2018 Annual Report





UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

(Mark One)

for the Fiscal Year Ended December 31, 2018

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

for the transition period from

to

Commission file number: 001-36153

Criteo S.A.

(Exact name of registrant as specified in its charter)

France

(State or other jurisdiction of incorporation or organization)

Not Applicable

(I.R.S. Employer Identification Number)

32, rue Blanche, 75009 Paris—France

(Address of principal executive offices including zip code)

Registrant's telephone number, including area code: +33 1 40 40 22 90

Securities registered pursuant to Section 12(b) of the Act:

American Depositary Shares, each representing one ordinary share, nominal value €0.025 per share

Nasdaq Global Select Market

Ordinary shares, nominal value $\epsilon 0.025$ per share*

Nasdaq Global Select Market *

(Title of class)

(Name of exchange on which registered)

Securities registered pursuant to Section 12(g) of the Act: None

^{*} Not for trading, but only in connection with the registration of the American Depositary Shares.

Indicate by check mark if the registrat	nt is a well-known se	easoned issuer, as defined in	Rule 405 of the S	securities Act. Yes ⊠	No □
Indicate by check mark if the registrar	nt is not required to f	ile reports pursuant to Section	on 13 or Section 1	5(d) of the Act. Yes I	□ No⊠
Indicate by check mark whether the re Exchange Act of 1934 during the prec and (2) has been subject to such filing	eding 12 months (or	for such shorter period that	the registrant was	` '	
Indicate by check mark whether the repursuant to Rule 405 of Regulation Submit such files). Yes ⊠ No □	C	2 2		•	
Indicate by check mark if disclosure of the contained, to the best of the registre Part III of this Form 10-K or any ame	ant's knowledge, in c	definitive proxy or information			
Indicate by check mark whether the reporting company or an emerging greeporting company," and "emerging g	owth company. See t	he definitions of "large accel	erated filer," "acc		
Large Accelerated Filer ⊠	Accelerated Filer □	Non- accelerated Filer □	Smaller reporting company	Emerging growth company	
If an emerging growth company, indiccomplying with any new or revised fit					
Indicate by check mark whether the re	egistrant is a shell co	mpany (as defined in Rule 1	2b-2 of the Act).	Yes □ No ⊠	
The aggregate market value of most recently completed second fiscal	2	C		, ,	

The aggregate market value of voting stock held by non-affiliates of the registrant as of the last business day of the registrant's most recently completed second fiscal quarter was \$2.1 billion, based on the closing sale price of the American Depositary Shares as reported by the Nasdaq Global Select Market on June 30, 2018. Ordinary shares, nominal value 60.025 per share, held by each officer and director and by each person who owns or may be deemed to own 10% or more of the outstanding ordinary shares have been excluded since such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of January 31, 2019, the registrant had 67,708,741 ordinary shares, nominal value €0.025 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Part III incorporates certain information by reference from the registrant's proxy statement for the 2019 Annual Meeting of Shareholders. Such proxy statement will be filed no later than 120 days after the close of the registrant's fiscal year ended December 31, 2018.

CRITEO S.A. ANNUAL REPORT ON FORM 10-K For The Fiscal Year Ended December 31, 2018

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General

Except where the context otherwise requires, all references in this Annual Report on Form 10-K ("Form 10-K") to the "Company," "Criteo," "we," "us," "our" or similar words or phrases are to Criteo S.A. and its subsidiaries, taken together. In this Form 10-K, references to "\$" and "US\$" are to United States dollars. Our audited consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America, or U.S. GAAP. Unless otherwise indicated, the statistical and financial data contained in this Form 10-K are presented as of December 31, 2018.

Trademarks

"Criteo," the Criteo logo and other trademarks or service marks of Criteo S.A. appearing in this Annual Report on Form 10-K are the property of Criteo S.A. Trade names, trademarks and service marks of other companies appearing in this Form 10-K are the property of their respective holders.

Special Note Regarding Forward-Looking Statements

This Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that are based on our management's beliefs and assumptions and on information currently available to our management. All statements other than present and historical facts and conditions contained in this Form 10-K, including statements regarding our future results of operations and financial position, business strategy, plans and our objectives for future operations, are forward-looking statements. When used in this Form 10-K, the words "anticipate," "believe," "can," "could," "estimate," "expect," "intend," "is designed to," "may," "might," "plan," "potential," "predict," "objective," "should," or the negative of these and similar expressions identify forward-looking statements. Forward-looking statements include, but are not limited to, statements about:

- the ability of the Criteo Artificial Intelligence (AI) Engine to accurately predict engagement by a user;
- our ability to predict and adapt to changes in widely adopted industry platforms and other new technologies;
- our ability to continue to collect and utilize data about user behavior and interaction with advertisers;
- our ability to acquire an adequate supply of advertising inventory from publishers on terms that are favorable to us;
- our ability to meet the challenges of a growing and international company in a rapidly developing and changing industry, including our ability to forecast accurately;
- our ability to maintain an adequate rate of revenue growth and sustain profitability;
- our ability to manage our international operations and expansion and the integration of our acquisitions;
- the effects of increased competition in our market;
- our ability to adapt to regulatory, legislative or self-regulatory developments regarding internet privacy matters;
- our ability to protect users' information and adequately address privacy concerns;
- our ability to enhance our brand;
- our ability to enter new marketing channels and new geographies;
- our ability to effectively scale our technology platform;

- our ability to attract and retain qualified employees and key personnel;
- our ability to maintain, protect and enhance our brand and intellectual property; and
- failures in our systems or infrastructure.

You should refer to Item 1A "Risk Factors" of this Form 10-K for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this Form 10-K will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

You should read this Form 10-K and the documents that we reference in this Form 10-K and have filed as exhibits to this Form 10-K completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

This Form 10-K contains market data and industry forecasts that were obtained from industry publications. These data and forecasts involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such information. We have not independently verified any third-party information. While we believe the market position, market opportunity and market size information included in this Form 10-K is generally reliable, such information is inherently imprecise.

PART I

Item 1. Business

History and Development of the Company

Criteo S.A. was initially incorporated as a *société par actions simplifiée*, or S.A.S., under the laws of the French Republic on November 3, 2005, for a period of 99 years and subsequently converted to a *société anonyme*, or S.A. We are registered at the Paris Commerce and Companies Register under the number 484 786 249. Our agent for service of process in the United States is National Registered Agents, Inc. We began selling elements of our offering in France in 2007 and have since expanded our business into other countries in Western Europe. In 2009, we expanded our business into North America and entered the Asia-Pacific region in late 2010. In November 2016, we acquired HookLogic, Inc. ("HookLogic"), a New York-based company that has developed a performance marketing exchange connecting consumer brands with retail ecommerce sites via sponsored product ads sold by ecommerce retailers.

Business Overview

We are a global technology company building the leading Advertising Platform for the Open Internet. We strive to deliver impactful business results at scale to commerce companies and consumer brands by meeting their multiple marketing goals at their targeted return on investment. Using shopping data, predictive technology and large consumer reach, we help our clients drive Awareness, Consideration and Conversion for their products and services¹, and help retailers generate advertising revenues from consumer brands. Our data is pooled among our clients and offers deep insights into consumer intent and purchasing habits. To drive measurable results for clients, we activate our data assets through proprietary artificial intelligence ("AI") technology to engage consumers in real time through the pricing and delivery of highly relevant digital advertisements ("ads"), across devices and environments. By pricing our offering on a range of pricing models and measuring our value based on clear, well-defined performance metrics, we make the return on investment transparent and easy to measure for advertisers.

Our vision is to build the leading Advertising Platform for the Open Internet by enabling commerce companies and consumer brands, using our modular and flexible technology platform, to address multiple marketing goals across the open Internet. We define the open Internet as the open, non-proprietary environment that allows advertisers and publishers to choose the partner they want to work with, decide when and how they share data, and control how to measure success.

Over the past 13 years, we have established our market position by focusing on three pillars: actionable commerce data, predictive technology to activate data and drive multiple marketing goals, and large consumer reach. While continuously improving our technology and broadening our reach, we leverage and strengthen *Criteo Shopper Graph*, a highly differentiated group of data collectives built through collaboration and data pooling within our open ecosystem of commerce and consumer brand clients. With Criteo Shopper Graph, we are building one of the world's biggest and open data sets focused on shoppers, retailers and brands.

Our clients include some of the largest and most sophisticated commerce companies in the world, along with world-class consumer brands. We partner with them to capture user activity on their websites and mobile applications ("apps"), which we define as digital properties, and optimize the performance of their ads based on that activity and other data. Demonstrating the depth and scale of our data, we collected data on over \$800 billion in online sales transactions² on our clients' digital properties in the year ended December 31, 2018. Based on this data and other assets, we delivered targeted ads that generated over 10 billion clicks² in the year ended December 31, 2018. As of December 31, 2018, we served more than 19,000 clients and, in each of the last three years, our average client retention rate, as measured on a quarterly basis, was approximately 90%².

¹ Driving Awareness for an advertiser means exposing its brand name to consumers who have not been in touch with the advertiser before, thereby creating brand awareness from such consumers. Driving Consideration for an advertiser's products or services means attracting prospective new consumers to consider engaging with and/or buying this advertiser's products or services. Driving Conversion for an advertiser's products or services means triggering a purchase by consumers who have already engaged with this advertiser's products or services in the past.

² Excluding Criteo Retail Media and the business acquired from Manage.com Group, Inc.

Each day we are presented with billions of opportunities to connect consumers with relevant advertising messages from our commerce and consumer brand clients. For each of these opportunities, our algorithms analyze massive volumes of shopping data to predict consumer preferences and intent, and deliver specific messaging for products or services that are likely to engage that particular consumer. The accuracy of our algorithms improves with every advertisement we deliver, as they incorporate new data while continuing to learn from prior interactions.

Historically, the Criteo model had focused solely on converting our clients' website visitors into customers, enabling us to charge our clients only when users engage with an ad we deliver, usually by clicking on it. This pay-for-performance pricing model clearly links the cost of an advertising campaign to its effectiveness in driving conversions, and has been valued as such by our clients. More recently, we have expanded our solutions to address a broader range of marketing and monetization goals for our clients. Doing so, we also started expanding our pricing models to now include a combination of cost-per-install and cost-per-impression for selected new solutions, in addition to cost-per-click, as well as a subscription-type pricing model for large retailers using our technology platform as part of of our Criteo Retail Media offering.

As commerce companies and consumer brands have embraced our offering, we have achieved significant growth since our inception and are now operating across 98 countries. Our revenue retention rate was 120%, 115% and 101% for the years ended December 31, 2016, 2017 and 2018, respectively¹. We define our revenue retention rate as (i) revenue recognized during a period from clients that contributed to revenue recognized in the prior corresponding period divided by (ii) total revenue recognized in such prior corresponding period. In our view, consistently having over 74% of our Revenue ex-TAC generated from clients that have uncapped budgets² directly contributes to our ability to maintain a high level of revenue retention. As a result, our ability to retain and grow revenue from our existing clients has been a useful indicator of the stability of our revenue base and the long-term value of our client relationships.

Our financial results include:

- Revenue of \$1,799.1 million, \$2,296.7 million and 2,300.3 million for the years ended December 31, 2016, 2017 and 2018, respectively;
- Revenue excluding Traffic Acquisition Costs, which we refer to as Revenue ex-TAC, which is a non-U.S. GAAP financial
 measure, of \$730.2 million, \$941.1 million and \$966.0 million for the years ended December 31, 2016, 2017 and 2018,
 respectively;
- Net income of \$87.3 million, \$96.7 million and \$95.9 million for the years ended December 31, 2016, 2017 and 2018, respectively; and
- Adjusted EBITDA, which is a non-U.S. GAAP financial measure, of \$224.6 million, \$309.6 million and \$321.1 million for the years ended December 31, 2016, 2017 and 2018, respectively.

Please see footnotes 3, 4 and 5 to the "Other Financial and Operating Data" table in "Item 6. Selected Financial Data" in this Form 10-K for a reconciliation of Revenue to Revenue ex-TAC, Net Income to Adjusted EBITDA and Net Income to Adjusted Net Income, respectively, in each case the most directly comparable financial measures calculated and presented in accordance with accounting principles generally accepted in the United States or "U.S. GAAP".

² Uncapped budgets represent clients' advertising budgets with us that have either no contractual financial cap or that are so large that the budget constraint does not restrict our ability to purchase inventory on those clients' behalf.

¹ Excluding Criteo Retail Media and the business acquired from Manage.com Group, Inc.

The Advertising Platform for the Open Internet

Our technology is **optimized to drive impactful business results for advertisers across multiple marketing goals**. While pricing our offering on a range of pricing models, including a cost-per-click, we address a wide range of advertising objectives for our commerce and consumer brand clients, including, for example, customer visits to a client website, installations of a mobile app, and sales. We deliver these measurable business outcomes by efficiently and effectively driving engagement for our clients' products and services, in the form, for example, of Consideration and Conversion, and generating advertising revenue for retailers through the monetization of their data and audiences with consumer brands.

Our offering is powered by AI technology and aims to address the consumer journey (Awareness, Consideration and Conversion). Our offering works seamlessly across digital devices (desktops, laptops, smartphones and tablets), commerce and advertising environments (web, mobile applications and physical stores), platforms and operating systems, advertising channels (Display Advertising, including social and native, video, and advertisements on retailers' properties) and publisher environments (Alphabet Inc. ("Google Ad Manager"), multiple real-time bidding exchanges, thousands of publishers and mobile app developers in the open Internet, and Facebook, Inc. ("Facebook")). Our Advertising Platform, as we define it, is available as a unique and comprehensive offering and cannot be broken down and purchased as separate services, except for individual advertising solutions and campaigns.

The Advertising Platform for the Open Internet is comprised of:

- Criteo Shopper Graph
- Criteo Platform
- Our Solutions
- Our Publisher Network



^{*} Dynamic Creative Optimization+

Criteo Shopper Graph

Through integration with substantially all of our clients' digital properties, we obtain large volumes of browsing behavior data, expressed consumer shopping intent and engagement, and transactional data at the individual product and individual user level.

Our data assets include all insights derived from our clients' proprietary **commerce data**, such as transaction activity on their digital properties, representing over \$800 billion in online sales in 2018¹.

Access to high quality data assets **fuels the accuracy of our algorithms**, which improves with the **increasing quantity and quality of data** we obtain from our clients and publisher partners, as well as insights gained through our own extensive operational history. The combination of advertiser data, publisher data and proprietary metadata gives us powerful insights into consumer purchasing habits that we use to price inventory and create the most relevant ads to drive user engagement and measurable results for our clients. In addition to commerce data at the granular product level, we seek to use as much relevant information as possible about the context and intent of a given user, collected from clients and publisher partners, to further refine our prediction accuracy.

We believe our access to highly granular and qualitative commerce data validates **the trust that our clients place in us**. For example, for most of our clients, we typically have real-time access to the products or services a visitor has viewed, researched, added to their shopping cart, or bought from them, and continuously receive updated information on 4.5 billion products or services², including pricing, images and descriptions, which are typically characterized as non-Personally Identifiable Information (or Non-PII). A growing number of our clients also provide us with their customers' purchase history data in formats that are non-PII.

Using a range of cookies and non-cookie based technologies, we collect information about the **interactions of users** with our clients' and publishers' digital properties. Our clients grant us access to their valuable data through direct integration with us, which requires our clients to place Criteo software code throughout their digital properties. The information we collect does not enable us to personally identify the particular user.

Over the past few years, we have built **three data collectives through data pooling among our clients**. The combination of these data collectives forms Criteo Shopper Graph. For each of these data collectives, we ask our clients to grant us the permission to mutualize a significant portion of their proprietary data with other clients who also contribute data to this specific collective data pool. With Criteo Shopper Graph, we are building one of the world's largest and most open data sets focused on shoppers and their commerce activity across retailers and brands.

Criteo Shopper Graph is comprised of the following three data collectives:

- The *Identity Graph* allows us to match user technical identifiers across devices and environments, including online and offline. As of December 31, 2018, 73% of our clients grant us access to some of their Customer Relationship Management (CRM) data, such as hashed customer logins and/or hashed emails, to enable us to match users across multiple digital devices or environments. As of December 31, 2018, we had over 4 billion user IDs³ within our Identity Graph globally, with an estimated average of three user IDs per individual user. The scope of our Identity Graph is already among the best in the industry. In addition, the Identity Graph allows us to leverage offline CRM data of our clients' physical stores to match it with online user profiles, based on their offline shopping history. Since the end of 2015, the Identity Graph has seen strong traction within our client base and, we believe, has become a solid foundation to reach consumers across all devices and environments. The Identity Graph supports and benefits our entire suite of solutions.
- The *Interest Map* collects and organizes consumer intent and purchasing data across the products available in our network of commerce clients, in order to build a comprehensive and accurate non-identifying shopper profile for all consumers on whom we have collected data. We collect data on over \$800 billion in online sales¹ and, every year, we see close to 12 billion shopping transactions taking place within our commerce ecosystem¹. With the Interest Map, we seek our clients' permission to use their data to power products that are jointly offered by our clients in the collective. We have built applications for the Interest Map, as well as its underlying infrastructure, including the *Universal Catalog*, which provides category and brand extraction, as well as a unified view of the 4.5 billion products available across the combined product catalogs of our commerce clients². The Interest Map is a key foundation to cover compelling marketing goals, including those addressed by our Consideration solutions to help advertisers win new visitors and new customers.

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¹ Excluding Criteo Retail Media and the business acquired from Manage.com Group, Inc.

² Products are not unique and may appear in different retailer catalogs.

³ A user ID can represent a browser-specific cookie or a device ID.

• The *Measurement Network* provides SKU-level sales attribution for consumer brands across our network of retailer partners using our Criteo Retail Media solutions. This means that, using our deterministic measurement approach, our consumer brand clients can precisely track and measure the effectiveness of their advertising spend by attributing their sales at the SKU level to the clicks that were generated on their ads across our network of retailers. This permission-based sales attribution, retailer by retailer, is typically not available to consumer brands, neither in the online nor offline world, where they still place most of their trade marketing investments. We plan to widen the Measurement Network to all Criteo retailers with new applications and have already started to add offline sales attribution for consumer brands.

Central to our approach of the open Internet, the design and governance of Criteo Shopper Graph are based on **strict and differentiated guiding principles**:

- Openness: we commit to a two-way exchange of data with our clients, whereby all clients contributing data can, in return for their contribution, benefit from the collective dataset via our Advertising Platform, as well as access relevant cross-device user IDs and relevant Key Performance Indicators of their campaigns to better inform and optimize their advertising.
- **Transparency**: our clients' contribution and sharing of data within the data pools are based on a clear and permission-based usage by Criteo for the mutual benefits of all participants in the data collectives.
- Security: as always, we apply the highest data security and user privacy standards to our three data collectives.
- **Fairness**: the data collectives are designed and governed in ways such that the value gained by participating clients largely exceeds their individual contribution to the collectives.

Criteo Platform

Criteo AI Engine

Criteo AI Engine has been developed **over the past 13 years** and consists of multiple artificial intelligence algorithms, and the proprietary global hardware and software infrastructure that enables our Advertising Platform to operate in real time at significant scale.

Criteo AI Engine leverages our vast and high-quality data assets, with the goal of **maximizing consumer engagement to drive impactful business results for clients** through the delivery of highly relevant and personalized ads in real time.

Criteo AI Engine consists of:

- Lookalike finder algorithms. Recently introduced by Criteo, these algorithms create similar audiences, or groups of consumers likely to be interested in and engage with a specific category of our clients' products or services, from a predetermined audience seed based on other clients' audiences that were already targeted and exposed to similar products or services in the context of previous advertising campaigns. Once created, these similar audiences are used by Criteo AI Engine as targets to reach and be exposed to tailored ads for relevant products or services for the purpose of a dedicated campaign. This new set of algorithms typically supports campaign types addressing Consideration advertising objectives, i.e. driving new prospects to consider products or services with which they have not engaged in the past.
- Recommendation algorithms. These algorithms create advertisements tailored to specific consumer interest and intent by
 determining the specific products and services to include in the ad. These products and services may be ones that the
 consumer has already been exposed to, or that the algorithms predict the customer could be interested in. Alternatively,
 these may be products and services that other consumers within Criteo Shopper Graph exposed to some of the same
 products and services, have been interested in.
- Dynamic Creative Optimization+. Based on the results of our algorithms, Criteo AI Engine automatically and
 dynamically assembles customized creative advertising content on an impression-per-impression basis in real time, by
 optimizing each individual creative component in the advertisement, from the font, color, size and format of product
 images to the "call to action" or price discount. Our patented Dynamic Creative Optimization+ technology offers virtually
 unlimited personalization, with up to 17 trillion visual ad variations, without the need to define advertisement sizes or
 layouts upfront, while maintaining the consistency of our clients' brand image.

• **Predictive bidding algorithms.** These algorithms predict the probability and nature of a user's engagement with a given advertisement. Such predicted user engagement can take the form, for example, of retailer site visits, clicks, conversions, shopping basket value, specific product categories purchased, or even the gross margin of the purchased product or service that our client generates from such purchase. This prediction of engagement incorporates data from our clients, publishers and third-party sources, including user intent, who the client is, the products offered by the client, as well as data on the creative content of the ad and the publisher context in which the ad is viewed.

Together with our recommendation algorithms, the prediction algorithms allow us to determine the most appropriate price to pay for an advertising impression, based on an individual user's predicted engagement, what the client is willing to pay for that engagement, as well as Criteo's own target Revenue ex-TAC margin from placing the ad. Our bidding engine executes campaigns based on certain objectives set by our clients (such as cost-per-click, cost-per-order, cost-of-sales, cost-per-visit, cost-per-impression, cost-per-install or total budget goal). After a bid for an advertising impression is placed and won, Criteo AI Engine assembles and delivers individualized ads, and provides campaign reporting in near-real time.

- Software systems and processes. Our algorithms are supported by robust software infrastructure that allows us to operate seamlessly at a very large scale (through over 36,000 servers by the end of 2018). The architecture and processing capabilities of this technology have been designed to match the massive computational demands and complexity of our algorithms in real time. This technology enables data synchronization, storage and analysis across a large-scale distributed computing infrastructure in multiple geographies, as well as fast data collection and retrieval using multi-layered caching infrastructure.
- Experimentation platform. This online/offline platform is used to improve the capabilities and effectiveness of our prediction models by measuring the correlation of specific parameters with user engagement, usually measured by consumer visits, clicks and conversions, typically in the form of sales. A dedicated team is constantly testing new types and sources of data, as well as new variables, to determine whether they help diminish the gap between, for example, predicted visits, click-throughs and conversions, and actual visits, click-throughs and conversions over the course of a live campaign.

A key attribute of Criteo AI Engine is the vast **metadata of learnings on advertising and commerce effectiveness** that we have accumulated from having delivered and measured responses to over 6.0 trillion advertising impressions since inception. Our Research & Development team constantly tunes Criteo AI Engine via experimentation and A/B tests. In 2018, about 700 online A/B tests and 20,000 offline experiments and tests were performed.

In addition, we have long established *Privacy-by-design* as a central element of our technology and product design and development, with a strong commitment to ensuring best practices in privacy, security and safety for consumers and our commerce and consumer brand clients. Since 2013, we have had a designated Data Privacy Officer along with a team of privacy experts. These experts are deeply integrated within our R&D and Product organization and processes, and consider all facets of user privacy as key elements in the design of any new solution or feature of our Advertising Platform. They also perform ongoing Privacy Impact Assessments to monitor potential risks during the product lifecycle and proactively mitigate those risks. The Data Privacy team delivers company-wide privacy training, enforces our privacy policies and is integral to ensuring that we build the best solutions and services. We regularly review and document our internal privacy policies, amend existing policies as necessary and enforce these policies with our clients, publisher partners and vendors.

Criteo Management Center

We offer our advertiser clients an **integrated and modular customer platform** that provides control, visibility and detailed transparency on their campaigns, whatever their business and marketing goals may be. This platform provides a unified and easy-to-use **self-service user interface ("UI")** enabling the flexible and modular consumption of our various solutions by our clients, as well as the execution and management of their campaigns through a suite of software and services that automates key campaign processes. As a result, our clients benefit from a high level of control over the objectives, components and performance of their various campaigns with us. Our customer platform also reduces unnecessary complexity and cost associated with manual processes of having to use multiple Demand-Side Platforms ("DSPs") and sources of inventory supply, delivering efficiencies across the consumer journey, even as campaigns grow in size, complexity and mix of marketing goals.

We believe that **transparency and control** over the objectives, modular components and performance of their advertising campaigns increases the confidence our clients have in Criteo, and further strengthens our relationship with them.

Our customer platform includes a comprehensive suite of tools, services and software, including:

- A unified self-service user interface to transparently manage campaigns, solution by solution. This self-service interface automates a number of modular components, campaign execution and management tasks. Key attributes of the interface include:
 - an easy-to-use user interface;
 - self-service tools to consume, on demand, specific modules of the campaigns, including for example: specific
 audiences to reach and target, specific creative or branding elements to include in ads, specific categories of
 supply to favor or exclude from the campaign, specific categories of the product catalog to promote in the
 campaign, specific coupon and price discount management
 - granular control, with the ability to specify, for each campaign, the price that the client is ready to pay (on either
 a cost-per-click, cost-per-impression or cost-per-install basis, at its own product category level);
 - transparent and detailed reporting of key campaign metrics, such as cost-per-click, cost-per-impression or costper-install, impressions served, effective cost per thousand impressions, or eCPM, consumer visits, app
 installations, click-through rate and post-click sales; and
 - transparent standardized reports on purchased inventory showing detailed impression-level information, including publisher domains where ads are shown, time stamps of displayed ads and the value of each impression.
- Business intelligence and analytics. Included in our service for our larger clients, we provide high-value consulting services through a team of advisers that aid them in setting goals for, extracting insights from, and evaluating trends and performance of their various advertising campaigns across multiple marketing goals, sources of inventory supply, advertising channels, and the multiple digital devices that customers may use.

In parallel with accessing transparent reporting from the Criteo Management Center, a large proportion of our clients regularly use their own attribution tools and solutions (such as, for example, Google Analytics, IBM Coremetrics or Adobe Analytics) to independently measure and assess the performance of the results delivered by Criteo, including sales.

Our Solutions



We offer **two families of solutions** targeted to our commerce and consumer brand clients:

- Criteo Marketing Solutions allow commerce companies to address multiple marketing goals by engaging their consumers
 with personalized ads across the web, mobile and offline store environments. Examples of expected results for clients using
 Criteo Marketing Solutions include:
 - driving visits from new prospects on the website of our clients by engaging such prospects, either in the web or on
 mobile apps, with personalized ads offering products or services that are tailored to their predicted interest (Consideration
 goal, new visit objective);

- driving installations of our clients' mobile application by new customers, by engaging such new customers, either in
 the web or on mobile apps, with personalized ads promoting our client's mobile application (Consideration goal, app
 install objective);
- driving sales for our commerce clients, either on their web or mobile app property, by engaging consumers, either in the
 web or on mobile apps, with personalized ads offering products or services for which they have already expressed
 shopping intent (Conversion goal, sales objective);
- driving more sales from existing customers for our commerce clients, either on their web or mobile application
 property, by accurately targeting and re-engaging such existing customers, either in the web or on mobile apps, with
 personalized ads offering new products or services that they have not yet purchased (Conversion goal, re-engagement
 sales objective).
- Criteo Retail Media allows retailers to generate advertising revenues from consumer brands, and/or to drive sales for
 themselves, by monetizing their traffic and audiences through personalized ads, either on their own digital property or on the
 open Internet, that address multiple marketing goals. Examples of expected results for clients using Criteo Retail Media
 solutions include:
 - generating advertising revenue for retailers on their online store, by providing retailers with our technology platform
 for them to monetize their traffic and audiences directly with consumer brands across various marketing goals
 (Monetization goal, onsite advertising objective);
 - driving sales for consumer brand clients on the site of retailer partners, by connecting consumer brands and retailers and engaging consumers on the retailer's digital property with personalized ads offering specific brand products available on the retailer's digital property and for which consumers have expressed interest (Conversion goal, onsite campaign, sales objective);
 - driving sales for consumer brand clients on the site of retailer partners, by connecting consumer brands and retailers and engaging consumers *outside* of the retailer property on the open Internet with personalized ads offering specific brand products available on the retailer's digital property and for which consumers have expressed interest (Conversion goal, offsite campaign, sales objective);

While our current solutions already allow our clients to cover a large part of the consumer journey, through Consideration and Conversion marketing goals, we intend to develop solutions to address the Awareness marketing goal in the future, and therefore cover the entire consumer journey for clients.

Historically, the Criteo model had focused solely on converting our clients' website visitors into customers, enabling us to charge our clients only when users engage with an ad we deliver, usually by clicking on it. This pay-for-performance pricing model clearly links the cost of an advertising campaign to its effectiveness in driving conversions, and has been valued as such by our clients. As we have expanded our solutions to address a broader range of marketing and monetization goals, we also started expanding our pricing models to now include a combination of cost-per-install and cost-per-impression for selected new solutions, in addition to cost-per-click, as well as subscription-type pricing model for large retailers using our technology platform as part of of our Criteo Retail Media offering. In the future, we may further evolve the pricing of our solutions.

Excluding our historical solution for driving Conversion through Criteo Marketing Solutions (formerly called *Criteo Dynamic Retargeting*), no individual solution accounted for more than 10% of total consolidated revenue for the periods presented.

Our Publisher Network

We provide extensive real-time access to advertising inventory to our advertiser clients through real-time bidding, or "RTB," Display Advertising exchanges, as well as **direct relationships** with thousands of publisher partners. We define inventory as the combination of desktop web, mobile web and mobile in-app Display Advertising impressions, including social display inventory, native display inventory, video inventory, and inventory for advertisements on major retail ecommerce properties, including for *sponsored product* formats.

In some cases, we have negotiated **direct and privileged access** with publishers, giving us the opportunity to select, buy and price, on an impression-per-impression basis and in real time: (1) inventory that a publisher might otherwise only sell subject to minimum volume commitments; and/or (2) particular advertising impressions before such impressions are made available to other potential buyers.

We believe that many of our direct publisher partners have granted us preferred access to portions of their inventory as a result of our ability to effectively monetize that inventory. For example, in Japan, we have entered into a strategic relationship with Yahoo! Japan, that grants us privileged access to its advertising inventory for delivering personalized display ads. Within Criteo Retail Media, we access inventory from ecommerce sites that is generally not available to traditional advertising demand. This inventory from ecommerce retailers is particularly valuable for consumer brands looking to advertise their products with a Consideration or Conversion marketing goal in a multi-brand retail environment.

We **price and buy inventory in real time** and typically do not pre-buy any impression, and do not commit to buying any minimum volume of impressions, except in some limited cases related to one Criteo Retail Media solution. Across both our direct publisher relationships and inventory purchasing done on RTB exchanges, we leverage Criteo AI Engine's ability to quickly and accurately value available advertising inventory, and utilize that information to bid for inventory on a programmatic, automated basis.

Alongside our existing technologies to integrate directly with publishers, we have developed *Criteo Direct Bidder*, our header-bidding technology. Over the past few years, the publisher landscape has rapidly transitioned towards header-bidding technology, allowing publishers to make their inventory simultaneously available for public auction to several competitive bidders, including RTB exchanges. Thanks to our large scale, Criteo Direct Bidder allows us to connect directly to the ad server of publishers in situations where publishers use header bidding to monetize their inventory, allowing us to bypass RTB exchanges in the bidding process. Using Criteo Direct Bidder, we were connected to close to 3,500 large publishers globally as of December 31, 2018, including NBC, The Weather Channel, Washington Post, Daily Mail, The Washington Post, eBay, AJA Japan, Orange, Viber, the LA Times, CBS, Fox News, Axel Springer's websites, Marktplaats and M6. Criteo Direct Bidder has been positively received by publishers, helping them to increase the average monetization of their inventory sold through Criteo Direct Bidder, relative to our overall spend through all channels.

For Criteo Marketing Solutions, we purchase inventory programmatically on a **CPM basis** (or cost-per-thousand-impressions) from our direct publisher partners and RTBs, through standard terms and conditions for the purchase of Display Advertising inventory. This means that inventory purchased for Criteo Marketing Solutions is paid to the publisher irrespective of whether the user engages with the advertisement delivered on that publisher's digital property. Pursuant to such arrangements, we purchase impressions for users that Criteo recognizes on the publishers' digital properties. Such arrangements are cancellable upon short notice and without penalty.

For some of our Criteo Retail Media solutions, we pay for the inventory of the retailer publishers based on a **revenue share**, effectively paying the retailer publisher a portion of the click-based revenue generated by customers clicking on the advertisements displaying the products of our consumer brand clients. This means that, with these Criteo Retail Media solutions, retailer publishers only get paid if a user effectively clicks on the advertisement that is displayed on their site. For our remaining Criteo Retail Media solutions, we either buy inventory on a CPM basis or do not incur media buying at all as, in such cases, we solely provide access to our technology to retailers for them to sell their inventory directly to consumer brands.

We believe that our ability to efficiently access and value inventory at scale results in a **deeply liquid marketplace** for both buyers and sellers of Display Advertising, allowing us to deliver effective ads at the right price for our clients, even as the size and complexity of the campaign increases.

In addition to buying advertising inventory at scale, we take a variety of **brand safety** measures to ensure that the brand equity of our clients is preserved. These measures include determining that each publisher's inventory meets our content requirements and those of our clients to ensure that their display advertisements are not shown in inappropriate content categories, such as in adult, violent or sensitive political content. For that purpose, we use numerous internal systems and processes to filter out inventory in real time, including the list of suspect IP addresses from the *Trustworthy Accountability Group* and the lists of invalid traffic from several specialized external vendors. With respect to inventory purchased through RTB exchanges, we utilize a mix of proprietary methodologies as well as third-party software to verify that inventory where the ad is shown conforms to our advertising guidelines and the content expectations and branding guidelines of our clients. In addition, we are an active member of the *Coalition for Better Ads*, supported by Google, and are compliant with their recommendations for the most user-friendly advertising formats.

Industry Background

The ability to engage customers across the various steps of the consumer journey is critical for most companies, especially for businesses in the broader commerce and consumer brand sectors, who often dedicate a significant portion of their cost base to developing such an ability.

Ecommerce Continues to Grow Fast But Retailers Face Increasing Competition.

While the global retail commerce market, at \$24 trillion in 2018 according to eMarketer, is massive in size, the global retail ecommerce market represented only \$3 trillion of that amount. This means that, despite the rapid growth of ecommerce, physical stores still capture more than 80% of the global retail commerce market and remain key assets for retail companies looking to offer differentiated services and shopping experiences to consumers, while selling their products. Further, the global retail ecommerce market is expected to grow by a 20% compound annual growth rate, or CAGR, to \$6 trillion in 2022, according to eMarketer.

Retailers and consumer brands are facing increasing competition, in particular in markets dominated by Amazon, and have started to respond by being increasingly willing to share data within collectives. We believe that consumer brands and retailers not only realize the strong potential of their commerce data, but also increasingly view collaboration and pooled data as key assets that can be used to better meet customer needs, drive value for their business and better compete in today's environment. According to a study published by Forbes Insights in collaboration with Criteo in October 2017, 71% of retailers are willing to contribute online product searches data to a pool¹. Sixty percent of surveyed retailers are already part of a data cooperative, with almost 70% of those companies already pleased with their collaboration as well as the data they receive. Additionally, 72% of marketers cite "increased revenue" as a key benefit they experience from pooled data.

Digital Ad Spending Continues to Grow Fast.

The display advertising market represents a large opportunity. Global digital ad spending of \$261 billion in 2018 was comprised of Search Advertising (\$123 billion) and Display Advertising (\$138 billion), according to eMarketer. Display Advertising involves placing images, video or advertisements that incorporate animation, sound and/or interactivity, alongside website and mobile application content. Display Advertising is expected to grow by a 14% CAGR through 2022 to reach \$236 billion, faster than Search Advertising and driven in part by the rapid rise of mobile Internet usage and the continued proliferation of free content across the Internet, in particular video content, including on social media platforms.

The walled-gardens, in particular Google and Facebook, today capture a significant share of the growth of the digital market. As a result, we believe that they capture approximately 70% of the total digital ad spend while representing only half of the time spent online². This means that the open Internet, (i.e. what is outside of walled-gardens), only captures approximately 30% of the ad spend despite accounting for 50% of user time spend and, we believe, is therefore significantly under-monetized. We define the open Internet as the open, non-proprietary environment that allows advertisers and publishers to choose the partner they want to work with, decide when and how they share data, and control how to measure success.

Advertising Technology is Becoming More Complex.

Display Advertising has become highly technology-driven, which comes with significant challenges:

Programmatic Buying. Technologies for more automated and efficient buying and selling of Display Advertising have been gaining traction for several years with both advertising buyers and publishers. Programmatic buying from real-time, automated bidding platforms and exchanges, as well as through relationships with publishers, provides advertisers with dynamic, targeted and efficient ways to access the proper inventory, and helps publishers maximize the value of their inventory. In the United States, programmatic digital display ad spending represents 83% of total Display Advertising spend, according to eMarketer.

Mobile and Cross-Device Commerce. Penetration of smartphones and tablets is driving rapid growth of global mobile commerce. Mobile retail commerce represented \$1.8 trillion globally in 2018, and is expected to grow at a 25% CAGR between 2018 and 2022, according to eMarketer. In parallel, consumers increasingly use multiple devices to shop across ecommerce websites and mobile applications. As a result, we believe that transactions involving the use of multiple devices, referred to as "cross-device" transactions, represent a significant portion of ecommerce, growing faster than ecommerce overall.

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¹ "The Commerce Marketing Opportunity - How Collaboration Levels the Retail Playing Field", Forbes Insight, in collaboration with Criteo, October 10, 2017 http://www2.criteo.com/vibrant-future

² Based on Nielsen US DCR trends, eMarketer, ExchangeWire

In-App Advertising. The app environment is more complex than the web environment for advertising. However, users spend most of their mobile time within apps (77% in the United States in 2018, according to eMarketer). Consequently, in-app ad spending represents 81% of mobile ad spending in 2018 in the United States. In this context, it is critical for advertisers to be able to effectively reach their consumers while they are in the app environment.

Artificial Intelligence. According to IDC Research, from now until 2020, the digital information universe is expected to double in size every two years. The large and diverse data sets that make up this digital information, often referred to as big data, are generally categorized into: business application data, human-generated content and machine data. New computational approaches and the falling costs of computing power enable technology companies to process and draw insights from this data using AI and machine-learning approaches. These insights can be used to optimize Display Advertising campaigns in ways that were not previously possible. The ability to collect, collate and analyze shopping intent data points using AI and machine-learning technology, has become a key differentiator for advertisers, including consumer brands.

Advertisers Need a Neutral Strategic Partner to Navigate This Complex and Challenging Environment.

We believe that over the past few years, Display Advertising has reached an inflection point, becoming both a brand awareness building medium and a more effective engagement channel for multiple marketing goals, including customer conversion.

In today's highly competitive environment, commerce companies and consumer brands increasingly focus on profitably reaching, engaging and converting consumers. In addition, we believe they increasingly look at diversifying their significant reliance on walled-garden advertising partners. To achieve this, they need a strategic partner, with no conflicting business agenda, able to activate large amounts of consumer intent and identification data into actionable advertising objectives through AI technology to drive measurable results at scale across all marketing goals.

Our Competitive Strengths

We believe our offering is transforming the way our commerce and consumer brand clients use digital advertising. We make their advertising investments, in particular in Digital Advertising across the open Internet, more efficient, effective and measurable by driving impactful results across multiple marketing goals. We believe the following competitive strengths have enabled us and will continue to enable us to capture a growing share of the digital advertising opportunity:

Criteo Shopper Graph Leverages a Massive, Granular and Open Data Set Focused on Shopping Behaviors. Over the past few years, we have built Criteo Shopper Graph, comprising the Identity Graph, the Interest Map and the Measurement Network, through data sharing among our clients. With Criteo Shopper Graph, we are building one of the largest data sets focused on shoppers, with a scope among the largest in the industry. With 73% of our clients providing CRM data to enable us to gather over 4 billion user IDs across multiple digital devices or environments in our graph, we believe the matching rates of our Identity Graph are, in some markets, similar to, if not higher than, Google's and Facebook's. In addition, our Interest Map offers a comprehensive, accurate and non-identifying shopper profile for all consumers on whom we have collected information, and is the foundation for the development of compelling solutions -existing and new- that help our clients span the consumer journey. Importantly, we believe the guiding principles of Criteo Shopper Graph, in particular its open, transparent and fair approach to sharing and leveraging data within collectives, highly differentiate it from the proprietary data management approaches of most of the large Internet companies.

Our Powerful Technology Activates Our Datasets for Effective Advertising. While shopping data is readily available in significant volumes to our commerce and consumer brand clients, and plays a critical role for them, we believe the real challenge in driving effective advertising is the ability to effectively activate this dataset to drive impactful results for advertisers. Our advertising platform is the result of 13 years of research and development and investment in our AI technology, with a single focus on driving measurable business results, including sales, for clients. Through our deep data-driven understanding of consumer intent and behavior, we are able to deliver highly relevant, targeted and personalized ads across multiple marketing goals and digital devices. The scale and breadth of our data is constantly expanding as users interact with our clients and as we deliver targeted ads. For example, in 2018, we delivered over 1.3 trillion targeted ads.

By dynamically matching a user's intent or interest with a personalized ad, we are able to deliver more relevant and engaging ads to users, which are more likely to achieve targeted results for advertisers.

Criteo AI Engine is supported by a flexible and scalable high-performance computing infrastructure, made of two Hadoop clusters hosting 76,000 processing cores with total storage capacity of 240,000 terabytes and 530 terabytes of random-access memory. Every day, our platform processes 250 terabytes of additional compressed data. We own approximately over 36,000 servers through a global network of nine data centers. We believe the power and scalability of our AI technology assets are increasingly hard to replicate by other market participants.

Our Large Scale Drives Powerful Network Effects. Our technology, developed and maintained by about 700 R&D and Product engineers, operates at significant scale and is powered by AI and machine-learning algorithms whose accuracy and performance improve with each new piece of information about a user and the billions of advertising impressions we analyze daily. We believe this creates a cycle of significant network effects. Over the past 13 years, we have built an extensive network of relationships with our clients and publishers, creating a highly liquid marketplace for advertising inventory. As of December 31, 2018, we had over 19,000 clients, including some of the largest commerce companies in the world. As we continue to grow our client base, we continue to grow the number of users who interact with our ads, which allows us to benefit from greater scale when we purchase inventory from publisher partners, many of whom have granted us preferred access to portions of their advertising inventory. On the supply side, we have direct relationships with thousands of publisher partners and are integrated with the leading RTB advertising exchanges. As of December 31, 2018, we had over 4 billion user IDs, with an estimated average of three user IDs matched per user, within our Identity Graph globally, making it one of the largest user graphs in the market. As clients spend more with us and we attract more publisher inventory and deliver more ads, our data assets grow, enabling us to deliver even more precisely targeted and personalized ads and generate a greater impact for our clients. For consumer brands, we have also created a strong network effect with our Criteo Retail Media solutions by offering them the opportunity to advertise on a large network of retailers with a variety of marketing goals. As a result, we believe more commerce and consumer brand clients will use our offering and potentially increase their spend with us. This, in turn, will enable us to increase advertising revenue for publishers, including retailers, further expanding our publisher network and enhancing our ability to drive better performance for clients. We expect this cycle of self-reinforcing network effects to continue to fuel our growth.

Our Client-Centric Offering Provides a Complete Suite of Advertising Solutions. We believe our solutions address a broad range of our clients' needs: covering a large part of the consumer journey with their advertising spend, as well as, for retailers, effectively monetizing their traffic and audiences to generate advertising revenue at scale. Our offering works seamlessly across digital devices (desktops, laptops, smartphones and tablets), commerce and advertising environments (web, mobile applications and offline stores), platforms and operating systems, advertising channels (Display Advertising inventory, including social and native, video inventory, and advertisements on retail ecommerce properties), and publisher environments (Google Ad Manager, thousands of publishers and mobile application developers in the open Internet, and Facebook). With the fast growth in smartphone and tablet usage making the path to purchase increasingly fragmented, it has become critical for marketers to address multiple marketing goals, and reach and engage their consumers across multiple digital devices. We believe that, for advertisers looking to engage their prospects or existing customers, irrespective of their position in the consumer journey, their digital device, commerce or advertising environment, platform and operating system, advertising channel or publisher environment where consumers may be reached and engaged, our complete suite of solutions provides a clear advantage over the many point solutions available on the market.

We Price and Measure Our Solutions On a Variety of Models. While the Criteo model has historically focused solely on converting our clients' website visitors into customers, linking our proven pay-for-performance model to its effectiveness in driving sales for clients, we have more recently evolved our pricing models alongside our broader suite of solutions, to now include a combination of cost-per-install and cost-per-impression for selected new solutions, in addition to cost-per-click, as well as subscription-type pricing model for large retailers using our technology platform as part of of our Criteo Retail Media offering. As Criteo AI Engine becomes more sophisticated, we are optimizing our technology to maximize a wider range of expected advertising objectives, including, for example, customer visits, installations of mobile apps and sales, each of them at a target return on investment for clients. We believe our clients value our pricing models and related measurement metrics, as they provide a clear link between the cost of their advertising campaigns and their effectiveness in generating impactful and measurable results for them. We believe our new range of pricing models fits our clients' multiple marketing goals and is a key competitive advantage in the market.

Our Solutions Cover the Consumer Journey. With our current families of solutions, Criteo Marketing Solutions and Criteo Retail Media, we help our clients cover the consumer journey, and in particular drive Consideration and Conversion for their products and services, as consumers travel across the multiple steps of the consumer journey. We continue to build and develop new solutions to help commerce and consumer brand clients address additional marketing goals and drive new business outcomes, including, for example, brand Awareness. We believe our ability to drive impactful results for multiple marketing goals across the consumer journey is a key competitive advantage on the market.

We Have a Scaled Global Presence. We do business in 98 countries and have a direct operating presence through 31 offices in 19 countries. In 2018, 42% of our revenue¹ was derived from clients who conducted advertising campaigns with us in more than one national market. We have achieved this global presence by replicating and scaling our powerful business model across all geographic markets. Large businesses are increasingly seeking global advertising partners with comprehensive offerings that are effective across multiple geographies. We believe we are able to meet this demand by leveraging our scalable AI technology and global network of relationships and are well positioned to serve our clients in virtually every market in which they seek to drive impactful and measurable business results.

Our Self-Service Platform Offers End-To-End Services, Flexible Campaign Management and Transparent Measurement. Our offering is end-to-end and all-inclusive, encompassing the integration of our clients' digital properties, user reach and tracking, the real-time buying of impressions on a large network of publishers, the real-time creation of customized ads for each specific client and its prospective end customer, the serving and delivery of the ads and the provision of real-time analytics on the performance of our campaigns. Our clients have 24/7 access to our self-service platform providing a set of automated tools allowing clients to monitor and control the objectives, modular components and performance of their advertising campaigns. Clients can access and control, on demand, a wide range of specific modules of their campaigns, such as for example: specific audiences to reach and target, specific creative or branding elements to include in ads, specific categories of supply to favor or exclude from the campaign, specific categories of the product catalog to promote in the campaign, specific coupon and price discount management.

In addition, our unified user interface allows our clients to manage their spend, solution by solution, and campaign by campaign. Our platform automates most of the processes associated with executing an advertising campaign, such as creative assembly, real-time buying of inventory, campaign optimization, and billing. Using our platform, our clients are able to manage their campaigns based on their specific cost of sales or return on investment objectives on large volumes, with real-time control over the price they pay. As a result, we reduce unnecessary complexity and cost associated with manual processes and multiple providers involved in the management of multi-solution advertising campaigns. Further, we are able to continue to deliver these efficiencies even as advertising campaigns scale and become more complex in size and mix of marketing goals. We also provide our clients with transparent and detailed reporting of key campaign metrics, and transparent standard reports showing detailed impression-level information. We believe the control, modularity, ease of use and transparency that our self-service platform provides is a key strength on the market.

We Apply Best-In-Class User Privacy Standards. We are strongly committed to consumer privacy. We have long established Privacy-by-design as a central element of our technology and product design and development, with a strong commitment to ensuring best practices in privacy, security and safety for consumers and our commerce and consumer brand clients. Since 2013, we have had a designated Data Privacy Officer along with a team of privacy experts. These experts are deeply integrated within our R&D and Product organization and processes, and consider all facets of user privacy as key elements in the design of any new technology, feature or service. Aligning with data minimization principles our technologies only rely on categories of data that are strictly necessary for the purpose of our services. The user information we collect relates primarily to purchase intent and is therefore not considered as information that can directly identify a user. In 2009, we were one of the first companies to include an "Ad Choices" link in all the ads we deliver, giving users access to clear, transparent, detailed and user-friendly information about personalized ads and the data practices associated with the ads they receive. In addition, we provide consumers with an easy-to-use and easy-to-access mechanism to control their advertising experience and opt out of receiving targeted ads we deliver, either for all campaigns or for a specific client or a specific period of time.

We believe that this transparent, consumer-centric, and controllable approach to privacy empowers consumers to make better-informed decisions about our use of their data. We also actively encourage our clients and publishers to provide information to consumers about our collection and use of data relating to the ads we deliver and monitor. We believe our industry-leading privacy, security and safety standards for consumers and our commerce and consumer brand clients are key competitive advantages on the market.

Our Growth Opportunities

Our vision is to build **the leading Advertising Platform for the Open Internet**, by enabling commerce companies and consumer brands to address multiple marketing goals across the open Internet by using our modular and flexible Advertising Platform. Our goal is to make advertising work by driving impactful results at scale for our clients at their targeted return on investment and across the entire consumer journey. We are currently expanding our business and strengthening our Advertising Platform through several growth opportunities, both within our existing solutions and in new areas, always focused on driving measurable results for clients. The core elements of our growth strategy include:

¹ Excluding Criteo Retail Media.

Further Build and Leverage the Criteo Shopper Graph. Since 2015, we have developed Criteo Shopper Graph, which comprises the Identity Graph, the Interest Map and the Measurement Network, through data pooling among our clients. With Criteo Shopper Graph, we are building one the world's largest data sets focused on shoppers, that offers our clients openness, transparency, security and fairness. Criteo Shopper Graph, in particular the Identity Graph and the Interest Map, is central to our approach of the open Internet and our plans to bring compelling new advertising solutions to market. We will continue to build and enhance the data collectives that make up Criteo Shopper Graph.

Continue to Innovate and Invest in our Technology Platform and Data. We will continue to make substantial investments in research and development, in particular in Deep Learning, to further strengthen Criteo AI Engine and to scale our technology platform, with a particular focus on making our self-service Advertising Platform more modular and flexible for clients. As the rich data sets that drive performance on a real-time basis are central to our offering, we intend to invest in additional data assets, including from third-party vendors, to extract more value from the data we collect. We are also investing in adapting our technology to make it more robust to decisions of web browser vendors and to further diversify our data collection away from relying on third-party cookies.

Upsell New Solutions Across the Consumer Journey. Our current families of solutions, comprised of Criteo Marketing Solutions and Criteo Retail Media, help our clients cover a large part of the consumer journey, by driving Consideration and Conversion for their products and services across all commerce environments, and generating advertising revenues for retailers through the monetization of their data and audiences with brands. Since our existing solutions address the needs of commerce clients, in particular retailers, we intend to continue to upsell them to more or all of our solutions within Criteo Marketing Solutions. And since many of our commerce clients are ecommerce retailers with their own digital properties, we intend to continue to offer Criteo Retail Media as a key advertising channel for them to generate high gross margin revenue from consumer brands.

Broaden Quality Inventory Supply With a Focus on Mobile Apps and Video. We currently partner with thousands of media publishers globally for Display Advertising, including both real-time bidding Display Advertising exchanges and direct publishers, including premium publishers. While 35% of the yield we generated to publisher partners in 2018 was derived from inventory sourced from publishers with whom we have a direct, preferred relationship, we intend to maintain a high level of preferred relationships, including through the broader deployment of Criteo Direct Bidder with large publishers. To leverage the fast growth of user time spent in mobile apps, we continue to expand our supply of quality advertising inventory in mobile apps with a particular focus on direct premium app publishers. In addition, to support the growth of our solutions for Consideration - aimed at driving new visitors or prospects for clients -, we will look at expanding our access to video inventory, both in the web and in mobile applications. With Criteo Retail Media, we intend to increase our publisher reach with retailers by providing a broader share of our existing retailer partners with the opportunity to monetize their inventory through consumer brand demand.

Further Expand our Global Client Base Across Sizes. We have a track-record of entering new geographic markets, adding new clients successfully and rapidly gaining commercial traction. We intend to continue to grow our client base, both in the large client and the midmarket categories. Over several years, we have significantly invested to capture the midmarket opportunity and intend to further invest in this large market category. We plan to expand our midmarket presence in the Americas, Europe, the Middle East and Africa, and Asia-Pacific. We believe significant opportunities also remain to grow our business with large clients in geographic markets where we already operate, such as Western Europe, the United States and Japan.

In 2018, we started to undertake a transformation of our go-to-market model, aimed at maximizing the commercial opportunity for our multi-solution offering, by providing the right level of services to each of our client segments - based on their size and business potential with us -, and by scaling our midmarket operations more efficiently and profitably. This includes the roll out of the onboarding module of our self-service platform, supported by appropriate sales and marketing services and channels, to enable large volumes of lower segments of midmarket clients to sign up and be self-served in a more automated, scalable and profitable way.

Criteo primarily delivers advertising for companies in the retail, travel and classifieds verticals, which we define as commerce clients. With Criteo Retail Media, we also address the need for measurable advertising of brand manufacturers, who can market their products on major retail ecommerce properties. We believe the demand for effective and measurable advertising from brand manufacturers represents a large opportunity for us. We will continue to focus on growing our share of brand manufacturers through the expansion of our Criteo Retail Media solutions to a larger number of retail ecommerce sites.

Develop New Products for Commerce and Consumer Brand Clients. In 2007, we started delivering elements of our historical Conversion solution on internet display ads in desktop browsers. Since then, we have expanded our historical offering into mobile in-browser, in-app, and native display, including on social media platforms. In parallel, we have broadened our solutions to include Consideration solutions for commerce companies across web, apps and stores, as well as solutions for retailers to monetize their data and audiences through advertising revenues from consumer brands. For example, we have recently expanded into "look-alike" audience targeting for commerce clients, into mobile apps installation for commerce clients, and into performance-based campaigns for consumer brands outside of the retailer environment. To enable our clients to further expand their reach inside the consumer journey, we intend to invest in developing new solutions, including for the Awareness marketing goal.

Grow our Omnichannel Capabilities. A large portion of our commerce client base operates physical stores and still generates a significant percentage of their sales from offline stores. While retailers extract massive amounts of sales data from their physical stores, they often lack the sophisticated technology necessary to activate this dataset for sales generation, both online and offline. As a result, retailers are increasingly interested in omnichannel advertising solutions that allow them to target their customers everywhere and, doing so, bridge the gap between online and offline. We are expanding our solutions for omnichannel advertising, by feeding our clients' offline CRM data into our Identity Graph, in order to match offline consumers with their online profile. For example, within Criteo Marketing Solutions, our feature for customer re-engagement (formerly known as Criteo Audience Match) allows the uploading of online and offline CRM identifiers, like hashed emails, to inform and run online campaigns targeted at existing customers for them to buy new products online. We are also working on Store-to-web Conversion campaigns to reengage offline buyers to buy more, both online and offline.

Pursue Strategic Acquisitions. We acquired eight companies since our inception. We selectively evaluate technologies and businesses that we believe have potential to enhance, complement or expand our technology platform and solutions, or strengthen our research and development team. We target acquisitions that can be efficiently integrated into our AI technology, Advertising Platform, global operations and company culture, while preserving the quality and performance of our offering. We believe we are an acquirer of choice among prospective acquisition targets thanks to our entrepreneurial culture, growth opportunity, global scale, strong brand and market position. We intend to opportunistically pursue our acquisition strategy in the future.

Strategic Relationship with Yahoo! Japan

In August 2012, we entered into a strategic relationship with Yahoo! Japan, a leading provider of advertising inventory in Japan, which grants us privileged access to their performance-based display inventory. In connection with this strategic relationship, Yahoo! Japan invested in our subsidiary, Criteo K.K. We retain 66% ownership of Criteo K.K. and Yahoo! Japan holds a 34% ownership. Yahoo! Japan has the right to require us to buy back its interest upon the occurrence of certain events (such as bankruptcy or breach of obligations), and we have the right to require them to sell their interest in Criteo K.K. under specified circumstances, such as a termination of the commercial relationship.

This strategic relationship may be terminated by either party for material breach and other customary events. The term of this strategic relationship automatically renewed to August 2019 and will continue to renew automatically thereafter for one-year terms if neither party provides advance written notice of its intent not to renew within a specified period of time.

Infrastructure

Our ability to execute depends on our highly sophisticated global technology software and hardware infrastructure. As of December 31, 2018, our global infrastructure included over 36,000 servers, including two Hadoop clusters, that comprise 3,350 servers providing a storage capacity exceeding 240,000 terabytes and 530 terabytes of random-access memory. Our global infrastructure is divided into three independent geographic zones in the Americas, Asia-Pacific and EMEA. In each of these zones, our services are delivered through data centers that support this zone. We generally rely on more than one data center in any given zone. Within large zones, the data centers are strategically placed to be close to our clients, publishers and users. This provides the benefit of minimizing the impact of network latency within a particular zone, especially for time-constrained services such as RTB. In addition, we replicate data across multiple data centers to maximize availability and performance. We also generally seek to distribute workload across multiple locations to avoid overloads in our systems and increase reliability through redundancy.

Within each data center, computing power is provided by horizontal build-outs of commodity servers arranged in multiple, highly redundant pools. Some of these pools are dedicated to handling incoming traffic and delivering ads while others are devoted to the data analytics involved in creating these ads. In particular, we use software specifically designed for processing large data sets, such as Hadoop, to run offline data analyzes and to train our AI and Machine Learning models. The results are then fed back to refresh and improve our prediction and recommendation algorithms.

We use multiple-layered security controls to protect Criteo AI Engine and our data assets, including hardware- and software-based access controls for our source code and production systems, segregated networks for different components of our production systems and centralized production systems management.

Our Clients

Our client base consists primarily of companies in the retail, travel and classifieds verticals, which we refer to as "commerce companies" or "commerce clients", and includes some of the largest and most sophisticated commerce companies in the world. These companies range from large, global, diversified commerce companies to mid-sized regional companies.

With Criteo Retail Media, we also serve consumer brand manufacturers, which we refer to as "consumer brands" or "consumer brand clients". As of December 31, 2018, we had more than 19,000 clients (commerce and consumer brand clients combined). In 2018, approximately 75% of our client relationships were held directly with the client, whereby there was no advertising agency or any other third-party involved in our client relationship.

We believe our business is not substantially dependent on any particular client or group of clients. In 2016, 2017 and 2018, our largest client represented 2.0%, 1.9% and 2.0% of our revenue, respectively, and in 2018 our largest 10 clients represented 11.7% of our revenue in the aggregate.

There is no group of customers under common control or customers that are affiliates of each other constituting an aggregate amount equal to 10% or more of our consolidated revenues, the loss of which would have a material adverse effect on the Company.

We define a client to be a unique party from whom we have received an insertion order and delivered an advertisement during the previous 12 months. We count specific brands or divisions within the same business as distinct clients so long as those entities have separately signed insertion orders with us. On the other hand, we count a client who runs campaigns in multiple geographies as a single client, even though multiple insertion orders may be involved. When the insertion order is with an advertising agency, we generally consider the client on whose behalf the advertising campaign is conducted as the "client" for purposes of this calculation. In the event a client has its advertising spend with us managed by multiple agencies, that client is counted as a single client.

Our client base is composed of two client categories: the large client category and the midmarket category. We define large clients as the top-50 or the top-100 commerce websites per vertical in a given geographic market, depending on the depth of that market, based on the number of monthly unique visitors as measured by comScore or other third-party providers of such information. We define a midmarket client as any client outside of the large client category per vertical in a given geographic market, depending on the depth of that market, and with a certain minimum threshold number of unique monthly visitors to their digital property, as measured by comScore or other third-party providers of such information. This minimum threshold varies by market, but is generally around 40,000 unique monthly visitors for our more developed markets. The delineation between the large client and midmarket categories is fluid and the Company may decide, from time to time, to move some clients from one category to another.

In 2018, we began a go-to-market transformation aimed at maximizing the commercial opportunity for our multi-solution offering. As part of this transformation, we have taken a more granular approach to the segmentation of our client base and have divided our existing and addressable clients into six segments, based on clients' size and business potential with us. The top-two client segments belong to the large client category and are serviced through a consultative approach delivered by a fully dedicated team of Criteo sales and account strategists. The middle-two client segments belong to the midmarket category and are serviced by an integrated and largely automated telesales approach. The lowest-two client segments also belong to the midmarket category and are meant to be entirely serviced through our self-service client platform, the onboarding module of which we expect to roll out in 2019.

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¹ Excluding Criteo Retail Media.

Research and Development

We invest substantial resources in research and development to conduct fundamental research on artificial intelligence, machine-learning models, enhance the algorithms in Criteo AI Engine, develop new features and solutions, conduct quality assurance testing, improve our core technology and enhance our technology infrastructure. Our engineering group is primarily located in research and development centers in Paris, France; Grenoble, France; Palo Alto, California and Ann Arbor, Michigan. We expect to continue to expand capabilities of our technology in the future and to invest significantly in continued research and development and new solutions efforts. We had over 700 employees primarily engaged Research and Development and Product as of December 31, 2018. Research and development expenses, including expenses related to the Product group, totaled \$123.6 million, \$173.9 million and \$179.3 million for 2016, 2017 and 2018, respectively.

Intellectual Property

Our intellectual property rights are a key component of our success. We rely on a combination of patent, trademark, copyright and trade secret laws, as well as confidentiality procedures and contractual restrictions, to establish, maintain and protect our proprietary rights. We generally require employees, consultants, clients, publishers, suppliers and partners to execute confidentiality agreements with us that restrict the disclosure of our intellectual property. We also generally require our employees and consultants to execute invention assignment agreements with us that protect our intellectual property rights.

Intellectual property laws, together with our efforts to protect our proprietary rights, provide only limited protection, and any of our intellectual property rights may be challenged, invalidated, circumvented, infringed or misappropriated. The laws of certain countries do not protect proprietary rights to the same extent as the laws of France and the United States and, therefore, in certain jurisdictions, we may be unable to protect our proprietary technology.

Agreements with our employees and consultants may also be breached, and we may not have adequate remedies to address any breach. Further, to the extent that our employees or consultants use intellectual property owned by others in their work for us, disputes may arise as to the rights to know-how and inventions relating thereto or resulting therefrom. Finally, our trade secrets may otherwise become known or be independently discovered by competitors and unauthorized parties may attempt to copy aspects of the Advertising Platform for the Open Internet or obtain and use information that we regard as proprietary.

As of December 31, 2018, we held five patents issued by the U.S. Patent and Trademark Office, one patent issued by the French Patent Office, one patent issued by the European Patent Office, one patent issued by the Japan Patent Office and one patent issued by the Korean Intellectual Property Office, and had filed 29 non-provisional U.S. patent applications, five European patent applications and one international patent application under the Patent Cooperation Treaty. We also own and use registered and unregistered trademarks on or in connection with our products and services in numerous jurisdictions. In addition, we have also registered numerous internet domain names.

Our industry is characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. In particular, leading companies in the technology industry have extensive patent portfolios. From time to time, third parties, including certain of these leading companies, have asserted and may assert patent, copyright, trademark and other intellectual property rights against us, our clients or our publishers. Litigation and associated expenses may be necessary to enforce our proprietary rights.

Privacy, Data Protection and Content Control

Legal and Regulatory

Privacy and data protection laws play a significant role in our business. The regulatory environment for the collection and use of consumer data by advertising networks, advertisers and publishers is frequently evolving in the United States, Europe and elsewhere. The United States and foreign governments have enacted, considered or are considering legislation or regulations that could significantly restrict industry participants' ability to collect, augment, analyze, use and share non-identifying data, such as by regulating the level of consumer notice and consent required before a company can utilize cookies or other tracking technologies.

In the United States, at both the federal and state level, there are laws that govern activities such as the collection and use of data by companies like us. At the federal level, online advertising activities in the United States have primarily been subject to regulation by the Federal Trade Commission, or the FTC, which has regularly relied upon Section 5 of the Federal Trade Commission Act, or Section 5, to enforce against unfair and deceptive trade practices, including alleged violations of consumer privacy interests. Various states have also enacted legislation that governs these practices. For example, on September 27, 2013, the governor of California signed into law AB 370, an amendment to the California Online Privacy Protection Act of 2003, or CalOPPA. This amendment requires that we disclose in our privacy policy how we respond to web browser "do not track" signals. Our current privacy policy discloses that we do not respond to web browser "do not track" signals but that we do respond to optout requests made through our proprietary opt-out button or through industry opt-out platforms (namely Network Advertising Initiative and Digital Advertising Alliance). However, the US privacy law framework may be subject to significant evolutions in the near future both at a federal and at a state level. At a federal level, law makers are currently considering the possibility of adopting a federal privacy law. While we cannot anticipate the chances of success and potential output of this initiative, the State of California already passed a new law (the California Consumer Privacy Act) intended to better protect the privacy of consumers. This new law will come into force on January 1st 2020 and will notably impose more stringent obligations on companies regarding the level of information and control they provide to consumers about the collection and sharing of their data. This act also offers the possibility to any consumer who has suffered a violation of this act to recover statutory damages and could therefore open the door to additional risks of individual and class-action lawsuits.

In addition, the Advertising Platform for the Open Internet reaches users throughout the world, including in Europe, Australia, Canada, South America and Asia-Pacific. As a result, some of our activities may also be subject to the laws of foreign jurisdictions. In particular, data protection laws in Europe can be more restrictive regarding the collection and use of data than those in U.S. jurisdictions.

In the European Union, the two main pillars of the data protection legal framework are the E-Privacy Directive (Directive on Privacy and Electronic Communications), which is currently under review, and the new General Data Protection Regulation, adopted in April 2016 and enforceable since May 2018.

Directive 2002/581-EC of the European Parliament and of the Council, or the E-Privacy Directive, was amended by Directive 2009/136/EC of the European Parliament and of the Council of November 25, 2009, or the E-Privacy Directive Amendment, to require countries in the European Union to enact specific legislation requiring companies like ours, along with advertisers and publishers, to present users with an information notice and to obtain their consent prior to placing cookies or other tracking technologies for purposes of targeted advertising. The E-Privacy Directive Amendment was intended to be implemented in all 28 countries of the European Union, but it has been implemented differently across the European Union member states. As a consequence the questions regarding the form and conditions of a valid consent (e.g. explicit versus implied consent) have remained only partially settled within the European Union.

While the European Institutions are still in the process of adopting a regulation proposal to review the E-Privacy Directive, there is no assurance that tracking for advertising purposes will not be affected, as the mechanisms for "cookie" consent are being rediscussed.

In December 2016, E.U. institutions reached an agreement on a draft regulation that was formally adopted in April 2016, referred to as the General Data Protection Regulation ("GDPR"). The GDPR updates and modernizes the principles of the 1995 Data Protection Directive. The GDPR significantly increases the level of sanctions for non-compliance. The European Union data protection authorities will have the power to impose administrative fines of up to a maximum of €20 million or 4% of the data controller's or data processor's total worldwide global turnover for the preceding financial year, whichever is higher. We believe that the regulation has no material impact on our business or the way our technologies operate. However, GDPR is still a recent regulation with no established case law. Therefore interpretations of the GDPR may vary, especially with respect to the articulation between GDPR (lex generali) and E-Privacy Directive (lex speciali) and the conditions for the collection of a valid "cookie" consent, and thus there can be no assurance that this will not have any particular impact on our business, technologies or practices.

To illustrate this risk of different interpretations by the competent authorities, the French Data Protection Authority (Commission Nationale Informatique et Libertés) and Spanish Data Protection Authority (Agencia Espanola de Proteccion de Datos) published guidance in which it is stated that continuing to browse a website could materialize the consent of a user for cookie tracking, while the UK Data Protection Authority (Information Commissioner's Office) is listing stricter requirements in its own guidance and seems to impose a very clear and specific statement of consent.

As we continue to expand into other foreign jurisdictions, we may be subject to additional laws and regulations that may affect how we conduct business.

Self-Regulation

In addition to complying with extensive government regulations, we voluntarily and actively participate in several trade associations and industry self-regulatory groups that promulgate best practices or codes of conduct relating to targeted advertising. For example, the Internet Advertising Bureau EU & US, the Network Advertising Initiative, the European Digital Advertising Alliance and the Digital Advertising Alliance have developed and implemented guidance for companies to provide notice and choice to users regarding targeted advertising.

In addition to complying with such guidance, we provide consumers with notice about our use of cookies and our collection and use of data in connection with the delivery of targeted advertising, and allow them to opt out from the use of such data for the delivery of targeted advertising. In an effort to harmonize the industry's approach to internet-based advertising, these programs facilitate a user's ability to disable services of integrated providers, but also educate users on the potential benefits of online advertising, including access to free content and display of more relevant advertisements to them. The rules and policies of the self-regulatory programs that we participate in are updated from time to time and may impose additional restrictions upon us in the future.

In 2009, we became one of the first companies to broadly include an "Ad Choices" link in all the advertisements we deliver, which gives users access to clear, transparent, detailed and user-friendly information about personalized advertisements and the data practices associated with the advertisements they receive. In addition, we provide consumers with an easy-to-use and easy-to-access mechanism to control their advertising experience and opt out of receiving targeted advertisements we deliver, either for all campaigns or for a specific client or specific period of time.

We believe that this transparent consumer-centric approach to privacy empowers consumers to make better-informed decisions about our use of their data. We also actively encourage our clients and publishers to provide information to consumers about our collection and use of data relating to the advertisements we deliver and monitor.

Content Control and Brand Safety

To protect against unlawful advertiser and publisher content, we include restrictions on content in our terms and conditions. We also take a large variety of brand safety measures to ensure that the brand equity of our clients is preserved as much as possible. These measures include determining that each publisher's inventory meets our content requirements and those of our clients to ensure that their display advertisements are not shown in inappropriate content categories. For that purpose, we use numerous internal systems and processes to filter out inventory in real time, including the list of suspect IP addresses from the *Trustworthy Accountability Group* and the lists of invalid traffic from several specialized external vendors. With respect to our inventory purchased through RTB exchanges, we utilize a mix of proprietary methodologies as well as third-party software to verify that inventory where the advertisement placement is shown conforms to our advertising guidelines and the content expectations and branding guidelines of our clients.

Government Regulation

In addition to the laws and regulations governing privacy and data protection described above, we are subject to numerous domestic and foreign laws and regulations covering a wide variety of subject matters. New laws and regulations (or new interpretations of existing laws and regulations) may also impact our business. The costs of compliance with these laws and regulations are high and are likely to increase in the future and any failure on our part to comply with these laws may subject us to significant liabilities and other penalties.

Competition

We compete in the broader market for digital advertising, primarily through Display Advertising. Our market is rapidly evolving, highly competitive, complex and still fragmented, although rapidly consolidating. We face significant competition in this market, which we expect to intensify in the future, partially as a result of potential new entrants in our market, including but not limited to large well-established internet publishers and players, in particular as we continue to expand the breadth of our offering. We currently compete with large, well-established companies, such as Google, Amazon.com ("Amazon"), Facebook, Inc. ("Facebook"), as well as smaller, privately held companies. Potential competition could emerge from large enterprise marketing platforms, like Adobe Systems Inc. ("Adobe"), Oracle Corporation ("Oracle"), and Salesforce.com, Inc. ("Salesforce"). In addition, web browsers, and desktop and mobile operating systems developed by large software companies like Google and Apple Inc. ("Apple") can have a significant influence and impact on the way we operate. We believe the principal competitive factors in our industry include:

- access to granular commerce data on a large scale;
- technology-based ability to activate commerce data for multiple marketing goals, including sales generation;
- technology-based ability to generate high return on advertising spend at scale;
- breadth and depth of consumer reach;
- measurability of the advertising spend performance, based on clear and transparent measurement metrics;
- completeness and effectiveness of solutions across digital devices, commerce and advertising environments, platforms and operating systems, advertising channels and publisher environments;
- relevance and breadth of solutions to address numerous marketing goals;
- advertiser control over the objectives, components and performance of their campaigns through a modular, flexible and easy-to-use self-service technology platform;
- openness, transparency, security and fairness of data sharing and data management practices;
- client trust;
- global presence;
- client service and detailed, transparent client reporting;
- commitment to data protection and user privacy; and
- · ease of use.

We believe that we are well positioned with respect to all of these factors and expect to continue to grow and capture an increasing share of digital advertising budgets worldwide.

Seasonality

Our client base consists primarily commerce of companies in the retail, travel and classifieds industries industries, which we refer to as "commerce companies" or "commerce clients". In the digital retail industry in particular, many businesses devote the largest portion of their advertising spend to the fourth quarter of the calendar year, to coincide with increased holiday spending by consumers. With respect to Criteo Retail Media, the concentration of advertising spend in the fourth quarter of the calendar year may be particularly pronounced. Our commerce clients in the retail industry typically conduct fewer advertising campaigns in the first and second quarters than they do in other quarters, while our commerce clients in the travel industry typically increase their travel campaigns in the first and third quarters and conduct fewer advertising campaigns in the second quarter. As a result, our revenue tends to be seasonal in nature, but the impact of this seasonality has, to date, been partly offset by our significant growth and geographic expansion. If the seasonal fluctuations become more pronounced, our operating cash flows could fluctuate materially from period to period.

Employees

As of December 31, 2018, we had 2,744 employees. Our employees employed by French entities (1,007 employees) are represented by a labor union, employee representative bodies (works' council, employee delegates and a health and safety committee) and covered by collective bargaining agreements. We consider labor relations to be good and have not experienced any work stoppages, slowdowns or other serious labor problems that have materially impeded our business operations.

Financial Information about Segments and Regions

We manage our operations as a single reportable segment. For information about revenues, net income and total assets of our reporting segment, please see our audited consolidated financial statements included elsewhere in this Form 10-K. For a breakdown of our revenue and non-current assets by region, please see Note 25 to our audited consolidated financial statements included elsewhere in this Form 10-K. For information regarding risks associated with our international operations, please refer to the section entitled "Risk Factors" in Item 1A of Part I in this Form 10-K.

Available Information

Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act are made available, free of charge on our website, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the U.S. Securities and Exchange Commission (the "SEC"). These documents may be accessed through our website at www.criteo.com under "Investors." Information contained on, or that can be accessed through, our website does not constitute a part of this Form 10-K. We have included our website address in this Form 10-K solely as an inactive textual reference.

You may also review a copy of this Form 10-K, including exhibits and any schedule filed with this Form 10-K, and obtain copies of such materials at prescribed rates, at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549-0102. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains a website (www.sec.gov) that contains reports, proxy and information statements and other information regarding registrants, such as Criteo, that file electronically with the SEC.

With respect to references made in this Form 10-K to any contract or other document of Criteo, such references are not necessarily complete and you should refer to the exhibits attached or incorporated by reference to this Form 10-K for copies of the actual contract or document.

Item 1A Risk Factors

Investing in our ADSs involves a high degree of risk. You should carefully consider the following risks and all other information contained in this Form 10-K, including our consolidated financial statements and the related notes thereto, before investing in our ADSs. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, also may become important factors that affect us. If any of the following risks materialize, our business, financial condition and results of operations could be materially harmed. In that case, the trading price of our ADSs could decline, and you may lose some or all of your investment.

Risks Related to Our Business and Industry

If we fail to innovate, adapt and respond effectively to rapidly changing technology, our offering may become less competitive or obsolete. Our investments in new solutions and technologies to address new marketing goals for our clients are inherently risky and may not be successful.

Our business is rapidly evolving and our future success will depend on our ability to continuously enhance and improve our offering to meet client needs, add functionality to and improve the performance of our Advertising Platform, and address technological and industry advancements. If we are unable to enhance our solutions to meet market demand in a timely manner, we may not be able to maintain our existing clients or attract new clients.

Historically, the Criteo model focused solely on converting our clients' website visitors into customers through our historical solution, *Criteo Dynamic Retargeting*. Since then, we have broadened our solutions portfolio to include additional marketing and monetization goals (including Awareness and Consideration) for commerce companies and consumer brands across web, apps and stores, which has required the investment of substantial resources.

However, our investments into these new solutions and technologies are inherently risky and may not be successful. First, we believe that broadening our solutions portfolio to include additional marketing and monetization goals (including Awareness and Consideration) is important to achieving our vision for the Company and positioning Criteo for future success. However, many of these marketing and monetization goals are new to us, and we have had to invest substantial resources to adapt our model, pricing and organization to support this expansion. Similarly, we do not have a long or established track record of competing successfully in this space. If we are not successful in expanding our solutions along broader marketing goals, in particular along the Awareness and Consideration marketing goals, our results of operations could be adversely affected.

In addition, we have made, and intend to continue to make, substantial investments in research and development in order to further strengthen Criteo AI Engine and scale our technology platform. However, if we are unable to continuously enhance and improve our offering, we may be unable to respond effectively to changes in our industry, technology or user preferences, and our solutions may become less competitive or obsolete.

We face intense and increasing competition for employee talent, and if we do not retain and continue to attract highly skilled talent or retain our senior management team and other key employees, we may not be able to sustain our growth or achieve our business objectives.

Our future success depends on our ability to continue to attract, retain and motivate highly skilled employees, particularly AI experts, software engineers and other employees with the technical skills that enable us to deliver effective advertising solutions, client sales and publisher partnership representatives with experience in digital advertising, in particular in Display Advertising, and more broadly employees that are highly qualified in their areas of expertise to support and grow our operations. Competition for highly skilled employees in our industry is intense, in particular in the fields of artificial intelligence and data science, and we expect certain of our key competitors, who generally are larger than us and have access to more substantial resources, to pursue top talent even more aggressively.

Our future success also depends on the continued service of our senior management team. Our management team is currently spread across multiple physical locations and geographies, which can strain the organization and make coordinated management more challenging.

We may be unable to attract or retain the management and highly skilled personnel who are critical to our success, which could hinder our ability to keep pace with innovation and technological change in our industry or result in harm to our key client and publisher relationships, loss of key information, expertise or proprietary knowledge and unanticipated recruitment and training costs. The loss of the services of our senior management or other key employees could make it more difficult to successfully operate our business and pursue our business goals.

The market in which we participate is intensely competitive, and we may not be able to compete successfully with our current or future competitors.

The market for internet advertising solutions is highly competitive and rapidly changing. New technologies and methods of buying advertising present a dynamic competitive challenge as market participants offer multiple new products and services aimed at facilitating and/or capturing advertising spend. With the introduction of new technologies and the influx of new entrants to the market, we expect competition to persist and intensify in the future, which could harm our ability to increase sales and maintain our profitability.

We compete in the broader market for digital advertising, primarily through Display Advertising. This market is rapidly evolving, highly competitive, complex and still fragmented, although rapidly consolidating. We face significant competition in this market, and we expect that competition will intensify in the future, in particular as we continue to expand the breadth of our offering.

In addition to competing for advertising spend, we compete with many companies for advertising inventory, some of whom also operate their own advertising networks or exchanges from which we buy advertising inventory. Some of these companies that we compete with, either for advertising spend or for advertising inventory, may also be our clients or affiliated with our clients or important sources of advertising inventory. Competitive pressure may incentivize such companies to cease to be our clients or cease to provide us with access to their advertising inventory. If this were to occur, our ability to place advertisements would be significantly impaired and our results of operations would be adversely affected.

Along with existing competitors and intermediaries, new competitors are entering our marketplace and may continue to do so in the future. In particular, large established companies such as Adobe (which acquired Omniture, Inc., Efficient Frontier, Inc. and TubeMogul, Inc.), Verizon, Inc. (which acquired AOL, Inc., which in turn had previously acquired Platform-A, Inc. (advertising.com), Millennial Media, and Yahoo!), Alliance Data (which acquired Conversant, Inc., which in turn had previously acquired Dotomi), Ve Interactive (which acquired eBay's display retargeting business, which in turn had previously acquired both Fetchback, Inc. and GSI Commerce Inc.), Tesco plc (which acquired Sociomantic Labs) and AdRoll have been entering our marketplace. Similarly, existing competitors may intensify or broaden the manner in which they compete with us. Notably, for example, Amazon, Google and Facebook have been expanding their advertising and marketing platforms and have been making substantial investments in artificial intelligence and data science capabilities, which, if successful, could narrow the performance gap to Criteo AI Engine. Large and established internet and technology companies such as those mentioned above may have the power to significantly change the very nature of the Display Advertising marketplaces in ways that could materially disadvantage us. For example, Amazon, Apple, Facebook, Google and Microsoft have a significant share of widely adopted industry platforms such as web browsers, mobile operating systems and advertising exchanges and networks.

These companies could leverage their positions to make changes to their web browsers, mobile operating systems, platforms, exchanges, networks or other solutions or services that could be significantly harmful to our business and results of operations. These companies also have significantly larger resources than we do, and in many cases have advantageous competitive positions in popular products and services like Gmail, Chrome and Facebook, which they can use to their advantage. Furthermore, our competitors include large and established internet and technology companies that have invested substantial resources in innovation, which could lead to technological advancements that change the competitive dynamics of our business in ways that we may not be able to predict.

In addition to direct competition, we also face competition for advertising spend from within our own clients. Large advertisers are increasingly developing in-house advertising technologies, facilitated by self-service tools offered by internet and technology companies like Adobe and Google. Similarly, large enterprise marketing platforms, like Adobe, Oracle, and Salesforce.com, Inc., could create tools that offer our clients additional opportunities to allocate advertising dollars to in-house campaigns.

Competition could also hinder the success of new advertising solutions that we offer in the future.

For example, Amazon has a strong presence in "sponsored products" and other advertising formats on its platform and directly competes with certain Criteo Retail Media solutions for advertising spend. As we seek to grow our business and expand our offering, such competition could become more intense.

Our current and potential competitors may have significantly more financial, technical, marketing and other resources than we have, be able to devote greater resources to the development, promotion, sale and support of their products and services, have more extensive client bases and broader publisher relationships than we have, and have longer operating histories and greater name recognition than we have. As a result, these competitors may be able to respond more quickly to technological changes, develop deeper client relationships or offer services at lower prices.

Existing or new competitors could develop, market or resell competitive high-value advertising solutions or services, acquire one of our existing competitors or form a strategic alliance with one of our competitors. If any of such risks were to materialize, our ability to compete effectively could be significantly compromised and our results of operations could be harmed. Any of these developments would make it more difficult for us to sell our offering and could result in increased pricing pressure, reduced gross margins, increased sales and marketing expense and/or the loss of market share.

Our ability to generate revenue depends on our collection of significant amounts of data from various sources, which may be restricted by consumer choice, restrictions imposed by clients, publishers and browsers or other software, changes in technology, and new developments in laws, regulations and industry standards.

Our ability to optimize the delivery of internet advertisements for our clients depends on our ability to successfully leverage data, including data that we collect from our clients, data we receive from our publisher partners and third parties, and data from our own operating history. Using cookies and non-cookie based technologies, such as mobile advertising identifiers, we collect information about the interactions of users with our clients' and publishers' digital properties (including, for example, information about the placement of advertisements and users' shopping or other interactions with our clients' websites or advertisements). Our ability to successfully leverage such data depends on our continued ability to access and use such data, which could be restricted by a number of factors, including consumer choice, restrictions imposed by counterparties (including clients, supply sources and publishers, who may also compete with us for advertising spend and inventory) and web browser developers or other software developers, changes in technology, including changes in web browser technology, and new developments in, or new interpretations of, laws, regulations and industry standards.

Consumer resistance to the collection and sharing of the data used to deliver targeted advertising, increased visibility of consent or "do not track" mechanisms as a result of industry regulatory and/or legal developments or industry practices, the adoption by consumers of browsers settings or "ad-blocking" software and the development and deployment of new technologies could materially impact our ability to collect data or reduce our ability to deliver relevant advertisements, which could materially impair the results of our operations.

Similarly, web browser developers, such as Apple, Mozilla Foundation, Microsoft Corp. ("Microsoft") or Google, have implemented or may implement changes in browser or device functionality that impair our ability to understand the preferences of consumers, including by limiting the use of third-party cookies or other tracking technologies or data indicating or predicting consumer preferences. These web browser developers have significant resources at their disposal and command substantial market share, and any restrictions they impose could foreclose our ability to understand the preferences of a substantial number of consumers. If we are blocked from serving advertisements to a significant portion of internet users, our business could suffer and our results of operations could be harmed.

Furthermore, any restrictions on our access to data could cause the overall quantity of the data we collect on consumers to be diminished. If we are unable to mitigate the impacts on our business of any such restrictions for a substantial period of time, as a result of such diminution in collected data, the accuracy, effectiveness and value of our offering could be materially impacted.

Similarly, Internet users are increasingly able to download free or paid "ad-blocking" software, including on mobile devices, which prevent third-party cookies from being stored on a user's computer and block advertisements from being displayed to such user.

In addition, search engines and other service providers that explicitly do not allow the tracking of data, such as DuckDuckGo, Inc., have been growing and may continue to grow in popularity. If a significant number of web browser users download such "adblocking" software or switch to advertising-free services or platforms, our business could be materially impacted.

The data we gather is important to the continued development and success of the Criteo Shopper Graph, which is a key element of the Advertising Platform for the Open Internet. With Criteo Shopper Graph, we are building one the world's largest data sets focused on shopping data. If too few of our clients provide us with the permission to share their data or if our clients choose to stop sharing their data, or if regulatory or other factors inhibit or restrict us from maintaining the data collectives underlying Criteo Shopper Graph, the value of Criteo Shopper Graph could be materially diminished and our business could be materially impacted.

In addition, our ability to collect and use data may be restricted or prevented by a number of other factors, including:

- the failure of our network, hardware, or software systems, or the network, hardware, or software systems of our clients;
- decisions by some of our clients or publishers to restrict our ability to collect data from them, third parties and users or to refuse to implement mechanisms we request to ensure compliance with our legal obligations;
- changes in device functionality and settings, and other new technologies, which make it easier for users to prevent the placement of cookies or other tracking technologies and impact our publishers' or our clients' ability to collect and use data;
- changes by large internet and technology companies to the nature of Display Advertising (for example, any changes in Apple's Identifier for Advertising, or IDFA, that could prevent us from identifying users and associating particular browsing behaviors to those users as they use mobile applications that run on Apple's operating system);
- changes in traffic filtering performed by various internet service providers, causing some of the information we use for tracking to be removed before requests are sent to our servers;
- our inability to develop an identity graph that is strong enough to properly match users and track sales across an increasing number of devices and environments;
- our inability to grow our client and publisher base in new industry verticals and geographic markets in order to obtain the
 critical mass of data necessary for Criteo AI Engine to perform optimally in such new industry verticals or geographic
 markets:
- the growth of advertising inventory available within "walled-garden" publisher environments, which may restrict our ability to use such inventory effectively and in an optimized way for advertisers, outstripping the growth of other advertising inventory available on the market;
- malicious traffic (such as non-human traffic) that introduces "noise" in the information that we collect from clients and publishers;
- interruptions, failures or defects in our data collection, mining, analysis and storage systems; and
- changes in laws, rules, regulations and industry standards or increased enforcement of laws, rules, regulations and industry standards in or across any of the geographies in which we operate or may want to operate in the future.

Any of the above described limitations on our ability to successfully collect, utilize and leverage data could also materially impair the optimal performance of Criteo AI Engine and severely limit our ability to reach and engage users with our advertisements, which would harm our business and adversely impact our future results of operations.

If we fail to access a consistent supply of advertising inventory and expand our access to such inventory, our business and results of operations could be harmed.

Essentially all of our revenue is derived from placing advertisements on publisher digital properties that we do not own. As a result, we do not own or control the advertising inventory upon which our business depends. We currently access advertising inventory through various channels, including through direct relationships with publishers, advertising exchange platforms (such as Google's Ad Manager and Microsoft's Ad Exchange) and other platforms that aggregate the supply of advertising inventory, such as Appnexus Inc., The Rubicon Project, Inc., PubMatic, Inc., Taboola, Inc., Baidu, Inc. and Yandex N.V.

Since many widely used aggregators of advertising inventory are owned by companies that may compete with us for clients, competitive pressure may incentivize these companies to limit our access to advertising inventory available through their platforms. The fact that advertising inventory available within "walled-garden" publisher environments, which may restrict our ability to use such inventory effectively and in an optimized way for advertisers, tends to grow faster than other advertising inventory available on the market, may limit the growth of our access to advertising inventory or our mere access to it overall. In addition, industry or technological changes may affect our access to inventory or the price we pay for inventory.

Similarly, our ability to continue to purchase inventory from many of the publishers with whom we have direct relationships depends in part on our ability to consistently pay sufficiently competitive CPMs for their advertising inventory, or in the case of some Criteo Retail Media solutions, to generate sufficient advertising revenue for retailers, as well as our ability to offer advertisements from high quality companies. As more companies compete for advertising impressions on advertising exchange platforms and other platforms that aggregate supply of advertising inventory, advertising inventory may become more expensive, which may adversely affect our ability to acquire it and to deliver internet display advertisements on a profitable basis. We may in the future have to increasingly rely on direct relationships with strong publisher partners in order to maintain the necessary access to quality advertising inventory, and we may not be able to do so on terms that are favorable to us. In addition, to support the growth of our solutions for the Consideration marketing goal—aimed at driving new visitors or prospective customers for clients—we will need to expand our access to video inventory, both in the web and in mobile applications, the price of which may not be available on terms that are favorable to us.

We cannot guarantee that we will successfully grow our direct relationships with new publishers or maintain or expand our access to quality advertising inventory through other channels. In addition, even if we do grow our direct relationships, we cannot assure you that those direct relationships with publishers will be on terms favorable to us. Similarly, we may not be able to expand our access to video inventory and in-app inventory to the extent necessary to monetize these opportunities. If we are not successful, our business and results of operations could be harmed.

The failure by Criteo AI Engine to accurately predict engagement by users could result in significant costs to us, lost revenue and diminished advertising inventory.

The effective delivery of our digital advertising solution depends on the ability of Criteo AI Engine to predict the likelihood that a consumer will engage with any given internet display advertisement with a sufficient degree of accuracy that our clients can achieve desirable returns on their advertising spend. We historically charged our clients primarily based on a cost-per-click pricing model, and our clients only paid us when a user engaged with the advertisement, usually by clicking on it.

Although we have more recently started evolving our pricing models alongside our broader suite of solutions, to now include a combination of cost-per-install and cost-per-impression for selected new solutions, in addition to cost-per-click, as well as subscription-type pricing model for large retailers using our technology platform as part of our Criteo Retail Media offering, the majority of our revenue is generated through cost-per-click pricing models.

Our agreements with clients are open-ended and often do not include a spending minimum. Similarly, our contracts with publishers generally do not include long-term obligations requiring them to make their inventory available to us over long periods of time. Therefore, we need to continuously deliver satisfactory results for our clients and publishers in order to maintain and increase revenue, which in turn depends in part on the optimal functioning of Criteo AI Engine.

In addition, as we have increased the number of clients and publishers that use our offering on a global basis, we have experienced significant growth in the amount and complexity of data processed by Criteo AI Engine and the number of advertising impressions we deliver.

As the amount of data and number of variables processed by Criteo AI Engine increase, the risk of errors in the type of data collected, stored, generated or accessed increases. In addition, the calculations that the algorithms must compute become increasingly complex and the likelihood of any defects or errors increases.

If we were to experience significant errors or defects in Criteo AI Engine, our solution could be impaired or stop working altogether, which could prevent us from purchasing any advertising inventory and generating any revenue until the errors or defects were detected and corrected. Other negative consequences from significant errors or defects in Criteo AI Engine could include:

- a loss of clients and publishers;
- fewer consumer visits to our client websites or mobile applications;
- lower click-through rates;
- lower conversion rates:
- lower profitability per impression, up to and including negative margins;
- faulty inventory purchase decisions for which we may need to bear the cost;
- lower return on advertising spend for our clients;
- lower price for the advertising inventory we are able to offer to publishers;
- delivery of advertisements that are less relevant or irrelevant to users;
- liability for damages or regulatory inquiries or lawsuits; and
- harm to our reputation.

Furthermore, the ability of Criteo AI Engine to accurately predict engagement by a user depends in part on our ability to continuously innovate and improve the algorithms underlying Criteo AI Engine in order to deliver positive results for our clients and publishers that can be clearly attributed to the services we provide. The failure to do so could result in delivering poor performance for our clients and a reduced ability to secure advertising inventory from publishers.

If failures in Criteo AI Engine or our inability to innovate and improve the algorithms underlying Criteo AI Engine result in our clients and publishers ceasing to partner with us, we cannot guarantee that we will be able to replace, in a timely or effective manner, departing clients with new clients that generate comparable revenue or departing publishers with new publishers that offer similar internet advertising inventory.

As a result, the failure by Criteo AI Engine to accurately predict engagement of users and to continue to do so over time could result in significant costs to us, lost revenue and diminished advertising inventory.

The proper functioning of Criteo AI Engine may be impaired by fraudulent or malicious activity, including non-human traffic.

Fraudulent or malicious activity, including non-human traffic, could impair the proper functioning of Criteo AI Engine. For example, the use of bots or other automated or manual mechanisms to generate fraudulent clicks or misattribute clicks on advertisements we deliver could overstate the performance of our advertising. Preventing and combating fraud requires constant vigilance, and we may not always be successful in our efforts to do so. It may be difficult to detect fraudulent or malicious activity, particularly because the perpetrators of such activity, which may include foreign governments, may have significant resources at their disposal, may frequently change their tactics and may become more sophisticated, requiring us to improve our processes for detecting and controlling such activity. Such fraudulent or malicious activity could result in negative publicity and reputational harm and require significant additional management time and attention.

Further, if we fail to detect or prevent fraudulent or malicious activity, our clients may experience or perceive a reduced return on their investment or heightened risk associated with the use of our solutions, resulting in refusals to pay, demands for refunds, loss of confidence, withdrawal of future business and potential legal claims. Due to the higher CPM paid for video advertisements, the risk of fraudulent traffic may increase as we increase our purchasing of video inventory.

If we show advertising or inventory that is fraudulent, we may lose the trust of our clients, which would harm our brand and reputation. If potential clients perceive that Criteo AI Engine is vulnerable to bots or similar non-human traffic, fraudulent clicks or other malicious activity, we may not be able to maintain our existing clients or attract new clients. As a result, our business could suffer and our results of operations could be materially impacted.

Regulatory, legislative or self-regulatory developments regarding internet privacy matters could adversely affect our ability to conduct our business.

The United States and foreign governments have enacted, considered or are considering legislation or regulations that could significantly restrict our ability to collect, process, use, transfer and pool data collected from and about consumers and devices. Trade associations and industry self-regulatory groups have also promulgated best practices and other industry standards relating to targeted advertising. Various U.S. and foreign governments, self-regulatory bodies and public advocacy groups have called for new regulations specifically directed at the digital advertising industry, and we expect to see an increase in legislation, regulation and self-regulation in this area. The legal, regulatory and judicial environment we face around privacy and other matters is constantly evolving and can be subject to significant change. For example, the General Data Protection Regulation, or GDPR, which was agreed by E.U. institutions in 2016 and came into effect after a two year transition period on May 25, 2018, updated and modernized the principles of the 1995 Data Protection Directive and significantly increases the level of sanctions for non-compliance. Data Protection Authorities will have the power to impose administrative fines of up to a maximum of €20 million or 4% of the data controller's or data processor's total worldwide turnover of the preceding financial year. Similarly, the E-Privacy Regulation, which was launched by the European Parliament in October 2016, could result in, once enacted, new rules and mechanisms for "cookie" consent.

In addition, the interpretation and application of data protection laws in the U.S., Europe and elsewhere are often uncertain and in flux. For example, on October 6, 2015, the European Court of Justice invalidated the E.U.-U.S. Safe Harbor framework, which we relied on to operate our data transfers both internally (for HR, CRM and other back-office data processing) and with several U.S. based partners (notably RTB platforms). Following the Safe Harbor invalidation, in July 2016, the European Commission announced the formal adoption of the "EU-US Privacy Shield." We elected to rely on the Standard Contractual Clauses of the European Commission to secure our data transfers, but we cannot anticipate whether this legal scheme will be compromised in the future. Legislative and regulatory authorities around the world may decide to enact additional legislation or regulations, which could reduce the amount of data we can collect or process and, as a result, significantly impact our business.

Similarly, clarifications of and changes to these existing and proposed laws, regulations, judicial interpretations and industry standards can be costly to comply with, and we may be unable to pass along those costs to our clients in the form of increased fees, which may negatively affect our operating results. Such changes can also delay or impede the development of new solutions, result in negative publicity and reputational harm, require significant incremental management time and attention, increase our risk of non-compliance and subject us to claims or other remedies, including fines or demands that we modify or cease existing business practices, including our ability to charge per click or the scope of clicks for which we charge. Additionally, any perception of our practices or solutions as an invasion of privacy, whether or not such practices or solutions are consistent with current or future regulations and industry practices, may subject us to public criticism, private class actions, reputational harm or claims by regulators, which could disrupt our business and expose us to increased liability.

Finally, our legal and financial exposure often depends in part on our clients' or other third parties' adherence to privacy laws and regulations and their use of our services in ways consistent with visitors' expectations. We rely on representations made to us by clients that they will comply with all applicable laws, including all relevant privacy and data protection regulations. We make reasonable efforts to enforce such representations and contractual requirements, but we do not fully audit our clients' compliance with our recommended disclosures or their adherence to privacy laws and regulations.

If our clients fail to adhere to our contracts in this regard, or a court or governmental agency determines that we have not adequately, accurately or completely described our own solutions, services and data collection, use and sharing practices in our own disclosures to consumers, then we and our clients may be subject to potentially adverse publicity, damages and related possible investigation or other regulatory activity in connection with our privacy practices or those of our clients.

In 2016, the *Commission nationale de l'informatique* ("CNIL") commenced an inquiry into our compliance with French data privacy laws. The inquiry is still pending and focusing on the new features or solutions that we have deployed since the last investigation. At this stage, there can be no assurance that action will not be required by CNIL as a result of its open investigation or that there will not be further inquiries with respect to our compliance with privacy laws from CNIL or regulatory bodies in other jurisdictions.

Similarly, in November 2018, Privacy International filed a complaint with relevant data protection authorities against Criteo and a number of other similarly situated advertising technology companies, arguing that certain of these companies' practices do not comply with the GDPR. Although, to our knowledge, no data protection authority has yet opened any formal investigation into Criteo in response to this complaint, they may do so in the future, and there can be no assurance that action will not be required as a result.

The third parties upon which we rely for access to data and revenue opportunities may implement technical restrictions that impede our access to such data and revenue opportunities, which could materially impact our business and results of operations.

A substantial portion of the data we rely on comes from our publisher partners and other third parties, including advertising exchange platforms (including supply-side platforms, or "SSPs", such as Google's Ad Manager). Similarly, we rely on our publisher partners, advertising exchange platforms and other third parties for opportunities to serve advertisements through which we generate our revenue. Our ability to successfully leverage such data and successfully generate revenue from such opportunities could be impacted by restrictions imposed by or on our publisher partners or other third parties, including restrictions on our ability to use or read cookies or other tracking features or our ability to use real-time bidding networks or other bidding networks.

For example, in light of the General Data Protection Regulation, or GDPR, some SSPs imposed restrictions on our ability to bid on opportunities to serve ads. Third-party publishers are responsible under GDPR for gathering necessary user consents and indicating to SSPs that Criteo has been approved by the applicable users. As part of their efforts to comply with their understanding of the requirements of the GDPR, which are subject to interpretation, certain SSPs that run advertising exchanges have required actions from such third party publishers with respect to such consents that appear to be stricter than what the regulations require. Similarly, SSPs and other relevant third parties may take similar actions in response to any new legislation or regulatory developments or interpretations in the future, in response to perceived user preferences, or for other reasons.

If third parties on which we rely for data or opportunities to serve advertisements impose similar restrictions or are not able to comply with restrictions imposed by other ecosystem participants, we may lose the ability to access data, bid on opportunities, or purchase digital ad space, which could have a substantial impact on our revenue.

Our business depends on our ability to maintain the quality of content for our clients and publishers.

Our clients' satisfaction depends on our ability to place advertisements with publisher content that is well-suited to the client's product or service. If we are unable to keep our clients' advertisements from being placed in unlawful or inappropriate content, our reputation and business may suffer. In particular, we could be treated as a spammer and blocked by internet service providers or regulators. In addition, if we place advertisements on websites containing content that is not permitted under the terms of the applicable agreements with a client, we may be unable to charge the client for impressions or clicks generated on those sites, the client may terminate their campaign, the client may require us to indemnify them for any resulting third party claims, or the client may allege breach of contract. Further, our publishers and exchange partners rely upon us not to place advertisements on their websites, the content of which is unlawful or inappropriate. As we grow our business to serve a larger number of smaller clients using self-service tools with less intervention by us, it could become more challenging to prevent inappropriate or unlawful advertisements from being shown. If we are unable to maintain the quality of our client and publisher content as the number of clients and publishers we work with continues to grow, our reputation and business may suffer and we may not be able to retain or secure additional clients or publisher relationships.

We may not be able to effectively integrate the businesses we acquire, which may adversely affect our ability to achieve our growth and business objectives.

Over the past five years, we have acquired Manage.com Group, Inc., Storetail SA, HookLogic, DataPop, Inc., Monsieur Drive SAS and three other businesses. We may seek to acquire additional businesses, products, solutions, technologies or teams in the future. If we identify an appropriate acquisition candidate, we may not be successful in negotiating the terms and/or financing of the acquisition, and our due diligence may fail to identify all of the problems, liabilities or other shortcomings or challenges of an acquired business, product, solution or technology, including issues related to intellectual property, product quality or architecture, employees or clients, regulatory compliance practices or revenue recognition or other accounting practices.

Any acquisition or investment may require us to use significant amounts of cash, issue potentially dilutive equity securities or incur debt. In addition, acquisitions, including our recent acquisitions, involve numerous risks, any of which could harm our business, including:

- difficulties in integrating the operations, technologies, services and personnel of acquired businesses, especially if those businesses operate outside of our core competency;
- the need to integrate operations across different geographies, cultures and languages and to address the particular economic, currency, political and regulatory risks associated with specific countries;
- cultural challenges associated with integrating employees from the acquired company into our organization;
- ineffectiveness, lack of scalability, or incompatibility of acquired technologies or services;
- potential loss of key employees of acquired businesses;
- inability to maintain the key business relationships and the reputation of acquired businesses;
- failure to successfully further develop the acquired technology in order to recoup our investment;
- unfavorable reputation and perception of the acquired product or technology by the general public;
- diversion of management's attention from other business concerns;
- liability or litigation for activities of the acquired business, including claims from terminated employees, clients, former shareholders or other third parties;
- implementation or remediation of controls, practices, procedures and policies at acquired businesses, including the costs necessary to establish and maintain effective internal controls; and
- increased fixed costs.

There can be no assurance that we will be able to successfully integrate the businesses that we acquire or that we will be able to leverage the acquired commercial relationships or technologies in the manner we anticipate. If we are unable to successfully integrate the businesses we have acquired or any business, product, solution or technology we acquire in the future, our business and results of operations could suffer, and we may not be able to achieve our business and growth objectives.

Our international operations and expansion expose us to several risks.

As of December 31, 2018, we had a direct operating presence through 31 offices located in 19 countries and did business in 98 countries. Our primary research and development operations are located in France and the United States. In addition, we currently have international offices outside of France and the United States, which focus primarily on selling and implementing our offering in those regions. In the future, we may expand to other international locations. Our current global operations and future initiatives involve a variety of risks, including:

- localization of the product interface and systems, including translation into foreign languages and adaptation for local practices;
- compliance with (and liability for failure to comply with) applicable local laws and regulations, including, among other things, laws and regulations with respect to data protection (including requirements that user data be stored locally in a given country) and user privacy, consumer protection, spam and content, which laws and regulations may be inconsistent across jurisdictions;
- more stringent regulations relating to data security and the unauthorized use of, or access to, commercial and personal information, particularly in the European Union;
- taxation in a variety of jurisdictions with increasingly complex tax laws, the application of which can be uncertain;
- intensity of local competition for digital advertising budgets and internet display inventory;
- unexpected changes in laws and regulatory requirements, trade laws, tariffs, export quotas, customs duties or other trade restrictions;
- labor regulations and labor laws that can be interpreted as more advantageous to employees than those in the United States, including with respect to deemed hourly wage and overtime regulations;
- changes in a specific country's or region's political or economic conditions;
- challenges inherent to hiring and efficiently managing an increased number of employees over large geographic distances, including the need to implement appropriate systems, policies, benefits and compliance programs, and the increasing complexity of the organizational structure required to support expansion into multiple geographies;
- the difficulty of maintaining our corporate culture of rapid innovation and teamwork that has been central to our growth in the face of an increasingly geographically diverse workforce;
- risks resulting from changes in currency exchange rates and the implementation of exchange controls, including restrictions promulgated by the Office of Foreign Assets Control of the U.S. Department of the Treasury, and other similar trade protection regulations and measures in the United States or in other jurisdictions;
- reduced ability to timely collect amounts owed to us by our clients in countries where our recourse may be more limited;
- limitations on our ability to reinvest earnings from operations derived from one country to fund the capital needs of our operations in other countries
- · restrictions on foreign ownership and investments;
- limited or unfavorable intellectual property protection;
- exposure to liabilities under anti-money laundering laws, international and international sanction requirements and anticorruption laws, including the U.S. Foreign Corrupt Practices Act and similar laws and regulations in other jurisdictions; and
- restrictions on repatriation of earnings.

We have established operations in geographies such as China, India, Brazil and Russia, and may establish operations in additional geographies in the near future, where we may face more complex regulatory environments and market conditions than those we have experienced in markets where we currently operate. If we invest substantial time and resources to expand our international operations and are unable to execute successfully or in a timely manner, our business and results of operations could suffer, and we may not be able to achieve our business and growth objectives.

Additionally, operating in international markets also requires significant management attention and financial resources. We cannot be certain that the investment and additional resources required in establishing operations in other countries will produce desired levels of revenue or profitability.

Our future success depends on our ability to scale our offering as our business grows.

As our business grows, it may become increasingly difficult to maintain the proper functioning of Criteo AI Engine as we continue to collect increasing amounts of data from new geographic markets, new advertising channels, new industry verticals and a growing base of clients. We currently process 250 terabytes of additional compressed data every day, with total storage capacity of 240,000 terabytes and 530 terabytes of random-access memory. However, future growth could exceed these rates, and our ability to scale our offering to keep pace with the amount of data we process may be impaired by failure of software, hardware (including storage, processing, support and security infrastructure).

As a result, our operations might suffer from unanticipated system disruptions or slow processing or reporting which could negatively affect our reputation and ability to attract and retain clients. In addition, the expansion and improvement of our systems and infrastructure may require us to commit substantial financial, operational and technical resources, with no assurance our business will increase

Furthermore, inventory-related traffic continues to increase faster than our revenue has grown over the past few years. Reducing the cost and improving the efficiency of our infrastructure may require us to invest an increasing percentage of our revenue, and there can be no assurance that we will be successful. Similarly, advancements in machine learning approaches and other technology may require us to upgrade or replace essential hardware (such as GPUs), which could involve substantial resources and could be difficult to implement.

If we fail to respond to technological change or to adequately maintain, expand, upgrade and develop our systems and infrastructure in a timely fashion, our growth prospects and results of operations could be adversely affected.

Moreover, even if we are able to expand our computing and other infrastructure to keep pace with our growth, it may be too costly for us to continue to provide services under our current business model and capital expense assumptions and our profitability and results of operations may suffer.

If we fail to manage our growth and the shift in our client portfolio towards the midmarket effectively, we may be unable to execute our business plan or maintain high levels of client and publisher satisfaction.

We have experienced, and may in the future experience, rapid growth and changes in our client portfolio, which have created, and may continue to create, challenges to the quality of our service to our clients, and which have placed, and may continue to place, significant demands on our management and our operational and financial resources.

For example, over the past few years, the size of our midmarket business has grown significantly as a proportion of our overall business, and we expect it to continue to do so in the future. As our business shifts toward the midmarket category, there are several additional risks to our business, including risks relating to the financial stability of our clients and our ability to collect accounts receivable from such clients. In addition, since our midmarket business is comprised of thousands of smaller clients which require significant resources to support, it is currently less profitable than our large client business, and overall there may not be a direct correlation between a change in the number of clients in a particular period and an increase or decrease in our revenue. In 2018, we started to implement a new go-to-market strategy, aimed at maximizing our commercial opportunity for our multi-solution offering, by providing the right level of services to each our client segments (based on their size and business potential with us) and scaling our midmarket operations more efficiently and profitably. However, due to the growing number of midmarket clients that require support, we will need to continue automating certain of our processes to service the midmarket category as it continues to grow globally. There can be no assurance that we will be able to successfully adjust to these shifting dynamics and remain profitable.

As we continue to expand, we also must maintain a high level of service to ensure client and publisher satisfaction. To the extent our client and publisher base grows, we will need to expand our account management, publisher support and other personnel in order to continue to provide adequate account management and services, the quality of which has been central to our growth to date. To do so will require significant expenses, significant capital expenditures and valuable management resources.

If we fail to manage our anticipated growth in a manner that preserves our attention to our clients, our brand and reputation may suffer, which would in turn impair our ability to attract and retain clients and publishers.

If we are unable to successfully manage our growth and the associated growth in employee headcount and changes to our organizational structure, our results of operations could suffer.

If we fail to successfully enhance our brand, our ability to protect and expand our client base will be impaired and our financial condition may suffer.

We believe that developing and maintaining awareness of the Criteo brand is critical to achieving widespread acceptance of our existing offering and any future solutions, such as new solutions directed toward capturing broader advertising budgets, and is an important element in attracting new commerce clients, consumer brand clients, retailer partners and publisher partners. Furthermore, we believe that the importance of brand recognition will increase as competition in our market increases.

Successful promotion of our brand will depend largely on the effectiveness of our marketing efforts and on our ability to deliver valuable solutions for our commerce clients, consumer brand clients, retailer partners and publisher partners. In the past, our efforts to build our brand have involved significant expenses and they may continue to do so in the future. As a result, we may not be able to develop our brand in a cost-effective manner. Furthermore, brand promotion activities may not yield any increased revenue, and even if they do, any increased revenue may not offset the expenses we incurred in building our brand.

If we fail to successfully promote and maintain our brand we may fail to attract enough new commerce clients, consumer brand clients, retailer partners and publisher partners or retain enough of our existing commerce clients, consumer brand clients, retailer partners and publisher partners, and our business could suffer.

Our future success will depend in part on our ability to expand into new industry verticals.

As we market our offering to a wider group of consumer brands and companies outside of our historical three key industry verticals of retail, travel and classifieds, including businesses in the automotive, telecommunications, consumer goods and finance industries, as well as mobile app-first verticals such as gaming, ride sharing and food delivery, we will need to adapt our solutions and effectively market our value to businesses in these new industry verticals. Our success into new industry verticals will depend on various factors, including our ability to:

- design solutions that are attractive to businesses in such industries;
- provide high returns on advertising spend in such industries and maintain such high returns on advertising spend at scale;
- transparently measure the performance of such advertising spend based on clear, measurable metrics;
- hire personnel with relevant industry vertical experience to lead sales and product teams;
- work with clients in new industry verticals through the advertising agencies that manage their advertising budgets; and
- accumulate sufficient data sets relevant for those industry verticals to ensure that Criteo AI Engine has sufficient quantity and quality of information to deliver efficient and effective internet display advertisements within the relevant industry.

For example, with the acquisition of Manage.com Group, Inc. in October 2018, we further expanded our offering into gaming and other app-first areas such as food delivery and ride sharing. Similarly, with the acquisition of HookLogic in November 2016 and the introduction of Criteo Retail Media, we expanded our offering to benefit consumer brands. However, there can be no assurance that we will be able to maintain the client base built by Manage or HookLogic or that we will be able to expand the Criteo Retail Media business successfully.

If we are unable to successfully adapt our offering to appeal to businesses in industries other than our core verticals, or are unable to effectively market such solutions to businesses in such industries, we may not be able to achieve our growth or business objectives.

Further, as we expand our client base and offering into new industry verticals, we may be unable to maintain our current client retention rates.

As we expand the market for our solutions, we may become more dependent on advertising agencies as intermediaries, which may adversely affect our ability to attract and retain business, or exert downward pressure on our margins.

As we market our solutions, we may increasingly need advertising agencies to work with us in assisting businesses in planning and purchasing for broader marketing goals. In particular, many of our Criteo Retail Media clients, whom we have started working with since our acquisition of HookLogic, work with us through advertising agencies. Historically, however, direct relationships with our clients accounted for 76%, 73% and 73% of our revenue for 2016, 2017 and 2018, respectively, for Criteo Marketing Solutions. In contrast, 72% and 66% of our revenue in 2017 and 2018, respectively, for Criteo Retail Media relied on advertising agencies.

We believe several elements of our growth strategy, including the increasing deployment and availability of self-service platform capabilities for our clients to have greater control and transparency over the management and execution of their advertising campaigns with us, as well as the ongoing expansion of our solutions into advertising scenarios to address Consideration marketing goals, may make our overall value proposition more attractive to advertisers, including to the potential advertising agencies that help them manage their advertising budgets. Overall, we believe that accessing broader advertising budgets by partnering with advertising agencies represents a significant incremental business opportunity for us.

However, an increasing exposure to advertising agencies may also represent significant risks. For example, if we have an unsuccessful engagement with an advertising agency on a particular advertising campaign, we risk losing the ability to work not only for the client for whom the campaign was run, but also for other clients represented by that agency. Further, if our business evolves such that we are increasingly working through advertising agency intermediaries, we would have less of a direct relationship with our clients. This may drive our clients to attribute the value we provide to the advertising agency rather than to us, further limiting our ability to develop long-term relationships directly with our clients. Additionally, our clients may move from one advertising agency to another, and, accordingly, even if we have a positive relationship with an advertising agency, we may lose the underlying client's business when the client switches to a new agency. The presence of advertising agencies as intermediaries between us and our clients thus creates a challenge to building our own brand awareness and maintaining an affinity with our clients, who are the ultimate sources of our revenue. In the event we were to become more dependent on advertising agencies as intermediaries, this may adversely affect our ability to attract and retain business. In addition, an increased dependency on advertising agencies may harm our results of operations, as a result of the increased agency fees we may be required to pay and/or as a result of longer payment terms from agencies.

Our future success will depend in part on our ability to expand into new advertising channels.

We define an advertising channel as a specific advertisement medium to engage with a user or a consumer for which we currently purchase inventory through a specific source. We started delivering elements of our offering through internet display advertisements in desktop browsers. Since then, we have expanded into mobile in-browser and in-app, native display, including on social media platforms, and video inventory.

In the future, we may decide to broaden the spectrum of our advertising channels further if we believe that doing so would significantly increase the value we can offer to clients. We believe a broader platform delivering our solutions through complementary advertising channels can enhance our value proposition for existing and prospective clients.

However, any future attempts to enter new advertising channels may not be successful. For example, we launched our *Criteo Email Retargeting* offering in 2014 after we acquired Tedemis SA in February 2014. In the fourth quarter of 2016, we decided to discontinue our *Criteo Email Retargeting* offering based on country-specific circumstances. Similarly, we launched our *Criteo Predictive Search* offering in the fourth quarter of 2016. In the third quarter of 2017, we decided to discontinue our *Criteo Predictive Search* offering based on client and country-specific circumstances.

Our success in expanding into any additional advertising channels will depend on various factors, including our ability to:

• identify additional advertising channels where our solutions could perform;

- adapt our solutions to additional advertising channels and effectively market it for such additional advertising channels to our existing and prospective clients;
- integrate newly developed or acquired advertising channels into our pricing and measurement models, with a clear and measurable performance attribution mechanism that works across all channels, and in a manner that is consistent with our privacy standards;
- accumulate sufficient data sets relevant for those advertising channels to ensure that Criteo AI Engine has a sufficient quantity and quality of information to deliver relevant personalized advertisements through those additional advertising channels;
- achieve client performance levels through the new advertising channels that are similar to those delivered through existing advertising channels, and in any case that are not dilutive to the overall client performance;
- identify and establish acceptable business arrangements with inventory partners and platforms to access inventories in sufficient quality and quantity for these new advertising channels;
- maintain our gross margin at a consistent level upon entering one or more additional advertising marketing channels;
- compete with new market participants active in these additional advertising channels; and
- hire and retain key personnel with relevant technology and product expertise to lead the integration of additional advertising channels onto our platform, and sales and operations teams to sell and integrate additional advertising channels.

If we are unable to successfully adapt our solutions to additional advertising channels and effectively market such offerings to our existing and prospective clients, or if we are unable to maintain our pricing and measurement models in these additional advertising channels, we may not be able to achieve our growth or business objectives.

Our revenue would decline if we fail to effectively coordinate the demand for and supply of advertising inventory in a specific geographic market.

The performance of Criteo AI Engine in a specific geographic market depends on having sufficient clients implemented and utilizing our offering, and our ability to coordinate the demand for and supply of advertising inventory with the publishers in that market. Since we cannot consistently predict the demand for advertising inventory by our clients or the advertising inventory available to us, including on a priority basis, the demand for and supply of advertising inventory in that market may not be sufficient or sufficiently coordinated for Criteo AI Engine to function optimally. As such, as we target new geographic markets, we will need to adequately coordinate the timing to onboard local clients and publishers. A failure to effectively manage demand for, and the supply of, advertising inventory processed through Criteo AI Engine could impair its ability to accurately predict user engagement in that market, which could result in:

- a reduction in the amount of inventory our publishers make available to us in the future;
- a loss of existing clients or publishers;
- changes in the priority given to our advertisements by publishers;
- an adverse effect on our ability to attract new publishers willing to give us preferred access;
- harm to our reputation;
- increased cost; and

lost revenue.

Our sales efforts with both potential clients and publishers require significant time and expense, and our success will depend on effectively expanding and integrating our sales and marketing operations and activities to grow our base of clients and publishers.

Attempting to increase our base of clients and publishers is a key component of our growth strategy. However, attracting clients and publishers requires substantial time and expense, and it may be difficult to identify, engage and market to potential clients that are unfamiliar with Criteo and our offering, particularly as we seek to address new marketing goals for clients, or enter new advertising channels or new industry verticals. Furthermore, many potential clients require input from multiple internal constituencies to make advertising decisions, or delegate advertising decisions to advertising agencies. As a result, we must identify those involved in the purchasing decision and devote a sufficient amount of time to presenting our offering to those individuals (including providing demonstrations and comparisons of our value relative to other available solutions), which can be a costly and time-consuming process.

Our ability to grow our client and publisher base will depend to a significant extent on our ability to effectively expand our sales, marketing and publisher support operations. In particular, as we target new industry verticals, we will need to attract sales and publisher support personnel that are familiar with the relevant industries and geographic markets. We believe that there is significant competition for direct sales and support personnel with the sales skills and technical knowledge that we require.

Therefore, our ability to grow our client and publisher base will depend, in large part, on our success in recruiting, training and retaining the sales and publisher support personnel we require. Over the past years, we have hired a number of new sales personnel and expanded our marketing department. However, we may not be successful in growing headcount to the extent necessary to support and expand our operations. Similarly, we cannot be sure that newly hired personnel will be integrated effectively, and such personnel may require significant training and may not become productive as quickly as we would like, or at all. If we are not successful in recruiting and training our client sales and publisher support personnel and streamlining our sales and business development processes to cost-effectively grow our client and publisher base, our ability to grow our business and our results of operations could be adversely affected.

If we are unable to protect our proprietary information or other intellectual property, our business could be adversely affected.

We rely largely on trade secret law to protect our proprietary information and technology. We generally seek to protect our proprietary information through confidentiality, non-disclosure and assignment of invention agreements with our employees, contractors and parties with which we do business. However, we may not execute these agreements with every party who has access to our confidential information or contributes to the development of our intellectual property. In addition, those agreements may be breached, and we may not have adequate remedies for any such breach.

Breaches of the security of our data center systems and infrastructure or other IT resources could also result in the exposure of our proprietary information. Additionally, our trade secrets may be independently developed by competitors. We cannot be certain that the steps we have taken to protect our trade secrets and proprietary information will prevent unauthorized use or reverse engineering of our trade secrets or proprietary information.

Although we also rely on copyright laws to protect works of authorship created by us, including software, we do not register the copyrights in any of our copyrightable works. We will need to register the copyright before we can file an infringement suit in the United States, and our remedies in any such infringement suit may be limited.

In the United States and internationally, we have filed various applications for protection of certain aspects of our intellectual property, including patent applications. Effective protection of our intellectual property rights may require additional filings and applications in the future. However, pending and future applications may not be approved, and any of our existing or future patents, trademarks or other intellectual property rights may not provide sufficient protection for our business as currently conducted or may be challenged by others or invalidated through administrative process or litigation. Additionally, patent rights in the United States have switched from the former "first-to-invent" system to a "first-to-file" system, which may favor larger competitors that have the resources to file more patent applications. Furthermore, our existing patents and any patents issued in the future may give rise to ownership claims or to claims for the payment of additional remuneration of fair price by persons having participated in the creation of the inventions. Similarly, to the extent that our employees, contractors or other third parties with whom we do business use intellectual property owned by others in their work for us, disputes may arise as to the rights to such intellectual property.

Further, the laws of certain countries do not protect proprietary rights to the same extent as the laws of the United States and, therefore, in certain jurisdictions, we may be unable to protect our proprietary technology adequately against unauthorized third-party copying, infringement or use, which could adversely affect our competitive position.

To protect or enforce our intellectual property rights, we may initiate litigation against third parties. Any lawsuits that we initiate could be expensive, take significant time and divert management's attention from other business concerns. Additionally, we may unintentionally provoke third parties to assert claims against us. These claims could invalidate or narrow the scope of our own intellectual property. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially valuable. Accordingly, despite our efforts, we may be unable to prevent third parties from infringing upon or misappropriating our intellectual property. The occurrence of any of these events may adversely affect our business, financial condition and results of operations.

Our business may suffer if it is alleged or determined that our technology or another aspect of our business infringes the intellectual property rights of others.

The online and mobile advertising industries are characterized by the existence of large numbers of patents, copyrights, trademarks, trade secrets and other intellectual property and proprietary rights. Companies in these industries are often required to defend against litigation claims that are based on allegations of infringement or other violations of intellectual property rights. Our technologies may not be able to withstand any third-party claims or rights against their use.

Our success depends, in part, upon non-infringement of intellectual property rights owned by others and being able to resolve claims of intellectual property infringement or misappropriation without major financial expenditures or adverse consequences. From time to time, we may be the subject of claims that our solutions and underlying technology infringe or violate the intellectual property rights of others, particularly as we expand the scope and complexity of our business.

Regardless of whether claims that we are infringing patents or other intellectual property rights have any merit, these claims are time-consuming and costly to evaluate and defend, and the outcome of any litigation is inherently uncertain. Some of our competitors have substantially greater resources than we do and are able to sustain the costs of complex intellectual property litigation to a greater degree and for longer periods of time than we could. Claims that we are infringing patents or other intellectual property rights could:

- subject us to significant liabilities for monetary damages, which may be tripled in certain instances;
- prohibit us from developing, commercializing or continuing to provide some or all of our offering unless we obtain licenses from, and pay royalties to, the holders of the patents or other intellectual property rights, who may not be willing to offer them on terms that are acceptable to us, or at all;
- subject us to indemnification obligations or obligations to refund fees to, and adversely affect our relationships with, our current or future clients, advertising agencies, media networks and exchanges or publishers;
- cause delays or stoppages in providing our offering;
- cause clients, potential clients, advertising agencies, media networks and exchanges or publishers to avoid working with us;
- divert the attention and resources of management and technical personnel;
- harm our reputation; and
- require technology or branding changes to our offering that would cause us to incur substantial cost and that we may be unable to execute effectively or at all.

In addition, we may be exposed to claims that the content contained in advertising campaigns violates the intellectual property or other rights of third parties. Such claims could be made directly against us or against the advertising agencies we work with, and media networks and exchanges and publishers from whom we purchase advertising inventory.

Generally, under our agreements with advertising agencies, media networks and exchanges and publishers, we are required to indemnify the advertising agencies, media networks and exchanges and publishers against any such claim with respect to an advertisement we served. We generally require our clients to indemnify us for any damages from any such claims. There can be no assurance, however, that our clients will have the ability to satisfy their indemnification obligations to us, and pursuing any claims for indemnification may be costly or unsuccessful.

As a result, we may be required to satisfy our indemnification obligations to advertising agencies, media networks and exchanges and publishers or claims against us with our assets. This result could harm our reputation, business, financial condition and results of operations.

Our business involves the use, transmission and storage of confidential information, and the failure to properly safeguard such information could result in significant reputational harm and monetary damages.

Our business involves the storage and transmission of confidential consumer, client and publisher information, including certain purchaser data, as well as financial, employee and operational information. Security breaches could expose us to unauthorized disclosure of this information, litigation and possible liability, as well as damage to our relationships with our clients and publishers. If our security measures are breached as a result of third-party action, employee or contractor error, malfeasance or otherwise and, as a result, someone obtains unauthorized access to our data or the data of consumers, our clients, publishers, employees or other third parties, our reputation could be damaged, our business may suffer and we could incur significant liability.

Techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not recognized until launched against a target. As a result, we may be unable to anticipate some of these techniques or to implement adequate preventative measures. In addition, the perpetrators of such activity often are very sophisticated, and can include foreign governments and other parties with significant resources at their disposal. If an actual or perceived security breach occurs, the market perception of our security measures could be harmed and we could lose both clients and revenue. Any significant violations of data privacy or other security breaches could result in the loss of business, litigation and regulatory investigations and penalties that could damage our reputation and adversely impact our results of operations and financial condition.

Moreover, if a high profile security breach occurs with respect to another provider of digital advertising solutions, our clients and potential clients may lose trust in the security of providers of digital advertising in general, and Display Advertising solutions in particular, which could adversely impact our ability to retain existing clients or attract new ones.

Additionally, third parties may attempt to fraudulently induce employees, consumers, our clients, our publishers or third-party providers into disclosing sensitive information such as user names, passwords or other information in order to gain access to our data, our clients' data or our publishers' data, which could result in significant legal and financial exposure and a loss of confidence in the security of our offering and, ultimately, harm to our future business prospects. A party who is able to compromise the security of our facilities, including our data centers or office facilities, or any device, such as a smartphone or laptop, connected to our systems could misappropriate our proprietary information or the proprietary information of consumers, our clients and/or our publishers, or cause interruptions or malfunctions in our operations or those of our clients and/or publishers. We may be required to expend significant resources to protect against such threats or to alleviate problems caused by breaches in security. Finally, computer viruses or malware may harm our systems or cause the loss or alteration of data, and the transmission of computer viruses or malware via the Criteo technology could expose us to litigation and a loss of confidence in the security of our technology. Our errors and omissions insurance may be inadequate or may not be available in the future on acceptable terms, or at all. In addition, our policy may not cover any claim against us for loss of data or other indirect or consequential damages and defending a suit, regardless of its merit, could be costly and divert management's attention.

Failures in the systems and infrastructure supporting our solutions and operations could significantly disrupt our operations and cause us to lose clients.

In addition to the optimal performance of Criteo AI Engine, our business relies on the continued and uninterrupted performance of our software and hardware infrastructures. We currently place close to four billion advertisements per day and each of those advertisements can be placed in under 100 milliseconds.

Sustained or repeated system failures of our software or hardware infrastructures (such as massive and sustained data center outages) or of the software or hardware infrastructures of our third-party providers, which interrupt our ability to deliver advertisements quickly and accurately, our ability to serve and track advertisements, our ability to process consumers' responses to those advertisements or otherwise disrupt our internal operations, could significantly reduce the attractiveness of our offering to clients and publishers, reduce our revenue or otherwise negatively impact our financial situation, impair our reputation and subject us to significant liability.

In addition, while we seek to maintain excess capacity to facilitate the rapid provision of new client deployments and the expansion of existing client deployments, we may need to increase data center hosting capacity, bandwidth, storage, power or other elements of our system architecture and our infrastructure as our client base and/or our traffic continues to grow. Our existing systems may not be able to scale up in a manner satisfactory to our existing or prospective clients, and may not be adequately designed with the necessary reliability and redundancy of certain critical portions of our infrastructure to avoid performance delays or outages that could be harmful to our business

Our failure to continuously upgrade or increase the reliability and redundancy of our infrastructure to meet the demands of a growing base of global clients and publishers could adversely affect the functioning and performance of our technology and could in turn affect our results of operations.

Finally, our systems are vulnerable to damage from a variety of sources, some of which are outside of our control, including telecommunications failures, natural disasters, terrorism, power outages, a variety of other possible outages affecting data centers, and malicious human acts, including hacking, computer viruses, malware and other security breaches. Techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not recognized until launched against a target. As a result, we may be unable to anticipate some of these techniques or to implement adequate preventive measures.

Any steps we take to increase the security, reliability and redundancy of our systems supporting the Criteo technology or operations may be expensive and may not be successful in preventing system failures.

If we are unable to prevent system failures, the functioning and performance of our solutions could suffer, which in turn could interrupt our business and harm our results of operations.

We are a growing company in a rapidly evolving industry, which makes it difficult to evaluate our future prospects and may increase the risk that we will not be successful. Our recent growth rates may not be indicative of our future growth, and we expect our operating expenses to continue to increase in the foreseeable future. Accordingly, we may have difficulty sustaining profitability.

We are a growing company in a rapidly evolving industry. Our ability to forecast our future operating results is subject to a number of uncertainties, including our ability to plan for and model future growth in both our business and the digital advertising market generally, and the Display Advertising market in particular. We have encountered and will continue to encounter risks and uncertainties frequently experienced by growing companies in rapidly evolving industries, including challenges in forecasting accuracy, determining appropriate investments, achieving market acceptance of our existing and future offerings, managing client implementations and developing new solutions. For example, the Criteo model historically focused solely on converting our clients' website visitors into customers through our historical solution, *Criteo Dynamic Retargeting*. Since then, we have broadened our solutions portfolio to include additional marketing and monetization goals (including Awareness and Consideration) for commerce companies and consumer brands across web, apps and stores, many of which are new to us and for which we do not have a long and established track record. If our assumptions regarding these uncertainties, which we use to plan our business, are incorrect or change in reaction to changes in our markets, or if we do not address these risks successfully, our operating and financial results could differ materially from our expectations and our business could suffer.

You should not consider our revenue growth in past periods to be indicative of our future performance. In future periods, our revenue could decline or grow more slowly than we expect. We believe the growth of our revenue depends on a number of factors, including our ability to:

• attract new clients, and retain and expand our relationships with existing clients;

- maintain the breadth of our publisher network and attract new publishers, including publishers of web content, mobile applications and video and social games, in order to grow the volume and breadth of advertising inventory available to us;
- broaden our solutions portfolio to include additional marketing and monetization goals (including Awareness and Consideration) for commerce companies and consumer brands across the open Internet, including web, apps and stores;
- adapt our offering to meet evolving needs of businesses, including to address market trends such as (i) the migration of consumers from desktop to mobile and from websites to mobile applications, (ii) the increasing percentage of sales that involve multiple digital devices, (iii) the growing adoption by consumers of "ad-blocking" software on web browsers on desktop and/or on mobile devices and use or consumption by consumers of advertising-free services such as Netflix, (iv) changes in the marketplace for and supply of advertising inventory, including the shift toward header bidding; and (v) changes in the overall ecosystem such as Apple's introduction of its *Intelligent Tracking Prevention* feature into its Safari browser; and (vi) changes in consumer acceptance of tracking technologies for targeted or behavioral advertising purposes;
- maintain and increase our access to data necessary for the performance of Criteo AI Engine;
- continuously improve the algorithms underlying Criteo AI Engine and apply the state of the art in Machine Learning approaches and hardware; and
- continue to adapt to a changing regulatory landscape governing data protection and privacy matters.

We also anticipate that our operating expenses will continue to increase as we scale our business, grow our headcount and expand our operations. In particular, we plan to continue to focus on maximizing our revenue after traffic acquisition costs on an absolute basis, or the revenue we derive after deducting the costs we incur to purchase advertising inventory, which we call Revenue ex-TAC, as we believe this focus fortifies a number of our competitive strengths, including access to advertising inventory, breadth and depth of data and continuous improvement of Criteo AI Engine's performance. As part of this focus, we are continuing to invest in (i) building relationships with direct publishers on both web and mobile application properties, (ii) increasing access to leading advertising exchanges on both web and mobile application properties, and (iii) enhancing the liquidity of our advertising inventory supply, which may include purchasing advertising inventory that may result in lower margin on an individual impression basis and may be less effective in generating user engagement and driving measurable results, including sales, for our clients. In addition, we are experiencing, and expect to continue to experience, increased competition for advertising inventory purchased on a programmatic basis. Our focus on maximizing Revenue ex-TAC on an absolute basis may have an adverse impact on our gross margin and we cannot be certain that this strategy will be successful or result in increased liquidity or long-term value for our shareholders.

In addition, as our business expands, we may not be able to maintain our current profitability margin or to achieve our long-term profitability margin target. For example, our midmarket business is currently less profitable than our large client business. As we expect our midmarket business to grow as a proportion of our overall business, our profitability may be negatively affected. Similarly, as we transition to a multi-solution company, with solutions available to clients across several advertising channels, new solutions may require additional investments in sales, business development and marketing, such as product sales specialists or similar resources to enable sales. As a result of such additional investments, our new solutions may be less profitable than our existing business and therefore drive down our overall profitability.

In periods of economic uncertainty, businesses may delay or reduce their spending on advertising, which could materially harm our business.

General worldwide economic conditions have been significantly unstable in recent years, especially in the European Union where we generated 30% of our revenue for 2018. Unstable conditions make it difficult for our clients and us to accurately forecast and plan future business activities, and could cause our clients to reduce or delay their advertising spending with us. Historically, economic downturns have resulted in overall reductions in advertising spending, and businesses may curtail spending both on advertising in general and on a solution such as ours. We cannot predict the timing, strength or duration of any economic slowdown or recovery. Any macroeconomic deterioration in the future, especially further deterioration in the European Union and some emerging markets, such as Brazil and Russia, could impair our revenue and results of operations.

Furthermore, we have recently expanded our offerings to serve a larger number of smaller clients, and have expanded into emerging markets such as Brazil, India, and Russia. Our changing client portfolio exposes us to additional credit risk, which could result in further exposure in the event of economic uncertainty or an economic downturn.

In addition, even if the overall economy improves, we cannot assure you that the market for digital advertising and Display Advertising will experience growth or that we will experience growth. Furthermore, we generally sell through insertion orders with our clients. These insertion orders generally do not include long-term obligations and are cancellable upon short notice and without penalty. Any reduction in advertising spending could limit our ability to grow our business and negatively affect our results of operations.

We derive a significant portion of our revenue from companies in the retail, travel and classified industries, and any downturn in these industries or any changes in regulations affecting these industries could harm our business.

A significant portion of our revenue is derived from companies in the retail, travel and classifieds industries. For example, in 2016, 2017 and 2018, 66.8%, 67.8% and 69.1%, respectively, of our combined revenue for Criteo Marketing Solutions¹ was derived from advertisements placed for retail commerce businesses. While we have been growing our client base in additional industries such as gaming, ride-sharing and food delivery, and expect to continue to do so in the future, any downturn or increased competitive pressure in any of our core industries, or other industries we may target in the future, may cause our clients to reduce their spending with us, or delay or cancel their advertising campaigns with us.

Furthermore, our business could be negatively impacted by the application of existing laws and regulations or the enactment of new laws by federal, state and foreign governmental or regulatory agencies which would impose taxes on goods and services provided over the internet. To the extent such taxes discourage the use of the internet as a means of commercial marketing or reduce the amount of products and services offered through ecommerce websites, online advertising spending may decline and the use or attractiveness of our offering by our clients or potential clients may be adversely affected.

Our inability to use software licensed from third parties, or our use of open source software under license terms that interfere with our proprietary rights, could disrupt our business.

Our technology platform and internal systems incorporate software licensed from third parties, including some software, known as open source software, which we use without charge. Although we monitor our use of open source software, the terms of many open source licenses to which we are subject have not been interpreted by U.S. or foreign courts, and there is a risk that such licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to provide our technology offering to our clients. In the future, we could be required to seek licenses from third parties in order to continue offering our solutions, which licenses may not be available on terms that are acceptable to us, or at all.

Alternatively, we may need to re-engineer our offering or discontinue using portions of the functionality provided by our technology. In addition, the terms of open source software licenses may require us to provide software that we develop using such software to others on unfavorable terms, such as by precluding us from charging license fees or by requiring us to disclose our source code. Any such restriction on the use of our own software, or our inability to use open source or third-party software, could result in disruptions to our business or operations, or delays in our development of future offerings or enhancements of our existing platform, which could impair our business.

¹ Excluding the business acquired from Manage.

We experience quarterly fluctuations in our results of operations due to a number of factors which make our future results difficult to predict and could cause our operating results to fall below expectations or our guidance.

Our quarterly results of operations fluctuate due to a variety of factors, many of which are outside of our control. As a result, comparing our results of operations on a period-to-period basis may not be meaningful. You should not rely on our past results as an indication of our future performance.

If our revenue or results of operations fall below the expectations of investors or securities analysts, or below any guidance we may provide to the market, the price of our ADSs could decline substantially.

Our operating results and cash flows from operations may vary from quarter to quarter due to the seasonal nature of our clients' spending. For example, many businesses in the online retail industry devote the largest portion of their advertising spend to the fourth quarter of the calendar year, and many of our commerce clients typically conduct fewer advertising campaigns in the second quarter than they do in other quarters. With respect to Criteo Retail Media, the concentration of advertising spend in the fourth quarter of the year is particularly pronounced. If, and to the extent that, seasonal fluctuations are significant, our operating cash flows could fluctuate materially from period to period as a result.

Additionally, implementing our advertising solutions for a client can be a long process, which generally requires clients to integrate software code on their digital property. This process can be complex and time-consuming, and can delay the deployment and use of our offering by a client even after the client has signed up to utilize it.

Depending upon the time and resources that a client is willing to devote to the integration of our technology with their digital property and the nature and complexity of a client's network and systems, the actual implementation of our solution may occur long after a client has signed up to use our solution.

As a result, we may incur substantial expenses in one period without any guarantee of revenue generation in the near term, or at all. This possibly lengthy implementation cycle may result in difficulty in predicting our future results of operations.

We also plan to continue to substantially increase our investment in research and development, product development and sales and marketing, as we seek to continue to expand geographically, into new marketing goals, into new solutions, into new advertising channels and into new industry verticals to capitalize on what we see as a growing global opportunity for us. Our general and administrative expenses may also increase to support our growing operations and due to the increased costs of operating as a public company. For the foregoing reasons or other reasons we may not anticipate, historical patterns should not be considered as indicative of our future quarterly results of operations.

Other factors that may affect our quarterly results of operations include:

- the nature of our clients' products or services;
- demand for our offering and the size, scope and timing of digital advertising campaigns;
- the lack of long-term agreements with our clients and publishers;
- client and publisher retention rates;
- market acceptance of our offering and future solutions and services (i) in current industry verticals and new industry verticals, (ii) in new geographic markets, (iii) in new advertising channels, or (iv) for broader marketing goals;
- the timing of large expenditures related to expansion into new solutions, new geographic markets, new industry verticals, acquisitions and/or capital projects;
- the timing of adding support for new digital devices, platforms and operating systems;

- the amount of inventory purchased through direct relationships with publishers versus internet advertising exchanges or networks;
- our clients' budgeting cycles;
- changes in the competitive dynamics of our industry, including consolidation among competitors;
- consumers' response to our clients' advertisements, to online advertising in general and to tracking technologies for targeted or behavioral advertising purposes;
- our ability to control costs, including our operating expenses;
- network outages, errors in our technology or security breaches and any associated expense and collateral effects;
- foreign currency exchange rate fluctuations, as some of our foreign sales and costs are denominated in their local currencies;
- failure to successfully manage any acquisitions; and
- general economic and political conditions in our domestic and international markets.

As a result, we may have a limited ability to forecast the amount of future revenue and expense, and our results of operations may from time to time fall below our estimates or the expectations of public market analysts and investors.

Interruptions or delays in services provided by third-party providers that we rely upon could impair the performance of the Criteo technology or operations and harm our business.

We currently lease space from third-party data center hosting facilities for our servers and/or networking equipment located in the United States (California, New York, Virginia), France, The Netherlands, Hong Kong and Japan. All of our data gathering and analytics are conducted on, and the advertisements we deliver are processed through, our servers and network equipment located in these facilities.

We also rely on bandwidth providers and internet service providers to deliver advertisements. Any damage to, or failure of, the systems or facilities of our third-party providers could adversely impact our ability to deliver technology offering to our clients. If, for any reason, our arrangement with one or more data centers is terminated, we could experience additional expense in arranging for new facilities and support.

The occurrence of a natural disaster, an act of terrorism, vandalism or sabotage, a decision to close any data center or the facilities of any other third-party provider without adequate notice, or other unanticipated problems at these facilities could result in lengthy interruptions in the availability of our technology or operations. Our testing of our services in actual disasters or similar events has been limited. If any such event were to occur, our business, results of operations and financial condition could be adversely affected.

We are exposed to foreign currency exchange rate fluctuations.

The functional currency of the Company is the euro, while our reporting currency is the U.S. dollar. Since we incur large portions of our expenses and derive significant revenues in currencies other than the euro, we are exposed to foreign currency exchange risk to the extent that our results of operations and cash flows are subject to fluctuations in foreign currency exchange rates. Foreign currency exchange risk exposure also arises from intra-company transactions and financing with subsidiaries that have a functional currency different than the euro.

The statements of financial position of consolidated entities having a functional currency different from the U.S. dollar are translated into U.S. dollars at the closing exchange rate (spot exchange rate at the statement of financial position date) and the statement of income, statement of comprehensive income and statement of cash flow of such consolidated entities are translated at the average period to date exchange rate. The resulting translation adjustments are included in equity under the caption "Accumulated Other Comprehensive Income" in the consolidated statement of changes in equity.

While we are engaging in hedging transactions to minimize the impact of uncertainty in future exchange rates on intra-company transactions and financing, we may not hedge all of our foreign currency exchange rate risk. In addition, hedging transactions carry their own risks and costs, including the possibility of a default by the counterparty to the hedge transaction. There can be no assurance that we will be successful in managing our foreign currency exchange rate risk. We cannot predict the impact of foreign currency fluctuations, and foreign currency fluctuations in the future may adversely affect our financial condition, results of operations and cash flows

Our failure to maintain certain tax benefits applicable to French technology companies may adversely affect our results of operations.

As a French technology company, we have benefited from certain tax advantages, including, for example, a reduced tax rate in France on technology royalty income received from subsidiaries and the French research tax credit (*crédit d'impôt recherche*), or CIR. The CIR is a French tax credit aimed at stimulating research and development. The CIR can be offset against French corporate income tax due and the portion in excess (if any) may be refunded at the end of a three fiscal-year period.

The CIR is calculated based on our claimed amount of eligible research and development expenditures in France and represented \$4.9 million, \$6.3 million and \$10.9 million for 2016, 2017 and 2018, respectively and is classified as a reduction of our research and development expenses.

The French tax authority, with the assistance of the Research and Technology Ministry, may audit each research and development program in respect of which a CIR benefit has been claimed and assess whether such program qualifies, in their view, for the CIR benefit. If the French tax authority determines that our research and development programs do not meet the requirements for the CIR benefit, or challenges our calculations with respect to the CIR benefit, we could be liable for additional corporate tax, and penalties and interest related thereto, which could have a significant impact on our results of operations and future cash flows.

Furthermore, if the French Parliament decides to modify the regime of the reduced tax rate on technology royalty income or to reduce the scope or the rate of the CIR benefit, which it could decide to do at any time, our results of operations could be adversely affected.

We are a multinational organization faced with increasingly complex tax issues in many jurisdictions, and we could be obligated to pay additional taxes in various jurisdictions as a result of new taxes or laws, or revised interpretations thereof, which may negatively affect our business.

As a multinational organization operating in multiple jurisdictions we are subject to taxation in several jurisdictions around the world with increasingly complex tax laws, the application of which can be uncertain. The amount of taxes we pay in these jurisdictions could increase substantially as a result of changes in the applicable tax principles, including increased tax rates, new tax laws or revised interpretations of existing tax laws and precedents, which could have a material adverse effect on our liquidity and results of operations.

For example, many of the jurisdictions in which we conduct business have detailed transfer pricing rules which require that all transactions with non-resident related parties be priced using arm's length pricing principles. Contemporaneous documentation must exist to support this pricing. The tax authorities in these jurisdictions could challenge whether our related party transfer pricing policies are at arm's length and, as a consequence, challenge our tax treatment of corresponding expenses and income. International transfer pricing is an area of taxation that depends heavily on the underlying facts and circumstances and generally involves a significant degree of judgment. If any of these tax authorities were successful in challenging our transfer pricing policies, we may be liable for additional corporate income tax, and penalties, fines and interest related thereto, which may have a significant impact on our effective tax rate, results of operations and future cash flows.

The European Union and its member states, as well as a number of other countries, are actively considering changes to existing tax laws or have enacted new tax laws applicable to digital business activities. Such taxes could increase our tax liability in many countries where we do business.

Risks Related to Ownership of Our Shares and the ADSs and the Trading of the ADSs

The market price for the ADSs may be volatile or may decline regardless of our operating performance.

The trading price of the ADSs has fluctuated, and is likely to continue to fluctuate, substantially. The trading price of the ADSs depends on a number of factors, including those described in this "Risk Factors" section, many of which are beyond our control and may not be related to our operating performance. Since the ADSs were sold at our initial public offering in October 2013 at a price of \$31.00 per share, the price per ADS has ranged as low as \$19.13 and as high as \$60.95 through December 31, 2018. The market price of the ADSs may fluctuate significantly in response to numerous factors, many of which are beyond our control, including:

- actual or anticipated fluctuations in our revenue and other results of operations;
- the guidance we may provide to the public, any changes in this guidance or our failure to meet this guidance;
- failure of securities analysts to initiate or maintain coverage of us and our securities, changes in financial estimates by any securities analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- announcements by us, our competitors or large influential technology companies of significant technical innovations or changes, acquisitions, strategic partnerships, joint ventures or capital commitments;
- changes in operating performance and stock market valuations of advertising technology or other technology companies, or those in our industry in particular;
- investor sentiment with respect to our competitors, our business partners or our industry in general;
- investor perception of risks in our industry, including but not limited to the competitive concentration of supply inventory or risks of fraudulent or malicious activity;
- price and volume fluctuations in the overall stock market, including as a result of trends in the economy as a whole;

- additional ADSs being sold into the market by us or the Company's insiders;
- media coverage of our business and financial performance;
- developments in anticipated or new legislation or new or pending lawsuits or regulatory actions;
- other events or factors, including those resulting from war, incidents of terrorism or responses to these events; and
- any other risks identified in this Form 10-K.

In addition, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many technology companies. Stock prices of many technology companies have fluctuated in a manner unrelated or disproportionate to the operating performance of those companies. In the past, shareholders have instituted securities class action litigation following periods of market volatility. If we were to become involved in securities litigation, it could subject us to substantial costs, divert resources and the attention of management from our business and adversely affect our business.

If securities or industry analysts cease publishing research or publish inaccurate or unfavorable research about our business or our industry, the price and trading volume of the ADSs could decline.

The trading market for the ADSs depends in part on the research and reports that securities or industry analysts publish about us or our business. If one or more of the analysts who covers us downgrades the ADSs or publishes incorrect or unfavorable research about our business, the price of the ADSs would likely decline. If one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, demand for the ADSs could decrease, which could cause the price of the ADSs or trading volume to decline.

Our business could be negatively impacted by the activities of predatory hedge funds or short sellers.

There is the risk that we may be subject, from time to time, to challenges arising from the activities of predatory hedge funds, short sellers or similar individuals who do not have the best interests of shareholders or the Company in mind. Reports or other publications prepared and disseminated by such hedge funds or short sellers may cause significant fluctuations in our stock price based on temporary or speculative market perceptions or other factors that do not necessarily reflect the underlying fundamentals and prospects of our business, and could cause the price of our ADSs or trading volume to decline. Furthermore, responding to such activities could be costly and time-consuming and may be intended to, and may in fact, divert the attention of our board of directors and senior management from the pursuit of our business strategies and adversely affect our business.

We may need additional capital in the future to meet our financial obligations and to pursue our business objectives. Additional capital may not be available on favorable terms, or at all, which could compromise our ability to meet our financial obligations and grow our business.

While we anticipate that our existing cash and cash equivalents and short-term investments will be sufficient to fund our operations for at least the next 12 months, we may need to raise additional capital to fund operations in the future or to finance acquisitions. If adequate funds are not available on acceptable terms, we may be unable to fund the expansion of our research and development and sales and marketing efforts, increase working capital, take advantage of acquisition or other opportunities, or adequately respond to competitive pressures which could seriously harm our business and results of operations.

We currently have a senior unsecured revolving credit facility under which we may borrow up to €350 million (or its equivalent in U.S. dollars or, subject to the satisfaction of certain conditions, other optional currencies) for general corporate purposes, including the funding of business combinations (the "General RCF").

To the extent we draw on the General RCF or incur new debt, the debt holders have rights senior to shareholders to make claims on our assets, and the terms of such debt could restrict our operations, including our ability to pay dividends on our ordinary shares. In addition, pursuant to the terms of our credit facilities, we may be restricted in the use of such facilities to fund capital expenditures and information technology-related expenses may be restricted.

If adequate additional funds are not available, we may be required to delay, reduce the scope of, or eliminate material parts of our business strategy, including potential additional acquisitions or development of new technologies.

Furthermore, if we issue additional equity securities, shareholders will experience dilution, and the new equity securities could have rights senior to those of our ordinary shares.

Because our decision to issue securities in any future offering will depend on market conditions and other factors beyond our control, we cannot predict or estimate the amount, timing or nature of our future offerings. As a result, our shareholders bear the risk of our future securities offerings reducing the market price of the ADSs and diluting their interest.

We do not currently intend to pay dividends on our securities and, consequently, your ability to achieve a return on your investment will depend on appreciation in the price of the ADSs. In addition, French law may limit the amount of dividends we are able to distribute.

We have never declared or paid any cash dividends on our ordinary shares and do not currently intend to do so for the foreseeable future. We currently intend to invest our future earnings, if any, to fund our growth, both organic and inorganic. In addition, we have used a portion of our available liquidity to repurchase our Company's shares in the past, and may continue to do so from time to time in the future.

Further, the credit agreement for the General RCF contains restrictions on our ability to pay dividends.

In addition, to the extent any dividends are paid in the future, under French law, payment of such dividends may subject us to additional taxes, and the determination of whether we have been sufficiently profitable to pay dividends is made on the basis of our statutory financial statements prepared and presented in accordance with accounting principles generally accepted in France. Therefore, we may be more restricted in our ability to declare dividends than companies not based in France.

Please see the section entitled "Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities-Taxation-French Tax Consequences" in Item 5 of Part II in this Form 10-K for further details on the limitations on our ability to declare and pay dividends and the taxes that may become payable by us if we elect to pay a dividend.

Finally, exchange rate fluctuations may affect the amount of euros that we are able to distribute, and the amount in U.S. dollars that our shareholders receive upon the payment of cash dividends or other distributions we declare and pay in euros, if any. These factors could harm the value of the ADSs, and, in turn, the U.S. dollar proceeds that holders receive from the sale of the ADSs.

Because you are not likely to receive any dividends on your ADSs for the foreseeable future, the success of an investment in ADSs will depend upon any future appreciation in their value. Consequently, investors may need to sell all or part of their holdings of ADSs after price appreciation, which may never occur, as the only way to realize any future gains on their investment.

In 2018, we executed a share buyback program pursuant to which we repurchased approximately \$80 million of our outstanding ADSs. If we adopt another such program in the future, the actual amount and timing of future share repurchases, if any, will depend on market and economic conditions, applicable SEC rules, federal and state regulatory restrictions, cash availability and various other factors. If we were to adopt another such share buyback program, there would be no guarantee that it would enhance shareholder value. Any share repurchases could increase volatility in the trading price of our ADSs and would diminish our available cash. Any share buyback program we adopt may also be suspended or terminated at any time, which may result in a decrease in the trading price of our ADSs.

Our credit agreement contains, and future debt agreements may contain, restrictions that may limit our flexibility in operating our business.

The credit agreement for the General RCF contains, and documents governing our future indebtedness may contain, numerous covenants that limit the discretion of management with respect to certain business matters. These covenants place restrictions on, among other things, our ability and the ability of our subsidiaries to incur or guarantee additional indebtedness, pay dividends and make other distributions and restricted payments, make certain acquisitions and other investments, sell certain assets or engage in mergers, acquisitions and other business combinations, and create liens. Our credit agreement also requires, and documents governing our future indebtedness may require, us or our subsidiaries to meet certain financial ratios and tests in order to incur certain additional debt, make certain loans, acquisitions or other investments, or pay dividends or make other distributions or restricted payments.

Our ability and the ability of our subsidiaries to comply with these and other provisions of our debt agreements are dependent on our future performance, which will be subject to many factors, some of which are beyond our control.

The breach of any of these covenants or noncompliance with any of these financial ratios and tests could result in an event of default under the applicable debt agreement, which, if not cured or waived, could result in acceleration of the related debt and the acceleration of debt under other instruments evidencing indebtedness that may contain cross-acceleration or cross-default provisions.

Our by-laws and French corporate law contain provisions that may delay or discourage a sale of the Company.

Provisions contained in our by-laws and the corporate laws of France, the country in which we are incorporated, could make it more difficult for a third party to acquire us, even if doing so might be beneficial to our shareholders. In addition, provisions of our by-laws impose various procedural and other requirements, which could make it more difficult for shareholders to effect certain corporate actions. These provisions include the following:

- our ordinary shares are in registered form only and we must be notified of any transfer of our shares in order for such transfer to be validly registered;
- under French law, a non-resident of France as well as any French entity controlled by non-French residents may have to file a declaration for statistical purposes with the Bank of France (*Banque de France*) following the date of certain direct or indirect investments in us (see the section entitled "Exchange Controls & Ownership by Non-French Residents" in Item 5 to Part II in this Form 10-K);
- under French law, any individual or entity located outside of the European Union may need to seek the authorization of the French Minister of Economy prior to acquiring the control of, all or part of a business of, or more than 33.33% of the share capital or voting rights of the Company (see the section entitled" Exchange Controls & Ownership by Non-French Residents" in Item 5 to Part II in this Form 10-K);
- provisions of French law allowing the owner of 95% of the share capital or voting rights of a public company to force out the minority shareholders following a tender offer made to all shareholders are only applicable to companies listed on a stock exchange of the European Union and will therefore not be applicable to us;
- a merger (i.e., in a French law context, a stock-for-stock exchange following which our company would be dissolved into the acquiring entity and our shareholders would become shareholders of the acquiring entity) of our company incorporated outside of the European Union would require the unanimous approval of our shareholders;
- a merger of our company into a company incorporated in the European Union would require the approval of our board of
 directors as well as a two-thirds majority of the votes held by the shareholders present, represented by proxy or voting by
 mail at the relevant extraordinary shareholders' meeting;
- under French law, a cash merger is treated as a share purchase and would require the consent of each participating shareholder;
- our shareholders have granted and may grant in the future our board of directors broad authorizations to increase our share capital or to issue additional ordinary shares or other securities (for example, warrants) to our shareholders, the public or qualified investors, including as a possible defense following the launching of a tender offer for our shares;
- our shareholders have preferential subscription rights proportionally to their shareholding in our company on the issuance by us of any additional securities for cash or a set-off of cash debts, which rights may only be waived by the extraordinary general meeting (by a two-thirds majority vote) of our shareholders or on an individual basis by each shareholder;
- our board of directors has the right to appoint directors to fill a vacancy created by the resignation or death of a director, subject to the approval by the shareholders of such appointment at the next shareholders' meeting, which prevents shareholders from having the sole right to fill vacancies on our board of directors;

- our board of directors can only be convened by its chairman or, when no board meeting has been held for more than two consecutive months, by directors representing at least one third of the total number of directors;
- our board of directors meetings can only be regularly held if at least half of the directors attend either physically or by way of videoconference or teleconference enabling the directors' identification and ensuring their effective participation in the board's decisions;
- approval of at least a majority of the votes held by shareholders present, represented by a proxy, or voting by mail at the relevant ordinary shareholders' general meeting, is required to remove directors with or without cause;
- advance notice is required for nominations to the board of directors or for proposing matters to be acted upon at a shareholders' meeting, except that a vote to remove and replace a director can be proposed at any shareholders' meeting without notice; and
- pursuant to French law, the sections of the by-laws relating to the number of directors and election and removal of a director from office may only be modified by a resolution adopted by a two-thirds majority of the votes of our shareholders present, represented by a proxy or voting by mail at the relevant extraordinary shareholders' meeting.

You may not be able to exercise your right to vote the ordinary shares underlying your ADSs.

Holders of ADSs may exercise voting rights with respect to the ordinary shares represented by the ADSs only in accordance with the provisions of the deposit agreement. The deposit agreement provides that, upon receipt of notice of any meeting of holders of our ordinary shares, the depositary will fix a record date for the determination of ADS holders who shall be entitled to give instructions for the exercise of voting rights. Upon timely receipt of notice from us, if we so request, the depositary shall distribute to the holders as of the record date (1) the notice of the meeting or solicitation of consent or proxy sent by us and (2) a statement as to the manner in which instructions may be given by the holders.

You may instruct the depositary of your ADSs to vote the ordinary shares underlying your ADSs. Otherwise, you will not be able to exercise your right to vote, unless you withdraw the ordinary shares underlying the ADSs you hold. However, you may not know about the meeting far enough in advance to withdraw those ordinary shares. If we ask for your instructions, the depositary, upon timely notice from us, will notify you of the upcoming vote and arrange to deliver our voting materials to you. We cannot guarantee you that you will receive the voting materials in time to ensure that you can instruct the depositary to vote your ordinary shares or to withdraw your ordinary shares so that you can vote them yourself.

If the depositary does not receive timely voting instructions from you, it may give a proxy to a person designated by us to vote the ordinary shares underlying your ADSs. In addition, the depositary and its agents are not responsible for failing to carry out voting instructions or for the manner of carrying out voting instructions. This means that you may not be able to exercise your right to vote, and there may be nothing you can do if the ordinary shares underlying your ADSs are not voted as you requested.

Your right as a holder of ADSs to participate in any future preferential subscription rights or to elect to receive dividends in shares may be limited, which may cause dilution to your holdings.

According to French law, if we issue additional securities for cash, current shareholders will have preferential subscription rights for these securities proportionally to their shareholding in our company unless they waive those rights at an extraordinary meeting of our shareholders (by a two-thirds majority vote) or individually by each shareholder.

However, our ADS holders in the United States will not be entitled to exercise or sell such rights unless we register the rights and the securities to which the rights relate under the Securities Act or an exemption from the registration requirements is available.

In addition, the deposit agreement provides that the depositary will not make rights available to you unless the distribution to ADS holders of both the rights and any related securities are either registered under the Securities Act or exempted from registration under the Securities Act

Further, if we offer holders of our ordinary shares the option to receive dividends in either cash or shares, under the deposit agreement the depositary may require satisfactory assurances from us that extending the offer to holders of ADSs does not require registration of any securities under the Securities Act before making the option available to holders of ADSs. We are under no obligation to file a registration statement with respect to any such rights or securities or to endeavor to cause such a registration statement to be declared effective. Moreover, we may not be able to establish an exemption from registration under the Securities Act. Accordingly, ADS holders may be unable to participate in our rights offerings or to elect to receive dividends in shares and may experience dilution in their holdings. In addition, if the depositary is unable to sell rights that are not exercised or not distributed or if the sale is not lawful or reasonably practicable, it will allow the rights to lapse, in which case you will receive no value for these rights.

You may be subject to limitations on the transfer of your ADSs and the withdrawal of the underlying ordinary shares.

Your ADSs, which may be evidenced by ADRs, are transferable on the books of the depositary. However, the depositary may close its books at any time or from time to time when it deems expedient in connection with the performance of its duties. The depositary may refuse to deliver, transfer or register transfers of your ADSs generally when our books or the books of the depositary are closed, or at any time if we or the depositary think it is advisable to do so because of any requirement of law, government or governmental body, or under any provision of the deposit agreement, or for any other reason subject to your right to cancel your ADSs and withdraw the underlying ordinary shares.

Temporary delays in the cancellation of your ADSs and your withdrawal of the underlying ordinary shares may arise because the depositary has closed its transfer books or we have closed our transfer books, the transfer of ordinary shares is blocked to permit voting at a shareholders' meeting or we are paying a dividend on our ordinary shares.

In addition, you may not be able to cancel your ADSs and withdraw the underlying ordinary shares when you owe money for fees, taxes and similar charges and when it is necessary to prohibit withdrawals in order to comply with any laws or governmental regulations that apply to ADSs or to the withdrawal of ordinary shares or other deposited securities.

If we fail to maintain an effective system of internal controls, we may be unable to accurately report our financial results or prevent fraud, and investor confidence and the market price of the ADSs may, therefore, be adversely impacted.

As a public company, we are required to maintain internal control over financial reporting and to report any material weaknesses in such internal control.

In addition, we are required to submit a report by management to the Audit Committee and external auditors on the effectiveness of our internal control over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act and our independent registered public accounting firm is required to attest to the effectiveness of our internal controls over financial reporting. If we identify material weaknesses in our internal controls over financial reporting, if we are unable to comply with the requirements of Section 404 of the Sarbanes-Oxley Act in a timely manner or assert that our internal controls over financial reporting are effective, or if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal controls over financial reporting when required, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of the ADSs may be adversely impacted, and we could become subject to investigations by the stock exchange on which our securities are listed, the SEC, or other regulatory authorities, which could require additional financial and management resources.

U.S. investors may have difficulty enforcing civil liabilities against our company and directors and senior management.

Certain of our directors and members of senior management, and those of certain of our subsidiaries, are non-residents of the United States, and all or a substantial portion of our assets and the assets of such persons are located outside the United States.

As a result, it may not be possible to serve process on such persons or us in the United States or to enforce judgments obtained in U.S. courts against them or us based on civil liability provisions of the securities laws of the United States. Additionally, it may be difficult to assert U.S. securities law claims in actions originally instituted outside of the United States.

Foreign courts may refuse to hear a U.S. securities law claim because foreign courts may not be the most appropriate forums in which to bring such a claim. Even if a foreign court agrees to hear a U.S. securities law claim, it may determine that the law of the jurisdiction in which the foreign court resides, and not U.S. law, is applicable to the claim.

Further, if U.S. law is found to be applicable, the content of applicable U.S. law must be proved as a fact, which can be a time-consuming and costly process, and certain matters of procedure would still be governed by the law of the jurisdiction in which the foreign court resides. In particular, there is some doubt as to whether French courts would recognize and enforce certain civil liabilities under U.S. securities laws in original actions or judgments of U.S. courts based upon these civil liability provisions. In addition, awards of punitive damages in actions brought in the United States or elsewhere may be unenforceable in France.

The enforceability of any judgment in France will depend on the particular facts of the case as well as the laws and treaties in effect at the time. The United States and France do not currently have a treaty providing for recognition and enforcement of judgments (other than arbitration awards) in civil and commercial matters; therefore the recognition and enforcement of any such judgment would be subject to French procedural law and may not be granted.

The rights of shareholders in companies subject to French corporate law differ in material respects from the rights of shareholders of corporations incorporated in the United States.

We are a French company with limited liability. Our corporate affairs are governed by our by-laws and by the laws governing companies incorporated in France. The rights of shareholders and the responsibilities of members of our board of directors are in many ways different from the rights and obligations of shareholders in companies governed by the laws of U.S. jurisdictions.

For example, in the performance of its duties, our board of directors is required by French law to consider the interests of our company, its shareholders, its employees and other stakeholders, rather than solely our shareholders and/or creditors. It is possible that some of these parties will have interests that are different from, or in addition to, your interests as a shareholder.

Item 1B. Unresolved Staff Comments

We do not have any unresolved comments from the SEC staff.

Item 2. Properties

Our headquarters are located in Paris, France, in an approximately 16,000 square meter facility, under a lease agreement expiring on June 14, 2023. In addition, we had 31 offices as of December 31, 2018. We currently lease space in data centers from third-party hosting providers for hosting of our servers located in the United States (California, Virginia), France, the Netherlands, Hong Kong, and Japan. We believe that our facilities are adequate for our current needs.

Item 3. Legal Proceedings

From time to time we may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. We are not presently a party to any legal proceedings that, if determined adversely to us, would individually or taken together have a material adverse effect on our business, results of operations, financial condition or cash flows. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

The ADSs have been listed on the Nasdaq Global Select Market under the symbol "CRTO" since October 30, 2013. Prior to that date, there was no public trading market for ADSs or our ordinary shares. Our initial public offering was priced at \$31.00 per ADS on October 29, 2013. The following table sets forth for the periods indicated the high and low sales prices per ADS as reported on the Nasdaq Global Select Market:

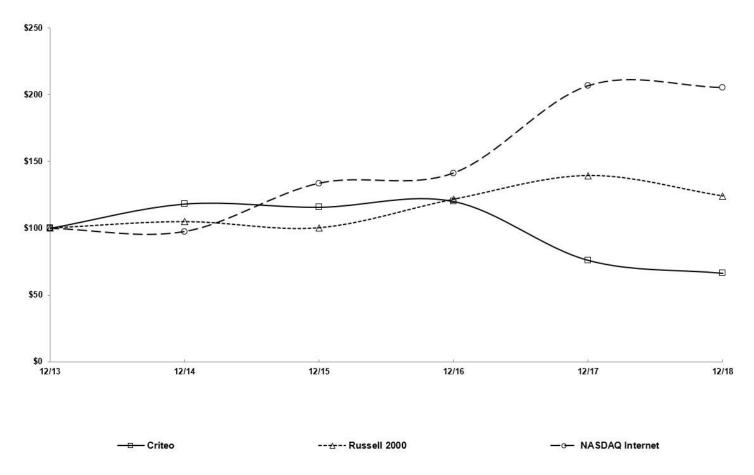
	8				
	High		Low		
2017					
First quarter	\$ 52.87	\$	41.20		
Second quarter	\$ 56.00	\$	44.30		
Third quarter	\$ 53.79	\$	37.74		
Fourth quarter	\$ 47.57	\$	22.00		
2018					
First quarter	\$ 31.57	\$	21.00		
Second quarter	\$ 34.50	\$	23.76		
Third quarter	\$ 36.66	\$	21.40		
Fourth quarter	\$ 24.87	\$	19.13		

Holders

As of January 31, 2019, there were 41 holders of record of our ordinary shares and 132 participants in DTC that held our ADSs. The actual number of holders is greater, and includes beneficial owners whose ADSs are held in street name by brokers and other nominees. This number of holders of record and DTC participants also does not include holders whose shares may be held in trust by other entities.

ADS Performance Graph

The following graph shows a comparison from October 30, 2013 (the date our ADSs commenced trading on the Nasdaq Global Select Market) through December 31, 2018 of the cumulative total return for our ADSs, the Russell 2000 Index and the Nasdaq Internet Index. The graph assumes that \$100 was invested at the market close on October 30, 2013 in our ADSs, the Russell 2000 Index and the Nasdaq Internet Index and data for the Russell 2000 Index and the Nasdaq Internet Index assumes reinvestments of dividends. The stock price performance of the following graph is not necessarily indicative of future stock price performance.



The foregoing performance graph and related information shall not be deemed "soliciting material" or to be "filed" with the SEC, nor shall such information be incorporated by reference into any future filings under the Securities Act or the Exchange Act, except to the extent we specifically incorporate it by reference into such filing.

Dividends

We have never declared or paid any cash dividends on our ordinary shares. We do not anticipate paying cash dividends on our equity securities in the foreseeable future and intend to retain all available funds and any future earnings to fund our growth.

Subject to the requirements of French law and our by-laws, dividends may only be distributed from our statutory retained earnings. Dividend distributions, if any, will be made in euros and converted into U.S. dollars with respect to the ADSs, as provided in the deposit agreement. In addition, under the General RCF, we may not declare, make or pay dividends if our net debt to Adjusted EBITDA leverage ratio exceeds 2.0x.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table provides information as of December 31, 2018 regarding compensation plans under which our equity securities are authorized for issuance.

	(a)	(b)	(c)
Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights ⁽¹⁾	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	8,259,272	\$31.82 ⁽²⁾	1,081,906
Equity compensation plans not approved by security holders		_	
Total	8,259,272	\$31.82 ⁽²⁾	1,081,906

⁽¹⁾ The weighted-average exercise price does not reflect the ordinary shares that will be issued in connection with the vesting of free shares, since free shares have no exercise price.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

In October 2018, the Board of Directors authorized a program to repurchase up to \$80 million of our ADSs. Repurchases under the program were completed in December 2018. The following table summarizes the share repurchase activity for the three months ended December 31, 2018:

	Total Number of Shares Purchased	Average Price Paid Per Share (1)	Total Number of Shares Purchased as Part of Publicly Announced Programs	Approximate Dollar Value of Shares that May Yet be Purchased Under the Plans or Programs
October 1 to 31, 2018	_	N/A	_	80,000,000
November 1 to 30, 2018	2,285,067	22.35	2,285,067	28,905,927.31
December 1 to 31, 2018	1,214,191	23.8	1,214,191	19.06
Total	3,499,258	22.85	3,499,258	19.06

⁽¹⁾ Average price paid per share excludes any broker commissions paid.

Exchange Controls & Ownership by Non-French Residents

Under current French foreign exchange control regulations there are no limitations on the amount of cash payments that we may remit to residents of foreign countries. Laws and regulations concerning foreign exchange controls do, however, require that all payments or transfers of funds made by a French resident to a non-resident, such as dividend payments, be handled by an accredited intermediary. All registered banks and substantially all credit institutions in France are accredited intermediaries.

Neither the French Commercial Code nor our by-laws presently impose any restrictions on the right of non-French residents or non-French shareholders to own and vote shares. However, non-French residents must file a declaration for statistical purposes with the Bank of France (*Banque de France*) within 20 working days following the date of certain direct foreign investments in us, including any purchase of our ADSs. In particular, such filings are required in connection with investments exceeding €15,000,000 that lead to the acquisition of at least 10% of our outstanding ordinary shares or voting rights or the crossing of either such 10% threshold. Violation of this filing requirement may be sanctioned by five years of imprisonment and a fine of up to twice the amount of the relevant investment. This amount may be increased fivefold if the violation is made by a legal entity.

⁽²⁾ The weighted-average exercise price was €26.94 and has been converted to U.S. dollars based on the average exchange rate for the year ended December 31, 2018 of €1.00=\$1.181026.

Further, any investment (i) by an individual or entity located in a country that is not a member State of the European Union or of a member State of the European Economic Area having entered into a convention on administrative assistance against tax evasion and fraud with France, or by a French citizen not residing in France, and (ii) that will result in the relevant investor acquiring the control of, all or part of a business of, or more than 33.33% of the share capital or voting rights of, a company registered in France and developing activities in certain strategic industries, such as telecommunications, cybersecurity or data collection, is subject to the prior authorization by the French Minister of Economy. In the absence of such authorization, the relevant investment shall be deemed null and void.

Taxation

French Tax Consequences

The following describes the material French income tax consequences to U.S. Holders (as defined below) of purchasing, owning and disposing of the ADSs and ordinary shares, or the Securities as in force on the date of this Form 10-K.

This discussion does not purport to be a complete analysis or listing of all potential tax effects of the acquisition, ownership or disposition of our securities to any particular investor, and does not discuss tax considerations that arise from rules of general application or that are generally assumed to be known by investors. All of the following is subject to change. Such changes could apply retroactively and could affect the consequences described below.

In 2011, France introduced a comprehensive set of new tax rules applicable to French assets that are held by or in foreign trusts. These rules, among other things, provide for the inclusion of trust assets in the settlor's net assets for purpose of applying the French wealth tax, for the application of French gift and death duties to French assets held in trust, for a specific tax on capital on the French assets of foreign trusts not already subject to the French wealth tax and for a number of French tax reporting and disclosure obligations. The following discussion does not address the French tax consequences applicable to securities held in trusts. If securities are held in trust, the grantor, trustee and beneficiary are urged to consult their own tax adviser regarding the specific tax consequences of acquiring, owning and disposing of securities.

The description of the French income tax and wealth tax consequences set forth below is based on the Convention Between the Government of the United States of America and the Government of the French Republic for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and Capital dated August 31, 1994, or the Treaty, which came into force on December 30, 1995 (as amended by additional protocols of December 8, 2004 and January 13, 2009), and the tax guidelines issued by the French tax authorities in force as of the date of this Form 10-K.

For the purposes of this discussion, the term "U.S. Holder" means a beneficial owner of securities that is (1) an individual who is a U.S. citizen or resident for U.S. federal income tax purposes, (2) a U.S. domestic corporation or certain other entities created or organized in or under the laws of the United States or any state thereof, including the District of Colombia, or (3) otherwise subject to U.S. federal income taxation on a net income basis in respect of securities.

If a partnership (or any other entity treated as a partnership for U.S. federal income tax purposes) holds securities, the tax treatment of a partner generally will depend upon the status of the partner and the activities of the partnership. If a U.S. Holder is a partner in a partnership that holds securities, such holder is urged to consult its own tax adviser regarding the specific tax consequences of acquiring, owning and disposing of securities.

This discussion applies only to investors that hold our securities as capital assets that have the U.S. dollar as their functional currency, that are entitled to Treaty benefits under the "Limitation on Benefits" provision contained in the Treaty, and whose ownership of the securities is not effectively connected to a permanent establishment or a fixed base in France.

Certain U.S. Holders (including, but not limited to, U.S. expatriates, partnerships or other entities classified as partnerships for U.S. federal income tax purposes, banks, insurance companies, regulated investment companies, tax-exempt organizations, financial institutions, persons subject to the alternative minimum tax, persons who acquired the securities pursuant to the exercise of employee share options or otherwise as compensation, persons that own (directly, indirectly or by attribution) 5% or more of our voting stock or 5% or more of our outstanding share capital, dealers in securities or currencies, persons that elect to mark their securities to market for U.S. federal income tax purposes and persons holding securities as a position in a synthetic security, straddle or conversion transaction) may be subject to special rules not discussed below.

U.S. Holders are urged to consult their own tax advisers regarding the tax consequences of the purchase, ownership and disposition of securities in light of their particular circumstances, especially with regard to the "Limitations on Benefits" provision.

Estate and Gift Taxes and Transfer Taxes

In general, a transfer of securities by gift or by reason of death of a U.S. Holder that would otherwise be subject to French gift or inheritance tax, respectively, will not be subject to such French tax by reason of the Convention between the Government of the United States and the Government of the French Republic for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Estates, Inheritances and Gifts, dated November 24, 1978 (as amended by the protocol of December 8, 2004), unless the donor or the transferor is domiciled in France at the time of making the gift or at the time of his or her death, or the securities were used in, or held for use in, the conduct of a business through a permanent establishment or a fixed base in France.

Financial Transactions Tax

Pursuant to Article 235 ter ZD of the Code général des impôts (French Tax Code, or FTC), purchases of shares or ADSs of a French company listed on a regulated market of the European Union or an exchange formally acknowledged by the French Financial Market Authority (AMF) are subject to a 0.3% French tax on financial transactions provided that the issuer's market capitalization exceeds €1 billion as of December 1 of the year preceding the taxation year.

A list of companies whose market capitalization exceeds €1 billion as of December 1 of the year preceding the taxation year within the meaning of Article 235 ter ZD of the French Tax Code is published annually by the French tax authorities. Pursuant to Regulations BOI-ANNX-000467-20181217 issued on December 17, 2018, Criteo is currently not included in such list. Please note that such list may be updated from time to time, or may not be published anymore in the future.

Furthermore, Nasdaq is not currently acknowledged by the French AMF but this may change in the future.

Consequently, Criteo's securities should not fall within the scope of the tax on financial transactions described above. In the future, purchases of Criteo's securities may become subject to such tax if Nasdaq is acknowledged by the French AMF.

Registration Duties

In the case where Article 235 ter ZD of the FTC is not applicable, (i) transfers of shares issued by a listed French company are subject to uncapped registration duties at the rate of 0.1% if the transfer is evidenced by a written statement ("acte") executed either in France or outside France, whereas (ii) transfers of shares which are not listed are subject to uncapped registration duties at the rate of 0.1% notwithstanding the existence of a written statement ("acte"). As ordinary shares of Criteo are not listed, their transfer is subject to uncapped registration duties at the rate of 0.1% notwithstanding the existence of a written agreement ("acte").

Although the official guidelines published by the French tax authorities are silent on this point, ADSs should remain outside of the scope of the aforementioned 0.1% registration duties.

Wealth Tax

The French wealth tax (impôt de solidarité sur la fortune) has been repealed by the finance bill for 2018 (*loi de finances pour 2018*) dated December 30, 2017. It used to apply only to individuals and did not generally apply to securities held by a U.S. Holder who is a resident pursuant to the provisions of the Treaty, provided that such U.S. Holder does not own directly or indirectly more than 25% of the issuer's financial rights.

As from January 1, 2018, it has been replaced by a new real estate wealth tax (*impôt sur la fortune immobilière*) which applies only to individuals owning French real estate assets or rights, directly or indirectly through one or more legal entities and whose net taxable assets amount to at least 1,300,000 euros.

French real estate wealth tax may only apply to a U.S. individual to the extent such individual holds, directly or indirectly, financial rights into a company the assets of which comprise French real estate assets that are not allocated to its operational activity. Such financial rights may be taxable for the fraction of their value representing the French real estate assets that are not allocated to an operational activity.

In any case, pursuant to Article 965 2° of the FTC, shares of an operating company holding French real estate assets in which the relevant individual holds, directly and indirectly, less than 10% of the share capital or voting rights are exempt from real estate wealth tax.

Taxation of Dividends

Dividends paid by a French corporation to non-residents of France are generally subject to French withholding tax at a rate of 30% for corporate bodies or other legal entities (which is expected in principle to be progressively decreased to 25% in the coming years) or 12.8% for individuals. Dividends paid by a French corporation in a non-cooperative State or territory, as set out in the list referred to in Article 238-0 A of the FTC, will generally be subject to French withholding tax at a rate of 75%. However, eligible U.S. Holders entitled to Treaty benefits under the "Limitation on Benefits" provision contained in the Treaty who are U.S. residents, as defined pursuant to the provisions of the Treaty, will not be subject to the 12.8%, 30% or 75% withholding tax rate, but may be subject to the withholding tax at a reduced rate (as described below).

Under the Treaty, the rate of French withholding tax on dividends paid to an eligible U.S. Holder who is a U.S. resident as defined pursuant to the provisions of the Treaty and whose ownership of the ordinary shares or ADSs is not effectively connected with a permanent establishment or fixed base that such U.S. Holder has in France, is generally reduced to 15%, or to 5% if such U.S. Holder is a corporation and owns directly or indirectly at least 10% of the share capital of the issuer; such U.S. Holder may claim a refund from the French tax authorities of the amount withheld in excess of the Treaty rates of 15% or 5%, if any.

For U.S. Holders that are not individuals but are U.S. residents, as defined pursuant to the provisions of the Treaty, the requirements for eligibility for Treaty benefits, including the reduced 5% or 15% withholding tax rates contained in the "Limitation on Benefits" provision of the Treaty, are complicated, and certain technical changes were made to these requirements by the protocol of January 13, 2009. U.S. Holders are advised to consult their own tax advisers regarding their eligibility for Treaty benefits in light of their own particular circumstances.

Dividends paid to an eligible U.S. Holder may immediately be subject to the reduced rates of 5% or 15% provided that such holder establishes before the date of payment that it is a U.S. resident under the Treaty by completing and providing the depositary with a treaty form (Form 5000).

Dividends paid to a U.S. Holder that has not filed the Form 5000 before the dividend payment date will be subject to French withholding tax at the rate of 12.8%, 30%, or 75% if paid in a non-cooperative State or territory (as defined in Article 238-0 A of the FTC), and then reduced at a later date to 5% or 15%, provided that such holder duly completes and provides the French tax authorities with the treaty forms Form 5000 and Form 5001 before December 31 of the second calendar year following the year during which the dividend is paid. Certain qualifying pension funds and certain other tax-exempt entities are subject to the same general filing requirements as other U.S. Holders except that they may have to supply additional documentation evidencing their entitlement to these benefits.

Form 5000 and Form 5001, together with instructions, will be provided by the depositary to all U.S. Holders registered with the depositary. The depositary will arrange for the filing with the French Tax authorities of all such forms properly completed and executed by U.S. Holders of ordinary shares or ADSs and returned to the depositary in sufficient time so that they may be filed with the French tax authorities before the distribution in order to obtain immediately a reduced withholding tax rate.

The withholding tax refund, if any, ordinarily occurs within 12 months from filing the applicable French Treasury Form, but not before January 15 of the year following the calendar year in which the related dividend was paid.

Tax on Sale or Other Disposition

As a matter of principle, under French tax law, U.S. Holder should not be subject to any French tax on any capital gain from the sale, exchange, repurchase or redemption by us of ordinary shares or ADSs, provided that all of the following apply to such U.S. Holder:

• U.S. Holder is not a French tax resident for French tax purposes; and,

- U.S. Holder has not held more than 25% of our dividend rights, known as "droits aux bénéfices sociaux" at any time during the preceding five years, either directly or indirectly, and, as relates to individuals, alone or with relatives; and,
- U.S. Holder has not transferred ordinary shares or ADSs as part of redemption by Criteo, in which case the proceeds may under certain circumstances be partially or fully characterized as dividends under French domestic law and, as result, be subject to French dividend withholding tax. As an exception, a U.S Holder, established, domiciled or incorporated in a non-cooperative State or territory as defined in Article 238-0 A of the FTC should be subject to a 75% withholding tax in France on any such capital gain, regardless of the fraction of the dividend rights it holds.

In case an applicable double tax treaty between France and the U.S. Holder country of residence contains more favorable provisions, a U.S. Holder may not be subject to any French income tax or capital gains tax in case of sale or disposal of any ordinary shares or ADSs of Criteo even if one or more of the above mentioned statements are not applicable.

Particularly, a U.S. Holder who is a U.S. tax resident resident for purposes of the Treaty and is entitled to Treaty benefit will not be subject to French tax on any such capital gain, unless the ordinary shares or the ADSs form part of the business property of a permanent establishment or fixed base that the U.S. Holder has in France.

U.S. Holders who own ordinary shares or ADSs through U.S. partnerships that are not residents for Treaty purposes are advised to consult their own tax advisors regarding their French tax treatment and their eligibility for Treaty benefits in light of their own particular circumstances.

A U.S. Holder that is not a U.S. resident for Treaty purposes or is not entitled to Treaty benefit (and in both cases is not resident, established or incorporated in a non-cooperative State or territory as defined in Article 238-0 A of the FTC) and has held more than 25% of our dividend rights, known as "droits aux bénéfices sociaux" at any time during the preceding five years, either directly or indirectly, and, as relates to individuals, alone or with relatives will be subject to a levy in France at the rate of 33.33% (which is anticipated to be progressively decreased to 25% in the coming years), if such U.S. Holder is a legal person, or 12.8% if such U.S. Holder is an individual.

Special rules apply to U.S. Holders who are residents of more than one country. The discussion above is a summary of the material French tax consequences of an investment in our shares or ADSs and is based upon laws and relevant interpretations thereof in effect as of the date hereof, all of which are subject to change, possibly with retroactive effect. It does not cover all tax matters that may be of importance to a prospective investor. Each prospective investor is urged to consult its own tax advisor about the tax consequences to it of an investment in shares or ADSs in light of the investor's own circumstances.

Recent Sales of Unregistered Securities; Use of Proceeds From Registered Securities

There were no unregistered sales of equity securities during 2018.

Issuer Purchases of Equity Securities

None.

Item 6. Selected Financial Data

Our audited consolidated financial statements have been prepared in accordance with U.S. GAAP. We derived the selected consolidated statements of income data for the years ended December 31, 2016, 2017 and 2018 and selected consolidated statements of financial position data as of December 31, 2017 and 2018 from our audited consolidated financial statements included in Part IV, Item 15 "Exhibits and Financial Statements" of this Form 10-K. The selected consolidated statements of income data for the years ended December 31, 2014 and 2015 and the selected consolidated financial position data as of December 31, 2014, 2015 and 2016 have been derived from our audited consolidated financial statements and notes thereto which are not included in this Form 10-K. This data should be read together with Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" as well as our audited consolidated financial statements and notes thereto appearing elsewhere in this Form 10-K. Our historical results are not necessarily indicative of the results to be expected in the future.

Consolidated Statements of Income Data:

	Year Ended December 31,										
		2014		2015		2016		2017		2018	
		(ir	1 th	iousands, ex	cep	t share an	d p	er share data	ı)		
Revenue	\$	988,249	\$	1,323,169	\$ 1	1,799,146	\$	2,296,692	\$ 2	2,300,314	
Cost of revenue ⁽¹⁾ :											
Traffic acquisition costs		(585,492)		(789,152)	(1,068,911)		(1,355,556)	(1,334,334)	
Other cost of revenue		(47,948)		(62,201)		(85,260)		(121,641)		(131,744)	
Gross profit	_	354,809	_	471,816	_	644,975		819,495		834,236	
Operating expenses											
Research and development expenses (1)		(60,075)		(86,807)		(123,649)		(173,925)		(179,263)	
Sales and operations expenses (1)		(176,927)		(229,530)		(282,853)		(380,649)		(372,707)	
General and administrative expenses (1)		(64,723)		(79,145)		(117,469)		(127,077)		(135,159)	
Total operating expenses		(301,725)		(395,482)		(523,971)		(681,651)		(687,129)	
Income from operations		53,084		76,334		121,004		137,844		147,107	
Financial income (expense)		11,390		(4,541)		(546)		(9,534)		(5,084)	
Income before taxes		64,474		71,793		120,458		128,310		142,023	
Provision for income taxes		(17,578)		(9,517)		(33,129)		(31,651)		(46,144)	
Net income	\$	46,896	\$	62,276	\$	87,329	\$	96,659	\$	95,879	
Net income available to shareholders of Criteo S.A. (2)	\$	45,556	\$	59,553	\$	82,272	\$	91,214	\$	88,644	
Net income available to shareholders per share:											
Basic	\$	0.77	\$	0.96	\$	1.30	\$	1.40	\$	1.33	
Diluted	\$	0.72	\$	0.91	\$	1.25	\$	1.34	\$	1.31	
Weighted average shares outstanding used in computing per share amounts:											
Basic	5	8,928,563	6	51,835,499	63	3,337,792		65,143,036	6	5,456,890	
Diluted	6	3,493,260	6	55,096,486	6:	5,633,470		67,851,971	6	7,662,904	

⁽¹⁾ Cost of revenue and operating expenses include equity awards compensation expense, pension service costs, depreciation and amortization expense, acquisition-related costs, restructuring costs and deferred price consideration as follows:

		Year	End	ed Decemb	er 3	1,	
	2014	2015		2016		2017	2018
			(in t	housands)			
Equity awards compensation expense							
Research and development expenses	\$ 3,682	\$ 6,520	\$	12,108	\$	21,093	\$ 21,232
Sales and operations expenses	12,291	11,678		16,838		31,386	29,244
General and administrative expenses	3,628	5,791		14,313		19,872	16,600
Total equity awards compensation expense (b)	19,601	23,989		43,259		72,351	67,076
Pension service costs							
Research and development expenses	167	163		211		621	844
Sales and operations expenses	187	153		144		247	325
General and administrative expenses	 150	 125		169		363	522
Total pension service costs	504	441		524		1,231	1,691
Depreciation and amortization expense							
Cost of revenue	21,455	29,866		38,469		53,988	67,347
Research and development expenses (a)	4,949	7,995		7,211		11,226	10,602
Sales and operations expenses	3,664	5,178		7,757		19,844	18,245
General and administrative expenses	 1,145	 1,526		3,342		5,738	7,306
Total depreciation and amortization expense	31,213	44,565		56,779		90,796	103,500
Acquisition-related costs							
General and administrative expenses		_		2,921		6	1,738
Total acquisition-related costs		_		2,921		6	1,738
Acquisition-related deferred price consideration							
Research and development expense	950	324		85		_	_
Sales and operations expenses	_	_		_		_	_
General and administrative expenses		(2,218)					_
Total acquisition-related deferred price considerations	950	(1,894)		85		_	_
Restructuring							
Cost of revenue	_	_		_		2,497	_
Research and development expenses	_	_		_		2,911	(332)
Sales and operations expenses	_	_		_		1,825	290
General and administrative expenses	_	_		_		123	(11)
Total Restructuring	\$	\$	\$		\$	7,356	\$ (53)

⁽a) Includes acquisition-related amortization of intangible assets of \$3.9 million, \$6.3 million, \$4.1 million, \$17.7 million and \$15.8 million as of December 31, 2014, 2015, 2016, 2017 and 2018 respectively.

⁽b) Excludes \$0.7 million and \$(0.5) million disclosed as restructuring costs as of December 31, 2017 and 2018, respectively.

⁽²⁾ For the years ended December 31, 2014, 2015, 2016, 2017 and 2018, this excludes \$1.3 million, \$2.7 million, \$5.1 million, \$5.4 million and \$7.2 million, respectively, of net income available to non-controlling interests in our Japanese subsidiary held by Yahoo! Japan.

Reconciliation from Non-GAAP Operating Expenses to Operating Expenses under GAAP:

	Year Ended December 31,											
		2014		2015		2016		2017		2018		
					(in	thousands)						
Research and development expenses	\$	(60,075)	\$	(86,807)	\$	(123,649)	\$	(173,925)	\$	(179,263)		
Equity awards compensation expense		3,682		6,520		12,108		21,093		21,232		
Depreciation and amortization expense		4,949		7,995		7,211		11,226		10,602		
Pension service costs		167		163		211		621		844		
Acquisition-related deferred price consideration		950		324		85		_		_		
Restructuring								2,911		(332)		
Non-GAAP - Research and development expenses	\$	(50,327)	\$	(71,805)	\$	(104,034)	\$	(138,074)	\$	(146,917)		
Sales and operations expenses		(176,927)		(229,530)		(282,853)		(380,649)		(372,707)		
Equity awards compensation expense		12,291		11,678		16,838		31,386		29,244		
Depreciation and amortization expense		3,664		5,178		7,757		19,844		18,245		
Pension service costs		187		153		144		247		325		
Restructuring		_		_		_		1,825		290		
Non-GAAP - Sales and operations expenses		(160,785)		(212,521)		(258,114)		(327,347)		(324,603)		
General and administrative expenses		(64,723)		(79,145)		(117,469)		(127,077)		(135,159)		
Equity awards compensation expense		3,628		5,791		14,313		19,872		16,600		
Depreciation and amortization expense		1,145		1,526		3,342		5,738		7,306		
Pension service costs		150		125		169		363		522		
Acquisition-related costs		_		_		2,921		6		1,738		
Acquisition-related deferred price consideration		_		(2,218)		_		_		_		
Restructuring		_		_		_		123		(11)		
Non-GAAP - General and administrative expenses		(59,800)		(73,921)		(96,724)		(100,975)		(109,004)		
Total Operating expenses		(301,725)		(395,482)		(523,971)	_	(681,651)		(687,129)		
Equity awards compensation expense												
Equity awards compensation expense		19,601		23,989		43,259		72,351		67,076		
Depreciation and Amortization expense		9,758		14,699		18,310		36,808		36,153		
Pension service costs		504		441		524		1,231		1,691		
Acquisition-related costs		_		_		2,921		6		1,738		
Acquisition-related deferred price consideration		950		(1,894)		85		_		_		
Restructuring								4,859		(53)		
Total Non-GAAP Operating expenses	\$	(270,912)	\$	(358,247)	\$	(458,872)	\$	(566,396)	\$	(580,524)		

Non-GAAP Operating Expenses are our consolidated operating expenses adjusted to eliminate the impact of depreciation and amortization, equity awards compensation expense, pension service costs, restructuring costs, acquisition-related costs and deferred price consideration. The Company uses Non-GAAP Operating Expenses to understand and compare operating results across accounting periods, for internal budgeting and forecasting purposes, for short-term and long-term operational plans, and to assess and measure our financial performance and the ability of our operations to generate cash. We believe Non-GAAP Operating Expenses reflects our ongoing operating expenses in a manner that allows for meaningful period-to-period comparisons and analysis of trends in our business. As a result, we believe that Non-GAAP Operating Expenses provides useful information to investors in understanding and evaluating our core operating performance and trends in the same manner as our management and in comparing financial results across periods. In addition, Non-GAAP Operating Expenses is a key component in calculating Adjusted EBITDA, which is one of the key measures we use to provide its quarterly and annual business outlook to the investment community.

Consolidated Statements of Financial Position Data:

T 7		D 1	21
Year	Ended	Decembe	r 31.

	2014		2015		2016	2017	2018
				(in	thousands)		
Cash and cash equivalents	\$	351,827	\$ 353,537	\$	270,317	\$ 414,111	\$ 364,426
Total assets	\$	686,510	\$ 841,719	\$	1,211,186	\$ 1,531,300	\$ 1,597,135
Trade receivables, net of allowances for doubtful accounts	\$	192,595	\$ 261,581	\$	397,244	\$ 484,101	\$ 473,901
Total financial liabilities	\$	14,780	\$ 10,428	\$	85,580	\$ 3,657	\$ 3,508
Total liabilities	\$	270,155	\$ 362,696	\$	601,309	\$ 633,602	\$ 629,244
Total equity	\$	416,355	\$ 479,023	\$	609,877	\$ 897,698	\$ 967,891

Other Financial and Operating Data:

Year Ended December 31.

		100		aca December	01,		
	2014	2015		2016		2017	2018
		(in thousar	ıds, e	except number	of	lients)	
Number of clients	7,190	10,198		14,468		18,118	19,419
Revenue ex-TAC (3)	\$ 402,757	\$ 534,017	\$	730,235	\$	941,136	\$ 965,980
Adjusted net income (4)	\$ 70,846	\$ 89,835	\$	136,777	\$	183,311	\$ 168,738
Adjusted EBITDA (5)	\$ 105,352	\$ 143,435	\$	224,572	\$	309,584	\$ 321,059

⁽³⁾ We define Revenue ex-TAC as our revenue excluding traffic acquisition costs, or TAC, generated over the applicable measurement period. Revenue ex-TAC is not a measure calculated in accordance with U.S. GAAP. We have included Revenue ex-TAC in this Form 10-K because it is a key measure used by our management and board of directors to evaluate operating performance, generate future operating plans and make strategic decisions regarding the allocation of capital. In particular, we believe that the elimination of TAC from revenue can provide a useful measure for period-to-period comparisons of our core business. Accordingly, we believe that Revenue ex-TAC provides useful information to investors and others in understanding and evaluating our results of operations in the same manner as our management and board of directors. Revenue ex-TAC has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our financial results as reported under U.S. GAAP. Some of these limitations are: (a) other companies, including companies in our industry which have similar business arrangements, may address the impact of TAC differently; and (b) other companies may report Revenue ex-TAC or similarly titled measures but calculate them differently, which reduces their usefulness as a comparative measure. Because of these and other limitations, you should consider Revenue ex-TAC alongside our U.S. GAAP financial results, including revenue. The following table presents a reconciliation of Revenue ex-TAC to revenue, the most directly comparable U.S. GAAP measure, for each of the periods indicated:

Vear	Fnd	ha	Daca	mhar	- 31	

						,	
		2014	2015		2016	2017	2018
	-			(in	thousands)		
Revenue	\$	988,249	\$ 1,323,169	\$	1,799,146	\$ 2,296,692	\$ 2,300,314
Adjustment:							
Traffic acquisition costs		(585,492)	(789,152)		(1,068,911)	(1,355,556)	(1,334,334)
Revenue ex-TAC	\$	402,757	\$ 534,017	\$	730,235	\$ 941,136	\$ 965,980

(4) We define Adjusted Net Income as our net income adjusted to eliminate the impact of equity awards compensation expense, amortization of acquisition-related intangible assets, restructuring costs, acquisition-related costs and deferred price consideration and the tax impact of the foregoing adjustments. Adjusted Net Income is not a measure calculated in accordance with U.S. GAAP. We have included Adjusted Net Income in this Form 10-K because it is a key measure used by our management and board of directors to evaluate operating performance, generate future operating plans and make strategic decisions regarding the allocation of capital. In particular, we believe that the elimination of equity awards compensation expense, amortization of acquisition-related intangible assets, restructuring costs, acquisition-related costs and deferred price consideration and the tax impact of the foregoing adjustments in calculating Adjusted Net Income can provide a useful measure for period-to-period comparisons of our core business. Accordingly, we believe that Adjusted Net Income provides useful information to investors and others in understanding and evaluating our results of operations in the same manner as our management and board of directors. Our use of Adjusted Net Income has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our financial results as reported under U.S. GAAP. Some of these limitations are: (a) Adjusted Net Income does not reflect the potentially dilutive impact of equity-based compensation or the impact of certain acquisition related costs; and (b) other companies, including companies in our industry, may calculate Adjusted Net Income or similarly titled measures differently, which reduces their usefulness as a comparative measure. Because of these and other limitations, you should consider Adjusted Net Income alongside our U.S. GAAP financial results, including net income. The following table presents a reconciliation of Adjusted Net Income to net income, the most directly comparable U.S. GAAP measure, for each of the periods indicated:

		Year Ei	nde	d Decembe	r 31	1,	
	2014	2015		2016		2017	2018
		(i	n th	ousands)			<u>.</u>
Net income	\$ 46,896	\$ 62,276	\$	87,329	\$	96,659	\$ 95,879
Adjustments:							
Equity awards compensation expense (a)	19,601	23,989		43,259		72,351	67,076
Amortization of acquisition-related intangible assets	3,902	6,342		4,131		17,731	15,821
Acquisition-related costs	_	_		2,921		6	1,738
Acquisition-related deferred price consideration	950	(1,894)		85		_	_
Restructuring costs	_	_		_		7,356	(53)
Tax impact of the above adjustments	(503)	(878)		(948)		(10,792)	(11,723)
Adjusted net income	\$ 70,846	\$ 89,835	\$	136,777	\$	183,311	\$ 168,738

⁽a) Excludes \$0.7 million and \$(0.5) million disclosed as restructuring costs as of December 31, 2017 and 2018, respectively.

(5) We define Adjusted EBITDA as our consolidated earnings before financial income (expense), income taxes, depreciation and amortization, adjusted to eliminate the impact of equity awards compensation expense, pension service costs, restructuring costs, acquisition-related costs and deferred price consideration. Adjusted EBITDA is not a measure calculated in accordance with U.S. GAAP. We have included Adjusted EBITDA in this Form 10-K because it is a key measure used by our management and board of directors to evaluate operating performance, generate future operating plans and make strategic decisions regarding the allocation of capital. In particular, we believe that the elimination of equity awards compensation expense, pension service costs, restructuring costs, acquisition-related costs and deferred price consideration in calculating Adjusted EBITDA can provide a useful measure for period-to-period comparisons of our core business. Accordingly, we believe that Adjusted EBITDA provides useful information to investors and others in understanding and evaluating our results of operations in the same manner as our management and board of directors. Our use of Adjusted EBITDA has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our financial results as reported under U.S. GAAP. Some of these limitations are: (a) although depreciation and amortization are non-cash charges, the assets being depreciated and amortized may have to be replaced in the future, and Adjusted EBITDA does not reflect cash capital expenditure requirements for such replacements or for new capital expenditure requirements; (b) Adjusted EBITDA does not reflect changes in, or cash requirements for, our working capital needs; (c) Adjusted EBITDA does not reflect the potentially dilutive impact of equity-based compensation; (d) Adjusted EBITDA does not reflect tax payments that may represent a reduction in cash available to us; and (e) other companies, including companies in our industry, may calculate Adjusted EBITDA or similarly titled measures differently, which reduces their usefulness as a comparative measure. Because of these and other limitations, you should consider Adjusted EBITDA alongside our U.S. GAAP financial results, including net income. The following table presents a reconciliation of Adjusted EBITDA to net income, the most directly comparable U.S. GAAP measure, for each of the periods indicated:

	Year Ended December 31,									
	2014			2015		2016		2017		2018
					(in	thousands)				
Net income	\$	46,896	\$	62,276	\$	87,329	\$	96,659	\$	95,879
Adjustments:										
Financial expense (income) net		(11,390)		4,541		546		9,534		5,084
Provision for income taxes		17,578		9,517		33,129		31,651		46,144
Equity awards compensation expense (a)		19,601		23,989		43,259		72,351		67,076
Pension service costs		504		441		524		1,231		1,691
Depreciation and amortization expense		31,213		44,565		56,779		90,796		103,500
Acquisition-related costs		_		_		2,921		6		1,738
Acquisition-related deferred price consideration		950		(1,894)		85		_		_
Restructuring costs		_		_		_		7,356		(53)
Total net adjustments		58,456		81,159		137,243		212,925		225,180
Adjusted EBITDA	\$	105,352	\$	143,435	\$	224,572	\$	309,584	\$	321,059

⁽b) Excludes \$0.7 million and \$(0.5) million disclosed as restructuring costs as of December 31, 2017 and 2018, respectively.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes appearing elsewhere in this Form 10-K.

Overview

We are a global technology company building the leading Advertising Platform for the Open Internet. We strive to deliver impactful business results at scale to commerce companies and consumer brands by meeting their multiple marketing goals at their targeted return on investment. Using shopping data, predictive technology and large consumer reach, we help our clients drive Awareness, Consideration and Conversion for their products and services¹, and help retailers generate advertising revenues from consumer brands. Our data is pooled among our clients and offers deep insights into consumer intent and purchasing habits. To drive measurable results for clients, we activate our data assets through proprietary AI technology to engage consumers in real time through the pricing and delivery of highly relevant digital advertisements, across devices and environments. By pricing our offering on a range of pricing models and measuring our value based on clear, well-defined performance metrics, we make the return on investment transparent and easy to measure for advertisers.

Our clients include some of the largest and most sophisticated commerce companies in the world, along with world-class consumer brands. We partner with them to capture user activity on their websites and mobile applications ("apps"), which we define as digital properties, and optimize the performance of their ads based on that activity and other data. Demonstrating the depth and scale of our data, we collected data on over \$800 billion in online sales transactions² on our clients' digital properties in the year ended December 31, 2018. Based on this data and other assets, we delivered targeted ads that generated over 10 billion clicks² in the year ended December 31, 2018. As of December 31, 2018, we served more than 19,000 clients and, in each of the last three years, our average client retention rate, as measured on a quarterly basis, was approximately 90%². We serve a wide range of clients and our revenue is not concentrated within any single client or group of clients. In 2016, 2017 and 2018, our largest client represented 2.0%, 1.9% and 2.0% of our revenue, respectively, and in 2018, our largest 10 clients represented 11.7% of our revenue in the aggregate. There is no group of customers under common control or customers that are affiliates of each other constituting an aggregate amount equal to 10% or more of our consolidated revenues, the loss of which would have a material adverse effect on the Company.

The Advertising Platform for the Open Internet is currently comprised of two families of solutions: Criteo Marketing Solutions and Criteo Retail Media. All products leverage the same technology in the Criteo AI Engine.

We operate in 98 countries through a network of 31 offices located in Europe, Middle East, Africa (EMEA), the Americas and Asia-Pacific. As a result of our significant international operations, our revenue from outside of France, our home country, accounted for 93.3% of our revenue for year ended December 31, 2018.

The Company's foreign currency risk exposure to the British pound, the Japanese yen, the Brazilian real and the U.S dollar against the euro (the euro still remains the Group's functional currency) is described in Item 7 note B. Liquidity and Capital Resources to our Management's Discussion and Analysis included elsewhere in this Form 10-K.

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¹ Driving Awareness for a brand means exposing its brand name to consumers who have not been in touch with the brand before, thereby creating brand awareness from such consumers. Driving Consideration for an advertiser's products or services means attracting prospective new consumers to consider engaging with and/or buying this advertiser's products or services. Driving Conversion for an advertisers' products or services means triggering a purchase by consumers who have already engaged with this advertisers products or services in the past.

² Excluding Criteo Retail Media

Our financial results include:

- Revenue of \$1,799.1 million, \$2,296.7 million and 2,300.3 million for the years ended December 31, 2016, 2017 and 2018, respectively;
- Revenue ex-TAC, which is a non-U.S. GAAP financial measure, of \$730.2 million, \$941.1 million and \$966.0 million for the years ended December 31, 2016, 2017 and 2018, respectively;
- Net Income of \$87.3 million, \$96.7 million and \$95.9 million for the years ended December 31, 2016, 2017 and 2018, respectively; and
- Adjusted EBITDA, which is a non-U.S. GAAP financial measure, of \$224.6 million, \$309.6 million and \$321.1 million for the years ended December 31, 2016, 2017 and 2018, respectively.

Please see footnotes 3, 4 and 5 to the Other Financial and Operating Data table in "Item 6. Selected Financial Data" in this Form 10-K for a reconciliation of Revenue to Revenue ex-TAC, Net Income to Adjusted EBITDA and Net Income to Adjusted Net Income respectively, in each case the most directly comparable financial measures calculated and presented in accordance with accounting principles generally accepted in the United States or "U.S. GAAP".

We are focused on maximizing Revenue ex-TAC. We believe this focus builds sustainable long-term value for our business and fortifies a number of our competitive strengths, including a highly liquid marketplace for Display Advertising. As part of this focus, we seek to maximize our percentage of overall marketing spend in the Display Advertising market over the long-term. In addition, this focus enriches liquidity for both advertisers and publishers resulting in more effective advertising for clients, better monetization for publishers and more relevant advertisements for consumers. We believe our results of operations reflect this focus.

Acquisitions

On October 29, 2018, we acquired Manage, a Silicon Valley-based company with an attractive app install advertising solution.

On August 3, 2018, we acquired Storetail, a Paris-based pioneering retail media technology platform enabling retailers to monetize native placements on their ecommerce sites.

On November 9, 2016, we completed the acquisition of all of the outstanding shares of Hooklogic, a New York-based company connecting many of the world's largest ecommerce retailers with consumer brands. We now offer HookLogic's products under the "Criteo Sponsored Products" name.

On May 31, 2016, we acquired all of the outstanding shares of Monsieur Drive, a Paris-based company building advertising products for the consumer packaged goods vertical.

Transition to U.S. GAAP and Change in Reporting Currency

As of June 30, 2015, we no longer met the requirements to qualify as a foreign private issuer under the Exchange Act. As a result, we began reporting as a domestic registrant as of January 1, 2016 and we are required under current SEC rules to prepare our financial statements in accordance with U.S. GAAP, rather than IFRS, and to present our financial information in U.S. dollars instead of euros. The transition from consolidated financial statements under IFRS to U.S. GAAP only impacted the presentation of our consolidated statement of financial position (order of liquidity) and of our consolidated statement of cash flows (effect of exchange rate changes on cash and cash equivalents). The functional currency of the Company remains the euro, while our reporting currency changed from the euro to the U.S. dollar. Consequently, since we incur portions of our expenses and derive revenues in currencies other than the euro, we are exposed to foreign currency exchange risk as our results of operations and cash flows are subject to fluctuations in foreign currency exchange rates. Foreign exchange risk exposure also arises from intra-company transactions and financing with subsidiaries that have a functional currency different than the euro.

A. Operating Results.

Basis of Presentation

The key elements of our results of operations include:

Revenue

We sell personalized display advertisements featuring product-level recommendations either directly to clients or to advertising agencies. Historically, the Criteo model has focused solely on converting our clients' website visitors into customers, enabling us to charge our clients only when users engage with an ad we deliver, usually by clicking on it. More recently, we have expanded our solutions to address a broader range of marketing goals for our clients.

We offer two families of solutions to our commerce and brand clients:

- *Criteo Marketing Solutions* allow commerce companies to address multiple marketing goals by engaging their consumers with personalized ads across the web, mobile and offline store environments.
- *Criteo Retail Media* solutions allow retailers to generate advertising revenues from consumer brands, and/or to drive sales for themselves, by monetizing their data and audiences through personalized ads, either on their own digital property or on the open Internet, that address multiple marketing goals.

In conjunction with expanding our solutions, we have also started expanding our pricing models to now include a combination of cost-per-install and cost-per-impression for selected new solutions, in addition to cost-per-click.

We recognize revenues when we transfer control of promised services directly to our clients or to advertising agencies, which we collectively refer to as our clients, in an amount that reflects the consideration to which we expect to be entitled to in exchange for those services.

For campaigns priced on a cost-per-click and cost-per-install basis, we bill our clients when a user clicks on an advertisement we deliver or installs an application by clicking on an advertisement we delivered, respectively. For these pricing models, we recognize revenue when a user clicks on an advertisement or installs an application.

For campaigns priced on a cost-per-impression basis, we bill our clients based on the number of times an advertisement is displayed to an user. For this pricing model, we recognize revenue when an advertisement is displayed.

We act as principal in our arrangements because (i) we control the advertising inventory (spaces on websites) before it is transferred to our clients; (ii) we bear sole responsibility for fulfillment of the advertising promise and inventory risks and (iii) we have full discretion in establishing prices. Therefore, based on these factors, we report revenue earned and the related costs incurred on a gross basis.

Cost of Revenue

Our cost of revenue primarily includes traffic acquisition costs and other cost of revenue.

Traffic Acquisition Costs. Traffic acquisition costs consist primarily of purchases of impressions from publishers on a CPM basis. We purchase impressions directly from publishers or third-party intermediaries, such as advertisement exchanges. We recognize cost of revenue on a publisher basis as incurred. Costs owed to publishers but not yet paid are recorded in our Consolidated Statements of Financial Position as trade payables.

For some solutions within Criteo Retail Media, we pay for the inventory of our retailer partners on a revenue sharing basis, effectively paying the retailers a portion of the click-based revenue generated by user clicks on the sponsored products advertisements displaying the products of our consumer brand clients.

For a discussion of the trends we expect to see in traffic acquisition costs, see the section entitled " - Highlights and Trends - Revenue ex-TAC" in Item 7.D - Trend Information below.

Other Cost of Revenue. Other cost of revenue includes expenses related to third-party hosting fees, depreciation of data center equipment and the cost of data purchased from third parties. The Company does not build or operate its own data centers and none of its Research and Development employments are dedicated to revenue generating activities. As a result, we do not include the costs of such personnel in other cost of revenue.

Operating Expenses

Operating expenses consist of research and development, sales and operations, and general and administrative expenses. Salaries, bonuses, equity awards compensation, pension benefits and other personnel-related costs are the most significant components of each of these expense categories. We grew from 1,841 employees at January 1, 2016 to 2,744 employees at December 31, 2018, and we expect to continue to hire a significant number of new employees in order to support our anticipated revenue growth.

We include equity awards compensation expense in connection with grants of share options, warrants, and restricted share units ("RSUs") in the applicable operating expense category based on the respective equity award recipient's function (Research and development, Sales and operations, General and administrative).

Research and Development Expense. Research and development expense consists primarily of personnel-related costs for our employees working in the engine, platform, site reliability engineering, scalability, infrastructure, engineering program management, product, analytics and other teams, including salaries, bonuses, equity awards compensation and other personnel related costs. Our research and development function was supplemented in January 2013 to include a dedicated product organization following the appointment of a Chief Product Officer. Also included are non-personnel costs such as subcontracting, consulting and professional fees to third-party development resources, allocated overhead and depreciation and amortization costs. These expenses are partially offset by the French research tax credit that is conditional upon the level of our expenditures in research and development.

Our research and development efforts are focused on enhancing the performance of our solution and improving the efficiency of the services we deliver to our clients and publisher partners. All development costs, principally headcount-related costs, are expensed as management determines that technological feasibility is reached, shortly before the release of the developed products or features. As a result, the development costs incurred after the establishment of technological feasibility and before the release of those products or features are not material and, accordingly, are expensed as incurred. Capitalized costs mainly relates to internally developed internal-use software and IT licenses.

The number of employees in research and development functions grew from 399 at January 1, 2016 to 675 at December 31, 2018. We expect research and development expenses to continue to increase in absolute dollars but remain fairly constant as a percentage of our revenue. We believe our continued investment in research and development to be critical to maintaining and improving our technology within the Advertising Platform for the Open Internet, our quality of service and our competitive position.

Sales and Operations Expense. Sales and operations expense consists primarily of personnel-related costs for our employees working in our sales, account strategy, sales operations, publisher business development, analytics, marketing, technical solutions, creative services and other teams, including salaries, bonuses, equity awards compensation, and other personnel-related costs. Additional expenses in this category include travel and entertainment, marketing and promotional events, marketing activities, provisions for doubtful accounts, subcontracting, consulting and professional fees paid to third parties, allocated overhead and depreciation and amortization costs. The number of employees in sales and operations functions grew from 1,124 at January 1, 2016 to 1,574 at December 31, 2018. In order to continue to grow our business, geographic footprint and brand awareness, we expect to continue to invest in our resources in sales and operations, in particular by increasing the number of sales and account strategy teams in low penetrated geographic markets and in our midmarket organization. As a result, we expect sales and operations expenses to increase in absolute dollars as we invest to acquire new clients, retain existing ones and grow revenue from existing clients, but to decrease as a percentage of revenue over time as we scale and automate our operational processes, and increase the productivity of our sales and operations teams.

General and Administrative Expense. General and administrative expense consists primarily of personnel costs, including salaries, bonuses, equity awards compensation, pension benefits and other personnel-related costs for our administrative, legal, information technology, human resources, facilities and finance teams. Additional expenses included in this category include travel-related expenses, subcontracting and professional fees, audit fees, tax services and legal fees, as well as insurance and other corporate expenses, along with allocated overhead and depreciation and amortization costs. The number of employees in general and administrative functions grew from 318 at January 1, 2016 to 495 at December 31, 2018. We expect our general and administrative expense to increase in absolute dollars as we continue to support our growth, but to decrease as a percentage of revenue over time as we scale and increase the productivity of our general and administrative teams.

Financial Income (Expense)

Financial income (expense) primarily consists of:

- exchange differences arising on the settlement or translation into local currency of monetary balance sheet items
 labeled in euros (the Company's functional currency). We are exposed to changes in exchange rates primarily in the
 United States, the United Kingdom, Japan and Brazil. The U.S. dollar, the British pound, the Japanese yen and the
 Brazilian real are our most significant foreign currency exchange risks. At December 31, 2018, our exposure to foreign
 currency risk was centralized at parent company level and hedged. These exchange differences in euro are then
 translated into U.S. dollars (the Company's reporting currency) according to the average euro/U.S. dollar exchange
 rate
- interest received on our cash and cash equivalents and interest incurred on outstanding borrowings under our debt loan
 agreements and revolving credit facilities ("RCFs").

We monitor foreign currency exposure and look to mitigate exposures through normal business operations and hedging strategies.

Provision for Income Taxes

We are subject to potential income taxes in France, the United States and numerous other jurisdictions. We recognize tax liabilities based on estimates of whether additional taxes will be due. These tax liabilities are recognized when we believe that certain positions may not be fully sustained upon review by tax authorities, notwithstanding our belief that our tax return positions are supportable.

Our effective tax rates differ from the statutory rate applicable to us primarily due to valuation allowance on deferred tax assets, differences between domestic and foreign jurisdiction tax rates, Research Tax Credit offsets, which are non-taxable items, potential tax audit provision settlements, share-based compensation expenses that are non-deductible in some jurisdictions under certain circumstances, and transfer pricing adjustments. We license access to our technology to our subsidiaries and charge a royalty fee to these subsidiaries for such access. In France, we benefit from a reduced tax rate of 15% on a large portion of this technology royalty income.

On September 27, 2017, we received a draft notice of proposed adjustment from the Internal Revenue Service ("IRS") audit of Criteo Corp. for the year ended December 31, 2014, confirmed by the definitive notice dated February 8, 2018. If the IRS prevails in its position, it could result in an additional federal tax liability of an estimated maximum aggregate amount of \$15.0 million, excluding relative fees, interest and penalties. We strongly disagree with the IRS's position as asserted in the draft notice of proposed adjustment and intend to contest it.

No uncertain tax positions were identified as of December 31, 2018.

Critical Accounting Policies and Significant Judgments and Estimates

Our consolidated financial statements are prepared in accordance with U.S. GAAP. The preparation of our consolidated financial statements requires us to make estimates, assumptions and judgments that affect the reported amounts of revenue, assets, liabilities, costs and expenses. We base our estimates and assumptions on historical experience and other factors that we believe to be reasonable under the circumstances. We evaluate our estimates and assumptions on an ongoing basis. Our actual results may differ from these estimates.

An accounting policy is deemed to be critical if it requires an accounting estimate to be made on assumptions about matters that are highly uncertain at the time the estimate is made, if different estimates reasonably could have been used, or if changes in the estimate that are reasonably possible could materially impact the financial statements. We believe estimates associated with revenue recognition, trade receivables, net of allowances for doubtful accounts, deferred tax assets, uncertain tax positions, impact of tax reforms in the U.S., goodwill and intangible assets, internal-use software and equity awards compensation have the greatest potential impact on our consolidated financial statements. Therefore, we consider these to be our critical accounting policies and estimates. See Note 1. Principles and Accounting Methods to our audited consolidated financial statements beginning on page F-1 for a description of our other significant accounting policies.

Revenue Recognition

We recognize revenues when we transfer control of promised services directly to our clients or to advertising agencies, which we collectively refer to as our clients, in an amount that reflects the consideration to which we expect to be entitled to in exchange for those services.

For campaigns priced on a cost-per-click and cost-per-install basis, we bill our clients when a user clicks on an advertisement we deliver or installs an application by clicking on an advertisement we delivered, respectively. For these pricing models, we recognize revenue when a user clicks on an advertisement or installs an application.

For campaigns priced on a cost-per-impression basis, we bill our clients based on the number of times an advertisement is displayed to a user. For this pricing model, we recognize revenue when an advertisement is displayed.

We act as principal in our arrangements because (i) we control the advertising inventory (spaces on websites) before it is transferred to our clients; (ii) we bear sole responsibility for fulfillment of the advertising promise and inventory risks and (iii) we have full discretion in establishing prices. Therefore, based on these factors, we report revenue earned and the related costs incurred on a gross basis.

Trade Receivables, Net of Allowances for Doubtful Accounts

We carry our accounts receivable at net realizable value. On a periodic basis, our management evaluates our accounts receivable and determines whether to provide an allowance or if any accounts should be written down and charged to expense as a bad debt. The evaluation is based on a past history of collections, current credit conditions, the length of time the trade receivable is past due and a past history of write downs. A trade receivable is considered past due if we have not received payments based on agreed-upon terms. A higher default rate than estimated or a deterioration in our major clients' creditworthiness could have an adverse impact on our future results. Allowances for doubtful accounts on trade receivables are recorded in "Sales and Operations" in our consolidated statements of income. We generally do not require any security or collateral to support our trade receivables. The amount of allowance for doubtful accounts charged to our consolidated statements of income for the years ended December 31, 2016, 2017 and 2018 was \$9.9 million, \$13.3 million and \$17.7 million, respectively and represented 2.5%, 2.7% and 3.7% of our trade receivables, net of allowances, as of December 31, 2016, 2017, and 2018, respectively.

Deferred Tax Assets

Deferred taxes are recorded on all temporary differences between the financial reporting and tax bases of assets and liabilities, and on tax losses, using the liability method. Differences are defined as temporary when they are expected to reverse within a foreseeable future. We may only recognize deferred tax assets if, based on the projected taxable incomes within the next three years, we determine that it is probable that future taxable profit will be available against which the unused tax losses and tax credits can be utilized. As a result, the measurement of deferred income tax assets is reduced, if necessary, by a valuation allowance for any tax benefits which are not expected to be realized. If future taxable profits are

considerably different from those forecasted that support recording deferred tax assets, we will have to revise downwards or upwards the amount of the deferred tax assets, which could have a significant impact on our financial results.

This determination requires many estimates and judgments by our management for which the ultimate tax determination may be uncertain.

Uncertain Tax Positions

We recognize tax benefits from uncertain tax positions only if we believe that it is more likely than not that the tax position will be sustained on examination by the taxing authorities based on the technical merits of the position. These uncertain tax positions include our estimates for transfer pricing that have been developed based upon analyses of appropriate arms-length prices. Similarly, our estimates related to uncertain tax positions concerning research tax credits are based on an assessment of whether our available documentation corroborating the nature of our activities supporting the tax credits will be sufficient. Although we believe that we have adequately reserved for our uncertain tax positions (including net interest and penalties), we can provide no assurance that the final tax outcome of these matters will not be materially different. We make adjustments to these reserves in accordance with the income tax accounting guidance when facts and circumstances change, such as the closing of a tax audit or the refinement of an estimate. To the extent that the final tax outcome of these matters is different from the amounts recorded, such differences will affect the provision for income taxes in the period in which such determination is made, and could have a material impact on our financial condition and operating results.

Uncertainties in the interpretation and application of the 2017 Tax Cuts and Jobs Act could materially affect our tax obligations and effective tax rate

The U.S. Tax Cuts and Jobs Act (Tax Act) was enacted on December 22, 2017 and introduces significant changes to U.S. income tax law, effective in 2018. Due to the absence of any guidance and the complexity of the new provisions of the Tax Act, we made reasonable estimates of its effects. The U.S. Treasury Department, the Internal Revenue Service (IRS), and other standard-setting bodies shall issue guidance on how the provisions of the Tax Act will be applied or otherwise administered that differ from our interpretation. As a consequence, further to the issuance of any final guidance, we may have to perform adjustments accordingly that could materially affect our financial position and results of operations as well as our effective tax rate in the period in which the adjustments are made.

Goodwill and Intangible Assets

Acquired intangible assets are accounted for at acquisition cost less accumulated amortization and any impairment loss. Acquired intangible assets are amortized over their estimated useful lives of three to nine years on a straight-line method. Intangible assets are reviewed for impairment whenever events or changes in circumstances such as, but not limited to, significant declines in revenue, earnings or cash flows or material adverse changes in the financial and economic environment indicate that the carrying amount of an asset may be impaired.

Goodwill is not amortized and is tested for impairment at least annually or whenever events or changes in circumstances indicate that the carrying value may not be recoverable. The Company has determined that it operates as a single reporting unit and has selected December 31 as the date to perform its annual impairment test. In the impairment assessment of its goodwill, the Company performs a two-step impairment test, which involves assumptions regarding estimated future cash flows to be derived from the Company. If these estimates or their related assumptions change in the future, the Company may be required to record impairment for these assets.

The first step of the impairment test involves comparing the fair value of the reporting unit to its net book value, including goodwill. If the net book value exceeds its fair value, then the Company would perform the second step of the goodwill impairment test to determine the amount of the impairment loss. The impairment loss to be recognized would be calculated by comparing the implied fair value of the Company to its net book value. In calculating the implied fair value of the Company would be allocated to all of the other assets and liabilities based on their fair values. The excess of the fair value of the Company over the amount assigned to its other assets and liabilities is the implied fair value of goodwill. An impairment loss would be recognized in the Consolidated Statement of Income when the carrying amount of goodwill exceeds its implied fair value.

There has been no impairment of goodwill during the years ended December 31, 2016, 2017 and 2018, as the Company's reporting unit's fair value was substantially in excess of the carrying value based on the annual goodwill impairment test.

Internal-Use Software

Costs related to customized internal-use software that have reached the application development stage are capitalized. Capitalization of such costs begins when the preliminary project stage is complete and stops when the project is substantially complete and is ready for its intended purpose. In making this determination, several analyses for each phase are performed, including analysis of the feasibility, availability of resources, intention to use and future economic benefits. Amortization of these costs begins when capitalization stops and is calculated on a straight-line basis over the assets' useful lives estimated at three to five years. Costs incurred during the preliminary development stage, as well as maintenance and training costs, are expensed as incurred.

Equity Awards Compensation

We account for share-based compensation in accordance with ASC 718 - Compensation - Stock Compensation. Under the fair value recognition provisions of this guidance, share-based compensation is measured at the grant date based on the fair value of the award and is recognized as expense, over the requisite service period, which is generally the vesting period of the respective award.

Determining the fair value of share-based awards at the grant date requires judgment. The determination of the grant date fair value of RSUs is based on the share price on the grant date. We use the Black-Scholes option-pricing model to determine the fair value of share options. The determination of the grant date fair value of options using an option-pricing model is affected by our estimated ordinary share fair value as well as assumptions regarding a number of other complex and subjective variables.

These variables include the fair value of our ordinary shares, the exercise price of the option, the expected term of the options, our expected share price volatility, risk-free interest rates, and expected dividends, which are estimated as follows:

- Fair value of our ordinary shares. Following our initial public offering, we established a policy of using the closing sales price per ADS as quoted on the Nasdaq on the date of grant for purposes of determining the fair value of ordinary shares.
- Exercise price of the option. Following our initial public offering, we established a policy of using the closing sales price per ADS as quoted on the Nasdaq on the date of grant for purposes of determining the exercise price with a floor value of 95% of the average of the closing sales price per ADS for the 20 trading days preceding the grant.
- Expected term. The expected term represents the period that our share-based awards are expected to be outstanding. As we do not have sufficient historical experience for determining the expected term of the ordinary share option awards granted, we have based our expected term on the simplified method, which represents the average period from vesting to the expiration of the award.
- Expected volatility. Prior to our initial public offering, as we did not have a trading history for our ordinary shares, the expected share price volatility for our ordinary shares was estimated by taking the average historic price volatility for industry peers based on daily price observations over a period equivalent to the expected term of the ordinary share option grants. From the initial public offering, the expected share price volatility takes into account the Criteo closing share price from the initial public offering date to the grant date and closing share price of industry peers for the remaining expected term of the ordinary share option grant.
- *Risk-free rate*. The risk-free interest rate is based on the yields of France Treasury securities with maturities similar to the expected term of the options for each option group.
- *Dividend yield.* We have never declared or paid any cash dividends and do not presently plan to pay cash dividends in the foreseeable future. Consequently, we use an expected dividend yield of zero.

If any of the assumptions used in the Black-Scholes model changes significantly, share-based compensation for future awards may differ materially compared with the awards granted previously.

The following table presents the range of assumptions used to estimate the fair value of options granted during the periods presented:

	Year	Ended December 31,	
	2016	2017	2018
Volatility	40.4% - 40.6%	41.3%	40.7% - 41.5%
Risk-free interest rate	0.00%	0.00%	0.60% - 0.90%
Expected life (in years)	6 years	6 years	6 years
Dividend yield	<u> </u>		_%

Recent Accounting Pronouncements

For a discussion of recent accounting pronouncements applicable to us, see Note 1 to our audited consolidated financial statements beginning on page F-1.

Results of Operations for the Years Ended December 31, 2016, 2017 and 2018

Revenue

Information in this Form 10-K with respect to results presented on a constant currency basis was calculated by applying prior period average exchange rates to current period results. Management reviews and analyzes business results excluding the effect of foreign currency translation because they believe this better represents our underlying business trends. Below is a table which reconciles the actual results presented in this section with the results presented on a constant currency basis.

		Year	En	ded Decembe	% change			
	2016		2017			2018	2016 vs 2017	2017 vs 2018
	_		(in	thousands)	_			
Revenue as reported	\$	1,799,146	\$	2,296,692	\$	2,300,314	28%	0.2 %
Conversion impact U.S. dollar/other currencies	\$	(5,022)		(4,809)		(19,118)		
Revenue at constant currency (*)		1,794,124		2,291,883		2,281,196	27%	(1)%
Americas								
Revenue as reported	\$	730,873	\$	990,424	\$	954,073	36%	(4)%
Conversion impact U.S. dollar/other currencies		3,952		(6,812)		7,693		
Revenue at constant currency (*)	\$	734,825	\$	983,612	\$	961,766	35%	(3)%
<u>EMEA</u>								
Revenue as reported	\$	660,523	\$	808,961	\$	839,825	22%	4 %
Conversion impact U.S. dollar/other currencies		18,976		(7,179)		(21,553)		
Revenue at constant currency (*)	\$	679,499	\$	801,782	\$	818,272	21%	1 %
Asia-Pacific								
Revenue as reported	\$	407,750	\$	497,307	\$	506,416	22%	2 %
Conversion impact U.S. dollar/other currencies		(27,950)		9,186		(5,258)		
Revenue at constant currency (*)	\$	379,800	\$	506,493	\$	501,158	24%	1 %

^(*) Revenue at constant currency excludes the impact of foreign currency fluctuations and is computed by applying the average exchange rates for the prior year to the following year figures.

2018 Compared to 2017

Revenue for 2018 increased \$3.6 million, or 0.2% (or decreased (1)% on a constant currency basis) to \$2,300.3 million, compared to 2017. Revenue was impacted by the discontinuation of certain products over the period. Revenue from new clients contributed 63% to the year-over-year revenue growth of the period, while revenue from existing clients contributed 37%. Business with our existing clients was generally resilient despite significant headwinds resulting in softer contribution to revenue growth. We added 1,301 net new clients across regions and client sizes over the period, a lower volume than the prior year, primarily driven by delayed sales headcount hiring and increased employee attrition, particularly in the midmarket.

Offsetting this, clients increasingly used our Criteo Marketing Solutions to address new marketing goals, particularly Consideration, as well as Criteo Retail Media solutions, launched campaigns in new environments, such as apps, and benefited from our broader direct connections with publishers through Criteo Direct Bidder.

Our revenue in the Americas region decreased (4)% (or (3)% on a constant currency basis) to \$954.1 million for 2018 compared to 2017. While we saw continued strength with our largest existing clients in the United States, execution was more difficult in the midmarket across the region and we experienced prolonged difficult market conditions in Latin America.

We saw a positive impact from the continued ramp up of our expanded Criteo Marketing Solutions and Criteo Retail Media solutions, in particular in the United States. Contribution from existing clients was negatively impacted by user coverage limitations across the region, and the discontinuation of certain products over the period. Contribution from new clients was negatively impacted by hiring delays within our sales teams.

Our revenue in the EMEA region increased 4% (or 1% on a constant currency basis) to \$839.8 million for 2018 compared to 2017. This was largely driven by solid growth in Germany, Russia and Middle-East, as well as the traction from our broader solutions offering. External negative factors, including the implementation of the GDPR, as well as some short-term disturbance related to the implementation of our new go-to-market model across the region had a temporary negative impact on revenue growth.

Our revenue in the Asia-Pacific region increased 2% (or 1% on a constant currency basis) to \$506.4 million for 2018 compared to 2017. Overall, revenue growth was driven by a stronger business in Korea (particularly in apps) and India and Japan (particularly with large clients).

Additionally, our \$2,300.3 million of revenue for 2018 was positively impacted by \$19.1 million of currency fluctuations, particularly as a result of the strengthening of the Japanese yen, the British pound and the euro partially offset by the depreciation of the Brazilian real and the Turkish lira, compared to the U.S. dollar.

The year-over-year decrease in revenue on a constant currency basis was attributable to a slight decrease in the average cost-per-click, not entirely offset by growth in the volume of clicks delivered on the advertisements displayed by us.

2017 Compared to 2016

Revenue for 2017 increased \$497.5 million, or 28% (or 27% on a constant currency basis) to \$2,296.7 million, compared to 2016. Revenue from net new clients contributed 29.3% to the global year-over-year revenue growth while revenue from existing clients contributed 70.7% to the global year-over-year revenue growth. This increase in revenue was primarily driven by continued technology innovation, a broader and improved access to quality publisher inventory, and the addition of clients across regions, client categories and products. Improved technology, better access to inventory through Criteo Direct Bidder, our proprietary header bidding technology, and the launch of new solutions within Criteo Marketing Solutions in the fourth quarter of 2017, helped generate more revenue per client, in particular from existing clients. Our ability to drive a large portion of our business from clients that have uncapped budgets continued to be a key driver in growing our revenue per existing client.

The year-over-year increase was the result of our rapid growth across all geographies.

Our revenue in the Americas region increased 36% (or 35% on a constant currency basis) to \$990.4 million for 2017 compared to 2016. This was driven by the acquisition of new large clients and our ability to increase their spend with us through the year, the continued increase in revenue from existing large clients, continued strong traction from midmarket clients across the region, and the increasing contribution of Criteo Retail Media, in particular in the fourth quarter of 2017.

Our revenue in the EMEA region increased 22% (or 21% on a constant currency basis) to \$809.0 million for 2017 compared to 2016. This was driven by the addition of several new large and midmarket clients across markets in the region and the continued growth of our revenue from existing clients, in particular commerce clients, across large and midmarket clients and geographic markets. In 2017, we also significantly expanded the commercial presence of Criteo Retail Media in Europe, which contributed to the regional revenue growth.

Our revenue in the Asia-Pacific region increased 22% (or 24% on a constant currency basis) to \$497.3 million for 2017 compared to 2016. This was driven by the continued expansion of our business with existing large clients, in particular in Japan, the addition of new clients in the large client and midmarket categories across all Asian markets, and continued solid growth across South-East Asian markets, largely supported by continued growth in in-app inventory.

Additionally, our \$2,296.7 million of revenue for 2017 was positively impacted by \$4.8 million of currency fluctuations, particularly as a result of the strengthening of the Japanese yen and the British pound partially offset by the depreciation of the Brazilian real and the euro, compared to the U.S. dollar.

Over 100% of the year-over-year growth in revenue on a constant currency basis was attributable to an increase in the volume of clicks delivered on the advertisements displayed by us.

The release of Apple's *Intelligent Tracking Prevention* feature in Apple's Safari browser, or ITP, on September 19, 2017 had a net negative impact on our Revenue ex-TAC in the third and fourth quarters of 2017 of less than \$1.0 million and \$25 million, respectively.

Cost of Revenue

	Year	r Ei	nded December	r 31	,	% cł	ange
	2016 2017 2018		2018	2016 vs 2017	2017 vs 2018		
	(in thou	san	ds, except perc	ent	ages)		
Traffic acquisition costs	\$ (1,068,911)	\$	(1,355,556)	\$	(1,334,334)	27%	(2)%
Other cost of revenue	(85,260)		(121,641)		(131,744)	43%	8%
Total cost of revenue	\$ (1,154,171)	\$	(1,477,197)	\$	(1,466,078)	28%	(1)%
% of revenue	(64)%		(64)%		(64)%		
Gross profit %	36 %		36 %		36 %		

2018 Compared to 2017

Cost of revenue for 2018 decreased \$(11.1) million, or (1)%, compared to 2017. This decrease was primarily the result of a \$(21.2) million, or (2)% (or (2)% on a constant currency basis), decrease in traffic acquisition costs and a \$10.1 million, or 8% (or 8% on a constant currency basis), increase in other cost of revenue.

The decrease in traffic acquisition costs related primarily to a (2.7)% decrease (or (3.2)% decrease on a constant currency basis) in the average CPM for inventory purchased, partly offset by an increase of 1.2% in the total number of impressions we purchased. The increase in the volume of purchased impressions reflects our expanding relationships with existing and new publisher partners to support the growth in our client demand for advertising campaigns. The year-over-year decrease in average CPM was driven by a combination of factors, including the effectiveness of our Criteo Direct Bidder, which allows to buy quality inventory directly from large publishers and remove intermediary fees in the process, as well as of the growing share of in-app inventory in our business, which inventory cost tends to be slightly lower than that in the web browser environment.

The increase in other cost of revenue includes a \$13.1 million increase in allocated depreciation and amortization expense and a \$0.1 million increase in other cost of sales partially offset by a \$3.1 million decrease in hosting costs.

2017 Compared to 2016

Cost of revenue for 2017 increased \$323.0 million, or 28%, compared to 2016. This increase was primarily the result of a \$286.6 million, or 27% (or 27% on a constant currency basis), increase in traffic acquisition costs and a \$36.4 million, or 43% (or 44% on a constant currency basis), increase in other cost of revenue.

The increase in traffic acquisition costs related primarily to an increase of 29.1% in the total number of impressions we purchased, partly offset by a 1.8% decrease (or 1.9% decrease on a constant currency basis) in the average CPM for inventory purchased. The increase in the volume of purchased impressions reflects our expanding relationships with existing and new publisher partners to support the growth in our client demand for commerce marketing campaigns. The year-over-year decrease in average CPM was driven by a combination of factors, including the effectiveness of our Criteo Direct Bidder, which allows to buy quality inventory directly from large publishers and remove intermediary fees in the process, as well as of the growing share of in-app inventory in our business, which inventory cost tends to be lower than that in the web browser environment.

The increase in other cost of revenue includes a \$15.9 million increase in hosting costs, a \$15.8 million increase in allocated depreciation and amortization expense and a \$4.7 million increase in other cost of sales.

Revenue excluding Traffic Acquisition Costs

We consider Revenue ex-TAC as a key measure of our business activity. Our strategy focuses on maximizing our Revenue ex-TAC on an absolute basis over maximizing our near-term gross margin. We believe this focus builds sustainable long-term value for our business by fortifying a number of our competitive strengths, including access to advertising inventory, breadth and depth of data and continuous improvement of the Criteo AI Engine's performance, allowing it to deliver more relevant advertisements at scale. As part of this focus, we continue to invest in building relationships with direct publishers and pursue access to leading advertising exchanges.

The following table sets forth our revenue, traffic acquisition costs and Revenue ex-TAC by region, including the Americas (North and South America), Europe, Middle East and Africa, or EMEA, and Asia-Pacific:

		Year	r En	ded December	d December 31,		
	Region	2016		2017		2018	
			(ir	thousands)			
Revenue	Americas	\$ 730,873	\$	990,424	\$	954,073	
	EMEA	660,523		808,961		839,825	
	Asia-Pacific	407,750		497,307		506,416	
	Total	\$ 1,799,146	\$	2,296,692	\$	2,300,314	
Traffic acquisition costs	Americas	\$ (451,774)	\$	(619,393)	\$	(579,597)	
	EMEA	(373,664)		(450,297)		(471,654)	
	Asia-Pacific	(243,473)		(285,866)		(283,083)	
	Total	\$ (1,068,911)	\$	(1,355,556)	\$	(1,334,334)	
Revenue ex-TAC (1)	Americas	\$ 279,099	\$	371,031	\$	374,476	
	EMEA	286,859		358,664		368,171	
	Asia-Pacific	164,277		211,441		223,333	
	Total	\$ 730,235	\$	941,136	\$	965,980	

⁽¹⁾ We define Revenue ex-TAC as our revenue excluding traffic acquisition costs generated over the applicable measurement period. Revenue ex-TAC and Revenue ex-TAC by Region in this Form 10-K because they are key measures used by our management and board of directors to evaluate operating performance and generate future operating plans. In particular, we believe that the elimination of TAC from revenue and review of these measures by region can provide useful measures for period-to-period comparisons of our core business. Accordingly, we believe that Revenue ex-TAC and Revenue ex-TAC by Region provide useful information to investors and others in understanding and evaluating our results of operations in the same manner as our management and board of directors. Our use of Revenue ex-TAC and Revenue ex-TAC by Region has limitations as an analytical tool, and you should not consider them in isolation or as a substitute for analysis of our financial results as reported under U.S. GAAP. Some of these limitations are: (a) other companies, including companies in our industry which have similar business arrangements, may address the impact of TAC differently; (b) other companies may report Revenue ex-TAC and Revenue ex-TAC by Region or similarly titled measures but define the regions differently, which reduces their effectiveness as a comparative measure; and (c) other companies may report Revenue ex-TAC or similarly titled measures but calculate them differently, which reduces their usefulness as a comparative measure. Because of these and other limitations, you should consider Revenue ex-TAC and Revenue ex-TAC by Region alongside our other U.S. GAAP financial results, including revenue. The above table provides a reconciliation of Revenue ex-TAC by region to revenue by region. Please also refer to footnote 3 to the "Other Financial and Operating Data" table in "Item 6. Selected Financial Data" in this Form 10-K for a reconciliation of Revenue ex-TAC to revenue, the most directly comparable financial measure calculate

Constant Currency Reconciliation

Information in this Form 10-K with respect to results presented on a constant currency basis was calculated by applying prior period average exchange rates to current period results. Management reviews and analyzes business results excluding the effect of foreign currency translation because they believe this better represents our underlying business trends. Below is a table which reconciles the actual results presented in this section with the results presented on a constant currency basis:

	Year Ended December 31,						% change		
		2016		2017		2018	2016 vs 2017	2017 vs 2018	
			(in	thousands)					
Revenue as reported	\$	1,799,146	\$	2,296,692	\$	2,300,314	28%	0.2%	
Conversion impact U.S. dollar/other currencies		(5,022)		(4,809)		(19,118)			
Revenue at constant currency	\$	1,794,124	\$	2,291,883	\$	2,281,196	27%	(1)%	
Traffic acquisition costs as reported	\$	(1,068,911)	\$	(1,355,556)	\$	(1,334,334)	27%	(2)%	
Conversion impact U.S. dollar/other currencies		3,852		2,186		10,433			
Traffic acquisition cost at constant currency	\$	(1,065,059)	\$	(1,353,370)	\$	(1,323,901)	27%	(2)%	
Revenue ex-TAC as reported	\$	730,235	\$	941,136	\$	965,980	29%	3%	
Conversion impact U.S. dollar/other currencies		(1,170)		(2,624)		(8,686)			
Revenue ex-TAC at constant currency	\$	729,065	\$	938,512	\$	957,294	29%	2%	
Other cost of revenue as reported	\$	(85,260)	\$	(121,641)	\$	(131,744)	43%	8%	
Conversion impact U.S. dollar/other currencies		(40)		(990)		(114)			
Other cost of revenue at constant currency	\$	(85,300)	\$	(122,631)	\$	(131,858)	44%	8%	

Research and Development Expenses

	Year	r Ended Decem	ber :	31,	% change		
	2016	2017		2018	2016 vs 2017	2017 vs 2018	
	(in thousand	ds, except perce	nt o	f revenue)			
Research and development expenses	\$ (123,649)	\$ (173,925)	\$	(179,263)	41%	3%	
% of revenue	(7)%	(8)%		(8)%			

2018 Compared to 2017

Research and development expenses for 2018 increased \$5.3 million, or 3%, compared to 2017. This increase mainly related to an increase of headcount-related costs and other expenses, partially offset by an increase in the French Research Tax Credit.

2017 Compared to 2016

Research and development expenses for 2017 increased \$50.3 million, or 41%, compared to 2016. This increase mainly related to an increase of headcount-related costs and allocated depreciation and amortization expense partially offset by an increase in the French Research Tax Credit.

Sales and Operations Expenses

	Yea	r En	ded Decembe	er 31	1,	% change				
	2016		2017		2018	2016 vs 2017	2017 vs 2018			
	(in thousands, except percent of revenue)									
Sales and operations expenses	\$ (282,853)	\$	(380,649)	\$	(372,707)	35%	(2)%			
% of revenue	(16)%		(17)%		(16)%					

2018 Compared to 2017

Sales and operations expenses for 2018 decreased \$(7.9) million, or (2)%, compared to 2017. This decrease mainly related to a decrease in headcount-related costs, internal and marketing events costs and operating taxes in Brazil and Singapore partially offset by an increase of bad debt expense.

2017 Compared to 2016

Sales and operations expenses for 2017 increased \$97.8 million, or 35%, compared to 2016. This increase mainly related to an increase in headcount-related costs, marketing events costs, allocated depreciation and amortization expense, provisions for doubtful accounts and other expenses including bad debts and other operating taxes.

General and Administrative Expenses

	Year	r En	ded Decembe	er 3	1,	% ch	ange
	 2016		2017		2018	2016 vs 2017	2017 vs 2018
	(in thousand	ds, e	xcept percen	t of	revenue)		
General and administrative expenses	\$ (117,469)	\$	(127,077)	\$	(135,159)	8%	6%
% of revenue	(7)%		(6)%		(6)%		

2018 Compared to 2017

General and administrative expenses for 2018 increased \$8.1 million, or 6%, compared to 2017. This increase mainly related to an increase of headcount-related costs and consulting fees relating to the Storetail and Manage acquisitions.

2017 Compared to 2016

General and administrative expenses for 2017 increased \$9.6 million, or 8%, compared to 2016. This increase mainly related to an increase of headcount-related costs, allocated depreciation and amortization expense, and other operating expenses.

Financial Expense

	Yea	ar End	led Decembe	r 31,		% ch	nange
	 2016		2017		2018	2016 vs 2017	2017 vs 2018
	 (in thousar	ıds, ex	cept percent	of re	venue)		
Financial expense	\$ (546)	\$	(9,534)	\$	(5,084)	nm	(47)%
% of revenue	— %)	(0.4)%		(0.2)%		

2018 Compared to 2017

Financial expense for 2018 decreased by \$(4.5) million, or (47)% compared to 2017. The \$5.1 million financial expense for the period ended December 31, 2018 was mainly driven by the non-utilization costs and upfront fees amortization incurred as part of our available revolving credit facility RCF financing. The hedging costs related to the intra-group position between Criteo S.A. and its U.S subsidiary in the context of the funding of the HookLogic acquisition was lower in the year ended December 31, 2018 compared to the same period ended in 2017 as this intra-group position no longer requires hedging following the qualification as a net investment in a foreign operation in February 2018. At December 31, 2018, our exposure to foreign currency risk was centralized at Criteo S.A. and hedged using foreign currency swaps or forward purchases or sales of foreign currencies.

2017 Compared to 2016

Financial expense for 2017 increased by \$9.0 million compared to 2016. The \$9.5 million financial expense for the period ended December 31, 2017 resulted from the interest incurred as a result of the \$75.0 million drawn on the revolving credit facility entered into in September 2015 (as amended in March 2017) and the hedging cost related to an intra-group position between Criteo S.A. and its U.S. subsidiary, both in the context of the funding of the HookLogic acquisition in November 2016, as well as the non-utilization fees incurred as part of our available RCF financing. At December 31, 2017, our exposure to foreign currency risk is centralized at Criteo S.A. and hedged using foreign currency swaps or forward purchases or sales of foreign currencies.

	Yea	r Enc	led Decembe	r 31,		% change		
	 2016	2017 2018			2016 vs 2017	2017 vs 2018		
	(in thousand	ds, ex	cept percent	infor	mation)			
Provision for income taxes	\$ (33,129)	\$	(31,651)	\$	(46,144)	(4)%	46%	
% of revenue	(2)%		(1)%		(2)%			
Effective tax rate	27.5 %		24.7 %		32.5 %			

2018 Compared to 2017

The provision for income taxes for 2018 increased by \$14.5 million, or (46)%, compared to 2017. The annual effective tax rate for 2018 was 32.5%, compared to an annual effective tax rate of 24.7% for 2017. Generally, the annual effective tax rates differ from statutory rates primarily due to the impact of the domestic tax deduction applicable to technology royalty income we received from our subsidiaries, differences in tax rates in foreign jurisdictions, tax loss carryforwards in certain of our foreign subsidiaries, non-recognition of deferred tax assets related to tax losses and temporary differences, recognition of previously unrecognized tax losses and equity awards compensation expense.

In 2018, our income before taxes increased by \$13.7 million to \$142.0 million, compared to 2017, generating a \$48.9 million theoretical income tax expense at a nominal standard French tax rate of 34.43%. This theoretical tax expense is impacted primarily by the following items contributing to a \$46.1 million effective tax expense and a 32.5% effective tax rate: \$17.7 million of net effect of share-based compensation, \$11.7 million of deferred tax assets on which we recognized a valuation allowance (mainly related to Criteo Ltd, Criteo Corp., Criteo Pty and Criteo do Brasil LTDA), \$12.0 million of permanent differences (mainly based on employee costs, depreciation expenses and intercompany transactions), \$3.8 million related to the French business tax Cotisation sur la Valeur Ajoutée des Entreprises, or "CVAE", offset by a \$38.6 million tax deduction resulting from technology royalty income we received from our subsidiaries, \$10.2 million Research and Development tax credit and the recognition or reversal of valuation allowance on deferred tax assets for \$4.5 million (mainly for Criteo Advertising (Beijing) Co. Ltd) and \$1.8 million relating to other tax adjustments. Please see Note 22 to our audited consolidated financial statements for more detailed information on the provision for income taxes.

Amounts recognized in our consolidated financial statements are calculated at the level of each subsidiary within our consolidated financial statements. As at December 31, 2018, the valuation allowance against deferred tax assets amounted to \$43.2 million. It mainly related to Criteo Corp. (\$18.6 million), Criteo Ltd (\$7.2 million), Criteo China (\$3.5 million), Criteo Brazil (\$3.6 million), Criteo Singapore (\$2.9 million) and Criteo France (\$3.9 million).

2017 Compared to 2016

The provision for income taxes for 2017 decreased by \$1.5 million, or 4%, compared to 2016. The annual effective tax rate for 2017 was 24.7%, compared to an annual effective tax rate of 27.5% for 2016. Generally, the annual effective tax rates differ from statutory rates primarily due to the impact of the domestic tax deduction applicable to technology royalty income we received from our subsidiaries, differences in tax rates in foreign jurisdictions, tax loss carryforwards in certain of our foreign subsidiaries and equity awards compensation expense.

In 2017, our income before taxes increased by \$7.9 million to \$128.3 million, compared to 2016, generating a \$44.2 million theoretical income tax expense at a nominal standard French tax rate of 34.43%. This theoretical tax expense is impacted primarily by the following items contributing to a \$31.6 million effective tax expense and a 24.7% effective tax rate: \$14.4 million of deferred tax assets on which we recognized a valuation allowance mainly related to Criteo Ltd, Criteo Corp., Criteo Pty (Australia) and Criteo Advertising (Beijing) Co. Ltd tax losses, \$0.6 million of net effect of share-based compensation, \$2.9 million related to the CVAE, \$13.1 million relating to the decrease of the American federal income tax rate on deferred tax assets positions offset by \$6.4 million relating to deferred tax liabilities recognized on HookLogic intangible assets transferred from Criteo Corp. to Criteo entities at local income tax rates, a \$29.4 million tax deduction resulting from technology royalty income we received from our subsidiaries, a \$4.6 million Criteo Corp. Research and Development tax credit and the recognition or reversal of valuation allowance on deferred tax assets for \$4.9 million (mainly for Criteo Brazil.) and \$1.8 million relating to other tax adjustments. Please see Note 22 to our audited consolidated financial statements for more detailed information on the provision for income taxes.

Amounts recognized in our consolidated financial statements are calculated at the level of each subsidiary within our consolidated financial statements. As at December 31, 2017, the valuation allowance against deferred tax assets amounted to \$35.1 million. It mainly related to Criteo Corp including Hooklogic (\$14.7 million), Criteo Ltd (\$6.3 million), Criteo China (\$6.6 million) and Criteo France (\$3.0 million).

Net Income

		Yea	r End	led Decembe	r 31,		% ch	ange
	<u></u>	2016		2017		2018	2016 vs 2017	2017 vs 2018
		(in thousan	ds, ex	cept percent	of re	venue)		
Net income	\$	87,329	\$	96,659	\$	95,879	11%	(1)%
% of revenue		5%	,	4%		4%		

2018 Compared to 2017

Net income for 2018 decreased \$(0.8) million, or (1)% compared to 2017. This decrease was the result of the factors discussed above, in particular a \$9.3 million increase in income from operations and a \$(4.5) million decrease in financial expense offset by a \$14.5 million increase in provision for income taxes compared to 2017.

2017 Compared to 2016

Net income for 2017 increased \$9.3 million, or 11% compared to 2016. This increase was the result of the factors discussed above, in particular a \$16.8 million increase in income from operations which was partially offset by a \$9.0 million increase in financial expense and a \$1.5 million increase in provision for income taxes compared to 2016.

Unaudited Quarterly Results of Operations

The following tables set forth our unaudited consolidated statement of income data for the last eight quarters, as well as the percentage of revenue for each line item shown. We derived this information from our unaudited interim consolidated financial information, which, in the opinion of management, includes all adjustments, consisting only of normal recurring adjustments, necessary for the fair presentation of the information for the quarters presented. The quarterly results of operations have been prepared by, and are the responsibility of, our management and have not been audited or reviewed by our independent registered public accounting firm. You should read this information together with our audited consolidated financial statements and related notes beginning on page F-1.

							Three Mon	ths	Ended						
	N	Iarch 31, 2017	_	June 30, 2017	S	eptember 30, 2017	December 31, 2017	_	Tarch 31, 2018	_	June 30, 2018	S	eptember 30, 2018	D	ecember 31, 2018
Consolidated Statements of Income Data:							(in thou	isai	nds)						
Revenue	\$	516,667	\$	542,022	\$	563,973	\$ 674,031	\$	564,164	\$	537,185	\$	528,869	\$	670,096
Cost of revenue (1)															
Traffic acquisition costs		(306,693)		(322,200)		(329,576)	(397,087)		(323,746)		(306,963)		(305,387)		(398,238)
Other cost of revenue		(27,155)		(32,808)		(29,951)	(31,727)		(30,059)		(29,957)		(32,921)		(38,807)
Gross profit		182,819		187,014		204,446	245,217		210,359		200,265		190,561		233,051
Operating expenses (1):															
Research and development expenses		(39,521)		(43,611)		(43,860)	(46,933)		(45,318)		(47,544)		(41,796)		(44,605)
Sales and operations expenses		(90,730)		(97,900)		(95,184)	(96,834)		(95,649)		(92,726)		(90,526)		(93,806)
General and administrative expenses		(31,516)		(32,239)		(32,389)	(30,934)		(34,591)		(35,644)		(32,463)		(32,461)
Total operating expenses		(161,767)		(173,750)		(171,433)	(174,701)		(175,558)		(175,914)		(164,785)		(170,872)
Income from operations		21,052		13,264		33,013	70,516		34,801		24,351		25,776		62,179
Financial income (expense)		(2,333)		(2,094)		(2,886)	(2,221)		(1,325)		(1,006)		(1,007)		(1,746)
Income before taxes		18,719		11,170		30,127	68,295		33,476		23,345		24,769		60,433
Provision for income taxes		(4,201)		(3,665)		(7,858)	(15,927)		(12,386)		(8,638)		(6,821)		(18,299)
Net income	\$	14,518	\$	7,505	\$	22,269	\$ 52,368	\$	21,090	\$	14,707	\$	17,948	\$	42,134
Net income available to shareholders of Criteo S.A.		12,442		5,970		19,774	53,030		19,809		13,726		17,143		37,966
Other Financial Data:															
Revenue ex-TAC (2)	\$	209,974	\$	219,822	\$	234,397	\$ 276,944	\$	240,418	\$	230,222	\$	223,482	\$	271,858
Adjusted EBITDA (3)	\$	56,454	\$	54,086	\$	79,116	\$ 119,928	\$	77,932	\$	68,774	\$	69,591	\$	104,762

⁽¹⁾ Cost of revenue and operating expenses include equity awards compensation expense, pension service costs, depreciation and amortization expense and acquisition-related costs and deferred price consideration as follows:

	Three Months Ended													
		arch 31, 2017	J	une 30, 2017		ptember 0, 2017		ecember 1, 2017	3	March 1, 2018	J	une 30, 2018	ptember 0, 2018	ecember 1, 2018
T								(in tho	usai	nds)				
Equity awards compensation expense														
Research and development expenses	\$	3,916	\$	4,461	\$	6,361	\$	6,355	\$	4,555	\$	6,771	\$ 4,901	\$ 5,005
Sales and operations expenses		6,710		6,401		9,897		8,377		7,832		8,668	6,952	5,793
General and administrative expenses		4,314		4,056		5,770		5,732		6,916		4,806	5,408	(531)
Total equity awards compensation expense (a)	\$	14,940	\$	14,918	\$	22,028	\$	20,464	\$	19,303	\$	20,245	\$ 17,261	\$ 10,267
Pension service costs														
Research and development expenses	\$	146	\$	151	\$	161	\$	162	\$	220	\$	212	\$ 208	\$ 204
Sales and operations expenses		59		60		65		63		79		75	83	88
General and administrative expenses		85		88		94		96		135		132	128	127
Total pension service costs	\$	290	\$	299	\$	320	\$	321	\$	434	\$	419	\$ 419	\$ 419
Depreciation and amortization expense														
Cost of revenue	\$	11,091	\$	13,003	\$	14,320	\$	15,575	\$	15,249	\$	15,050	\$ 16,571	\$ 20,477
Research and development expenses		2,944		3,092		2,822		2,369		2,221		2,245	2,724	3,412
Sales and operations expenses		4,961		4,925		5,102		4,856		4,454		4,518	4,442	4,831
General and administrative expenses		1,171		1,286		1,511		1,770		1,722		1,747	1,882	1,955
Total depreciation and amortization expense	\$	20,167	\$	22,306	\$	23,755	\$	24,570	\$	23,646	\$	23,560	\$ 25,619	\$ 30,675
Acquisition-related costs														
General and administrative expenses	\$	6	\$	_	\$	_	\$	_	\$	_	\$	_	\$ 516	\$ 1,222
Total depreciation and amortization expense	\$	6	\$	_	\$	_	\$	_	\$	_	\$	_	\$ 516	\$ 1,222
Acquisition-related deferred price consideration														
Research and development expenses	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$ _	\$ _
Sales and operations expenses		_		_		_		_		_		_	_	_
General and administrative expenses		_		_		_		_		_		_	_	_
Total acquisition-related deferred price consideration	\$	_	\$	_	\$	_	\$	_	\$	_	\$	_	\$ _	\$ _
Restructuring														
Cost of revenue	\$	_	\$	2,497	\$	_	\$	_	\$	_	\$	_	\$ _	\$ _
Research and development expenses		_		_		_		2,911		(348)		16	_	_
Sales and operations expenses		_		690		_		1,135		107		183	_	_
General and administrative expenses				112				11		(11)				
Total restructuring	\$	_	\$	3,299	\$	_	\$	4,057	\$	(252)	\$	199	\$ 	\$

 $^{^{(}a)}$ Excludes 0.7 million and (0.5) million disclosed as restructuring costs as of December 31, 2017 and 2018, respectively.

(2) We define Revenue ex-TAC as our revenue excluding traffic acquisition costs generated over the applicable measurement period. Revenue ex-TAC is not a measure calculated in accordance with U.S. GAAP. Please see footnote 3 to the "Other Financial and Operating Data" table in "Item 6. Selected Financial Data" in this Form 10-K for more information. Below is a reconciliation of Revenue ex-TAC to revenue, the most directly comparable financial measure calculated and presented in accordance with U.S. GAAP.

							Three Mo	nth	s Ended				
	N	Iarch 31, 2017	,	June 30, 2017	eptember 30, 2017		December 31, 2017	N	Iarch 31, 2018	•	June 30, 2018	eptember 30, 2018	ecember 31, 2018
						Τ	(in tho	usa	nds)				
Reconciliation of Revenue ex-TAC to Revenue:													
Revenue	\$	516,667	\$	542,022	\$ 563,973	\$	674,031	\$	564,164	\$	537,185	\$ 528,869	\$ 670,096
Adjustment:													
Traffic acquisition costs		(306,693)		(322,200)	(329,576)		(397,087)		(323,746)		(306,963)	(305,387)	(398,238)
Revenue ex-TAC	\$	209,974	\$	219,822	\$ 234,397	\$	276,944	\$	240,418	\$	230,222	\$ 223,482	\$ 271,858

⁽³⁾ We define Adjusted EBITDA as our consolidated earnings before financial income (expense), income taxes, depreciation and amortization, adjusted to eliminate the impact of equity awards compensation expense, pension service costs, restructuring costs, acquisition-related costs and deferred price consideration. Adjusted EBITDA is not a measure calculated in accordance with U.S. GAAP. Please see footnote 5 to the "Other Financial and Operating Data" table in "Item 6. Selected Financial Data" in this Form 10-K for more information. Below is a reconciliation of Adjusted EBITDA to net income, the most directly comparable financial measure calculated and presented in accordance with U.S. GAAP.

Reconciliation of Adjusted EBITDA to Net Income			Three Months Ended														
Reconciliation of Adjusted EBITDA to Net Income \$ 14,518 \$ 7,505 \$ 22,269 \$ 52,368 \$ 21,090 \$ 14,707 \$ 17,948 \$ 42,134		M								M						December 31, 2018	
Adjusted EBITDA to Net Income: \$ 14,518 \$ 7,505 \$ 22,269 \$ 52,368 \$ 21,090 \$ 14,707 \$ 17,948 \$ 42,134 Adjustments: Financial (income) expense 2,333 2,094 2,886 2,221 1,325 1,006 1,007 1,746 Provision for income taxes 4,201 3,665 7,858 15,927 12,386 8,638 6,821 18,299 Equity awards compensation expense (iii) 14,940 14,918 22,028 20,464 19,303 20,245 17,261 10,267 Pension service costs 290 299 320 321 434 419 419 419 419 Depreciation and amortization expense 20,167 22,306 23,755 24,570 23,646 23,560 25,619 30,675 Acquisition-related costs 6 — — — — — — — Restructuring costs — 3,299 — 4,057 (252) 199 — — — — — — — Total net adjustments 41,937 46,581 56,847 67,560 56,841 54,067 51,643 62,628 51,643 62,628									(in tho	usan	ids)						
Adjustments: Financial (income)	Adjusted EBITDA to																
Financial (income) expense 2,333 2,094 2,886 2,221 1,325 1,006 1,007 1,746 expense 4,201 3,665 7,858 15,927 12,386 8,638 6,821 18,299 income taxes Equity awards compensation expense (a) 14,940 14,918 22,028 20,464 19,303 20,245 17,261 10,267 expense (a) 290 299 320 321 434 419 419 419 419 Depreciation and amortization expense 20,167 22,306 23,755 24,570 23,646 23,560 25,619 30,675 expense Acquisition-related costs 6 — — — — — — — — — — — — — — — — — —	Net Income	\$	14,518	\$	7,505	\$	22,269	\$	52,368	\$	21,090	\$	14,707	\$	17,948	\$	42,134
expense 2,333 2,094 2,886 2,221 1,323 1,006 1,007 1,746 Provision for income taxes 4,201 3,665 7,858 15,927 12,386 8,638 6,821 18,299 Equity awards compensation 24,940 14,918 22,028 20,464 19,303 20,245 17,261 10,267 expense (a) Pension service 290 299 320 321 434 419 419 419 419 Depreciation and amortization expense 20,167 22,306 23,755 24,570 23,646 23,560 25,619 30,675 expense Acquisition-related costs 6 — — — — — — — 516 1,222 Acquisition-related deferred price consideration Restructuring costs — 3,299 — 4,057 (252) 199 — — Total net adjustments 41,937 46,581 56,847 67,560 56,841 54,067 51,643 62,628	Adjustments:																
income taxes			2,333		2,094		2,886		2,221		1,325		1,006		1,007		1,746
compensation expense (a) 14,940 14,918 22,028 20,464 19,303 20,245 17,261 10,267 Pension service costs 290 299 320 321 434 419 419 419 Depreciation and amortization expense 20,167 22,306 23,755 24,570 23,646 23,560 25,619 30,675 Acquisition-related costs 6 — — — — — 516 1,222 Acquisition-related deferred price consideration — — — — — — — — — — Restructuring costs — 3,299 — 4,057 (252) 199 — — Total net adjustments 41,937 46,581 56,847 67,560 56,841 54,067 51,643 62,628			4,201		3,665		7,858		15,927		12,386		8,638		6,821		18,299
costs 290 299 320 321 434 419 419 419 Depreciation and amortization expense 20,167 22,306 23,755 24,570 23,646 23,560 25,619 30,675 Acquisition-related costs 6 — — — — — 516 1,222 Acquisition-related deferred price consideration —	compensation		14,940		14,918		22,028		20,464		19,303		20,245		17,261		10,267
amortization expense 20,167 22,306 23,755 24,570 23,646 23,560 25,619 30,675 Acquisition-related costs 6 — — — — — 516 1,222 Acquisition-related deferred price consideration —			290		299		320		321		434		419		419		419
costs 6 — <td>amortization</td> <td></td> <td>20,167</td> <td></td> <td>22,306</td> <td></td> <td>23,755</td> <td></td> <td>24,570</td> <td></td> <td>23,646</td> <td></td> <td>23,560</td> <td></td> <td>25,619</td> <td></td> <td>30,675</td>	amortization		20,167		22,306		23,755		24,570		23,646		23,560		25,619		30,675
deferred price consideration — <td< td=""><td></td><td></td><td>6</td><td></td><td>_</td><td></td><td>_</td><td></td><td>_</td><td></td><td>_</td><td></td><td>_</td><td></td><td>516</td><td></td><td>1,222</td></td<>			6		_		_		_		_		_		516		1,222
Total net adjustments 41,937 46,581 56,847 67,560 56,841 54,067 51,643 62,628	deferred price		_		_		_		_		_		_		_		_
adjustments 41,937 46,381 56,847 67,360 56,841 54,067 51,643 62,628	Restructuring costs		_		3,299		_		4,057		(252)		199		_		_
Adjusted EBITDA \$ 56,455 \$ 54,086 \$ 79,116 \$ 119,928 \$ 77,931 \$ 68,774 \$ 69,591 \$ 104,762			41,937		46,581		56,847		67,560		56,841		54,067		51,643		62,628
	Adjusted EBITDA	\$	56,455	\$	54,086	\$	79,116	\$	119,928	\$	77,931	\$	68,774	\$	69,591	\$	104,762

⁽a) Excludes 0.7 million and \$0.5 million disclosed as restructuring costs as of December 31, 2017 and 2018, respectively.

				Three Mont	hs Ended			
	March 31, 2017	June 30, 2017	September 30, 2017	December 31, 2017	March 31, 2018	June 30, 2018	September 30, 2018	December 31, 2018
				as a percentag	e of revenue)			
Statements of Operations Data:								
Revenue	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of revenue								
Traffic acquisition costs	(59.4)	(59.4)	(58.4)	(58.9)	(57.4)	(57.1)	(57.7)	(59.4)
Other cost of revenue	(5.3)	(6.1)	(5.3)	(4.7)	(5.3)	(5.6)	(6.2)	(5.8)
Gross profit	35.4	34.5	36.3	36.4	37.3	37.3	36.0	34.8
Operating expenses:								
Research and development expenses	(7.6)	(8.0)	(7.8)	(7.0)	(8.0)	(8.9)	(7.9)	(6.7)
Sales and operations expenses	(17.6)	(18.1)	(16.9)	(14.4)	(17.0)	(17.3)	(17.1)	(14.0)
General and administrative expenses	(6.1)	(5.9)	(5.7)	(4.6)	(6.1)	(6.6)	(6.1)	(4.8)
Total operating expenses	(31.3)	(32.1)	(30.4)	(25.9)	(31.1)	(32.7)	(31.2)	(25.5)
Income from operations	4.1	2.4	5.9	10.5	6.2	4.5	4.9	9.3
Financial income (expense)	(0.5)	(0.4)	(0.5)	(0.3)	(0.2)	(0.2)	(0.2)	(0.3)
Income before taxes	3.6	2.1	5.3	10.1	5.9	4.3	4.7	9.0
Provision for income taxes	(0.8)	(0.7)	(1.4)	(2.4)	(2.2)	(1.6)	(1.3)	(2.7)
Net income	2.8%	1.4%	3.9%	7.8%	3.7%	2.7%	3.4%	6.3%
Net income available to shareholders of Criteo S.A.	2.4%	1.1%	3.5%	7.9%	3.5%	2.6%	3.2 %	5.7%
Other Financial Data:								
Revenue ex-TAC	40.6%	40.6%	41.6%	41.1%	42.6%	42.9 %	42.3 %	40.6%
Adjusted EBITDA	10.9 %	10.0%	14.0%	17.8%	13.8%	12.8%	13.2%	15.6%

B. Liquidity and Capital Resources.

Market Risk

We are mainly exposed to changes of foreign currency exchange rate fluctuations.

The functional currency of the Company is the euro, while our reporting currency is the U.S. dollar. Consequently, as a first step, since we incur portions of our expenses and derive revenues in currencies other than the euro, we are exposed to foreign currency exchange risk as our results of operations and cash flows are subject to fluctuations in foreign currency exchange rates. Foreign exchange risk exposure also arises from intra-company transactions and financing with subsidiaries that have a functional currency different than the euro. The statements of financial position of consolidated entities having a functional currency different from the U.S. dollar are translated into U.S. dollars at the closing exchange rate (spot exchange rate at the statement of financial position date) and the statement of income, statement of comprehensive income and statement of cash flow of such consolidated entities are translated at the average period to date exchange rate. The resulting translation adjustments are included in equity under the caption "Accumulated Other Comprehensive Income" in the Consolidated Statement of Changes in Equity.

The \$0.5 million financial expense for the period ended December 31, 2016 resulted from the interest incurred as a result of drawing on the General RCF to partially fund the acquisition of HookLogic in November 2016, the negative impact of foreign exchange reevaluations and related hedging mainly recorded during the first quarter, partially offset by the foreign exchange gain realized on the hedging of the HookLogic acquisition.

The \$9.5 million financial expense for the period ended December 31, 2017 resulted from the interest incurred as a result of the \$75.0 million drawn on the RCF entered into in September 2015 (as amended in March 2017) and the hedging cost related to an intra-group position between Criteo S.A. and its U.S. subsidiary, both in the context of the funding of the HookLogic acquisition in November 2016, as well as the non-utilization fees incurred as part of our available RCF financing.

The \$5.1 million financial expense for the period ended December 31, 2018 was mainly driven by the non-utilization costs and upfront fees amortization incurred as part of our available RCF financing. The intra-group position between Criteo S.A. and its U.S subsidiary in the context of the funding of the HookLogic acquisition is qualified as a net investment in a foreign operation from February 2018 and no longer requires hedging, resulting in reduced costs compared to the same period ended December 31, 2017.

Since 2013, the Company has had a foreign currency risk management policy in place. At December 31, 2018, our exposure to foreign currency risk was centralized at Criteo S.A. and hedged using foreign currency swaps or forward purchases or sales of foreign currencies.

Foreign Currency Risk

A 10% increase or decrease of the British pound, the euro, the Japanese yen or the Brazilian real against the U.S. dollar would have impacted the Consolidated Statements of Income including non-controlling interests as follows:

				,	Year Ended	l De	cember 31,			
	2	2016			2	017		-	2018	
					(in the	ousa	nds)			
GBP/USD	+10%		-10%		+10%		-10%	+10%		-10%
Net income impact	\$ (8)	\$	8	\$	(707)	\$	707	\$ (785)	\$	785
				,	Year Ended	l De	cember 31,			
	2	2016			2	017			2018	
					(in the	ousa	nds)			
BRL/USD	+10%		-10%		+10%		-10%	+10%		-10%
Net income impact	\$ 412	\$	(412)	\$	1,236	\$	(1,236)	\$ (645)	\$	645
				,	Year Ended	l De	cember 31,			
	2	2016			2	017			2018	
					(in the	ousa	nds)			
JPY/USD	+10%		-10%		+10%		-10%	+10%		-10%
Net income impact	\$ 982	\$	(982)	\$	970	\$	(970)	\$ 1,404	\$	(1,404)
				,	Year Ended	l De	cember 31,			
	2	2016			2	017			2018	
					(in the	ousa	nds)			
EUR/USD	+10%		-10%		+10%		-10%	+10%		-10%
Net income impact	\$ 7,785	\$	(7,785)	\$	13,047	\$	(13,047)	\$ 11,552	\$	(11,552)

Counterparty Risk

As of December 31, 2018, we show a positive net cash position. Since 2012, we utilize a cash pooling arrangement, reinforcing cash management centralization. Investment and financing decisions are carried out by our internal central treasury function. We only deal with counterparties with high credit ratings. In addition, under our Investment and Risk Management Policy, our central treasury function ensures a balanced distribution between counterparties of the investments, no matter the rating of such counterparty.

Liquidity Risk

We are mainly exposed to changes of foreign currency exchange rate fluctuations.

Working Capital

The following table summarizes our cash flows from operations, trade receivables, net of allowances and working capital for the periods indicated:

	Year Ended	December 31,
_	2017	2018
Cash flows provided by operating activities	\$245,458	\$260,726
Trade receivables, net of allowances	\$484,101	\$473,901
Working capital (current assets less current liabilities)	\$370,762	\$328,507

In addition, the cash flows were also negatively impacted by a \$21.0 million change in foreign exchange rates on our cash position over the period. We do not enter into investments for trading or speculative purposes.

Our policy is to invest any cash in excess of our immediate requirements in investments designed to preserve the principal balance and provide liquidity. Accordingly, our cash and cash equivalents are invested primarily in demand deposit accounts and money market funds that are currently providing only a minimal return.

Sources of Liquidity

Our principal sources of liquidity are our cash and cash equivalents and cash generated from operations. Since our inception, we raised a total of \$51.1 million aggregate net proceeds from the sale of preferred shares through four private placements. In November 2013, we received aggregate net proceeds before expenses of \$269.0 million from our initial public offering. In March 2014, we received aggregate net proceeds before expenses of \$22.6 million from our secondary equity offering. We also benefited to a much lesser extent from the proceeds of the exercise of share options and warrants and expect to continue to do so in the future, as such securities are exercised by holders.

We are party to a loan agreement and several RCFs with third-party financial institutions. Our loan and RCF agreements as of December 31, 2018 are presented in the table below:

		Nominal/ Authorized amounts (RCF Only)	Amount drawn as of December 31, 2018 (RCF only)		Amount Oustanding as of December 31, 2018		
<u>Nature</u>			(in thousands)			Interest rate	Settlement date
BPI Loan - February 2014		NA	NA	. \$	1,718	Fixed: 2.09%	May 2021
Other BPI Loans		NA	NA	\$	986	0%	2023 and after
Other Loans		NA	NA	\$	169	0%	2024
Bank Syndicate RCF - September 2015	€	350,000	€	€	-	Floating rate: EURIBOR / LIBOR + margin depending on leverage ratio	March 2022

For additional information regarding our loan and RCF agreements, please refer to Note 13 - Financial Liabilities and Note 23 - Commitments and contingencies.

All of these loans and RCFs are unsecured and contain customary events of default but do not contain any affirmative, financial or negative covenants, with the exception of the September 2015 RCF which contains covenants, including compliance with a total net debt to Adjusted EBITDA ratio and restrictions on the incurrence of additional indebtedness. At December 31, 2018, we were in compliance with the required leverage ratio.

We are also party to short-term credit lines and overdraft facilities with HSBC Holdings plc, LCL and BNP Paribas. We are authorized to draw up to a maximum of €21.5 million (\$24.6 million) in the aggregate under the short-term credit lines and overdraft facilities. As of December 31, 2018, we had not drawn on either of these facilities. Any loans or overdrafts under these short-term facilities bear interest based on the one month EURIBOR rate or three month EURIBOR rate. As these facilities are exclusively short-term credit and overdraft facilities, our banks have the ability to terminate such facilities on short notice.

Operating and Capital Expenditure Requirements

In 2016, 2017 and 2018, our actual capital expenditures were \$77.4 million, \$108.5 million and \$125.5 million, respectively, primarily related to the acquisition of data center and server equipment, fit out of new offices and internal IT systems. We expect our capital expenditures to remain at the level of approximately 5% of revenue for 2019, as we plan to continue to build and maintain additional data center equipment capacity in all regions and significantly increase our redundancy capacity to strengthen our infrastructure.

As part of our strategy to build upon our market and technology leadership, in 2016 we acquired all of the outstanding shares of HookLogic for a final purchase price of \$249.0 million financed by (i) a \$75.0 million amount drawn on the General RCF and (ii) a \$175.1 million amount financed by the available cash resources and in 2018 we acquired all of the outstanding shares of Storetail and Manage for \$43.7 million and \$60.0 million respectively, financed by the available cash resources.

We believe our existing cash balances will be sufficient to meet our anticipated cash requirements through at least the next 12 months.

Our future working capital requirements will depend on many factors, including the rate of our revenue growth, the amount and timing of our investments in personnel and capital equipment, and the timing and extent of our introduction of new products and product enhancements.

If our cash and cash equivalents balances and cash flows from operating activities are insufficient to satisfy our liquidity requirements, we may need to raise additional funds through equity, equity-linked or debt financings to support our operations, and such financings may not be available to us on acceptable terms, or at all. We may also need to raise additional funds in the event we determine in the future to effect one or more acquisitions of businesses, technologies, assets or products.

If we are unable to raise additional funds when needed, our operations and ability to execute our business strategy could be adversely affected. If we raise additional funds through the incurrence of indebtedness, such indebtedness would have rights that are senior to holders of our equity securities and could contain covenants that restrict our operations. Any additional equity financing will be dilutive to our shareholders.

Historical Cash Flows

The following table sets forth our cash flows for 2016, 2017 and 2018:

	Year Ended December 31,							
		2016		2017		2018		
			(i	n thousands)				
Cash flows provided by operating activities	\$	153,469	\$	245,458	\$	260,726		
Cash used in investing activities		(312,763)		(106,253)		(226,717)		
Cash from financing activities	\$	90,570	\$	(29,468)	\$	(62,676)		

Our cash and cash equivalents at December 31, 2018 were held for working capital and general corporate purposes, which could include acquisitions. The decrease in cash and cash equivalents compared with December 31, 2017, primarily resulted from \$260.7 million in cash flows from operating activities offset by \$(226.7) million in cash flows used for investing activities and \$(62.7) million used for financing activities.

Operating Activities

Cash flows provided by operating activities are primarily driven by the increase in the number of clients using our solution, the increase in spending from our existing clients and investment in personnel and infrastructure to support the anticipated growth of our business. Cash flows provided by operating activities have typically been generated from net income and by changes in our operating assets and liabilities, particularly in the areas of accounts receivable and accounts payable and accrued expenses, adjusted for non-cash and non-operating expense items such as depreciation, amortization, equity awards compensation, deferred tax assets and income taxes paid.

In 2018, net cash flows provided by operating activities were \$260.7 million and consisted of net income of \$95.9 million and \$221.5 million in adjustments for non-cash and non-operating items, by \$10.4 million of cash flows from working capital and partially offset by \$67.0 million of income taxes paid during 2018. Adjustments for non-cash and non-operating items primarily consisted of depreciation and amortization expense of \$111.8 million, equity awards compensation expense of \$66.6 million, accrued income taxes of \$54.3 million, partially offset by \$0.9 million net loss on disposal of non-current assets, \$8.2 million of changes in deferred tax assets and by \$2.3 million reclassification of the cash impact of the settlement of hedging derivatives to financing activities. The \$10.4 million increase in cash resulting from changes in working capital primarily consisted of \$1.4 million decrease in accounts receivable, a \$4.0 million decrease in other current assets (including prepaid expenses and VAT receivables) and a \$9.0 million increase in accounts payable partially offset by a \$4.0 million decrease in accrued expenses such as payroll and payroll related expenses and VAT payables.

In 2017, net cash flows provided by operating activities were \$245.5 million and consisted of net income of \$96.7 million and \$212.3 million in adjustments for non-cash and non-operating items partially offset by \$7.1 million of cash flows used for working capital and \$56.4 million of income taxes paid during 2017. Adjustments for non-cash and non-operating items primarily consisted of depreciation and amortization expense of \$104.0 million, equity awards compensation expense of \$71.6 million, accrued income taxes of \$44.9 million, a net gain on disposal of non-current assets of \$0.8 million, reclassification of the cash impact of the settlement of hedging derivatives to financing activities of \$4.1 million, partially offset by \$13.3 million of changes in deferred tax assets.

The \$7.1 million decrease in cash resulting from changes in working capital primarily consisted of \$76.9 million increase in accounts receivable and \$3.4 million increase in other current assets (including prepaid expenses and VAT receivables) driven by increased revenue during the year and, to a lesser extent, an increase in office rental advance payments. This was partially offset by an \$32.9 million increase in accounts payable and \$40.3 million increase in accrued expenses such as payroll and payroll related expenses and VAT payables, explained primarily by an increase in traffic acquisition costs, and an increase in accrued payroll and payroll-related expenses resulting from an increase in the number of our employees.

In 2016 net cash flows provided by operating activities were \$153.5 million and consisted of net income of \$87.3 million and \$139.1 million in adjustments for non-cash and non-operating items partially offset by \$29.5 million of cash flows used by working capital and \$43.5 million of income taxes paid during 2016. Adjustments for non-cash and non-operating items primarily consisted of depreciation and amortization expense of \$62.7 million, equity awards compensation expense of \$43.3 million and \$43.2 million of accrued income taxes, partially offset by \$10.0 million of changes in deferred tax assets and \$0.1 million of change in non-current assets. The \$29.5 million decrease in cash resulting from changes in working capital primarily consisted of \$118.0 million increase in

accounts receivable and \$28.4 million increase in other current assets (including prepaid expenses and VAT receivables) driven by increased revenue during the year and, to a lesser extent, an increase in office rental advance payments. This was partially offset by an \$81.9 million increase in accounts payable and \$35.1 million increase in accrued expenses such as payroll and payroll related expenses and VAT payables, explained primarily by an increase in traffic acquisition costs, and an increase in accrued payroll and payroll-related expenses resulting from an increase in the number of our employees.

Prepaid expenses, VAT receivables, and other current assets also increased by \$24.1 million, primarily as the result of an increase in our revenue and to a lesser extent, an increase in office rental advance payments.

Investing Activities

Our investing activities to date have consisted primarily of purchases of property and equipment and acquisitions.

In 2018, net cash flows used in investing activities were \$226.7 million and consisted of \$125.5 million for purchases of property and equipment and by \$101.2 million related to the Storetail and Manage acquisitions and disposal of a business.

In 2017, net cash flows used in investing activities were \$106.3 million and consisted of \$108.5 million for purchases of property and equipment, partially offset by \$1.1 million related to change in acquisition price of HookLogic due to the working capital adjustment and \$1.1 million of lease deposits refunds.

In 2016, net cash flows used in investing activities were \$312.8 million and consisted of \$77.4 million for purchases of property and equipment, \$235.5 million related to the HookLogic and Monsieur Drive acquisitions and \$0.2 million of bank deposits or lease deposits related to new premises.

Financing Activities

In 2018, net cash used in financing activities was \$62.7 million resulting from \$1.5 million from proceeds of share option exercises and \$16.8 million of changes in other financial liabilities relating to the cash impact of the settlement of hedging derivatives, offset by \$80.0 million relating to the share repurchase program and by \$1.0 million for the repayment of borrowings.

In 2017, net cash provided by financing activities was \$29.5 million resulting from \$3.7 million of the drawing on the China RCF, \$32.0 million from proceeds of share option exercises and \$24.6 million of changes in other financial liabilities relating to the cash impact of the settlement of hedging derivatives, offset by \$89.7 million for the repayment of drawings on the General RCF used in the context of the acquisition of HookLogic in 2016 and on the China RCF.

In 2016, net cash provided by financing activities was \$90.6 million resulting from \$84.0 million of new loans (drawings on the General RCF to partially fund the consideration paid to acquire all of the outstanding shares of HookLogic and the China RCF) and \$20.1 million from proceeds of share option exercises, partially offset by \$13.3 million for repayment of indebtedness and \$0.2 million of changes in other financial liabilities.

C. Research and Development, Patents and Licenses, etc.

We invest substantial resources in research and development to enhance our solution and technology infrastructure, develop new features, conduct quality assurance testing and improve our core technology. Our engineering group is primarily located in research and development centers in Paris, France; Palo Alto, California; and Ann Arbor, Michigan. We expect to continue to expand the capabilities of our technology in the future and to invest significantly in continued research and development efforts. We had 675 employees primarily engaged in research and development at December 31, 2018. Research and development expense totaled \$123.6 million, \$173.9 million and \$179.3 million for 2016, 2017 and 2018, respectively.

D. Trend Information.

Key Metrics

We review three key metrics to help us monitor the performance of our business and to identify trends affecting our business. These key metrics include number of clients, Revenue ex-TAC, and Adjusted EBITDA. We believe these metrics are useful to understanding the underlying trends in our business. The following table summarizes our key metrics for 2016, 2017 and 2018.

	Year Ended December 31,									
	 2016		2017		2018					
	(in thousa	nds,	except number	of cli	ents)					
Number of clients	14,468		18,118		19,419					
Revenue ex-TAC	\$ 730,235	\$	941,136	\$	965,980					
Adjusted EBITDA	\$ 224,572	\$	309,584	\$	321,059					

Number of Clients

We define a client to be a unique party from whom we have received an insertion order and delivered an advertisement during the previous 12 months. We believe this criteria best identifies clients who are actively using our solution. We count specific brands or divisions within the same business as distinct clients so long as those entities have separately signed insertion orders with us. In the case of some solutions within Criteo Retail Media, we count the parent company of the brands as an individual client, even if several distinct brands pertaining to the same parent company have signed separate insertion orders with us. On the other hand, we count a client who runs campaigns in multiple geographies as a single client, even though multiple insertion orders may be involved. When the insertion order is with an advertising agency, we generally consider the client on whose behalf the advertising campaign is conducted as the "client" for purposes of this calculation. In the event a client has its advertising spend with us managed by multiple agencies, that client is counted as a single client.

We believe that our ability to increase the number of clients is an important indicator of our ability to grow revenue over time. While our client count has increased over time, this metric can also fluctuate from quarter to quarter due to the seasonal trends in advertising spend of clients and the timing and amount of revenue contribution from new clients. In addition, over time we have added an increasing number of midmarket clients that generate a lower revenue per client than large clients on average, and may continue to add a significant number of midmarket clients in the future. Therefore, there is not necessarily a direct correlation between a change in clients in a particular period and an increase or decrease in our revenue.

Revenue ex-TAC

We consider Revenue ex-TAC as a key measure of our business activity. Our traffic acquisition costs primarily consist of purchases of impressions from publishers on a CPM basis.

Our management views our Revenue ex-TAC as a key measure to evaluate, plan and make decisions on our business activities and sales performance. In particular, we believe that the elimination of TAC from revenue can provide a useful measure for period-to-period comparisons of our business. Accordingly, we believe that Revenue ex-TAC provides useful information to investors and others in understanding and evaluating our results of operations in the same manner as our management and board of directors. Revenue ex-TAC is not a measure calculated in accordance with U.S. GAAP. Please see footnote 3 to the "Other Financial and Operating Data" table in "Item 6. Selected Financial Data" in this Form 10-K for a discussion of the limitations of Revenue ex-TAC and a reconciliation of Revenue ex-TAC to revenue, the most comparable U.S. GAAP measure, for 2014, 2015, 2016, 2017 and 2018.

Adjusted EBITDA

Adjusted EBITDA represents our consolidated earnings before financial income (expense), income taxes, depreciation and amortization, adjusted to eliminate the impact of equity awards compensation expense, pension service costs, restructuring costs and acquisition-related costs and deferred price consideration. Adjusted EBITDA is a key measure used by management to evaluate operating performance, generate future operating plans and make strategic decisions regarding the allocation of capital. In particular, we believe that the elimination of equity awards compensation expense, pension service costs, restructuring costs and acquisition-related costs and deferred price consideration in calculating Adjusted EBITDA can provide a useful measure for period-to-period comparisons of our business.

Accordingly, we believe that Adjusted EBITDA provides useful information to investors and others in understanding and evaluating our results of operations in the same manner as our management and board of directors. Adjusted EBITDA is not a measure calculated in accordance with U.S. GAAP. Please see footnote 5 to the "Other Financial and Operating Data" table in "Item 6. Selected Financial Data" in this Form 10-K for a discussion of the limitations of Adjusted EBITDA and a reconciliation of Adjusted EBITDA to net income, the most comparable U.S. GAAP measure, for 2014, 2015, 2016, 2017 and 2018.

Highlights and Trends

Revenue

We believe the expansion of our business with existing clients as well as the addition of new clients have both been significant drivers of our historical growth. As a result, we believe significant opportunities exist for us to continue to grow our business going forward. Specifically, we believe that continued investments in technology innovation and data, the continued development of Criteo Shopper Graph, the development of new solutions addressing broader marketing goals and monetization objectives, a broader supply of quality inventory across publishers, the expansion of our client base across commerce and brands verticals, the addition of new clients across categories, in particular in the midmarket, and a higher penetration of existing geographic markets, will fuel our future growth. However, because of external factors and other factors, we may not be able to maintain our historical growth rates.

Revenue ex-TAC

We are focused on maximizing our Revenue ex-TAC on an absolute basis. We believe this focus builds sustainable long-term value for our business by fortifying a number of our competitive strengths, including access to Display Advertising inventory, breadth and depth of data and continuous improvement of the Criteo AI Engine's performance, allowing us to deliver more relevant advertisements at scale. As part of this focus we are continuing to invest in building relationships with direct publishers, including with ecommerce retailers, and increasing access to leading advertising exchanges, which includes purchasing advertising inventory that may have lower margins on an individual impression basis, but generates incremental Revenue ex-TAC. We believe this strategy maximizes the growth of our Revenue ex-TAC on an absolute basis and strengthens our market position. As a result, we expect our traffic acquisition costs to continue to increase on an absolute basis as we continue to grow our revenue. However, our traffic acquisition costs might also increase as a percentage of revenue as we continue to invest in building liquidity and long-term value for clients and publishers over optimizing near-term gross margins, and as we grow our new solutions, some of which might involve a higher level of traffic acquisition costs as a percentage of revenue relative to our historical trends.

Adjusted EBITDA

Our Adjusted EBITDA for 2018 was \$321.1 million, a 4% increase over 2017. Our increase in Adjusted EBITDA for 2018 compared to 2017 was primarily the result of the 3% growth in Revenue ex-TAC over the period. This increase in Adjusted EBITDA was achieved despite continued investments in 2018, in particular in hosting costs, research and development expenses and sales and operations expenses, and more selective investments in general and administrative expenses, as we continued to scale our infrastructure and organization, and automate our processes to support future growth. In the short-term, we expect to continue to invest, in particular in research and development and sales resources, and to continue to increase the productivity of our existing resources and the automation of our internal processes, in particular in sales. As a result of these increased investments, we anticipate a temporary decrease in our Adjusted EBITDA margin in 2019. Over time, we expect Adjusted EBITDA to increase as a percentage of our Revenue ex-TAC, as we benefit from a larger scale and operating leverage. Adjusted EBITDA is not a measure calculated in accordance with U.S. GAAP. Please see footnote 5 to the "Other Financial and Operating Data" table in "Item 6. Selected Financial Data" in this Form 10-K for a discussion of the limitations of Adjusted EBITDA and a reconciliation of Adjusted EBITDA to net income, the most comparable U.S. GAAP measure.

Number of Clients

Since our inception, we have significantly grown the number of clients with which we do business. Our base of clients increased to more than 19,000 at December 31, 2018, a 7% increase over December 31, 2017. This growth in our number of clients has been driven by a number of factors, including our global footprint and our commercial expansion in existing markets, our continued development of large clients in the retail, travel and classifieds industry verticals, our expansion of midmarket clients and our penetration into the consumer brand vertical through some of our Criteo Retail Media offerings. We believe that our ability to increase our number of clients is a leading indicator of our ability to grow revenue over time. We expect to continue to focus our attention and investment on further growing our client base across all regions, client categories and verticals, including through the roll-out of our self-service sales platform for the midmarket in 2019. While we intend to grow our client base across all categories, we expect midmarket customers to continue to increase their contribution in the mix of our total revenue.

Client Retention

We believe our ability to retain and grow revenue from our existing clients is a useful indicator of the stability of our revenue base and the long-term value of our client relationships. Our technology is designed to enable clients to efficiently and effectively engage and convert consumers through highly targeted and personalized commerce marketing across devices and environments. We measure our client satisfaction through our ability to retain them and the revenue they generate quarter after quarter. We define client retention rate as the percentage of live clients during the previous quarter that continued to be live clients during the current quarter. This metric is calculated on a quarterly basis, and for annual periods, we use an average of the quarterly metrics. We define a live client as a client whose advertising campaign has or had been generating Revenue ex-TAC for us on any day over the relevant measurement period. In each of 2016, 2017 and 2018, our client retention rate was approximately 90%¹. We define our revenue retention rate with respect to a given 12-month period as (1) revenue recognized during such period from clients that contributed to revenue recognized in the prior 12-month period divided by (2) total revenue recognized in such prior 12-month period. Our revenue retention rate was 120%, 115% and 101% for the years ended December 31, 2016, 2017 and 2018, respectively¹.

Seasonality

Our client base consists primarily of businesses in the digital retail, travel and classifieds industries, which we define as commerce clients. In the digital retail industry in particular, many businesses devote the largest portion of their advertising spend to the fourth quarter of the calendar year, to coincide with increased holiday spending by consumers. With respect to Criteo Retail Media, the concentration of advertising spend in the fourth quarter of the calendar year is particularly pronounced. Our retail commerce clients typically conduct fewer advertising campaigns in the first and second quarters than they do in other quarters, while our travel clients typically increase their travel campaigns in the first and third quarters and conduct fewer advertising campaigns in the second quarter. As a result, our revenue tends to be seasonal in nature, but the impact of this seasonality has, to date, been partly offset by our significant growth and geographic expansion. If the seasonal fluctuations become more pronounced, our operating cash flows could fluctuate materially from period to period.

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¹ Excluding Criteo Retail Media.

E. Off-balance Sheet Arrangements.

We do not have any relationships with unconsolidated entities or financial partnerships, including entities sometimes referred to as structured finance or special purpose entities that were established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. In addition, we do not engage in trading activities involving non-exchange traded contracts. We therefore believe that we are not materially exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in these relationships.

F. Tabular Disclosure of Contractual Obligations.

The following table discloses aggregate information about material contractual obligations and periods in which payments were due as of December 31, 2018. Future events could cause actual payments to differ from these estimates.

	Les	s than 1 year	1 to 5 years	N	Iore than 5 years	Total
			(in thousands	of U.S.	. Dollars)	
Long-term debt	\$	953	\$ 2,101	\$	_	\$ 3,054
Operating leases		80,942	110,132		27,469	218,543
- Property leases	,	34,013	72,906		27,469	134,388
- Hosting leases		46,929	37,226		_	84,155
Other financial liabilities		120	448		_	568
Financial derivatives		1,703	_		_	1,703
Other purchase obligations		13,266	5,724		_	18,990
Total	\$	83,718	\$ 112,681	\$	27,469	\$ 223,868

The commitment amounts in the table above are associated with contracts that are enforceable and legally binding and that specify all significant terms, including interest on long-term debt, fixed or minimum services to be used, fixed, minimum or variable price provisions, and the approximate timing of the actions under the contracts. The table does not include obligations under agreements that we can cancel without a significant penalty. Long-term debt includes interest of \$0.1 million. Pension contributions and cash outflows have not been included in the above table as they have been deemed immaterial.

G. Safe Harbor.

This Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act and as defined in the Private Securities Litigation Reform Act of 1995. See "Special Note Regarding Forward-Looking Statements."

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We are mainly exposed to changes of foreign currency exchange rate fluctuations.

For a description of our foreign exchange risk and a sensitivity analysis of the impact of foreign currency exchange rates on our net income, please see "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – B. Liquidity and Capital Resources" in this Form 10-K.

Item 8. Financial Statements and Supplementary Data

The information required by Item 8 is set forth on pages F-1 through F-59 of this Form 10-K.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

There have been no changes in our independent registered public accounting firm, Deloitte & Associés, or disagreements with our accountants on matters of accounting and financial disclosure.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Criteo carried out an evaluation as of December 31, 2018, under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, of the effectiveness of our disclosure controls and procedures, as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Disclosure controls and procedures are controls and other procedures designed to reasonably assure that information required to be disclosed in our reports filed or furnished under the Exchange Act, such as this Annual Report on Form 10-K, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

Disclosure controls and procedures are also designed to reasonably assure that this information is accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, to allow timely decisions regarding required disclosure.

Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of December 31, 2018, our disclosure controls and procedures were effective to provide reasonable assurance.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Exchange Act. Our management assessed, with the oversight of our board of directors, the effectiveness of our internal control over financial reporting as of December 31, 2018. In making this assessment, our management used the criteria established in the Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, our management has concluded that the Company's internal control over financial reporting was effective as of December 31, 2018. The effectiveness of the Company's internal control over financial reporting as of December 31, 2018 has been audited by Deloitte & Associés, our independent registered public accounting firm, as stated in its attestation report, which appears on page F-3 of this Annual Report on Form 10-K.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act, that occurred during the quarter ended December 31, 2018, that have materially affected, or that are reasonably likely to materially affect, our internal control over financial reporting.

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal controls will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within Criteo have been detected. These inherent limitations include the realities that judgments in decisions making can be faulty and that breakdowns can occur because of simple error or mistake. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies and procedures. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Item 9B. Other Information

Our board of directors has established May 16, 2019 as the date of our 2019 Annual Meeting of Shareholders.

We previously disclosed January 2, 2019 as the deadline for the receipt of shareholder resolutions intended for inclusion in our definitive proxy statement for the 2019 Annual Meeting of Shareholders pursuant to Rule 14a-8 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Because the date of the 2019 Annual Meeting of Shareholders is more than 30 days from the first anniversary of the date of our 2018 Annual Meeting of Shareholders, under SEC rules, such shareholder resolutions must be received by us within a reasonable time before we begin to print and send our proxy materials for the 2019 Annual Meeting of Shareholders. We have determined that no change is needed to the deadline for such shareholder resolutions because the January 2, 2019 deadline constitutes a reasonable time for such resolutions.

We previously disclosed March 18, 2019 as the deadline for the receipt of shareholder resolutions made outside of Rule 14a-8 under the Exchange Act to be considered "timely" within the meaning of Rule 14a-4(c) under the Exchange Act with respect to the 2019 Annual Meeting of Shareholders. Because the date of the 2019 Annual Meeting of Shareholders is more than 30 days from the first anniversary of the date of the 2018 Annual Meeting of Shareholders, under SEC rules, such shareholder resolutions must be received by us within a reasonable time before we send our proxy materials for the 2019 Annual Meeting of Shareholders. We have determined that no change is needed to the deadline for such shareholder resolutions, and, therefore, such resolutions must be received by our board of directors at the address below by March 18, 2019.

In addition, under French law, shareholders are permitted to submit a resolution for consideration so long as such matter is received by our board of directors at the address below no later than 25 days prior to the date of the meeting.

Shareholders wishing to present resolutions at the 2019 Annual Meeting of Shareholders made outside of Rule 14a-8 under the Exchange Act must comply with the procedures specified under French law.

All submissions to our board of directors should be made to "Criteo S.A., 32, Rue Blanche, 75009 Paris, France, Attention: Board of Directors."

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item (other than the information set forth in the next paragraph in this Item 10) will be included in our definitive proxy statement with respect to our 2019 Annual Meeting of Shareholders to be filed with the SEC, and is incorporated herein by reference.

We have adopted a Code of Business Conduct and Ethics (the "Code of Conduct") that is applicable to all of our employees, officers and directors, including our chief executive and senior financial officers. The Code of Conduct is available on our website at criteo.investorroom.com under "Corporate Governance." The Audit Committee of our board of directors is responsible for overseeing the Code of Conduct and our board of directors is required to approve any waivers of the Code of Conduct for employees, executive officers and directors. We expect that any amendments to the Code of Conduct, or any waivers of its requirements required to be disclosed under the rules of the SEC or Nasdaq will be disclosed on our website.

Item 11. Executive Compensation

The information called for by this item will be included in our definitive proxy statement with respect to our 2019 Annual Meeting of Shareholders to be filed with the SEC, and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information called for by this item will be included in our definitive proxy statement with respect to our 2019 Annual Meeting of Shareholders to be filed with the SEC, and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information called for by this item will be included in our definitive proxy statement with respect to our 2019 Annual Meeting of Shareholders to be filed with the SEC, and is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services

The information called for by this item will be included in our definitive proxy statement with respect to our 2019 Annual Meeting of Shareholders to be filed with the SEC, and is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) Financial Statements

The financial statements listed in the accompanying Index to Consolidated Financial Statements on page F-1 are filed as part of this Form 10-K. All schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

(b) Exhibits

Incorporated by Reference Schedule/ Exhibit Description File Number File Date Exhibit Form Merger Agreement, dated as of October 3, 2016, by and among Criteo Corp., TBL Holdings, Inc., Hooklogic, Inc. and Fortis Advisors LLC 2.1 8-K 001-36153 2.1 October 4, 2016 3.1# By-laws (statuts) (English translation) Form of Deposit Agreement, including the F-1 4.1 333-191223 4.1 October 2, 2013 Form of American Depositary Receipt 4.3# Agreement to Furnish Debt Instruments Commercial Lease between Orosdi and the registrant dated January 20, F-1 10.1 333-191223 10.1 October 2, 2013 2012 (English translation) Form of Registration Rights Agreement by and among the registrant and certain 10.2 F-1 333-191223 10.3 October 23, 2013 investors signatory thereto, dated as of August 30, 2013 Form of Indemnification Agreement 10.3† between the registrant and each of its F-1 333-191223 10.4 October 23, 2013 executive officers and directors Non-Compete Agreement between the registrant and each of Messrs. 10.4† F-1 333-191223 10.5 October 2, 2013 Rudelle, Le Ouay and Niccoli Stock Option Plans—2009, 2010, 2011, 2012, 2013 (including forms of Stock 10.5† F-1 333-191223 10.6 October 2, 2013 Option Grant Agreement and Exercise Notice) 2014 Stock Option Plan (including forms of 99.1 Stock Option Grant Agreement and Exercise S-8 10.6† 333-197373 July 11, 2014 Notice) 2016 Stock Option Plan (including form of 10.7† 8-K 001-36153 10.1 June 30, 2016 Stock Option Grant Agreement and Exercise Notice) (English Translation) 10.8† Summary of BSA Terms and Conditions 10-K 001-36153 10.7 February 29, 2016 Form of BSA Grant Document 10.9† 10-K 10.90 March 1, 2017 001-36153 (English translation) September 18, 10.10† F-1 333-191223 10.8 Summary of BSPCE Plan 2013 Form of BSPCE Grant Document September 18, F-1 10.11† 333-191223 10.11 (English translation) 2013 Amended and Restated 2015 Performance-10.12† Based Free Share Plan (including form of 8-K 001-36153 10.3 June 30, 2016 Allocation Letter) (English Translation) Amended and Restated 2015 Time-Based Free Share Plan (including form of 10.13† S-8 99.3 333-219496 July 27, 2017 Allocation Letter) (English Translation)

001-36153

10.15

February 29, 2016

10-K

10.14†

Criteo Executive Bonus Plan

		Incorporated by Reference					
Exhibit	Description	Schedule/ Form	File Number	Exhibit	File Date		
<u>10.15</u> †	Employment Agreement between the registrant and Benoit Fouilland, dated November 18, 2011 (English translation)	F-1	333-191223	10.12	October 2, 2013		
<u>10.16†</u>	Management Agreement between the registrant and Eric Eichmann, dated as of October 27, 2016	8-K	001-36153	10.1	November 2, 2016		
<u>10.17</u> †	Employment Offer Letter between the registrant and Jean-Baptiste Rudelle, effective as of August 1, 2014	20-F	001-36153	4.14	March 27, 2015		
<u>10.18†</u>	Employment Agreement between the registrant and Dan Teodosiu, dated November 20, 2012 (English translation)	10-Q	001-36153	10.1	May 10, 2017		
<u>10.19†</u>	Employment Offer Letter between the registrant and Mary (Mollie) Spilman, dated July 30, 2014	10-Q	001-36153	10.2	May 10, 2017		
10.20	Amendment and Restatement Agreement, dated as of March 29, 2017, by and among the registrant, as borrower, and BNP Paribas, Crédit Lyonnais (LCL), HSBC France, Natixis and Société Générale Corporate & Investment Banking	8-K	001-36153	4.10	March 30, 2017		
10.21	Transition and Separation Agreement, dated as of April 25, 2018, by and between the registrant and Eric Eichmann	8-K	001-36153	10.21	June 25, 2018		
10.22#	Form of Offer to Directors, Officers or Specifically Designated Persons to Subscribe Liability Insurance and Provide Indemnification						
<u>21.1#</u>	<u>List of Subsidiaries</u>						
<u>23.1#</u>	Consent of Deloitte & Associés						
31.1#	Certificate of Chief Executive Officer pursuant to Section 302 of the Sarbanes- Oxley Act of 2002						
31.2#	Certificate of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002						
32.1*	Certificate of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002						

Indicates management contract or compensatory plan.

[†] # * Filed herewith.

Furnished herewith.

Item 16. Form 10-K SummaryNot applicable.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

CRITEO S.A.

March 1, 2019 By: /s/ Jean-Baptiste Rudelle

Jean-Baptiste Rudelle Chief Executive Officer Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons in the capacities and on the dates indicated below.

Signature Title		Date
/s/ Jean-Baptiste Rudelle Jean-Baptiste Rudelle	Chief Executive Officer & Chairman (Principal Executive Officer)	March 1, 2019
/s/ Benoit Fouilland Benoit Fouilland	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 1, 2019
/s/ Nathalie Balla Nathalie Balla	Director	March 1, 2019
/s/ Sharon Fox Spielman Sharon Fox Spielman	Director	March 1, 2019
/s/ Edmond Mesrobian Edmond Mesrobian	Director	March 1, 2019
/s/ Hubert de Pesquidoux Hubert de Pesquidoux	Director	March 1, 2019
/s/ Rachel Picard Rachel Picard	Director	March 1, 2019
/s/ James Warner James Warner	Director	March 1, 2019

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Criteo S.A.

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of financial position of Criteo S.A. and subsidiaries (the "Company") as of December 31, 2018 and 2017, and the related consolidated statements of income, comprehensive income, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "Financial Statements"). In our opinion, the Financial Statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 1, 2019, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Deloitte & Associés

Paris-La Défense, France March 1, 2019

We have served as the Company's auditor since 2011.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Criteo S.A.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Criteo S.A. and subsidiaries (the "Company") as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the criteria established in Internal Control - Integrated Framework (2013) issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2018 of the Company and our report dated March 1, 2019, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte & Associés Paris-La Défense, France March 1, 2019

Criteo S.A. and subsidiaries Consolidated Statements of Financial Position

		Y	ear Ended	Dec	December 31,		
	Notes		2017		2018		
Assets			(in tho	usan	ds)		
Current assets: Cash and cash equivalents	4	\$	414,111	\$	364,426		
Trade receivables, net of allowances of \$20.8 million and \$25.9 million as of		Ф		Ф			
December 2017 and 2018, respectively.	5		484,101		473,901		
Income taxes			8,882		19,370		
Other taxes			58,346		53,338		
Other current assets	6		26,327	_	22,816		
Total current assets			991,767		933,851		
Property, plant and equipment, net	7		161,738		184,013		
Intangible assets, net	8		96,223		112,036		
Goodwill	9		236,826		312,881		
Non-current financial assets	10		19,525		20,460		
Deferred tax assets	21		25,221		33,894		
Total non current assets			539,533		663,284		
Total assets		\$	1,531,300	\$	1,597,135		
Liabilities and shareholders' equity							
Current liabilities:							
Trade payables		\$	417,032	\$	425,376		
Contingencies	11		1,798		2,640		
Income taxes			9,997		7,725		
Financial liabilities - current portion	13		1,499		1,018		
Other taxes			58,783		55,592		
Employee-related payables			66,219		65,878		
Other current liabilities	12		65,677		47,115		
Total current liabilities		_	621,005	_	605,344		
Deferred tax liabilities	21		2,497		10,770		
Retirement benefit obligation	14		5,149		5,537		
Financial liabilities - non current portion	13		2,158		2,490		
Other non-current liabilities	15		2,793		5,103		
Total non-current liabilities			12,597		23,900		
Total liabilities			633,602	_	629,244		
Commitments and contingencies			000,002		02>,211		
Shareholders' equity:							
Common shares, $ \in 0.025 $ per value, $ 66,085,097 $ and $ 67,708,203 $ shares authorized, if and outstanding at December 31, 2017 and December 31, 2018, respectively.	ssued		2,152		2,201		
Treasury stock, 3,459,119 shares at cost as of December 31, 2018					(79,159)		
Additional paid-in capital			591,404		663,281		
Accumulated other comprehensive loss			(12,241)		(30,522)		
Retained earnings			300,210		387,869		
Equity - attributable to shareholders of Criteo S.A.		_	881,525	_			
• •					943,670		
Non-controlling interests			16,173	_	24,221		
Total equity		₽.	897,698	•	967,891		
Total equity and liabilities		\$	1,531,300	\$	1,597,135		

Criteo S.A. and subsidiaries Consolidated Statements of Income

		Year Ended December 31,					
	Notes	_	2016	2017			2018
			(in thousands,	, except share and per share data)			
Revenue	16	\$	1,799,146	\$	2,296,692	\$	2,300,314
Cost of revenue							
Traffic acquisition costs	17		(1,068,911)		(1,355,556)		(1,334,334)
Other cost of revenue	17		(85,260)		(121,641)		(131,744)
Gross profit			644,975		819,495		834,236
Operating expenses:							
Research and development expenses	17,18		(123,649)		(173,925)		(179,263)
Sales and operations expenses	17,18		(282,853)		(380,649)		(372,707)
General and administrative expenses	17,18		(117,469)		(127,077)		(135,159)
Total operating expenses			(523,971)		(681,651)		(687,129)
Income from operations			121,004		137,844		147,107
Financial expense, net	20		(546)		(9,534)		(5,084)
Income before taxes			120,458		128,310		142,023
Provision for income taxes	21		(33,129)		(31,651)		(46,144)
Net income		\$	87,329	\$	96,659	\$	95,879
Net income available to shareholders of Criteo S.A.		\$	82,272	\$	91,214	\$	88,644
Net income available to non-controlling interests		\$	5,057	\$	5,445	\$	7,235
Net income allocated to shareholders per share:							
Basic	22	\$	1.30	\$	1.40	\$	1.33
Diluted	22	\$	1.25	\$	1.34	\$	1.31
Weighted average shares outstanding used in computing per share amounts:							
Basic	22		63,337,792		65,143,036		66,456,890
Diluted	22		65,633,470		67,851,971		67,662,904

Criteo S.A. and subsidiaries Consolidated Statements of Comprehensive Income

Year Ended December 31, 2016 2017 2018 (in thousands) \$ 95,879 Net income 87,329 96,659 (18,781)Foreign currency translation differences, net of taxes (18,571)77,023 (18,781) Foreign currency translation differences (18,571)77,023 Income tax effect Actuarial (losses) gains on employee benefits, net of taxes (1,129)(87) 916 1,235 Actuarial (losses) gains on employee benefits (1,335)(103)Income tax effect 206 (319)16 67,629 78,014 **Comprehensive income** 173,595 Attributable to shareholders of Criteo S.A. 62,820 167,566 77,594 \$ Attributable to non-controlling interests 4,809 \$ 6,029 \$ 420

Criteo S.A. and subsidiaries Consolidated Statements of Changes in Shareholders' Equity

	Share ca	pital	Treasury	stock	Additional paid-in capital	Accumulated other comprehensive (loss) income	Retained earnings	Equity - attributable to shareholders of Criteo S.A.	Non controlling interests	Total equity
		(in thousands, except share data)								
	(Commo	n shares)	(Share	es)						
Balance at January 1, 2016	62,470,881	\$ 2,052	_	s —	\$ 425,220	\$ (69,023)	\$ 116,076	\$ 474,325	\$ 4,698	\$ 479,023
Net income				_	_		82,272	82,272	5,057	87,329
Other comprehensive income (loss)	_	_	_	_	_	(19,452)	_	(19,452)	(248)	(19,700)
Issuance of ordinary shares	1,507,323	41	_	_	21,706	_	_	21,747	_	21,747
Shared-based compensation	_	_	_	_	41,351	_	_	41,351	238	41,589
Other changes in equity	_	_	_	_	_	(118)	7	(111)	_	(111)
Balance at December 31, 2016	63,978,204	2,093	_		488,277	(88,593)	198,355	600,132	9,745	609,877
Net income	_				_		91,214	91,214	5,445	96,659
Other comprehensive income (loss)	_	_	_	_	_	76,352	_	76,352	584	76,936
Issuance of ordinary shares	2,106,893	49	_	_	33,617	_	_	33,666	_	33,666
Shared-based compensation	_	_	_	_	69,510	_	_	69,510	399	69,909
Other changes in equity (1)	_	10	_	_	_	_	10,641	10,651	_	10,651
Balance at December 31, 2017	66,085,097	2,152	_		591,404	(12,241)	300,210	881,525	16,173	897,698
Net income	_	_	_				88,644	88,644	7,235	95,879
Other comprehensive income (loss)	_	_	_	_	_	(18,285)	_	(18,285)	420	(17,865)
Issuance of ordinary shares	1,623,106	4	_	_	2,951	_	_	2,955	_	2,955
Change in treasury stock (2)		_	(3,459,119)	(79,159)	_	_	_	(79,159)	_	(79,159)
Shared-based compensation	_	_	_	_	64,725	_	_	64,725	393	65,118
Other changes in equity (3)	_	45	_	_	4,201	4	(985)	3,265		3,265
Balance at December 31, 2018	67,708,203	\$ 2,201	(3,459,119)	\$(79,159)	\$ 663,281	\$ (30,522)	\$ 387,869	\$ 943,670	\$ 24,221	\$ 967,891

⁽¹⁾ From January 1, 2017, we adopted ASU 2016-09, Compensation-Stock Compensation (Topic 718): Improvement to Employee Share-based Payment Accounting issued by the Financial Accounting Standards Board (FASB).
(2) Share repurchase program (see note 2)
(3) Deferred consideration in the context of Storetail Marketing Services SAS acquisition (see note 2).

Criteo S.A. and subsidiaries Consolidated Statements of Cash Flows

	Year Ended December 31,			
	2016	2017	2018	
		(in thousands)		
Net income	\$ 87,329	\$ 96,659	\$ 95,879	
Non-cash and non-operating items	139,122	212,254	221,481	
Amortization and provisions	62,733	104,025	111,825	
Equity awards compensation expense (1)	43,259	71,612	66,600	
(Net gain) or loss on disposal of non-current assets	(81)	794	(869)	
Interest accrued and non-cash financial income and expenses	39	66	86	
Change in deferred taxes	(10,024)	(13,269)	(8,157)	
Income tax for the period	43,196	44,921	54,301	
Other (2)	_	4,105	(2,305)	
Change in working capital	(29,460)	(7,095)	10,411	
(Increase) / Decrease in trade receivables	(117,970)	(76,907)	1,358	
Increase in trade payables	81,862	32,915	9,047	
(Increase) / Decrease in other current assets	(28,432)	(3,381)	3,974	
Increase / (Decrease) in other current liabilities (2)	35,080	40,278	(3,968)	
Income taxes paid	(43,522)	(56,360)	(67,045)	
Cash from operating activities	153,469	245,458	260,726	
Acquisition of intangibles assets, property, plant and equipment	(85,133)	(122,203)	(116,984)	
Change in accounts payable related to intangible assets, property, plant and equipment	7,752	13,692	(8,494)	
Payment for (Disposal of) businesses, net of cash acquired (disposed)	(235,541)	1,110	(101,180)	
Change in other financial non-current assets	159	1,148	(59)	
Cash used for investing activities	(312,763)	(106,253)	(226,717)	
Issuance of long term borrowings	84,022	3,700	_	
Repayment of borrowings (3)	(13,305)	(89,731)	(964)	
Proceeds from capital increase	20,075	31,961	1,473	
Change in treasury stocks	_	_	(80,000)	
Change in other financial liabilities (2)	(222)	24,602	16,815	
Cash from (used for) financing activities	90,570	(29,468)	(62,676)	
Change in net cash and cash equivalents	(68,724)	109,737	(28,667)	
Net cash and cash equivalents - beginning of period	353,537	270,317	414,111	
Effect of exchange rate changes on cash and cash equivalents (2)	(14,496)	34,057	(21,018)	
Net cash and cash equivalents - end of period	\$ 270,317	\$414,111	\$ 364,426	

⁽¹⁾ Of which \$69.9 million and \$65.1 million of equity awards compensation expense consisted of share-based compensation expense according to *ASC* 718 Compensation - stock compensation for the twelve month period ended December 31, 2017 and 2018, respectively.

⁽²⁾ From 2017, the Company reported the cash impact of the settlement of hedging derivatives related to financing activities in cash from (used for) financing activities in the consolidated statements of cash flows.

⁽³⁾ Interest paid for the years ended December 31, 2016, 2017 and 2018 amounted to \$1.3 million, \$2.9 million and \$1.4 million respectively.

Notes to the Consolidated Financial Statements

Criteo S.A. was initially incorporated as a société par actions simplifiée, or S.A.S., under the laws of the French Republic on November 3, 2005, for a period of 99 years and subsequently converted to a société anonyme, or S.A.

We are a global technology company building the leading advertising platform for the open Internet. We strive to deliver impactful business results at scale to commerce companies and consumer brands by meeting their multiple marketing goals at their targeted return on investment. Using shopping data, predictive technology and large consumer reach, we help our clients drive Awareness, Consideration and Conversion for their products and services¹, and help retailers generate advertising revenues from brands. Our data is pooled among our clients and offers deep insights into consumer intent and purchasing habits. To drive measurable results for clients, we activate our data assets through proprietary artificial intelligence ("AI") technology to engage consumers in real time through the pricing and delivery of highly relevant digital advertisements ("ads"), across devices and environments. By pricing our offering on a range of pricing models and measuring our value based on clear, well-defined performance metrics, we make the return on investment transparent and easy to measure for advertisers.

In these notes, Criteo S.A. is referred to as the Parent company and together with its subsidiaries, collectively, as "Criteo," the "Company," the "Group," or "we".

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¹ Driving Awareness for a brand means exposing its brand name to consumers who have not been in touch with the brand before, thereby creating brand awareness from such consumers. Driving Consideration for an advertiser's products or services means attracting prospective new consumers to consider engaging with and/or buying this advertiser's products or services. Driving Conversion for an advertisers' products or services means triggering a purchase by consumers who have already engaged with this advertisers products or services in the past.

Note 1. Principles and Accounting Methods

Basis of Preparation

We prepared the consolidated financial statements in accordance with the U.S generally accepted accounting principles ("U.S. GAAP"). The consolidated financial statements include the accounts of Criteo S.A and its wholly owned subsidiaries.

Consolidation Methods

We have control over all our subsidiaries, and consequently they are all fully consolidated. Intercompany transactions and balances have been eliminated. The table below presents at each period's end and for all entities included in the consolidation scope the following information: the country of incorporation and the percentage of voting rights and ownership interests.

	[2017		2	018	
	Country	Voting rights	Ownership Interest	Voting rights	Ownership Interest	Consolidation Method
Parent company						
Criteo S.A (1)	France	100%	100%	100%	100%	Parent company
French subsidiaries						
Criteo France SAS	France	100%	100%	100%	100%	Fully consolidated
Criteo Finance SAS	France	100%	100%	100%	100%	Fully consolidated
Storetail Marketing Services SAS	France		-	100%	100%	Fully consolidated
Foreign subsidiaries						
Criteo Ltd	United Kingdom	100%	100%	100%	100%	Fully consolidated
HookLogic Ltd	United Kingdom	100%	100%	100%	100%	Fully consolidated
Storetail Marketing Services Ltd	United Kingdom	-	-	100%	100%	Fully consolidated
Criteo Corp	United States	100%	100%	100%	100%	Fully consolidated
HookLogic, Inc. (2)	United States	-	-	-	-	Fully consolidated
Manage, Inc.	United States	-	-	100%	100%	Fully consolidated
Criteo Gmbh	Germany	100%	100%	100%	100%	Fully consolidated
Criteo KK	Japan	66%	66%	66%	66%	Fully consolidated
Criteo Do Brasil LTDA	Brazil	100%	100%	100%	100%	Fully consolidated
HookLogic Brasil Solucoes EM tecnologia Ltda (2)	Brazil	-	-	- 1	-	Fully consolidated
Criteo BV	The Netherlands	100%	100%	100%	100%	Fully consolidated
Criteo Pty	Australia	100%	100%	100%	100%	Fully consolidated
Criteo Srl	Italy	100%	100%	100%	100%	Fully consolidated
Criteo Advertising (Beijng) Co. Ltd	China	100%	100%	100%	100%	Fully consolidated
Criteo Singapore Pte. Ltd.	Singapore	100%	100%	100%	100%	Fully consolidated
Criteo LLC	Russia	100%	100%	100%	100%	Fully consolidated
Criteo Europa S.L.	Spain	100%	100%	100%	100%	Fully consolidated
Criteo Espana S.L.	Spain	100%	100%	100%	100%	Fully consolidated
Storetail Marketing Services S.L.U	Spain	-	-	100%	100%	Fully consolidated
Criteo Canada Corp.	Canada	100%	100%	100%	100%	Fully consolidated
Criteo Reklamcılık Hizmetleri ve Ticaret Anonim Şirketi	Turkey	100%	100%	100%	100%	Fully consolidated
Criteo MEA FZ-LLC	United Arab Emirates	100%	100%	100%	100%	Fully consolidated
Criteo India Private Ltd.	India	100%	100%	100%	100%	Fully consolidated

⁽¹⁾ including Criteo Korea and Criteo AB (Sweden) branches activities.

Functional Currency and Translation of Financial Statements in Foreign Currency

The Consolidated Financial Statements are presented in U.S. dollars, which differs from the functional currency of the Parent, being the Euro. The statements of financial position of consolidated entities having a functional currency different from the U.S. dollar are translated into U.S. dollars at the closing exchange rate (spot exchange rate at the statement of financial position date) and the statements of income, statements of comprehensive income and statements of cash flow of such consolidated entities are translated at the average period to date exchange rate. The resulting translation adjustments are included in equity under the caption "Accumulated other comprehensive income (loss)" in the Consolidated Statements of Changes in Shareholders' Equity.

⁽²⁾ merged with Criteo Corp. and Criteo do Brasil LTDA respectively.

Conversion of Foreign Currency Transactions

Foreign currency transactions are converted to U.S. dollars at the rate of exchange applicable on the transaction date. At period-end, foreign currency monetary assets and liabilities are converted at the rate of exchange prevailing on that date. The resulting exchange gains or losses are recorded in the Consolidated Statements of Income in "Other financial income (expense)" with the exception of exchange differences arising from monetary items that form part of the reporting entity's net investment in a foreign operation which are recognized in other comprehensive income (loss); they will be recognized in profit or loss on disposal of the net investment.

Use of Estimates

The preparation of our Consolidated Financial Statements requires the use of estimates, assumptions and judgments that affect the reported amounts of assets, liabilities, and disclosures of contingent assets and liabilities at the date of the consolidated financial statements and the reported amount of revenue and expenses during the period. We base our estimates and assumptions on historical experience and other factors that we believe to be reasonable under the circumstances. We evaluate our estimates and assumptions on an ongoing basis. Our actual results may differ from these estimates.

On an on-going basis, management evaluates its estimates, primarily those related to: (1) revenue recognition criteria (2) allowances for doubtful accounts, (3) research tax credits (4) income taxes, including i) recognition of deferred tax assets arising from the subsidiaries projected taxable profit for future years, ii) evaluation of uncertain tax positions associated with our transfer pricing policy and iii) recognition of income tax position in respect of the tax reform in France voted in December 2018, (5) assumptions used in valuing acquired assets and assumed liabilities in business combinations, (6) assumptions used in the valuation of goodwill and intangible assets, and (7) assumptions used in the valuation model to determine the fair value of share-based compensation plan.

Business combinations

We include the results of operations of the businesses that we acquire as of the acquisition date. We allocate the purchase price of our acquisitions to the assets acquired and liabilities assumed based on their estimated fair values. The excess of the purchase price over the fair values of these identifiable assets and liabilities is recorded as goodwill. Acquisition-related expenses are recognized separately from the business combination and are expensed as incurred.

Intangible Assets

Acquired intangible assets are accounted for at acquisition cost, less accumulated amortization. Acquired intangible assets are composed of software, technology and customer relationships amortized on a straight-line basis over their estimated useful lives comprised between one and three years for the software, and three and nine years, for the technology and customer relationships. Intangible assets are reviewed for impairment whenever events or changes in circumstances such as, but not limited to, significant declines in revenue, earnings or cash flows or material adverse changes in the business climate indicate that the carrying amount of an asset may be impaired.

We expense software development costs, including costs to develop software products or the software component of products to be sold, leased, or marketed to external users, before technological feasibility is reached. Technological feasibility is typically reached shortly before the release of such products and as a result, development costs that meet the criteria for capitalization were not material for the periods presented.

Software development costs also include costs to develop software to be used solely to meet internal needs and cloud based applications used to deliver our services. We capitalize development costs related to these software applications once the preliminary project stage is complete and it is probable that the project will be completed and the software will be used to perform the function intended. Amortization of these costs begins when assets are placed in service and is calculated on a straight-line basis over the assets' useful lives estimated at three to five years.

Property, Plant and Equipment

Property, plant and equipment are accounted for at acquisition cost less cumulative depreciation and any impairment loss. Depreciation is calculated on a straight-line basis over the assets' estimated useful lives as follows:

Impairment of Assets

Goodwill and Intangible Assets

Goodwill represents the excess of the aggregate purchase price paid over the fair value of the net tangible and intangible assets acquired. Intangible assets that are not considered to have an indefinite useful life are amortized over their useful lives. The Company evaluates the estimated remaining useful lives of purchased intangible assets and whether events or changes in circumstances warrant a revision to the remaining periods of amortization.

Goodwill is not amortized and is tested for impairment at least annually or whenever events or changes in circumstances indicate that the carrying value may not be recoverable. The Company has determined that it operates as a single reporting unit and has selected December 31 as the date to perform its annual impairment test.

In the impairment assessment of its goodwill, the Company performs a two-step impairment test, which involves assumptions regarding estimated future cash flows to be derived from the Company. If these estimates or their related assumptions change in the future, the Company may be required to record impairment for these assets. The first step of the impairment test involves comparing the fair value of the reporting unit to its net book value, including goodwill.

If the net book value exceeds its fair value, then the Company would perform the second step of the goodwill impairment test to determine the amount of the impairment loss. The impairment loss to be recognized would be calculated by comparing the implied fair value of the Company to its net book value. In calculating the implied fair value of the Company's goodwill, the fair value of the Company would be allocated to all of the other assets and liabilities based on their fair values. The excess of the fair value of the Company over the amount assigned to its other assets and liabilities is the implied fair value of goodwill. An impairment loss would be recognized in the Consolidated Statement of Income when the carrying amount of goodwill exceeds its implied fair value.

With respect to intangible assets, acquired intangible assets are accounted for at acquisition cost less cumulative amortization and any impairment loss. Acquired intangible assets are amortized over their estimated useful lives of one to nine years on a straight-line method. Intangible assets are reviewed for impairment whenever events or changes in circumstances such as, but not limited to, significant declines in revenue, earnings or cash flows or material adverse changes in the financial and economic environment indicate that the carrying amount of an asset may be impaired.

Property, Plant and Equipment and Impairment of Long-lived Assets

The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset is impaired or the estimated useful life is no longer appropriate. If indicators of impairment exist and the undiscounted projected cash flows associated with an asset are less than the carrying amount of the asset, an impairment loss is recorded to write the asset down to its estimated fair value. Fair value is estimated based on discounted future cash flows.

Leases

The Company leases various facilities under agreements accounted for as operating leases. For leases that contain escalation or rent concessions provisions, management recognizes rent expense during the lease term on a straight-line basis over the term of the lease. The difference between rent paid and straight-line rent expense is recorded as a deferred rent liability in the accompanying Consolidated Statement of Financial Position.

Financial Assets and Liabilities, Excluding Derivative Financial Instruments

Financial assets, excluding cash and cash equivalents, consist exclusively of loans and receivables. Loans and receivables are non-derivative financial assets with a payment, which is fixed or can be determined, not listed on an active market. They are included in current assets, except those that mature more than twelve months after the reporting date. Loans are measured at amortized cost using the effective interest method. The recoverable amount of loans and advances is estimated whenever there is an indication that the asset may be impaired and at least on each reporting date. If the recoverable amount is lower than the carrying amount, an impairment loss is recognized in the Consolidated Statements of Income.

Financial liabilities are initially recorded at their fair value at the transaction date. Subsequently they are measured at amortized cost using the effective interest method.

We carry our accounts receivable at net realizable value. On a periodic basis, our management evaluates our accounts receivable and determines whether to provide an allowance or if any accounts should be written down and charged to expense as a bad debt. The evaluation is based on, among other factors, a past history of collections, current credit conditions, the ageing of the receivable and a past history of write downs. A receivable is considered past due if we have not received payments based on agreed-upon terms. A higher default rate than estimated or a deterioration in our clients' creditworthiness could have an adverse impact on our future results. Allowances for doubtful accounts on trade receivables are recorded in "sales and operations expenses" in our Consolidated Statements of Income. We generally do not require any security or collateral to support our receivables.

Derivative financial instruments

We buy and sell derivative financial instruments (mainly put, forward buying and selling) in order to manage and reduce our exposure to the risk of exchange rate fluctuations. We deal only with major financial institutions. Financial instruments may only be classified as hedges when we can demonstrate and document the effectiveness of the hedging relationship at inception and throughout the life of the hedge. Derivatives not designated as hedging instruments mainly consist of put, forward buying and selling contracts that we use to hedge intercompany transactions and other monetary assets or liabilities denominated in currencies other than the local currency of a subsidiary.

We recognize gains and losses on these contracts, as well as the related costs in the financial income (expense), net, along with the foreign currency gains and losses on monetary assets and liabilities.

During the year ended December 31, 2017 and 2018, the Company reported the cash impact of the settlement of hedging derivatives in cash from (used for) financing activities in the consolidated statements of cash flows. This accounting policy choice results in the cash flows from the derivative instrument to be classified in the same category as the underlying cash flows. Prior periods amounts have not been restated as the impact is immaterial.

Fair value measurements

Financial instruments are presented in three categories based on a hierarchical method used to determine their fair value: (i) level 1: fair value calculated using quoted prices in an active market for identical assets and liabilities; (ii) level 2: fair value calculated using valuation techniques based on observable market data such as prices of similar assets and liabilities or parameters quoted in an active market; (iii) level 3: fair value calculated using valuation techniques based wholly or partially on unobservable inputs such as prices in an active market or a valuation based on multiples for unlisted companies. The Company's valuation techniques used to measure the fair value of money market funds and certain short term investments were derived from quoted prices in active markets. The valuation techniques used to measure the fair value of the Company's financial liabilities and all other financial instruments, all of which have counterparties with high credit ratings, were valued based on quoted market prices or model-driven valuations using inputs derived from or corroborated by observable market data.

Cash and Cash Equivalents

Cash includes cash on hand and demand deposits with banks. Cash equivalents include short-term, highly liquid investments, with a remaining maturity at the date of purchase of three months or less for which the risk of changes in value is considered to be insignificant. Demand deposits therefore meet the definition of cash equivalents. Cash equivalents are measured at fair value using level 1 and level 2, respectively, for cash at hand and money market funds using quoted prices, and any changes are recognized in the Consolidated Statements of Income.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash, cash equivalents and accounts receivable. The Company's cash and cash equivalents are held and foreign exchange contracts are transacted with major financial institutions that the Company's management has assessed to be of high credit quality. The Company has not experienced any losses in such accounts.

The Company mitigates its credit risk with respect to accounts receivable by performing credit evaluations and monitoring agencies' and advertisers' accounts receivable balances. As of December 31, 2018 and 2017 no customer accounted for 10% or more of accounts receivable. During the years ended December 31, 2018, 2017 and 2016, no single customer represented 10% or more of revenue.

Employee Benefits

Depending on the laws and practices of the countries in which we operate, employees may be entitled to compensation when they retire or to a pension following their retirement. For state-managed plans and other defined contribution plans, we recognize them as expenses when they become payable, our commitment being limited to our contributions.

The liability with respect to defined benefit plans is estimated using the following main assumptions:

- discount rate;
- future salary increases;
- employee turnover; and
- mortality tables.

Service costs are recognized in profit or loss and are allocated by function.

Actuarial gains and losses are recognized in other comprehensive income and subsequently amortized into the income statement over a specified period, which is generally the expected average remaining service period of the employees participating in the plan. Actuarial gains and losses arise as a result of changes in actuarial assumptions or experience adjustments (differences between the previous actuarial assumptions and what has actually occurred).

Contingencies

We recognize if the following two conditions are met:

- information available before the financial statements are issued indicates that it is probable that an asset had been impaired or a liability had been incurred at the date of the financial statements;
- the amount of loss can be reasonably estimated.

With respect to litigation and claims that may result in a provision to be recognized, we exercise significant judgment in measuring and recognizing provisions or determining exposure to contingent liabilities that are related to pending litigation or other outstanding claims. These judgment and estimates are subject to change as new information becomes available.

Revenue Recognition

On January 1, 2018, we adopted Topic 606 using the modified retrospective method. The new standard had no significant impact on our Consolidated Financial Statements.

We recognize revenues when we transfer control of promised services directly to our clients or to advertising agencies, which we collectively refer to as our clients, in an amount that reflects the consideration to which we expect to be entitled to in exchange for those services.

Refer to Note 16. Revenue for further discussion regarding the adoption of ASC 606 and revenue.

Cost of Revenue

Our cost of revenue primarily includes traffic acquisition costs and other cost of revenue.

Traffic Acquisition Costs. Traffic acquisition costs consist primarily of purchases of impressions from publishers on a CPM basis. We purchase impressions directly from publishers or third-party intermediaries, such as advertisement exchanges. We recognize cost of revenue on a publisher by publisher basis as incurred. Costs owed to publishers but not yet paid are recorded in our Consolidated Statements of Financial Position as trade payables and other current liabilities.

For some solutions within Criteo Retail Media, we pay for the inventory of our ecommerce retailer partners on a revenue sharing basis, effectively paying the retailers a portion of the click-based revenue generated by user clicks on the sponsored products advertisements displaying the products of our brand manufacturer clients.

Other Cost of Revenue. Other cost of revenue includes expenses related to third-party hosting fees, depreciation of data center equipment and data purchased from third parties. The Company does not build or operate its own data centers and none of its Research and Development employments are dedicated to revenue generating activities. As a result, we do not include the costs of such personnel in other cost of revenue.

Share-Based Compensation

Shares, employee share options and employee and non-employee warrants are primarily awarded to our employees or directors. These awards are measured at their fair value on the date of grant. The fair value is calculated with the most relevant formula regarding the settlement and the conditions of each plan. The fair value is recorded in personnel expenses (allocated by function in the Consolidated Statements of Income) on a straight-line basis over each milestone composing the vesting period with a corresponding increase in shareholders' equity.

At each closing date, we re-examine the number of options likely to become exercisable. If applicable, the impact of the review of the estimate is recognized in the Consolidated Statements of Income with a corresponding adjustment in equity.

Income Taxes

Income taxes are accounted for under the asset and liability method of accounting. Deferred taxes are recorded on all temporary differences between the financial reporting and tax bases of assets and liabilities, and on tax losses, using the liability method. Differences are defined as temporary when they are expected to reverse within a foreseeable future. We may only recognize deferred tax assets on net operating losses if, based on the projected taxable incomes within the next three years, we determine that it is probable that future taxable profit will be available against which the unused tax losses and tax credits can be utilized. As a result, the measurement of deferred income tax assets is reduced, if necessary, by a valuation allowance for any tax benefits which are not expected to be realized. If future taxable profits are considerably different from those forecasted that support recording deferred tax assets, we will have to revise downwards or upwards the amount of deferred tax assets, which would have a significant impact on our financial results. Tax assets and liabilities are not discounted. Amounts recognized in the Consolidated Financial Statements are calculated at the level of each tax entity included in the consolidation scope. The effect on deferred income tax assets and liabilities of a change in tax rates is recognized in the period that such tax rate changes are enacted.

The French Research Tax Credit, *Crédit d'Impôt Recherche* ("CIR"), is a French tax incentive to stimulate research and development ("R&D"). Generally, the CIR offsets the income tax to be paid and the remaining portion (if any) can be refunded at the end of a three-fiscal year period. The CIR is calculated based on the claimed volume of eligible R&D expenditures by us. As a result, the CIR is presented as a deduction to "research and development expenses" in the Consolidated Statements of Income, as the CIR is not within the scope of ASC 740. We have exclusively claimed R&D performed in France for purposes of the CIR.

The U.S Research Tax Credit is a U.S. tax credit to incentivize research and development activities in the U.S. Qualifying R&D expenses generating a tax credit which may be used to offset future taxable income once all net operating losses and foreign tax credits have been used. It is not refundable and as such, considered in the scope of ASC 740 as a component of income tax expense. We have exclusively claimed R&D performed in the U.S. for purposes of the U.S. Research Tax Credit.

Uncertain Tax Positions

We recognize tax benefits from uncertain tax positions only if we believe that it is more likely than not that the tax position will be sustained on examination by the taxing authorities based on the technical merits of the position. These uncertain tax positions include our estimates for transfer pricing that have been developed based upon analyses of appropriate arms-length prices. Similarly, our estimates related to uncertain tax positions concerning research tax credits are based on an assessment of whether our available documentation corroborating the nature of our activities supporting the tax credits will be sufficient. Although we believe that we have adequately reserved for our uncertain tax positions (including net interest and penalties), we can provide no assurance that the final tax outcome of these matters will not be materially different. We make adjustments to these reserves in accordance with the income tax accounting guidance when facts and circumstances change, such as the closing of a tax audit or the refinement of an estimate. To the extent that the final tax outcome of these matters is different from the amounts recorded, such differences will affect the provision for income taxes in the period in which such determination is made, and could have a material impact on our financial condition and operating results.

Operating Segments

Segment information reported is built on the basis of internal management data used for performance analysis of businesses and for the allocation of resources (management approach). An operating segment is a component of the Company for which separate financial information is available that is evaluated regularly by our Chief Decision Maker in deciding how to allocate resources and assessing performance.

Our chief operating decision-maker is our CEO. The CEO reviews consolidated data for revenue, revenue excluding traffic acquisition costs (revenue ex-TAC) and Adjusted EBITDA (earnings before financial income (expense), income taxes, depreciation and amortization, adjusted to eliminate the impact of equity awards compensation expense, pension service costs, restructuring costs, acquisition-related costs and deferred price consideration) for the purposes of allocating resources and evaluating financial performance.

We have concluded that our operations constitute one operating and reportable segment.

Earnings Per Share

Basic earnings per share ("EPS") are calculated by dividing the net income attributable to shareholders of the Parent by the weighted average number of shares outstanding. The weighted average number of shares outstanding is calculated according to movements in share capital.

In addition, we calculate diluted earnings per share by dividing the net income attributable to shareholders of the Parent company, Criteo S.A. by the weighted average number of shares outstanding plus any potentially dilutive shares not yet issued.

Accounting Pronouncements adopted in 2018

From January 1, 2018, we adopted Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers (Topic 606) (ASU 2014-09), which amends the existing accounting standards for revenue recognition. In March 2016, the FASB issued Accounting Standards Update No. 2016-08, Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net) (ASU 2016-08) which clarifies the implementation guidance on principal versus agent considerations. The guidance includes indicators to assist an entity in determining whether it controls a specified good or service before it is transferred to the customers. We adopted the new standard effective January 1, 2018 using the modified retrospective method. The adoption did not have a material impact on our financial statements. Please refer to Note.16 Revenue for further details.

In October 2016, the FASB issued Accounting Standards Update No. 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers Other than Inventory* (ASU 2016-16), which requires companies to recognize the income-tax consequences of an intra-entity transfer of an asset other than inventory. We adopted ASU on January 1, 2018. It did not have a material impact on our Consolidated Financial Statements.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows: Classification of Certain Cash Receipts and Cash Payments* ("ASU 2016-15"). Among other clarifications, ASU 2016-15 clarifies certain items, including the classification of payments for debt prepayment or debt extinguishment costs, including third-party costs, premiums paid, and other fees paid to lenders that are directly related to the debt prepayment or debt extinguishment, excluding accrued interest, which will now be included in the Financing Activities section in the Consolidated Statement of Cash Flows. We adopted this standard as of January 1, 2018. It did not have a material impact on our Consolidated Financial Statements.

In January 2017, the FASB issued ASU 2017-01, *Business Combinations (Topic 805)* ("ASU 2017-01") the purpose of which is to change the definition of a business to assist entities in evaluating when a set of transferred assets and activities is a business. This update was effective for annual periods beginning after December 15, 2017, including interim periods within those periods. We adopted this standard as of January 1, 2018. It did not have a material impact on our Consolidated Financial Statements.

In May 2017, the FASB issued ASU 2017-09 *Compensation - Stock Compensation (Topic 718)*. ASU 2017-09 was issued to provide clarity and reduce diversity in practice and complexity when applying the guidance in Topic 718 to a change in terms or conditions of a share-based payment award. Under the new guidance, modification accounting is required only if the fair value, the vesting conditions, or the classification of the award changes as a result of the change in terms or conditions. We adopted this standard as of January 1, 2018. It did not have a material impact on our Consolidated Financial Statements.

Recent Accounting Pronouncements

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, *Leases (Topic 842)* (ASU 2016-02), which generally requires companies to recognize operating and financing lease liabilities and corresponding right-of-use assets on the balance sheet for operating leases with terms of more than 12 months, in addition to those currently recorded. We will adopt Topic 842 effective January 1, 2019 on a modified retrospective basis and will not restate comparative periods. In preparation for adoption of the standard, we have implemented internal controls and key system functionality to enable the preparation of financial information. We anticipate this standard will have a material impact on our Consolidated Statement of Financial Position due to the impact of recognizing a Lease Liability and Right of Use Asset for our office and data center operating leases. We do not expect a material impact to our Consolidated Statements of Income and Cashflows. We estimate that as a result of adopting this standard, we will recognize additional debt and assets of approximately \$220 million to \$240 million as of January 1, 2019.

In January 2017, the FASB issued ASU 2017-04 *Goodwill and Other (Topic 350)*. ASU 2017-04 simplifies the subsequent measurement of goodwill and reduces the cost and complexity of evaluating goodwill for impairment. It eliminates the need for entities to calculate the implied fair value of goodwill by assigning the fair value of a reporting unit to all of its assets and liabilities as if that reporting unit had been acquired in a business combination. Under this amendment, an entity will perform its goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An impairment charge is recognized for the amount by which the carrying value exceeds the reporting unit's fair value. We intend to adopt the standard on the effective date of January 1, 2020. The adoption of ASU 2017-04 is not expected to have a material impact on our financial position or results of operations.

In August 2017, the FASB issued ASU 2017-12 *Derivatives and Hedging (Topic 815), Targeted Improvements to Accounting for Hedging Activities.* ASU 2017-12 was issued with the objective of improving the financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities in it's financial statements as well as to simplify the application of hedge accounting guidance in current GAAP. We intend to adopt the standard on the effective date of January 1, 2020. The adoption of ASU 2017-12 is not expected to have a material impact on our financial position or results of operations.

In June 2018, the FASB issued ASU 2018 - 07, *Improvements to Employee Sharebased Payment Accounting*. The amendments in this ASU explands Topic 718 to include share base payments for goods or services to non employees. We intend to adopt the standard on the effective date of January 1, 2019. The adoption of ASU 2018-07 is not expected to have a material impact on our financial position or results of operations.

In August 2018, the FASB issued ASU 2018 - 13, *Fair Value Measurement - Disclosure Framework - Changes to the Disclosure Requirement for Fair Value Measurement.* This ASU modifies disclosure requirements for Fair Value including 1) removing existing disclosure requirements such as reasons for transfers from 1 to 2 level, policy of timing of transfers 2) modifying existing disclosure requirements, such as a rollforward of level 3 assets, investments in entities that calculate net asset value, and the measurement uncertainty disclosure 3) Adds additional disclosures such as changes in unrealized gains and losses in OCI, and the range and weight of significant unobservable inputs. We intend to adopt the standard on the effective date of January 1, 2020. The adoption of ASU 2018-13 is not expected to have a material impact on our financial position or results of operations.

In August 2018, the FASB issued ASU 2018 - 14, Compensation - Retirement Benefits - Defined Benefit Plans - General. The purpose of this update is to modify disclosure requirements for Defined Benefit Plans. It removes requirements to disclose the amounts in accumulated other comprehensive income expected to be recognized as components of net periodic benefit cost over the next fiscal year among others. It adds disclosure requirements for the items such as an explanation of the reasons for significant gains and losses related to changes in the benefit obligation for the period. We intend to adopt the standard on the effective date of January 1, 2021. The adoption of ASU 2018-14 is not expected to have a material impact on our financial position or results of operations but may have an impact on our disclosures.

In August 2018, the FASB issued ASU 2018-15, Intangibles - Goodwill and Other - Internal Use Software - Customer's Accounting for Implementation Costs incurred in a Cloud Computing Arrangement That is a Service Contract. This ASU was issued to clarify the account for implementation costs incurred for SaaS agreements. Previously the guidance only referred to development of internal use software and the accounting for SaaS agreements was not clarified. This ASU states that the implementation costs should be capitalized. The ASU will be effective for periods after December 15, 2019. We are currently evaluating the impact on our financial position, results of operations, and statement of cash flows.

Other accounting standards that have been issued or proposed by the FASB or other standards-setting bodies that do not require adoption until a future date are not expected to have a material impact on the Company's Consolidated Financial Statements upon adoption.

Note 2. Significant Events and Transactions of the Period

Share repurchase program

On October 25, 2018 Criteo's Board of Directors authorized a share repurchase program of up to \$80.0 million of the Company's outstanding American Depositary Shares. The Company may use repurchased shares to satisfy employee equity plan vesting in lieu of issuing new shares. In addition, the Company may use part of repurchased shares in connection with future Merger and Acquisition ("M&A") transactions or cancel such shares. The repurchases were executed, subject to general business and market conditions and other investment opportunities, through open market purchases or privately negotiated transactions, including through the use of 10b5-1 plans. During the quarter ended December 31, 2018, the Company repurchased 3.5 million of its shares for an aggregate amount of \$80.0 million thus completing all share repurchases under this program. As of December 31, 2018, the balance of Treasury Shares is as follows:

	Number of Treasury Shares	Amount (in thousands)
Balance at January 1, 2018	_	_
Treasury Shares Repurchased to potentially use for M&A	1,751,147	\$ 40,000
Treasury Shares Repurchased for RSU Vesting	1,748,111	40,000
Treasury Shares Issued for RSU Vesting	(40,139)	(841)
Balance at December 31, 2018	3,459,119	\$ 79,159

Business combinations

Acquisition of Manage.com Inc.

On October 29, 2018, we completed the acquisition of all of the outstanding shares of Manage.com Inc., a company with an attractive app install solution that helps advertisers acquire new customers in mobile apps. The total consideration paid was \$60.0 million for the acquisition of shares. The acquisition was financed by available cash resources. The transaction has been accounted for as a business combination under the acquisition method of accounting. The purchase price allocation is in progress. A preliminary valuation of the fair value of Manage's assets acquired and liabilities assumed has been performed as of December 31, 2018, resulting in the identification of technology and customer relationships assets of \$9.8 million and \$7.3 million, respectively, and related deferred tax liability of \$4.4 million. Provisional goodwill amounted to \$45.6 million, subject to post-closing working capital adjustments. Once this valuation analysis is finalized, the estimate of the fair value of the assets acquired and liabilities assumed may be adjusted. The Company will finalize these amounts no later than one year from the acquisition date. In addition, acquisition costs amounting to \$1.0 million were fully expensed as incurred.

Acquisition of Storetail Marketing Services SAS

On August 3, 2018, we completed the acquisition of all of the outstanding shares of Storetail Marketing Services SAS, a pioneering retail media technology platform that enables retailers to monetize native placements on their ecommerce sites on a CPM basis. The total consideration paid for the acquisition was \$47.8 million (ϵ 41.3 million) composed as follows: \$43.7 million (ϵ 37.7 million) financed by available cash resources at the acquisition date and \$4.1 million (ϵ 3.6 million) as deferred consideration due at the end of a 2 year period. The transaction has been accounted for as a business combination under the acquisition method of accounting. The purchase price allocation is in progress. A preliminary valuation of the fair value of Storetail's assets acquired and liabilities assumed has been performed as of December 31, 2018, mainly resulting in the identification of a technology and related marketing solution of \$14.2 million (ϵ 12.2 million) and related deferred tax liability of \$4.1 million (ϵ 3.6 million). Provisional goodwill amounted to \$32.3 million (ϵ 27.8 million). Once this valuation analysis is finalized, the estimate of the fair value of the assets acquired and liabilities assumed may be adjusted. The Company will finalize these amounts no later than one year from the acquisition date. In addition, acquisition costs amounting to \$0.7 million (ϵ 6.6 million) were fully expensed as incurred.

Note 3. Categories of Financial Assets and Financial Liabilities

Financial assets

	Year Ended December 31,				
		2017		2018	
	(in thousands)				
Trade receivables, net of allowances	\$	484,101	\$	473,901	
Other taxes		58,346		53,338	
Other current assets		26,327		22,816	
Non-current financial assets		19,525		20,460	
Total	\$	588,299	\$	570,515	

Credit Risk

We maintain an allowance for estimated credit losses. During the years ended December 31, 2018 and 2017, our net change in allowance for doubtful accounts was \$5.1 million and \$9.2 million, respectively.

For our financial assets, the fair value approximates the carrying amount, given the nature of the financial assets and the maturity of the expected cash flows.

Trade Receivables

Credit risk is defined as an unexpected loss in cash and earnings if the client is unable to pay its obligations in due time. We perform internal ongoing credit risk evaluations of our clients. When a possible risk exposure is identified, we require prepayments.

As of December 31, 2018 and 2017, no customer accounted for 10% or more of trade receivables.

Financial liabilities

	Year Ended December 31,			
	 2017		2018	
	(in thousands)			
Trade payables	\$ 417,032	\$	425,376	
Other taxes	58,783		55,592	
Employee - related payables	66,219		65,878	
Other current liabilities	65,677		47,115	
Financial liabilities	3,657		3,508	
Total	\$ 611,368	\$	597,469	

For our financial liabilities, the fair value approximates the carrying amount, given the nature of the financial liabilities and the maturity of the expected cash flows.

Fair Value Measurements

We measure the fair value of our cash equivalents, which include interest bearing deposits, as level 2 measurements because they are valued using observable market data.

Financial assets or liabilities include derivative financial instruments used to manage our exposure to the risk of exchange rate fluctuations. These instruments are considered level 2 financial instruments as they are measured using valuation techniques based on observable market data.

Derivative Financial Instruments

Derivatives consist of foreign currency forward contracts that we use to hedge intercompany transactions and other monetary assets or liabilities denominated in currencies other than the local currency of a subsidiary. We recognize gains and losses on these contracts in financial income (expense), and their position on the balance sheet is based on their fair value at the end of each respective period. These instruments are considered level 2 financial instruments as they are measured using valuation techniques based on observable market data.

	Year Ended December 31,				
	2017			2018	
)			
Derivative Assets:					
Included in other current assets	\$	5,159	\$	1,703	
Derivative Liabilities:					
Included in financial liabilities - current portion	\$	_	\$	_	

For our derivative financial instruments, the fair value approximates the carrying amount, given the nature of the derivative financial instruments and the maturity of the expected cash flows.

Note 4. Cash and Cash Equivalents

The following table presents for each reported period, the breakdown of cash and cash equivalents:

	Year Ended December 31,					
	 2017		2018			
	 (in thousands)					
Cash equivalent	\$ 146,875	\$	125,442			
Cash on hand	267,236		238,984			
Total Cash and cash equivalents	\$ 414,111	\$	364,426			

Investments in interest–bearing bank deposits which met ASC 230 - *Statement of Cash flows* criteria: short-term, highly liquid investments, for which the risks of changes in value are considered to be insignificant. Interest-bearing bank deposits are considered level 2 financial instruments as they are measured using valuation techniques based on observable market data. For our cash and cash equivalents, the fair value approximates the carrying amount, given the nature of the cash and cash equivalents and the maturity of the expected cash flows.

Note 5. Trade Receivables

The following table shows the breakdown in trade receivables net book value for the presented periods:

	Year Ende	Year Ended December 31,					
	2017		2018				
	(in th	(in thousands)					
Trade accounts receivables	\$ 504,919	\$	499,819				
(Less) Allowance for doubtful accounts	(20,818	5)	(25,918)				
Net book value at end of period	\$ 484,101	\$	473,901				

Changes in allowance for doubtful accounts are summarized below:

	Year Ended December 31,										
		2016		2017		2018					
		(in thousands)									
Balance at beginning of period	\$	(6,264)	\$	(11,598)	\$	(20,818)					
Provision for doubtful accounts		(9,898)		(13,315)		(17,656)					
Reversal of provision		4,464		4,821		11,956					
Change in consolidation scope		(221)				(150)					
Currency translation adjustment		321		(726)		750					
Balance at end of period	\$	(11,598)	\$	(20,818)	\$	(25,918)					

The change in allowance for doubtful accounts, net of reversals, relates mainly to increased business with categories of clients associated with a higher credit risk. The Company mitigates its credit risk with respect to accounts receivables by performing credit evaluations and monitoring agencies and advertisers' accounts receivables balances.

Note 6. Other Current Assets

The following table shows the breakdown in other current assets net book value for the presented periods:

		Year Ended December 31,						
		2017		2018				
		s)						
Prepayments to suppliers	\$	3,244	\$	4,056				
Other debtors		5,694		4,762				
Prepaid expenses		12,230		12,295				
Derivative financial instruments		5,159		1,703				
Gross book value at end of period		26,327		22,816				
Net book value at end of period	\$	26,327	\$	22,816				

Prepaid expenses mainly consist of office rental advance payments.

Derivative financial instruments include foreign currency swaps or forward purchases or sales contracts used to manage our exposure to the risk of exchange rate fluctuations. These instruments are considered level 2 financial instruments as they are measured using valuation techniques based on observable market data.

Note 7. Property, Plant and Equipment

Changes in net book value during the presented periods are summarized below:

	Fixtures and fittings								nstruction n Progress		Total
			(in thousands)								
Net book value at January 1, 2017	\$	18,165	\$	77,749	\$	12,667	\$	108,581			
Additions to tangible assets		7,088		59,526		45,472		112,086			
Disposal of tangible assets net of accumulated depreciation		(115)		(1,238)		_		(1,353)			
Depreciation expense		(6,315)	(59,746)		_		(66,061)			
Change in consolidation scope		_		_		_		_			
Currency translation adjustment		717		6,425		1,343		8,485			
Transfer into service		2,725		27,635		(30,360)		_			
Net book value at December 31, 2017		22,265	_1	10,351		29,122		161,738			
Gross book value at end of period		34,507	2	65,546		29,122		329,175			
Accumulated depreciation at end of period		(12,242)	(1	55,195)		_		(167,437)			
Net book value at January 1, 2018		22,265	1	10,351		29,122		161,738			
Additions to tangible assets		1,075		27,741		76,733		105,549			
Disposal of tangible assets net of accumulated depreciation		(19)		(176)		(30)		(225)			
Depreciation expense		(6,025)	(72,162)		_		(78,187)			
Change in consolidation scope		26		103		_		129			
Currency translation adjustment		(340)		(3,957)		(694)		(4,991)			
Transfer into service		1,902		82,901		(84,803)		_			
Net book value at December 31, 2018	\$	18,884	\$ 1	44,801	\$	20,328	\$	184,013			
Gross book value at end of period		36,458	3	66,299		20,328		423,085			
Accumulated depreciation at end of period		(17,574)	(2	21,498)		_		(239,072)			

The increase in property plant and equipment (gross book value and accumulated depreciation) mainly includes purchases of server equipment in the French, American and Japanese subsidiaries where the Company's data center equipments are located.

Note 8. Intangible assets

Changes in net book value during the presented periods are summarized below:

	Software		customer relationships		onstruction in Progress	Total
			(in tho	usan	ıds)	
Net book value at January 1, 2017	\$ 11,387	\$	90,663	\$	894	\$ 102,944
Additions to intangible assets	4,615		_		5,502	10,117
Amortization expense	(7,235)		(19,926)		_	(27,161)
Change in consolidation scope	_		7,203		_	7,203
Currency translation adjustment	1,571		661		888	3,120
Transfer into service	2,815		_		(2,815)	_
Net book value at December 31, 2017	13,153		78,601		4,469	96,223
Gross book value at end of period	33,778		115,277		4,469	153,524
Accumulated amortization at end of period	(20,625)		(36,676)		_	(57,301)
Net book value at January 1, 2018	13,153		78,601		4,469	96,223
Additions to intangible assets					11,436	11,436
Disposal of intangible assets			_		(19)	(19)
Amortization expense	(9,490)		(15,824)		_	(25,314)
Change in consolidation scope	_		31,192		18	31,210
Currency translation adjustment	(615)		(652)		(233)	(1,500)
Transfer into service	10,218		_		(10,218)	_
Net book value at December 31, 2018	\$ 13,266	\$	93,317	\$	5,453	\$ 112,036
Gross book value at end of period	42,161		144,734		5,453	192,348
Accumulated amortization at end of period	(28,895)		(51,417)		_	(80,312)

Additions to software consist mainly of capitalization of internally developed internal-use software and IT licenses. Additions to technology and customer relationships relate to a preliminary valuation of Storetail and Manage identified intangibles, as the purchase price allocation is in progress as of December 31, 2018 (classified under "Change in consolidation scope", refer to Note 2 - Significant events and Transactions of the period). Amortization on technology and customer relationships relates to HookLogic, Storetail and Manage intangibles resulting from business combinations.

In addition, no triggering events have occurred during the period which would indicate impairment in the balance of intangible assets.

The average life of software is 3 years. The average life of technology and customer relationships consist of identified intangible assets arising from HookLogic, Storetail and Manage business combinations is between 3 and 9 years.

As of December 31, 2018, expected amortization expense for intangible assets for the next five years and thereafter is as follows (in thousands):

Software	an	d customer		Total
\$ 7,768	\$	21,900	\$	29,668
5,535		16,881		22,416
3,751		16,881		20,632
936		11,503		12,439
715		10,313		11,028
14		15,839		15,853
\$ 18,719	\$	93,317	\$	112,036
	\$ 7,768 5,535 3,751 936 715 14	Software and reconstruction Software Process	relationships \$ 7,768 \$ 21,900 5,535 16,881 3,751 16,881 936 11,503 715 10,313 14 15,839	Software and customer relationships \$ 7,768 \$ 21,900 \$ 5,535 16,881 3,751 16,881 936 11,503 11,503 715 10,313 14 15,839

Note 9. Goodwill

	•	Goodwill	
	(in	thousands)	
Balance at January 1, 2017	\$	209,418	
Additions to goodwill		23,738	
Currency translation adjustment		3,670	
Balance at December 31, 2017		236,826	
Additions to goodwill		77,905	
Currency translation adjustment		(1,850)	
Balance at December 31, 2018	\$	312,881	

Additions to goodwill in 2018 were due to two business combinations with Manage.com Inc. and Storetail Marketing Services SAS. The total consideration paid was \$60.0 million for the acquisition of Manage financed by available cash resources. The total consideration paid for the acquisition of Storetail was \$47.8 million (€41.3 million) composed as follows: \$43.7 million (€37.7 million) financed by available cash resources at the acquisition date and \$4.1 million (€3.6 million) as deferred consideration, due at the end of a 2 year period. These transactions have been accounted for as a business combination under the acquisition method of accounting. The purchase prices allocation is in progress. A preliminary valuation of the fair value of Manage's and Storetail's assets acquired and liabilities assumed have been performed as of December 31, 2018. Once these valuation analyzes are finalized, the estimate of the fair value of the assets acquired and liabilities assumed may be adjusted. The Company will finalize these amounts no later than one year from the acquisition date. As regards Manage, a technology and customer relationships assets of \$9.8 million and \$7.3 million, respectively, and related deferred tax liability of \$4.4 million have been preliminary identified resulting in a provisional goodwill of \$45.6 million. As regards Storetail, a technology and related marketing solution of \$14.2 million (€12.2 million) and related deferred tax liability of \$4.1 million (€3.6 million) have been preliminary identified resulting in a provisional goodwill of \$45.8 million).

In addition, acquisition costs amounting to \$1.7 million were fully expensed as incurred.

Additions to goodwill in 2017 were due to the finalization of the purchase price accounting of the Monsieur Drive and HookLogic acquisitions. On November 9, 2016, we completed the acquisition of all of the outstanding shares of Hooklogic, a New York-based company connecting many of the world's largest ecommerce retailers with consumer brand manufacturers. The total consideration paid was \$249.0 million following a price adjustment for working capital in 2017. As a result of the purchase price allocation, technology of \$15.1 million, customer relationships of \$78.3 million and related deferred tax liability of \$32.1 million were identified. Residual goodwill was recognized for \$188.6 million. Acquisition costs amounting to \$2.2 million were expensed as incurred.

In addition, no triggering events have occurred that would indicate impairment in the balance of goodwill.

Note 10. Non-Current Financial Assets

Non-current financial assets are mainly composed of (i) an interest-bearing bank deposit amounting to \$6.4 million, which is pledged to the benefit of a bank in order to secure the first-demand bank guarantee in connection with our headquarters premises, and (ii) guarantee deposits for office rentals in France, Spain, the United Kingdom, the United States, Japan and Singapore.

Note 11. Contingencies

Changes in provisions during the presented periods are summarized below:

			Other provisions	Total	
		(iı	n th	ousands)	
Balance at January 1, 2017	\$	485	\$	169 \$	654
Charges		383		1,141	1,524
Provision used		(227)		_	(227)
Provision released not used		(128)		(92)	(220)
Currency translation adjustments		32		35	67
Balance at January 1, 2018	\$	545	\$	1,253 \$	1,798
Charges		325		1,868	2,193
Provision used		(180)		(220)	(400)
Provision released not used		(404)		(456)	(860)
Currency translation adjustments		(42)		(49)	(91)
Balance at December 31, 2018	\$	244	\$	2,396 \$	2,640
- of which current	\$	244	\$	2,396 \$	2,640

The amount of the provisions represent management's best estimate of the future outflow.

Note 12. Other Current Liabilities

Other current liabilities are presented in the following table:

	Year Ended December 31,					
		2017	2018			
	(in thousands)					
Clients' prepayments	\$	23,857	\$	10,328		
Credit notes		9,638		13,183		
Accounts payable relating to capital expenditures		30,736		21,454		
Other creditors		740		1,527		
Deferred revenue		706		623		
Total	\$	65,677	\$	47,115		

The changes in "Clients' prepayments" mainly related to the customers' cash advances for the Criteo Retail Media travel business disposed in the first quarter of 2018. The changes in "Accounts payable relating to capital expenditures" mainly related to significant data center equipment acquired in 2017 and paid during the year.

Note 13. Financial Liabilities

We are party to several loan agreements and revolving credit facilities, or RCF, with third-party financial institutions. Our loans and RCF agreements are presented in the table below:

	Nominal/ Authorized amounts (RCF Only)	Amount drawn as of December 31, 2018 (RCF only)	, 2018 Outstanding a			
<u>Nature</u>		(in thousands)			Interest rate	Settlement date
BPI Loan - February 2014	NA	NA	\$	1,718	Fixed: 2.09%	May 2021
Other BPI Loans	NA	NA	\$	986	%	2023 and after
Other Loans	NA	NA	\$	169	%	2024
Bank Syndicate RCF - September 2015	€ 350,000	\$—		\$ —	Floating rate: EURIBOR / LIBOR + margin depending on leverage ratio	March 2022

In September 2015, Criteo entered into a five year revolving credit facility for general corporate purposes, including acquisitions, for a maximum amount of €250 million (\$286.2 million), with a bank syndicate composed of Natixis (coordinator and documentation agent), Le Credit Lyonnais (LCL) (facility agent), HSBC France, Société Générale Corporate & Investment Banking and BNP Paribas (each acting individually as bookrunners and mandated lead arrangers). In 2017, this agreement was amended by, among other things, increasing the amount of facility from €250.0 million (\$286.2 million) to €350.0 million (\$400.7 million) and extending the term of the contract from 2020 to 2022. This multi-currency revolving credit facility bears interest rate at Euribor or the relevant Libor plus a margin to be adjusted on the basis of the leverage ratio.

Besides this RCF agreement, Criteo is part of many credit lines it entered into or maintained following acquisitions. Criteo specifically has agreements with Bpifrance Financement (French Public Investment Bank) for a total amount outstanding as of December 31, 2018 of €2.4 million (\$2.7 million).

All of these loans and revolving credit facilities are unsecured and contain customary events of default but do not contain any affirmative, financial or negative covenants, with the exception of the September 2015 revolving credit facility which contains covenants, including compliance with a total net debt to adjusted EBITDA ratio and restrictions on the incurrence of additional indebtedness. At December 31, 2018, we were in compliance with the required leverage ratio.

The following table shows the maturity of our financial liabilities:

		Maturity												
	Carrying value			2019		2020	2021		2022		2023		20	024
				(in thousands)										
Borrowings	\$	2,941	\$	899	\$	926	\$	583	\$	268	\$	265	\$	_
Other financial liabilities		567		119		448		_		_		_		_
Financial liabilities		3,508		1,018		1,374		583		268		265		_

Note 14. Employee Benefits

Defined Benefit Plans

According to the French law and the Syntec Collective Agreement, French employees are entitled to compensation paid on retirement.

The following table summarizes the changes in the projected benefit obligation:

	Year Ended December 31,					
		2016		2017		2018
			(in	thousands)		
Projected benefit obligation present value - beginning of period	\$	1,445	\$	3,221	\$	5,149
Service cost		524		1,231		1,690
Interest cost		37		66		86
Actuarial losses (gains)		1,335		103		(1,235)
Change in consolidation scope		19		_		98
Currency translation adjustment		(139)		528		(251)
Projected benefit obligation present value - end of period	\$	3,221	\$	5,149	\$	5,537

The Company does not hold any plan assets for any of the periods presented.

The main assumptions used for the purposes of the actuarial valuations are listed below:

	Year Ended December 31,						
	2016	2017	2018				
Discount rate (Corp AA)	1.9%	1.7%	2.1%				
Expected rate of salary increase	5.0%	5.0%	5.0%				
Expected rate of social charges	49.0% - 51.0%	49.0% - 50.0%	49.0% - 50.0%				
Expected staff turnover	0 - 10.5%	0 - 10.5%	0 - 10.5%				
Estimated retirement age	Progressive table	Progressive table	Progressive table				
Life table	TH-TF 2000-2002 shifted	TH-TF 2000-2002 shifted	TH-TF 2000-2002 shifted				

Defined Contribution Plans

The total expense represents contributions payable to these plans by us at specified rates.

In some countries, the Group's employees are eligible for pension payments and similar financial benefits. The Group provides these benefits via defined contribution plans. Under defined contribution plans, the Group has no obligation other than to pay the agreed contributions, with the corresponding expense charged to income for the year. The main contributions concern France, the United States, for 401k plans, and the United Kingdom.

	Year Ended December 31,						
		2016		2017		2018	
				(in thousands)			
Defined contributions plans included in personnel expenses	\$	(11,061)	\$	(14,345)	\$	(16,912)	

Note 15. Common shares

Change in Number of Shares

	Number of ordinary shares
Balance at January 1, 2017	63,978,204
Issuance of shares under share option and free share plans (1)	2,106,893
Balance at December 31, 2017	66,085,097
Issuance of shares under share option and free share plans (2)	1,466,247
Balance at December 31, 2018 before Storetail deferred consideration and Share repurchase program	67,551,344
Storetail deferred consideration (see Note 2. Significant Events and Transactions of the Period)	156,859
Balance at December 31, 2018 after Storetail deferred consideration and before Share repurchase program	67,708,203
Share repurchase program (see Note 2. Significant Events and Transactions of the Period)	(3,459,119)
Balance at December 31, 2018	64,249,084

⁽¹⁾ Adopted by the Board of Directors on March 1, 2017, April 27, 2017, June 30, 2017, July 27, 2017, October 26, 2017 and December 13, 2017.

Note 16. Revenue

Adoption of ASC Topic 606, "Revenue from contracts with customers"

On January 1, 2018, we adopted Topic 606 using the modified retrospective method. The new standard had no significant impact on our Consolidated Financial Statements.

Revenue Recognition

We sell personalized display advertisements featuring product-level recommendations either directly to clients or to advertising agencies. Historically, the Criteo model has focused solely on converting our clients' website visitors into customers, enabling us to charge our clients only when users engage with an ad we deliver, usually by clicking on it. More recently, we have expanded our solutions to address a broader range of marketing goals for our clients.

We offer two families of solutions to our commerce and brand clients:

- *Criteo Marketing Solutions* allow commerce companies to address multiple marketing goals by engaging their consumers with personalized ads across the web, mobile and offline store environments.
- *Criteo Retail Media* solutions allow retailers to generate advertising revenues from consumer brands, and/or to drive sales for themselves, by monetizing their data and audiences through personalized ads, either on their own digital property or on the open Internet, that address multiple marketing goals.

In conjunction with expanding our solutions, we have also started expanding our pricing models to now include a combination of cost-per-install and cost-per-impression for selected new solutions, in addition to cost-per-click.

We recognize revenues when we transfer control of promised services directly to our clients or to advertising agencies, which we collectively refer to as our clients, in an amount that reflects the consideration to which we expect to be entitled to in exchange for those services.

⁽²⁾ Adopted by the Board of Directors on March 1, 2018, March 16, 2018, April 25, 2018, June 26, 2018, July 26, 2018, July 27, 2018, October 25, 2018 and December 12, 2018.

For campaigns priced on a cost-per-click and cost-per-install basis, we bill our clients when a user clicks on an advertisement we deliver or installs an application by clicking on an advertisement we delivered, respectively. For these pricing models, we recognize revenue when a user clicks on an advertisement or installs an application.

For campaigns priced on a cost-per-impression basis, we bill our clients based on the number of times an advertisement is displayed to an user. For this pricing model, we recognize revenue when an advertisement is displayed.

We act as principal in our arrangements because (i) we control the advertising inventory (spaces on websites) before it is transferred to our clients; (ii) we bear sole responsibility for fulfillment of the advertising promise and inventory risks and (iii) we have full discretion in establishing prices. Therefore, based on these factors, we report revenue earned and the related costs incurred on a gross basis.

Disaggregation of revenue

The following tables disclose our consolidated revenue for each geographical area for each of the reported periods. Revenue by geographical area is based on the location of advertisers' campaigns.

	A	Americas EMEA		EMEA	As	sia-Pacific	Total		
	'			(in tho					
December 31, 2016	\$	730,873	\$	660,523	\$	407,750	\$	1,799,146	
December 31, 2017		990,424		808,961		497,307		2,296,692	
December 31, 2018	\$	954,073	\$	839,825	\$	506,416	\$	2,300,314	

Excluding our historical solution for driving Conversion through Criteo Marketing Solution (formerly called Criteo Dynamic Retargeting), no individual solution accounted for more than 10% of total consolidated revenue for the periods presented.

Customer Credit Notes

We offer credit notes to certain customers as a form of incentive, which are accounted for as variable consideration. We estimate these amounts based on the expected amount to be provided to customers and they are recognized as a reduction of revenue. We believe that there will not be significant changes to our estimates of variable consideration.

Deferred Revenues

We record deferred revenues when cash payments are received or due in advance of our performance. Our payment terms vary depending on the service or the type of customer. For certain customers, we require payment before the services are delivered.

Practical Expedients

We do not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts for which we recognize revenue at the amount to which we have the right to invoice for services performed.

We generally expense sales commissions when incurred because the amortization period would have been one year or less. These costs are recorded within sales and operating expenses.

Note 17. Nature of Expenses Allocated by Function

Nature of Expenses Allocated to Cost of Revenue

	Year Ended December 31,					
		2016	2017			2018
			(i	n thousands)		
Traffic acquisition costs	\$	(1,068,911)	\$	(1,355,556)	\$	(1,334,334)
Other cost of revenue		(85,260)		(121,641)		(131,744)
Hosting costs		(41,978)		(57,895)		(54,764)
Depreciation and amortization		(38,469)		(54,219)		(67,346)
Data acquisition		(122)		(269)		(282)
Other cost of sales		(4,691)		(9,258)		(9,352)
Total cost of revenue	\$	(1,154,171)	\$	(1,477,197)	\$	(1,466,078)

Nature of Expenses Allocated to Research and Development

	Year Ended December 31,					
	2016		2017			2018
			(ir	thousands)		
Personnel expenses	\$	(86,389)	\$	(125,662)	\$	(130,696)
Personnel expense excluding equity awards compensation expense and research tax credit		(79,222)		(110,939)		(120,024)
Equity awards compensation expense		(12,108)		(21,012)		(21,359)
Research tax credit		4,941		6,289		10,687
Other cash operating expenses		(29,867)		(34,073)		(37,119)
Subcontracting and other headcount related costs		(14,713)		(19,437)		(15,129)
Rent and facilities costs		(10,939)		(11,466)		(14,201)
Consulting and professional fees		(2,423)		(2,680)		(3,320)
Marketing costs		(953)		(909)		(4,976)
Other		(839)		419		507
Other non-cash operating expenses		(7,393)		(14,190)		(11,448)
Depreciation and amortization		(7,211)		(13,420)		(10,602)
Net change in other provisions		(182)		(770)		(846)
Total research and development expenses	\$	(123,649)	\$	(173,925)	\$	(179,263)

Nature of Expenses Allocated to Sales and Operations

	Year Ended December 31,					
	2016		2017		2018	
			(ir	thousands)		
Personnel expenses	\$	(185,065)	\$	(245,481)	\$	(244,256)
Personnel expense excluding equity awards compensation expense		(168,227)		(214,750)		(215,615)
Equity awards compensation expense		(16,838)		(30,731)		(28,641)
Other cash operating expenses		(84,127)		(105,714)		(104,960)
Subcontracting and other headcount related costs		(22,460)		(29,053)		(25,706)
Rent and facilities costs		(29,968)		(32,952)		(32,398)
Marketing costs		(15,225)		(20,650)		(17,864)
Consulting and professional fees		(1,785)		(5,605)		(5,330)
Operating taxes		(12,963)		(14,120)		(11,788)
Other including bad debt expense		(1,726)		(3,334)		(11,874)
Other non-cash operating expenses		(13,661)		(29,454)		(23,491)
Depreciation and amortization		(7,757)		(19,844)		(18,245)
Net change in provisions for doubtful receivables		(5,433)		(8,493)		(5,453)
Net change in other provisions		(471)		(1,117)		207
Total sales and operations expenses	\$	(282,853)	\$	(380,649)	\$	(372,707)

Nature of Expenses Allocated to General and Administrative

	Year Ended December 31,					
		2016		2017		2018
			(i	n thousands)		
Personnel expenses	\$	(60,899)	\$	(74,420)	\$	(76,476)
Personnel expense excluding equity awards compensation expense		(46,586)		(54,551)		(59,876)
Equity awards compensation expense		(14,313)		(19,869)		(16,600)
Other cash operating expenses		(52,867)		(46,271)		(48,687)
Subcontracting and other headcount related costs		(22,990)		(15,583)		(16,638)
Rent and facilities costs		(9,516)		(9,846)		(11,081)
Marketing costs		(626)		(806)		(1,061)
Consulting and professional fees		(18,298)		(16,693)		(18,163)
Other		(1,437)		(3,343)		(1,744)
Other non-cash operating expenses		(3,703)		(6,386)		(9,996)
Depreciation and amortization		(3,342)		(5,738)		(7,306)
Net change in other provisions		(361)		(648)		(2,690)
Total general and administrative expenses	\$	(117,469)	\$	(127,077)	\$	(135,159)

Restructuring included by function

Restructuring of our China Operations

In May 2017, the Company announced it would no longer continue to serve the domestic market in China and would refocus its China operations entirely on the export business. As such, we have recorded \$3.3 million in restructuring charges for the twelve months ended December 31, 2017, as follows:

	Twelve Mo	onths Ended			
	December 31, 2017				
	(in the	ousands)			
Severance costs	\$	802			
Facility Exit Costs		2,265			
Other		232			
Total restructuring costs	\$	3,299			

For the twelve months ended December 31, 2017, \$2.5 million was included in Other Cost of Revenue, \$0.7 million in Sales and Operations expenses, and \$0.1 million was included in General and Administrative expenses.

The following table summarizes restructuring activities as of December 31, 2017 included in other current liabilities on the balance sheet:

	Restructuring Liability
	 (in thousands)
Restructuring liability - January 1, 2017	\$ _
Restructuring charges	3,299
Amounts paid	(2,855)
Other	(12)
Restructuring liability - December 31, 2017	\$ 432

No additional charges related to restructuring were recorded in the twelve months ended December 31, 2018, and the remaining \$0.4 million was paid during the period resulting in the extinguishment of the restructuring liability as of December 31, 2018.

Discontinuation of Criteo Predictive Search

On October 31, 2017, we announced that we decided to discontinue the product Criteo Predictive Search. As such, we have recorded \$4.1 million in restructuring charges for the twelve months ended December 31, 2017. In 2018, we recognized a gain of \$0.1 million. This gain was due to a reduction of share-based compensation expenses due to forfeitures which was partially offset by additional charges for facilities and employee severance agreements.

Twel	Ve	Mo	nthe	En	hah
1 11 0	IVC	710	111113	1211	ucu

	 December 31, 2017	December 31, 2018		
	 (in thousands))		
Severance costs	\$ 2,602 \$		127	
Facility Exit Costs	_		297	
Other	1,455		(477)	
Total restructuring costs	\$ 4,057 \$		(53)	

For the twelve months ended December 31, 2017, \$2.9 million was included in Research and Development expenses and \$1.1 million in Sales and Operations expenses. Other costs include the write-off of acquisition related intangible assets of \$2.2 million slightly offset by a reduction of share based compensation expenses of \$0.7 million due to forfeitures.

For the twelve months ended December 31, 2018, \$0.2 million was included in Sales and Operations expenses and \$(0.3) million in Research and Development expenses. Other costs relate to a reduction of share-based compensation expenses of \$(0.5) million due to forfeitures.

The following table summarizes restructuring activities as of December 31, 2018 included in other current liabilities on the balance sheet:

Restructuring Liability

	Restructuring Diability					
	201	7	2018			
		(in thousands)				
Restructuring liability - January 1	\$	— \$	2,351			
Restructuring charges		4,057	(53)			
Amounts paid		(251)	(2,271)			
Other		(1,455)	477			
Restructuring liability - December 31	\$	2,351 \$	504			

Note 18. Allocation of Personnel Expenses

Allocation of Personnel Expenses By Function

	Year	Year Ended December 31,					
	2016	2017	2018				
		(in thousands)					
Research and development expenses	\$ (86,389)	\$ (125,662)	\$ (130,696)				
Sales and operations expenses	(185,065)	(245,481)	(244,256)				
General and administrative expenses	(60,899)	(74,420)	(76,476)				
Total personnel expenses	\$ (332,353)	\$ (445,563)	\$ (451,428)				

Allocation of Personnel Expenses by Nature

	Year Ended December 31,					
	2016	2017	2018			
		(in thousands)				
Wages and salaries	\$ (220,317)	\$ (284,015)	\$ (296,336)			
Severance pay	(2,726)	(7,915)	(6,922)			
Social charges	(59,668)	(70,130)	(77,284)			
Other social expenses	(9,913)	(17,178)	(14,375)			
Acquisition-related deferred price consideration	(85)	_				
Equity awards compensation expense	(43,259)	(71,612)	(66,600)			
Profit sharing	(1,326)	(1,002)	(598)			
Research tax credit (classified as a reduction of R&D expenses)	4,941	6,289	10,687			
Total personnel expenses	\$ (332,353)	\$ (445,563)	\$ (451,428)			

Note 19. Share-Based Compensation

Share Options Plans and Employee Warrants Grants (BSPCE)

The Board of Directors has been authorized by the general meeting of the shareholders to grant employee warrants (Bons de Souscription de Parts de Créateur d'Entreprise or "BSPCE") and to implement share options, free shares plans as follows:

- Issuance of 2,112,000 BSPCE, authorized at the General Meeting of Shareholders on October 24, 2008, making available up to 2,112,000 BSPCE until April 24, 2010 ("Plan 1");
- Issuance of 1,472,800 BSPCE, authorized at the General Meeting of Shareholders on April 16, 2009, making available up to 1,472,800 BSPCE until October 16, 2010 ("Plan 2");
- 1,584,000 Share Options, authorized at the General Meeting of Shareholders on September 9, 2009, making available up to 1,584,000 share options until November 8, 2012. This Plan has been amended at the General Meeting of Shareholders on November 16, 2010, making available up to 2,700,000 share options or BSPCE ("Plan 3");
- Issuance of 361,118 BSPCE, granted to Criteo co-founders at the General Meeting of Shareholders on April 23, 2010 ("Plan 4");
- 2,800,000 BSPCE or Share Options (Options de Souscription d'Actions or "OSA"), authorized at the General Meeting of Shareholders on November 18, 2011, making available up to 2,800,000 share options or BSPCE ("Plan 5");
- 1,654,290 BSPCE or Share Options, authorized at the General Meeting of Shareholders on September 14, 2012, making available up to 1,654,290 share options or BSPCE ("Plan 6").
- 6,627,237 BSPCE or Share Options, authorized at the General Meeting of Shareholders on August 2, 2013, making available up to 6,627,237 share options or BSPCE ("Plan 7").
- 9,935,710 Share Options, authorized at the General Meeting of Shareholders on June 18, 2014, making available up to 9,935,710 share options ("Plan 8"). The Board of Directors has also authorized free shares/restricted stock units ("RSUs") to Criteo employees under presence condition and to certain senior managers, employees and members of the Management, subject to the achievement of internal performance objectives and presence condition.
- 4,600,000 Share Options or RSUs, authorized at the General Meeting of Shareholders on June 29, 2016 and 100,000 BSAs (any BSA granted will also be deducted from the 4,600,000 limit), such authorizations collectively referred to as "Plan 9". The Board of Directors has authorized RSUs to Criteo employees subject to a presence condition and to certain senior managers, employees and members of management, subject to the achievement of internal performance objectives and a presence condition.
- 4,600,000 Share Options or RSUs, authorized at the General Meeting of Shareholders on June 28, 2017 and 120,000 BSAs (any BSA granted will also be deducted from the 4,600,000 limit), such authorizations collectively referred to as "Plan 10". The Board of Directors has authorized RSUs to Criteo employees subject to a presence condition and to certain senior managers, employees and members of management, subject to the achievement of internal performance objectives and a presence condition.
- 4,200,000 Share Options or RSUs, authorized at the General Meeting of Shareholders on June 27, 2018 and 150,000 BSAs (any BSA granted will also be deducted from the limit), such authorizations collectively referred to as "Plan 11". The Board of Directors has authorized RSUs to Criteo employees subject to a presence condition and to certain senior managers, employees and members of management, subject to the achievement of internal performance objectives and a presence condition.

Upon exercise of the BSPCE or Share Options, or the vesting of an RSU we grant beneficiaries newly issued ordinary shares of the Parent.

The vesting schedule for the BSPCEs and OSAs is the following for the Plans 1, 2 and 3:

- up to one third (1/3) of the BSPCE on the first anniversary of the date of grant;
- up to one twelfth (1/12) at the expiration of each quarter following the first anniversary of the date of grant, and this during twenty-four (24) months thereafter.
- The BSPCEs and OSAs may be exercised at the latest within ten (10) years from the date of grant.

For the Plan 3 amended to Plan 11, the vesting schedule is as follows:

- up to one fourth (1/4) of the BSPCE/share options on the first anniversary of the date of grant;
- up to one-sixteenth (1/16) at the expiration of each quarter following the first anniversary of the date of grant, and this during thirty-six (36) months thereafter.
- The BSPCEs and OSAs may be exercised at the latest within ten (10) years from the date of grant.

The vesting schedule for the RSUs is as follows:

- 50% at the expiration of a two year period
- 6.25% at the expiration of each quarter following the first two years-period during twenty four (24) months.

When the Company was not listed, exercise prices were determined by reference to the latest capital increase as of the date of grant, unless the Board of Directors decided otherwise. Since our initial public offering, exercise prices are determined by reference to the closing share price the day before the date of the grant if higher than a floor value of 95% of the average of the closing share price for the last 20 trading days.

In the following tables, exercise prices, grant date share fair values and fair value per equity instruments are provided in euros, as the Company is incorporated in France and the euro is the currency used for the grants.

Details of BSPCE / OSA / RSU plans

	Plans 1 & 2	Plan 3	Plan 5	Plan 6	Plan 6	Plan 7	Pla	ın 8	Pla	an 9	Pla	n 10	Pla	n 11
Dates of grant (Boards of Directors)	Oct 24, 2008 - Sept 14, 2010	Sept 9, 2009 - Sept 21, 2011	Nov 18, 2011 - May 22, 2012	Oct 25, 2012	Oct 25, 2012 - April 18, 2013	Sept 3, 2013 - April 23, 2014		14 - June 28, 016		16 - June 27, 017		17 - June 26, 018	July 26, 201	8 - December 2018
Vesting period	3 years	3 - 4 years	4 years	1 year	4-5 years	4 years	4 years	4 years	4 years	4 years	4 years	4 years	4 years	4 years
Contractual life	10 years	10 years	10 years	10 years	10 years	10 years	10 years	_	10 years	_	10 years	_	10 years	_
Expected option life	8 years	8 years	8 years	8 years	8 years	6 - 8 years	6 years	_	6 years	_	6 years	_	6 years	_
Number of instruments granted	1,819,120	4,289,940	1,184,747	257,688	1,065,520	2,317,374	4,318,551	2,534,262	502,410	2,556,315	947,565	2,150,498	65,500	1,471,916
Type : Share Option (S.O.) / BSPCE / RSU	BSPCE	BSCPCE & OSA	BSCPCE & OSA	BSPCE	BSCPCE & OSA	BSCPCE & OSA	OSA	RSU	OSA	RSU	OSA	RSU	OSA	RSU
Share entitlement per option	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Exercise price	€0.45 - €2.10	€0.20 - €5.95	€5.95	€8.28	€8.28 - €10.43	€12.08 - €38.81	€22.95 - €47.47	_	€38.20 - €43.45	_	€24.63 - €28.69	_	€18.72	_
Valuation method							Black &	Scholes						
Grant date share fair value	€0.20 - €0.70	€0.20 - €4.98	€4.98	€6.43	€5.45 - €6.43	€12.08 - €38.81	€22.50 - €47.47	€35.18 - €35.58	€38.20 - €43.45	€33.98 - €49.08	€24.63 - €28.69	€22.92 - €44.37	€18.72	€17.98 - €30.80
Expected volatility (1)	53.0% - 55.7%	55.2% - 57.8%	52.1% - 52.9%	50.2%	49.6% - 50.2%	44.2% - 50.1%	39.4% - 44.5%	_	40.6% - 41.3%	_	41.0% - 41.5%	_	40.7%	_
Discount rate (2)	2.74% - 4.10%	2.62% - 3.76%	2.79% - 3.53%	2.2%	1.80% - 2.27%	1.20% - 2.40%	0.00% - 0.71%	NA	NA	N/A	0.6% - 0.7%	N/A	0.9%	N/A
Performance conditions	No	Yes (A)	No	Yes (B)	No	No	No	Yes (C)	No	Yes (D) (E)	No	No	No	Yes (F)
Fair value per option / RSU	€0.08 - €0.45	€0.08 - €2.88	€2.75 - €2.85	€3.28	€3.28 - €5.83	€6.85 - €16.90	€9.47 - €17.97	€26.16 - €37.10	€14.49 - €16.82	€33.98 - €49.08	€9.85 - €11.40	€22.92 - €44.37	€ 6.94	€17.98 - €30.80

- (1) Based on similar listed entities.
- Based on Obligation Assimilables du Trésor, i.e. French government bonds with a ten-year maturity ("TEC 10 OAT floating-rate bonds").
- (A) Options subject to performance condition: Among the 960,000 share options granted in April 7, 2011, 180,000 are subjected to performance conditions based on revenue excluding traffic acquisition costs targets that were met in 2012.
- (B) On October 25, 2012, the Board of Directors of the Parent also granted a total of 257,688 BSPCE to our co-founders. The conditions of exercise of these BSPCE are linked to a future liquidity event or a transfer of control of the Company, and the number of BSPCE that can be exercised are determined by the event's date which cannot occur after March 31, 2014. Based on the assumptions known as at December 31, 2012, we determined that the share-based compensation expense would be recognized over a one-year period. This assumption was confirmed in 2013.
- On October 29, 2015, the Board of Directors of the Parent also granted a total of 337,960 RSU to Criteo employees under condition of presence and to certain senior managers, employees and members of the management, subject to the achievement of internal performance objectives and condition of presence. Based on the assumptions known at December 31, 2015, we determined the share-based compensation expense by applying a probability ratio on performance objectives completion. This assumption was confirmed in 2016. On January 29, 2016, the Board of Directors of the Parent granted a total of 33,010 RSUs to members of the management, subject to the achievement of internal performance objectives and condition of presence. Based on the assumptions known at December 31, 2016, we determined the share-based compensation expense by applying a probability ratio on performance objectives completion. This assumption was confirmed in 2016.
- (D) On July 28, 2016, the Board of Directors of the Parent granted a total of 195,250 RSUs to certain senior managers and members of the management, subject to the achievement of internal performance objectives and condition of presence. Based on the assumptions known at December 31, 2016, we determined the share-based compensation expense by applying a probability ratio on performance objectives completion. This assumption was confirmed in 2017.
- (E) On June 27, 2017, the Board of Directors of the Parent granted a total of 135,500 RSUs to certain senior managers and members of the management, subject to the achievement of internal performance objectives and condition of presence. Based on the assumptions known at December 31, 2017, we determined the share-based compensation expense by applying a probability ratio on performance objectives completion. This assumption was confirmed in 2018.
- (F) On July 26, 2018, the Board of Directors of the Parent granted a total of 203,332 RSUs to certain senior managers and members of the management, subject to the achievement of internal performance objectives and condition of presence. Based on the assumptions known at December 31, 2018, we determined the share-based compensation expense by applying a probability ratio on performance objectives completion.

Change in Number of outstanding BSPCE / OSA / RSU

	OSAs	RSUs	Total
Balance at January 1, 2016	6,547,854	1,095,585	7,643,439
Granted	576,443	2,584,240	3,160,683
Exercised	(1,470,323)	_	(1,470,323)
Forfeited	(693,882)	(436,546)	(1,130,428)
Expired			_
Balance at December 31, 2016	4,960,092	3,243,279	8,203,371
Granted	355,010	1,891,702	2,246,712
Exercised (BSPCE and OSA)	(1,668,838)	_	(1,668,838)
Vested (RSU)	_	(379,135)	(379,135)
Forfeited	(453,556)	(543,338)	(996,894)
Expired		<u> </u>	_
Balance at December 31, 2017	3,192,708	4,212,508	7,405,216
Granted	1,013,065	3,133,644	4,146,709
Exercised (BSPCE and OSA)	(137,348)	_	(137,348)
Vested (RSU)	_	(1,362,873)	(1,362,873)
Forfeited	(880,960)	(1,203,142)	(2,084,102)
Expired			_
Balance at December 31, 2018	3,187,465	4,780,137	7,967,602

	Plans 1 & 2	Plan 3	Plan 5	Plan 6	Plan 7	Plan 8	Plan 9	Plan 10	Plan 11	RSUs	Total
Balance at December 31, 2016											
Number outstanding	54,154	175,693	513,067	399,441	750,528	2,942,834	124,375	_	_	3,243,279	8,203,371
Weighted- average exercise price	€ 1.24	€ 3.29	€ 5.95	€ 9.77	€ 18.13	€ 31.32	€ 38.20	€ —	€ —	€ —	€ 23.92
Number exercisable	54,154	175,693	513,067	325,596	504,262	1,135,634	_	_	_	_	2,708,406
Weighted- average exercise price	€ 1.24	€ 3.29	€ 5.95	€ 9.66	€ 17.94	€ 28.96	€ –	€ —	€ —	€ —	€ 17.73
Weighted- average remaining contractual life	2.9 years	4.3 years	5.2 years	6.1 years	6.8 years	8.2 years	9.6 years	0	0		6.9 years
Balance at December 31, 2017											
Number outstanding	15,020	89,921	251,306	70,803	372,590	1,929,403	463,665	_	_	4,212,508	7,405,216
Weighted- average exercise price	€ 0.87	€ 4.03	€ 5.95	€ 9.65	€ 17.70	€ 32.07	€ 42.04	€ —	€ —	€ –	€ 28.33
Number exercisable	15,020	89,921	251,306	70,803	359,702	1,145,511	38,867	_	_	_	1,971,130
Weighted- average exercise price	€ 0.87	€ 4.03	€ 5.95	€ 9.65	€ 17.31	€ 30.88	€ 38.20	€ —	€ —	€ –	€ 23.16
Weighted- average remaining contractual life	1.6 years	3.4 years	4.3 years	5.1 years	5.8 years	7.2 years	9.2 years				6.9 years
Balance at December 31, 2018											
Number outstanding	3,600	67,751	242,613	41,338	306,172	1,599,033	328,726	532,732	65,500	4,780,137	7,967,602
Weighted- average exercise price	€ 0.70	€ 4.43	€ 5.95	€ 9.26	€ 17.95	€ 30.99	€ 41.75	€ 25.79	€ 18.72	€ –	€ 26.94
Number exercisable	3,600	67,751	242,613	41,338	306,172	1,417,904	161,658	_	_	_	2,241,036
Weighted- average exercise price	€ 0.70	€ 4.43	€ 5.95	€ 9.26	€ 17.95	€ 30.04	€ 41.37	€ —	€ —	€ –	€ 25.39
Weighted- average remaining contractual life	1.2 years	2.4 years	3.3 years	4.0 years	4.9 years	6.2 years	8.2 years	9.3 years	9.8 years	_	6.7 years

Non-Employee Warrants (Bons de Souscription d'Actions or BSA)

In addition to the RSUs, share options and BSPCE grants, the shareholders of the Parent also authorized the grant of non-employee warrants or *Bons de Souscription d'Actions* ("BSA"), as indicated below:

- <u>Plan A</u>: up to one-eight (1/8) at the expiration of each quarter following the date of grant, and this during twenty-four (24) months; and at the latest within ten (10) years as from the date of grant.
- <u>Plan B</u>: up to one third (1/3) of the non-employee warrants on the first anniversary of the date of grant; then up to one twelfth (1/12) at the expiration of each quarter following the first anniversary of the beginning of the vesting period, and this during twenty-four (24) months thereafter; and at the latest within ten (10) years as from the date of grant.
- <u>Plan C</u>: up to one-twenty fourth (1/24) at the expiration of each month following the date of grant, and this during twenty-four (24) months, and at the latest within ten (10) years as from the date of grant.
- <u>Plan D</u> (member of the advisory board): up to one-twenty fourth (1/24) at the expiration of each month following the date of grant, and this during twenty-four (24) months; and at the latest within ten (10) years as from the date of grant.
- <u>Plan D</u> (not member of the advisory board): one-third (1/3) at the date of grant; one third (1/3) at the first anniversary of the date of grant; one third (1/3) at the second anniversary of the date of grant; and at the latest within ten (10) years as from the date of grant.
- <u>Plans E, F, G and H</u>: up to one four th (1/4) of the non-employee warrants on the first anniversary of the date of grant; up to one-sixteenth (1/16) at the expiration of each quarter following the first anniversary of the date of grant, and this during thirty-six (36) months thereafter; and at the latest within ten (10) years from the date of grant.

Upon exercise of the non-employee warrants, we offer settlement of the warrants in newly issued ordinary shares of the Parent.

Details of Non-Employee Warrants

	Plan A	Plan B	Plan C	Plan D	Plan E	Plan F	Plan G		Plan H
Dates of grant (Boards of Directors)	November 17, 2009	March 11, 2010	November 16, 2010 - September 21, 2011	October 25, 2012 - March 6, 2013	March 19, 2015 - October 29, 2015	April 20, 2016 - March 1, 2017	July 27, 2017 - October 26, 2017	О	ctober 25, 2018
Vesting period	2 years	3 years	2 years	2 years	1 - 4 years	1 - 4 years	1 - 4 years		1 - 4 years
Contractual life	10 years	10 years	10 years	10 years	10 years	10 years	10 years		10 years
Number of warrants granted	231,792	277,200	192,000	125,784	38,070	59,480	46,465		125,000
Share entitlement per warrant	1	1	1	1	1	1	1		1
Share warrant price	€0.02	€0.07 - €0.11	€0.04 - €0.30	€0.43 - €0.48	€9.98 - €16.82	€13.89 - €17.44	€13.88 - €17.55	€	6.91
Exercise price	€0.70	€0.70	€0.70 - €5.95	€8.28 - €9.65	€35.18 - €41.02	€33.98 - €43.42	€35.80 - €44.37	€	19.71
Valuation method				Binomial method					
Grant date share fair value	€0.20	€0.70	€0.70 - €4.98	€6.43 - €9.65	€35.18 - €41.02	€33.98 - €44.33	€35.80 - €44.37	€	19.71
Expected volatility (1)	55.7%	55.2%	53.5% - 55.0%	50.0% - 50.2%	39.9%	40.6% - 40.9%	41.0% - 41.3%		40.7%
Discount rate	3.58%	3.44%	2.62% - 3.38%	2.13% - 2.27%	0% - 0.52%	0.10% - 0.66%	0.54% - 0.60%		0.6%
Performance conditions	No	Yes (A)	No	No	No	No	No		No
Fair value per warrant	€0.05	€0.33 - €0.38	€0.40 - €2.58	€2.85 - €4.98	€9.98 - €16.82	€13.89 - €14.55	€13.88 - €17.55	€	6.91

⁽¹⁾ Based on similar listed entities.

⁽²⁾ Based on Obligations Assimilables du Trésor, i.e. French government bonds with a ten-year maturity ("TEC 10 OAT floating-rate bonds").

⁽A) All the performance conditions were achieved during the period ended December 31, 2010.

Changes in Number of Non-Employee Warrants

Balance at January 1, 2016	154,910
Granted	48,655
Exercised	(37,000)
Forfeited	21,560
Balance at December 31, 2016	188,125
Granted	57,290
Exercised	(59,139)
Forfeited	_
Balance at December 31, 2017	186,276
Granted	125,000
Exercised	_
Forfeited	(19,606)
Balance at December 31, 2018	291,670

Breakdown of the Closing Balance

Non-	omn	ممتحما	warra	nte

Balance at December 31, 2016		
Number outstanding		188,125
Weighted-average exercise price	€	19.04
Number exercisable		117,096
Weighted-average exercise price	€	11.73
Weighted-average remaining contractual life		7.3 years
Balance at December 31, 2017		
Number outstanding		186,276
Weighted-average exercise price	€	23.93
Number exercisable		86,385
Weighted-average exercise price	€	15.86
Weighted-average remaining contractual life		7.6 years
Balance at December 31, 2018		
Number outstanding		291,670
Weighted-average exercise price	€	13.02
Number exercisable		108,780
Weighted-average exercise price	€	18.95
Weighted-average remaining contractual life		7.9 years

Reconciliation with the Consolidated Statements of Income

	Balance for the year ended December 31, 2016				Balance for the year ended December 31, 2017				Balance for the year ended December 31, 2018			
					(in thousands)							
	R&D	S&O	G&A	Total	R&D	8&0	G&A	Total	R&D	8&0	G&A	Total
RSUs	(9,178)	(12,705)	(7,287)	(29,170)	(19,377)	(30,753)	(13,295)	(63,425)	(20,499)	(27,025)	(12,179)	(59,703)
Share options / BSPCE	(2,930)	(4,133)	(5,356)	(12,419)	(1,635)	22	(4,870)	(6,483)	(860)	(1,616)	(2,938)	(5,414)
Plan 5	(8)	(27)	(7)	(42)	_	_	_	_	_	_	_	_
Plan 6	(35)	(20)	(162)	(217)	(7)	1	(15)	(21)	_	_	_	_
Plan 7	(234)	239	(194)	(189)	(52)	224	(35)	137	(2)	(1)	(1)	(4)
Plan 8	(2,587)	(4,258)	(4,638)	(11,483)	(1,085)	186	(2,883)	(3,782)	169	(553)	(493)	(877)
Plan 9	(66)	(67)	(355)	(488)	(491)	(389)	(1,937)	(2,817)	(495)	(461)	(902)	(1,858)
Plan 10	_	_	_	_	_	_	_	_	(532)	(601)	(1,485)	(2,618)
Plan 11											(57)	(57)
Total share- based compensation	(12,108)	(16,838)	(12,643)	(41,589)	(21,012)	(30,731)	(18,165)	(69,908)	(21,359)	(28,641)	(15,117)	(65,117)
BSAs			(1,670)	(1,670)		_	(1,704)	(1,704)			(1,483)	(1,483)
Total equity awards compensation expense	\$ (12,108)	\$ (16,838)	\$ (14,313)	\$ (43,259)	\$ (21,012)	\$ (30,731)	\$ (19,869)	\$ (71,612)	\$ (21,359)	\$ (28,641)	\$ (16,600)	\$ (66,600)

Note 20. Financial Income and Expenses

The Consolidated Statements of Income line item "Financial income (expense)" can be broken down as follows:

		Year Ended December 31,							
			2016		2017		2018		
				(i	n thousands)				
Financial income from cash equivalents		\$	1,352	\$	883	\$	1,055		
Interest and fees			(2,367)		(2,856)		(2,107)		
	Interest on debt		(1,134)		(2,459)		(1,796)		
	Fees		(1,233)		(397)		(311)		
Foreign exchange (loss) gain			506		(7,495)		(3,945)		
Other financial expense			(37)		(66)		(87)		
Total financial income (expense)		\$	(546)	\$	(9,534)	\$	(5,084)		

The \$5.1 million financial expense for the period ended December 31, 2018 was mainly driven by the non-utilization costs and upfront fees amortization incurred as part of our available RCF financing. The intra-group position between Criteo S.A. and its U.S subsidiary in the context of the funding of the Hooklogic acquisition is qualified as a net investment in a foreign operation from February 2018 and no longer requires hedging, resulting in reduced costs compared to the same period ended December 31, 2018. At December 31, 2018, our exposure to foreign currency risk was centralized at Criteo S.A. and hedged using foreign currency swaps or forward purchases or sales of foreign currencies.

The \$9.5 million financial expense for the period ended December 31, 2017 resulted from (i) the interest incurred as a result of the \$75.0 million drawn on the revolving credit facility entered into in September 2015 (as amended in March 2017) (ii) foreign exchange loss due to the hedging cost related to an intra-group position between Criteo S.A. and its U.S. subsidiary, both in the context of the funding of the HookLogic acquisition in November 2016, as well as (iii) the non-utilization fees incurred as part of our available RCF financing.

Note 21. Income Taxes

Breakdown of Income Taxes

The Consolidated Statements of Income line item "Provision for income taxes" can be broken down as follows:

		Year Ended December 3	1,	
	2016	2017		2018
		(in thousands)		
Current income tax	\$ (43,153)	\$ (44,920) \$	(54,301)
France	(20,204)	(29,193	3)	(37,223)
International	(22,949)	(15,727	7)	(17,078)
Net change in deferred taxes	10,024	13,269)	8,157
France	2,654	(1,080))	11,155
International	 7,370	14,349)	(2,998)
Provision for income tax	\$ (33,129)	\$ (31,651	\$	(46,144)

As mentioned in Note 1 (Principles and Accounting Methods), the French Research Tax Credit is not included in the line item "Provision for income taxes" but is deducted from "Research and development expenses" (see Note 18 - Allocation of Personnel Expenses) unlike the U.S. Research Tax Credit for an amount of \$4.6 million and \$6.4 million for the year ended December 31, 2017 and 2018, respectively. French business tax, CVAE, is included in the current tax balance for an amount of \$4.1 million, \$5.5 million and \$5.9 million, for the years ended December 31, 2016, 2017 and 2018, respectively.

Income before taxes included income from France of \$79.4 million, \$150.7 million and \$130.7 million for the periods ended December 31, 2016, 2017 and 2018 respectively. Income before taxes from countries outside of France totaled \$41.1 million, \$(22.4) million and \$11.3 million for the periods ended December 31, 2016, 2017 and 2018, respectively.

Reconciliation between the Effective and Nominal Tax Expense

The following table shows the reconciliation between the effective and nominal tax expense at the nominal standard French rate of 34.43% (excluding additional contributions):

	Year Ended December 31,										
		2016		2017		2018					
				(in thousands)							
Income before taxes	\$	120,458	\$	128,310	\$	142,023					
Theoretical group tax-rates		34.43%		34.43%		34.43%					
Nominal tax expense		(41,474)		(44,177)		(48,899)					
Increase / decrease in tax expense arising from:											
Research tax credit (1)		1,701		6,829		10,211					
Net effect of shared-based compensation (2)		(8,957)		(605)		(17,674)					
Other permanent differences (3)		(3,518)		(5,717)		(11,982)					
Non recognition of deferred tax assets related to tax losses and temporary differences (4)		(7,738)		(14,356)		(11,664)					
Utilization or recognition of previously unrecognized tax losses (5)		13,366		4,888		4,461					
French CVAE included in income taxes		(3,165)		(2,867)		(3,849)					
Special tax deductions (6)		20,022		29,410		38,577					
Effect of different tax rates (7)		(1,108)		(6,667)		(377)					
Other differences		(2,258)		1,611		(4,948)					
Effective tax expense	\$	(33,129)	\$	(31,651)	\$	(46,144)					
Effective tax rate		27.5%		24.7%		32.5%					

Increases and decreases in tax expense are presented applying the theoretical Group tax rate to the concerned tax bases. The impact resulting from the differences between local tax rates and the Group theoretical rate is shown in the "effect of different tax rates."

⁽¹⁾ Included income tax effect of the French RTC deducted from the "Research and development expenses" and US Tax credits included in the line "Provision for income taxes".

While in most countries share-based compensation does not give rise to any tax effect either when granted or when exercised, the United States and the United Kingdom generally permit tax deductions in respect of share-based compensation. The tax deduction generated in the United States and United Kingdom in connection with the number of options exercised during the period was offset by the share-based compensation accounting expense exclusion.

⁽³⁾ Mainly related to employee costs, depreciation expenses and intercompany transactions.

Deferred tax assets on which a valuation allowance has been recognized mainly relate to Criteo Ltd, Criteo Corp, Criteo Singapore Pte. Ltd, Criteo do Brasil LTDA and Criteo Pty.

⁽⁵⁾ In 2016 recognition of previously unrecognized tax losses related to Criteo Corp.

⁽⁶⁾ Special tax deductions refer to the application of a reduced income tax rate on the majority of the technology royalties income invoiced by the Parent to its subsidiaries.

⁽⁷⁾ In 2017, mainly related to difference in income tax rate between the Group theoretical rate and Criteo Corp including Hooklogic after the decrease of the U.S. federal income tax rate from 34% to 21% as a result of the 2017 Tax cut and Jobs Act.

Deferred Tax Assets and Liabilities

The following table shows the changes in the major sources of deferred tax assets and liabilities:

(in thousands)	De	Year ended ecember 1, 2016	re	Change ecognized a profit or loss	Change recognized in OCI		Change in consolidation scope		Other	Currency translation adjustments		D	ear ended ecember 31, 2017
Deferred tax assets:													
Net operating loss carryforwards	\$	26,463	\$	3,404	\$	_	\$	6,294	\$ 246	\$	865	\$	37,272
Intangibles		(631)		11,176		_		(31,936)	_		(271)		(21,662)
Stock compensation		_		4,757		10,643		_	_		_		15,400
Bad debt allowance		1,809		1,173		_		97	_		10		3,089
Personnel-related accruals		7,770		(2,055)		_		467	165		160		6,507
Other accruals		4,374		385		_		10	_		145		4,914
Projected benefit obligation		1,207		453		35		_	(110)		189		1,774
Financial instruments		678		(2,399)		_		_	_		(55)		(1,776)
Other		8,095		4,209		_		(769)	(83)		821		12,273
Valuation allowance		(19,821)		(7,834)		_		(5,653)	(218)		(1,541)		(35,067)
N D A													
Net Deferred Income Taxes		29,944		13,269		10,678		(31,490)			323		22,724

On December 22, 2017, the 2017 Tax Cuts and Jobs Act was enacted into law and the new legislation contains several key tax provisions that affected us, including a reduction of the federal income tax rate to 21% effective January 1, 2018. As a result of the reduction in the U.S. corporate income tax rate, our U.S. deferred taxes at December 31, 2017, were revalued and recognizes the effect of the tax law changes in the period of enactment.

(in thousands)	Dec	r ended cember , 2017	reco in pi	ange gnized rofit or oss	Change recognized in OCI		Change in consolidation scope		Other	Other trans		D	ar ended ecember 1, 2018
5.0													
Deferred tax assets:													
Net operating loss carryforwards	\$	37,272	\$	18,715	\$	_	\$	1,697	\$(820)	\$	(1,506)	\$	55,358
Intangibles		(21,662)		5,215		_		(9,150)	_		252		(25,345)
Stock compensation		15,400		(960)		_		(40)	_		_		14,400
Bad debt allowance		3,089		840		_		_	_		(50)		3,879
Personnel-related accruals		6,507		944		_		_	_		(134)		7,317
Other accruals		4,914		(588)		_		_	(44)		(381)		3,901
Projected benefit obligation		1,774		612		(425)		34	(2)		(86)		1,907
Financial instruments		(1,776)		1,145		_		_	(1)		46		(586)
Other		12,273		(7,694)		_		(14)	882		32		5,479
**1													
Valuation allowance		(35,067)	((10,072)		107		562	(13)		1,297		(43,186)
Net Deferred Income Taxes		22,724		8,157		(318)		(6,911)	2		(530)		23,124

Amounts recognized in our Consolidated Financial Statements are calculated at the level of each subsidiary within our Consolidated Financial Statements. As at December 31, 2016, 2017 and 2018, the valuation allowance against net deferred income taxes amounted to \$19.9 million, \$35.1 million and \$43.2 million, which related mainly to Criteo Corp. (\$0.9 million, \$14.7 million and \$18.6 million, respectively), Criteo do Brasil (\$3.6 million, nil and \$3.6 million, respectively), Criteo Ltd (\$4.7 million, \$6.3 million and \$7.2 million, respectively), Criteo China (\$3.7 million, \$6.5 million and \$3.5 million, respectively) and Criteo France (\$3.0 million, \$2.9 million and \$3.9 million, respectively).

The main change that occurred in 2018 mainly relate to the deferred tax liabilities on Storetail and Manage intangible assets recognized in the context of the preliminary purchase price allocations ("Change in consolidation scope").

In accordance with ASC 740 - Income taxes, no uncertain tax positions were identified as of December 31, 2018.

The Company has various net operating loss carryforwards in the U.S. and China for \$6.6 million and \$3.2 million, respectively, which begin to expire in 2030 and 2019, respectively. The Company has net operating loss carryforwards in the United Kingdom of \$6.8 million which have no expiration date.

Current tax assets

The balance mainly related to the U.S. research tax credit receivable.

Ongoing tax audits

As a multinational corporation, we are subject to regular review and audit by U.S. federal and state, and foreign tax authorities. Significant uncertainties exist with respect to the amount of our tax liabilities, including those arising from potential challenges with certain positions we have taken. Any unfavorable outcome of such a review or audit could have an adverse impact on our tax rate.

In September 27, 2017, we received a draft notice of proposed adjustment "NOPA" from the Internal Revenue Service ("IRS") audit of Criteo Corp. for the year ended December 31, 2014, confirmed by the definitive notice dated February 8, 2018. Although we disagree with the IRS's position and are currently contesting this issue, the ultimate resolution of this litigation is uncertain and, if resolved in a manner unfavorable to us, could result in an additional federal tax liability of an estimated maximum aggregate amount of approximately \$15.0 million, excluding related fees, interest and penalties.

Note 22. Earnings Per Share

Basic Earnings Per Share

We calculate basic earnings per share by dividing the net income for the period attributable to shareholders of the Parent by the weighted average number of shares outstanding.

	Year Ended December 31,								
	2016 2017 2018								
	(in thousands, except share data)								
Net income attributable to shareholders of Criteo S.A.	\$	82,272	\$	91,214	\$	88,644			
Weighted average number of shares outstanding (note 16)		63,337,792		65,143,036		66,456,890			
Basic earnings per share	\$	1.30	\$	1.40	\$	1.33			

Diluted Earnings Per Share

We calculate diluted earnings per share by dividing the net income attributable to shareholders of the Parent by the weighted average number of shares outstanding plus any potentially dilutive shares not yet issued from share-based compensation plans (see note 19). There were no other potentially dilutive instruments outstanding as of December 31, 2016, 2017 and 2018. Consequently all potential dilutive effects from shares are considered.

For each period presented, a contract to issue a certain number of shares (i.e. share option, share warrant, restricted share award or BSPCE contracts) is assessed as potentially dilutive, if it is "in the money" (i.e., the exercise or settlement price is inferior to the average market price).

	Year Ended December 31,							
		2016 2017		2017		2018		
	(in thousands, except share data)							
Net income attributable to shareholders of Criteo S.A.	\$	82,272	\$	91,214	\$	88,644		
Weighted average number of shares outstanding of Criteo S.A.	63,	337,792	65,	143,036	66	5,456,890		
Dilutive effect of:								
Restricted share awards		253,728	1,	401,957		786,932		
Share options and BSPCE	1,	958,728	1,	239,149		382,512		
Share warrants		83,222		67,829		36,570		
Weighted average number of shares outstanding used to determine diluted earnings per share	65,	633,470	67,	851,971	67	7,662,904		
Diluted earnings per share	\$	1.25	\$	1.34	\$	1.31		

The weighted average number of securities that were anti-dilutive for diluted EPS for the periods presented but which could potentially dilute EPS in the future are as follows:

	Year	Year Ended December 31,						
	2016	2017	2018					
Restricted share awards	396,086	758,859	1,464,145					
Share options and BSPCE	509,442	272,146	40,573					
Share warrants		<u> </u>	_					
Weighted average number of anti-dilutive securities excluded from diluted earnings per share	905,528	1,031,005	1,504,718					

Note 23. Commitments and contingencies

Operating Lease Arrangements

Future payment obligations under non-cancellable operating leases as of December 31, 2018 are listed below:

	Less than 1 year		1 1	to 5 years	5	years +	Total
					(in th	ousands)	
Minimum payments for property leases	\$	34,013	\$	72,906	\$	27,469	\$ 134,388
Minimum payments for hosting services		46,929		37,226			84,155

Operating Lease Expenses

Operating expenses relating to our offices totaled \$32.1 million, \$35.4 million and \$37.9 million for the years ended December 31, 2016, 2017, and 2018, respectively.

Expenses relating to hosting services totaled \$42.0 million, \$57.9 million, and \$54.8 million for the years ended December 31, 2016, 2017, and 2018, respectively.

Purchase Obligations

As of December 31, 2018, we had \$19.0 million of other non-cancellable contractual obligations, primarily related to software licenses and maintenance.

Revolving Credit Facilities, Credit Lines Facilities and Bank Overdrafts

As mentioned in Note 13, we are party to one RCF with a syndicate of banks which allow us to draw up to €350.0 million (\$400.7 million).

We are also party to short-term credit lines and overdraft facilities with HSBC plc, BNP Paribas and LCL. We are authorized to draw up to a maximum of €21.5 million (\$24.6 million) in the aggregate under the short-term credit lines and overdraft facilities. As of December 31, 2018, we had not drawn on any of these facilities. Any loans or overdraft under these short-term facilities bear interest based on the one month EURIBOR rate or three month EURIBOR rate. As these facilities are exclusively short-term credit and overdraft facilities, our banks have the ability to terminate such facilities on short notice.

Contingencies

From time to time we may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. We are not presently a party to any legal proceedings that, if determined adversely to us, would individually or taken together have a material adverse effect on our business, results of operations, financial condition or cash flows. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

Note 24. Related Parties

During its meeting on December 17, 2015, the Board of Directors decided to separate the functions of Chairman of the Board and Chief Executive Officer. Effective January 1, 2016, Jean-Baptiste Rudelle became Executive Chairman and Eric Eichmann was appointed Chief Executive Officer. In the exercise of his responsibilities, Mr. Eichmann was assisted by Benoit Fouilland, Chief Financial Officer, and Romain Niccoli, Chief Product Officer.

On October 26, 2016, Romain Niccoli resigned as Chief Product Officer, with effect from December 31, 2016.

On March 1, 2017, Mollie Spilman, Chief Operating Officer, and Dan Teodosiu, Chief Technical Officer were appointed Executive Officers.

On April 25, 2018, the Board appointed Jean-Baptiste Rudelle, the Executive Chairman of Criteo S.A., as the Company's Chairman and Chief Executive Officer.

On June 19, 2018 Criteo S.A. entered into a transition and separation agreement with Mr. Eric Eichmann, the Company's former Chief Executive Officer, pursuant to which Mr. Eichmann's Management Agreement with the Company has been terminated, effective as of April 25, 2018 and Mr. Eichmann will continue employment with the Company in a non-executive capacity as advisor to the Chief Executive Officer to assist with transition duties from April 25, 2018 to August 31, 2018.

The Executive Officers as of December 31, 2018 were:

- Jean-Baptiste Rudelle Executive Chairman
- Benoit Fouilland Chief Financial Officer
- Mollie Spilman Chief Operating Officer
- Dan Teodosiu Chief Technical Officer

Total compensation for the Executive Officers, including social contributions, is summarized in the following table:

	Year Ended December 31,									
	2016			2017		2018				
			(in	thousands)						
Short-term benefits (1)	\$	(2,755)	\$	(3,345)	\$	(3,150)				
Long-term benefits (2)		(194)		(130)		(47)				
Shared-based compensation		(7,159)		(11,802)		(8,016)				
Total	\$	(10,108)	\$	(15,277)	\$	(11,213)				

⁽¹⁾ wages, bonuses and other compensations

For the year ended December 31, 2018, 2017 and 2016, there were no material related party transactions.

⁽²⁾ pension defined benefit plan

Note 25. Breakdown of Revenue and Non-Current Assets by Geographical Areas

The Company operates in the following three geographical markets:

• Americas: North and South America;

• EMEA: Europe, Middle-East and Africa; and

Asia-Pacific.

The following tables disclose our consolidated revenue for each geographical area for each of the reported periods. Revenue by geographical area is based on the location of advertisers' campaigns.

	A	Americas		EMEA		sia-Pacific	Total		
				(in tho	usand	s)			
December 31, 2016	\$	730,873	\$	660,523	\$	407,750	\$	1,799,146	
December 31, 2017		990,424		808,961		497,307		2,296,692	
December 31, 2018	\$	954,073	\$	839,825	\$	506,416	\$	2,300,314	

Revenue generated in France amounted to \$132.2 million, \$149.6 million and \$153.3 million for the periods ended December 31, 2016, 2017 and 2018, respectively.

Revenue generated in other significant countries where we operate is presented in the following table:

	Year Ended December 31,								
	2016		2017		2018				
		(in	thousands)						
Americas									
United States	\$ 630,047	\$	869,004	\$	848,378				
EMEA									
Germany	137,116		183,297		203,020				
United Kingdom	115,053		115,226		97,849				
Asia-Pacific									
Japan	\$ 285,959	\$	355,338	\$	351,441				

Other Information

For each reported period, non-current assets (corresponding to the net book value of tangible and intangible assets) are presented in the table below. The geographical information results from the locations of legal entities.

			Of which					Of which						
		Holding Americas Unite		ited States	es EMEA		ia-Pacific	Japan	Singapore		Total			
(in thousands)														
	December 31, 2017	\$ 100,819	\$ 113,272	\$	112,685	\$ 18,850	\$	25,020	\$10,141	\$	10,085	\$	257,961	
	December 31, 2018	\$ 123,388	\$ 125,654	\$	125,312	\$ 27,898	\$	19,109	\$11,630	\$	2,992	\$	296,049	

Note 26. Subsequent Events

On February 8th, 2019, the Board acknowledged the share capital decrease resulting from the cancellation of 1,594,288 shares and approved the related amendment of Article 6 of the Company's by-laws reflecting such decrease.

There are no other significant events that require adjustments or disclosure in the Consolidated Financial Statements.

About Criteo

Criteo (NASDAQ: CRTO) is the advertising platform for the open Internet, an ecosystem that favors neutrality, transparency and inclusiveness. 2,700 Criteo team members partner with over 19,000 customers and thousands of publishers around the globe to deliver effective advertising across all channels, by applying advanced machine learning to unparalleled data sets. Criteo empowers companies of all sizes with the technology they need to better know and serve their customers.

For more information, please visit www.criteo.com.

