

Rocket Lab USA, Inc.

# 2022 INVESTOR DAY AND NEUTRON UPDATE

September 21, 2022

rocketlabusa.com



#### DISCLAIMER AND FORWARD LOOKING STATEMENTS

#### **Forward Looking Statements**

This presentation may contain certain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements, other than statements of historical facts, contained in this presentation, including statements regarding our expectations of financial results for the third quarter of 2022, strategy, future operations, future financial position, projected costs, prospects, plans and objectives of management, are forward-looking statements. Words such as, but not limited to, "anticipate," "aim," "believe," "contemplate," "continue," "could," "design," "estimate," "intend," "may," "might," "plan," "possible," "potential," "project," "seek," "should," "suggest," "strategy," "target," "will," "would," and similar expressions or phrases, or the negative of those expressions or phrases, are intended to identify forward-looking statements, although not all forwardlooking statements contain these identifying words. These forward-looking statements are based on Rocket Lab's current expectations and beliefs concerning future developments and their potential effects. These forward-looking statements involve a number of risks, uncertainties (many of which are beyond Rocket Lab's control), or other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. Many factors could cause actual future events to differ materially from the forward-looking statements in this presentation, including risks related to the global COVID-19 pandemic; risks related to government restrictions and lock-downs in New Zealand and other countries in which we operate that could delay or suspend our operations; delays and disruptions in expansion efforts; our dependence on a limited number of customers; the harsh and unpredictable environment of space in which our products operate which could adversely affect our launch vehicle and spacecraft; increased congestion from the proliferation of low Earth orbit constellations which could materially increase the risk of potential collision with space debris or another spacecraft and limit or impair our launch flexibility and/or access to our own orbital slots; increased competition in our industry due in part to rapid technological development and decreasing costs; technological change in our industry which we may not be able to keep up with or which may render our services uncompetitive; average selling price trends; failure of our launch vehicles, spacecraft and components to operate as intended either due to our error in design in production or through no fault of our own; launch schedule disruptions; supply chain disruptions, product delays or failures; design and engineering flaws; launch failures; natural disasters and epidemics or pandemics; changes in governmental regulations including with respect to trade and export restrictions, or in the status of our regulatory approvals or applications; or other events that force us to cancel or reschedule launches, including customer contractual rescheduling and termination rights; risks that acquisitions may not be completed on the anticipated time frame or at all or do not achieve the anticipated benefits and results; and the other risks detailed from time to time in Rocket Lab's filings with the Securities and Exchange Commission (the "SEC"), including under the heading "Risk Factors" in Rocket Lab's Annual Report on Form 10-K for the fiscal year ended December 31, 2021, which was filed with the SEC on March 24, 2022, and elsewhere (including that the impact of the COVID-19 pandemic may also exacerbate the risks discussed therein). There can be no assurance that the future developments affecting Rocket Lab will be those that we have anticipated. Except as required by law, Rocket Lab is not undertaking any obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise.

#### TODAY'S PRESENTERS



**Peter Beck** Founder, CEO, Chief Engineer



Adam Spice Chief Financial Officer



ROZ

**Brad Clevenger** Vice President – Space Systems



**Ehson Mosleh** Chief Engineer – Space Systems

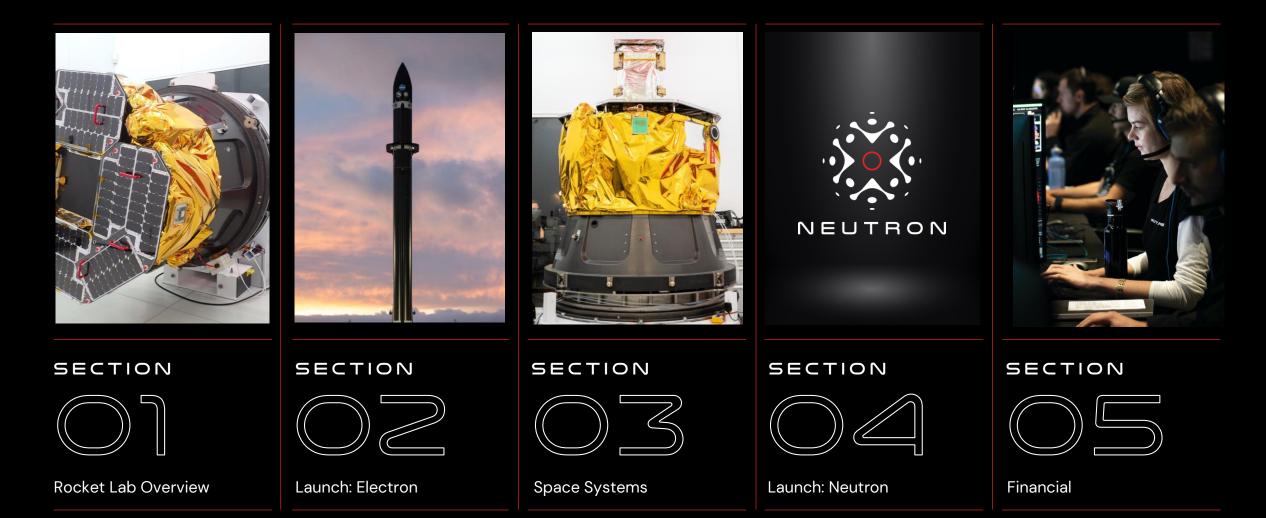


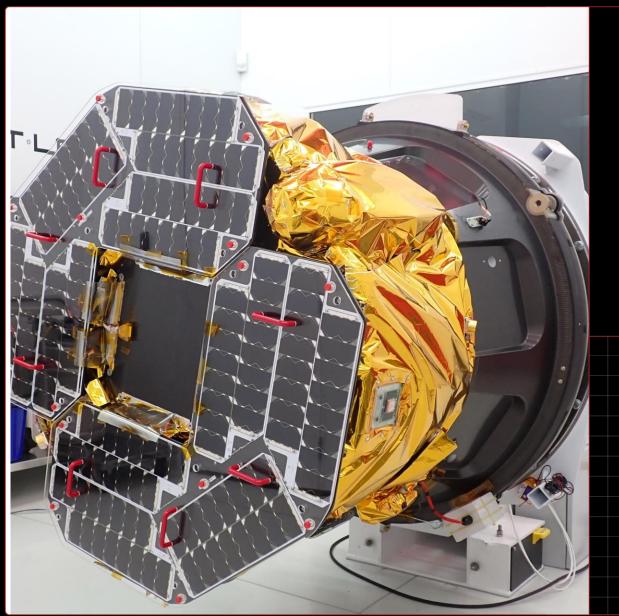
**Richard French** Director – Business Development and Strategy Space Systems



Shaun D'Mello Vice President – Launch Systems

# CONTENTS





# ROCKET LAB OVERVIEW

SECTION

#### OUR VISION

# OPEN ACCESS TO SPACE TO IMPROVE LIFE ON EARTH



#### LAUNCH WAS JUST THE START



**LAUNCH:** The ride to space.



#### SPACE SYSTEMS:

Satellites + the vital components and software within them.

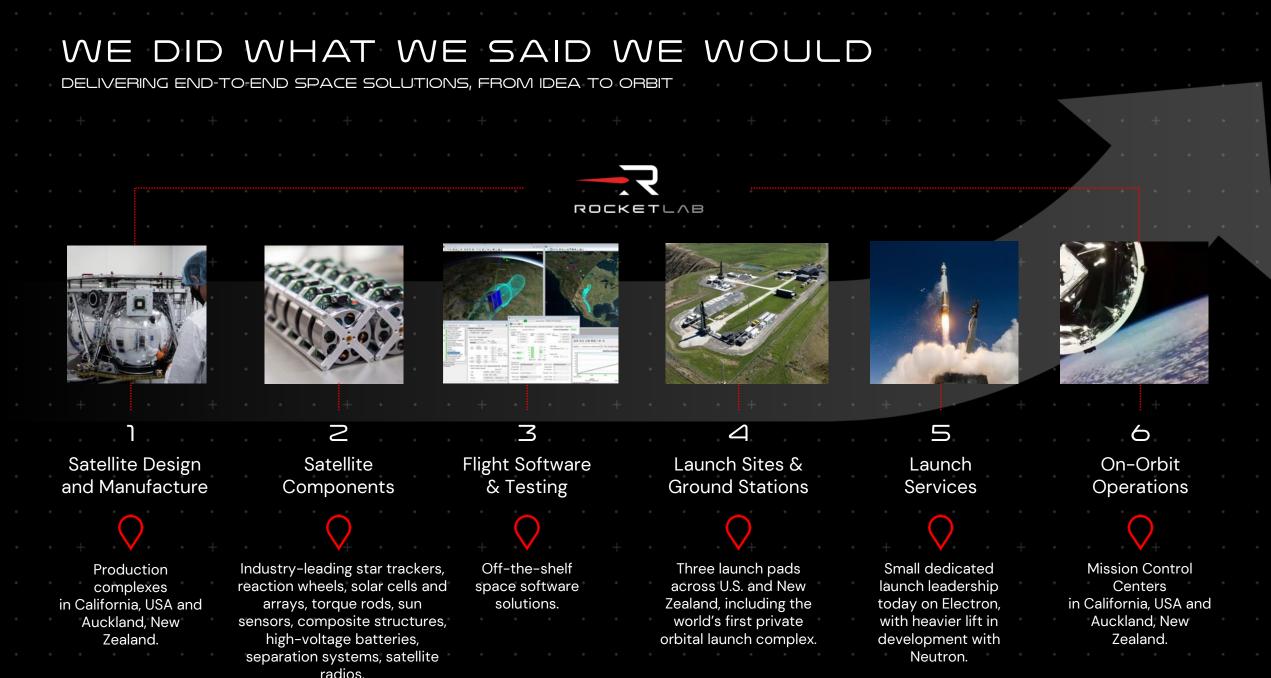
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#### SPACE APPLICATIONS:

Uniquely positioned to access expanding space applications market.

Rocket Lab is bringing all three together, streamlining space as one of the most advanced technology and service providers to the growing space industry. We are delivering real hardware and real missions to real customers – right now.





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# ROCKET LAB AT A GLANCE



HO H

Electron launches.

150

Satellites deployed to orbit.



Launch pads.



Most frequently

launched U.S. rocket.



Mission control centers.





Team members.



Strategic acquisitions since April 2020.



Rocket Lab Photon spacecraft on orbit.



U.S. states with Rocket Lab facilities.

5



13

A R

Ton payload class rocket in development.



1,700+

Satellites on orbit featuring Rocket Lab technology.

#### \$380B+ TAM FORECAST TO GROW TO \$1T BY 2030



Proven, reliable products in market with growing product lines and services in development.

With our own rockets and spacecraft, we're uniquely positioned to exploit this growing market.

Sources: Morgan Stanley, Northern Sky Research's 12th Edition Global Satellite Manufacturing & Launch Markets, Deutsche Bank

# ROCKET LAB REMAINS WAY OUT IN FRONT

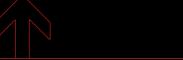
Continuing a record of relentless execution. Building momentum across launch and space systems, delivering on growth strategy.

Cemented leadership position in small launch with increased launch cadence.

Demonstrated launches 15 days apart. Expanding on addressable launch market with development of Neutron constellation launcher.



Construction underway on Neutron Production Complex, launch site secured, and vehicle hardware already in test.



Increasing mission heritage on Rocket Lab satellites and components, enabling access to higher value missions and larger constellation build opportunities.



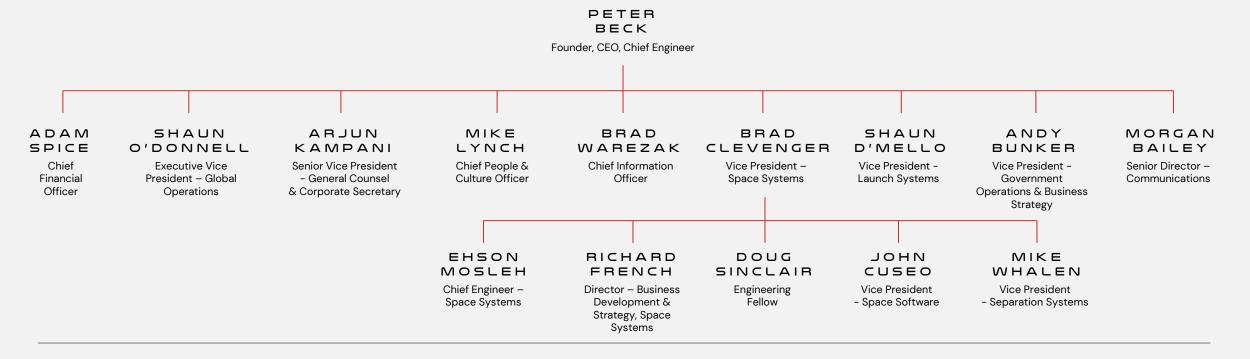
Successful Photon Moon mission for NASA has driven significant increase in interest from civil, defense, and commercial customers for Rocket Lab to design, build, and operate satellites for LEO and interplanetary missions.

Increasing Space Systems capability to capture more of addressable space market.



Through acquisitions and in-house development, we now deliver a significant launch and small satellite supply chain. This vertical integration enables us to offer customers schedule security and attractive pricing, resulting in significant contract wins including \$143M subcontract by MDA to build constellation spacecraft buses for Globalstar.

#### BUILT WORLD CLASS EXECUTIVE TEAM



#### BRINGING DECADES OF EXPERIENCE FROM







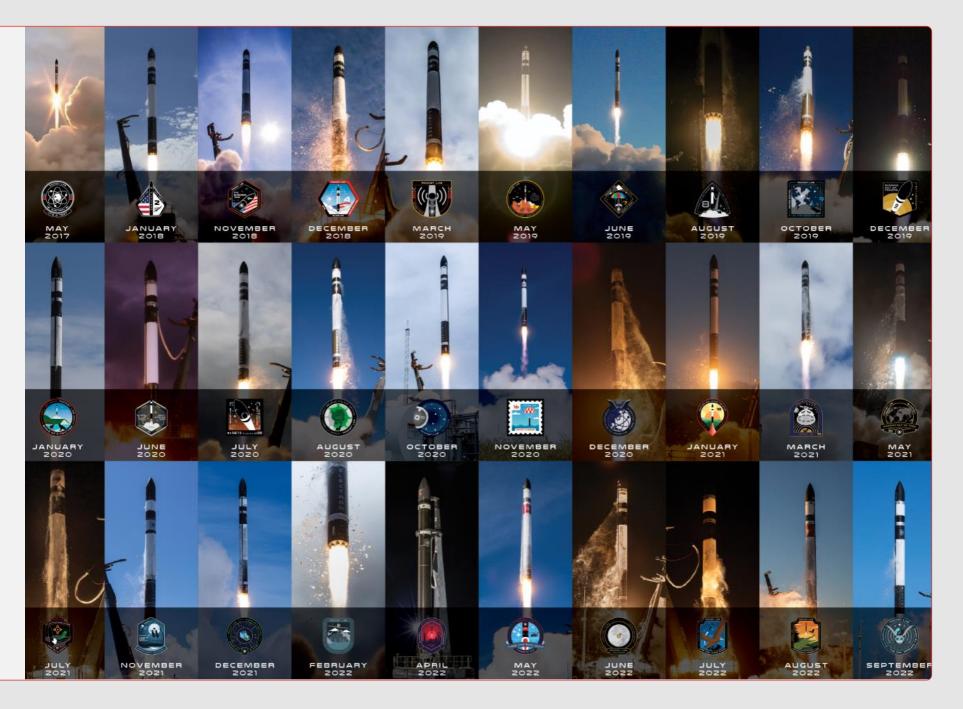
# SMALL LAUNCH: ELECTRON

# LEADING SMALL ROCKET GLOBALLY

Second most frequently launched U.S. rocket.

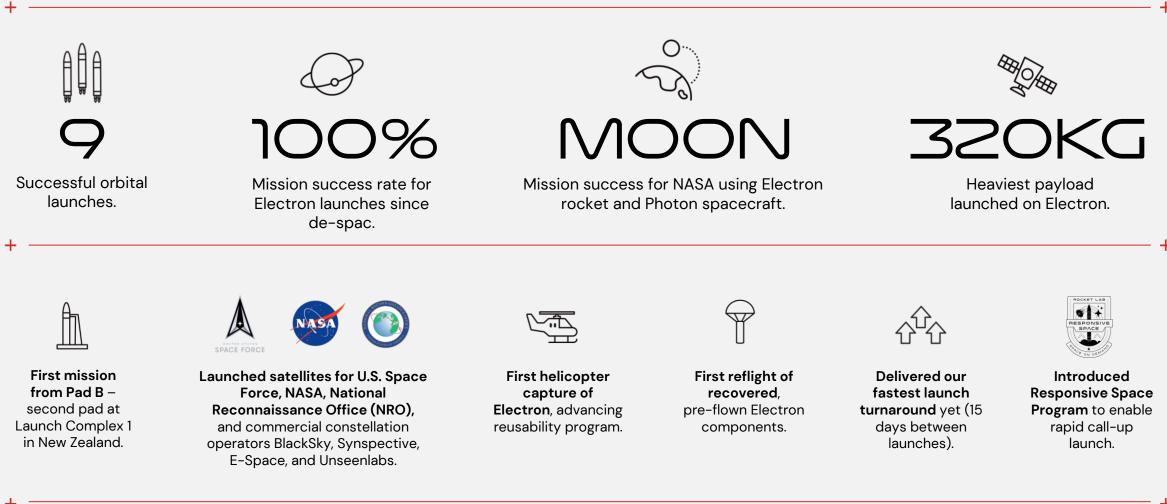
1. SPACEX

2. ROCKET LAB



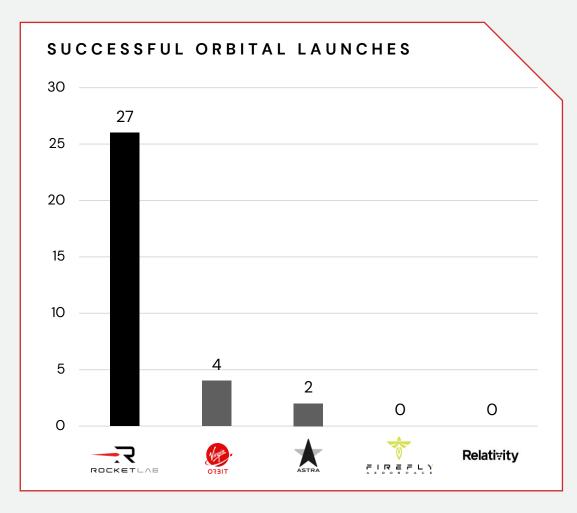
# SMALL LAUNCH LEADER

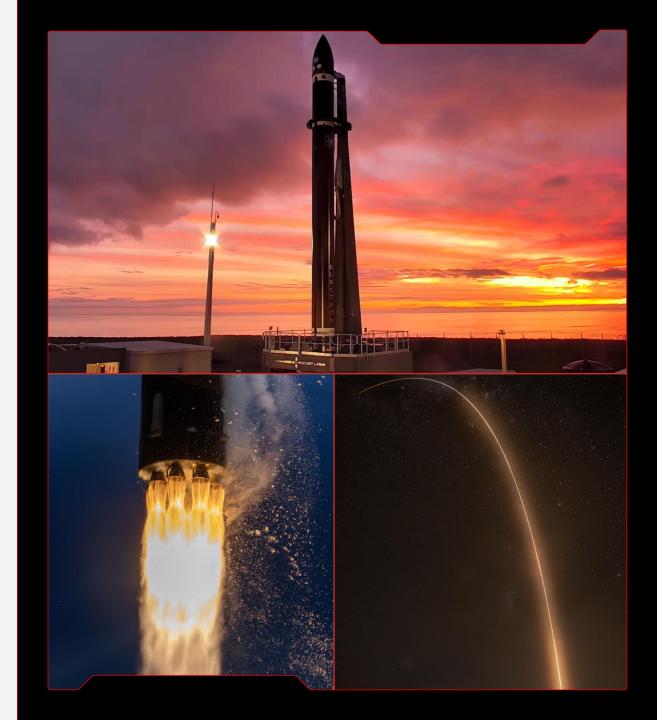
#### ELECTRON ACHIEVEMENTS SINCE ROCKET LAB'S DE-SPAC IN AUGUST 2021



#### THE LEADER IN SMALL SAT LAUNCH

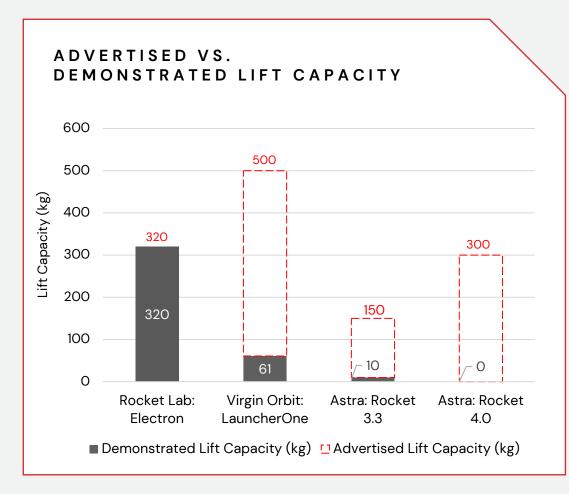
Most reliable small launch vehicle with highest number of launches.





#### THE LEADER IN SMALL SAT LAUNCH

Only small launch provider with demonstrated ability to lift advertised payload mass.





# RAPIDLY INCREASED LAUNCH CADENCE

Rocket Lab has demonstrated the fastest turnaround between successful launches of any small launch provider.





Virgin



Source: https://space.skyrocket.de/index.htm

ASTRA

SND

115 Days

# ELECTRON DELIVERS ON WHAT MATTERS MOST TO SMALL LAUNCH CUSTOMERS



#### Rapid, Responsive Launch

Rapid call-up launch in days or hours to meet defense needs and constellation replenishment.

=⊘ =0

Reliability 150 satellites deployed to orbit across 27 successful missions.

**Dedicated Launch** Putting small launch their orbit, launch

customers in control of schedule, and mission parameters.



**Rideshare Options Regular rideshare** missions enabling smaller customers to share costs.



Choice of Launch Sites 3 launch pads, two continents.

**Schedule Flexibility** 132 launch slots available annually. By operating our own exclusive-use launch pads, we can easily shuffle the launch manifest to support customer schedule changes.



# UNRIVALED LAUNCH INFRASTRUCTURE

**3 LAUNCH PADS IN 2 COUNTRIES** 





facilities.





World's first private, FAAlicensed orbital launch site.



24-hr rapid callup launch for defense needs and constellation replenishment.



A bilateral treaty allowing a U.S. rocket to launch outside the U.S.



# ELECTRON SHIPPED TO LAUNCH COMPLEX 2

Major milestone achieved in path to first Rocket Lab launch from U.S. soil.

First in a multi-launch deal with HawkEye 360 to launch **three missions** on Electron.

Launch scheduled December 2022.



LAUNCH COMPLEX-2

Wallops Island, Virginia, USA



#### ELECTRON REMAINS THE GO-TO DEDICATED LAUNCHER



Electron backlog grew 37% from August 2021



Awarded multi-launch deals by constellation operations Kineis, Synspective, BlackSky, and Hawkeye 360.



Selected to launch NASA's Advanced Composite Solar Sail System.



Awarded contract to launch innovative space debris removal mission for Astroscale.



Selected by NASA to provide launch services for NASA's Venture-Class Acquisition of Dedicated and Rideshare (VADR) missions, a five-year program with a maximum total budget of \$300 million in launch contracts.







#### GROWING LAUNCH COMPLEX 2 DEMAND



Selected by confidential commercial customer to provide dedicated launch services on Electron from LC-2 in January 2023.



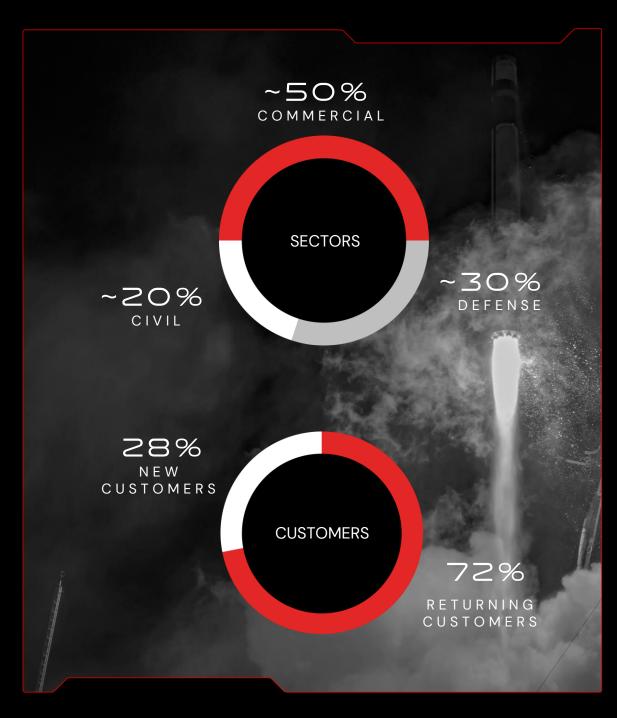
Mission to lift-off just weeks after scheduled inaugural launch from the pad.

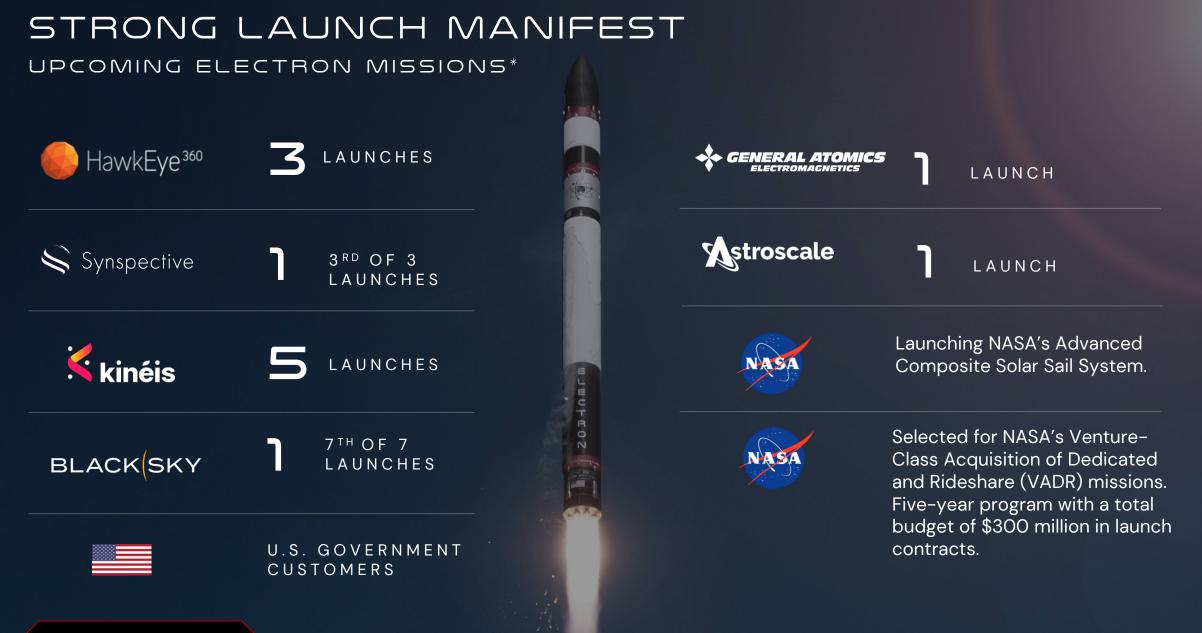


# TRUSTED LAUNCH PROVIDER OF CHOICE

Rocket Lab is a mission partner of choice for government agencies, commercial space companies, and prime contractors globally.

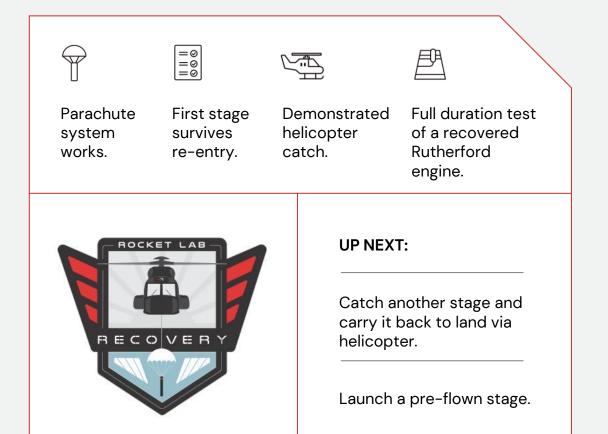


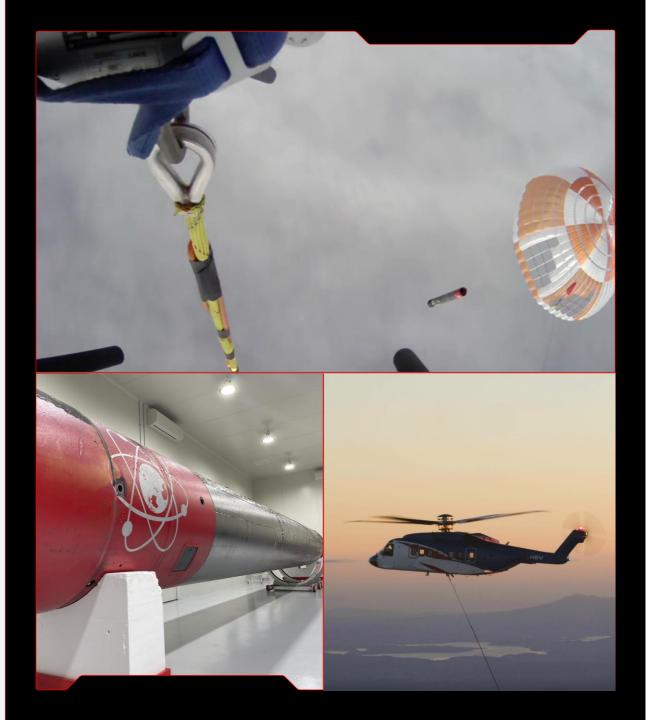




\*Due to customer confidentiality requirements, this list is not exhaustive

# REUSABILITY BEING OPERATIONALISED





# RECOVERED RUTHERFORD ENGINE HOT FIRE

SYSTEM: RUTHERFORD ENGINE LOCATION: PROPULSION TEST COMPLEX



#### ELECTRON MARGIN IMPROVEMENT

Proven vehicle and established manufacturing facilities now we can focus on margin improvement.



#### **R&D** complete

Core product is proven and reliable, requiring limited further investment into development.



#### **Cost savings**

With R&D complete and launches now standard operations, we can drill into every part and process, identifying opportunities for cost savings to reduce build price per vehicle.



#### Manufacturing facilities established Factories in place and capable of producing Electrons every seven days.



#### **R&D** headcount stable

Team is built and experienced. Any new Electron headcount is focused on scaling production in line with launch demand.



#### Strong negotiating power

As a launch and space systems manufacturer producing at scale, we're able to secure compelling prices from suppliers.



#### Reusability

The first stage represents ~65% of the total Electron build cost. By reusing them, we can make significant cost reductions.





#### SPACE SYSTEMS STRATEGY

# EVERYTHING THAT GOES TO SPACE SHOULD HAVE A ROCKET LAB LOGO ON IT





# BRAD CLEVENGER

Vice President Space Systems

# WHAT WE SAID WE'D DO

#### SATELLITES AS A SERVICE

Complete spacecraft design and build for LEO constellations to high-complexity deep space and interplanetary missions.

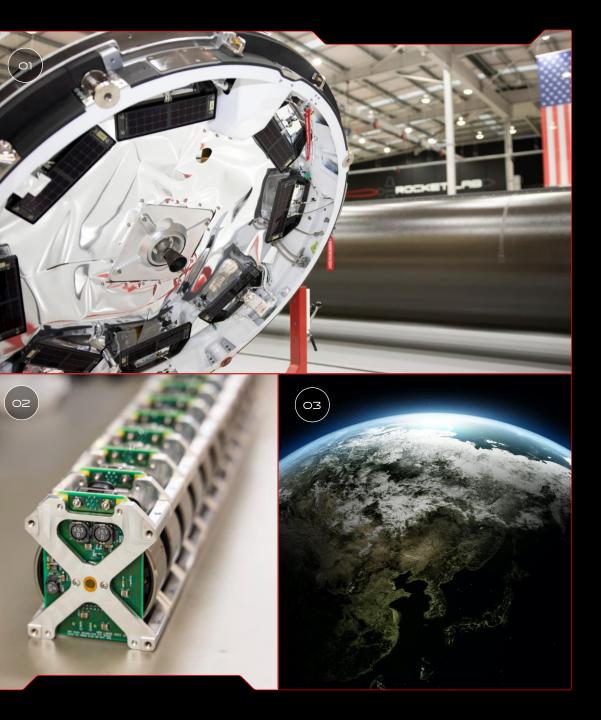


#### SATELLITE COMPONENTS

Building the hardware that makes missions possible.

SPACE APPLICATIONS

Uniquely positioned to access expanding space applications TAM.



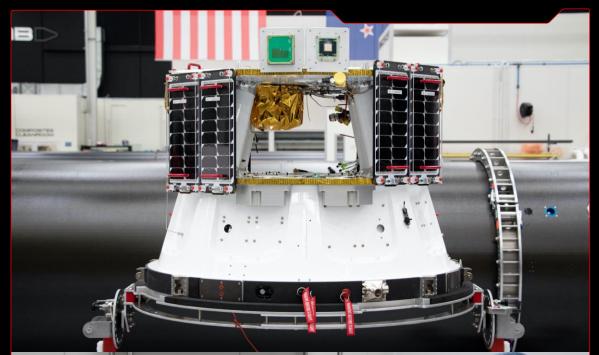


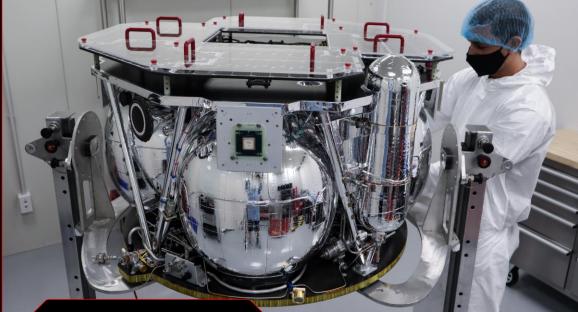
#### SATELLITES AS A SERVICE

# NOW A LEADING SPACECRAFT MANUFACTURER

Capability proven, manufacturing facilities established, and strategic investments underway to scale production capacity for future growth.

- > Rocket Lab spacecraft on orbit, including NASA Moon mission.
- > Delivering best-in-class spacecraft components and capabilities through organic offerings and strategic acquisitions.
- > Three satellite operations control centers.
- > Constellation manufacturing contract awarded.
- > 10,000 sq/ft state-of-the-art satellite cleanroom and processing facility established in Long Beach HQ – a significant investment in future satellite manufacturing capability.
- > Integrated launch + spacecraft offering.





#### SATELLITES AS A SERVICE

# VERTICAL INTEGRATION ACQUISITION STRATEGY



Bringing robust spacecraft manufacturing capability and critical elements of supply chain in-house.



These acquisitions, combined with our organically developed solutions, enable Rocket Lab to offer some of the most efficient and optimized spacecraft solutions in the industry.

#### **SINCLAIR** INTERPLANETARY

REACTION WHEELS & STAR TRACKERS



FLIGHT SOFTWARE & GNC

<sup>®</sup>PSC

SEPARATION SYSTEMS

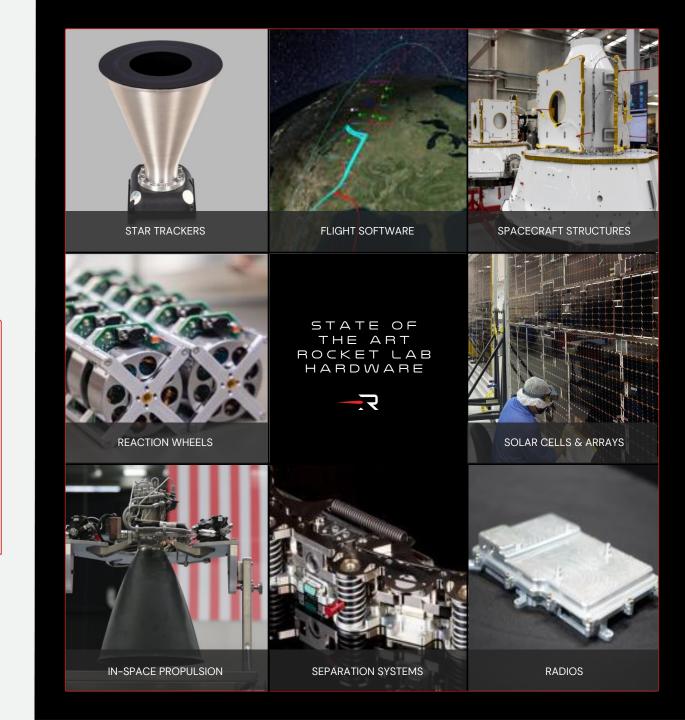


SPACE SOLAR POWER

# INDUSTRY LEADING SPACECRAFT COMPONENTS

# MORE THAN

of addressable launches in 2021 globally featured technology created by companies that are now part of Rocket Lab.



# ENABLING THE WORLD'S MOST AMBITIOUS MISSIONS

Supplying hardware and software for scientific missions of global significance, defense primes, and large commercial constellations.



NASA James Webb Space Telescope.



NASA Gateway Power & Propulsion Element.



GlobalStar Space-Based Connectivity Constellation.



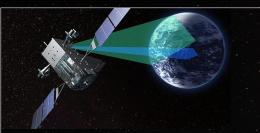
OneWeb Constellation.



NASA Mars Ingenuity Helicopter.







Next-Generation Early Missile Warning for National Security Space.

# NEW SATELLITE PRODUCTION FACILITY



Significant investment in satellite manufacturing and testing capability at scale.



Designed for constellation-scale production, this satellite manufacturing, integration, and test facility is substantially complete at our Long Beach Headquarters, encompassing a 10,000 sq/ft stateof-the-art cleanroom.





# EHSON Mosleh

Chief Engineer Space Systems

## COMPLETE SPACECRAFT SOLUTIONS

Awarded contracts to design, build and operate spacecraft across all target segments.

#### LUNAR AND INTERPLANETARY

NASA CAPSTONE Moon mission.

NASA's ESCAPADE Mars mission.

Private science mission to Venus in partnership with MIT.

HIGH-COMPLEXITY MISSIONS

Enabling in-space manufacturing and re-entry vehicles.

Cryogenic fuel depots in orbit.

Research agreement with U.S. Transportation Command to explore using Photon to establish on-orbit cargo depots.

#### SATELLITE CONSTELLATIONS

-

\$143M contract to design and manufacture 17 spacecraft for Globalstar's space-based connectivity constellation

# A ROCKET LAB SPACECRAFT DELIVERED THE FIRST MISSION OF NASA'S ARTEMIS PROGRAM TO RETURN HUMANS TO THE MOON



SATELLITES AS A SERVICE

# A COMPLETE MISSION SOLUTION

#### A MOON ROCKET

- A MOON ENGINE
- A MOON SPACECRAFT
- A MOON TRAJECTORY

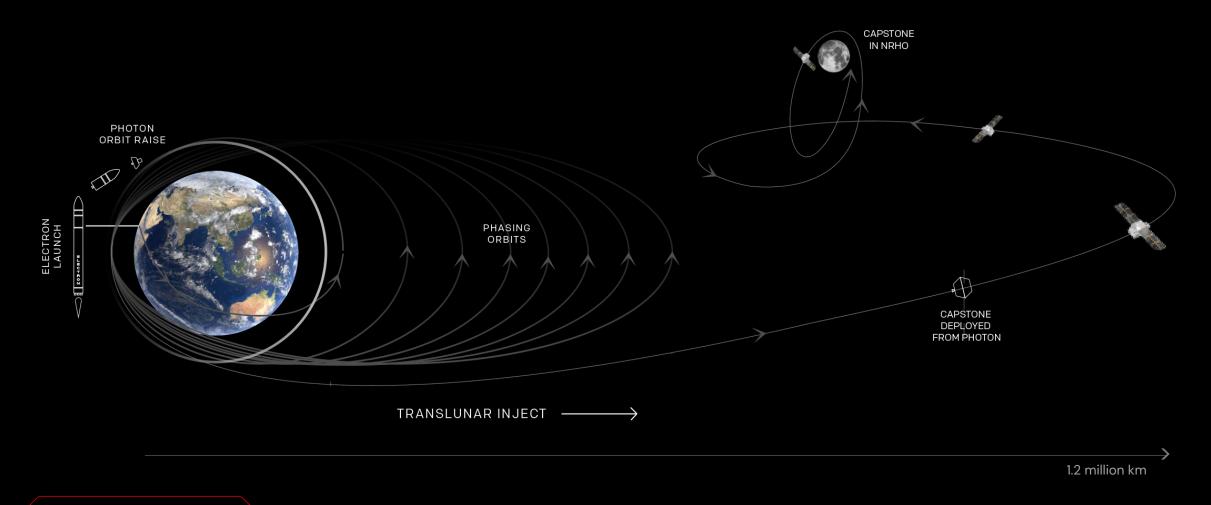
All designed, built and operated by Rocket Lab.

Rocket Lab is the only small launch provider to have **designed**, **built**, **launched**, **and operated** its own satellites in orbit, further expanding our TAM.



### HIGHLY COMPLEX TRAJECTORY

Six days of 24/7 spacecraft operations.



# THE MOST COMPLEX ROCKET LAB MISSION YET



First deep space mission.



First time planning and executing lunar trajectories. First use of Lunar Photon, a high energy Rocket Lab-designed and built spacecraft.



First mission where Electron's second stage deorbited the same day as launch.



Developed new in-space propulsion system in under two years.



Second flight of the Frontier-S satellite radio which Rocket Lab has an exclusive license with Johns Hopkins University Applied Physics Laboratory to manufacture.

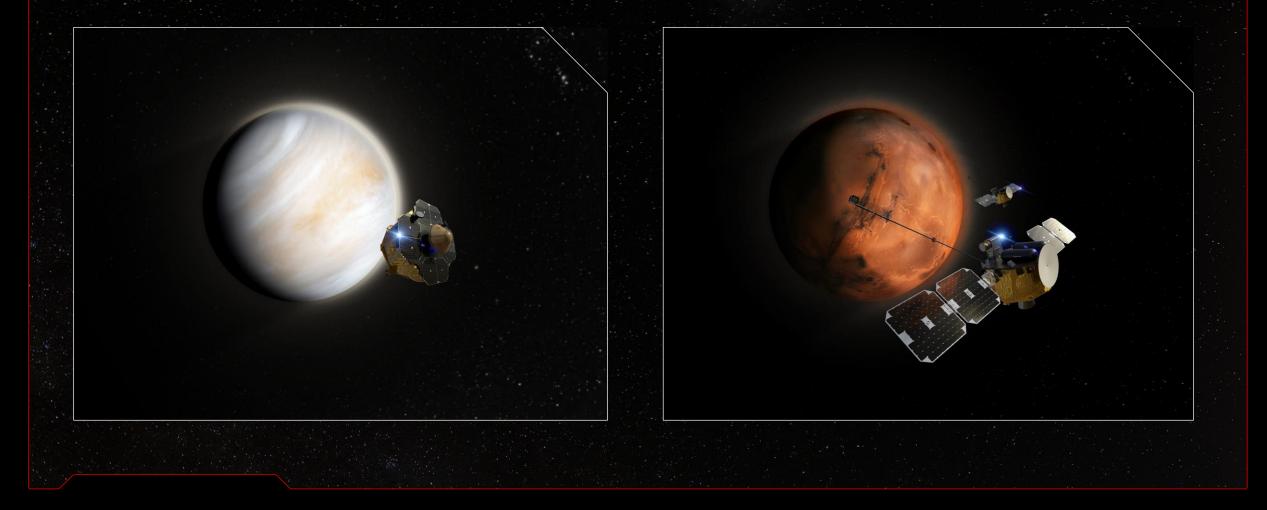


First use of MAX Flight Software from Advanced Solutions Inc (ASI) on a Rocket Lab spacecraft.



Electron's heaviest lift to date (320 kg). SATELLITES AS A SERVICE

# CAPSTONE HELPED US PREPARE FOR VENUS AND MARS



## HIGH COMPLEXITY MISSIONS

Selected by Varda Space Industries to build four spacecraft, enabling high-value products to be manufactured in zero-gravity and returned to Earth in a re-entry capsule.

LOXSAT selected as a NASA Tipping Point program to support Eta Space's development to further cryogenic fuel depot technologies in orbit.

Entered into research agreement with U.S. Transportation Command to explore using Photon spacecraft to establish on-orbit cargo depots and deliver re-entry capability in support of U.S. Air Force's Rocket Cargo Program.



# CONSTELLATIONS





Awarded \$143m contract to design and build seventeen 500 kg spacecraft buses for Globalstar constellation to enable space-based global connectivity.

The contract is a major step toward Rocket Lab's strategy to grow its Space Systems business and provide end-to-end space mission solutions at scale.

SATELLITES AS A SERVICE

# CONSTELLATIONS





The spacecraft design for this premium customer utilizes key internal investments and expertise from recent acquisitions.

- Solar Panels from SolAero 2.7 kW per satellite.
- Two Rocket Lab C-Band Frontier-C Radios per spacecraft (34 total) – exclusive manufacturing license from APL.
- ASI MAX Flight Software on all 17 spacecraft.
- Rocket Lab internally-built power distribution systems.
- Option to increase value with ASI/Rocket Lab Ground Data System and Operations software to fly the constellation.
- Option to increase value with launch dispensers.
- Platform can serve as an entry point to other communications missions or constellations.



# RICHARD FRENCH

**Director** Business Development & Strategy, Space Systems

### SPACE SYSTEMS: CLEAR GROWTH STRATEGIES & DEMONSTRATED SUCCESS

Deliver operational satellite solutions with discriminating capabilities for high-value customers to maximize spacecraft unit price

NASA ESCAPADE

NASA LOXSAT

Varda Space Industries

Globalstar/MDA

Vertically integrate components to reduce satellite cost and expand merchant component supply TAM/SAM

Organic and inorganic capabilities

New component products releases

Expansion and improvement of existing products lines

Constellation-class capabilities to capture strategic opportunities

Constellation-class component manufacturing

Large constellation reaction wheel production contract, heritage constellation production for OneWeb and small geospatial constellations.

Demonstrating constellation satellite integration with Varda and Globalstar/MDA.

Cross-selling opportunities with new and existing customers builds scale into production, allows building to demand

BlackSky/LeoStella

**Astro Digital** 

**Lockheed Martin** 

Globalstar/MDA

Integrated launch and satellite capability provides the lowest total cost of ownership for future expansion into application layer

## A LEADER IN REACTION WHEELS AND STAR TRACKERS

#### \*\*\*\*\*

SINCLAIR INTERPLANETARY BY ROCKET LAB

# STAR TRACKERS & REACTION WHEELS

- Industry leader for reaction wheel assemblies and star trackers from acquisition of Sinclair Interplanetary in 2020
- > Star trackers: Space heritage with 70+ units on orbit
- > Reaction wheels: Space heritage on 200+ units on orbit
- > Family of reaction wheel products for a range of spacecraft sizes
- New large reaction wheel assembly developed for spacecraft up to ~600 kg, unlocking new component TAM/SAM; will fly on Globalstar/MDA
- New high volume reaction wheel (>3,000 units/year) production capability established for constellations





# EXPANDING SOFTWARE SOLUTIONS



- Industry-leading flight software, ground software, and mission simulation tools from Advanced Solutions Inc. (ASI) acquisition in October 2021.
- MAX Flight Software: Off-the-shelf flight software operating on 53 spacecraft for cumulative 160+ years in space.
- > SOLIS: leading spacecraft simulation capability
- Introducing new MAX Ground Data System to unlock new customer opportunities: Operations ground software for spacecraft and constellation missions



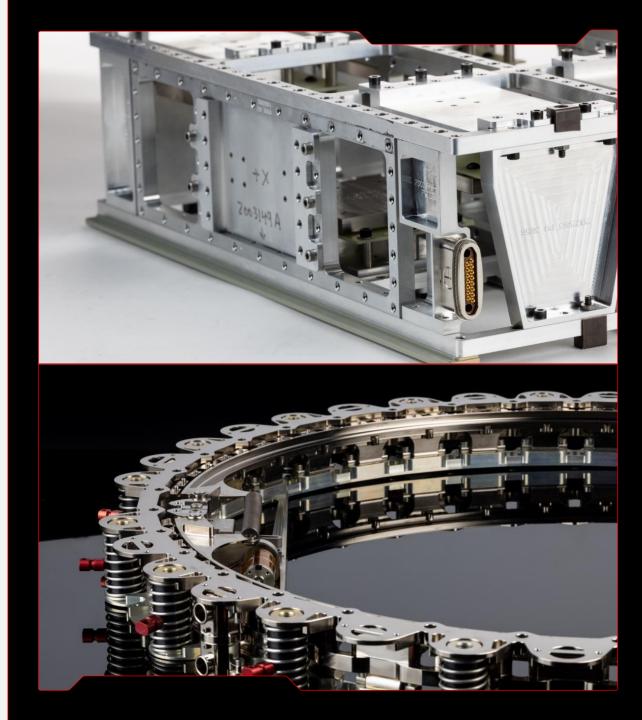
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## CONTINUED INVESTMENT IN SEPARATION SYSTEMS



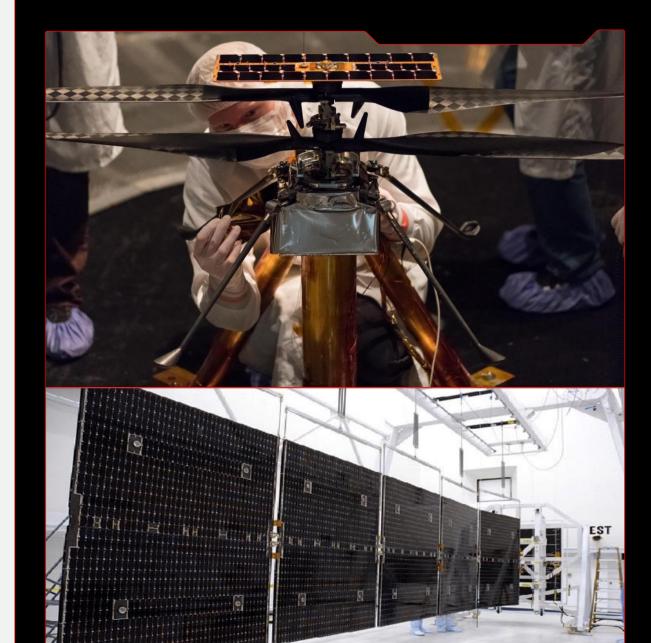
- Industry-leading launch separation systems from Planetary Systems Corp. (PSC) acquisition in December 2021.
- Heritage Canisterized Satellite Dispensers and Motorized Lightband separation systems family of products for satellites up to 1,800lb payloads, proven on hundreds of launches with 100% mission success.
- New Advanced Lightband separation system: developed to increase stiffness, reduce costs, and reduce lead time. Flight heritage on recent launches with 100% mission success.



# EXPANDING SOLAR AND STRUCTURES SOLUTIONS



- High-volume solar power production capability from acquisition of SolAero Technologies Inc. in January 2022
- Leveraging in-house composite structural panel manufacturing, introducing a new structures business for satellites and launch vehicles, increasing TAM/SAM; also flying on Globalstar/MDA
- > New deployable solar array solution being introduced to customers desiring a turn-key solution, increasing TAM/SAM



# HIGHEST EFFICIENCY SPACE SOLAR CELL TECHNOLOGY IN THE WORLD

Patented Inverted MetaMorphic (IMM) solar cell technology– only at Rocket Lab

- > Single highest efficiency cell in the world at 33.3%, with potential for even higher performance than any other competing cell technology, enabling new missions
  - > Enabled the NASA Mars Helicopter
  - > Enabled an important Maxar mission
  - > Only technology that meets the Space Force roadmap
- More than 40% lighter than competing solar cells, making satellites more cost effective to launch and improving satellite agility
- Actively investing in IMM capacity expansion to meet increasing demand and bring high production volume to market



# EXPANDING RADIO PRODUCTS

Building on partnerships and organic manufacturing capabilities, Rocket Lab has brought new products to market and continues to add more.

#### SATELLITE RADIOS

- Exclusive license agreement with the Johns Hopkins University Applied Physics Laboratory to manufacture Frontier radios for satellites.
- Fronter-S S-band radio announced in November 2021; first flight model delivery to customer expected in Q3 2022.
- Expanding product line with new Fronter-X X-band radio; will fly on NASA's ESCAPADE Mars mission.
- > L-band and C-band variants in development.





#### FRONTIER-S





FRONTIER-X

# RECORD YEAR FOR SPACE SYSTEMS



of Rocket Lab's total Q2'2O22 revenue was from space systems, creating cash flow stability and diversity and off-setting the natural lumpiness of launch revenue.



Component hardware companies acquired by Rocket Lab have had record sales and production rates for 2022 YTD.

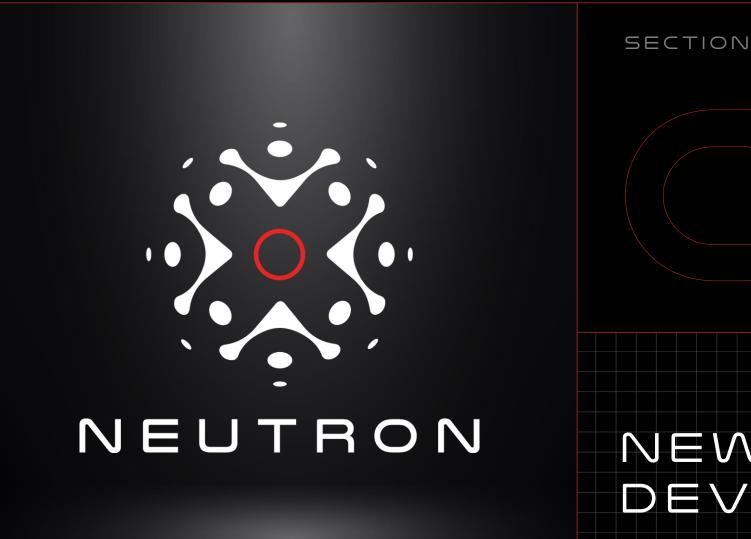
# \$396.4M

Total space systems backlog as of Q2, 2022.



# ROCKET LAB IS NOW POSITIONED TO CAPITALIZE ON THE LARGEST SPACE TAM - SPACE APPLICATIONS.

With our own satellites and launch capability, we can deliver services from space. Active discussions with our customers on what these will be are underway.



# NEW ROCKET Development

### MEGA CONSTELLATION LAUNCHER

# IT'S HAPPENING

# REAL HARDWARE IN MANUFACTURE





# NEUTRON IS COMING TO LIFE

# FIRST NEUTRON TANKS

# Hardest part complete

Tooling and moulds are the complex, time-consuming part requiring extensive design work and refinement.

With these now done, the first hardware has been delivered with more in production at pace.







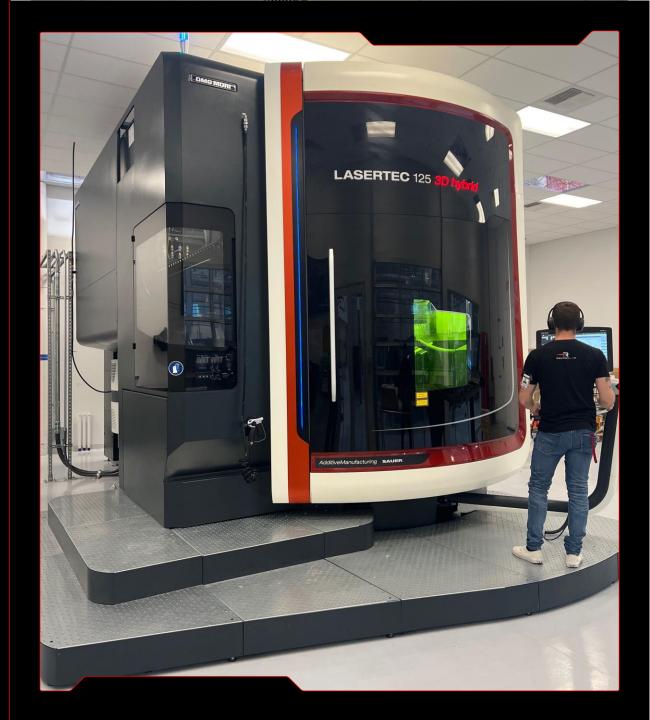
# WE'RE BUILDING IT

We're experts at 3D-printing rocket engines and we know how to scale.

Full scale parts come through our production lines using in-house 3D-printing machines.

We own some of the largest 3D-printers in the world.





# A DESIGN LED BY MARKET DEMAND

PAYLOAD: 15T (Expendable), 13T (Reusable), 8T (Return to Pad).

HEIGHT: 42.8 m / 140.4 ft.

FAIRING DIAMETER: 5 m / 16.4 ft.

MISSION PROFILES: LEO, MEO, GEO, Interplanetary.

REUSABILITY: First Stage And Fairing.

ENGINE TYPE: LOX/Methane.

NUMBER OF ENGINES: 9 First Stage/1 Second Stage.

STRUCTURE: Carbon Composite.



# ADVANCED FAIRING DESIGN

A slightly less hungry hippo.

#### **Captive Fairing:**

Fairing remains attached to the first stage, opening to deploy the second stage and payload within.

#### Enables rapid re-launch:

Eliminates the high cost of expending or capturing and reusing fairings.

#### **Iterated Design:**

From four fairing panels to two. Reduces the amount of angle the fairing must open and enables more robust fairing panels.



# FIRST STAGE MAJOR DESIGN COMPLETE

Built for rapid reusability.

Tapered profile: First stage has a tapered profile and aerodynamic control surfaces, including canards and landing legs that act as rear-lifting surfaces.

Optimized ballistic coefficient: Allows first stage to glide back to Earth for landing, reducing aerothermal load experienced by modern re-entry boosters.

42.8 meters

tall

diameter

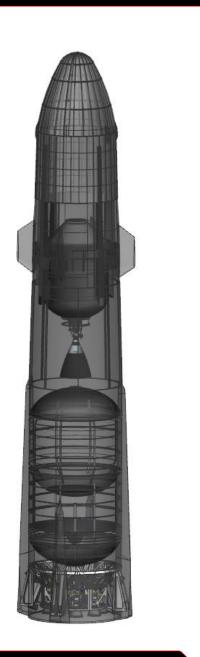
7

meter

5 meter fairing



Archimedes engines





# NOT A CAPSULE ANNOUNCEMENT

But we're looking into it.



# NOT A CAPSULE ANNOUNCEMENT

00

But we're looking into it.

# SECOND STAGE MAJOR DESIGN COMPLETE

**High performance:** Designed to maximize mass-toorbit capability, orbital insertion accuracy, and performance for complex payload deployments.

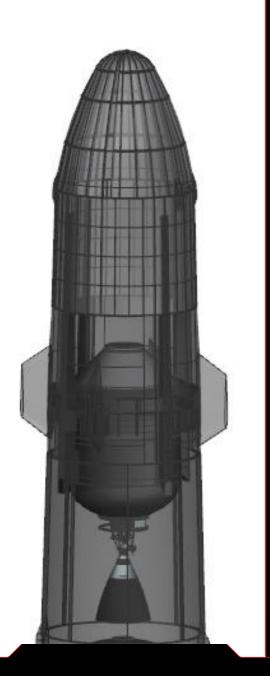
**Suspended second stage:** Provides easily accessible and condensed mounting location for avionics hardware, aerodynamic control devices, and fluids lines. Also minimizes the requirement for the second stage to withstand the external launch environment.

11.5 meters tall

Archimedes engine



tonne payload capacity





# ROCKET BUILDING ROBOTS

Automated Fiber Placement: Optimized for performance, speed and cost.

Advanced composite manufacturing technique:

Used to fabricate complex, lightweight vehicle structures with superior strength qualities.

Outperforms metallics on structural performance and manufacturing cost: Complete tanks manufactured in days with minimal human labor and less material and waste than metallics.

**Proven technology:** Applying reliable tech used by thousands of aircraft to space.

American-made: Built at the launch site in Virginia.



# ARCHIMEDES ENGINE UPDATE

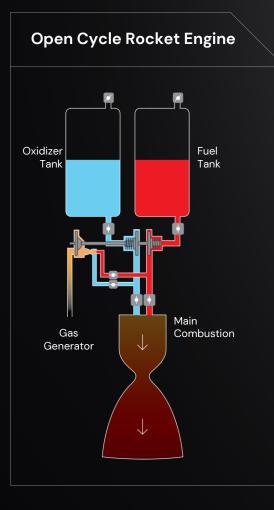
Breathing first fire this year.

| Property         | Value    |
|------------------|----------|
| STAGE 1 ENGINE   |          |
| Quantity         | 9        |
| Min. Throttle    | 50%      |
| Sea Level Thrust | 165 klbf |
| Vacuum ISP       | 329 s    |
| STAGE 2 ENGINE   |          |
| Quantity         | 1        |
| Min. Throttle    | 50%      |
| Vacuum Thrust    | 200 klbf |
| Vacuum ISP       | 367 s    |
|                  |          |

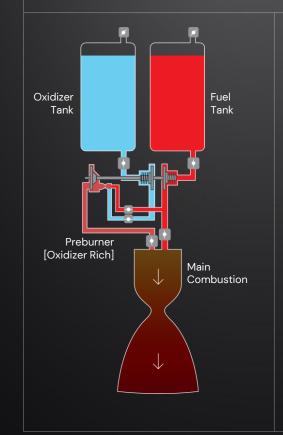


## THE ARCHIMEDES ENGINE

Simplicity where it matters.



#### Oxidizer Rich Closed Cycle



Provides higher specific impulse than gas generator, open expander, or tap-off cycles, without the thrust limits or added complexity.

Gas generator cycles are limited in capability and not suited to the deep throttling required for multiple re-lights in orbit, and for landing the first stage.

ORSC engines operate at relatively low temperatures and pressures, eliminating the stress and thermal strain experienced by gas generator engines. This improves engine life and reusability, while leaving headroom to increase performance.

#### Liquid Oxygen and Methane:

Provides higher specific impulse than RP-1 kerosene for improved stage performance without the dramatic stage size increase required for low density liquid hydrogen.



# SHAUN D'MELLO

# Vice President

Launch Systems



# SECURED ENGINE TEST SITE

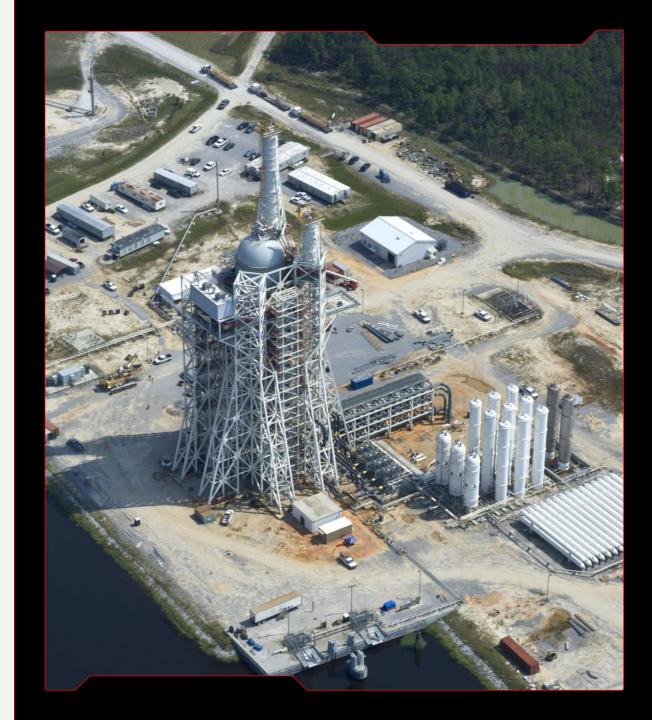
Exclusive use of large-scale national asset.

Selected NASA Stennis Space Centre's A-3 Test Complex to test Archimedes engines.

Exclusive use of land within a 1 million square foot area for 10 years, with option for additional 10 years.

Access to capital investment incentive from the Mississippi Development Authority to further develop the facilities and infrastructure at Stennis for Neutron.

Leveraging existing infrastructure and site-wide Services, enabling rapid stand up of our test facility in the order of months, not years.



## NEUTRON FACTORY

Concrete poured in Wallops Island, Virginia.



Standing up the first Neutron Production Complex building before the end of the year.



Expecting to build our first Stage 1 tank above this concrete.



The site also serves as a development area for tank testing, enabling rapid build & test iteration.





## DEVELOPMENT PARTNERSHIPS WITH KEY U.S. GOVT CUSTOMERS

|  | FORCE |
|--|-------|

Awarded a \$24.35 million contract with the U.S. Space Force's Space Systems Command for development of Neutron's upper stage.

U.S. SPACE FORCE

Provides a strong foundation for on-ramping to the National Security Space Launch (NSSL) program, which launches the United States' most critical missions.

Key milestones delivered and tracking well for period of performance so far, incl. successful concept design review and systems requirement review.



#### U.S TRANSPORTATION COMMAND

Signed a Cooperative Research and Development Agreement (CRADA) with the U.S. Transportation Command (USTRANSCOM) to explore the possibility of using Neutron for point-to-point cargo delivery around the world.

Part of the Air Force's Rocket Cargo Vanguard program, designed to advance emerging systems and concepts through prototyping and experimentation to deliver remarkable new capabilities.

## NEUTRON PROGRAM ON TRACK

From program start to hardware in less than 18 months.

#### Not starting from scratch – new developments leverage rich flight proven heritage.

Critical technologies and capability scale well from Electron to Neutron.

- Avionics GNC ✓
- Software ✓
- Communications ✓
- Command & Control 🗸
- Manufacturing Systems & Processes ✓
- Integrated Testing & Operations  $\checkmark$

Secured large capital infrastructure.

• Manufacturing, test and launch infrastructure  $\checkmark$ 

#### UPCOMING NEUTRON MAJOR MILESTONES INTO END OF 2023

Engine Pre-burner Testing Neutron Factory Buildings

Construction Underway at Launch Complex 3

Stennis

Engine

**Test Site** 

Stage 1 and Stage 2 Test Sites Stage 1 and Stage 2 Tanks, Primary Structures Built

All-up Engine Testing Structures Built

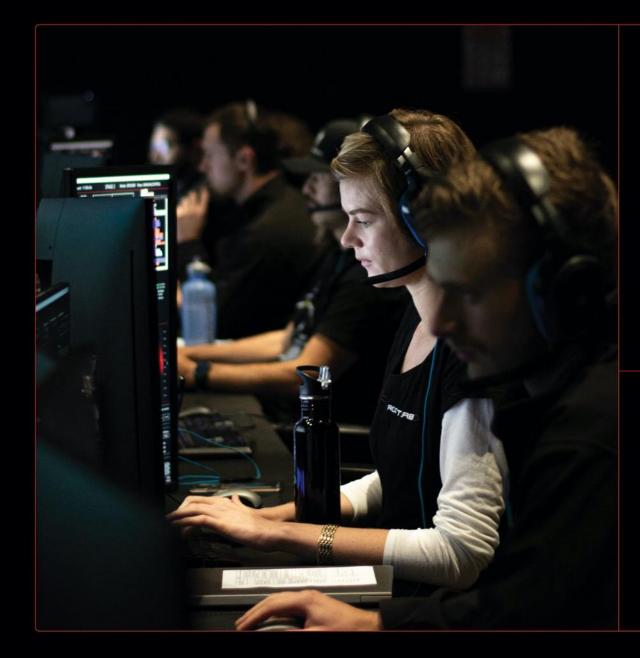
Avionics

Hardware

and

Software

Hardware in the loop facility operational





# FINANCIAL



# ADAM SPICE

# Chief Financial Officer

## WHAT WE SAID WE'D DO

1. Execute on Small Launch: Electron Leadership and Heritage

 Capitalize on leadership position in dedicated small satellite launch.

#### 2. Expand into Larger Launch: Neutron Launch SAM Expansion

> Develop a constellation builder to increase addressable launch services market.

#### 3. Deliver End-to-End Space Solutions

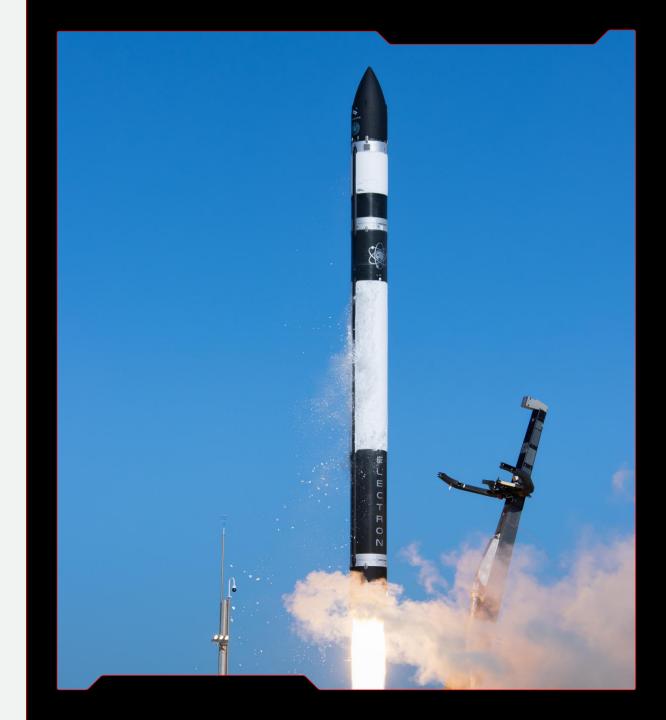
- Expand addressable market for spacecraft and component solutions, enabling end-to-end space solutions and pathfinding for large constellation build and launch opportunities.
- > Increase mission heritage on Rocket Lab spacecraft and components to enable access to higher value missions and constellation build opportunities.



### WHAT WE'VE DONE

#### **Executed on Small Launch:**

- > Made it look easy. Launch is hard, and gets harder after your first successful launch.
- Dramatically extended leadership in small dedicated launch with increased cadence, improved payload performance, and more RKLB launches than all other small launch providers combined, and 7x more successful launches than nearest competitor.
- > Expanded competitive moat with progress on booster recovery to drive drown cost, increase margins, and enable increased launch cadence.



### WHAT WE'VE DONE

#### More Launch: we're building a larger rocket

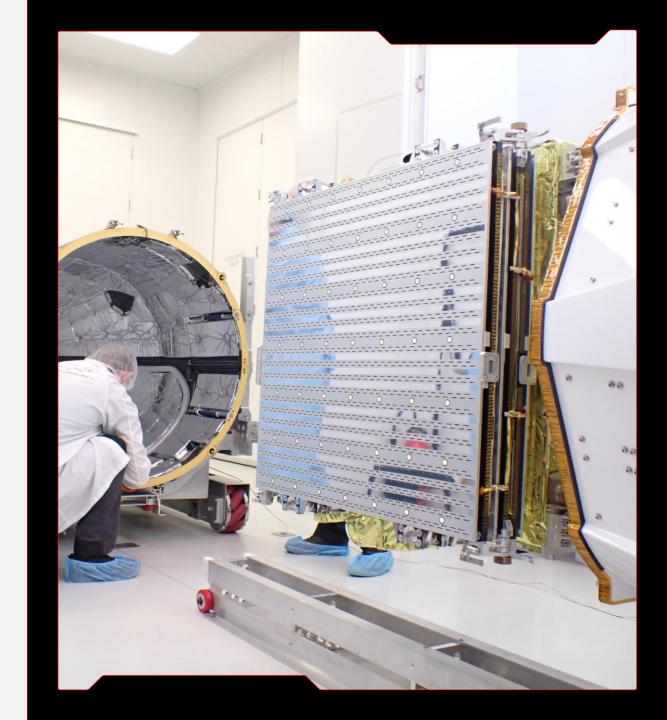
- > Secured \$45M in State of Virginia and local incentives towards manufacturing facility and pad infrastructure, in addition to a \$24M contract with the U.S. Space Force's Space Systems Command for development of Neutron's upper stage.
- Leveraging Electron core technology heritage and learnings, seasoned team and scaled operational facilities, realizing human and capital efficiencies to enhance long-term return for investors
- > Progress made towards securing initial committed constellation launch services customer on Neutron.



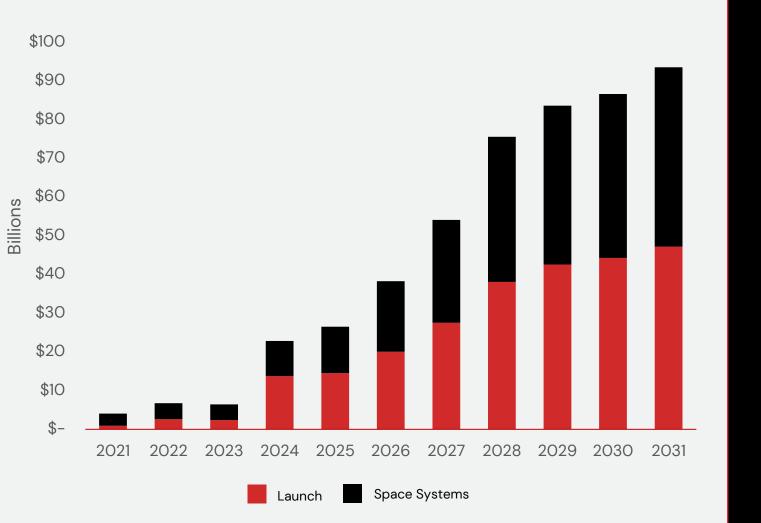
## WHAT WE'VE DONE

#### End-to-End Space Solutions:

- > Organic development and acquisition have expanded our addressable market in spacecraft and component solutions.
- Secured first constellation contract valued at \$143M with MDA for Globalstar.
- > 1,700+ spacecraft with Rocket Lab technology on-orbit heritage and 220+ missions in development.
- > Grown Space Systems backlog to \$396M across range of increasingly diverse products, services and customers.



## EXPANSION OF ADDRESSABLE MARKET (LAUNCH & SPACE SYSTEMS)



\*Market Research Units Source: Northern Sky Research, Global Satellite Manufacturing and Launch Markets, 12<sup>th</sup> Edition and management estimates for ASP.

\*Addressable market calculation reflects various penetration rates into each NSR-defined market segment and excludes Starlink and China

### 2021

#### SAM consisted of

- Small responsive launch with Electron.
- Satellite Manufacturing with Photon.
- Satellite components from Sinclair Interplanetary such as reaction wheels and star trackers.

## 2022

#### SAM has grown to include

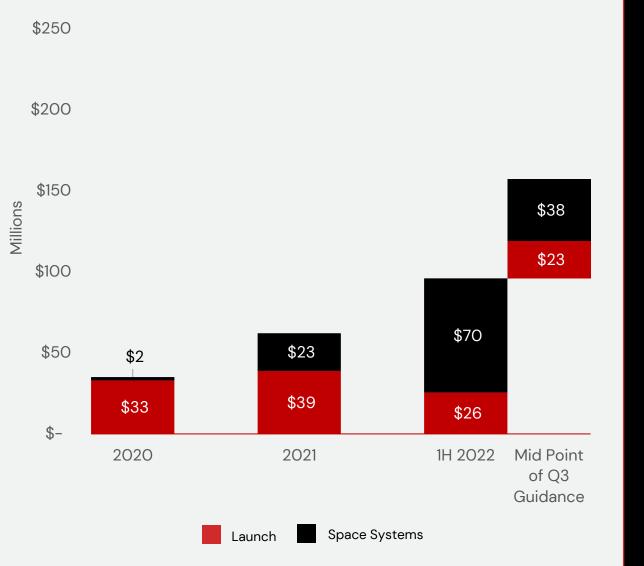
- Additional satellite components from strategic acquisitions and partnerships such as separation systems, solar solutions and radios.
- Portfolio now includes space software.

## FUTURE

#### SAM evolution targeted to include

- Neutron rocket tailored for constellation launches, human space flights, and I.S.S. crew resupply.
- Continually increase space system offerings through organic & inorganic R&D.

## INCREASING REVENUE SCALE AND DIVERSITY



Significant scaling across both launch and space systems supports aggressive TAM expanding investments and garner larger platform opportunities such as the recently awarded MDA/Globalstar 17 satellite constellation.

More than just launch – we are delivering meaningful revenue and customer diversification and developing capabilities towards our vision of being an end-to-end space company

- 66% of Q2'2022 revenue derived from Space Systems products and services.
- Revenue generating customers increased from 29 to 87, or by 3X, YTD 2022 versus 2020.

# KEYS TO CREATING OPERATING LEVERAGE

ESTABLISHING A NEW BUSINESS MODEL IN NEW SPACE

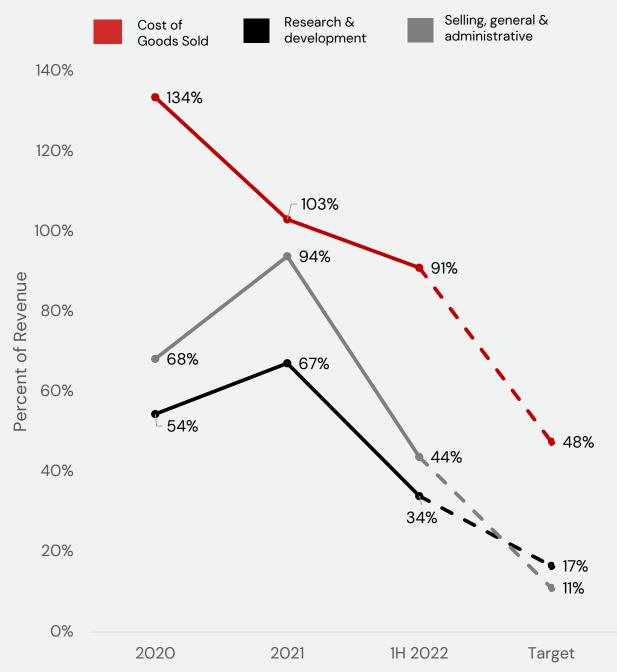


direct labor efficiencies. Along with BOM reductions, enables long-term target model of 45% to 50% of revenue.

across Neutron and Space Systems, with long-term target model of 15% to 18% of revenue.

scale, with longterm target of 10% to 12% of revenue.

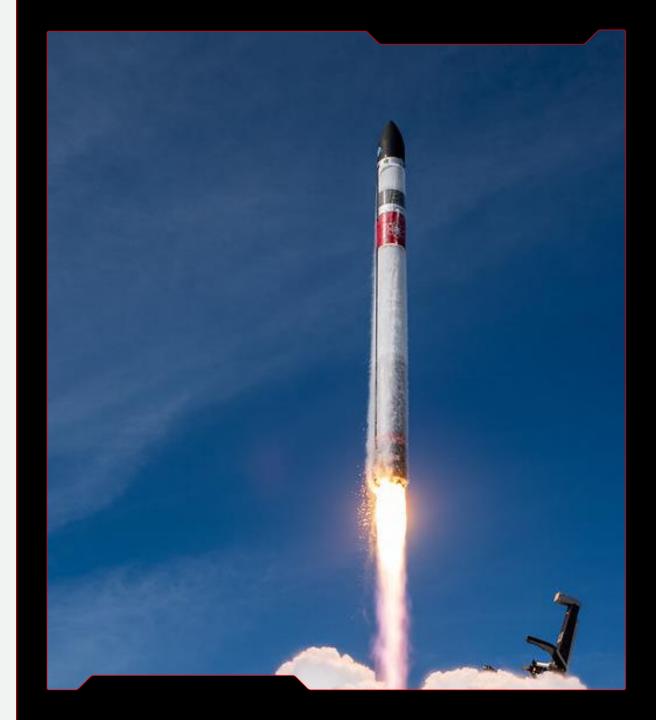




# FOCUS ON PROFITABILITY

### ELECTRON

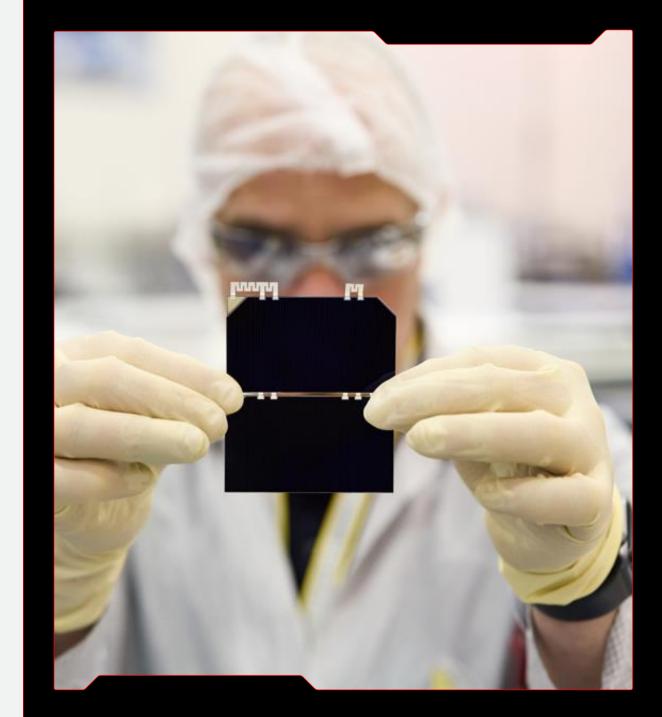
- > 30 launches and Stage 1 Recovery Progress: positions us to turn the crank on profitability
  - > Volume Driven Savings: increase launch cadence from 12 to 24 missions per year
  - > Production: overhead pool constrained and amortized over greater units = 25% savings
  - Launch Ops: absorption of fixed launch range overhead costs over greater units, net of expanding LC-2 operations = 8% savings
- Stage 1 Booster Recovery Savings: incremental impact of returning a booster to the pad. Estimated impacted of a recovered Stage 1 enabled mission (net of helicopter and Stage 1 variable refurbishment costs) represents a 61% cost reduction versus current expendable at 12 missions per year
- > Aggregate impact: increasing annual launch cadence to 24 at mix of 50/50 Recovery versus expendable missions yields weighted average savings of 42%



# FOCUS ON PROFITABILITY

### SPACE SYSTEMS

- > Gross margins across space systems components are at or above target with the exception of SolAero
  - > SolAero: from ~10% to 30% gross margins by Q1 '2024
    - > Introduction of highest efficiency IMM technology
    - > Yield enhancements, capacity utilization, and overhead absorption
    - > Burn down \$150M legacy backlog at time acquisition
- > Portfolio breadth a key differentiator and enabler of our end-to-end space systems vision
- Customers placing high value on schedule certainty and platform level optimization



## LIQUIDITY

## STRONG CASH POSITION

- Raised \$777 million of gross proceeds from business combination and PIPE investment
- Strategically deployed approximately \$180M, before transaction adjustments, into growing our vertically integrated Space System business
  - > ASI October 2021
  - > PSC November 2021
  - > SolAero January 2022
- Making disciplined investments in addressable market expanding research and development and capital expenditures
  - > Making the investments needed to fulfill our existing commitments and future aspirations
- \$546.6 million of cash and cash equivalents and restricted cash as of June 30, 2022
  - > We have the necessary resources to do what we said we will do

