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# IonQ, Inc. (IONQ)

## Q1 2026 Earnings Call

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# MANAGEMENT DISCUSSION SECTION

**Operator**: Welcome to the IonQ First Quarter 2026 Earnings Conference Call. All participants will be in listen-only mode. [Operator Instructions] After today's presentation, there'll be an opportunity to ask questions. [Operator Instructions] Please note this event is being recorded.

I would now like to turn the conference over to Hanley Donofrio, Director of Investor Relations. Please go ahead.

## Hanley Donofrio

*Head-Investor Relations, IonQ, Inc.*

Good afternoon, everyone, and welcome to IonQ's first quarter 2026 earnings call. My name is Hanley Donofrio, and I'm the Investor Relations Director here at IonQ. I'm pleased to be joined on today's call by Niccolo de Masi, IonQ's Chairman and Chief Executive Officer; and Inder Singh, IonQ's Chief Operating Officer and Chief Financial Officer.

By now, everyone should have access to the company's first quarter 2026 earnings release issued this afternoon, which is available on the SEC's website and on the Investor Relations section of our website at investors.ionq.com.

Please note that on today's call, management will refer to non-GAAP financial measures. While the company believes these non-GAAP financial measures provide useful information to investors, the presentation of this

information is not intended to be considered in isolation or as a substitute for the financial information presented in accordance with GAAP. You are directed to our earnings release for a reconciliation of adjusted EBITDA and adjusted EPS to the closest comparable GAAP measures.

During the call, we will discuss our business outlook and make forward-looking statements, including those regarding our guidance for 2026. These comments are based on our predictions and expectations as of today, and are not guarantees of future performance. Actual events or results could differ materially due to a number of risks and uncertainties. Therefore, you should not put undue reliance on those statements. We refer you to our recent SEC filings, including our annual report on Form 10-K for the year-ended December 31, 2025 for a more detailed discussion of those risks and uncertainties. We undertake no obligation to revise any statements to reflect changes that occur after this call, except as required by law.

Now, I will turn it over to Niccolo de Masi, Chairman and CEO of IonQ.

## Niccolo M. de Masi

*Chairman & Chief Executive Officer, IonQ, Inc.*

Thank you all for joining us today. 2026 is off to a strong start at IonQ and our results this quarter serve as a powerful validation of what we built throughout our transformational 2025. Financially, we have delivered the biggest quarter in IonQ history thus far and our fourth consecutive quarter of record-breaking results. $64.7 million of GAAP revenue in the first quarter of 2026 is more than eight times what we delivered in the same period last year.

Our strong momentum is a testament to the demand for our industry-leading quantum computers as well as the commercial impact of our entire quantum platform. As I outlined on our fourth quarter call in February, a key objective for 2026 is to drive superior financial performance by leveraging our scale and quantum product families, combined with increasing geographic breadth and depth.

We are executing well and have today raised our full year revenue expectations to $270 million at the high end. Our results were underpinned by accelerating global quantum computing system sales, increasing high margin cloud utilization and deepening application layer partnerships with our enterprise customers.

I am tremendously excited about IonQ's ecosystem progress, which was on full display at the New York Stock Exchange when we rang the bell with over 50 customers to celebrate World Quantum Day. IonQ is defining the quantum technology market and establishing the leading hardware and software quantum industrial ecosystem. Our organic performance is a direct reflection of this leadership as we architect and deliver the quantum platform for the next century of computation.

We continue to widen our lead across commercial and technical frontiers. Our parallel gate architecture with electronic qubit control will allow us to solve problems at a scale and cost that we believe will be unmatchable. On April 14th, we rolled out clear third-party validated benchmarks, showcasing the incredible time to solution and cost to solution advantages that our quantum computers already possess. These metrics represent the speed and economics with which our systems deliver accurate solutions to the world's hardest problems.

As you can see on slide 6 of our investor presentation, we presently enjoy up to 10,000 times faster time to solution on key quantum algorithms, including 1,000 times faster for the Quantum Fourier Transform. The Quantum Fourier Transform, in fact, enables many critical use cases such as cryptography, molecular drug discovery, advanced materials synthesis and unlocking fusion energy, making this time to solution valuable today

and into the future. It is not a coincidence that several of the key utility scale applications described by DARPA's Quantum Benchmarking Initiative could take advantage of Quantum Fourier Transforms under the hood.

IonQ's time to solution advantage with Quantum Fourier Transform and other benchmark algorithms today underscores our fidelity and connectivity advantages that we expect to endure throughout the coming decades. I am proud to report that we have presold our first chip-based 256-qubit system in the first quarter. We are moving with conviction to demonstrate this technology by year-end, with customer systems expected to begin commissioning by the end of the second quarter of 2027.

While much of the industry remains in the scientific research phase, IonQ has been able to focus on delivering production-ready systems that are shaping the quantum market globally. We remain the first and only quantum company in history to have demonstrated the critical technology components at the performance levels required for full fault tolerance.

The next critical frontier in our industry is the efficient use of quantum error correction to convert high quality physical qubits into even higher quality logical qubits, unlocking new frontiers of scale and impact. This is the bridge to utility-scale, fault-tolerant quantum computing, and it should be no surprise that IonQ is leading here as well.

Just last month, we published our complete architectural blueprint for our flexible modular framework that describes how our technology scales through to 2030 objectives of a fully fault-tolerant system with millions of physical qubits and logical error rates as low as 1 in 1 trillion.

Our Walking Cat paper described IonQ's end-to-end architecture for full fault-tolerant quantum computing, spanning compiler design and error correction to hardware control systems and ion movements. This historic paper outlines in manufacturable detail how we will move from today's IonQ commercial systems to deploying and commissioning IonQ's utility scale quantum computers to customers.

The level of detail and completeness in our blueprint is a global first and historic milestone for the quantum industry as a whole. Along with the academic community, there has been strong and broad recognition that this is the industry's first clear, detailed, manufacturable path to scaled fault-tolerant systems. For those able to follow along in our investor presentation, please see page 7 for details.

IonQ's specificity sets a new standard and distinguishes IonQ with its tangibility, resting on capabilities our hardware has already demonstrated, including 99.99% two-qubit fidelity and reliable ion transport. This historic work demonstrates precisely why IonQ is on track to be the first to unlock fully fault-tolerant quantum computers, as we published clearly in June 2025.

Our level of transparency is only possible through our 30 years of innovation. Only IonQ has the operational maturity and engineering predictability of generations of deployed systems as we now accelerate into a new phase of manufacturing and scale.

Moving on now to SkyWater and our merchant supplier activities. As most listeners know, in January of 2026, we announced our intent to acquire SkyWater in order to accelerate the US quantum industry and deepen our commitment as a merchant supplier. We expect the transaction to close in the second or third quarter of 2026, subject to customary regulatory approvals.

Over the past quarter, our commercial collaboration with SkyWater has already yielded multiple test iterations for our 256-qubit chip. As we shared in February, we hit the ground running with multiple initial tape-outs. Today, I am pleased to report that we have already received some of the first ion trap samples back from SkyWater and have demonstrated on these sample chips the critical performance we need for the complete 256-qubit chips.

To design, fabricate and test these chips with SkyWater within a single quarter has been a delight. Our commercial partnership with SkyWater is a demonstration of the kind of acceleration we hope our investment will bring for all customers of our quantum merchant supply function. And we expect these benefits to grow even further once the combination is complete.

We already act as a merchant supplier with our industry-leading atomic clocks, sensors and networking products being sold to other quantum companies. When the SkyWater transaction closes, IonQ will be the largest quantum merchant supplier in the world with Thomas Sonderman continuing to lead SkyWater. We view this transaction as not only accelerating IonQ's commercialization of fault-tolerant quantum computers, but also using our balance sheet to secure the scalability of the entire US and allied quantum market.

As it is a frequent question from our community, I will now walk through our application and quantum algorithm momentum in a bit more granularity than in prior quarterly calls. This work can be seen in our investor presentation on page 8. Applications and quantum algorithms are another cornerstone competitive advantage for IonQ. We know that for customers value is measured not just on a machine's architecture, but by how that architecture ultimately delivers customer value and results.

We are confident IonQ already delivers a potent combination of orders of magnitude faster time to solution, the most accessible cost to solution, reliability and quality that customers cannot find anywhere else. We have more than doubled our quantum algorithm and applications team size in the past few quarters in response to strong demand.

We continue to grow internationally, adding both application engineers and field engineers to support customer appetite for implementing IonQ's quantum solutions in their organizations. We are deliberately focused on early-advantage verticals: pharmaceuticals, financial services, energy and logistics. Real world examples from just the past few quarters include the following partnerships.

In the financial sector, we ran the world's first large scale portfolio optimization quantum algorithm using real S&P 500 data. This showcased, along with Kipu Quantum, our systematic improvement in portfolio quality and execution time in a production environment. Our trapped ion hardware has a long-term structural advantage for dense portfolio optimization such as these because of its all-to-all connectivity and its industry-leading single-qubit and two-qubit gate fidelities.

With Synopsys, we demonstrated accelerated computer-aided engineering workloads through quantum-enhanced graph partitioning. We achieved double-digit percentage advantage in end-to-end time for large scale structural models such as a Rolls-Royce jet engine and automotive models also. Crucially, this demonstration was integrated into their existing cloud workflow, with zero new infrastructure required.

Einride is using IonQ to optimize shipment allocations and fleet orchestration for electric and autonomous freight, delivering measurable gains in real world logistics efficiency. We have already demonstrated real world commercial validation using anonymized logistics data and historical cancellation logs. By achieving an increase in shipments delivered, this work will underpin very significant revenue gains for our partner at [ph] Fleetscale (00:15:07).

With QuantumBasel, we are advancing hybrid quantum classical techniques to optimize large language models and reduce energy consumption. Our results show that IonQ quantum computer energy consumption scales approximately linearly with qubit numbers for shallow circuits. By comparison, classical simulation exhibits exponential scaling. We are on track to demonstrate significant energy savings with improved inference performance as we scale these capabilities.

These four production oriented applications are just some of the examples our customers are deploying to actively drive business advantage and growth. We are proud to announce in parallel that our work to positively and powerfully impact humanity itself has this quarter seen a step-change. We are now working with participants from the Wellcome Leap initiative out of the UK, which is a program designed to accelerate human health, to apply our quantum optimization to improve cancer research.

Our work introduces new computational approaches for reconstructing difficult regions of DNA that are often missed or misread by existing methods. This could become a useful foundation for future studies of genetic changes that matter in human disease, including cancer.

Last quarter, we also announced a commercial partnership with CCRM, which is one of the world's leading accelerators for advanced therapies. We are very excited about the work we are doing with them, which includes cell and gene therapies for cancer and immune system rebuilding. This work is truly world-changing, offering a powerful new future for human health.

We have also begun work on combining our quantum optimization technology with computational methods for gene therapies. That includes optimization of mRNA sequences that get delivered into cells. Long term, we anticipate personalized medicine acceleration. For those following along in our investor presentation, this can be seen on page 8.

Let us now turn to the rest of our unique and expanding quantum platform. Building on the momentum of our recent deployments of quantum communication networks in Switzerland, Romania and Slovakia, IonQ has now successfully deployed Poland's first national quantum communications network. This is one of the largest terrestrial quantum key distribution networks in Europe, and it cements our position as the partner of choice for sovereign quantum security.

We are similarly expanding our quantum platform leadership domestically by announcing a new statewide quantum networking initiative in the great state of Florida and the first commercial sale of a quantum memory node into the Mid-Atlantic Regional Quantum Internet, hosted at the University of Maryland. These partnerships underscore that IonQ is proudly playing a central role in the development of our secure national quantum infrastructure.

On the technical front, we continue to innovate and lead the market as the only public company with a scaled quantum networking division. Last year, in partnership with the Air Force Research Lab, we achieved the first qubit to telecom frequency conversion in a field-deployable system, enabling real world quantum networks on existing telecom infrastructure. Last month on World Quantum Day, we announced that in conjunction with AFRL, we connected qubits from two separate systems. This is the first demonstration of connected commercial quantum computers, demonstrating the operationalization opportunity of quantum interconnects and paving the way for distributed quantum computing that will underpin the future of secured global communications.

Our contract with DARPA's HARQ program is another testament to our leadership in quantum memory, modular quantum computing and scalable networking architectures using quantum interconnects. IonQ is playing a critical role in enabling a new class of networked quantum computers that can combine multiple qubit types into an interconnected high performance architecture. To our knowledge, we are the only industry player to win a hardware award as part of HARQ. This contract is another powerful example of how IonQ is already serving as a leading merchant supplier to the entire quantum industry with key IP, including the world's most accurate commercial clocks that matter to any modalities long-term scaling and manufacturability.

Turning now to slide 9 in the investor presentation. Momentum remains strong at IonQ Federal. We continue to advance through DARPA's Quantum Benchmarking Initiative and are building out our capabilities to support next-generation GPS, alternative PNT and other mission critical initiatives for our nation. We were awarded a $39 million contract to advance next-generation space communications under the Space Development Agency's HALO program. This paves the way for mission-ready quantum space systems for national security.

Just this week, we expanded our space mission and sensing capabilities with a new product launch, delivering persistent change monitoring intelligence from space. We were also awarded a spot on the Missile Defense Agency's SHIELD contract, which is focused on the rapid delivery of innovative capabilities to the Warfighter with increased speed and agility. Our technology platform represents a dual-use advantage for our nation and its allies, underpinning both economic growth and national security. We are proud to be the partner of choice for US and allied governments in this geopolitical quantum space race.

In order to do this work with US government agencies, high technology readiness levels are an imperative. Our quantum sensors and clocks have reached TRLs for deployment on land, sea, air and space. At this very moment, we have quantum sensors currently deployed on a navy ship and in space on the X-37B space plane.

Our quantum security products similarly have already reached deployment-ready TRLs across critical infrastructure, telecommunications and national networks. Providing mature, deployable quantum security solutions today is vital to ensuring continuity for communications as quantum computers become ubiquitous.

Before I close, I would like to touch on Q-Day and talk through page 10 in our quarterly investor deck. Lately, Q-Day, the threshold where quantum systems render current RSA encryption obsolete has dominated industry conversation. We have been transparent in our assessment of Q-Day's timeline since publishing our technology roadmap in June 2025. Based on our public roadmap, we expect to achieve the logical qubit count required to challenge RSA2048 encryption in the 2028 to 2029 window. China's stated goal is 2029 in their government quantum efforts. It's worth noting that our peers have now recognized this accelerated timeline, with Google very recently bringing forward its expectation for Q-Day from the mid-2030s to 2029.

As we continue to accelerate the timeline toward Q-Day, we view it as a strategic responsibility to also provide the solution. We are not just identifying a future risk. We are delivering mature field-deployable hardware and software cybersecurity solutions that allow global governments and enterprises to both enhance cybersecurity today and ensure our nation's protection in the age of quantum ubiquity.

IonQ is uniquely positioned to deliver post-quantum security solutions precisely because we are the ones defining the offensive frontier. Our deep understanding of how advanced quantum systems challenge RSA and ECC encryption allows us to build superior defenses. This creates a powerful strategic flywheel. Our hardware leadership informs our security and innovation and our security expertise derisks the quantum transition for our customers.

As I said on our full year call in February, 2025 was a strategic and financial inflection point for IonQ. Today, I am confident that 2026 is in turn the year we move from platform building blocks to platform execution at scale. We will continue to deliver superior financial performance, unlock exponential value through applications and system-level breakthroughs, and operate with both discipline and speed.

IonQ's mission is to pioneer and globally commercialize the world's quantum solutions, positively impacting every aspect of applied science while ensuring US and allied leadership in this generational and geopolitically vital technology race. I want to thank my colleagues for their extraordinary efforts and the broader quantum industry for their partnership. With our strong capitalization, unmatched talent density and clear roadmap, IonQ is one platform, one team primed and poised to win.

I'm now delighted to hand the call over to Inder Singh, our COO and CFO.

## Inder M. Singh

*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

Thank you, Niccolo. We are very proud to report our strongest quarter in the company's history, delivering $64.7 million in GAAP revenue, which is 755% year-on-year growth. This is now our third straight quarter of record-setting revenue growth. These results exceeded our revenue guidance by over 30% and our own expectations. Importantly, our results are underpinned by strong organic growth, which we expect will continue through the remainder of the year. In fact, as we indicated last quarter, we are expecting organic revenue growth to be 100% for the full year, even exceeding the 80% that we reported for 2025.

I'll now cover our financials in more detail, which you can also see in our investor presentation on pages 12 through 18. Consistent with the additional color we started to provide you last quarter regarding the different areas of our revenue and the composition of our revenues, I'm going to touch on four key aspects. One is commercial. Two will be geography. Third, we're introducing a metric around multiproduct sales. And of course, I'll again talk about remaining performance obligations, also known as RPOs.

Number one, let me address our commercial revenue. I'm pleased to report that approximately 60% of our revenue came from commercial customers this quarter, similar to what we reported for all of full year 2025. This demonstrates that we are firmly entering the commercialization of our quantum technologies. Commercial revenues consist of quantum platform contracts with non-US government customers. We are happy to see this metric remain high as our revenues grow. We are happy that our commercial sales have now become a major part of the business. And importantly, a takeaway for us is that our quantum solutions have moved well away from the lab and squarely into real world applications and deployment, as Niccolo described.

Number two, our global revenue mix. I'm also pleased to report that we are seeing demand for our products come from around the world and from more countries than ever before. In Q1, approximately 35% of our revenue came from international markets. We've now sold solutions in over 30 countries compared to a year ago when we had customers in just a few. As I said last quarter, we're working on pursuit and capture in a very methodical way and it is now starting to pay off as we begin to see revenues come from many more parts of the world.

Number three, we are providing you with an additional metric, a new view into our revenues, which you look at and I would best describe it as multiproduct sales. Multiproduct sales means what percent of our revenue came from customers who have now bought more than one product from us. For example, computing, networking, sensing, security, et cetera.

I'm pleased to report that in Q1, over one-third of our revenue came from multiproduct sales. The reason this is important is consistent with the strategy that Niccolo laid out last year. We have become the go to place for all things quantum. Under the leadership of Scott Millard, who head global sales for us, we have created a methodical approach to our go-to-market strategy. This includes cross-selling across our business, very disciplined pipeline development and conversion, our land and expand strategy and, yes, an amazing group of sales leaders that we are deploying around the world.

While we may or may not always share all metrics every single quarter, we want to provide you color that will help you look at our business. You should know that we are investing and growing our revenues across our entire suite of products. It was Niccolo's vision a year ago to develop this quantum platform company and we are seeing that play through our financials now. This multiproduct metric represents how that platform strategy has turned into financial outcomes.

Number four, let me spend a moment on our remaining performance obligations, or RPOs, which is a widely accepted measure that companies use to gauge their visibility over several quarters. As of March 31, 2026, our remaining performance obligations, or RPOs, stood at $470 million compared to approximately $72 million a year ago. That represents a growth of 554% year-over-year.

From our lens, RPO help us get context around the continuing growth of our company as well as provide visibility potentially beyond the next few quarters. As all of you know, RPOs turn into revenue as performance obligations are met and RPOs get replenished with TCV from new sales. In Q1, to give you some context, for every $1 of revenue we recognized, we added roughly $2.5 in RPOs. And again, some use this as a proxy for backlog.

To summarize my revenue comment. The first quarter of 2026 was another record-setting quarter with a revenue profile of 60% commercial, 35% international, 35% multiproduct and RPOs grew 554% year-on-year. And yes, we expect 100% year-on-year organic growth as well.

Let me turn to our investments and profitability metrics now. First, let me talk to you about R&D. As of last quarter, our biggest investment area continues to be R&D, and GAAP R&D in Q1 grew 215% year-over-year to $125.7 million. For some context, last year, our R&D exceeded the entire reported R&D in the quantum industry. Our strategy is to accelerate our innovation, deliver the most powerful quantum computing solutions to the market, connect all things quantum, and secure our customers in a post-quantum world, as Niccolo described.

As a prime example of our innovation leadership and the compute power we intend to deliver and are delivering, today we're deploying our fifth-generation compute system called Tempo. We're now well on our way to the 256-qubit sixth-generation system, and we're starting to turn our focus also on the seventh-generation 10,000-qubit solution. We will maintain this relentless focus on innovation and our financial firepower allows us to do so.

Turning now to adjusted EBITDA, we reported a loss of $96.8 million for the first quarter. In this quarter, adjusted EBITDA included approximately $12 million of expenses related to our commercial agreement with SkyWater for the fabrication of our industry-leading ion traps. This commercial agreement remains in place until the approval and close of SkyWater. Excluding the SkyWater commercial agreement spend of $12 million, adjusted EBITDA would have been $85 million.

Turning now to net income. In Q1, we reported a positive $805.4 million in GAAP net income, which was mainly due to an approximately $1.1 billion mark-to-market warrant valuation. As in prior quarters, let me remind you again that this warrant mark-to-market is a non-cash item and depends on the stock price at any given time. Therefore, this net income, including the volatility, does not represent the operating performance of our business.

Let me now turn to our financial firepower as a company. Cash, cash equivalents and investments as of March 31, 2026 were $3.1 billion. This provides us with the visibility and financial firepower to accelerate our R&D roadmap, invest in new product development, scale our go-to-market engine and also to acquire critical capability. In addition to supporting our investment capabilities, our financial firepower provides comfort to our customers as well that we will be there for them not just today, but in the coming years. This helps us create stickier relationships with top tier customers who want to align with our multi-year roadmap.

With my COO hat on, let me highlight a few areas we are driving towards excellence in our execution. As Niccolo shared last quarter, that is one of our prime objectives for 2026. Last quarter, I noted that near-term demand for some of our products in compute was outpacing our ability to perhaps meet that demand. And so, this quarter, I'm happy to report we've addressed that and already strategically accelerated our ability to address the demand by growing our deployment teams, forward-deployed engineers, manufacturing capacity and field operations. For one small example, we have more than doubled our manufacturing over the Tempo to meet the demand that we are seeing.

Looking into the future for our 256-qubit system, last quarter I shared that we had completed tape-outs A, B and C and had started working on tape-out D. This quarter, I'm pleased to update you that tape-out D has been completed. The designs have been handed over to the foundry and their chips are now progressing well through the fabrication process. As part of this process, we received the first fully fabricated ion trap prototypes. I'm happy to share that they're already beyond the critical quality metrics needed for 256-qubit devices. Not only that, but also these metrics are approaching what we will eventually need for our 10,000-qubit device and beyond.

This is an important milestone. It means we're proving out the path for the full 256-qubit chips that are in fab at this time as well as the generations beyond. Building on our progress at the chip level, I'm pleased to share that we're also now wrapping the first engineering prototype for the full 256-qubit computer. This means that we're now moving from component-level testing to system-level testing. These are very important strides towards delivering the full 256-qubit system to the market in the future, and we're not stopping there.

As I mentioned, our team is already starting stride towards our seventh-generation 10,000-qubit chip. The key to scaling into our 10K high qubit count system is the integration of active CMOS design where SkyWater really helps. By moving control functions directly on to the silicon with CMOS, we are taking advantage of the scaling techniques of the existing global semiconductor industry. In a nutshell, we're executing on our strategy.

Let me now turn to financial guidance. As you've heard today, we have built a strong foundation for what we expect will be another historic year for IonQ in 2026. With that in mind, we're pleased to raise our revenue guidance for the full year 2026 to be between $260 million and $270 million. For context, even the lower end of that guidance doubles the company's year-over-year revenues. For the second quarter, we are projecting revenues of between $65 million and $68 million. We are also reaffirming our projections for full year 2026 adjusted EBITDA to be in the range of negative $310 million to negative $330 million.

We look forward to the remainder of 2026 with confidence and believe that IonQ is well-positioned with the talent density, the processes, the technology and the innovation investment to remain the trailblazing and quantum leader that we're establishing and have established already.

With that, operator, please open the call for Q&A.

# QUESTION AND ANSWER SECTION

**Operator**: Thank you. [Operator Instructions] Our first question comes from John McPeake of Rosenblatt Securities. Please go ahead.

### John McPeake
*Analyst, Rosenblatt Securities, Inc.*

Q

Thanks, guys. Nice work. So I think you've got three customers now for the 256-qubit. You just called out Cambridge. I think last call you talked about QuantumBasel and also there's Horizon Quantum out there. Could you talk a little bit about the likely delivery schedule and how we should think about the revenues coming in from these? And then I just have a quick follow-up.

### Inder M. Singh
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Yeah. Thanks, John. Thank you for the comments as well. Look, we are laser-focused on our fifth-generation machine because customers are laser-focused on it. The demand that we're seeing is actually for many more countries that I've shared today. You mentioned a few, of course. But as I look at it, the demand for our fifth-generation machine and, in fact, customers look at it and say, well, we might also want to look at your next and your next and your next. That remains very, very strong.

So, we will continue to announce new wins. I mean, first quarter is obviously just the beginning. As I look at through the rest of the year, the demand is strong. The need for us to have the manufacturing and deployment capabilities was necessary, as I mentioned last quarter. And we've made those investments by bringing onboard and deploying, frankly, folks that will be building these. You'll see many more announcements coming in the future. I mentioned Scott and team are busy responding to some of the demand signals that we're seeing for Tempo. And importantly, early demand signals also for our 256-qubit.

Remember, when customers buy something as unique as a computing platform, they're buying the platform, meaning a multiyear view, not having to shift direction 12 months from now. So we're ensuring that we are in the right places with the right customers who not only have the desire and interest in our solutions yet, but also the long-term conviction to remain with us over multiple years. Yes, QuantumBasel is an excellent example of that and there are many more we'll be announcing.

Our focus is to make sure that 2026 we deliver on the guidance we've provided you and hopefully exceed and Tempo will be a big driver of that as well as the rest of our platform, but also 256-qubit is just around the corner looking into 2027 and beyond. So, hopefully that addresses your question.

### John McPeake
*Analyst, Rosenblatt Securities, Inc.*

Q

It does. And then I just have a quick follow up. The roadmap has 12 logicals at a very respectable 10-7 two-qubit gate error rate. Will that be calibratable? In other words, could you have more logicals with slightly higher error rates? Is that in the cards? Because that's a very low error rate, but it's lower logicals as a result.

### Niccolo M. de Masi
*Chairman & Chief Executive Officer, IonQ, Inc.*

A

Yeah. So, I said in my script – hi, this is Niccolo – that we're expecting...

**John McPeake**
*Analyst, Rosenblatt Securities, Inc.*

Q

Hi Niccolo.

**Niccolo M. de Masi**
*Chairman & Chief Executive Officer, IonQ, Inc.*

A

...10-12 error rates as our architecture matures. And so, you're going to see even lower error rates in the coming generations of systems. The other thing that we are making progress on is reducing the ratio still further between the physical and logical qubit ratio. So I think there's probably some modest upside in the public roadmap that we published last June in terms of physical module qubit accounts accelerating a bit further at least on the logical front.

But as we've said consistently for the last year two, if not five, frankly, the advantage of our architecture is we have the highest fidelity qubits naturally. And that makes everything easier, right. Makes the ratio of physical lower, starts out lower even before you start trying to optimize it. And it means error rates are lower, right. And you can see particularly the advantages in having lower error rates on things like page 6 in the investor deck, right, where we're talking about time to solution and the high fidelity two-qubit parallel gate architecture we've developed.

Time to solution is obviously a product of how many times you got to take what's called a shot in a certain algorithm and, of course, how accurate the shots are. Our shots are all very accurate. So, we don't have to take very many of them, right, and that's an advantage that we expect is going to endure throughout our entire architecture. And we're already obviously demonstrating in grand style now and obviously with the Walking Cat architecture now all publicly available, you can see how we're going to hold that all the way through 2030.

**John McPeake**
*Analyst, Rosenblatt Securities, Inc.*

Q

All right. Well, thank you.

**Niccolo M. de Masi**
*Chairman & Chief Executive Officer, IonQ, Inc.*

A

Thank you.

**Operator**: Our next question comes from Craig Ellis of B. Riley Securities. Please go ahead.

**Craig A. Ellis**
*Analyst, B. Riley Securities, Inc.*

Q

Yeah. Thanks for taking the question and congratulations on the momentum to start the year, guys. I wanted to go back to the point that you made, Niccolo, on the April 14th photonic interconnect announcement. And it's great to see something that I think some people are calling an Ethernet moment. But the question is, as you look at what that means and how customers are engaging, what are the revenue implications of that either later this year or out on the roadmap as we look at that advancement in technology?

**Niccolo M. de Masi**
*Chairman & Chief Executive Officer, IonQ, Inc.*

A

Well, we're not going to give you any precise guidance on the revenue impact in out quarters. But I will say that the beauty of our lead in quantum networking and photonic interconnects is three-fold, right. So, one, we think we can push our systems a long way vis-à-vis getting 2 million physical qubits on a single chip. At some point, though, we may want even bigger systems. And so, data center opportunities arise at some point in our architecture, whether it's 2 million per chip or it's 4 million per chip or even 10 million per chip, at some point we may want 100 million qubits, right. I mean, I'm very bullish on humanity's ability to take advantage of more compute power and particularly more quantum computing power. And I think at some point, the future generations of quantum computers themselves will help us figure out how to optimize and take advantage of even bigger quantum computers.

The second thing that it does is it builds us an expanded merchant supplier capability, right. So I talked in my prepared remarks about the fact that our quantum memory solutions and IP actually will allow multiple modalities to potentially connect together in a pretty seamless fashion and work together. And I think that's exciting vis-a-vis, again, where the world will be in the coming years and decade.

And then, of course, thirdly, we've talked a couple of times about the fact that we have multiple customers in the networks quantum computer category. The Air Force Research Lab is obviously the first of those and that continues to be a large contract that we prove out every quarter of a year. My colleague Inder mentioned a few other customers both last quarter and this quarter is taking quantum networks computers.

So, in summary, there's really three great lever points for us and we continue to invest and, of course, protecting our quantum networking and photonic interconnects because it's something that we've been working on including from our founder Chris Monroe early on. And believe it or not, Chris Monroe continues to work on that. So, we're very excited that our lead there we believe to be as prodigious as the computing one. The world is going to need, obviously, protected communications between quantum computers, and this is precisely why we expanded the vision of the company 15 months ago, 18 months ago from computing into networking.

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Yeah. And I'll just add, I mean, to what Niccolo said, agree with everything you just said. So, in Q1, we saw growth in every product line, right, year-on-year. And if you look at our guidance for the year without commenting on individual quarters, just look at the math. The company is doubling, organic will be doubling. Therefore, it means the rest of the company, other product lines that we have also will have a doubling effect on the company in total to get to the guidance that we provided you.

The interconnects, the ability to network computers together, the ability to deliver hybrid compute, those are the things that we are uniquely positioned to do. We can compute, we can connect a ion trap type of quantum machine with someone else's. So we are in that way being very agnostic. We want the whole industry to grow. We want to become the networking and the compute leader in many ways in terms of our own innovation and we want the rest of the industry to succeed as well because that's how you make it a successful, durable industry.

We have moved ourselves out of the lab into the commercial market. We want everyone else to do that as well. And that's how we grow. We are happy to see the results that we're delivering. We keep investing – and Niccolo is constantly getting calls in for would you like some more investment and things like that. So I think there are ideas always that are in front of us. We are very happy with the portfolio we have. It was put together about a year

ago by Niccolo in the strategy become the first quantum platform company and you will establish basically a critical mass that allows the industry to scale, but also yourself to innovate and scale. So, strong first quarter across every product line, strong year. I think you can sort of do the math around the growth of the other products, not just compute.

**Craig A. Ellis**
*Analyst, B. Riley Securities, Inc.*

Q

That's really helpful, guys. And Inder, I'll ask a follow-up question that relates to the COO hat that you also wear. And it's directed at how go-to-market changes as you bring Scott Millard in from Dell. And you talked about wanting to be a service provider and span a range of solutions. He would seem to have just an ideal background for that. But how does go-to-market changes we think of the next few years and that company pursuing the roadmap that you laid out at Analyst Day? Thank you.

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Yeah. Look, becoming a successful technology company is a team sport. You have to have the legal professional to do the commercial negotiations, Paul Dacier's team, deployed around the world, working in partnership with Scott, my teams in the finance area helping Scott succeed, of course, Scott himself developing a methodical pursuit and capture. These are not things companies do until they have critical mass. We think we're there, right. So, that's why we're now investing not just R&D, but go-to-market. And some of the leaders that have joined the company would amaze you in terms of their knowledge of the market, the mindset of the customer.

There's not a vertical that I think quantum will not touch eventually. It will touch everything. Some will be early adopters. Some will lag. Areas like financial services, which need protection now to the Q-Day comments that Niccolo made. Life sciences companies that need faster innovation because they're committed and they're trying to solve some of the most intractable problems that humanity faces and others. So, we're happy to be the one that actually brings all that together, whether it's connecting our machine to someone else's or ours to ours with interconnects, as you mentioned, but I'm happy to see kind of the flywheel effect starting to take over, Craig. Happy to follow up with you offline as well.

**Craig A. Ellis**
*Analyst, B. Riley Securities, Inc.*

Q

Thanks, guys.

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Thank you.

**Operator**: Our next question comes from Troy Jensen of Cantor Fitzgerald. Please go ahead.

**Troy Jensen**
*Analyst, Cantor Fitzgerald & Co.*

Q

Hey gentlemen, congrats on the results and all the technical milestones. Maybe just start here with Niccolo. I agree 100% we're on the cusp of all your guys quantum advantage really helping to solve some commercial applications that we haven't done previously. But I was just curious, how do you think about like pricing the value that you guys are creating? Because if you are enabling like new drug discovery and new material science, I

mean, there's a huge market opportunity. So, can you just talk about how you kind of price and think through the value you're delivering here?

**Niccolo M. de Masi**
*Chairman & Chief Executive Officer, IonQ, Inc.*

A

Yeah. So, look, we obviously are innovating business models at the same time as we are building the quantum ecosystem here. Inder has eloquently talked in the last few quarters about the platform strategy translating into real momentum. And so, obviously, we are pricing things differently when there's a networks quantum computer and we're providing more value there than obviously just a single system that's not quantum networks. And there's going to be a fair amount of price exploration, frankly, on a global basis as our quantum platform continues to mature.

What I'm excited about this quarter in particular and this year really is that the market continues to come towards us. And Inder mentioned the fact that at times there is greater short-term demand and our ability to supply it. So we're very focused on improving manufacturing capacity at IonQ in total across the entire platform. We are working on both individual customer sales that can at times be multiproduct, but we're also working on some very large initiatives at the national scale. And I think it's safe to say that there is a fair amount of bespoke consultative selling that's going on. If you think about the breadth and depth of our product families as well as the geographies that we now have traction in.

Now, obviously, because of our cost advantages and because of the fact that we have always tried to forward invest in manufacturing capacities, I mean, we did that obviously on both coasts in the US years ago, for example, we have we believe the greatest power per unit dollar that's on offer in the marketplace. And that's, of course, our goal. I have talked in prior quarters about the fact that we do three things at IonQ across the company, right. We meet and beat financial expectations, we meet and beat technical expectations and we continually refine our internal operating system.

So, as we see how market demand evolves, we will get more efficient about what we're bundling and how we're deploying, configuring and delivering that. But right now, we're at very much the start of that S-curve, if you will. And I think there's orders of magnitude of growth to be had here and orders of magnitude of maturation to be had in our sales ops, manufacturing, deployment organization. We're proud of the fact that we believe we lead the industry right now in maturity, but we recognize that as revenue continues to grow this organization will have to keep getting standardized and keep growing up. So, we'll keep you posted as we standardize, but we're not quite at the point whereby we're listing rack prices on our website.

**Troy Jensen**
*Analyst, Cantor Fitzgerald & Co.*

Q

Okay.

[Multiple Speaker] (00:56:45)

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Yeah. And I'll just add. Look, I think it's less about pricing to me. It's more about meeting the customer where they are. So, a customer can choose to buy a system, they can choose to access via the cloud, they can choose to ask us to provide them an edge device that connects them to something. So, we meet them where they are. It's less about competing with price. It's more about ensuring that we give them what they want and frankly can

afford. And so, cloud access is obviously cheaper than buying a compute device, though, not everyone will buy a computer, not everyone will be happy with a cloud delivered experience.

**Troy Jensen**
*Analyst, Cantor Fitzgerald & Co.*

Q

Yes. Easy follow-up for you, Inder. Did you report number of 10% customers in size at all?

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

We did not in this quarter, Troy.

**Troy Jensen**
*Analyst, Cantor Fitzgerald & Co.*

Q

Okay. Thanks and keep up the good work.

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Thank you for your question.

**Operator**: Our next question comes from Quinn Bolton of Needham. Please go ahead.

**Shadi Mitwalli**
*Analyst, Needham & Co. LLC*

Q

Hey. This is Shadi Mitwalli on for Quinn. Thanks for taking our questions and congrats on all the progress. I guess, as IonQ transforms into a quantum platform company, can you just talk about some of the solutions you've been bundling for customers? And then has the bundling been more IonQ-driven or customer-driven? Thanks.

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Yeah. Great question. The customer journey in quantum is not very dissimilar than the customer journey in traditional networking and compute [indiscernible] (00:58:18). I mean, sometimes customers start in one area and expand into another or vice versa. So, we have plenty of examples where we can say a customer started with buying a network from us and then saying, okay, please add a computer now and then maybe saying add security. On the other hand, somebody may start with a compute device sitting next to a GPU cluster or an AI factory. And what they want is to have hybrid workloads. The types of sort of like large scale matrix multiplication that is required for LLM runs on a GPU, but where you need simultaneous analysis of all possible outcomes in a fraction of the time you need the QPU.

So, we're seeing both. And I think over time you'll see the industry evolving into something that resembles, frankly, networking. And I do think that we want to be in every part of that. And I think one of the really important parts to consider here is there's a quantum advantage Q-Day coming up. And whether it happens rapidly, whether we do it as a nation or someone else does it, there is a protection angle that has to be pursued as well. So, we're finding some customers say, well, protect me first. Lock down my crown jewel, help me understand how I can protect what I value most and then go from there.

So, all those conversations are happening. They're starting from different places, maybe ending in other places. That multiproduct thing that we introduced and Niccolo and I introduced this quarter is around how many customers or what percentage of our revenue at least is now employing more than one product. And I think that's the network effect.

**Shadi Mitwalli**
*Analyst, Needham & Co. LLC*

Q

Great. Thanks for all the color and congrats on all the progress.

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Thank you.

**Operator**: Our next question comes from Richard Shannon of Craig-Hallum. Please go ahead.

**Tyler Anderson**
*Analyst, Craig-Hallum Capital Group LLC*

Q

Hi. This is Tyler on for Richard Shannon. Thank you for taking my questions. I just wanted to first understand when does the architecture that you had recently published intersect into your roadmap. And what size QPU would that architecture be implemented?

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

You're talking about the semiconductor roadmap, right? So...

**Tyler Anderson**
*Analyst, Craig-Hallum Capital Group LLC*

Q

Yeah, the most recent paper.

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Yeah.

**Niccolo M. de Masi**
*Chairman & Chief Executive Officer, IonQ, Inc.*

A

Yeah. Walking Cat architecture I think is your question, right, for full fault-tolerance?

**Tyler Anderson**
*Analyst, Craig-Hallum Capital Group LLC*

Q

Yes.

**Niccolo M. de Masi**
*Chairman & Chief Executive Officer, IonQ, Inc.*

A

Yeah. So, I mean, look, we're going from 256 to 10,000 qubits out to 1 million, right. So, this full fault-tolerant architecture kicks in every generation. But obviously 10,000 qubits is when you start to see all of the full benefits of the fault-tolerant architecture. So, next year and beyond.

**Tyler Anderson**
*Analyst, Craig-Hallum Capital Group LLC*

Q

Great. Thank you. And then...

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Does that help, Tyler? And basically use that as a jumping off point to go from 10 to 20 to 200,000 to 2 million. And that just leverages a semiconductor ecosystem that is well-tested, developed and we can just take advantage of.

**Niccolo M. de Masi**
*Chairman & Chief Executive Officer, IonQ, Inc.*

A

So, we're working on three generations of systems at the same time, right. So we're trying to obviously continue to accelerate here, as I said, every quarter. If we can find ways to go faster, we will.

**Tyler Anderson**
*Analyst, Craig-Hallum Capital Group LLC*

Q

Great. And then could you level-set on how many satellites you have up in the space right now? And if you could, what you think you would have exiting the year and whether or not you have a quantum memory in a satellite? And I presume that would be connecting Florida and Maryland, but any information on that would be helpful.

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Look, I think some aspects of our business are highly classified. We have a constellation of satellites is what I can say. I think that we look at the ability to connect things on the ground, from ground to space, space to space, space to ground, under the water even. So, we want to make sure that we can meet the customers' needs and not everyone needs everything. To your point, we're very uniquely positioned that we have the most accurate atomic clocks, the most accurate sensing. And yes, we have satellites, too. So I look at it as that platform story. Not everybody needs everything, but some of the things that we invest in are ground-based and, to your point, some are not.

**Niccolo M. de Masi**
*Chairman & Chief Executive Officer, IonQ, Inc.*

A

Yeah. What I'd add to that is I think it's safe to say, I said in my script that we're focused on next-generation PNT, positioning, navigation and time. This is obviously dual-use. It's important for our department of or it's also important for things like the future of autonomous driving. And more precision and more reliability and robustness in GPS is obviously vital. We're a very unique company in the sense that we have obviously a leadership position in QKD. We have a leadership position in optical interconnects in space and also leadership position in quantum sensing in space and atomic clocks. So, there's a good amount of, I think, both US and allied enthusiasm for different configurations of what we're up to and we will update the market obviously as we can and as we make progress.

**Tyler Anderson**
*Analyst, Craig-Hallum Capital Group LLC*

Q

Unique indeed. Thank you. Appreciate the time.

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Thanks, Tyler.

**Operator**: Our next question comes from Antoine Legault of Wedbush Securities. Please go ahead.

**Antoine Legault**
*Analyst, Wedbush Securities, Inc.*

Q

Thanks for taking my question and congratulations on the results as well. Just with regards to the timeline compression for Q-Day, I think, Inder, you mentioned it briefly. But are you seeing a shortening of the sales cycles within enterprise customers? Or put differently, is there more impetus for enterprises to migrate to PQC standards? And has that driven any acceleration in revenue growth recently?

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Look, I can't comment on individual customers before. We are seeing customers wake up to the fact not just because we're saying it, the Google is saying it, others are saying, right. I mean, there's a acceptance now that things are about to change in a very radical way in a very short timeline. And if you look at our roadmap, our roadmap probably gets us there before many other companies. So, when we look at the need for creating solutions that solve chemistry problems or, to your point, encryption as well, we also have to ensure that we are ready to secure our customers and we're starting to see the conversations start around, let's talk about security.

So, as I said earlier to a prior question, that has become more prevalent now than it was a year ago, for sure. I'm not going to tell you that everyone is thinking, oh, I need to do something for tomorrow. I think people are realizing it's not 20 years away. Because that's what they were hearing from some others. And in fact, we were saying quite the opposite, right. We were saying we're going to build the most powerful computing devices on the planet. And we are. So I think that the natural conversation when you have the compute power that creates enormous amounts of – well, exponential amounts of compute energy and power and then solutions that help guard you today so you can deploy the compute solutions you want and secure what matters to you, we're very unique in that position.

**Antoine Legault**
*Analyst, Wedbush Securities, Inc.*

Q

Thank you. And just quick a follow-up. On the recent Florida LambdaRail announcement. Can you give us a sense of the scope, that engagement, what it means for the company? Or just more broadly, do you see that as a replicable model in other states or jurisdictions? And thank you.

**Niccolo M. de Masi**
*Chairman & Chief Executive Officer, IonQ, Inc.*

A

Yeah. So, it's a phased contract and obviously it'll connect a limited geography to start with. But there is ambitions from Florida's Secretary of Commerce to expand that to be a statewide initiative. Universities are leaning in, obviously, in Florida. The state is also leaning in. And I think they recognize that as Q-Day is coming earlier, the

need to secure critical infrastructure for the state continues to climb. And it's now inside the planning horizon for both enterprise and government partners when we're talking about something that is two or three years away, not a decade away, right.

And so, all of a sudden – and there's broad agreement, we were the early mover and leader on this last summer, but there's now very broad agreement, right, between geopolitical competitors through to large enterprise – non-quantum enterprise and, of course, ourselves and quantum enterprise that this is very much something that if you're a CIO, a CTO, a CISO, you now need to plan in because the chances of your job life expectancy running right through this have just skyrocketed, right, in the last year.

So, it has been a nice piece of momentum uptick, for sure. Inder mentioned landing and expanding. And I think this is, for sure, part of that precise strategy. I think we're just getting started here, obviously. And so, we will be growing in sophistication, as you can see in our presentation. We talk about security as a key tenet of what it is that we provide and we've been investing in this as well. So I'm looking at page 10 in particular when I talk about the full stack of cyber for the quantum era, right. And that stack is going to get deeper and broader itself also. And we intend to be the leading player here, obviously, as we are today.

**Antoine Legault**
*Analyst, Wedbush Securities, Inc.*

Q

Thank you.

**Operator**: Our next question comes from Nehal Chokshi, if you could, please, from Northland Capital Markets. Please go ahead.

**Nehal Chokshi**
*Analyst, Northland Securities, Inc.*

Q

Yeah. Great. Thank you. The $12 million impact from SkyWater, is that 100% realized in COGS? Or that has been 100% realized in COGS?

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

The expenses I talked about?

**Nehal Chokshi**
*Analyst, Northland Securities, Inc.*

Q

Yes.

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Yeah. It's more R&D, tooling and things like that.

**Nehal Chokshi**
*Analyst, Northland Securities, Inc.*

Q

Okay. So then can you talk to the driver of gross margins being down about 1,600 basis points Q-on-Q?

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Yeah. I mean, I've said this on prior calls and I want to make sure that I make this very, very clear. This is a nascent industry. This is an industry in which scale will build over time. We are very focused on gross margin, obviously. We start with a huge advantage. Niccolo mentioned this earlier. We have a bill of material that is a fraction of the cost of any other modality. So, you start with that and then you add capabilities on top of it. The better way to think about a business like this or frankly any other high tech business on the cutting edge, whether it's AI companies or ourselves or others, is EBITDA. And that's why we guide EBITDA because R&D is a big component. Just as much as you're focused on COGS, yes, I am too. But R&D is an important ingredient in our recipe right now to maintain and accelerate into our roadmap.

So, that's what we look at. Yes, as our revenues are doubling this year, maybe more than doubling this year per the guidance and continue to grow, we have the ability to then drive a cost margin, cost of goods sold focus as well. At the moment, it's a mix of things. It depends on what you sell more of in any given quarter. So I would not have stepped on the gross margin. I'd urge you to think more about a more fulsome view, which is EBITDA margin.

**Nehal Chokshi**
*Analyst, Northland Securities, Inc.*

Q

Okay. Great. Two more questions, please.

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Sure.

**Nehal Chokshi**
*Analyst, Northland Securities, Inc.*

Q

Niccolo, the Walking Cat architecture. Can you discuss what you see as the advantages [indiscernible] (01:10:52) other new relatively qubit architectures, specifically the GKP architecture?

**Niccolo M. de Masi**
*Chairman & Chief Executive Officer, IonQ, Inc.*

A

Yeah. I mean, look, the main advantage is ours is shovel-ready and we're ready to go and we've gotten there first, as we have with everything else in more detail and more constructability, right. It is simple. It is all-to-all communication. It is parallel gate. Okay. And we're going to have a lot more physical qubits, which means more logical qubits, given our error correction ratio is very low on a single chip, right. So, we'll be able to tackle problems in the fault-tolerant era that simply will not be tacklable by other architectures if they won't have enough logical qubits. 100 logical qubits will not do what a 1,000 or 10,000 logical qubits can do on a single chip where it can communicate quickly to each other and seamlessly to each other.

The parallel gate aspect, I'll highlight because that's really quite unique. And I would also say that if you go through our BOM, our bill of materials, we announced last September at our Analyst Day at the NYSE that our bill of materials in [ph] 2025 (01:12:08) was under $30 million. That's truly astonishing. It's manufacturable. It is low – it is modest energy consumption. It is modest BOM. And because of the way our architecture is built, it's really quite robust, right. We don't have a bunch of dilution, refrigerator requirements that drives energy, cost, space and BOM up a long way quickly.

What we have is something that can fit near the frontline, can fit in your basement type thing, can fit in a normal data center, right, section of an office or a building. And because we also control a lot of the IP, I would argue all the best IP for networking and memory, we have extensibility to full data center offerings already being worked on, already being built in. My friend Inder here mentioned hybrid workflows. Hybrid data centers are coming. There's a recognition of that need. And IonQ because we're networking forward and always have been has thought about obviously how that component will fit into our architecture as and when we would like to roll out.

You see customers beginning to obviously work on that, whether It's AFRL and others, as early as last year that's going to accelerate obviously in enthusiasm is my prediction. So, built for scalability is really my summary here, right. It's modular, it's simpler, it's regular and it uses, of course, manufacturing techniques that are well proven so we can move quickly and we can move at global scale.

**Nehal Chokshi**
*Analyst, Northland Securities, Inc.*

Q

Thanks. One of the things that jumps out to me from the explanation you just gave was the scalability. And I think that you're intermitting towards a better error correction capability, lower physical to logical qubit ratios. Is that contemplated in the long-term roadmap that you guys had laid out a year ago where when you're talking about a 200,000 physical qubit, you're at 8,000 logical qubits that basically implies a 25 to 1. Was that already contemplated that you were going to be moving forward with a Walking Cat architecture that enables the relatively low physical to logical qubit ratios?

**Niccolo M. de Masi**
*Chairman & Chief Executive Officer, IonQ, Inc.*

A

Yeah. For sure. I mean, this is – we've been very clear on this I think in every meeting, call and presentation we've done, right. Because we have the highest fidelity, four 9s, and because we've proven ion [ph] transform (01:14:52) in four 9s. And yes, we've been working on this architecture for a long time. It's a multi-year effort, not a multi-week effort type thing. So, yes, I mean, when we publish things in our roadmap, we have a very high, what I would call, do-say or say-do ratio, right. So, end of the day, we do what we say we're going to do both technically and, of course, financially each quarter and each year. And we're proud of that. And these are the goals that our entire team very much prides themselves on delivering, step one, and then over-delivering against thereafter. So, yes, I mean, I'm very proud of the team. We're proud to be there first yet again. I'm not surprised because I said that we will get there last summer first and we continue to march right up this curve right on schedule.

**Nehal Chokshi**
*Analyst, Northland Securities, Inc.*

Q

Okay. Great. Thanks. And real quickly. Do you have the average duration on that RPO?

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

No. I mean, but you can imagine that it's multi-year. In our Q that will be filed, you'll see, we'll break out for you what percent of that will turn into revenue in this year and then the rest of it turns into future years. What I like about it is we're talking years, right. I'm not talking about one quarter visibility. You start to look beyond a quarter. You can now focus on the long term. You can talk about R&D investment for the next five years. And you have some really good questions and by the way, congratulations on launching coverage of the quantum sector and welcome to the party and the enlightened side.

The thing that I would urge you to keep in mind, though, and I know you know this. Modalities that have lots of errors to start with talk about error correction. Modalities that have very few errors do not talk about error correction. Whether lucky or smart, the founders of this company three decades ago picked a modality that has highest coherence, best fidelity, lowest error rate, three of the four ingredients that you absolutely must have. The fourth, speed. So, we are now trying to build the fastest, most powerful computing devices on, I think, the market today and probably in the coming years. We talk a lot about – you ask questions around cost of goods and things like that. Customers think about total cost of ownership. Think about what it means to buy a superconducting-based solution, which is great, no knock, but then you have the operating cost after day one. So, we don't suffer from that. We don't suffer from the bill of materials issue.

We are more around creating the best and most, I'll call it, app and – App Store, an iPhone analogy, which Niccolo talked about a lot. And if you think about that, as we build the next computing device, i.e. the next iPhone, we're also at the same time building the applications that can run on. That's really important. Keep that in mind just as much as you think about the power of the machine. That's number one. Number two, we're not just a maker of machines anymore. We're a maker of solutions. Entire solutions end-to-end. It's a platform company and I think customers are starting to talk more around that and saying, let's talk about that other side of your portfolio and then we'll come back [indiscernible] (01:18:08).

**Nehal Chokshi**
*Analyst, Northland Securities, Inc.*

Q

Great.

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Operator?

**Nehal Chokshi**
*Analyst, Northland Securities, Inc.*

Q

Thank you. Appreciate the answers.

**Operator**: Our next question comes from Peter Peng of JPMorgan. Please go ahead.

**Peter K. Peng**
*Analyst, JPMorgan Securities LLC*

Q

Hey guys. Thanks for taking my question. Just on the near-term question. You guys gave a updated annual revenue guidance. And just based on your second quarter guidance, it would imply pretty flattish revenue through the remainder of the year. I know you guys talked about expanding capacity to accelerate demand. To what extent are you still constrained as we look out in the back half of the year?

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

We're exercising prudence. It's a nascent industry, right, Peter. I mean, and thank you for the question, by the way. It's a good one. When we guided for Q1 a quarter ago, we guided for a number, as you saw, we beat that by $15 million. Now not that we expected to beat it by $15 million, but we knew we would work towards what we've been doing for four-plus years, providing guidance on technology and financials and trying to either meet or exceed on both.

So I think stay with us on the journey. As we look at this company and the potential it brings, the total cost of ownership differentiation, which no one is really talking about yet, the fact that we can deliver the 10,000 machine and then the 20,000 and beyond and, to someone's question earlier, it becomes modular upgrade, modular upgrade, not a machine replacement at some point. So, you get a sticky – very, very sticky relationship with a customer and a mutual dependence.

So, thank you. I appreciate your question. We are trying to be responsible towards investment capital and what we say to investors with the hope that we can at least meet those expectations that we set out there. And last four, five years would suggest we can actually even beat them.

**Peter K. Peng**
*Analyst, JPMorgan Securities LLC*

Q

Great. Thank you. And then just for your next, the 10,000 qubit chip, can you update us on the timeline? Is that calendar 2027 or is that calendar 2028? Maybe just update on timing of that.

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Yeah. Look, I think we are focused this year on the Tempo, right. So, 2026 is – when we last spoke, 2026 Tempo, 2027 in-market 256-qubit. The year after that in-market 10K. Now because we have a team that is integrated across our compute now under leadership – unified leadership, I would say, that perhaps we can do things differently, perhaps we can do things more efficiently, maybe even faster. So, we will invest in continuing to move our roadmap to the left. You've seen us do that twice. When we bought Oxford Ionics, we moved our five-year roadmap to the left. And when we announced the proposed acquisition of SkyWater and we'll wait for the right approvals to happen, of course, and all that, we will be able to perhaps move, as you saw in our announcement, the roadmap yet again to the left.

So, the investment dollars that we have and the capacity to keep putting money into the business and delivering solutions faster and, yes, financial outcomes also perhaps earlier and better is what we're focused on. So, 10K and – this year Tempo, next year the 256-qubit, the year after that 10K, my colleague Chris Balance and Oxford who obsesses over this 24/7 and his entire team are making sure that they can execute with precision for more and more demanding customers.

Our devices are not in the labs anymore, remember. Our devices are deployed in hybrid compute environments around the world and those folks expect machines to work, like, turn on day one work and provide the compute power that they need in the application development. So, it's a continuing dialogue. We're happy to have it with you, Peter. It's an interesting evolving area. And when Niccolo and I joined this board 5-ish years ago, we didn't think the industry would be where it is perhaps. Five years from now we'll look back and say, wow, so $3 billion of investment power, perhaps more singular focus on meeting the customer where they are, not trying to outcompete anyone else except ourselves. Compete against ourselves. That's how you win and that's our focus.

**Peter K. Peng**
*Analyst, JPMorgan Securities LLC*

Q

Perfect. Thank you.

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Yeah.

**Operator**: Our next question comes from Vijay Rakesh of Mizuho. Please go ahead.

### Vijay Raghavan Rakesh
*Analyst, Mizuho Securities USA LLC*

Q

Yeah Hi Niccolo and Inder. Great to see a solid guidance. Congratulations. Just two quick questions. One a short term and one longer term. On the short term, if you look at that mix of hardware and platform services, should that mix be about the same going forward or do you expect one to accelerate?

### Inder M. Singh
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Again, I think it depends on where the customer begins their journey with us, right. So, again...

### Vijay Raghavan Rakesh
*Analyst, Mizuho Securities USA LLC*

Q

Yeah.

### Inder M. Singh
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

...number one goal in business, meet the customer where they are. Meet their current need, understand what they need before you try to sell them something and then do the land and expand and anything else and cross-selling that you want to do. So, rather than worrying about which part, which product of our dozen would be growing more than others, I look at the whole company. That's how Niccolo looks at it. We look at it as one P&L. And we're trying to drive outcome for our customers.

The good news is the multiproduct sales that we just talked about are demonstrating that customers are maybe starting with one and then adding more than one. And I hope that number will continue to grow over time. Our focus, one P&L, one R&D capability across the company. Teams focused on the best efforts in terms of driving innovation. And our job is basically making sure that they succeed in in creating innovation happen faster and faster. This is not about Moore's Law. This is way faster than Moore's Law, right. You know that.

### Vijay Raghavan Rakesh
*Analyst, Mizuho Securities USA LLC*

Q

Yeah.

### Inder M. Singh
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

So that's how we look at it, Vijay.

### Vijay Raghavan Rakesh
*Analyst, Mizuho Securities USA LLC*

Q

Got it. And then on year 2027, you have the ambitious plan of getting to 10,000 physical and 800 logical. How is that looking, I guess? Thanks.

**Inder M. Singh**
*Chief Financial Officer & Chief Operating Officer, IonQ, Inc.*

A

Yeah. Early indicators, as we said in the prepared remarks on the 256-qubit, last quarter we said we had already started to make progress on the tape-outs. This quarter, we started to do system-level testing on the 256-qubit. So when you get comfort with that generation of product, you can now turn your focus to the next, right. And it's always like a learning curve. Niccolo said well. There's always an S-curve, but there's also a learning curve, and each learning curve helps you with the next one. Niccolo, I don't know if you want to add something.

**Niccolo M. de Masi**
*Chairman & Chief Executive Officer, IonQ, Inc.*

A

Well, no, what I'd add to this is we're working on three generations in parallel. Obviously, we've talked in my prepared remarks about our success in the first quarter on 256-qubit tape-out with SkyWater. We expect continued progress, momentum, success there. Obviously, the difference between our architecture and what you might see in the marketplace is we've published the shovel-ready blueprints, right. We've been working on that for quite some time. We've published it. And our architecture is very scalable, very unique, very modular. And ultimately, it is something which is fully proven already in terms of what the components need to be, right. It's simple. It's regular. It has unified error correction. It's got parallel gates and execution. And ultimately, it has got subroutines with dedicated components tiled in the hierarchy on each chip.

And so, going from 10,000 to 100,000 to 1 million is not a particularly demanding leap. I think if you looked at what is being driven between generations of classical GPU architecture, I would argue that we are on parallel or simpler, right. And so, we look at this scaling now, as we've said repeatedly the last year, as really an engineering challenge. Everything in our blueprint is extremely realistic in terms of the constraints and the specific details on the compiler design, the error correction, the hardware control systems, ion movement, parallel gates, the fidelities that we're requiring are all less than what we've proven in the lab already, right.

So I'm not saying that it's not hard. I'm not saying that there won't always be some things that sort of crop up when you move from a few systems to dozens or hundreds or even someday thousands or millions of systems. I mean, that's all possible with this architecture. But nevertheless, it is all very digestible and it's been done many times in the history of humanity, right. So I think, of course, every year, it becomes yet more proven out. We sell more systems and we prove out another generation. But the hard work has been done on this architecture – on the components of the architecture that have all been demonstrated in the last year and years, for that matter. This is really the culmination of 30 years of work.

And the reason we're ahead is we've been thinking about it longer than everybody else. We built the first quantum logic gate in 1995, and today we have the highest two-qubit gate fidelity. And of course, we also have the first shovel-ready blueprint because we're not resting on our laurels. We continue to put the pedal to metal and we keep pushing this and we keep investing and we will continue to do that.

**Vijay Raghavan Rakesh**
*Analyst, Mizuho Securities USA LLC*

Q

Got it. Thank you.

**Operator**: This concludes the question-and-answer session. I would like to turn the conference back over to Niccolo de Masi for any closing remarks.

## Niccolo M. de Masi

*Chairman & Chief Executive Officer, IonQ, Inc.*

Thank you, operator. As I shared in our annual letter to shareholders last week, my personal journey with IonQ dates back to reading our founder's seminal paper on the world's first quantum logic gate as an undergraduate physics student in the 1990s. That moment was a shot heard around the world for anyone passionate about quantum mechanics, and it cemented my commitment to this company's mission.

Today, one year into my role as Chairman and CEO, IonQ has evolved from a quantum computing pioneer into the world's preeminent full stack quantum platform and US merchant supplier. We're the only company delivering integrated solutions across quantum computing, networking, sensing and security in all major and allied geographies and in all domains, from submarines to satellites for the warfighter. We believe passionately in the importance of our merchant supply mission for the US and allied quantum industry. We are investing and building a foundation to support the acceleration and commercialization of the entire quantum ecosystem, as we have already done with our atomic clocks, sensors and quantum networks.

Our North Star is to pioneer quantum solutions and quantum applications that create durable value across global industries. And we are poised to transform sectors spanning pharma, finance, energy, defense, materials, logistics, GPS, cybersecurity and far beyond. Our revenue momentum underscores how we are already positively our global customers in these domains. We have 1,500 world-class professionals comprised of over 300 PhDs and the deepest IP portfolio in the industry. With over $3 billion of cash on the balance sheet, we are now moving from quantum platform building blocks to quantum platform execution at scale. IonQ is one platform, one team primed and poised to win.

I want to thank our shareholders for their continued trust and our colleagues for their extraordinary effort. Thank you again for joining our call. We look forward to 2026 with confidence.

**Operator**: Thank you. This call has now concluded. Thank you for attending today's presentation. You may now disconnect.