



**Embark Technology, Inc.**  
**4Q21 Earnings Call Transcript**  
**March 17, 2022**

**Operator**

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Good afternoon, and welcome to the Embark Technology Fourth Quarter 2021 Earnings Conference Call. Today's call is being recorded, and we have allocated one hour for prepared remarks and Q&A. At this time, I would like to turn the conference over to Adam Fee, Strategic Finance Embark Trucks. Thank you. You may begin.

**Adam Fee, Strategic Finance, Embark Technology, Inc.**

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Thank you, operator, and thank you everyone for joining us today. Hosting the call with me are Co-Founder and CEO, Alex Rodrigues, and CFO, Richard Hawwa.

Ahead of this call, Embark issued its fourth quarter press release and presentation which we will refer to today. These can be found on the Investor Relations section of our website at [investors dot embarktrucks dot com](http://investors.embarktrucks.com).

Please note that on this call, we will be making forward-looking statements based on current expectations and assumptions, which are subject to risks and uncertainties. These statements reflect our views only as of today, should not be relied upon as representative about views as of any subsequent date, and we undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements in light of new information or future events. These statements are subject to a variety of risks and uncertainties that could cause actual results to differ materially from expectations. For further discussion of the material risks and other important factors that could affect our financial results, please refer to our filings with the SEC including our registration statement on Form S-1 filed on November 24, 2021 and our Annual Report on Form 10-K to be filed in the near-term.

In addition, during today's call, we will discuss non-GAAP financial measures, which we believe are useful as supplemental measures of Embark's performance. These non-GAAP measures should be considered in addition to, and not as a substitute for, or in isolation from, GAAP results. You will find additional disclosures regarding the non-GAAP financial measures discussed on today's call in our press release issued this afternoon and our filings with the SEC, each of which is posted on our website at [investors dot embarktrucks dot com](http://investors.embarktrucks.com). The webcast of this call will also be available on the Investor Relations section of our company website.

With that, let me turn the call over to Alex.

## **Alex Rodrigues, CEO, Embark Technology, Inc.**

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Thank you very much, Adam, and good afternoon, everyone.

Given that this is our inaugural earnings call as a public company, I would like to begin by sharing some background on the business and how we are leading the way within the autonomous trucking industry.

I am going to begin on slide 3. Embark is the longest running self-driving truck program in America. Our Company, from its founding 6 years ago, is solely focused on the trucking market, and we believe this focus differentiates Embark, both in the way we have developed our technology stack, and in the way that we go-to-market. We also believe both aspects are equally important to commercializing at scale. We pride ourselves on developing our innovative, purpose-built self-driving technology in parallel with the operational and commercial side of the business.

Our primary offering is the Embark Driver, our highly differentiated and advanced software stack. We deliver this software as a subscription service, by partnering with leading carriers, who will pay a per-mile subscription fee for Embark Driver software as well as a suite of supporting services.

Most notably, these services include Guardian, Embark's cloud-based dispatch and monitoring solution, which delivers 24/7 monitoring for the truck, along with remote assist capabilities and over-the-air updates.

We also provide carriers with access to the Embark Coverage Map. This is a nationwide network of sites between which carriers can dispatch Embark-equipped trucks. Within the Embark Coverage Map, there are sites to support both the Transfer Point operating model and the Direct to Shipper model. In the Transfer Point model, carriers utilize existing drivers to handle the first and last mile, and pickup and drop-off at Transfer Points near city industrial zones, where they can make that handoff. Under the Direct to Shipper model, carriers can move goods directly to and from shipper facilities, which have been mapped into the Embark Coverage Map.

I want to highlight three areas of key differentiation that are important to the Embark story and the result of focusing solely on autonomous trucking since our inception.

First, Embark has developed a proprietary and patent pending technology called Vision Map Fusion. This technology allows Embark's trucks to update the map in real-time, which is critical when encountering situations like construction work zones, particularly when you are on a two-lane highway where there are no alternative routes. This is different from other autonomy providers who rely on an alternative technology known as HD mapping, which is brittle and requires constant maintenance to reflect changes in highway conditions. Our technology stack reflects our focus on trucking, and we believe it's much more practical for highway driving relative to urban driving. For example, in an urban setting, a robotaxi can simply take a different route, which is not a viable alternative for the highway and trucking use-case.

Second, we have developed the Embark Universal Interface. These are custom-designed sensor and compute modules that, through a set of flexible interfaces, are designed to be integrated with any of the major OEM platforms. This modular integration approach is designed to enable our carrier partners to purchase Embark-equipped trucks from their preferred OEMs. This approach was born out of close collaboration with our carrier partners who, for decades, have purchased trucks from multiple OEMs and have been deeply involved in specifying these trucks down to the brakes, steering and even the type of engine. Our interface is designed to accommodate the multi-platform, component-level purchasing behavior that already exists in the trucking market, and is highly differentiated from the monolithic platform development approach of the robotaxi industry.

Thirdly, Embark has an asset-light business model, where we focus on partnering with the major players in the trucking ecosystem, including carriers, shippers, real estate partners and Tier 1 manufacturers. Unlike some of our competitors, who are focused on owning trucks and developing their own fleet, Embark believes we can be in a position to more rapidly scale by building partnerships where we benefit from the skills, expertise, and purchasing power of our partners, resulting in a much more capital efficient business. As one example, Embark partners with some of the top carriers in the United States as our customer. When you look at the top 100 carriers in the country, they spend approximately \$15 billion per year on trucks. Critically, this asset-light business model also allows us to remain focused on our core competency: building world class self-driving software for the trucking market.

Moving to slide 4, I would like to briefly discuss the market opportunity. Embark is focused on the rapidly growing \$730 billion-dollar U.S. truck freight industry, which is currently experiencing many well-known challenges, specifically: driver shortages, diminished carrier margins due to rising labor and fuel costs, safety concerns, and increased pressure to expedite delivery times.

We believe Embark's technology will address all of these challenges, and more importantly, will help driver quality of life by allowing drivers to primarily service local routes and then return to their homes each evening.

Additionally, Embark's autonomous driving solution provides compelling economics for carrier partners by enabling carriers to operate for longer hours, with meaningfully higher estimated annual revenue per truck. Currently, trucks driven by humans are limited by Department of Transportation regulations to 11 hours of operation per day. Embark-powered autonomous trucks have the potential to dramatically increase that daily driving time, while improving delivery speed and increasing utilization.

Also, it is worth noting that 1 in 5 loads requested by a shipper today is rejected due to unavailable carrier capacity. We believe our technology will help unlock these supply chain challenges and provide more speed, certainty and reliability for shippers in the future.

Embark's technology will also address critical safety issues, as a majority of all motor vehicle accidents are caused by human error. Embark Trucks has a leading safety record

among autonomous software developers, having driven over one million real world miles and done so without a single Department of Transportation reportable safety incident.

All these factors create a very tangible need for our technology and a compelling business and commercial use-case.

Turning to our business updates on slide 5, I would like to highlight several of our accomplishments since announcing our business combination with Northern Genesis last June.

In October, we announced that carriers have placed an industry-leading 14,200 reservations for Embark-equipped autonomous trucks, more than twice the nearest public competitor at the time of announcement.

What makes the reservation announcement even more exciting is that all the carriers that were allowed to place reservations committed to investing today, to prepare their operations for autonomous vehicles as part of our Partner Development Program. These reservations represent a major commitment from fleets that are deeply engaged with us - including many of the largest carriers in the country.

This reservation process began with Embark's detailed roll-out plan across the sunbelt, and then overlaid granular lane and load level data from our carrier partners to plan for the conversion of lanes to autonomous based on factors such as lane length, frequency and market volume densities. Combined with insights from how our carrier partners operate trucks today, this allowed us to determine how they would actually deploy and roll-out the Embark Driver technology within their fleet. And then, based on this final output, we are able to identify, very specifically, the number of Embark-equipped trucks a given carrier would deploy over the first five years of commercialization. Only then, were carrier partners allowed to place a truck reservation substantiated by this data-driven analysis. This process requires significant coordination and collaboration with our partners, many hours of work, and billions of miles of analysis. The result is a high conviction number and associated lane level analysis, which allows us to confidently plan our commercial roll-out - beginning in 2024 - and to meet the significant scale demanded by our partners.

We also continue to bolster our leadership team with industry veteran executives who have deep autonomous vehicle experience. A few key hires and promotions I'd like to highlight today:

- We recently announced the appointment of Stephen Houghton as Embark's Chief Operating Officer. Stephen brings two decades of leadership experience to the team, including six years of autonomous vehicle experience from Amazon and Cruise. Specifically, at Cruise, Stephen was responsible for scaling Cruise's operations to more than 700 people.
- Jean-Baptiste Passot recently joined to lead our software engineering efforts. Jean-Baptiste joins Embark after a decade at Brain Corp, where he oversaw nearly 100 software engineers that deployed a fleet of tens of

thousands of production-grade robots. Jean-Baptiste holds a PhD in Computational Science and is responsible for more than 30 patents on a variety of robotics applications.

- The last key hire I will highlight here is the addition of Sam Loesche on the policy side. Sam served as a senior government affairs representative for the International Brotherhood of the Teamsters union for over 8 years before joining Embark, and brings over a decade of experience in technology, safety, and labor policy at the federal and state level. Sam will further strengthen Embark's long standing relationships with interest groups, unions, and federal policymakers to collectively deliver the safety, labor, and environmental benefits of autonomous trucking. We are excited to have Sam on the team and we believe engaging with labor is critical to our goal of improving Driver's lives and helps advance our objective of bringing more and higher quality jobs to the industry.

At Embark we truly value our culture and the people we hire. I am humbled and excited at the many industry veterans who are wanting to be a part of what we are doing here at Embark.

On the Coverage Map expansion, we are excited to have recently announced a strategic partnership with Alterra Property Group. Alterra is one of the largest and first real estate investment companies in the US to focus on industrial outdoor storage properties. Alterra is planning to use its existing national real estate portfolio and private equity funds, together totaling over \$1.5 billion, to identify sites that Embark can use as Transfer Points in key freight markets. This partnership further highlights the work we are undertaking today in advance of commercialization in 2024, and validates our asset light strategy and ability to remain focused as a Software-as-a-Service business.

Two other key highlights I will briefly touch on:

First, as we announced earlier this year, we expect to demonstrate and provide key results from our snow testing by the end of this winter. I can say we have successfully completed testing with our trucks in Montana, and we look forward to sharing the results and key learnings on this in the very near-term.

Additionally, and this is an important one for me personally, as part of our commitment to ESG, I am foregoing my salary and bonus for 2022, and these amounts will be used to launch a grant program and fund a number of projects in STEM Education beginning with a grant to the Afghan Girls Robotics team, which I'm really excited about. Embark and I are focused on the long-term - and taking a zero dollar salary and bonus this year is a clear way of creating alignment with all Embark shareholders and living out our values.

Turning to slide 6, those of you who have followed the Embark story for many years have heard me talk repeatedly about avoiding unrealistic goals. Embark has consistently distinguished ourselves as a company that sets realistic expectations with the objective of exceeding them. We did that for five plus years as a private company and in 2021 I'm very proud that we've continued to build on that track record as a public company.

From a technology perspective we kept up our engineering velocity target of delivering two or more new capabilities from our capability roadmap in 2021, just as we have every year going back to 2017. On the commercial side, in our very first investor presentation, in our path to going public, we outlined three key objectives that we expected to make major announcements on in the following 12 months:

- Secure truck reservations under our Partner Development Program
- Enable Embark Universal Interface as an option through manufacturing partnerships, and
- Expanding the Embark Coverage Map

As we just walked through, in 2021 Embark excelled in delivering these ambitious objectives, including announcing in October that we had received more than double the number of reservations from major national carriers compared to our nearest public competitor. We continue to pride ourselves on the depth of our relationships with our partners across the trucking ecosystem and our ability to deliver industry-leading outcomes in a highly capital efficient manner.

On to slide 7 – I want to take a moment to outline what we intend to accomplish in 2022:

- First, become the first autonomy developer to deliver trucks into the fleets of carrier customers,
- Second, accomplish two of the remaining five capabilities in our technological roadmap, bringing the total capabilities accomplished to 13 of 16 by the end of 2022,
- And third, launch the backbone of the Embark Coverage Map across the sunbelt region

I want to reiterate again that we aim to provide clear milestones so that our progress can be measured and tracked, allowing us to demonstrate the advancement of our technology and to provide tangibility towards commercialization. I also want to ensure that not only can you evaluate our technology progress, but also our commercial and operational progress, which is equally important to ensure the trucking ecosystem is ready to deploy our technology. As I have said before, we can't simply ask carriers to download an app and start using trucks in 2024 without proper preparation. Instead, we are actively preparing our partners today, setting up the operational framework to ensure our software is tightly integrated within their fleets. This preparation is critical to our long-term successful commercialization, and provides another tangible check-point as we work with our partners and prepare to put self-driving trucks into service across the sunbelt.

Looking first at the technology roadmap on slide 8, we are providing even more detail around the five capabilities that remain, and the timing of when we intend to achieve them. As you can see, two of these capabilities, Emergency Vehicle Interactions and Evasive Maneuvers, are scheduled to be accomplished this year.

On slide 9, we can dig into more detail on Emergency Vehicle Interactions. Emergency Vehicle Interactions involve the multi-step process of Embark Driver responding to a

traffic stop. This includes: sensing an emergency vehicle and knowing it needs to pull over, confirming the traffic stop with Guardian, pulling over to the side of the road, informing the officer to call Guardian, and providing access to key documents via lockbox. We have collaborated closely with the California Highway Patrol to test this capability and we expect completion in the second quarter of this year. We also intend to work with additional local authorities to refine this capability.

Moving onto slide 10, I want to discuss the main areas of commercial focus for Embark in 2022.

First, the Truck Transfer Program is an industry-first program and a major step in the evolution of autonomous trucking that we will be executing on over the course of the year. I will speak to this in more detail on the next slide.

Second, as I mentioned, we are going to continue to be focused on expanding the Embark Coverage Map. Continuing to build upon our partnerships with Alterra and Ryder, we are excited to truly operationalize the backbone of our Coverage Map across the sunbelt by the end of the year.

Third, we remain committed to our manufacturing strategy of developing Embark Universal Interface to work across multiple OEM platforms. As I will highlight, the Truck Transfer Program will be a great proof-point of a carrier being able to use their preferred truck platform, simply by selecting it and having the Embark Universal Interface installed.

Lastly, the Partner Development Program will continue to mature, and we expect to execute from a set of 40 plus projects across 15 primary workstreams over the course of 2022. This will further inform the roadmap towards commercial deployment with our existing carrier partners, while also adding new partners to the program. We are excited to share more detail on our Partner Development Program work over the course of the year as we execute on these initiatives.

Moving to slide 11, I want to talk about the Truck Transfer Program, or as we call it TTP, which is an exciting next step for the autonomous trucking industry.

To date, Embark and other autonomous developers have operated a testing model in which the AV provider owns, maintains, and dispatches autonomous trucks, placing their own driver behind the wheel during hauls for shipper and carrier partners. This existing configuration has generated valuable early insights into real-world technology performance and how best to integrate Embark-equipped trucks within the existing supply chain operations.

The Truck Transfer Program represents the next logical step towards commercialization, marking the first time that the carrier - Knight-Swift - will own an autonomous truck, maintain and deploy that truck, and place their own driver behind the wheel. This program will unlock the next level of integration and deployment learnings ahead of scaled commercialization.

Last month, we announced that by the end of 2022, we intend to equip a set of Knight-Swift trucks from the carrier's slated 2022 OEM deliveries with Embark Universal Interface for use in their day-to-day operations. We will work closely to develop workflows and account for truck maintenance, dispatching, and IT integration points, among other things, to ensure seamless integration of Embark technology.

This will be yet another tangible proof-point of Embark achieving our commercialization targets, and a great example of how the depth of partner relationships is critical to preparing the ecosystem for autonomous trucks.

And with that, I will turn it over to Richard to discuss the financial details.

### **Richard Hawwa, CFO, Embark Technology, Inc.**

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Thank you, Alex. Turning to slide 12, let me highlight some of the key financial and operational metrics that support our business progress.

First, we are excited about the \$245 million dollars of net proceeds raised during the transaction to go public last year. Embark has developed a leading technology stack and industry-leading business partnerships in a highly capital efficient manner and we believe this additional capital will continue to support the business going forward. By maintaining focus and discipline, we can deploy our resources efficiently and effectively. We believe our balance sheet is very robust given our operational and commercial goals and objectives that Alex just walked through, and further highlights why having clear and focused efforts is critical to maintaining capital efficiency.

As we look at key financial and operational metrics, I want to really focus on several areas. First, free cash flow spend is a metric we monitor very closely. For the fourth quarter of 2021, Embark had free cash flow spend of \$34.2 million, and for the full year 2021 we had free cash flow spend of \$68.8 million. These are net of certain one-time cash expenditures related to transaction costs. It's worth noting that Q4 reflects approximately \$12.5 million of prepaid expenses and other working capital adjustments. So, if you look at Q4 without the impact of those adjustments, free cash flow spend is closer to \$21.7 million for the quarter. These metrics are also net of one-time related transaction costs.

As a pre-revenue company, we are very cognizant that every dollar we spend must have a clear and obvious use to advance us towards commercialization. While sometimes this focus can be to the detriment of marketing our story publicly, we believe the technology, and what we've accomplished with our resources to date, ultimately speaks for itself. To reiterate, we believe we have deployed a leading technology relative to our competitors, with less capital because of our focus and discipline.

Turning to full-year 2022 guidance. We expect free cash flow spend to be in the range of \$125 million to \$140 million. We believe our ability to develop a leading technology while being extremely capital efficient is the direct result of our focus, which helps ensure we continue to be prudent stewards of capital as we advance towards commercialization in



2024. As an AV company, we also don't need to build a manufacturing facility or hard asset to have one sale. We are able to continually evaluate the tradeoffs on where and how we deploy capital to ensure we are efficient with our resources, and most importantly, this enables us to ensure we remain focused on the main objective of commercializing our AV trucking technology at scale.

To provide a bit more detail on the quarter and the year:

Net loss was \$76.4 million for the fourth quarter and was \$124.2 million for the full year 2021. Adjusted EBITDA loss was \$20.3 million for the fourth quarter compared to adjusted EBITDA loss of \$6.1 million in the prior-year period. Full year 2021 adjusted EBITDA loss was \$53.5 million. These are net of one-time related transaction costs.

These figures include stock-based compensation expense of \$44.2 million for the fourth quarter, and \$47.6 million for the year 2021. For 2022 we expect stock-based compensation expense to be in the \$70 to \$75 million range. It's worth noting that approximately \$10.6 million of this stock-based compensation expense is related to our Founders PSU Grant. That does not begin to vest until our share price is at least \$20, and then the vesting schedule grows in five price increments up to \$100 per share, aligning our founders' interest with long-term investors.

Since it's always a top question, I included some additional detail here so you don't have to go digging through our filings. As of March 7, 2022, Embark had 450 million basic shares outstanding. You will also see in the appendix, I included a summary of our share count for your benefit, which also summarizes the warrants we have outstanding, that remain out-of-the money today.

Lastly, a few key operational metrics I want to highlight. At year-end we had 18 trucks in our testing truck fleet - and we believe we are highly efficient in the way we utilize these assets, which allows us to have very robust road testing. We had 235 employees at year-end, of which 171 are related to our R&D organization. Lastly, and certainly most importantly, we continue to be excited about our safety record. We have had zero DOT reportable incidents or failed inspections throughout 2021.

Moving to slide 13, I want to provide an update on our business prospects and the financial framework with which you can evaluate Embark.

Before I get into the details, I would like to reiterate the criticality of the preparation we are conducting today with our partners to both inform our assumptions and our expectations regarding ultimately realizing them. We are preparing our carrier partners' networks today, uncovering the operational, organizational and technological friction points that slow deployments, and then smoothing them out. We are continuing to learn where the technology makes sense and where it does not, and building deployment plans against these shared perspectives.

Given this unique perspective that Embark has been able to develop, we believe there are two ways to credibly evaluate this framework – top-down and bottoms-up.

From a top-down perspective, we have taken a set of assumptions around the total addressable market and then distilled this down into the lanes that we believe are economically viable for autonomous trucking. Lastly, we have further filtered the funnel to the operational design domains where we believe our technology will be viable in the near future – this is our serviceable market.

From a bottoms-up perspective, we are looking at our partners today to understand their current size, ability to scale autonomous trucking across their network, available buying power, etc. Today, our carrier partners drive roughly three billion miles annually and have 38,000 trucks under management, and this is achieved under the constraints of human-driver hiring and hours of service. The 14,200 truck reservations that these fleets have placed, represent nearly 10 billion miles over the entire lifecycle of the reservations. Additionally, these reservations are backed by deep network analysis, as Alex explained earlier, and is yet another proof-point on the depth of the work and analysis we conduct as part of our Partner Development Program to inform our overall framework.

As we progress towards commercialization, we look forward to refine the connective tissue from the top-down and bottoms-up frameworks to provide a high-fidelity view of our scaling plan.

With that, I will turn it back to Alex for closing remarks.

**Alex Rodrigues, CEO, Embark Trucks, Inc.**

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Thank you, Richard, I would like to conclude on slide 14 by thanking our partners and customers, our employees for all of their hard work, and our investors for their continued long-term support. I want to finish with one final observation. When we look at the broader mobility landscape, we believe that autonomy is the most attractive opportunity in the near-to-medium term, there are less players relative to other sub-segments and the financial profile is materially more attractive. Within autonomy, we believe the trucking application is the most obvious and practical use-case given the size of the market and the constraints our technology will unlock in the industry. Embark has been solely focused on the self-driving truck problem from the beginning, over 6 years ago, and we are excited to see the leading technology, and clear go-to-market strategy we have developed over many years intersecting with the most compelling opportunity in the mobility space today.

With that, we'll open the call to Q&A.