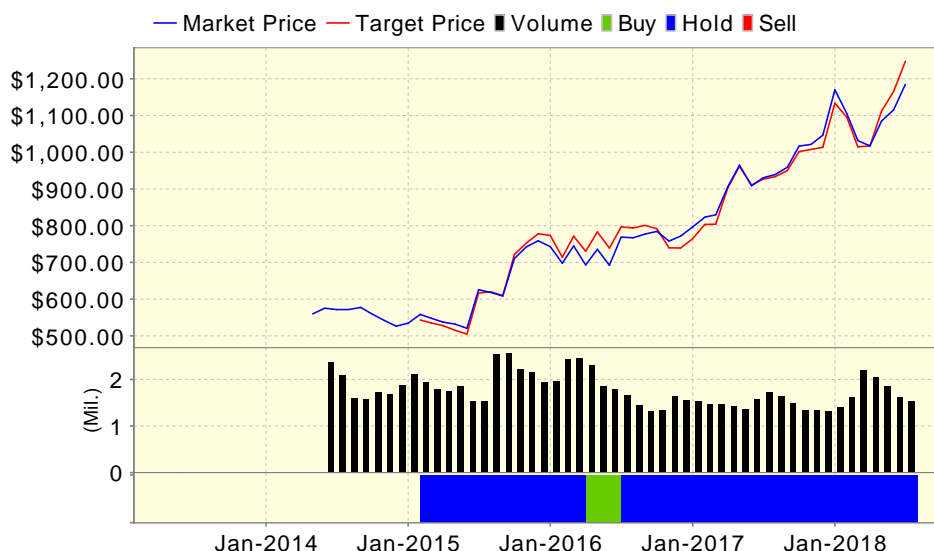
FORECAST ANALYSIS

	Target Price	Exp. Return
1-Month	\$1190.11	0.44%
3-Month	\$1188.00	0.26%
6-Month	\$1206.54	1.83%
1-Year	\$1247.35	5.27%
2-Year	\$1164.86	-1.69%
3-Year	\$1091.42	-7.89%

The predictive variables used in ValuEngine's forecast model include both proprietary and well-established variables derived from credible financial studies and publications. We use a distinct forecasting model for each time horizon and apply the most advanced statistical/econometric techniques to ensure that our stock return forecasts are as reliable as possible.

[Click for more information on ValuEngine's models.](#)

PRICE AND RECOMMENDATION HISTORY



Most Recent Recommendation Changes

Jul 18, 2016

Downgrade to Hold

Apr 01, 2016

Upgrade to Buy

Jan 22, 2013

Downgrade to Hold

Past Performance

Last One Month 5.84%

Last Three Month 10.43%

Last Six Month 4.17%

Last One Year 22.39%

CONTACT VALUENGINE

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ValuEngine's fundamentally-based, quant-derived research is now available to private investors. ValuEngine's research will enhance your ability to evaluate individual stocks, manage your portfolio and allocate capital for maximum returns. ValuEngine currently covers @5500 US equities as well as most major Canadian stocks.

Rating and Forecast Report

ALPHABET INC-C (NSDQ: GOOG)



Report Date: Jul 23, 2018

VALUENGINE EVALUATION & RANKINGS

	Value	Rank
1-Yr Forecast	5.27%	81
1-Yr Momentum	22.39%	75
P/E Ratio	43.84	38
Market Cap	402.09B	100
EPS Growth	95.14%	85
5-Yr Avg Return	18.08%	87
Volatility	18.67%	71
Sharpe Ratio	0.97	92
P/S Ratio	3.43	33
M/B Ratio	2.87	43
Beta	1.06	33
Alpha	0.08	74

Just as important as the percentages shown for our predictive variables for each stock is the way they are ranked against @7000 stocks in our database. This is sometimes confusing to newcomers to ValuEngine. Each of these quantitative measurements is ranked on a scale of 1 to 100. Generally the higher the ranking, the more positive the influence each measurement has on the overall attractiveness of the stock. In other words a high rank is always better. For example:
 Forecast rank 81: 19% of stocks have higher forecast returns.
 Momentum rank 75: 25% of stocks have higher momentum.
 P/E rank 38: 62% of stocks have lower P/E ratios.
 Size rank 100: 0% of stocks have higher market capitalization.
 Volatility rank 71: 29% of stocks have less volatility.

COMPARISON TO INDUSTRY

1-Yr Forecast	Rank
GOOG 5.27%	81
Industry 3.09%	66
Sector 3.21%	66

EPS Growth	Rank
GOOG 95.14%	85
Industry 46.18%	53
Sector 45.13%	52

1-Yr Momentum	Rank
GOOG 22.39%	75
Industry 46.84%	60
Sector 24.37%	57
S&P 500 13.28%	64

5-Yr Avg Return	Rank
GOOG 18.08%	87
Industry 4.34%	55
Sector 3.87%	57
S&P 500 3.05%	56

Valuation	Rank
GOOG	
Industry 15.07%	45
Sector 16.54%	39

P/S Ratio	Rank
GOOG 3.43	33
Industry 4.03	48
Sector 4.34	50

P/E Ratio	Rank
GOOG 43.84	38
Industry 38.84	34
Sector 32.11	44

M/B Ratio	Rank
GOOG 2.87	43
Industry 10.50	41
Sector 8.23	40

Market Cap (bil.)	Rank
GOOG 402.09	100
Industry 29.00	50
Sector 9.17	50

Surprise	Rank
GOOG	
Industry 0.80%	53
Sector 4.78%	55

Volatility	Rank
GOOG 18.67%	71
Industry 62.91%	33
Sector 56.01%	39
S&P 500 19.24%	69

SharpeRatio	Rank
GOOG 0.97	92
Industry 0.10	51
Sector 0.16	54
S&P 500 0.16	59

Rating and Forecast Report

ALPHABET INC-C (NSDQ: GOOG)



Report Date: Jul 23, 2018

COMPARISON WITH PEERS

Return Forecast : Expected Return

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOG	ALPHABET INC-C	3	0.44%	0.26%	1.83%	5.27%	-1.69%	-7.89%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%
YAHOOY	YAHOO JAPAN CP	2	-0.41%	1.55%	1.80%	-4.95%	14.45%	26.51%

1-Yr Forecast

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOG	ALPHABET INC-C	3	0.44%	0.26%	1.83%	5.27%	-1.69%	-7.89%
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1-Yr Momentum

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOG	ALPHABET INC-C	3	0.44%	0.26%	1.83%	5.27%	-1.69%	-7.89%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
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YAHOOY	YAHOO JAPAN CP	2	-0.41%	1.55%	1.80%	-4.95%	14.45%	26.51%

Valuation

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOG	ALPHABET INC-C	3	0.44%	0.26%	1.83%	5.27%	-1.69%	-7.89%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
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YAHOOY	YAHOO JAPAN CP	2	-0.41%	1.55%	1.80%	-4.95%	14.45%	26.51%

P/E Ratio

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOG	ALPHABET INC-C	3	0.44%	0.26%	1.83%	5.27%	-1.69%	-7.89%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
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YAHOOY	YAHOO JAPAN CP	2	-0.41%	1.55%	1.80%	-4.95%	14.45%	26.51%

Market Cap (bil.)

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOG	ALPHABET INC-C	3	0.44%	0.26%	1.83%	5.27%	-1.69%	-7.89%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
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BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%
YAHOOY	YAHOO JAPAN CP	2	-0.41%	1.55%	1.80%	-4.95%	14.45%	26.51%

Volatility

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOG	ALPHABET INC-C	3	0.44%	0.26%	1.83%	5.27%	-1.69%	-7.89%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
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YAHOOY	YAHOO JAPAN CP	2	-0.41%	1.55%	1.80%	-4.95%	14.45%	26.51%

EPS Growth

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOG	ALPHABET INC-C	3	0.44%	0.26%	1.83%	5.27%	-1.69%	-7.89%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%
YAHOOY	YAHOO JAPAN CP	2	-0.41%	1.55%	1.80%	-4.95%	14.45%	26.51%

5-Yr Avg Return

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOG	ALPHABET INC-C	3	0.44%	0.26%	1.83%	5.27%	-1.69%	-7.89%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%
YAHOOY	YAHOO JAPAN CP	2	-0.41%	1.55%	1.80%	-4.95%	14.45%	26.51%

P/S Ratio

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOG	ALPHABET INC-C	3	0.44%	0.26%	1.83%	5.27%	-1.69%	-7.89%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%
YAHOOY	YAHOO JAPAN CP	2	-0.41%	1.55%	1.80%	-4.95%	14.45%	26.51%

M/B Ratio

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOG	ALPHABET INC-C	3	0.44%	0.26%	1.83%	5.27%	-1.69%	-7.89%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%
YAHOOY	YAHOO JAPAN CP	2	-0.41%	1.55%	1.80%	-4.95%	14.45%	26.51%

Surprise

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOG	ALPHABET INC-C	3	0.44%	0.26%	1.83%	5.27%	-1.69%	-7.89%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%
YAHOOY	YAHOO JAPAN CP	2	-0.41%	1.55%	1.80%	-4.95%	14.45%	26.51%

SharpeRatio

Ticker	Company Name	VE Rating	1-Mon	3-Mon	6-Mon	1-Yr	2-Yr	3-Yr
GOOG	ALPHABET INC-C	3	0.44%	0.26%	1.83%	5.27%	-1.69%	-7.89%
FB	FACEBOOK INC-A	4	0.57%	0.76%	2.80%	6.81%	5.48%	3.51%
TCEHY	TENCENT HOLDING	3	0.30%	-1.15%	-0.45%	3.65%	-11.98%	-20.57%
BIDU	BAIDU INC	4	0.81%	1.93%	4.75%	9.67%	16.79%	19.45%
YAHOOY	YAHOO JAPAN CP	2	-0.41%	1.55%	1.80%	-4.95%	14.45%	26.51%

Rating and Forecast Report

ALPHABET INC-C (NSDQ: GOOG)



Report Date: Jul 23, 2018

ANALYST OPINIONS

Strong Buy

The mean recommendation was calculated from the numbers provided by Zacks.

Current Mean: 4.75

Number of Analyst: 4

Strong Buy: 3

Buy: 1

Hold: 0

Sell: 0

Strong Sell: 0

Recommendation Mean Trend

Three Month Ago: 4.83

Two Month Ago: 4.75

One Month Ago: 4.75

Current: 4.75

EPS CONSENSUS EXPECTATIONS

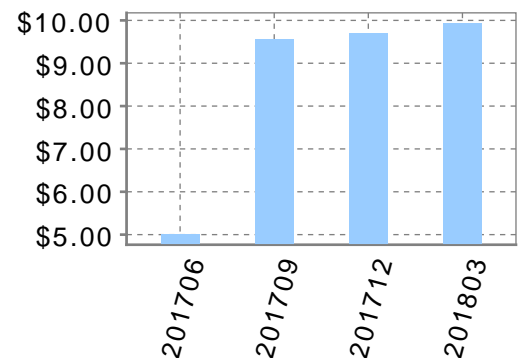
Quarter	201806	201809	201812	201903
Mean				
# of Estimates	0	0		
High				
Low				
Same Qtr Last Yr	\$5.01	\$9.57	\$9.70	\$9.93
% Growth				

Qtr/Year/LTG	201806	201809	2018	2019	LTG
Mean - Current					
Mean - 7 Days Ago					
Mean - 30 Days Ago					
Mean - 60 Days Ago				\$46.96	
Mean - 90 Days Ago				\$46.96	

Year/LTG	2018	2019	2020	2021	LTG
Mean					
# of Estimates	0	0			0
High					
Low					
Previous Year	\$32.05				
% Growth					

Quarter	201706	201709	201712	201803
Estimated EPS				
Actual EPS	\$5.01	\$9.57	\$9.70	\$9.93
Difference				
% Surprise				

Quarterly EPS Trend



BUSINESS SUMMARY

Alphabet Inc. is engaged in technology business. The Company provides web-based search, advertisements, maps, software applications, mobile operating systems, consumer content, enterprise solutions, commerce and hardware products through its subsidiaries. Alphabet Inc., formerly known as Google Inc., is headquartered in Mountain View, California.

Rating and Forecast Report

ALPHABET INC-C (NSDQ: GOOG)



Report Date: Jul 23, 2018

ANNUAL FINANCIALS (All numbers in millions)

Balance Sheet	201012	201112	201212	201312	201412	201512	201612	201712
Cash	13630	9983	14778	18898	18347	16549	12918	10715
Marketable Securities	21345	34643	33310	39819	46048	56517	73415	91156
Receivables	5002	6172	8585	9390	11556	13909	14232	18705
Inventory			505.00	426.00			268.00	749.00
Raw Materials			77.00	115.00				
Work in Progress								
Finished Goods			428.00	311.00				
Notes Receivable								
Other Current Assets	1585	1960	3276	4353	4734	3139	4575	2983
Total Current Assets	41562	52758	60454	72886	80685	90114	105408	124308
Property, Plant & Equipment	11771	14400	17697	23837	32746	40146	47527	59647
Accumulated Depreciation	4012	4797	5843	7313	8863	11130	13293	17264
Net Property, Plant & Equipment	7759	9603	11854	16524	23883	29016	34234	42383
Investment & Advances	523.00	790.00	1469	1976	3079	5183	5878	7813
Other non-current Assets								
Deferred Charges	265.00					251.00	383.00	680.00
Intangibles	7300	8924	18010	17558	20206	19716	19775	19439
Deposits & other assets	442.00	499.00	2011	1976	3280	3181	1819	2672
TOTAL ASSETS	57851	72574	93798	110920	131133	147461	167497	197295
Notes Payable	3465	1218	2549	3009	2009	3225		
Accounts Payable	483.00	588.00	2012	2453	1715	1931	2041	3137
Current Portion of Long-term Debt								
Current Portion of Capital Leases								
Accrued Expenses	3256	4356	6968	7986	9455	10636	13062	18733
Income Taxes Payable	37.00	197.00	240.00	24.00	96.00	302.00	554.00	881.00
Other Current Liabilities	2755	2554	2568	2436	3530	3216	1099	1432
Total Current Liabilities	9996	8913	14337	15908	16805	19310	16756	24183
Mortgages								
Deferred Charges (taxes/income)	35.00	331.00	1972	2086	2075	340.00	428.00	770.00
Convertible Debt								
Long Term Debt		2986	2988	2236	3228	1995	3935	3969
Non-Current Capital Leases								
Other Long-Term Liabilities	1579	2199	2786	3381	4525	5485	7342	15871
TOTAL LIABILITIES	11610	14429	22083	23611	26633	27130	28461	44793
Minority Interest (liabilities)								
Preferred Stock								
Common Stock, Net	0.32	0.33	0.33	0.34	0.68	0.69	0.69	0.69
Capital Surplus	18235	20264	22835	25922	28766	32981	36306	40246
Retained Earnings	27868	37605	48342	61262	75706	89223	105131	113247
Treasury Stock								
Other Liabilities	138.00	276.00	538.00	125.00	27.00	-1874	-2402	-992.00
SHAREHOLDERS' EQUITY	46241	58145	71715	87309	104500	120331	139036	152502
TOTAL LIABILITES & SHAREHOLDERS	57851	72574	93798	110920	131133	147461	167497	197295

Rating and Forecast Report

ALPHABET INC-C (NSDQ: GOOG)



Report Date: Jul 23, 2018

ANNUAL FINANCIALS (All numbers in millions)

Income Statement	201012	201112	201212	201312	201412	201512	201612	201712
Net Sales or Revenues	29321	37905	50175	59825	66001	74989	90272	110855
Cost of Goods Sold	10417	13188	20634	25858	25691	28164	35138	45583
Gross Profit	18904	24717	29541	33967	40310	46825	55134	65272
Research & Development Expense	3762	5162	6793	7952	9832	12282	13948	16625
Selling, General, & Admin. Expense	4761	7813	9988	12049	13982	15183	17470	22501
Income Before Deprec., Depletion, Amort.	10381	11742	12760	13966	16496	19360	23716	26146
Depreciation, Depletion, Amortization								
Non-Operating Income	415.00	584.00	626.00	530.00	763.00	291.00	434.00	1047
Interest Expense								
Pretax Income	10796	12326	13386	14496	17259	19651	24150	27193
Provision for Income Taxes	2291	2589	2598	2282	3331	3303	4672	14531
Minority Interest								
Investment Gains (Losses)								
Other Income								
Income Before Extraordinaries & Disc	8505	9737	10788	12214	13928	16348	19478	12662
Extraordinary Items & Discontinued			-51.00	706.00	516.00			
Net Income	8505	9737	10737	12920	14444	16348	19478	12662
EPS - Basic, net	13.35	15.09	16.41	19.41	21.37	23.11	28.32	18.27
EPS - Diluted, net	13.16	14.88	16.16	19.07	21.02	22.84	27.85	18.00
EPS - Diluted, before non-recurring items			33.88	36.32	20.76	22.84	27.85	32.05
Cash Flow Statement	201012	201112	201212	201312	201412	201512	201612	201712
Net Income (Cash Flow)	8505	9737	10737	12920	14444	16348	19478	12662
Depreciation, Depletion, Amortization-CF	1396	1851	2962	3939	4979	5063	6144	6915
Net Increase (decrease) in	-99.00	630.00	898.00	-31.00	364.00	-409.00	3300	9246
Cash from (used in) Discontinued								
Other Adjustments - Net	1279	2347	2022	1831	2589	5022	7114	8268
Net Cash from (used by) Operating	11081	14565	16619	18659	22376	26024	36036	37091
(increase) Decrease in Prop, Plant, &	-4018	-3438	-3273	-7358	-10959	-9915	-9972	-13085
Acquisition/disposition of subsidiaries, othr	-1067	-1900	-10568	1077	-4502	-236.00	-986.00	-287.00
Increase (decrease) in investments	-7956	-13349	1119	-7099	-6997	-13210	-17779	-19448
Other Cash inflow from investment	2361	-354.00	-334.00	-299.00	1403	-350.00	-2428	1419
Net Cash from (used by) investment	-10680	-19041	-13056	-13679	-21055	-23711	-31165	-31401
Issuance (purchase) of equity shares	-801.00					-1780	-3693	-4046
Issuance (repayment) of debt securities		726.00	1328	-557.00	-18.00	-23.00	-1335	-86.00
Increase (decrease) in bank & other	3463							
Payment of dividends & other cash								
Other cash from (used by) financing	388.00	81.00	-99.00	-300.00	-1421	-1874	-3304	-4166
Net Cash from (used by) Financing	3050	807.00	1229	-857.00	-1439	-3677	-8332	-8298
Effect of Exchange Rate Changes on	-19.00	22.00	3.00	-3.00	-433.00	-434.00	-170.00	405.00
Net Change in Cash & Cash Equivalents	3432	-3647	4795	4120	-551.00	-1798	-3631	-2203
Cash & Equivalents at beginning of year	10198	13630	9983	14778	18898	18347	16549	12918
Cash & Equivalents at year end	13630	9983	14778	18898	18347	16549	12918	10715

Rating and Forecast Report

ALPHABET INC-C (NSDQ: GOOG)



Report Date: Jul 23, 2018

QUARTERLY FINANCIALS (All numbers in millions)

Balance Sheet	201606	201609	201612	201703	201706	201709	201712	201803
Cash	13627	9406	12918	18132	15711	10581	10715	12658
Marketable Securities	64833	73650	73415	74307	79002	89562	91156	90227
Receivables	12762	12395	14232	12969	14877	15577	18705	16814
Inventory		559.00	268.00	280.00	398.00	765.00	749.00	636.00
Raw Materials								
Work in Progress								
Finished Goods								
Notes Receivable								
Other Current Assets	3016	2536	4575	3106	2398	2860	2983	3426
Total Current Assets	94238	98546	105408	108794	112386	119345	124308	123761
Property, Plant & Equipment	43904	46094	47527	50321	53341	56358	59647	67801
Accumulated Depreciation	12491	13341	13293	14385	15665	16238	17264	18956
Net Property, Plant & Equipment	31413	32753	34234	35936	37676	40120	42383	48845
Investment & Advances	5820	5705	5878	6131	6642	7269	7813	10976
Other non-current Assets								
Deferred Charges	253.00	273.00	383.00	365.00	376.00	505.00	680.00	678.00
Intangibles	19293	19395	19775	19684	19537	19614	19439	20671
Deposits & other assets	3275	3276	1819	1846	2004	2683	2672	2004
TOTAL ASSETS	154292	159948	167497	172756	178621	189536	197295	206935
Notes Payable	2219							1329
Accounts Payable	1716	2175	2041	2306	2488	2674	3137	3526
Current Portion of Long-term Debt								
Current Portion of Capital Leases								
Accrued Expenses	10256	11054	13062	10999	14838	16529	18733	17600
Income Taxes Payable	185.00	171.00	554.00	803.00	133.00	221.00	881.00	1343
Other Current Liabilities	2965	923.00	1099	1148	1226	1269	1432	1596
Total Current Liabilities	17341	14323	16756	15256	18685	20693	24183	25394
Mortgages								
Deferred Charges (taxes/income)	802.00	562.00	428.00	927.00	714.00	497.00	770.00	709.00
Convertible Debt								
Long Term Debt	1984	3938	3935	3937	3955	3964	3969	3973
Non-Current Capital Leases								
Other Long-Term Liabilities	6286	7022	7342	7687	6981	7282	15871	16034
TOTAL LIABILITIES	26413	25845	28461	27807	30335	32436	44793	46110
Minority Interest (liabilities)								
Preferred Stock								
Common Stock, Net	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.70
Capital Surplus	34292	35336	36306	37697	38508	39608	40246	41486
Retained Earnings	94737	99798	105131	109420	111505	118237	113247	120008
Treasury Stock								
Other Liabilities	-1151	-1032	-2402	-2169	-1728	-746.00	-992.00	-670.00
SHAREHOLDERS' EQUITY	127879	134103	139036	144949	148286	157100	152502	160825
TOTAL LIABILITES & SHAREHOLDERS	154292	159948	167497	172756	178621	189536	197295	206935

Rating and Forecast Report

ALPHABET INC-C (NSDQ: GOOG)



Report Date: Jul 23, 2018

QUARTERLY FINANCIALS (All numbers in millions)

Income Statement	201606	201609	201612	201703	201706	201709	201712	201803
Net Sales or Revenues	21500	22451	26064	24750	26010	27772	32323	31146
Cost of Goods Sold	8130	8699	10661	9795	10373	11148	14267	13467
Gross Profit	13370	13752	15403	14955	15637	16624	18056	17679
Research & Development Expense	3363	3596	3622	3942	4172	4205	4306	5039
Selling, General, & Admin. Expense	4039	4389	5142	4445	7333	4637	6086	5639
Income Before Deprec., Depletion, Amort.	5968	5767	6639	6568	4132	7782	7664	7001
Depreciation, Depletion, Amortization								
Non-Operating Income	151.00	278.00	218.00	251.00	245.00	197.00	354.00	3542
Interest Expense								
Pretax Income	6119	6045	6857	6819	4377	7979	8018	10543
Provision for Income Taxes	1242	984.00	1524	1393	853.00	1247	11038	1142
Minority Interest								
Investment Gains (Losses)								
Other Income								
Income Before Extraordinaries & Disc	4877	5061	5333	5426	3524	6732	-3020	9401
Extraordinary Items & Discontinued								
Net Income	4877	5061	5333	5426	3524	6732	-3020	9401
EPS - Basic, net	7.11	7.36	7.73	7.85	5.09	9.71	-4.38	13.53
EPS - Diluted, net	7.00	6.78	8.05	7.73	5.01	9.57	-4.31	13.33
EPS - Diluted, before non-recurring items	7.00	7.25	7.56	7.73	5.01	9.57	9.70	9.93
Cash Flow Statement	201606	201609	201612	201703	201706	201709	201712	201803
Net Income (Cash Flow)	9084	14145	19478	5426	8950	15682	12662	9401
Depreciation, Depletion, Amortization-CF	2861	4457	6144	1503	3128	4889	6915	1986
Net Increase (decrease) in	1087	2724	3300	-79.00	205.00	-81.00	9246	1065
Cash from (used in) Discontinued								
Other Adjustments - Net	3746	5297	7114	2698	4668	6333	8268	-810.00
Net Cash from (used by) Operating	16778	26623	36036	9548	16951	26823	37091	11642
(increase) Decrease in Prop, Plant, &	-4551	-6908	-9972	-2467	-5285	-8796	-13085	-7269
Acquisition/disposition of subsidiaries, othr	-72.00	-324.00	-986.00	-101.00	-143.00	-273.00	-287.00	-1250
Increase (decrease) in investments	-8432	-16803	-17779	-1033	-6014	-16777	-19448	673.00
Other Cash inflow from investment	-363.00	-2428	-2428	750.00	1419	1419	1419	
Net Cash from (used by) investment	-13418	-26463	-31165	-2851	-10023	-24427	-31401	-7846
Issuance (purchase) of equity shares	-3693	-3693	-3693	-647.00	-2265	-1945	-4046	-2173
Issuance (repayment) of debt securities	-1048	-1322	-1335	-18.00	-56.00	-64.00	-86.00	1313
Increase (decrease) in bank & other								
Payment of dividends & other cash								
Other cash from (used by) financing	-1610	-2425	-3304	-1009	-2093	-3111	-4166	-1158
Net Cash from (used by) Financing	-6351	-7440	-8332	-1674	-4414	-5120	-8298	-2018
Effect of Exchange Rate Changes on	69.00	137.00	-170.00	191.00	279.00	387.00	405.00	165.00
Net Change in Cash & Cash Equivalents	-2922	-7143	-3631	5214	2793	-2337	-2203	1943
Cash & Equivalents at beginning of year	16549	16549	16549	12918	12918	12918	12918	10715
Cash & Equivalents at year end	13627	9406	12918	18132	15711	10581	10715	12658

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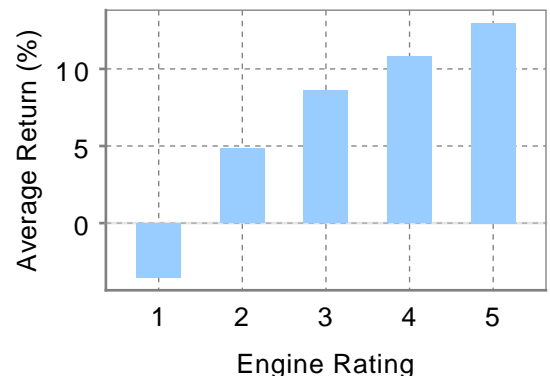
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