Filed by Supernova Partners Acquisition Company II, Ltd.
pursuant to Rule 425 under the Securities Act of 1933
and deemed filed pursuant to Rule 14a-12
under the Securities Exchange Act of 1934

Subject Company: Supernova Partners Acquisition Company II, Ltd.
Commission File No. 001-40140
Date: December 16, 2021

Reddit SPAC AMA with u/canadian2020
12/15/2021

u/canadian2020 0:02

Hi everyone. Welcome to our AMA number 19. With Rigetti Computing and CEO Chad Rigetti, founder as well, of Rigetti Computing. We're really excited to hear more about what he does now. What Rigetti Computing is all about, and what products that they offer that will be interesting to us as investors. Welcome, Chad. How are you?

Chad Rigetti 0:28

I'm doing great. And great to be here.

u/canadian2020 Yeah, welcome to rSPACs. Thank you for giving us your time. You have a very interesting background, and a lot of people here don't know about you, actually. And it'll be interesting, if you'll tell us a little bit of your background, education, training and how you got into business.

Chad Rigetti 0:45

You bet. So I've been working on quantum computing for about 20 years. I should say, most of my adult life. I got interested in the field, you know, when I was a senior in college. I did a senior thesis on this way back in the year 2000, 2001. And decided to pursue it as a, you know, as a physicist and to pursue a PhD program. At the time, I wanted to work on technology that I felt would have the potential to truly scale to build practical quantum computers one day. This was not only the early days of the, you know, it was really before industrial quantum computing is even in the early days of practical efforts in academia to build small scale quantum computers. I did a PhD at Yale. I also was in of the leading research groups in the world, an incredible research group that is training many great leaders in the computing industry today, and then joined IBM Research and spent about three years at IBM Research in their quantum team. And in 2013, I started Rigetti.

u/canadian2020 1:49

That's awesome. So you left IBM in 2013?

Chad Rigetti 1:51

I did. Yeah.

u/canadian2020

What made you start Rigetti then? You had a secure career. You know, why? Why take the risk?

Chad Rigetti 2:02

It's interesting, what I saw in 2013, was really the convergence of different vectors of progress towards building practical quantum computers across, you know, they weren't necessarily connected and there's progress in quantum hardware. Superconducting qubits, we're getting better at a very fast, and at that point, beginning to be a predictable rate.

Chad Rigetti 2:26

The quantum error correcting codes that need to be used and applied to exponentially suppress errors at scale to no fault on our quantum computer, we're getting better at a very fast rate as well. And then algorithms were starting to come along that could potentially leverage quantum computers in a pre fault tolerant phase. Early hybrid algorithms were, you know, the concepts were starting to be laid for that. And around that time, I also got really excited about the vision for developing quantum computers and making them available over the cloud. Ultimately, because quantum computing is a fundamentally new paradigm of computing, there's so much exciting work to be done at the application and software level and core algorithms that, you know, part of the vision that I had in starting Rigetti was that by building machines from a practical perspective, making them available over the cloud, that we would be able to catalyze the development and support the development of evermore powerful algorithms over time, by empowering, you know, researchers and users to hands on algorithm development. And now in 2021, we've been operating quantum computers over the cloud since 2017. We were the second company in the world to do that after IBM. And you know, we've really helped lay a foundation for the entire industry that offering.

u/canadian2020 3:38

That's amazing. You know, I come from an advanced medicine background, and I took physics and I'm a radiation oncologist, so I know a little bit about quantum physics. Can you tell us in layman's terms, exactly what you're able to accomplish, and why that is significant?

Chad Rigetti 3:58

So quantum computers leverage and encode information using this more fundamental theory of nature, quantum mechanics, rather than the Newtonian laws of physics that govern traditional computers. And because they're able to tap into this deeper, more fundamental description of the way the universe works, and they are able to do things that are provably impossible for traditional computers to do they can, you know, they can, they can tap into, you know, different complexity classes and executing algorithms, potentially execute algorithms with exponentially fewer steps. And they're needed with traditional computers because of those different set of physical laws that govern their behavior.

Chad Rigetti 4:38

That’s from a theoretical perspective. In practice, building quantum computers is a lot like building traditional computers. Our technology is a chip based technology. We use silicon based semiconductor manufacturing processes. We produce, you know, we produce these chips, we package them and we deploy them to end users over the cloud. As part of that entire stack, there is a lot of software. There’s a lot of, you know, there’s a lot of hardware, a lot of different components at these different levels that all need to come together. But it ends up looking like a, in the end, like a traditional computer technology.

u/canadian2020 5:10

That’s awesome. Would you say Rigetti is a b2b company?

Chad Rigetti 5:15

Absolutely. The predominance of our customer relationships today, and of our business, focuses on bringing quantum computing to the broad commercial market, which is major enterprises, major organizations, private sector, public sector, that have, you know, that today are using advanced computing, or whose core operations are a strategic advantage within their market, kind of hinges on leveraging and applying advanced computing. Those tend to be some of the biggest and most important companies in the world, or even at the government level, you know, the Department of Energy, the Department of Defense in the U.S. and beyond where some of those problems reside.

u/canadian2020 5:54

Interesting. Do you see quantum computing hardware making its way into personal computers, alongside CPUs and GPUs?

Chad Rigetti 6:03

That is a really interesting question. And let me answer that from two different perspectives. In the near term, Rigetti’s focus and kind of our core architecture and product strategy is to build quantum computers that integrate with existing classical computers. That can solve problems in tandem with the latest contemporary machine learning technology run on GPUs, or FPGAs, etc.

Chad Rigetti 6:30

Now, that said, our core business model is quantum cloud services, or quantum computing as a service delivered over the cloud. Physically speaking, our quantum processors are relatively large. So you can see behind me in the image here, I am virtually sitting in our quantum computing facility in Berkeley, California. The white canisters that you see behind me are individual quantum processors operated in a cooling environment within a cooling system. And, these quantum computers are integrated with classical computers, but they’re accessed over the cloud. And Cloud is going to be the dominant business, we believe the dominant access model within quantum computing, certainly for a very long time. Now, very, very long term, when you look at the trajectory of computing technology, it’s foolish to say things will never happen, because the power of exponential progress, whether it’s Moore’s law for the past 60 or 70 years,

or you know, the exponential progress that we have been seeing, and we anticipate to continue in quantum computing, that's going to lead to profound things that are hard to predict and hard to foresee when you start going out 10, 20 years down the road of what quantum computing may make possible. Now, and so it's possible that one day quantum chips or quantum accelerators will be integrated into personal computers on your desktop. But that's not the near term future. That's certainly not the market opportunity that we're focused on unlocking today. That's out there over the horizon.

u/canadian2020 7:54

Interesting. Since you said it's a b2b model over the cloud, how will this be scalable, considering the immense resource utilization required to have a setup like right behind you.

Chad Rigetti 8:07

So the machines that we operate today – and earlier today, we announced our 80 qubit system, Aspen-M, going into private beta and available to you know, for select enterprises and partners, as well as a 40 qubit system, which looks a lot like what you see behind me in one of the smaller canisters, available in general availability over both AWS Bracket as well as Rigetti's quantum cloud services. So these machines are roughly, you know, maybe the size of a small kitchen. And they have the potential with you know, subsequent improvements and fidelity in speed in size of these machines within a, you know, comparable footprint to outperform even the largest supercomputers in the world today, which would be many, many times larger, and even outperforming large scale data centers for certain applications of interest that quantum computing can provide an exponential advantage on. Given that, well you know, these machines are not necessarily the size a laptop today, they offer a pretty substantial performance and efficiency benefit above and beyond what classical computing can make possible.

u/canadian2020 9:13

Okay, thanks for explaining that. And the one you said that size of a kitchen was at the 80 qubit or the 40 qubit one.

Chad Rigetti 9:19

Today, both those machines occupy a similar footprint, about the size of the kitchen.

u/canadian2020 9:23

Okay, so you worked with IBM. And you also said there's only two companies in this space, IBM being the other. What advantages does Rigetti's quantum computing have over IBM superconducting quantum computing?

Chad Rigetti 9:38

First, first and foremost, Rigetti has pioneered hybrid quantum classical computing systems. So when we enter you know, when I started Rigetti in 2013, one of the very first things we did was start developing core intellectual property and technology that would allow us to bring quantum computing to the broad commercial market. One of the critical ingredients in that is technology to seamlessly and deeply integrate quantum computing with classical computing capabilities to

enable those to, you know, to enable you to insert quantum computing as an accelerated within an established computational workflow. This architecture has now become the predominant or even arguably the exclusive way by which quantum computing is being leveraged and applied in the industry today. That hybrid quantum classical computing architecture is an area where Rigetti has truly been the pioneer and we, we've got a substantial, we believe we've got a substantial advantage in that domain. The other is, with respect to quantum computing, there is broad agreement within industry participants, as well as observers and experts in the industry, that this is going to lead to a very, very large market opportunity. So long term this can lead to… McKinsey and BCG have both said this can be north of $850 billion dollars a year in value created through quantum computing.

Chad Rigetti 10:57

To get there, quantum computers need to continue to scale. The number of qubits that are available within a quantum computer needs to continue to increase. The fidelity is in, and you know, and the ability to run error correction on these machines needs to be deployed on a meaningful basis. Ultimately, the most critical ingredient of all is having a scalable chip level technology. Our multi chip solution, it has come to market now for the first time in our Aspen-M 80 qubit machine, is the first multi chip quantum processor in the industry. And this is a critical ingredient for long term scalability. Rigetti has been working on this for five or six years. We've got a really strong foundation of the chip level and through our ability to design and manufacture these multi chip scalable processors that we believe is a really strong foundation in the industry for ongoing industry leadership.

u/canadian2020 11:45

One of our users from rSPAC asks, "Where do you see the future control two qubit coupling, parametric, parametric drives, tunable couplers. Tunable quits?" I think that's what they said. If you can elaborate on that particular point.

Chad Rigetti 12:11

I believe the user is asking about, you know, the future, my vision or view on the future of two qubit gate technology. This is a domain where I have focused a lot. It was a subject of my PhD thesis at Yale. It was also center to some of the work that I did it at IBM prior to Rigetti, and Rigetti has continued to innovate on this front. And today we do what are called parametric two qubit, parametric activation of two qubit gates.

Chad Rigetti 12:29

So the breakthrough that came on tunable coupler technology in superconducting qubits in 2019, that underpin some of the Google results in demonstrating quantum supremacy on Porter Thomas sampling for the first time. That tunable coupler technology, I believe, is going to be really, really important in the industry. And the ability to really turn on and off interactions between qubits is, you know, I believe is going to be a critical ingredient long term for the scalability of a technology. And so we are working on developing next generation two qubit gate capabilities that leverage tunable couplers. We have some published results on this.

Chad Rigetti 13:09

And with that tunable coupling technology, you can do multiple different flavors or kinds of two qubit gates, whether it's the cross resonance gate, parametric activated gates, as we're doing now, or even DC tunable gates. And ultimately, we've got an approach on this that that we're really, really excited about, that we believe is going to get us to substantially lower error rates. And even on our very latest generation, we've got additional improvements leveraging these tunable couplers in the pipeline, and ultimately getting us well below the fault tolerant thresholds. Really that kind of .5 or even .1% error rate per two qubit gate that's needed to run error correction on that scale.

u/canadian2020 13:45

You mentioned the error rate. How will Rigetti improve the coherence time and reduce error rate for your quantum computing in the coming years. Can we expect any technological breakthrough?

Chad Rigetti 13:55

So when you look at, well first of all, let me zoom out a little bit just to explain what error rate means for the non expert. So ultimately, when you're enacting a quantum computation on a Rigetti processor, the quantum algorithm itself is decomposed into one and two qubit logic gates, which are physically enacted on the quantum processor. That's how the algorithm is built up. Each of those gate operations within you know, any quantum computer has a finite probability of being executed perfectly. And the error rate is a probability that that gate contains an error when it is executed an algorithm. So as part of driving progress in the industry, one of the most important vectors of all this scale. So continuing to scale the number of qubits available in the quantum processor, our multi chip technology is a, we believe is just a game changing advance in the scalability of the systems.

Chad Rigetti 14:50

Now, with respect to error rate, there are multiple different sources of error that can constrain that error rate. It doesn't need to be perfect. The error rates don't need to get to zero but they need to get low enough where a quantum advantage can be demonstrated on practical use cases, or where error correction can then be applied to drive the error rates exponentially even lower through trading off physical qubits from logical qubits.

Chad Rigetti 15:12

The contributors to that finite error rate that is there today and will continue to be there going forward is, you know, things like finite coherence times, imperfect control pulses, imperfect stability of physical qubits within the system. All of those are things that we are at Rigetti, and across the industry, this is an important thrust across the entire industry, from academia to the major industrial players like Rigetti. We continue to improve coherence times. We continue to improve the control mechanisms of the two qubit gates, as well as continuing to improve error mitigation and suppression capabilities that can drive those error rates down even further.

u/canadian2020 15:50

Thank you, thank you for letting us know how that works. Really appreciate it. I'm not going to pretend I understood everything, but hopefully it's very useful for the few folks that asked very technical questions on rSPACs. So turning to customers, earlier you mentioned some of your commercial customers included defense, energy. Are you seeing nuclear physics workloads, fusion, plasma fission, adopting quantum computing platforms?

Chad Rigetti 16:18

That's a great question. And in fact, earlier this year, we announced a multi year, multi million dollar contract with the Department of Energy and Lawrence Livermore National Lab, where researchers at Livermore will be using Rigetti quantum cloud services to study some of the dynamics and reactions that occur within a nuclear, within a plasma or within a nuclear fusion reaction. Better understanding that should help inform next generation fusion reactors. Obviously, fusion for the non experts, again, the ability to harness energy from the same reactions that power the sun would be one of the most valuable inventions that can live in human history. It would be a transformative advance in clean energy technology. In order to do that, there requires a much deeper and better understanding of how to build these reactors at a scale where they can provide net positive energy.

Chad Rigetti 17:17

And we're really excited about a partnership with the Department of Energy and with Livermore on this, as well as researchers at USC. And we're excited to start applying quantum computers over our cloud services platform to some of these really transformative applications. You know, when I started the company, one of the very first things I did was write down our mission statement, which is, you know, we've looked at it multiple times over the course of the company, and we keep coming back to it: build the world's most powerful computers and help solve humanity's most important and pressing problems. And when we get the opportunity to work on quantum computing capabilities applied to Fusion Energy Sciences, that is exactly the kind of thing that really, really motivates and enlights the team at Rigetti.

u/canadian2020 18:00

Wow, that's honestly, that's super impressive. You know, I've interviewed a lot of people over the past year and a half. And I think that I'll remember, because very few companies are solving problems, which will be super transformative, especially in regards to clean energy. And fusion will be, like, Nobel Prize winning transformation. So moving on, do you see any way that quantum technology could contribute to the trend around the metaverse? I know, totally opposite. For example, a simulation or optimizations of perspectives?

Chad Rigetti 18:38

It's a really great question. And in fact, there are potential applications. This isn't. First of all, this is not something that Rigetti is actively working on today. We're not actively working on technologies for the metaverse. However, when you look at the ingredients that are needed, from whether it's rendering technology, or just large scale, linear algebra and matrix math that's needed in this or even generative modeling capabilities – those are areas where there is a lot of promise and potential for quantum computing to provide meaningful advantages, whether it's a substantial speed up of some of those calculations, or, you know, lowering the cost ultimately for delivering this kind of compute at such a scale as needed to support future Metaverse, you know, technology. There is promise there for quantum computing to be applied at a very meaningful scale with, you know, through those application areas that are highlighted.

u/canadian2020 19:32

Okay, yeah, I know, that was a wild question that was out there, but people wanted to know. There's another one that's also wild, but I have to ask. Can quantum computing improve my Uber pricing?

Chad Rigetti 19:47

Well, look, I think when you look at what drives pricing, whether it's a taxi ride or a flight, you want to fly cross country or you want to catch a Lyft or an Uber. The things that go into that might be the fuel efficiency of the car, or the quality of the battery technology in a future electric car, or the efficiency with which the vehicle, whether it's autonomous or you know, or human driven, the efficiency with which the vehicle will get you to your destination. Some of those things are absolutely areas where quantum computing has the possibility to provide meaningful value and application. So routing fleets of vehicles in an optimal way is a classic optimization problem where there is substantial promise for quantum computing. Rigetti today is working on a DARPA program, with partners at NASA in the quantum artificial intelligence lab and USRA. On, you know, benchmarking and developing next generation quantum computers for these classes of optimization problems, for example, that battery technology is something where a better understanding of the reactions and the chemistry of some of these batteries, powered by a quantum computer in the future, is definitely a very exciting application area. This is one of the reasons why we really have seen a lot of interest in computing from the automotive sector. And ultimately, so, you know, through a relatively circuitous path, it is absolutely possible that quantum computing could help lower the cost of transportation and make it more accessible around the world.

u/canadian2020 21:20

That makes sense, you know. If you have more smart optimizations, hopefully you have better match of supply demand, and better pricing. So we talked a little bit about your background, what Rigetti computing does, a little bit about the technical side of quantum computing, and some of the customers you have. Now going to the SPAC side, why SPAC route rather than IPO?

Chad Rigetti 21:47

First, the SPAC process is just, we believe it's a better way to go public. For a company, especially a company in our situation, where we have an incredible opportunity and incredible technology and a very rapidly growing and emerging market for that technology, the opportunity to partner with a world class operating team on the SPAC sponsor side is a really compelling opportunity. Rigetti has developed our technology and established itself as one of a very small number of global leaders in quantum computing, with an opportunity to be a long term, just great and durable technology company. And as part of that, you know, today and in the future, we're gonna continue to develop partnerships with, you know, fortune 500 companies, emerging advanced technology companies, whether it's developing parts of the quantum computing stack or applying it into their core business. And we believe going public with a great SPAC partner like Supernova and the incredible operating experience that they have is a compelling opportunity for Rigetti and our shareholders.

u/canadian2020 22:50

That’s a very common answer here. It’s easier to go down the SPAC route, easier to access capital, which will allow you to scale very quickly. So the next question: What made you decide to partner with Supernova Partners Acquisition Company? There’s so many SPACs out there.

Chad Rigetti 23:07

When we thought about what we were looking for in a SPAC partner, we wanted deep operating experience, especially in the public sector. We wanted a highly complementary leadership team to the, you know, to the existing team at Rigetti. And just an extremely high caliber and quality of individuals and organization. And we found that and more in Supernova. We’re incredibly excited about working with them. Robert, Spencer, Alex and Michael have just been absolutely incredible through the process, and we’re thrilled to partner with them.

u/canadian2020 23:39

That’s awesome. And how is the transaction going so far?

Chad Rigetti 23:43

We’re really pleased. So far we’re continuing to make, you know, just great progress towards completing the de-SPAC in the merger and continue to, you know, look forward to next steps.

u/canadian2020 23:55

Awesome. So we have some live reviewers posting very technical questions. And if you don’t have an answer, that’s okay, because these are some very technical questions. So, ion trap, neutral atom, photon quantum computing, some of them have much longer coherent time, lower error rate compared to superconducting quantum computing, which Rigetti is using. Some can scale up better than superconducting as well. Can you comment on these competing technologies?

Chad Rigetti 24:29

Absolutely. So first, quantum computing is a really, we believe is a huge opportunity. And whenever there’s a very, very large opportunity, both for making a positive impact on the world and the economic opportunity that TAM represents, there are always going to be multiple competing solutions in pursuit of that opportunity. What we call the different kind of hardware modalities that are being pursued today, you know, in a practical sense, we’re building quantum computers at scale. That’s right. They’re superconducting, which we believe, and we think there’s a pretty, you know, very clear case to be made that superconducting is by far the leading technology today and has a really strong chance to continue in that position going forward. That’s our core technology. And I’ll talk more about in a moment. There’s other approaches, as highlighted by, by the question here, ion trap technology, neutral atoms, or photonics.

Chad Rigetti 25:27

All of these, if you go back over the past decade or so, if you go back to 2011, all these technologies are roughly at the same footing. And arguably, even ion traps may have been a little bit more mature at that point in time. But over the past decade, superconducting qubits have scaled much faster than the other approaches, and are the only technology that has really achieved that kind of scale with 50 plus qubits. Today, with our 80 qubit announcement, there's multiple different, three different companies out there that have demonstrated systems north of the 50 qubit level in superconducting. This segment of the industry has really taken off and is scaling faster than the other approaches, and has demonstrated extreme, you know, the lowest error rates at scale for these integrated production quantum computers. What we see happening is that super conducting is likely going to continue in that leadership position, and likely even pull away from some of these other modalities over time. Now, that's not to say that ion traps, neutral atoms, photonics are not going to lead to very valuable technologies, and very important, you know, in very valuable outcomes for some of those companies working on them.

Chad Rigetti 26:32

But ultimately, the preponderance of the market is likely to be in superconducting – we believe is likely to be superconducting technology going forward. While these other technologies play critical roles within the overall stack, or are best suited for specific niche applications. One of the fundamental reasons why we believe that to be the case, is, neutral atoms, photonics, ions, these kind of leverage what you can think of as natural or native quantum mechanical systems or degrees of freedom. Truly individual ionized atoms, or neutral atoms and an optical lattice. That has many benefits. You can have well behaved properties, predictable properties, as well as very stable qubits. It has some drawbacks as well. Some of these drawbacks include, it can be challenging to engineer the properties of those qubits, because their properties are in fact, dictated by the laws of physics. For the same reason, they can be very stable, for example, they can be very challenging to engineer. And when you're building a large scale technology, when you're delivering systems with not five or 10 or 20 qubits but hundreds and then 1000s, the ability to make practical engineering trade offs as you scale and drive the overall performance of the system, is really, really important.

Chad Rigetti 27:46

One example of that, as it relates to the speed of these different computers. So superconducting technology, not only is it highly scalable and has scaled much faster than other technologies of the past decade, but it's also very fast. And in computing, the speed of the computation matters. It's a very, very important consideration. In fact, in a lot of computing it's the single most important factor when characterizing the performance of the machine, and the speed advantage that superconducting qubits have relative to these other approaches is something that, you know, we believe it's going to be very challenging to overcome going forward with technology. And as a result, superconducting is likely to be the dominant or the mainstream technology going forward.

u/canadian2020 28:28

Great. Hopefully, that was a satisfactory answer for Ben Lee. Christopher is posing another question. For your multi chip architecture, what is the connectivity of qubits on different chips?

Chad Rigetti 28:40

So within the multi chip solution, what we do is, we're actually able to generate entanglement between qubits that are disposed on different pieces of silicon. So qubits across dyes. And we do that using the exact same coupling technology as for the intra-chip 2 qubit gates, or for 2 qubits on the same piece of silicon. These results were published earlier this year by the team at Rigetti in The Nature of Quantum Information Journal. So these are peer reviewed, published results that demonstrate this capability.

Chad Rigetti 29:16

You know, recently the internal team on our 80 qubit system was able to demonstrate GHD states. So this is a generalization of what you might have heard of as bell pairs, for example, these entangled states where information is encoded and represented in these entangled states in correlations that are impossible classically. So truly with leveraging the quantum mechanical properties of the system, we're able to use GHD states with seven qubits where three qubits are on one dye and four qubits are on the other. So we have the ability to produce high quality entanglement across dyes. And in fact, from an end user perspective, the 40 qubit, that the two 40 qubit dyes that make up our 80 qubit system, our Aspen-M system that we announced today in private beta. Actually, all the gates on that system look identical. From an end user perspective, it's very hard to tell which qubits would be on which dye because it's all a single integrated processor.

u/canadian2020 30:12

Wow, thank you so much. It was definitely a PhD in quantum mechanics, quantum physics. So Christopher, hopefully that answered your question. Well, thank you so much, Chad. I know we asked you a lot of questions today. But that's quite helpful for our 183,000 members on rSPACS, which continues to grow. Do you have any last piece of information you want to share with us as you guys de-SPAC?

Chad Rigetti 30:38

We're really excited about the opportunity. It's just been an incredible year at Rigetti with the announcement and now, you know, the availability of our 80 qubit processor Aspen-M architecture using the multi chip technology. The ability to solve this scalability challenge using our multi chip solution going forward. And you know, the really exciting steps we're taking, taking Rigetti public through this transaction. We're just thrilled about the next few years and bringing this technology to the broad market.

u/canadian2020 31:09

I'm definitely excited. You know, I really want to know more. I'm going to be doing my own investigation, because this seems to be a super exciting technology. Well, thank you so much, Chad, for your time tonight. And everybody at rSPACs, thank you for joining us. We'll be posting the rest of the schedule for the remainder of December. Wishing everybody a merry Christmas and happy New Year. Thank you so much, Chad.

Chad Rigetti 31:30

Thank you so much.

u/canadian2020 31:32

Take care bye bye

*** * ***

Additional Information and Where to Find It

Supernova Partners Acquisition Company II ("Supernova") has filed a registration statement on Form S-4 with the Securities Exchange Commission (the "SEC"), which includes a proxy statement/prospectus, that will be both the proxy statement to be distributed to holders of Supernova's common shares in connection with its solicitation of proxies for the vote by Supernova's shareholders with respect to the proposed business combination and other matters as may be described in the registration statement, as well as the prospectus relating to the offer and sale of the securities to be issued in the business combination. After the registration statement is declared effective, Supernova will mail a definitive proxy statement/prospectus and other relevant documents to its shareholders. This communication does not contain all the information that should be considered concerning the proposed business combination and is not intended to form the basis of any investment decision or any other decision in respect of the business combination. Supernova's shareholders and other interested persons are advised to read, when available, the preliminary proxy statement/prospectus included in the registration statement and the amendments thereto and the definitive proxy statement/prospectus and other documents filed in connection with the proposed business combination, as these materials will contain important information about Rigetti Holdings, Inc. ("Rigetti"), Supernova and the business combination. When available, the definitive proxy statement/prospectus and other relevant materials for the proposed business combination will be mailed to shareholders of Supernova as of a record date to be established for voting on the proposed business combination. Shareholders will also be able to obtain copies of the preliminary proxy statement, the definitive proxy statement and other documents filed with the SEC, without charge, once available, at the SEC's website at www.sec.gov, or by directing a request to Supernova's secretary at 4301 50th Street NW, Suite 300 PMB 1044, Washington, D.C. 20016, (202) 918-7050.

Participants in the Solicitation

Supernova and its directors and executive officers may be deemed participants in the solicitation of proxies from Supernova's shareholders with respect to the proposed business combination. A list of the names of those directors and executive officers and a description of their interests in Supernova is contained in Supernova's prospectus dated March 3, 2021 relating to its initial public offering, which was filed with the SEC and is available free of charge at the SEC's website at www.sec.gov. To the extent such holdings of Supernova's securities may have changed since that time, such changes have been or will be reflected on Statements of Change in Ownership on Form 4 filed with the SEC. Additional information regarding the interests of such participants will be contained in the proxy statement/prospectus for the proposed business combination when available.

Rigetti and its directors and executive officers may also be deemed to be participants in the solicitation of proxies from the shareholders of Supernova in connection with the proposed business combination. A list of the names of such directors and executive officers and information regarding their interests in the proposed business combination will be included in the proxy statement/prospectus for the proposed business combination when available.

No Offer or Solicitation

This communication does not constitute (i) a solicitation of a proxy, consent or authorization with respect to any securities or in respect of the proposed business combination or (ii) an offer to sell, a solicitation of an offer to buy, or a recommendation to purchase any security of Supernova, Rigetti, or any of their respective affiliates.

Forward-Looking Statements

Certain statements in this communication may be considered forward-looking statements. Forward-looking statements generally relate to future events and can be identified by terminology such as “pro forma”, “may”, “should”, “could”, “might”, “plan”, “possible”, “project”, “strive”, “budget”, “forecast”, “expect”, “intend”, “will”, “estimate”, “anticipate”, “believe”, “predict”, “potential” or “continue”, or the negatives of these terms or variations of them or similar terminology. Such forward-looking statements are subject to risks, uncertainties, and other factors which could cause actual results to differ materially from those expressed or implied by such forward looking statements. These forward-looking statements are based upon estimates and assumptions that, while considered reasonable by Supernova and its management, and Rigetti and its management, as the case may be, are inherently uncertain. Factors that may cause actual results to differ materially from current expectations include, but are not limited to: the outcome of any legal proceedings that may be instituted against Supernova, Rigetti, the combined company or others following the announcement of the business combination and any definitive agreements with respect thereto; the inability to complete the business combination due to the failure to obtain approval of the shareholders of Supernova or to satisfy other conditions to closing; changes to the proposed structure of the business combination that may be required or appropriate as a result of applicable laws or regulations or as a condition to obtaining regulatory approval of the business combination; the ability to meet stock exchange listing standards
following the consummation of the business combination; the risk that the Business Combination disrupts current plans and operations of Rigetti as a result of the announcement and consummation of the Business Combination; the ability to recognize the anticipated benefits of the business combination, which may be affected by, among other things, competition, the ability of the combined company to grow and manage growth profitably, maintain relationships with customers and suppliers and retain its management and key employees; costs related to the business combination; changes in applicable laws or regulations; the possibility that Rigetti or the combined company may be adversely affected by other economic, business, or competitive factors; Rigetti’s estimates of expenses and profitability; the evolution of the markets in which Rigetti competes; the ability of Rigetti to implement its strategic initiatives, expansion plans and continue to innovate its existing services; the impact of the COVID-19 pandemic on Rigetti’s business; and other risks and uncertainties set forth in the section entitled “Risk Factors” and “Cautionary Note Regarding Forward-Looking Statements” in the registration on Form S-4 and proxy statement/prospectus discussed above and other documents filed with Supernova from time to time with the SEC.

Nothing in this communication should be regarded as a representation by any person that the forward-looking statements set forth herein will be achieved or that any of the contemplated results of such forward-looking statements will be achieved. You should not place undue reliance on forward-looking statements, which speak only as of the date they are made. Neither Supernova nor Rigetti undertakes any duty to update these forward-looking statements.