

## Q4 2021 Earnings Call

### Company Participants

- Dave Wehner, Chief Financial Officer
- Deborah Crawford, Vice President, Investor Relations
- Mark Zuckerberg, Chief Executive Officer
- Sheryl Sandberg, Chief Operating Officer

### Other Participants

- Brian Nowak, Morgan Stanley
- Douglas Anmuth, JP Morgan
- Eric Sheridan, Goldman Sachs
- John Blackledge, Cowen
- Justin Post, Bank of America
- Lloyd Walmsley, RBS
- Mark Mahaney, Evercore ISI
- Ross Sandler, Barclays
- Youssef Squali, Truist Securities

### Presentation

#### Operator

Good afternoon. My name is France, and I will be your conference operator today. At this time, I would like to welcome everyone to the Meta Fourth Quarter and Full Year 2021 Earnings Conference Call. (Operator Instructions). The call will be recorded.

Thank you very much. Ms. Deborah Crawford, Facebook's Vice President of Investor Relations, you may begin.

#### Deborah Crawford {BIO 5934723 <GO>}

Thank you. Good afternoon, and welcome to Meta's fourth quarter and full year 2021 earnings conference call. Joining me today to discuss our results are Mark Zuckerberg, CEO; Sheryl Sandberg, COO; and Dave Wehner, CFO.

Before we get started, I would like to take this opportunity to remind you that our remarks today will include forward-looking statements. Actual results may differ materially from those contemplated by these forward-looking statements. Factors that could cause these results to differ materially are set forth in today's press release, and in our quarterly report on Form 10-Q filed with the SEC. Any forward-

looking statements that we make on this call are based on assumptions as of today, and we undertake no obligation to update these statements as a result of new information or future events.

During this call, we may present both GAAP and non-GAAP financial measures. A reconciliation of GAAP-to-non-GAAP measures is included in today's earnings press release. The press release and an accompanying investor presentation are available on our website at [investor.fb.com](https://investor.fb.com).

And now, I'd like to turn the call over to Mark.

**Mark Zuckerberg** {BIO 15103277 <GO>}

Hi, everyone, and thanks for joining today.

This was a solid quarter for our products and business. It was also an important one for our company. In October, we announced that "Meta" would be our new name and we laid out our vision for the metaverse. And when we shared our plans at Connect, I said this is not something that we're going to do on our own. The metaverse will be built by creators and developers, it will be interoperable, and it will touch many different parts of the economy. In the months since, it's been exciting to see lots of other companies share their own plans for the metaverse and how their experiences and products might show up too. And I look forward to partnering with a lot of them as we work to bring this to life together.

Now if last year was about putting a stake in the ground for where we're heading, then this year is going to be about executing. And today I'm going to discuss our seven major investment priorities for 2022: and they're Reels, community messaging, commerce, ads, privacy, AI, and of course the metaverse. And these are the areas that we're putting a lot more talent and budget towards.

But before I get to that, I want to briefly touch on our Q4 results, which I know Sheryl and Dave are going to go deeper on. I'm proud of the work that our teams did here. We shipped products, our community continued to grow, and businesses of all sizes turned to us to help them reach people. But there are two things that I want to call out that are having an impact on our business.

The first is competition. People have a lot of choices for how they want to spend their time and apps like TikTok are growing very quickly. And this is why our focus on Reels is so important over the long-term, as is our work to make sure that our apps are the best services out there for young adults, which I spoke about on our last call.

The second area, and related to this, is that we're in the middle of a transition on our own services towards short-form video like Reels. So as more activity shifts towards this medium, we're replacing some time in News Feed and other higher monetizing surfaces. So as a result of both competition and this shift to short-form video as well

as our focus on serving young adults, over optimizing overall engagement, we're going to continue to see some pressure on impression growth in the near term.

Now I'm confident that leaning harder into these trends is the right short-term tradeoff to make in order to get long-term gains. But we've made these types of transitions before with mobile feed and Stories, where we took on headwinds in the near-term to align with important trends over the long-term. And while video has historically been slower to monetize, we believe that over time short-form video is going to monetize more like feed or Stories than like Watch -- so I'm optimistic that we'll get to where we need to be with Reels too.

Ultimately, our continued success relies on building new products that people find valuable and enjoy using. And in a competitive marketplace, we're focused on understanding the areas that we need to deliver on for people and executing against this strategy. Dave is going to share more on the impacts to our business in a minute. But before we get to that, I want to discuss our investment priorities for 2022.

The first one is Reels. It's clear that short-form video will be an increasing part of how people consume content moving forward, and Reels is now our fastest growing content format by far. It's already the biggest contributor to engagement growth on Instagram and it is growing very quickly on Facebook too. As we continue to improve the tools for creators, ranking for the people watching, and as we roll out the product everywhere across the world, we expect that this will continue growing quickly. So looking ahead, we're investing in simplifying video across Instagram, building more great creative and monetization tools for creators, and helping more people discover and interact with relevant Reels.

The next investment priority is community messaging, which is about chatting with groups of people that you have something in common with, whether that's a shared community, an interest or experience. We already run some of the world's most popular messaging platforms where people connect one-on-one or in groups with friends, family and colleagues. And we're seeing people increasingly want to share more things in messages that they would've previously maybe posted to feed. So I think the popularity that we're seeing with apps like Slack in the workplace, or Discord or Telegram, reflects this trend too. So we're going to help people on WhatsApp better organize their group chats and make it easier to find information for the communities that they're a part of, like parent groups or neighborhoods. And we're also building Community Chats on Facebook and Messenger for real-time conversations within those groups and communities.

I also want to call out business messaging, since it's an area where there's real momentum here. We estimate more than 1 billion users are connecting with a business account across our messaging services every week. And we're partnering with companies like Uber and JioMart to help people book a ride or have their groceries delivered right from a chat. And we're building new tools to make buying online better for people and easier to manage for businesses. And we believe that this can be an important business for us in the years to come.

We're also making good progress on our broader commerce efforts. We already help a lot of businesses reach new and existing customers with personalized ads, and our commerce tools are an extension of that. It's a seamless way for people and businesses to buy and sell through our apps. And our strategy here since introducing Shops a year and a half ago has been to make it as easy as possible for people to make a purchase after discovering a new brand or product, without having to switch over to a browser or reenter their payment info. And Sheryl will share more about our progress here, including some of the success we saw over the holidays.

Next up is ads. With Apple's iOS changes and new regulation in Europe, there's a clear trend where less data is available to deliver personalized ads. But people still want to see relevant ads, and businesses still want to reach the right customers. So we're rebuilding a lot of our ads infrastructure so we can continue to grow and deliver high-quality personalized ads.

Now the next two priorities that I want to discuss, focused on the infrastructure that underpins all of our products. First is privacy. And we've made huge investments in strengthening our approach to privacy, including rebuilding our privacy program and our privacy review process. And we made updates to bring greater privacy to our products, including end-to-end encrypted backups and disappearing messages on WhatsApp, and end-to-end encrypted voice and video calling on Messenger. Over the next few years, we're focused on building out a major privacy infrastructure project that will encode our privacy commitments at a deeper level of our technical foundation to make them more durable and make product development faster in this evolving environment.

Now onto AI, this is one of the areas where we've routinely seen stronger returns on our investments over time than we've expected. Advances in AI enable a lot of the experiences that I've talked about so far. It enables us to deliver better ads to people while using less data; it's core to our safety and security work; it's meaningfully improved the relevance of Reels and overall content ranking in general; and it plays a big role in our commerce efforts.

Artificial intelligence is also going to play a big role in our work to help build the metaverse. We just announced our AI Research SuperCluster, which we think will be the world's fastest supercomputer once it is complete later this year. This is going to enable new AI models that can learn from trillions of examples and understand hundreds of languages which will be key for the kinds of experiences that we're building.

Looking ahead, we're focused on further scaling our computing power and transforming our AI infrastructure through advances in foundational research, as well as improvements to data center design, networking, storage, and software.

Now the last investment priority here is the metaverse. We're focused on the foundational hardware and software that are required to build an immersive, embodied internet that enables better digital social experiences than anything that

exists today. On the hardware front, we're seeing real traction with Quest 2. People have spent more than \$1B on Quest store content, helping virtual reality developers grow and sustain their businesses. We had a strong holiday season and Oculus reached the top of the App Store for the first time on Christmas Day in the US.

We're working towards a release of a high-end virtual reality headset later this year and we continue to make progress developing Project Nazare, which is our first fully-augmented reality glasses.

As for software, Horizon is core to our metaverse vision. This is our social VR world-building experience that we recently opened to people in the US and Canada. And we've seen a number of talented creators build worlds like a recording studio where producers collaborate or a relaxing space to meditate. And this year, we plan to launch a version of Horizon on mobile too, so that will bring early metaverse experiences to more surfaces beyond VR.

So while the deepest and most immersive experiences are going to be in virtual reality, you're also going to be able to access these worlds from your Facebook or Instagram apps as well, and probably more over time. So this will enable us to build even richer social experiences where you can connect with friends in the metaverse whether they're in VR or not.

We're also focused on avatars, which will be how you represent yourself in Horizon and then across other developers' experiences in the metaverse. In December, we rolled out our Meta Avatars SDK to all Unity developers on Quest, and Rift and Windows-based VR platforms, letting developers bring Meta Avatars to their own VR experiences. And we just announced an update that lets you further customize your avatar to better express yourself. And we're introducing digital clothing too, starting with an NFL partnership so you can cheer on your favorite team.

You can use your avatar across Quest, Facebook, Instagram, and Messenger. So it serves as another bridge between our 2D social apps and 3D immersive virtual reality experiences. We have a bunch of work ahead to make the avatars as expressive and high-fidelity as they need to be to fully represent us and help us feel present with one another. But I am very excited for the advances that we're making here.

Making meaningful progress across all seven of these areas is going to improve the services that we offer today and will help power a social, intuitive, and entertaining metaverse, where people, businesses and creators can all thrive. This fully realized vision is still a ways off, and although the direction is clear, our path ahead is not yet perfectly defined. But I'm pleased with the momentum and the progress that we've made so far and I'm confident that these are the right areas and investments for us to focus on going forward.

2022 is the first page of the next chapter for our company. I'm grateful for all the talented teams at Meta and our partners for executing on this important work. And

of course for all of you who are on this journey with us.

And now, here's Sheryl.

**Sheryl Sandberg** {BIO 15339456 <GO>}

Thanks Mark, and hi, everyone.

Our total ad revenue in Q4 was \$32.6 billion, which is up 20% year-over-year. The close of the year also marked the first time our business generated more than \$100 billion in annual revenue. I want to congratulate our teams and thank our partners for helping us reach this milestone.

Throughout 2021, we saw solid growth, which continued in Q4. But there were a number of dynamic factors that created headwinds for us this past quarter, in addition to those Mark described around competition and our shift to short-form video. We were lapping a period of strong demand in 2020 that benefited from very strong growth in online commerce, which has since slowed.

Q4 was also the first holiday season after Apple's iOS changes, which have had an impact on businesses of all sizes, especially small businesses who rely on digital advertising to grow. This will continue to be a factor in 2022.

We've also heard from advertisers about other macro trends that contributed to the headwinds in Q4, including global supply chain disruptions, labor shortages, and inflationary pressures. A number of industry reports have pointed to people shopping earlier in the holiday season to avoid potential supply chain issues and shipping delays. This is in line with the behavior we saw from advertisers, many of whom frontloaded their spend earlier than usual.

Mark talked about seven areas of investment, I'd like to talk about our progress in three of those: ads, commerce, and messaging.

First, ads. Like others in our industry, we've faced headwinds as a result of Apple's iOS changes. As we described last quarter, Apple created two challenges for advertisers. One is that the accuracy of our ads targeting decreased, which increased the cost of driving outcomes. The other is that measuring those outcomes became more difficult. These challenges are complex and interrelated. We're working to try and improve things, for example by making progress in closing the underreporting gap for iOS web conversions, and by introducing tools like our Aggregated Events Measurement solution to deliver better insights for advertisers. These efforts will help to mitigate some of the challenges, but we expect the overall targeting and measurement headwinds to moderately increase from Apple's changes and from regulatory changes in Q1 and throughout 2022.

On the shift to short-form video, I want to emphasize that while we're going through a transition, we're optimistic. Right now, Reels monetizes at a lower rate than Feed

and Stories, but we expect this to improve over time. We've made successful transitions before, the shift from web to mobile, and then another shift from Feed to Stories. We have a playbook here. The experience we have from monetizing Stories is directly applicable, so we're not starting from scratch. We think that over the long term, this shift will be a success for us and our partners too.

Second, commerce. We launched a number of new tools in Q4. We released new features like ratings, reviews and community replies to product questions, and significantly improved Checkout stability. We brought Shops to Groups, and we started testing Live Shopping for creators, an early glimpse of the immersive shopping experiences that will be possible in the metaverse.

Our commerce strategy remains focused on three areas: continuing to be the best place for advertisers to find customers and get strong ROI; making it easier to sell on our platform; and improving the customer experience. We still have a lot of work to do compared to other mobile and web shopping experiences, but we're seeing promising early signs. It's great to see businesses and consumers using social and immersive shopping experiences like Product Tags, Drops, and Live Shopping.

A good example is The Laundress, a premium fabric care and home cleaning brand from Unilever that wanted to build awareness of a new line it developed with the musician John Mayer. In November, they launched exclusively on Instagram for 24 hours, and hosted a Live Shopping event: a conversation between John Mayer and Laundress Co-Founder Lindsey Julia Boyd, where people could buy the new products as they talked about them live. The hour-long event generated more than \$40,000 in sales.

Overall, we're pleased with the engagement we saw with our commerce tools over the holiday season and view Q4 as a promising milestone in our multi-year journey.

Third, business messaging. Our focus is on helping businesses and consumers connect. Our largest monetization effort is Click to Messaging ads, where you click on an ad in your Facebook or Instagram feed and it opens a chat with the business in Messenger, Instagram Direct or WhatsApp. It's a great way for businesses to drive engagement. And we've seen lots of demand from consumers who want to use our messaging apps for everyday services like utilities, financial services, education and travel.

In Q4, we expanded the types of information people can choose to receive from businesses and the formats in which they can interact. We're continuing to invest in new tools to make it easier for people to get help and make purchases right from a chat. More than 150 million users globally now view a business catalog on WhatsApp each month. And new features like 'Collections' on WhatsApp help businesses organize their products and make it straightforward for people to find things to buy.

As we enter 2022, our focus is where it has always been: building products that help people connect and businesses grow. We're making long-term investments to

evolve our business and continue to drive real value for our partners. In the coming year, we'll continue to invest in things that improve ad performance for our clients, in short-form video like Reels, and in making the commerce experience better for consumers and marketers on our platforms. As ever, I'm grateful to our partners around the world, big and small, who we learn from every day. And to our teams at Meta who work so hard to help businesses through the holiday season and beyond.

Now, here's Dave.

**Dave Wehner** {BIO 2419389 <GO>}

Thanks, Sheryl, and good afternoon, everyone.

As we announced in October, beginning this quarter, we are reporting revenue and operating income in two segments: Family of Apps and Reality Labs. I will begin by discussing our consolidated results before moving to segments and ending with our outlook. All comparisons are on a year-over-year basis unless otherwise noted.

We delivered solid results in the fourth quarter, ending a strong year for our business as full year 2021 total revenue grew 37% to nearly \$118 billion. Q4 total revenue was \$33.7 billion, up 20% or 21% on a constant currency basis. Unlike the first three quarters of 2021, we experienced a currency headwind in Q4 and had foreign exchange rates remained constant with Q4 of last year, total revenue would have been about \$307 million higher.

Q4 total expenses were \$21.1 billion, up 38% compared to last year. In terms of the specific line items, cost of revenue increased 22%, driven primarily by Reality Labs hardware costs, core infrastructure investments, and payments to partners. R&D increased 35%, driven primarily by hiring to support Family of Apps and Reality Labs as well as increased Reality Labs R&D operating costs.

Marketing and sales increased 34%, mainly driven by marketing spend and hiring. Lastly, G&A increased 107%, driven primarily by legal-related costs and employee-related costs. We added over 3700 net new hires in Q4, the majority in technical functions. We ended the quarter with over 71,900 full-time employees, up 23% compared to last year.

Fourth quarter operating income was \$12.6 billion, representing a 37% operating margin. Our tax rate was 19%. Net income was \$10.3 billion or \$3.67 per share. Capital expenditures, including principal payments on finance leases, were \$5.5 billion, driven by investments in data centers, servers, network infrastructure and office facilities. Free cash flow was \$12.6 billion. We repurchased \$19.2 billion of our Class A common stock in the fourth quarter and we ended the quarter with \$48 billion in cash and marketable securities.

Moving now to our segment results. I'll begin with the Family of Apps segment.



Q4 total Family of Apps Revenue was \$32.8 billion, up 20%. Q4 Family of Apps ad revenue was \$32.6 billion, up 20% or 21% on a constant currency basis. On a user geography basis, year-over-year ad revenue growth was strongest in Asia Pacific at 31%. Rest of World, Europe, and North America grew 28%, 20%, and 15%, respectively. Currency was a modest headwind in all international regions.

In Q4, the total number of ad impressions served across our services increased 13% and the average price per ad increased 6%. Impression growth was primarily driven by Asia Pacific and Rest of World, while impressions in North America declined 6% year-over-year. On a global basis, impression growth benefited from ad load increases and user growth. This was partially offset by engagement-related headwinds as we faced increased competition for people's time and a shift of engagement within our apps to video surfaces like Reels, which show fewer ads than Feed or Stories today.

Pricing growth was broad-based across regions. Worldwide pricing growth slowed from the third quarter as we lapped stronger growth in the year ago period and faced currency headwinds. Pricing was also negatively impacted by advertisers facing challenges from macroeconomic factors and measurement and targeting headwinds.

Family of Apps other revenue was \$155 million, down 8% due to a decline in payment revenue earned from games. Family of Apps expenses were \$16.9 billion, up 35% due to higher legal-related costs, employee-related expenses, marketing, infrastructure-related costs, and payments to partners. Family of Apps operating income was \$15.9 billion, representing a 48% operating margin.

We estimate that approximately 2.8 billion people used at least one of our Family of Apps on a daily basis in December, and that approximately 3.6 billion people used at least one on a monthly basis.

Facebook daily active users were 1.93 billion, up 5% or 84 million compared to last year. DAUs represented approximately 66% of the 2.91 billion monthly active users in December. MAUs grew by 115 million or 4% compared to last year.

Facebook user growth was impacted by a few headwinds in the fourth quarter. In Asia-Pacific and Rest of World, we believe Covid resurgences during prior periods pulled forward user growth. User growth in India was also limited by an increase in data package pricing. In addition to these factors, we believe competitive services are negatively impacting growth, particularly with younger audiences.

Within our Reality Labs segment, Q4 revenue was \$877 million, up 22%, driven by strong Quest 2 sales during the holiday season. Reality Labs expenses were \$4.2 billion, up 48%, driven by employee-related costs, R&D operating expenses, and cost of goods sold. Reality Labs operating loss was \$3.3 billion in the fourth quarter. For the full year 2021, Reality Labs operating loss was \$10.2 billion.

Turning now to the outlook. We expect first quarter 2022 total revenue to be in the range of \$27 billion to \$29 billion, which represents 3% to 11% year-over-year growth. We expect our year-over-year growth in the first quarter to be impacted by headwinds to both impression and price growth.

On the impressions side, we expect continued headwinds from both increased competition for people's time and a shift of engagement within our apps towards video surfaces like Reels, which monetize at lower rates than Feed and Stories.

On the pricing side, we expect growth to be negatively impacted by a few factors: First, we will lap a period in which Apple's iOS changes were not in effect and we anticipate modestly increasing ad targeting and measurement headwinds from platform and regulatory changes.

Second, we will lap a period of strong demand in the prior year and we're hearing from advertisers that macroeconomic challenges like cost inflation and supply chain disruptions are impacting advertiser budgets.

Finally, based on current exchange rates, we expect foreign currency to be a headwind to year-over-year growth.

In addition, as noted on previous calls, we also continue to monitor developments regarding the viability of transatlantic data transfers and their potential impact on our European operations.

Turning now to the expense outlook. We expect 2022 total expenses to be in the range of \$90 billion to \$95 billion, updated from our prior outlook of \$91 billion to \$97 billion. Our anticipated expense growth is driven by investments in technical and product talent and infrastructure-related costs. We expect 2022 capital expenditures, including principal payments on finance leases, to be in the range of \$29 billion to \$34 billion, unchanged from our prior estimate.

Our planned capital expenditures are primarily driven by investments in data centers, servers, network infrastructure, and office facilities. As we discussed previously, this range reflects a significant increase in our AI and Machine Learning investments, which will support a number of areas across our Family of Apps. While our Reality Labs products and services may require more infrastructure capacity in the future, they do not require substantial capacity today and, as a result, are not a significant driver of 2022 capital expenditures.

Onto tax. Absent any changes to U.S. tax laws, we expect our full year 2022 tax rate to be similar to the full year 2021 rate.

Separately, today we announced that our Class A common stock will begin trading on NASDAQ under the ticker symbol 'META' in the first half of 2022. The new ticker symbol aligns with our rebranding from Facebook to Meta.

In closing, 2021 was a strong year for our business and an important year for the company as we aligned our corporate identity with our long-term ambition to build the next generation of online social experiences. We are investing aggressively in 2022 to support our product road map as we work to deliver new and engaging experiences for people and support the businesses and creators who rely on our services.

With that, France, let's open up the call for questions.

## Questions And Answers

### Operator

(Question And Answer)

We will now open the lines for a question-and-answer session. (Operator Instructions).

And our first question is from the line of Brian Nowak with Morgan Stanley. Please go ahead.

### Q - Brian Nowak {BIO 16819013 <GO>}

Thanks for taking my questions. I have two. The first one on the Reels transition, you all talked about how you've been through other transitions in the past with Mobile and Stories, et cetera, and you successfully navigated through. Is there anything that's unique or more challenging about the Reels transition that makes you think it could take potentially longer to sort of scale those ad products for this format as opposed to other formats in the past?

Then the second one, Dave, when you sort of talk about the headwinds around ad targeting and measurement becoming larger in the first quarter and in 2022, is there anything other than sort of year-on-year data comps there? Or are you expecting other changes from a signal perspective? And maybe help us understand any further changes you expect to come on the signal loss perspective? Thanks.

### A - Dave Wehner {BIO 2419389 <GO>}

Yes. Thanks, Brad. I can probably take both of those or -- yes. So on Reels, I mean I think there's a lot of the characteristics of Reels that makes it quite similar to the transitions that we've gone through before. As in the past when we were focused on Stories, we're really focused on consumer experience and really making short-form video work effectively on both Instagram and Facebook, and we're already seeing that to be the biggest driver of growth on Instagram, and it's growing very quickly on Facebook. So we're really encouraged by what we're seeing.

But we're really focused on making the consumer experience right. And over time, we do think it's a format that will work effectively for advertising, and we think the

experience that we have for Stories will really lend itself well in the Reels format. So we're confident in our ability to monetize over time, but right now, there's relatively few ads in Stories -- sorry, relatively few ads in Reels today. So it's definitely something that from an impression growth and monetization perspective is going to be a headwind.

On iOS 14, we saw the revenue impact with iOS 14 -- sorry, iOS just in general, in Q4, and that was in line with our expectations and similar to the Q3 headwind. But obviously, as we go into 2022, we're going to be lapping a period in which, in Q1 and Q2, those headwinds were not in place in the year ago period. So that definitely makes for a tough comp in the first half of the year. And we believe the impact of iOS overall as a headwind on our business in 2022 is on the order of \$10 billion. So it's a pretty significant headwind for our business.

And we're seeing that impact in a number of verticals. E-commerce was an area where we saw a meaningful slowdown in growth in Q4. And similarly, we've seen other areas like gaming be challenged. But on e-commerce, it's quite noticeable -- notable that Google called out, seeing strength in that very same vertical. And so given that we know that e-commerce is one of the most impacted verticals from iOS restrictions, it makes sense that those restrictions are probably part of the explanation for the difference between what they were seeing and what we were seeing.

And if you look at it, we believe those restrictions from Apple are designed in a way that carves out browsers from the tracking prompts Apple requires for apps. And so what that means is that search ads could have access to far more third-party data for measurement and optimization purposes than app-based ad platforms like ours. So when it comes to using data, you can think of it -- that it's not really apples-to-apples for us. And as a result, we believe Google's search ads business could have benefited relative to services like ours that face a different set of restrictions from Apple.

And given that Apple continues to take billions of dollars a year from Google Search ads, the incentive clearly exists for this policy discrepancy to continue.

## Operator

Our next question is from Eric Sheridan with Goldman Sachs. Please go ahead.

### **Q - Eric Sheridan** {BIO 22465717 <GO>}

Thank so much. Maybe two questions, if I can. First, following up on Brian's questions about Reels, I think when we've gone through these transitions before, you've talked a little bit about what you're seeing from an engagement standpoint about Reels and how levels of engagement compared to other forms of engagement from a consumer perspective on the property and what the differential might be in terms of, while it's early innings, in terms of differential ad pricing and how you think to close that gap. Is there any willingness you're able to give us on both engagement levels

or pricing differential so we can think through what the transition scope might need to be?

And then, Sheryl, on the last call, if I remember correctly, you talked about elements of as we move into Q1 in the first half, some of the workaround efforts that the team were trying to implement would start to show some efficacy. Can you give us an update on where you stand internally on workarounds and broader advertiser community acceptance of some of the workarounds on targeting and measurement as we move into the first half? Thank you.

**A - Mark Zuckerberg** {BIO 15103277 <GO>}

Sure. I can start with your first question on some of what we're seeing on engaging -- engagement. Reels and short-form video overall are very engaging. And a lot of what we're seeing is that there is -- people are spending a lot more time. And I think I mentioned this in my script upfront that it's growing very quickly. This is already the biggest contributor to engagement growth on Instagram. I think it's one of the biggest contributors that we're seeing to positive engagement on Facebook too already.

But I think, going back to the last question, there was a question on what -- are there any factors here that will -- what are the similarities and differences to what we've seen in the past. The big similarity is that this is certainly not the first time that we've gone through a major format evolution. And what these transitions have all had in common from desktop feed to mobile feed, feed to Stories and now to Reels, is in the beginning, our ads system and business are not as tuned for the new format, so as the engagement of the new thing starts to replace some of the engagement in the old thing, it creates a near term headwind for revenue, but it's not -- that part, at this point, now is not that big of a concern for us. I mean it makes some of the stuff not as clean in the near term, but over the long term, we're pretty optimistic about that.

The dynamic that I think is actually a little bit different with Reels than what we've seen with Stories and mobile feed in the past, is with Reels, I would say that the teams are executing quite well, and the product is growing very, very quickly. The thing that is somewhat unique here is that TikTok is so big as a competitor already and also continues to grow at quite a fast rate off of a very large base. And so that -- to the question that was asked before around, are we like -- that was asked before around, is there anything that's going to make it so that we -- it takes us longer to kind of get to where we want on this, is that even though we're compounding extremely quickly, that's -- we also have a competitor that is compounding at a pretty quick rate, too.

But overall, back to the question, Reels, it's extremely engaging. I think overall engagement will grow as a part of this. And that's why we're optimistic about the future, but there's a lot of work to do here.

**A - Dave Wehner** {BIO 2419389 <GO>}

And then, Sheryl, were you going to take the second part of the question on the mitigation front?

**A - Sheryl Sandberg** {BIO 15339456 <GO>}

Yes. So when we talked about mitigation, we've said there are two key challenges from the iOS changes, targeting and measuring performance.

On targeting, it's very much a multiyear development journey to rebuild our ads optimization systems to drive performance while we're using less data. And as part of this effort, we're investing in automation to enable advertisers to leverage machine learning to find the right audience with less effort and reduce reliance on targeting. That's going to be a longer-term effort.

On measurement, there were two key areas within measurement, which were impacted as a result of Apple's iOS changes. And I talked about this on the call last quarter as you referenced. The first is the underreporting gap. And what's happening here is that advertisers worry they're not getting the ROI they're actually getting. On this part, we've made real progress on that underreporting gap since last quarter, and we believe we'll continue to make more progress in the years ahead.

I do want to caution that it's easier to address this with large campaigns and harder with small campaigns, which means that part will take longer, and it also means that Apple's changes continue to hurt small businesses more.

The second area underneath the measurement challenge is really -- are really data delays. As part of the iOS changes, we and many other ad platforms, we receive less granular conversion data on a delayed basis. And what advertisers shared with us that this makes real-time decision-making especially difficult, and that's particularly important during the holiday period, where people are often spending a lot and really monitoring their ads and adjusting spend not even on a daily basis, but often on an hourly basis. And that was one of the challenges we faced during this holiday quarter.

**Operator**

Our next question is from Justin Post with Bank of America. Please go ahead.

**Q - Justin Post** {BIO 3469195 <GO>}

Great, thank you, a couple. Mark, just on a big picture basis, you're adding a lot of short-form video and maybe the content shifting from content from your friends to 13 general content, what does that mean for Facebook? I'm sure you've thought about a lot of it. But how do you think about the evolution of Facebook as a platform?

And then for Dave, as you think about the measurement and targeting challenges, when we get out to September and October, should we be effectively lapping the issues? Or is there the reason to think it could actually get worse in the second half, just thinking about revenue growth kind of reaccelerating? Thank you.

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**A - Mark Zuckerberg** {BIO 15103277 <GO>}

I can take the first one. So for Facebook, I think content from your friends is always going to be an important part of the experience, and so will be discussing stuff that you find with friends, whether it's in a group or community or public content or Reels or news or different content like that. But I think overall, you're right, that the balance of content that people see in Feeds is shifting a little bit more towards stuff that isn't coming from their friends, which you may discuss with your friends, but it is kind of shifting towards more public content. I think, at the same time, we're seeing this trend where if you think about your day-to-day behavior on a lot of this stuff, this pattern may resonate with you.

But a lot of people now are taking a lot of the content that they may have previously shared in a Feed and sending it to friends over Chats, whether it's one-on-one or through group chats. And this is one of the reasons why I called out community messaging as one of the major priorities for us because if you look at the overall constellation of services, a lot of the kind of personal sharing is sort of shifting towards messaging. And a lot of the -- what we're seeing in Feeds is just basically this content consumption and a lot of just really highly engaging content that forms the basis for conversations, whether it's in chat or in common trends in those feed apps. But that type of creative work is a lot more of what we're seeing across the feed apps, so whether that's Facebook or Instagram.

**A - Dave Wehner** {BIO 2419389 <GO>}

Hey Justin, it's Dave. On the second part of your question, it's really about sort of what's the landscape of headwinds look like as it relates to targeting and measurement. And there, I think what we're seeing is kind of two things going on, we've got incremental headwinds coming from things like iOS 15, which provides some additional sort of targeting and measurement headwinds. But those are far less significant than the changes made with iOS 14.5, which really started to have an impact more seriously on the business in the second half of last year. So I think that lapping effect is going to be very pronounced in the first half of the year where we're lapping periods that didn't have that impact. So that's where we're going to see the biggest impact from the lapping.

But we're continuing to fix more headwinds as it relates to like iOS 15 and also further regulatory headwinds that restrict the use of data for targeting purposes in regions like Europe. So we're continuing to see headwinds. I think we're working to mitigate those. But the biggest lapping effect will be in the first half of the year where we didn't have the big iOS 14 headwinds in the same period last year.

**Operator**

Our next question is from Doug Anmuth with JP Morgan. Please go ahead.

**Q - Douglas Anmuth** {BIO 5591566 <GO>}

Thanks for taking the questions. Mark, you talked last quarter, I think, about how Reels would become better integrated into both Facebook and Instagram. Can you

just talk about where you are in that process? Clearly, we've seen some, just curious if there's more in the product pipeline and could that deeper integration potentially have even greater drag on revenue going forward?

And then, Dave, just curious if you're willing to comment on a Reality Lab spend or a loss number in '22?

**A - Mark Zuckerberg** {BIO 15103277 <GO>}

I can talk about the first piece. I mean, I think we're probably a little further along than just the beginning, but I'd say we're closer to the beginning than the end of the trend on Reels. There's a big flywheel here where more creators share more content. And because we have a mix of content in the feeds from all different types, we're only going to show Reels or recommend them if we feel like there's high-quality content to show as there's more high-quality content, we show more of it. There certainly will be a lot more. We think it's growing -- it is going to grow a lot going forward, we believe, and engagement on both of those platforms.

So yes, I mean I think that we probably will see -- as we're forecasting, and I think Dave has talked about here, the relative monetization rate of Reels for the next, I don't know, for whatever the foreseeable future is, will be lower than Feeds as we kind of displace some of that with this. But over time, we think that there's a potential for a tremendous amount of overall engagement growth and we think that in a steady-state over time, we think that Reels should monetize closer to Feeds or Stories than other longer-form video.

So I think we're optimistic about it. And I think that that's -- we think it's definitely the right thing to lean into this and to push us hard to grow Reels as quickly as possible and not hold on the brakes at all, even though it may create some near-term slower growth than we would have wanted.

That's kind of -- that's the picture that I see. I don't know if you want to add anything to that?

**A - Dave Wehner** {BIO 2419389 <GO>}

No, I think that's exactly right. That's what's kind of factored into the guidance we're providing specifically for Q1. And then, Doug, on the expense outlook, we're not breaking out expenses by segment. But I probably can give some color here. We're expecting accelerated headcount growth in 2022 to be the biggest contributor of expense growth and that's largely in tech and product roles to support the seven product priorities that Mark laid out, Reels, community messaging, commerce, ads, privacy, AI, and the Metaverse. And the -- a number of those investment priorities map to our Family of Apps segment, and we expect Family of Apps to continue to drive the majority of expense growth in 2022, though we do expect Reality Labs operating loss to increase meaningfully in '22, and that's incorporated into our outlook.

**Operator**



Our next question is from the line of Mark Mahaney with Evercore ISI. Please go ahead.

**A - Dave Wehner** {BIO 2419389 <GO>}

Mark?

**Operator**

Mr.Mahaney, your line is open sir.

**Q - Mark Mahaney** {BIO 3027058 <GO>}

One more time, okay got it. All right, I want to ask two questions, please. First, on ESG, could you just -- there's been a series of steps that have been taken, reducing the ability to do political targeting, the introduction of the take a break feature within Instagram, and maybe a few other things that arguably have been put out there to kind of address some of the ESG concerns. Where do you think you are in terms of addressing some of those that we've heard in the investment community?

And then, Dave, I think you mentioned this \$10 billion headwind, and I think that was related to some of these policy changes -- to Apple policy changes. Could you just give a little color as to how you came up with that number? Thanks a lot.

**A - Dave Wehner** {BIO 2419389 <GO>}

Yes, Mark, on the headwind, we're just estimating what we think is the overall impact of the cumulative iOS changes to where 2022 -- our 2022 revenue forecast is. So if you kind of aggregate the changes that we're seeing across iOS, that's sort of the order of magnitude. We can't be precise on this. It's an estimate. We've got ranges on the impact to our business. So we think it's a substantial -- the substantial headwind to work our way through. And obviously, we're working hard to mitigate those impacts and continue to make ads relevant and effective for users.

I don't have anything specific on the ESG front. So I probably can't comment on that. I can follow up with you offline on that.

**Operator**

Our next question is from Youssef Squali with Truist Securities. Please go ahead.

**Q - Youssef Squali** {BIO 1506420 <GO>}

Great, thank you. I have two questions as well. Mark, you stated your goal of refocusing on growth of younger audiences on the last earnings call, and I think you even signaled back then that it could mean maybe less focus on other constituency. I know it may be early, but any color maybe to share on growth on users and engagement by maybe age groups?

And then probably another question for you, I'm curious about when you think we can start seeing the kind of the meshing of apps like Instagram with AR and VR and the interoperability of these apps. Is that something where you think we're going to see gradually evolve? Or something that gets kind of opened only once the metaverse is sufficiently built up, whenever that is? Thanks.

**A - Dave Wehner** {BIO 2419389 <GO>}

Let me take the first one, I can take the first one on user growth uses. I think what we said about overall kind of user growth is we're certainly seeing an impact from strong competition, particularly with younger audiences. So that's true, and we're kind of seeing that globally. If you look at kind of the overall user growth landscape for the fourth quarter, we're seeing MAU and DAU in the U.S. and Canada, sort of bounce around as sort of expected and indicated given our high level of penetration. And then if you look at the Rest of World, we've seen some headwinds there, kind of a little bit unique in the quarter in areas like India, where we saw data plan pricing increase lead to slower growth there. So that's another kind of some unique elements of the quarter on that front.

**A - Mark Zuckerberg** {BIO 15103277 <GO>}

Sure. And in terms of when there's some aspects to the Metaverse showing up, I mean I talked about avatars in my remarks at the beginning and how we're making it so you can have increasingly both expressive and eventually, and we've shown some demos around photorealistic avatars of yourself that you can show up in all the different apps and your avatar can show across Facebook and Instagram and Messenger as well in Quest, and we'll expand that further.

And I think I also commented before about our goal for 2022 to make it so that Horizon works not just in immersive VR but on 2D screens as well. So that you could potentially jump into those kind of worlds from Facebook or Instagram or different apps as well. So I think you're seeing some of that stuff will -- is already there. Some of it will come over the course of this year. Of course, the ability to message across apps is something that we've been working on for a while. You can already do that across Messenger and Instagram and there's more there that we'll roll out over time as well. So I think -- I think you are going to see this stuff work seamlessly across the family.

**Operator**

Our next question is from John Blackledge with Cowen. Please go ahead.

**Q - John Blackledge** {BIO 7387802 <GO>}

Oh great, thanks. Two questions, maybe first one for Mark. How has Reels differentiated versus TikTok, YouTube shorts, and other short-form video services? And one for Sheryl, any further color on how SMBs are changing ad spend budget since the iOS changes? And is it slowing adoption of new SMB advertisers on Facebook? Thank you.

## **A - Mark Zuckerberg** {BIO 15103277 <GO>}

Sure. So I can start with Reels. One of the things that I think we've seen is that there are some fundamental formats in social media like Feeds and Stories, and now I think this Reels short-form video format, that within the context of a different network or community, the same format will take on different characteristics. So for example, the kind of discussions that you might have in a feed on Twitter or on Pinterest are different from what you would do in Facebook or Instagram, even given a relatively similar format.

So I think, to some degree, even if a creator chooses to reshare their content across the number, you'll have different discussions with your friends across the different services based on who's there. And then there's a social dynamic where friends and different communities create these as well. So you see somewhat different Reels across Facebook and Instagram, and I'm sure you see different stuff across TikTok too. But what we're seeing is that this is all growing incredibly quickly. So it's hard to know exactly where this is going to settle in the end, but we just think the appetite that people have -- there's been this long-term trend that I commented on a number of times where over the time that I've been running this company, 18 years this week, basically, we've gone from text being the primary way that people share and consume content online at the beginning of the early 2000s to -- then we got cameras on our phones and photos became the primary thing. And now that mobile networks are starting to get -- gotten really good, video is really becoming the primary thing, and it is a lot more natural and engaging.

This is partially, by the way, why I think that an even more immersive format around virtual reality and augmented reality is going to be the kind of next step after video and why we're so invested there. But definitely, what we're seeing with short-form video is it's the next step from the kind of visual feeds that we have and the amount of engagement and content that people want to share and interact with and whether it's taking it and sending it to a friend in messaging or commenting online or just having fun watching it themselves. It's -- in general, we're seeing people spend a lot more time on this than what we've seen from apps so far. And that's also reflected in the success that other apps like TikTok have had. So there's a lot more to go here. We think we will have competitors across the industry. But as we've seen with some of these other formats too, it will feel different depending on the context in which it's implemented and the content from your friends.

## **Operator**

Our next question is from Lloyd Walmsley with RBS.

## **A - Sheryl Sandberg** {BIO 15339456 <GO>}

Sorry, I --

## **A - Dave Wehner** {BIO 2419389 <GO>}

I think we had a follow-up on SMBs.

## **A - Sheryl Sandberg** {BIO 15339456 <GO>}

We had a follow up -- on SMBs. So, it's a good question because as we've said, the iOS changes definitely hurt advertisers across the board, but they're much harder for SMBs. The progress we made on the measurement gap, which I talked about before, we've made more progress with larger clients than we have with SMBs. It's also the case that personalized ads are more important for SMBs.

An SMB really needs to buy a very small targeted audience that they're looking for and the larger the business, the more you're able to personalize the ad less. So we're definitely seeing that this has more of an impact for SMBs. We do feel, over the long run, that we believe we have strong benefits for SMBs in using our ad system. We are going to continue to work on these measurement gaps and continue to make sure SMBs can use it. We're also working hard on SMBs adopting some of our commerce tools and some of our other solutions like business messaging and seeing some success there. But you are right that this remains a challenge.

## **Operator**

And our next question is from Lloyd Walmsley with UBS. You may go ahead.

## **Q - Lloyd Walmsley** {BIO 15125459 <GO>}

Thanks for taking the question. Maybe one for Mark and one for Sheryl. Mark, if we look at short-form video, how do you feel right now about the state of your content and your matching algorithm relative to where you want it to be? I mean do you have the content you need? Are you getting it in front of the right users? Or is there a lot of room to improve this and drive more engagement?

And then, Sheryl, where exactly are you in terms of rebuilding the ad product? And what are the key things you need to see to kind of roll out or what do customers either need to adopt or do on their end to really start to see improvement to ROAS and a return on that budget? Like are there certain features like CAPI that you need to get adopted? Are there tools in the pipeline? Are there things they need to do on their end? And what do we need to see to see that come back?

## **A - Mark Zuckerberg** {BIO 15103277 <GO>}

I can take the Reels question. So we do see a huge amount of potential ahead. But I think sometimes when we say that there's -- that we're closer to the beginning, what that means is that we still have a lot of kind of fundamental questions to overcome in order to make progress to get where we're going. With this product, what we see is, there is very clear product market fit, and it is growing incredibly quickly. It -- we face a competitor in TikTok that is a lot bigger, so it will take a while to compound and catch up there. But fundamentally, we think that there's just a lot of potential for it to continue growing.

So to your question, do we have the content that we need, it's a flywheel. So the better tools that we can build for creators and the better monetization we can offer

them, which tends to be an advantage that we have over other competitors is how effective our monetization and ad systems are, then I mean the bigger it gets, the more it will attract more creators, and it will kind of build on itself. And we think that we're already at a scale where we're seeing that flywheel really kick in and start to grow. And if it keeps on compounding at the rates that it's growing at this is going to grow extremely quickly over the next year and potentially beyond that. But yes, I think that's kind of the best summary that I can give of where we are. Clear product market fit, growing quickly, a long way to go to catch up to be the biggest in the space. But I think the pieces are in place and the focus is certainly there at this point to really go after that. It's just that as this grew, it is -- at least for the coming quarters, it's going to monetize at a somewhat lower rate, which is reflected in the guidance that Dave gave.

But again, I think this is clearly the right strategy for us to push on. This is what people want. They enjoy the product. We're going to -- so we're just going to roll it out as quickly and as well as we can.

**A - Sheryl Sandberg** {BIO 15339456 <GO>}

On the question of what we need to see to rebuild ad products and continue to grow return on ad spend, in the short run, as I talked about, we're working on measurement. We're rolling out new ways to help businesses continue to measure campaigns using Apple's SKAd Network API and Meta's Aggregated Events Measurement and conversion modeling. So we have specific products that people can adopt that help us.

Over the longer term, we need to develop privacy-enhancing tech to help minimize the amount of personal information we learn and we use. Use more aggregate, use more anonymized data while still allowing us to show relevant ads and that's going to take us time. But one thing I do want to point out is there are also a lot of things that small businesses and large businesses can do to take advantage of the many targeting and measurement tools we have. So while we have seen an impact from these changes, we also didn't start from a place where 100% of our millions and millions of advertisers are using the tools that are available.

So while we continue to get those that were all the way on the adoption curve to learn and adapt to these changes, there are also advertisers out there that aren't doing even the basic things yet that we can continue to work on and improve their performance. We still believe there's a lot of performance improvement left in the system.

**A - Deborah Crawford** {BIO 5934723 <GO>}

Great. Operator, we have time for one last question.

**Operator**

Very good. Our last question will be from the line of Ross Sandler with Barclays. Please go ahead.

**Q - Ross Sandler** {BIO 15948659 <GO>}

Thanks for squeezing me in. I guess, Dave, a question on the Family of Apps segment margin. This hasn't come up yet, but it was down about 6 points year-on-year. And I know that you had kind of forecasted the expense growth that you came in at for '21. But I think that downtick is coming as a bit of a surprise for some folks who thought your ad business had fairly stable margins. So any more color on what's driving that? Is that just the revenue headwinds that you're experiencing or any other lumpy items?

And then related to that, as you build out short-form video, how has your thinking evolved around paying rev share like YouTube does? Or other things like that to catalyze the shift? Any thoughts on that?

**A - Dave Wehner** {BIO 2419389 <GO>}

Yes, Ross. I think in terms of lumpy items, I mean, you will see that G&A was up a pretty substantial amount in Q4, so a part of that is related to legal-related expenses. Those tend to be lumpy, so there was a factor there. I think, in general, as it relates to Family of Apps and margin, I'd come back to the commentary that I made on the investments that we're making in Family of Apps being an area where we're investing heavily in 2022 across the priorities that Mark outlined, including Reels, messaging, commerce, and ads.

There's a big investment that we're making on the CapEx side that's primarily geared towards AI and machine learning for the Family of Apps business, so -- segment. So there's a lot of investments that we're making there. What was -- I'm sorry, the second question? Yes, in terms of payments to partners, that clearly will play into the expense profile as we grow that -- as we grow short form, so that's also reflected as part of the guidance for expenses. So over time, that will be an impact as well, and that's part of the investment that we're making on the Reels side and is factored into the 2022 outlook.

**A - Deborah Crawford** {BIO 5934723 <GO>}

Thank you. Thanks to everybody for joining us today. We appreciate your time, and we look forward to speaking with you again.

**Operator**

And this concludes today's conference call. Thank you for joining us. You may now disconnect your lines.

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