

**Snap Inc.**

Q2 2021 Earnings Slides

July 22, 2021

# Forward-Looking Statements & Non-GAAP Financial Measures

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This presentation contains forward-looking statements about us and our industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this presentation, including statements regarding guidance, our future results of operations or financial condition, business strategy and plans, user growth and engagement, product initiatives, and objectives of management for future operations, and the impact of COVID-19 on our business and the economy as a whole, are forward-looking statements.

In some cases, you can identify forward-looking statements because they contain words such as “anticipate,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “going to,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “will,” or “would” or the negative of these words or other similar terms or expressions.

You should not rely on forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this presentation on our current expectations and projections about future events and trends, including our financial outlook and the ongoing COVID-19 pandemic, that we believe may affect our business, financial condition, results of operations, and prospects. These forward-looking statements are subject to risks, uncertainties, and other factors, including those described in the sections titled “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our most recent periodic report filed with the SEC, which is available on the SEC’s website at [www.sec.gov](http://www.sec.gov). Additional information will be made available in our periodic report that will be filed with the SEC for the period covered by this presentation and other filings that we make from time to time with the SEC.

In addition, the forward-looking statements in this presentation relate only to events as of the date on which the statements are made and are based on information available to us as of the date of this presentation. We undertake no obligation to update any forward-looking statements made in this presentation to reflect events or circumstances after the date of this presentation or to reflect new information or the occurrence of unanticipated events, including future developments related to the COVID-19 pandemic, except as required by law. We may not actually achieve the plans, intentions, or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, or investments.

This presentation includes certain non-GAAP financial measures. These non-GAAP financial measures, which may be different than similarly titled measures used by other companies, are presented to enhance investors’ overall understanding of our financial performance and should not be considered a substitute for, or superior to, the financial information prepared and presented in accordance with GAAP. A reconciliation of GAAP to non-GAAP measures is provided in the appendix of this presentation.

# Second Quarter Financial Highlights

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## Revenue

- Revenue increased 116% YoY to reach \$982 million in Q2 2021.
- Average revenue per user increased 76% YoY to reach \$3.35 in Q2 2021.

## Operating Performance

- Operating margin improved to (20)% in Q2 2021, compared to (68)% in Q2 2020.
- Adjusted gross margin<sup>1</sup> improved to 55% in Q2 2021, compared to 47% in Q2 2020.
- Net loss improved by \$174 million YoY to \$(152) million in Q2 2021.
- Adjusted EBITDA improved by \$213 million YoY to \$117 million in Q2 2021.
- Adjusted EBITDA margin<sup>2</sup> improved to 12% in Q2 2021, compared to (21)% in Q2 2020.

## Cash

- Operating cash flow was \$(101) million in Q2 2021, compared to \$(67) million in Q2 2020.
- Free Cash Flow was \$(116) million in Q2 2021, compared to \$(82) million in Q2 2020.
- Ending cash, cash equivalents, and marketable securities were \$3.5 billion as of June 30, 2021.

<sup>1</sup>Excludes stock-based compensation expense and other payroll related tax expense, depreciation and amortization, and certain other non-cash or non-recurring items impacting net income (loss) from time to time.

<sup>2</sup>We define Adjusted EBITDA margin as Adjusted EBITDA divided by GAAP revenue. See Appendix for reconciliation of net loss to Adjusted EBITDA.

Numbers throughout presentation may not foot due to rounding.

# Business Highlights

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## We have an active, engaged community:

- DAUs were 293 million in Q2 2021, an increase of 55 million, or 23%, year-over-year.
- DAUs increased sequentially and year-over-year in each of North America, Europe, and Rest of World.
- DAUs increased sequentially and year-over-year on both iOS and Android platforms.

## We invested and innovated in our camera and augmented reality platforms:

- We improved several try-on capabilities with Lens Studio 4.0, including multi-person 3D body mesh, advanced cloth simulation, and a new visual effects editor for more realistic Lenses.
- We released TrueSize technology to improve eyewear sizing and wrist tracking technology for accurate watch try-ons.
- We introduced several new categories for Scan, including fashion and food, which is already used by more than 170 million Snapchatters every month to identify dog breeds and plants, discover recipes, and shop for clothing.
- We introduced Camera Shortcuts, an easy way for Snapchatters to find the most relevant camera mode, Lens, or even curated soundtrack, right from the Camera screen.
- We introduced Connected Lenses, enabling Snapchatters in different locations to interact with each other through AR.

## Business Highlights (Continued)

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### We invested in our content offerings:

- We aired eight new and renewed Snap Originals, including Swae Meets World, a documentary featuring American musician Swae Lee as he prepares to launch a solo album.
- We launched a record 177 new international Discover Channels, including 36 in the UK and 24 in India, one of which is a partnership with Sony Pictures Network to launch five Shows.
- Spotlight daily active users grew 49%, average daily content submissions more than tripled, and daily time spent per user in the US grew by over 60% quarter-over-quarter.
- We released Spotlight on the Web, a destination to view Spotlight Snaps from a browser without a Snapchat account, and also allow Creators to upload content submissions directly from their desktop.
- We announced new monetization opportunities for Spotlight Creators through Gifting with Snap Tokens, enabling Creators to build personal connections with their fans.

### We expanded our partner and developer ecosystem:

- We announced Camera Kit partnerships with Disney, Viber, and Bumble, bringing our Camera and AR capabilities into their applications.
- We announced Snap Kit integrations with YouTube and YouTube Music, allowing users to share YouTube videos to the Snapchat Camera.
- We announced a Bitmoji for Games partnership with Unity, allowing Unity developers to bring 3D Bitmoji avatars into their player experience.
- We released Sticker Kit, which includes over 34 million Bitmojis, Stickers, and GIFs that can be integrated into partner applications.
- We announced Layers, a new feature for the Snap Map enabling Snapchatters to find personalized experiences from select partners right from the Map, such as surfacing saved Memories across the Map and showing nearby restaurants and events.

## Business Highlights (Continued)

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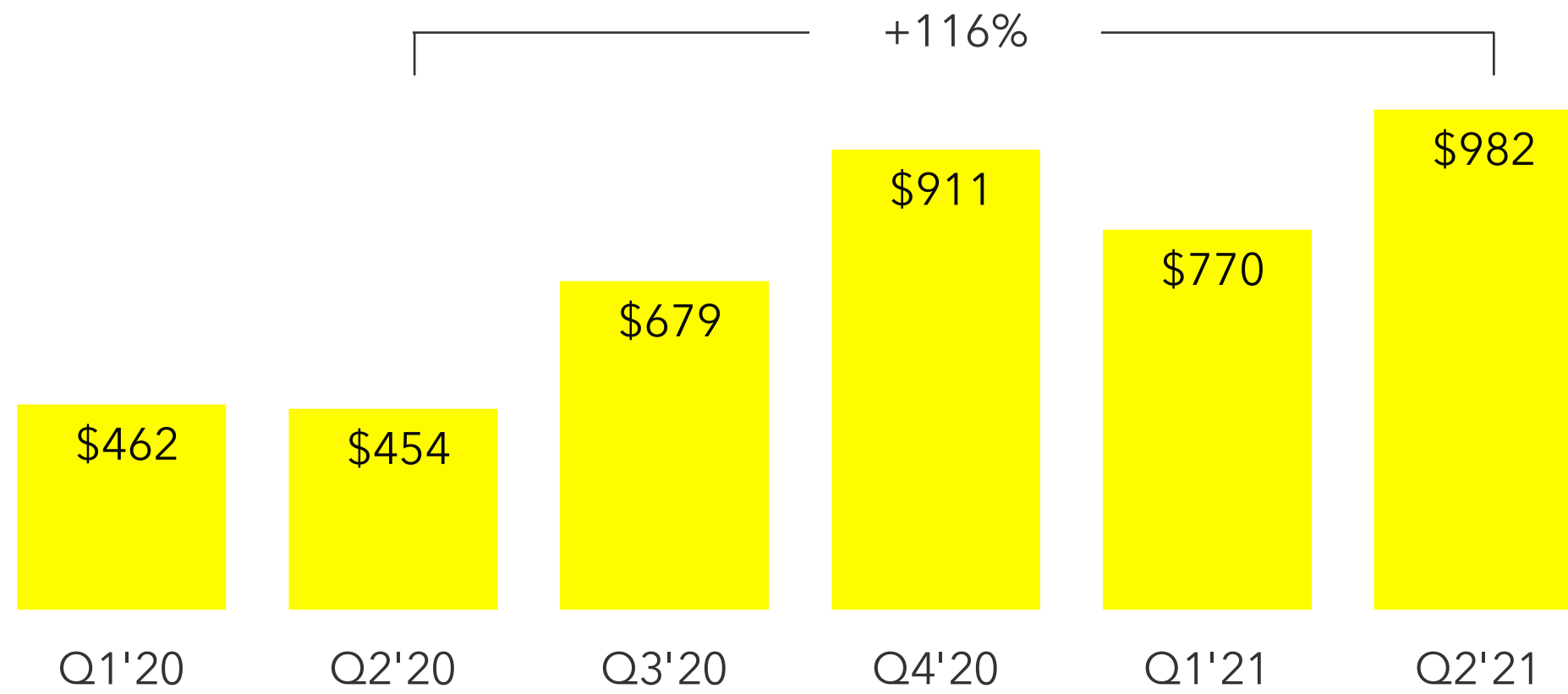
We strengthened our capabilities to drive improved outcomes for advertisers:

- We rolled out Public Profiles for businesses, allowing any business to create a profile on Snapchat showcasing their Lenses, Highlights, Stories, and shoppable products.
- We announced an integration with Salesforce, allowing brands to leverage their first-party data to reach Snapchatters with relevant ads.
- We launched the Creator Marketplace within our self-serve Ads Manager, connecting advertisers with certified Lens Creators and facilitating the AR development process.
- We introduced API Lenses, which enables businesses to automatically import up-to-date product inventory into AR Lenses without additional work.

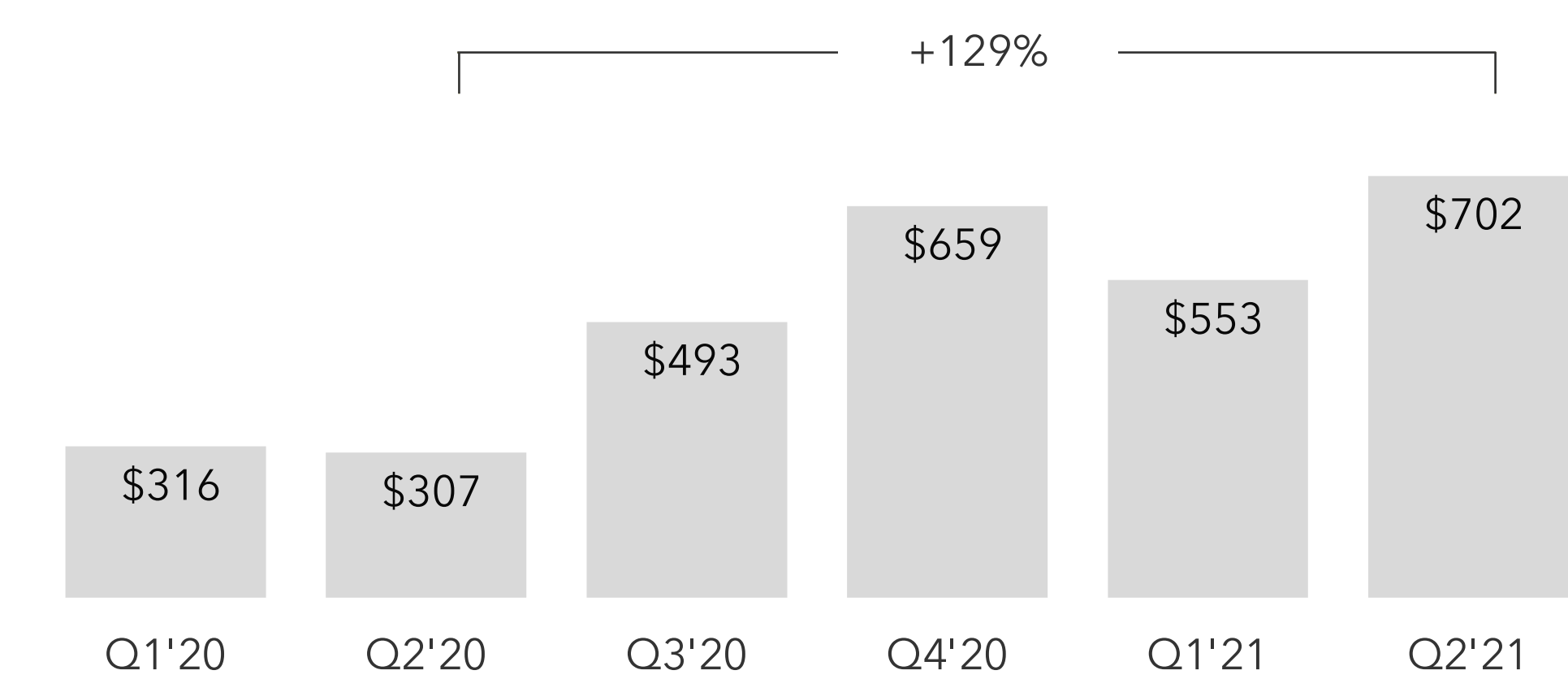
# Revenue by Geography

(in millions, unaudited)

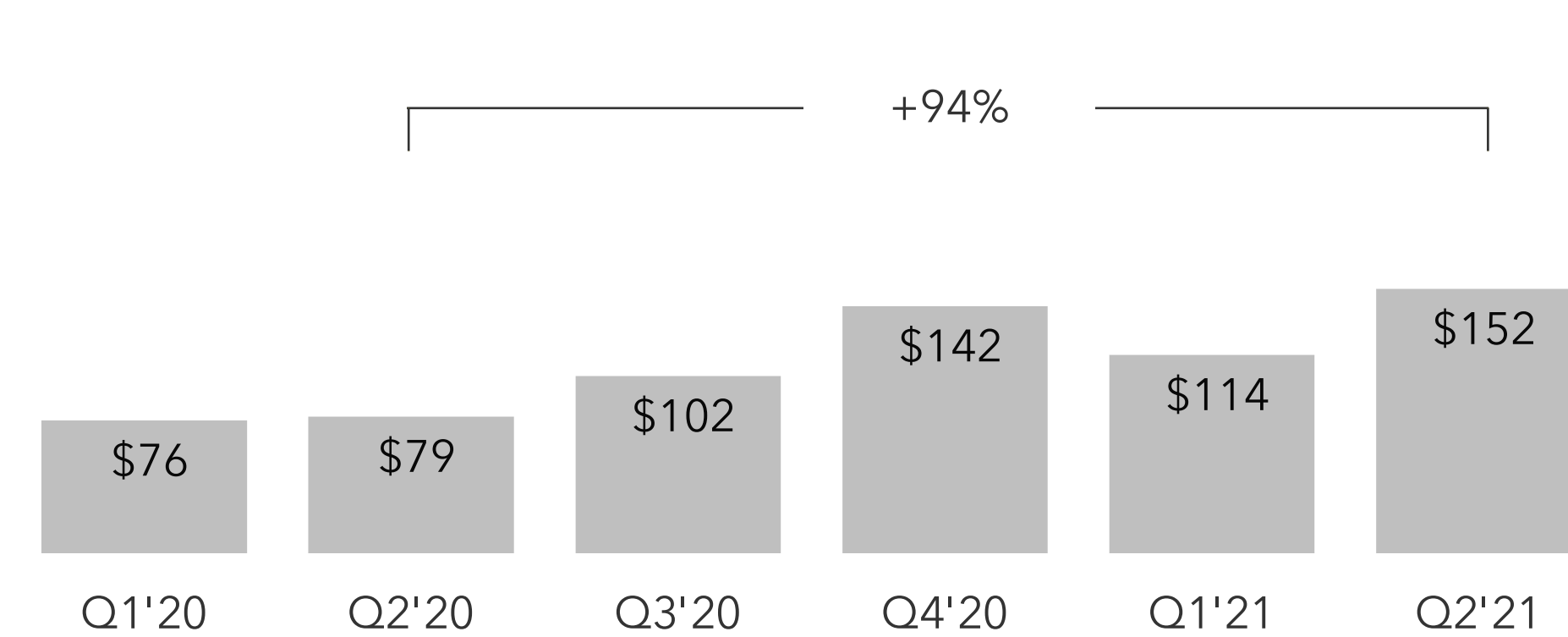
## GLOBAL



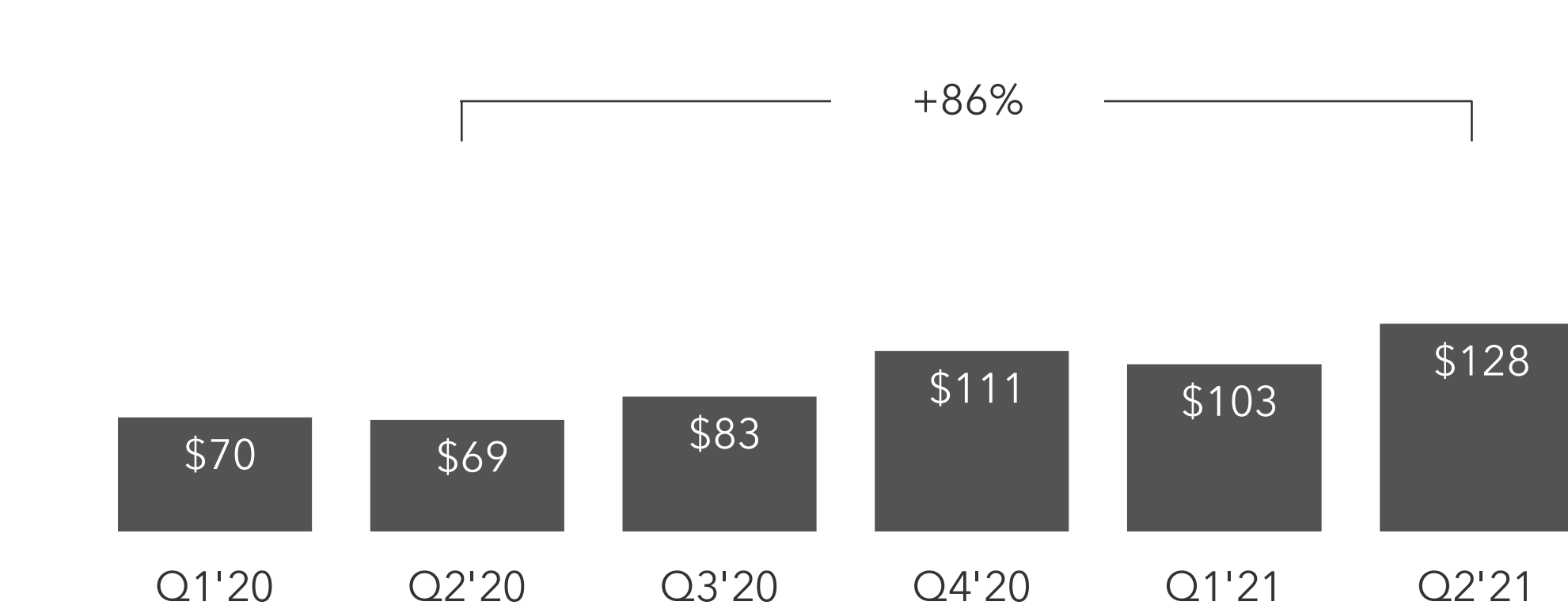
## NORTH AMERICA<sup>1</sup>



## EUROPE<sup>2</sup>



## REST OF WORLD



Total revenue for geographic reporting is apportioned to each region based on our determination of the geographic location in which advertising impressions are delivered, as this approximates revenue based on user activity. This allocation is consistent with how we determine ARPU.

<sup>1</sup>North America includes Mexico, the Caribbean, and Central America.

<sup>2</sup>Europe includes Russia and Turkey.

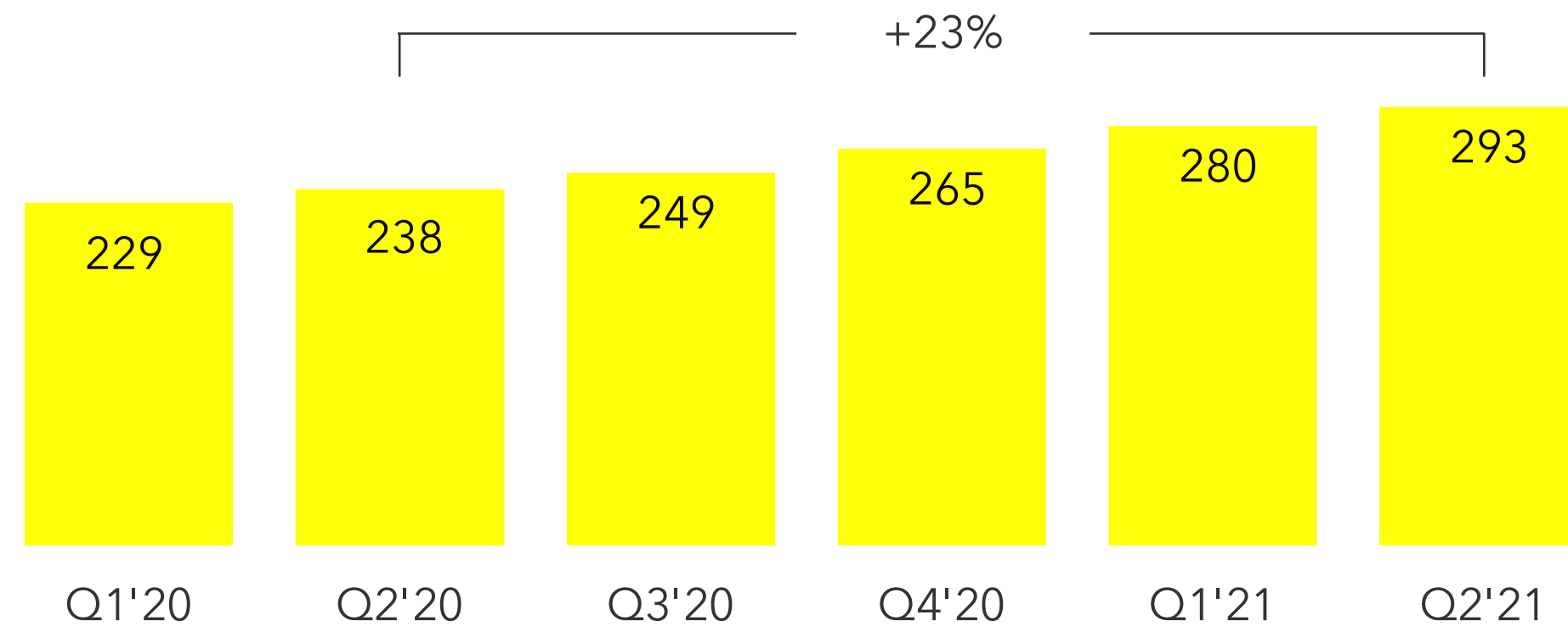
Numbers throughout presentation may not foot due to rounding.

**Q2'21 REVENUE INCREASED 116% YOY TO \$982 MILLION  
TRAILING TWELVE MONTHS REVENUE INCREASED 74% YOY TO \$3.3 BILLION**

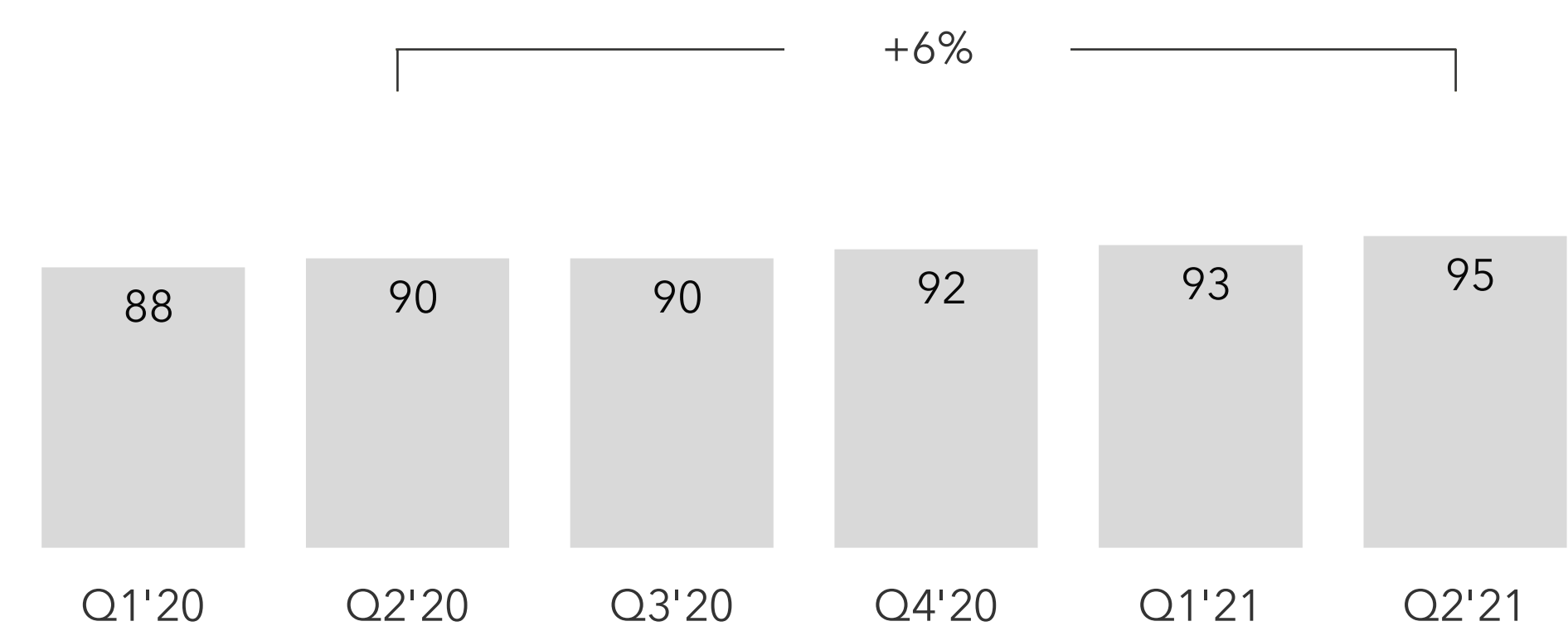
# Average Daily Active Users (DAU)

(in millions, unaudited)

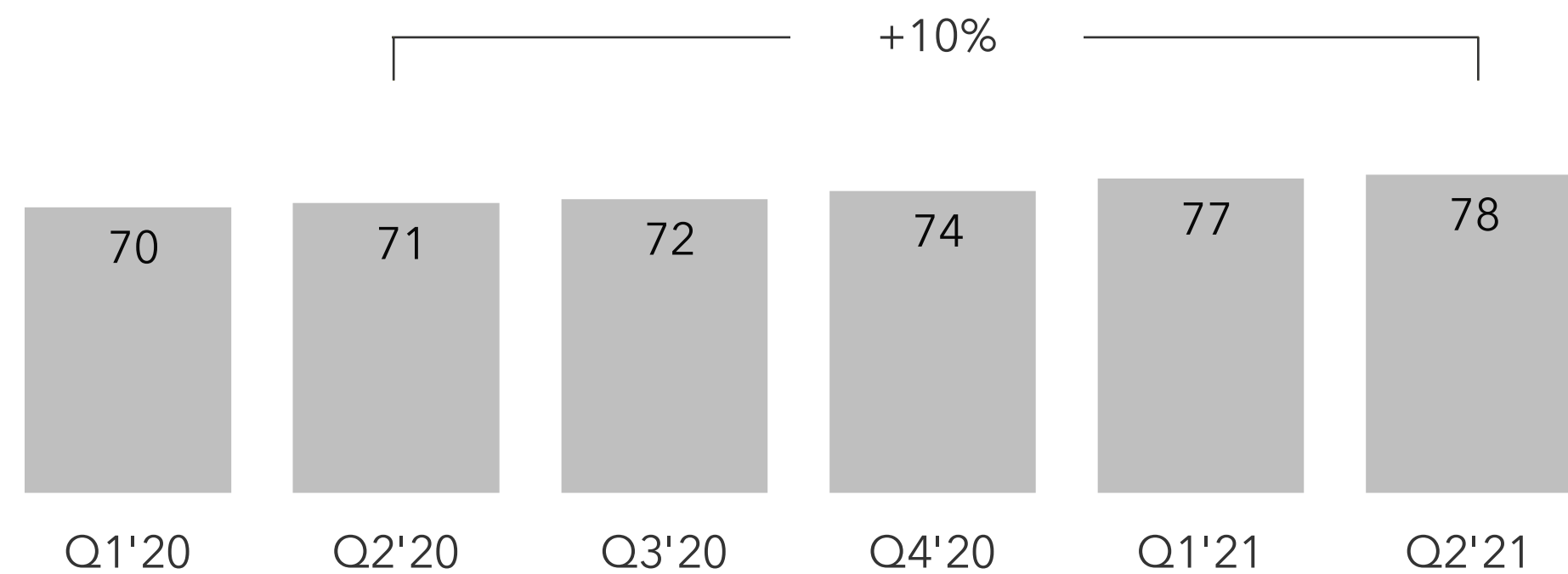
## GLOBAL



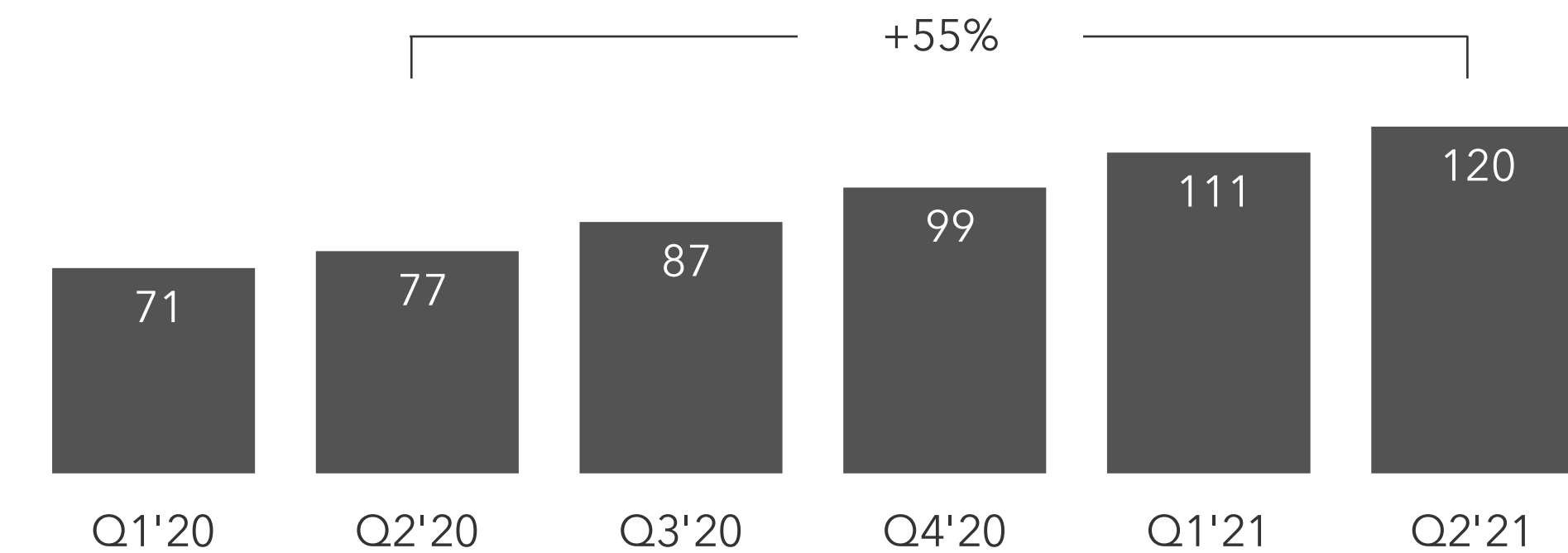
## NORTH AMERICA<sup>1</sup>



## EUROPE<sup>2</sup>



## REST OF WORLD



We define a Daily Active User, or DAU, as a registered Snapchat user who opens the Snapchat application at least once during a defined 24-hour period. We calculate average Daily Active Users for a particular quarter by adding the number of DAUs on each day of that quarter and dividing that sum by the number of days in that quarter.

<sup>1</sup>North America includes Mexico, the Caribbean, and Central America.

<sup>2</sup>Europe includes Russia and Turkey.

Numbers throughout presentation may not foot due to rounding.

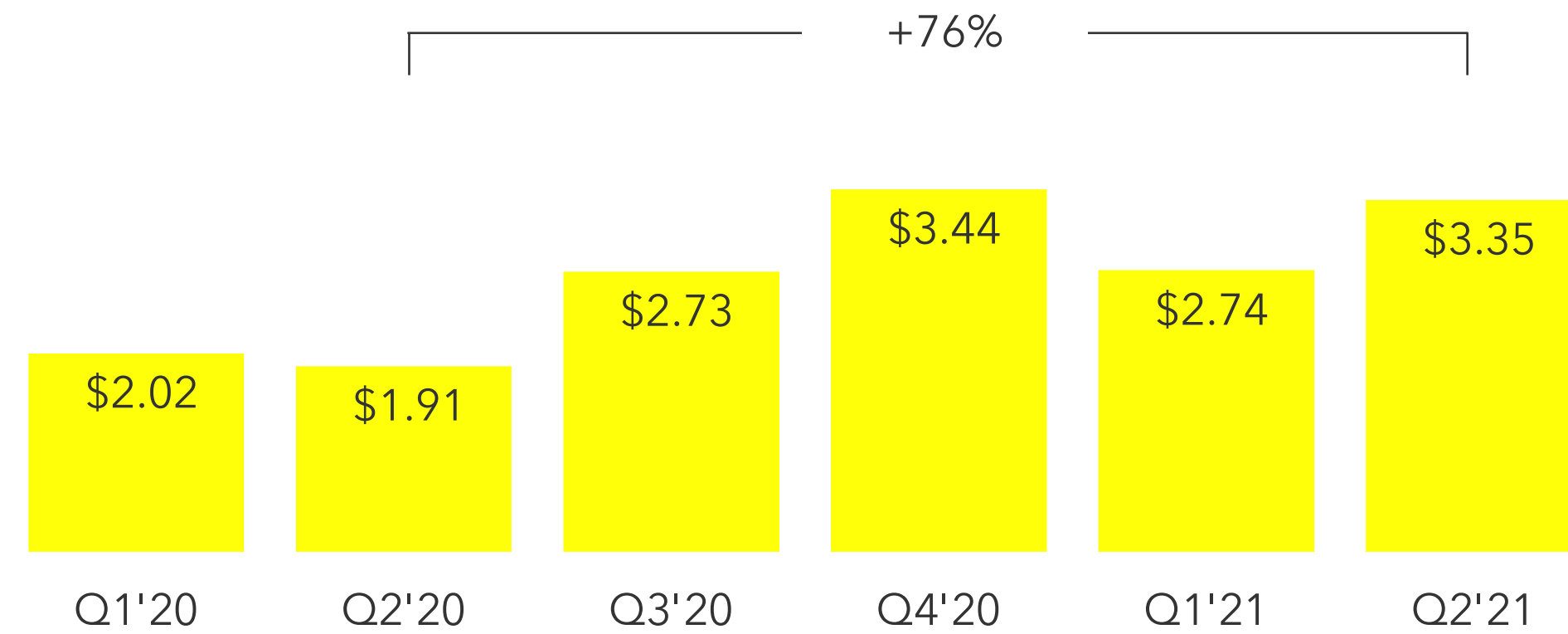
**GLOBAL DAU INCREASED 55 MILLION, OR 23%, YoY**



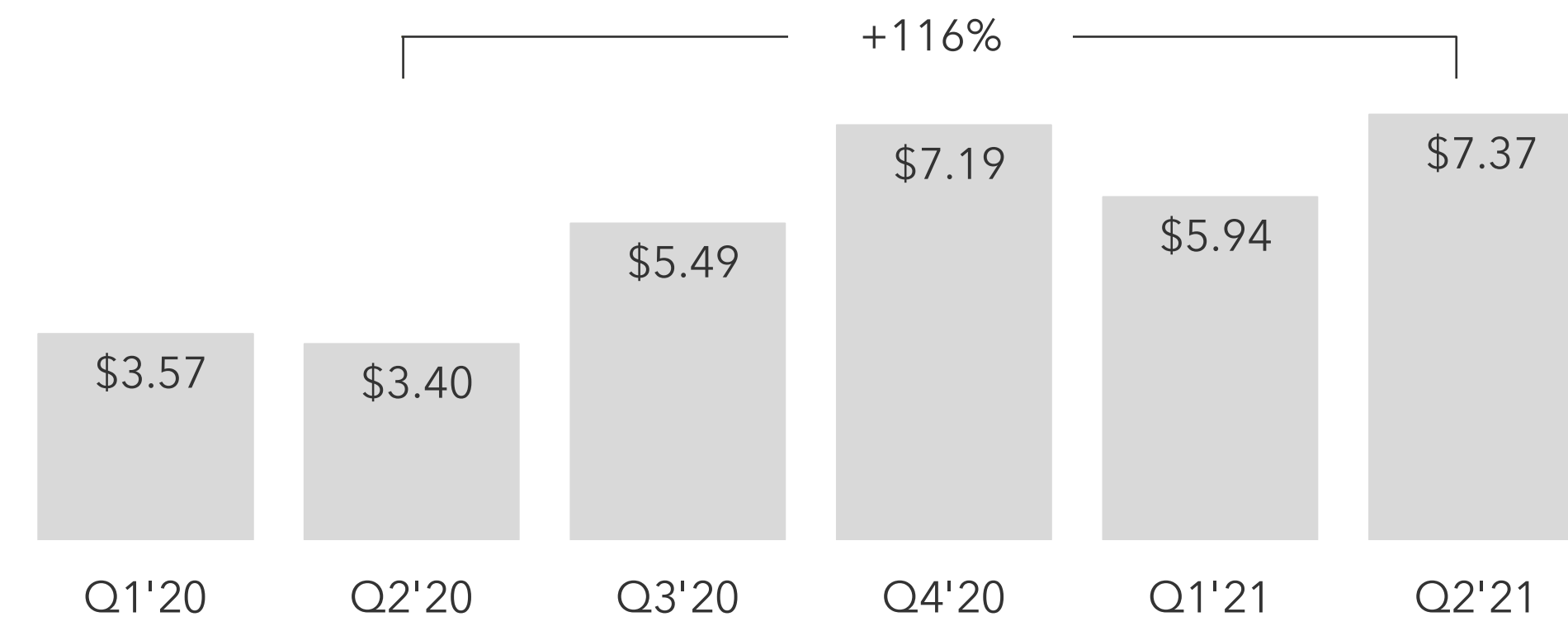
# Average Revenue Per User (ARPU)

(unaudited)

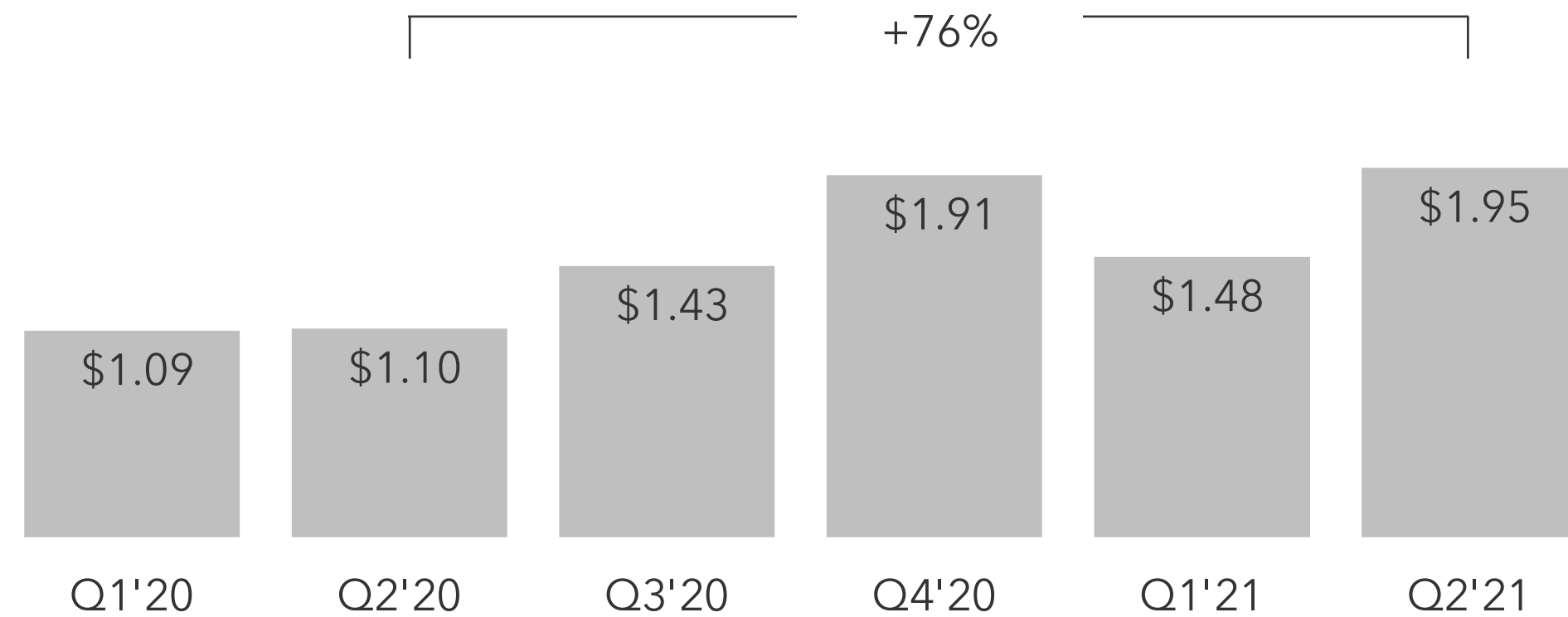
## GLOBAL



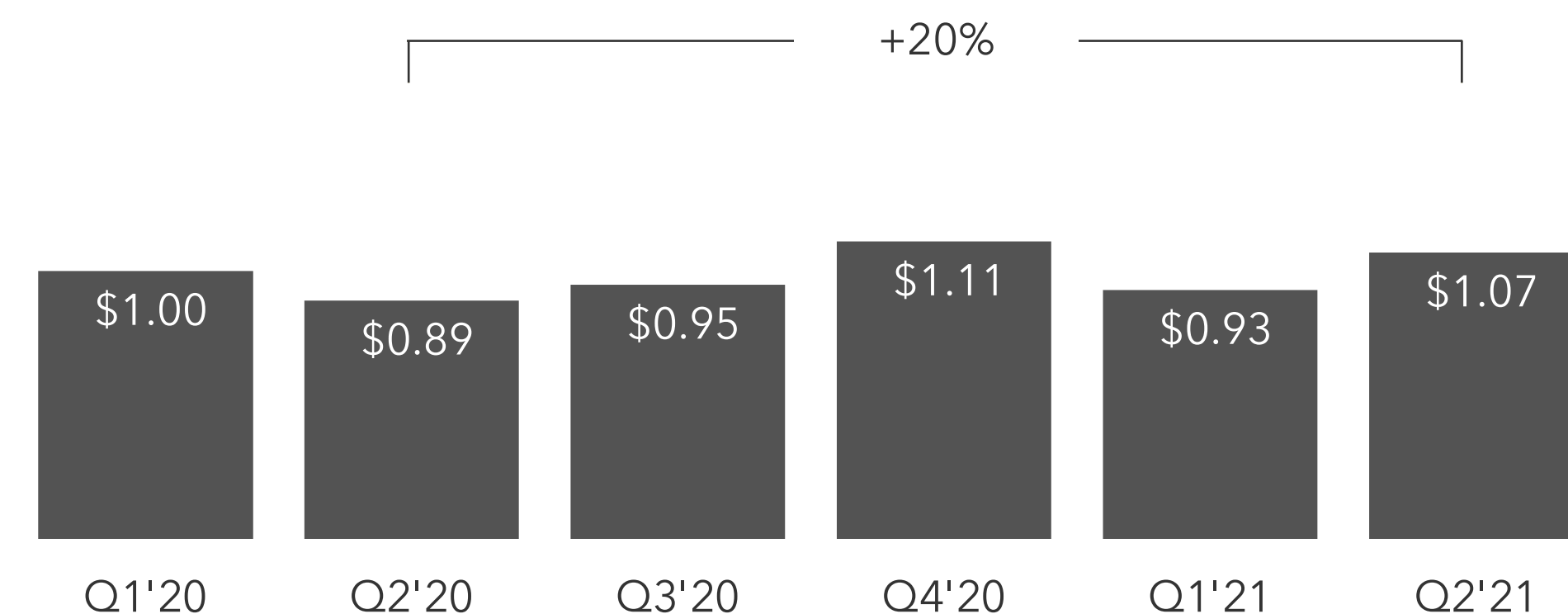
## NORTH AMERICA<sup>1</sup>



## EUROPE<sup>2</sup>



## REST OF WORLD



We define ARPU as quarterly revenue divided by the average Daily Active Users. For purposes of calculating ARPU, revenue by user geography is apportioned to each region based on our determination of the geographic location in which advertising impressions are delivered, as this approximates revenue based on user activity.

<sup>1</sup>North America includes Mexico, the Caribbean, and Central America.

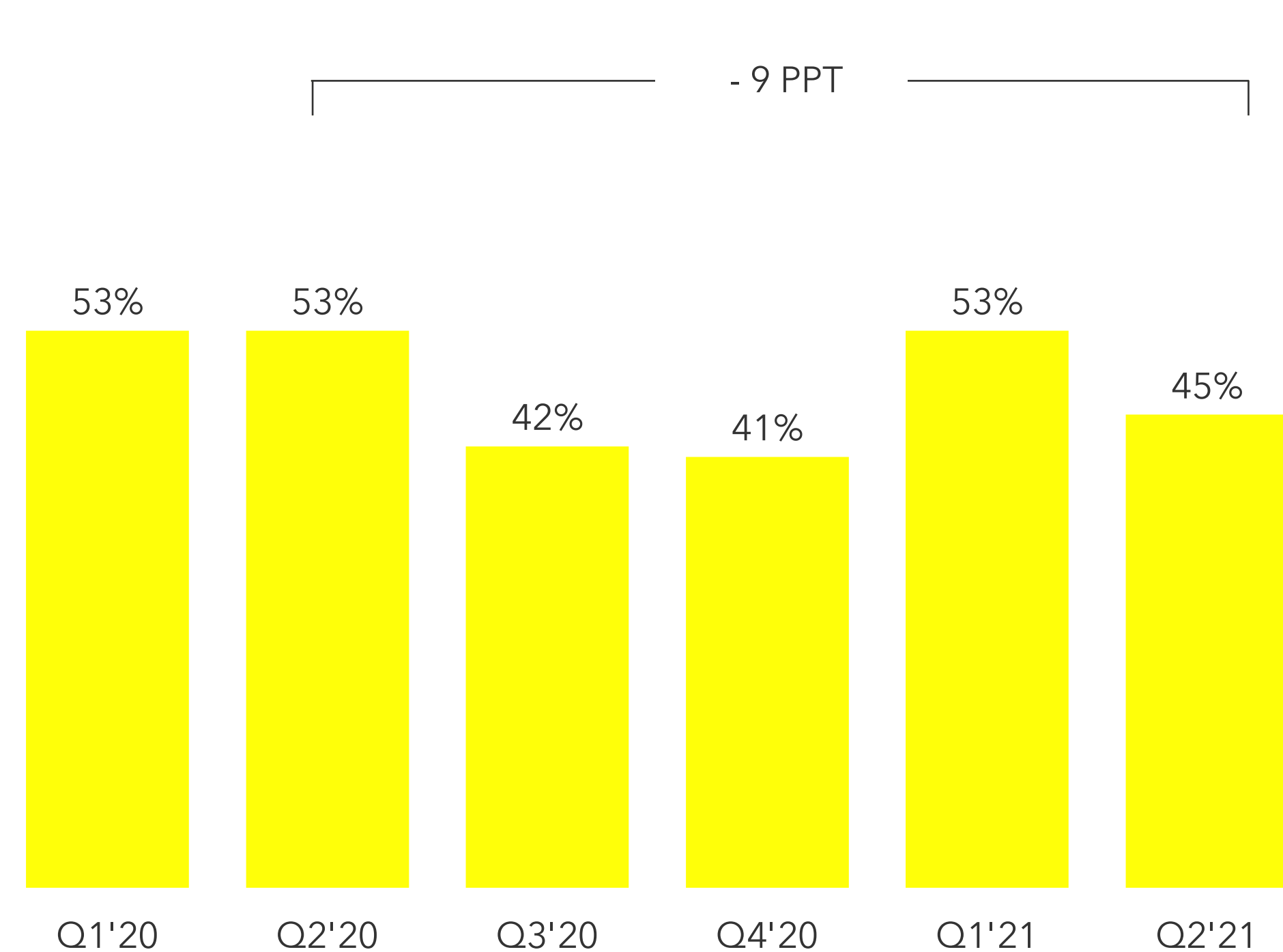
<sup>2</sup>Europe includes Russia and Turkey.

Numbers throughout presentation may not foot due to rounding.

**GLOBAL ARPU INCREASED 76% YoY**  
**NORTH AMERICA ARPU INCREASED 116% YoY**

# Adjusted Cost of Revenue<sup>1</sup>

ADJUSTED COST OF REVENUE AS A % OF REVENUE



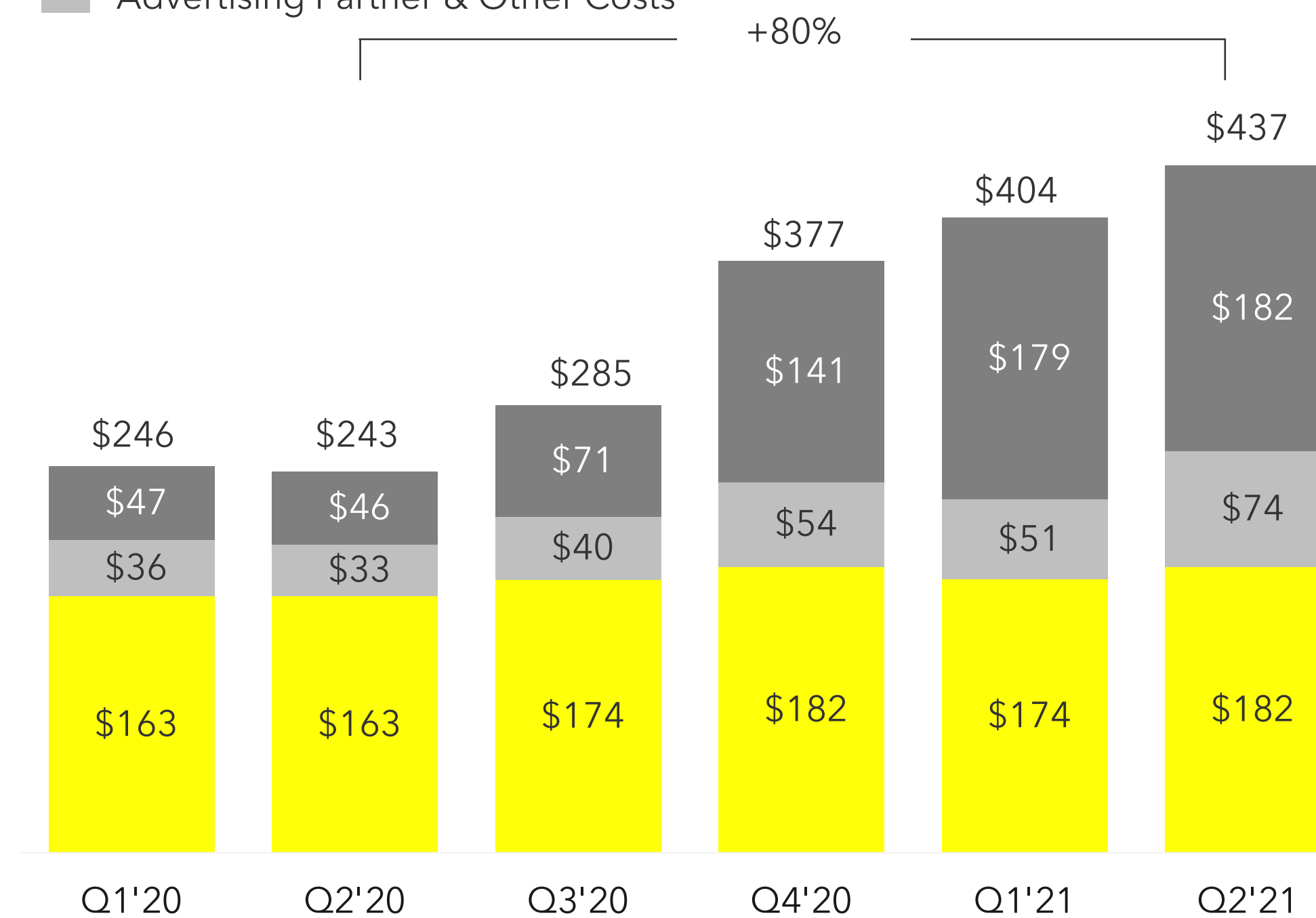
Adjusted Gross Margin<sup>1</sup>

|       |     |       |     |       |     |       |     |       |     |       |     |
|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|
| Q1'20 | 47% | Q2'20 | 47% | Q3'20 | 58% | Q4'20 | 59% | Q1'21 | 47% | Q2'21 | 55% |
|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|

COST OF REVENUE COMPOSITION<sup>2</sup>

(in millions, unaudited)

■ Infrastructure Costs     ■ Content & Developer Partner Costs  
■ Advertising Partner & Other Costs



Total Non-GAAP Exclusions<sup>1</sup>

|       |     |       |     |       |     |       |     |       |     |       |     |
|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|
| Q1'20 | \$7 | Q2'20 | \$8 | Q3'20 | \$8 | Q4'20 | \$9 | Q1'21 | \$8 | Q2'21 | \$8 |
|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|

Total GAAP Cost of Revenue

|       |       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Q1'20 | \$253 | Q2'20 | \$250 | Q3'20 | \$293 | Q4'20 | \$386 | Q1'21 | \$413 | Q2'21 | \$445 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

<sup>1</sup>Excludes stock-based compensation expense and other payroll related tax expense, depreciation and amortization, and certain other non-cash or non-recurring items impacting net income (loss) from time to time.

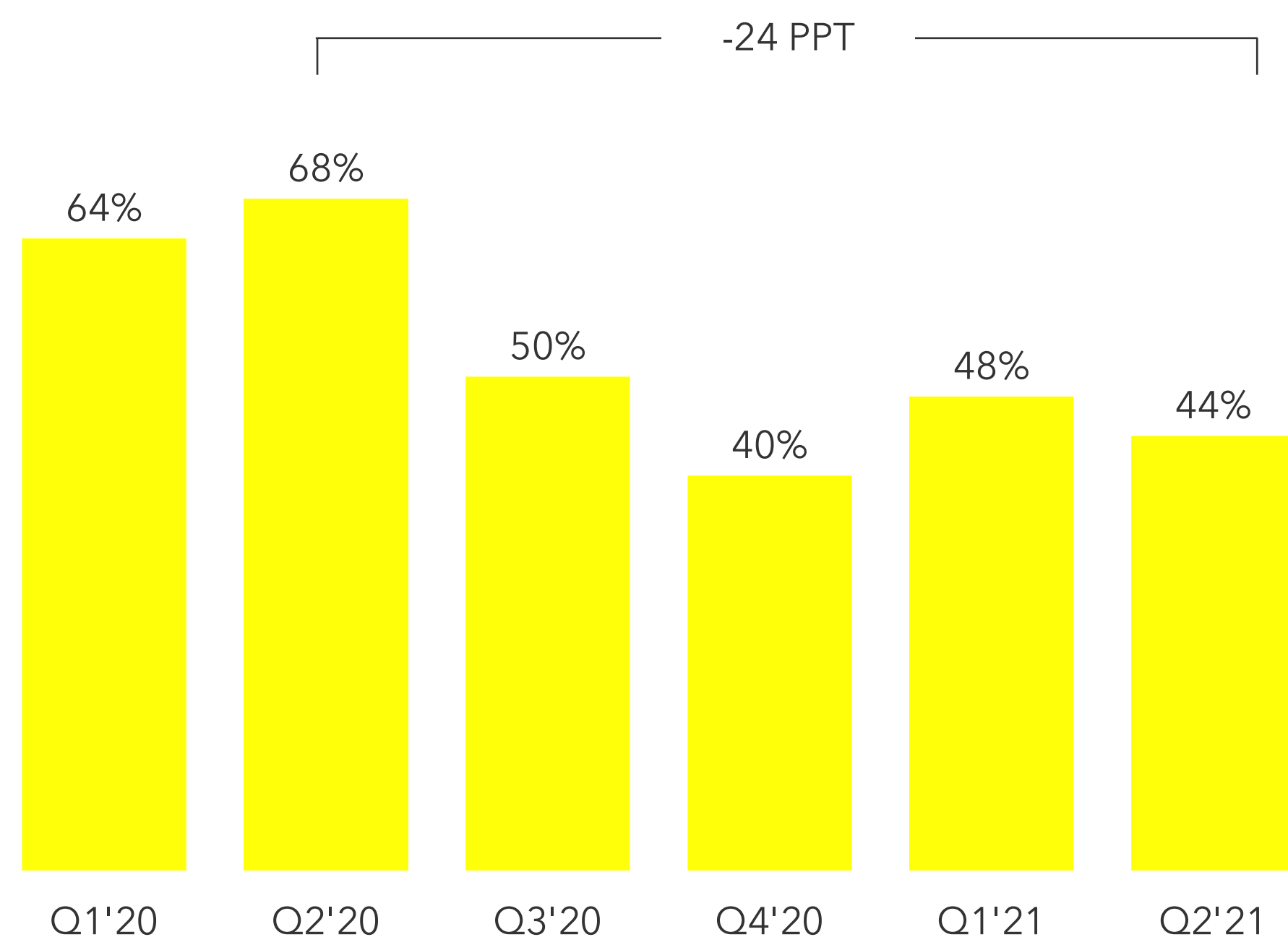
<sup>2</sup>In Q1 2021, we updated the presentation of our cost of revenue composition.

Numbers throughout presentation may not foot due to rounding.

**ADJUSTED GROSS MARGIN<sup>1</sup> IMPROVED 9 PPT YoY**

# Adjusted Operating Expenses<sup>1</sup>

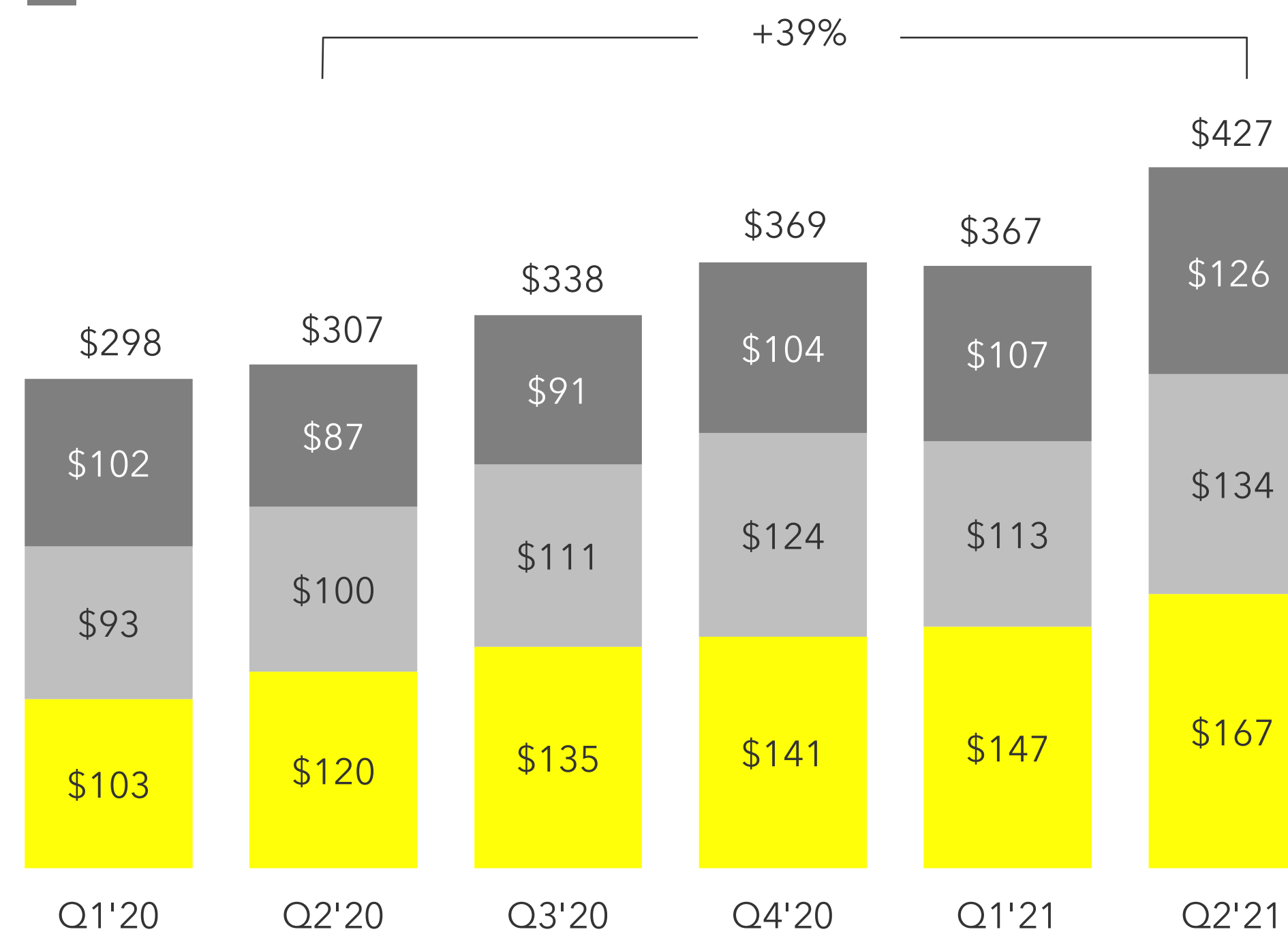
## ADJUSTED OPERATING EXPENSES AS A % OF REVENUE



## OPERATING EXPENSES COMPOSITION

(in millions, unaudited)

- Research and Development
- Sales and Marketing
- General and Administrative



Total Non-GAAP Exclusions<sup>1</sup>

|       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|
| Q1'20 | \$198 | \$207 | \$216 | \$254 | \$294 | \$302 |
|-------|-------|-------|-------|-------|-------|-------|

Total GAAP Operating Expenses

|       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|
| Q1'20 | \$495 | \$514 | \$553 | \$623 | \$661 | \$730 |
|-------|-------|-------|-------|-------|-------|-------|

<sup>1</sup>Excludes stock-based compensation expense and other payroll related tax expense, depreciation and amortization and certain other non-cash or non-recurring items impacting net income (loss) from time to time.

Refer to Appendix for a description of non-recurring items, including securities class actions legal charges.

Numbers throughout presentation may not foot due to rounding.

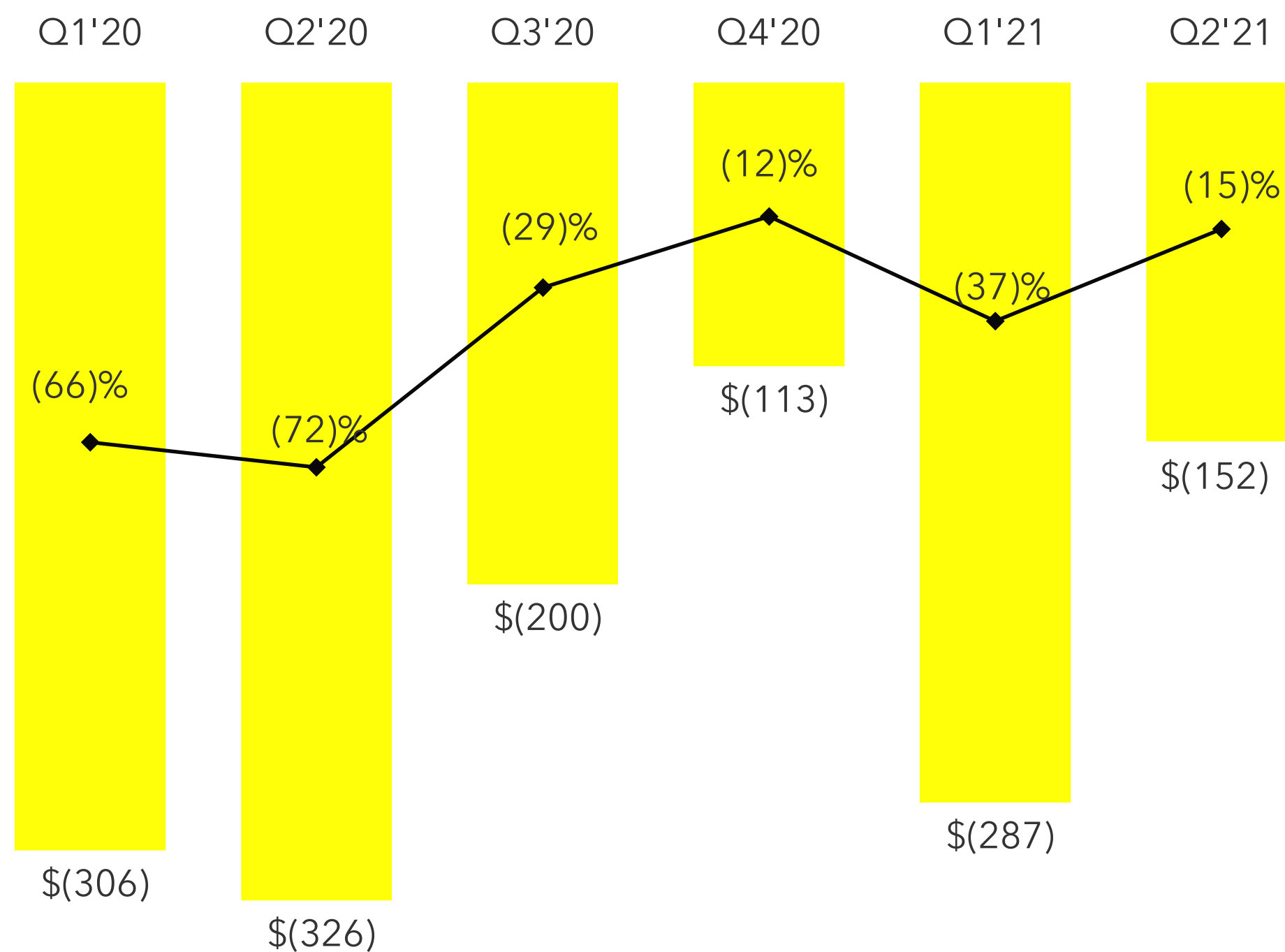
**ADJUSTED OPERATING EXPENSES AS A % OF REVENUE DECREASED 24 PPT YoY**

# Net Loss & Adjusted EBITDA<sup>1</sup>

(dollars in millions, unaudited)

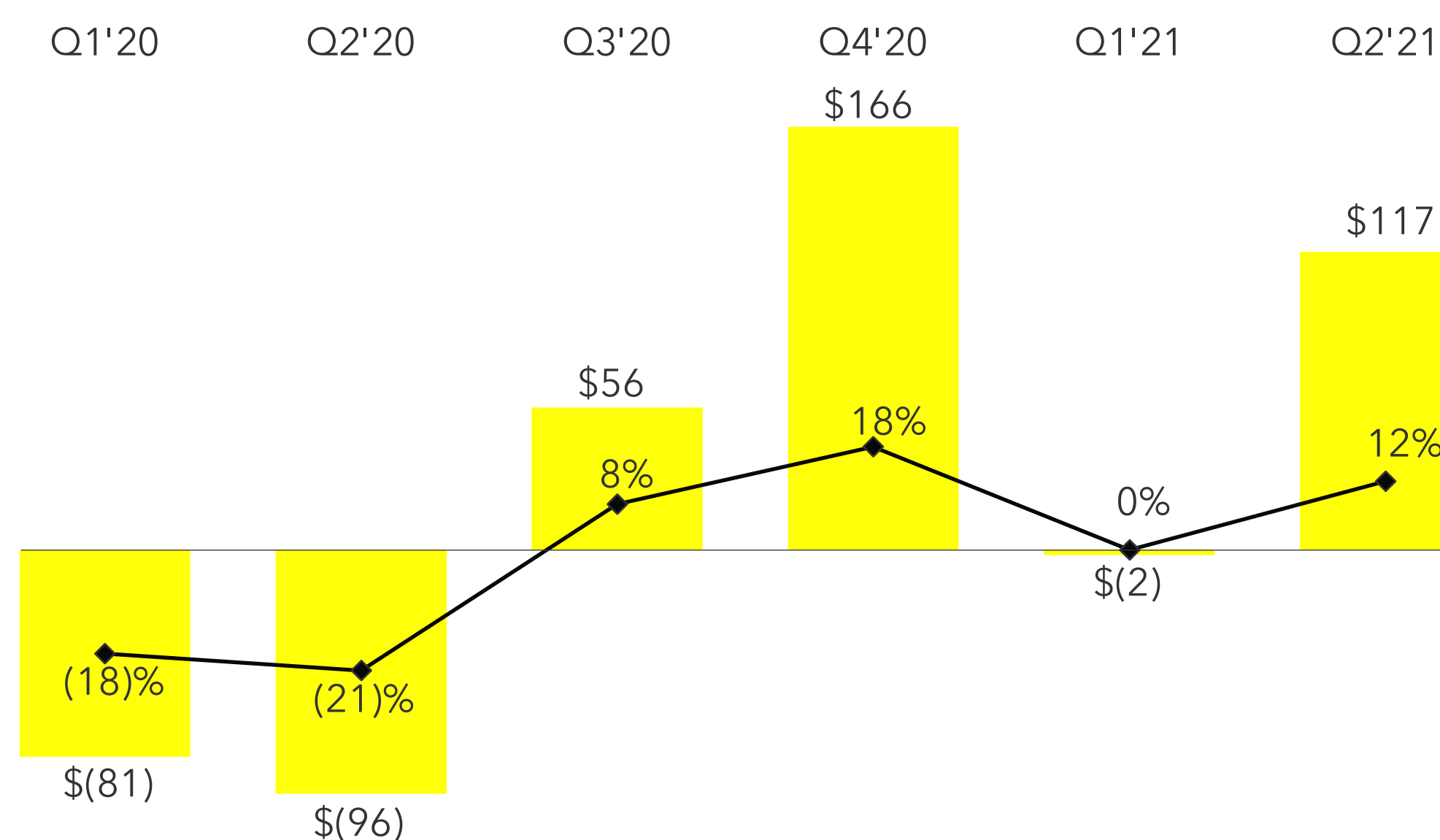
## NET LOSS

◆ Net Loss Margin



## ADJUSTED EBITDA

◆ Adjusted EBITDA Margin<sup>2</sup>



Net Loss Leverage<sup>3</sup>

3%    (107)%    12%    36%    6%    33%

Adjusted EBITDA Leverage<sup>4</sup>

30%    (25)%    42%    35%    26%    40%

<sup>1</sup>We define Adjusted EBITDA as net income (loss), excluding interest income; interest expense; other income (expense), net; income tax benefit (expense); depreciation and amortization; stock-based compensation expense and other payroll related tax expense; and certain other non-cash or non-recurring items impacting net income (loss) from time to time. See Appendix for reconciliation of net loss to Adjusted EBITDA.

<sup>2</sup>We define Adjusted EBITDA margin as Adjusted EBITDA divided by GAAP revenue.

<sup>3</sup>We define Net Loss leverage as the year-over-year change in Net Loss divided by the year-over-year change in GAAP revenue.

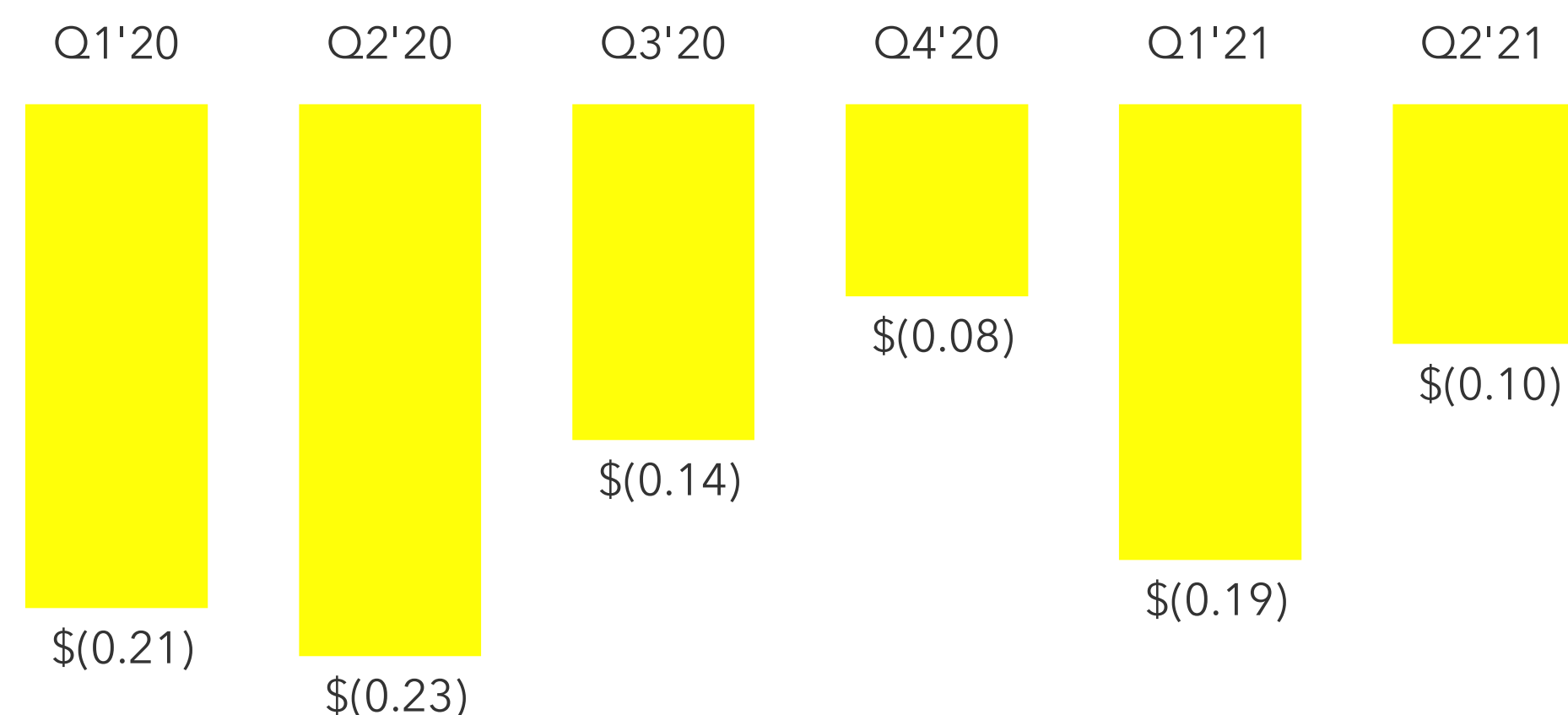
<sup>4</sup>We define Adjusted EBITDA leverage as the year-over-year change in Adjusted EBITDA divided by the year-over-year change in GAAP revenue.

**ADJUSTED EBITDA WAS \$117 MILLION IN Q2 2021**  
**TRAILING TWELVE MONTHS ADJUSTED EBITDA WAS \$338 MILLION**

# Diluted Net Loss Per Share & Common Shares Outstanding Plus Shares Underlying Stock-Based Awards

(in millions, except per share data, unaudited)

## DILUTED NET LOSS PER SHARE<sup>1</sup>



## COMMON SHARES OUTSTANDING PLUS SHARES UNDERLYING STOCK-BASED AWARDS

Common Shares Outstanding  
Shares Underlying Stock-Based Awards<sup>2</sup>



YoY Change

2.9% 4.1% 3.7% 3.4% 2.6% 4.0%

YoY Change excluding exchange shares<sup>3</sup>

2.9% 4.1% 3.7% 3.4% 2.6% 1.7%

<sup>1</sup>Diluted net loss per share is calculated using weighted average shares outstanding during the period.

<sup>2</sup>Shares underlying stock-based awards include restricted stock units, restricted stock awards, and outstanding stock options.

<sup>3</sup>YoY change in Q2 2021 excludes approximately 38 million shares issued as part of the induced conversion of convertible notes.

Numbers throughout presentation may not foot due to rounding.

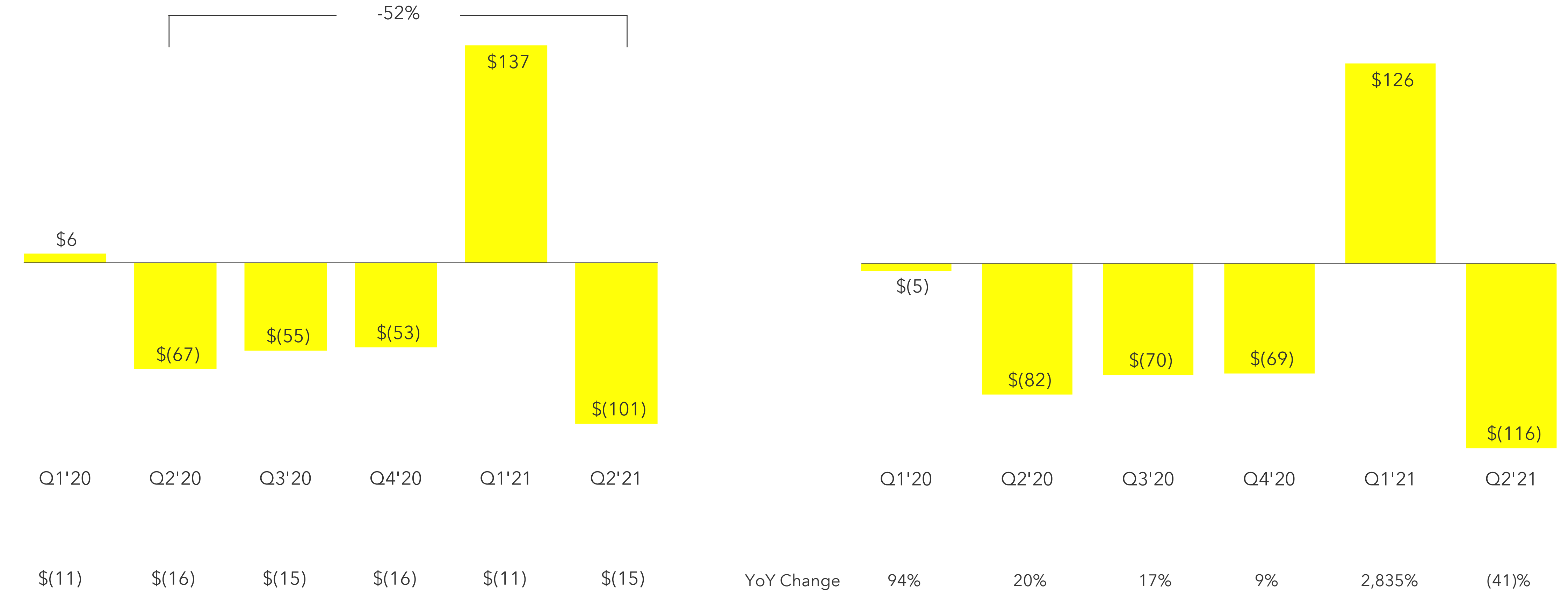
**DILUTED NET LOSS PER SHARE IMPROVED \$0.13 YoY**

# Operating Cash Flow and Free Cash Flow<sup>1</sup>

(in millions, unaudited)

## OPERATING CASH FLOW

## FREE CASH FLOW



<sup>1</sup>We define Free Cash Flow as net cash provided by (used in) operating activities, reduced by purchases of property and equipment. See Appendix for reconciliation of net cash provided by (used in) operating activities to Free Cash Flow. Operating cash flow and free cash flow in Q4'20 includes a \$98 million payment for non-recurring legal charges related to the securities class action in 2019. Numbers throughout presentation may not foot due to rounding.

**116% YoY GROWTH IN REVENUE, A 50 PPT ACCELERATION OVER Q1 2021, LED TO HIGHER NET WORKING CAPITAL USAGE IN Q2 2021**

## Financial Guidance

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The following forward-looking statements reflect our expectations for the third quarter of 2021 as of July 22, 2021, and are subject to substantial uncertainty. This guidance assumes constant foreign currency rates and, among other things, that no business acquisitions, investments, restructurings, or legal settlements are concluded in the quarter. Our results are based on assumptions that we believe to be reasonable as of this date, but may be materially affected by many factors, as discussed in “Forward-Looking Statements & Non-GAAP Financial Measures.”

### Q3 2021 Outlook

- Revenue is estimated to increase approximately 58% to 60% year-over-year, resulting in estimated revenue between \$1,070 million and \$1,085 million, compared to \$679 million in Q3 2020.
- Adjusted EBITDA is estimated to be between \$100 million and \$120 million, compared to \$56 million in Q3 2020.

Appendix



# Non-GAAP Financial Measures Reconciliation

(in thousands, unaudited)

|                                       | Three Months Ended |                    |                    |                    |                   |                     |
|---------------------------------------|--------------------|--------------------|--------------------|--------------------|-------------------|---------------------|
|                                       | March 31, 2020     | June 30, 2020      | September 30, 2020 | December 31, 2020  | March 31, 2021    | June 30, 2021       |
| <b>Free Cash Flow Reconciliation</b>  |                    |                    |                    |                    |                   |                     |
| Net cash used in operating activities | \$ 6,283           | \$ (66,554)        | \$ (54,828)        | \$ (52,545)        | \$ 136,886        | \$ (101,086)        |
| Less:                                 |                    |                    |                    |                    |                   |                     |
| Purchases of property and equipment   | (10,891)           | (15,767)           | (14,727)           | (16,447)           | (10,851)          | (14,623)            |
| <b>Free Cash Flow<sup>1</sup></b>     | <b>\$ (4,608)</b>  | <b>\$ (82,321)</b> | <b>\$ (69,555)</b> | <b>\$ (68,992)</b> | <b>\$ 126,035</b> | <b>\$ (115,709)</b> |

|   | Three Months Ended |                    |                    |                   |                   |                   |
|---|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|
|   | March 31, 2020     | June 30, 2020      | September 30, 2020 | December 31, 2020 | March 31, 2021    | June 30, 2021     |
| <b>Adjusted EBITDA Reconciliation</b>                   |                    |                    |                    |                   |                   |                   |
| Net loss  | \$ (305,936)       | \$ (325,951)       | \$ (199,853)       | \$ (113,099)      | \$ (286,882)      | \$ (151,664)      |
| Add (deduct):   |                    |                    |                    |                   |                   |                   |
| Interest income   | (8,589)            | (4,768)            | (2,801)            | (1,969)           | (1,137)           | (1,251)           |
| Interest expense  | 15,113             | 24,727             | 28,212             | 29,176            | 5,031             | 4,564             |
| Other (income) expense, net                             | 12,389             | (3,575)            | 5,669              | (29,471)          | (22,058)          | (42,282)          |
| Income tax (benefit) expense                            | 659                | (1,041)            | 909                | 18,127            | 1,440             | (1,879)           |
| Depreciation and amortization                           | 21,204             | 20,925             | 21,804             | 22,811            | 23,498            | 28,270            |
| Stock-based compensation expense                        | 172,049            | 186,171            | 192,080            | 219,882           | 237,073           | 256,600           |
| Payroll tax expense related to stock-based compensation | 11,874             | 7,942              | 10,341             | 20,152            | 41,326            | 25,045            |
| <b>Adjusted EBITDA<sup>2</sup></b>                      | <b>\$ (81,237)</b> | <b>\$ (95,570)</b> | <b>\$ 56,361</b>   | <b>\$ 165,609</b> | <b>\$ (1,709)</b> | <b>\$ 117,403</b> |

<sup>1</sup> We define Free Cash Flow as net cash provided by (used in) operating activities, reduced by purchases of property and equipment.

<sup>2</sup> We define Adjusted EBITDA as net income (loss), excluding interest income; interest expense; other income (expense), net; income tax benefit (expense); depreciation and amortization; stock-based compensation expense and other payroll related tax expense; and certain other non-cash or non-recurring items impacting net income (loss) from time to time. Securities class actions legal charges related to a preliminary agreement to settle the securities class actions that arose following our IPO. Charges recorded are net of amounts directly covered by insurance. These charges are non-recurring and not reflective of underlying trends in our business. Numbers throughout presentation may not foot due to rounding.

# Non-GAAP Financial Measures Reconciliation (Continued)

(in thousands, except per share amounts, unaudited)

|   | Three Months Ended  |                     |                    |                   |                  |                   |
|---|---------------------|---------------------|--------------------|-------------------|------------------|-------------------|
|   | March 31, 2020      | June 30, 2020       | September 30, 2020 | December 31, 2020 | March 31, 2021   | June 30, 2021     |
| <b>Non-GAAP net income (loss) reconciliation</b>        |                     |                     |                    |                   |                  |                   |
| Net loss  | \$ (305,936)        | \$ (325,951)        | \$ (199,853)       | \$ (113,099)      | \$ (286,882)     | \$ (151,664)      |
| Amortization of intangible assets                       | 7,980               | 7,378               | 8,422              | 9,727             | 10,445           | 14,363            |
| Stock-based compensation expense                        | 172,049             | 186,171             | 192,080            | 219,882           | 237,073          | 256,600           |
| Payroll tax expense related to stock-based compensation | 11,873              | 7,942               | 10,341             | 20,152            | 41,326           | 25,045            |
| Income tax adjustments                                  | (59)                | 86                  | 388                | (511)             | 589              | (199)             |
| <b>Non-GAAP net income (loss)<sup>1</sup></b>           | <b>\$ (114,093)</b> | <b>\$ (124,374)</b> | <b>\$ 11,378</b>   | <b>\$ 136,151</b> | <b>\$ 2,551</b>  | <b>\$ 144,145</b> |
| <b>Weighted-average common shares - Diluted</b>         | <b>1,426,305</b>    | <b>1,447,022</b>    | <b>1,466,420</b>   | <b>1,484,277</b>  | <b>1,501,636</b> | <b>1,547,234</b>  |

|  | Three Months Ended |                  |                    |                   |                |                |
|--|--------------------|------------------|--------------------|-------------------|----------------|----------------|
|  | March 31, 2020     | June 30, 2020    | September 30, 2020 | December 31, 2020 | March 31, 2021 | June 30, 2021  |
| <b>Non-GAAP diluted net income (loss) per share reconciliation</b> |                    |                  |                    |                   |                |                |
| GAAP diluted net loss per share                                    | \$ (0.21)          | \$ (0.23)        | \$ (0.14)          | \$ (0.08)         | \$ (0.19)      | \$ (0.10)      |
| Non-GAAP adjustment to net loss                                    | 0.13               | 0.14             | 0.15               | 0.17              | 0.19           | 0.20           |
| <b>Non-GAAP diluted net income (loss) per share<sup>1</sup></b>    | <b>\$ (0.08)</b>   | <b>\$ (0.09)</b> | <b>\$ 0.01</b>     | <b>\$ 0.09</b>    | <b>\$ 0.00</b> | <b>\$ 0.10</b> |

<sup>1</sup> We define Non-GAAP Net income (loss) as net income (loss); excluding amortization of intangible assets; stock-based compensation expense and other payroll related tax expense; certain other non-cash or non-recurring items impacting net income (loss) from time to time; and related income tax adjustments. Non-recurring items include securities class actions legal charges described in the preceding slide. Non-GAAP Net Loss and weighted average diluted shares are then used to calculate Non-GAAP diluted net Income (loss) per share. Numbers throughout presentation may not foot due to rounding.

## Note Regarding User Metrics and Other Data

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We define a Daily Active User, or DAU, as a registered Snapchat user who opens the Snapchat application at least once during a defined 24-hour period. We calculate average DAUs for a particular quarter by adding the number of DAUs on each day of that quarter and dividing that sum by the number of days in that quarter. DAUs are broken out by geography because markets have different characteristics. We define average revenue per user, or ARPU, as quarterly revenue divided by the average DAUs. For purposes of calculating ARPU, revenue by user geography is apportioned to each region based on our determination of the geographic location in which advertising impressions are delivered, as this approximates revenue based on user activity. This allocation differs from our components of revenue disclosure in the notes to our consolidated financial statements, where revenue is based on the billing address of the advertising customer.

Unless otherwise stated, statistical information regarding our users and their activities is determined by calculating the daily average of the selected activity for the most recently completed quarter.

While these metrics are determined based on what we believe to be reasonable estimates of our user base for the applicable period of measurement, there are inherent challenges in measuring how our products are used across large populations globally. For example, there may be individuals who have unauthorized or multiple Snapchat accounts, even though we forbid that in our Terms of Service and implement measures to detect and suppress that behavior. We have not determined the number of such multiple accounts. Changes in our products, infrastructure, mobile operating systems, or metric tracking system, or the introduction of new products, may impact our ability to accurately determine active users or other metrics and we may not determine such inaccuracies promptly. We also believe that we don't capture all data regarding each of our active users. Technical issues may result in data not being recorded from every user's application. For example, because some Snapchat features can be used without internet connectivity, we may not count a DAU because we don't receive timely notice that a user has opened the Snapchat application. This undercounting may increase as we grow in Rest of World markets where users may have poor connectivity. We do not adjust our reported metrics to reflect this underreporting. We believe that we have adequate controls to collect user metrics, however, there is no uniform industry standard. We continually seek to identify these technical issues and improve both our accuracy and precision, including ensuring that our investors and others can understand the factors impacting our business, but these and new issues may continue in the future, including if there continues to be no uniform industry standard.

Some of our demographic data may be incomplete or inaccurate. For example, because users self-report their dates of birth, our age-demographic data may differ from our users' actual ages. And because users who signed up for Snapchat before June 2013 were not asked to supply their date of birth, we may exclude those users from our age demographics or estimate their ages based on a sample of the self-reported ages that we do have. If our active users provide us with incorrect or incomplete information regarding their age or other attributes, then our estimates may prove inaccurate and fail to meet investor expectations.

## Note Regarding User Metrics and Other Data (Continued)

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In the past we have relied on third-party analytics providers to calculate our metrics, but today we rely primarily on our analytics platform that we developed and operate. We count a DAU only when a user opens the application and only once per user per day. We believe this methodology more accurately measures our user engagement. We have multiple pipelines of user data that we use to determine whether a user has opened the application during a particular day, and becoming a DAU. This provides redundancy in the event one pipeline of data were to become unavailable for technical reasons, and also gives us redundant data to help measure how users interact with our application.

If we fail to maintain an effective analytics platform, our metrics calculations may be inaccurate. We regularly review, have adjusted in the past, and are likely in the future to adjust our processes for calculating our internal metrics to improve their accuracy. As a result of such adjustments, our DAUs or other metrics may not be comparable to those in prior periods. Our measures of DAUs may differ from estimates published by third parties or from similarly titled metrics of our competitors due to differences in methodology or data used.