

The background is a detailed isometric line-art illustration. On the left, there's an industrial facility with several large cylindrical tanks, a tall distillation column, and various pipes and structures. In the center and right, there's an urban landscape with several multi-story buildings of varying heights. A railway line runs diagonally across the scene, with a train and several freight cars. There are also several oil pumpjacks scattered throughout the scene. The entire illustration is rendered in a light gray line-art style on a dark gray background.

ONDAS
HOLDINGS INC.

VIRTUAL INVESTOR EVENT

FEBRUARY 14, 2023

Nasdaq: ONDS

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Disclaimer

Forward-Looking Statements

Statements made in this presentation that are not statements of historical or current facts are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements, including our preliminary selected financial results for 2022, preliminary outlook for 2023, our path to profitability in 2024, Ondas Autonomous Systems target revenue for 2024, Ondas Networks target revenue growth for 2024, and the expected benefits of the acquisition of Airobotics and the potential acquisition of Iron Drone. We caution readers that forward-looking statements are predictions based on our current expectations about future events. These forward-looking statements are not guarantees of future performance and are subject to risks, uncertainties and assumptions that are difficult to predict. Our actual results, performance, or achievements could differ materially from those expressed or implied by the forward-looking statements as a result of a number of factors, including the risks discussed under the heading "Risk Factors" discussed under the caption "Item 1A. Risk Factors" in Part I of our most recent Annual Report on Form 10-K or any updates discussed under the caption "Item 1A. Risk Factors" in Part II of our Quarterly Reports on Form 10-Q and in our other filings with the SEC. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise that occur after that date, except as required by law.

Non-GAAP Financial Measure

As required by the rules of the Securities and Exchange Commission (“SEC”), we provide a reconciliation of Adjusted EBITDA, the non-GAAP financial measure, contained in this presentation to the most directly comparable measure under GAAP, which reconciliation is set forth in the table included in the Appendix of this presentation.

We believe that Adjusted EBITDA facilitates analysis of our ongoing business operations because it excludes items that may not be reflective of, or are unrelated to, the Company’s core operating performance, and may assist investors with comparisons to prior periods and assessing trends in our underlying businesses. Other companies may calculate Adjusted EBITDA differently, and therefore our measures may not be comparable to similarly titled measures used by other companies. Adjusted EBITDA should only be used as supplemental measures of our operating performance.

We believe that Adjusted EBITDA improves comparability from period to period by removing the impact of our capital structure (interest and financing expenses), asset base (depreciation and amortization), tax impacts and other adjustments as set out in the table included in the Appendix of this presentation, which management has determined are not reflective of core operating activities and thereby assist investors with assessing trends in our underlying businesses.

Management uses Adjusted EBITDA in making financial, operating and planning decisions and evaluating the Company's ongoing performance.

With respect to our financial target for 2023 for Adjusted EBITDA a reconciliation of this non-GAAP measure to the corresponding GAAP measure is not available without unreasonable effort due to the variability and complexity of the reconciling items described above that we exclude from this non-GAAP target measure. The variability of these items may have a significant impact on our future GAAP financial results and, as a result, we are unable to prepare the forward looking statement of income prepared in accordance with GAAP, that would be required to produce such a reconciliation.

The Company is currently carrying out its annual goodwill impairment analysis. The preliminary results below do not include the potential impacts of such goodwill impairment analysis.

ONDAS

HOLDINGS INC.



Leading technology platforms

World-class talent

Blue chip customers and ecosystem partners

ONDAS

NETWORKS

Provider of next-generation private industrial wireless networking technologies for large critical industrial markets

ONDAS

AUTONOMOUS SYSTEMS

AIRBOTICS  AMERICAN
ROBOTICS

Autonomous drone systems and regulatory leader; provider of the Optimus autonomous drone platform, the leading data and information services solution for commercial drone markets

Leadership Team



ERIC BROCK
CHAIRMAN & CEO

Eric is an entrepreneur with over 25 years of management and investing experience.



DEREK REISFIELD
CFO

Derek is an experienced executive with over 30 years experience with entrepreneurial growth companies, as well as executive roles with Fortune 500 companies.



REESE MOZER
PRESIDENT

Reese is an entrepreneur, roboticist, and executive with over 15 years of experience in developing and marketing autonomous drones and robotics.



STEWART KANTOR
PRESIDENT

Stewart brings over 20 years of experience in the wireless industry to Ondas Networks.



MEIR KLINER
PRESIDENT

Meir is an entrepreneur with over 20 years of proven track record in aerospace development and manufacturing.

Agenda

- Business & Financial Recap
- Financial Outlook
- Ondas Networks 2023 Plan
- Introducing Ondas Autonomous Systems
- Ondas Autonomous Systems 2023 Plan
- Closing Remarks
- Q&A

Corporate Performance

Timelines pushed out, yet significant progress made



- Secured largest commercial orders to-date
- Advanced business development to create an expected path to significant revenue growth, scale and profitability
- Creation of **Ondas Autonomous Systems (OAS)** business unit via the transformative acquisition of Airobotics



Financial Recap

Investments to drive growth in 2023

Select, preliminary unaudited financial data

(\$ IN MILLIONS)	FY 2022
Revenue	2.1
Adjusted EBITDA ⁽¹⁾	(39.5 - 40.5)
Cash	29.8
Convertible Notes (net)	30.0

Key Financial Insights

- Rail timelines extended
- Opex high due to:
 - R&D and product development
 - Expanded field operations
 - Admin & professional fees
- Secured volume orders to launch revenue growth in 2023
- Balance sheet bolstered with Convertible Note offering

⁽¹⁾ Earnings (Loss) before interest, depreciation, amortization, stock-based compensation, taxes, amortization of debt discount and non-cash charges relating to intangibles and goodwill

Financial Outlook

Ondas looks for a breakout year in 2023

- Significant revenue growth expected in 2023 and beyond
- Cash utilization improves:
 - Ondas Networks operating leverage
 - Integration of American Robotics and Airobotics
- Financial targets for the year are based on:
 - **Existing \$13.1 million backlog**
 - Visibility into expected demand from existing customers
- **WE WILL OUTLINE OUR PATH TO PROFITABILITY**



Financial Targets

Commercial adoption **begins** for both FullMAX and Optimus

FY 2023

REVENUE

\$26 – \$30 million

Ondas Networks

\$18 – \$22 million

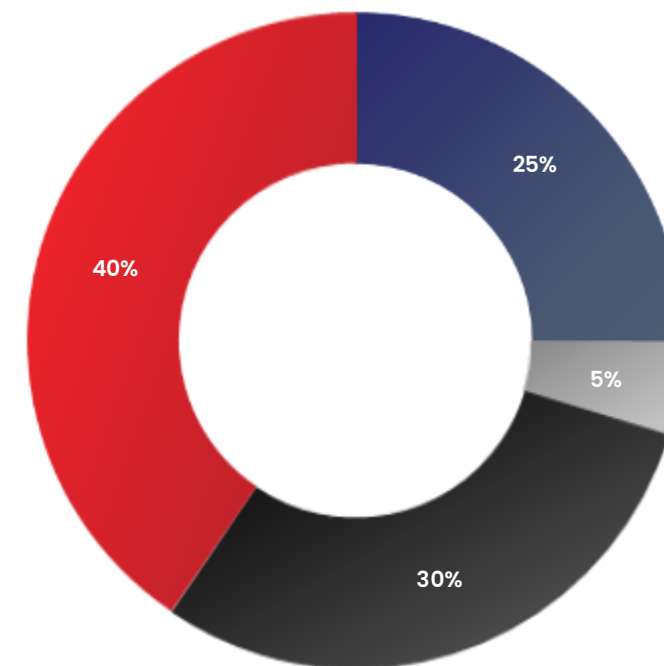
Ondas Autonomous Systems

~ \$8 million

Adjusted EBITDA⁽¹⁾

(\$19 – \$24) million

ADJUSTED EBITDA LOSS (%)



■ Holdings ■ Networks ■ Airobotics ■ American Robotics

Expect 100%+ revenue growth in FY 2024 as platform adoption accelerates

(1) Earnings (Loss) before interest, depreciation, amortization, stock-based compensation, taxes, amortization of debt discount and non-cash charges relating to intangibles and goodwill, as well as non-recurring costs related to restructuring.

Business Unit Review

ONDAS
Holdings Inc.

ONDAS
NETWORKS

ONDAS
AUTONOMOUS SYSTEMS





Leadership Team

MC-IoT Connectivity



STEWART KANTOR
PRESIDENT

Stewart brings over 20 years of experience in the wireless industry to Ondas Networks.



GUY SIMPSON
COO

Guy brings over 30 years of development, solutions engineering, operations and customer support experience in the telecoms industry to Ondas Networks.



MARTIN PAGET
VP, INDUSTRY SOLUTIONS

Martin has over 30 years of experience serving the global railroad industry developing and applying mission critical signaling and control and communication systems.

Key Developments

Class I Railroads **dot16** commercial adoption begins

CURRENT BACKLOG ~ \$7.4 MILLION

EXPANDED ENGAGEMENT WITH RAILS

- Active with 6 Class 1 Rails
- Qualified with BNSF & CSX for commercial deployment
- Siemens sales efforts accelerating
 - Target Rail Signaling departments
 - Siemens application engineering
- New Passenger & Transit market opportunities with Siemens (OTA)
- Secured initial volume order from Siemens in August 2022

OTHER SIGNIFICANT STRATEGIC WINS

- AAR-funded MC-IoT Rail Lab delivered to MxV Rail
- HOT India order from Siemens
- Delivered ICSS system to IAI Elta (Caribbean & India)
- Secured initial 160 MHz order

IEEE 802.16T MOVES TO FINAL PHASE

- Working group moved to standard ratification
- Key contributions from Railroads and ecosystem vendors
- Expect **dot16** to be codified in AAR standards



Path to Broad dot16 Adoption

Siemens and MxV Rail (AAR) drive expanded use cases



Development programs continue

- Expanded MC-IoT Lab with MxV Rail
 - Peer to Peer
 - Network Controller
- Executing European on-train system with Siemens UK
- Additional development programs in 2023 projected
 - Class I networks beyond 900 MHz
 - Passenger & Transit Rail opportunities

Strategic Value

- Development work demonstrates a long-term commitment to dot16 platform
- New applications increase the value of network to customer and ecosystem; reinforcing further engagement
- New products expand the market representing future revenue



Customer Activity

Current backlog: \$7.4 million

EXPANDED ENGAGEMENT WITH RAILS



Path to Scaling Orders

- Siemens builds inventory for initial 900 MHz rollout
- Volume purchasing agreements negotiated
- Siemens engages customer with Ondas' technology and Siemens Rail application experts
- Rails order vs purchasing agreement
- Siemens orders from Ondas based on forecast rollout demand and production lead times

Expanding production capacity to meet expected demand growth

Rail Total Addressable Market⁽¹⁾

INFRASTRUCTURE	QTY	TAM (\$ millions)
Base Stations		
900 MHz		147.0
160 MHz		116.1
220 MHz		272.5
Base Station Controller		21.0
BASE STATION INFRASTRUCTURE	43,025	556.7
Edge Remotes		
900 MHz		315.3
160 MHz		150.9
220 MHz		260.7
450 MHz		53.4
180 MHz		13.5
EDGE REMOTES	253,300	793.8
INFRASTRUCTURE & EDGE		1,350.5

Edge Remote Allocation

- **900 MHz:** Waysides, ATCS, Interlocking, High Rail, Vehicle Protection, RCL, Drones, PTC Activated Crossings, Crossing Monitoring, and Shortlines as a Service
- **160 MHz:** Loco Data Radio, 160 MHz Voice / Data, Hazard Detectors
- **220 MHz:** PTC 2.0 + TD-220 (Transit / Passenger)
- **450 MHz:** Next Generation HOT, EOT (+International)
- **180 MHz:** European on-locomotive



⁽¹⁾ Management estimates.

The 900 MHz Opportunity⁽¹⁾

Deadlines drive the transition from legacy 900 MHz system; retirement for 2025

(\$ IN MILLIONS)	900MHz		
	UPGRADE	EXPAND	TOTAL
Base Infrastructure	105.0	42.0	147.0
Edge Remotes			
Wayside	66.0	30.0	96.0
Crossings	48.0	101.2	149.2
Other	14.0	56.1	70.1
	233.0	229.3	462.2

⁽¹⁾ Management estimates.

Commercial Deployment

- Legacy 900 network slated for retirement by 2025 to meet FCC mandate
- Initial deployment represents base station, network coverage upgrade
- Edge remote deployments are both existing legacy and newly identified critical applications
- MC-IoT functionality drives network expansion
 - Legacy applications are upgraded
 - New applications are developed/introduced

NETWORK UPGRADE DRIVERS



Automation



Edge Compute



Sensor Networks

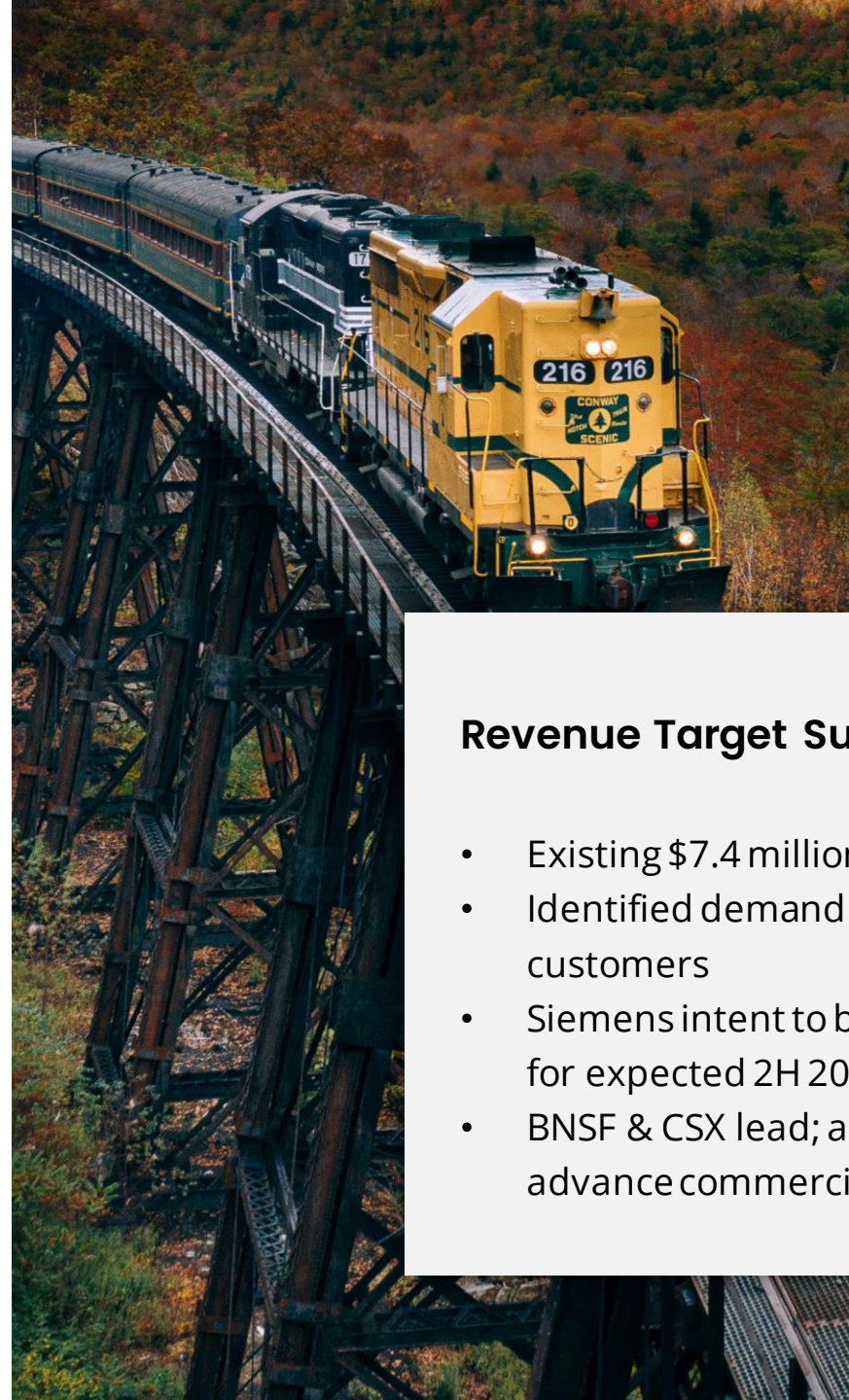
Ondas Networks | Financial Outlook

Ondas & Siemens capitalizing
on greenfield 900 MHz network



Target \$18 – \$22 million of revenue in FY 2023

- Plan EBITDA break-even in Q4 2023
- Target 100% revenue growth in FY 2024
- Plan EBITDA profitability in 2024



Revenue Target Supported By:

- Existing \$7.4 million backlog
- Identified demand from Rail customers
- Siemens intent to build inventory for expected 2H 2023 demand
- BNSF & CSX lead; additional rails advance commercial activity

AIROBOTICS JOINS ONDAS

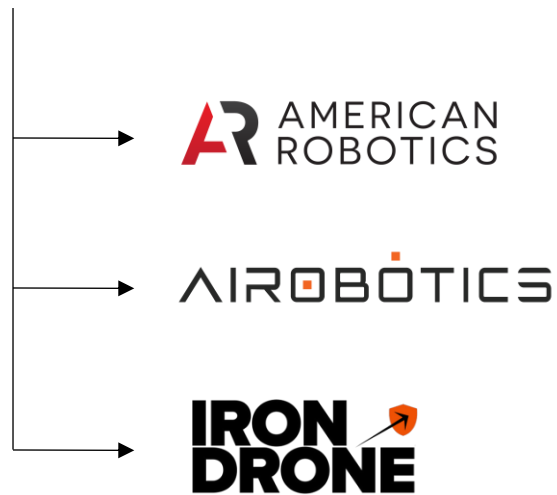
Ushering in a New Era for Autonomous Drones

A white quadcopter drone is mounted on a black launch pad with orange accents. The launch pad has the word "AIROBOTICS" printed on its side. The background is a bright blue sky with scattered white clouds.

AIROBOTICS

ONDAS

AUTONOMOUS SYSTEMS



Combination Creates

Leading autonomous drone ecosystem

Shared technologies

Shared customer pipelines

Revenue acceleration

Reduced expenses

Note: Iron drone acquisition is expected to close in Q1 2023.





Leadership Team

One Platform. One Team.



REESE MOZER
PRESIDENT, ONDAS HOLDINGS
CEO, AMERICAN ROBOTICS



MEIR KLINER
PRESIDENT, ONDAS AUTONOMOUS SYSTEMS
CEO, AIROBOTICS

OAS | Vision

Create the leading commercial drone services provider in winner-take-most market



- Land and expand, starting with highest value markets
- Capitalize on momentum of success with early customers
- Progressively build out data products based on customer successes
- Reinforce and expand moats with well-timed R&D investment
- Continue to drive adoption along "S curve"

Plan to scale OAS with diligent focus on profitability and cash management



OAS | Business Plan

Focus on Optimus & revenue | LT focus on mass industrial markets

Financial Stability & Cash Management

- Significantly cut OPEX at AR to unify under Optimus platform in 2023/2024
- 65% reduction in headcount; 77% reduction in OPEX
- Invest additional R&D dollars when directly supported by customer contracts



Focus on Near Term Revenue

- Secured \$5.7M in POs for 2023; validating Optimus as a scalable solution
- Pursue all existing Smart City and Construction customer opportunities
- Optimus drone has payload capacity to support O&G applications
- Maintain all brands to cater to different regions and markets

Success-Based Product Roadmap

- Immediate commercial growth in Smart City market
- Transfer best parts of Scout technology to Optimus
- Enable Optimus to service Oil & Gas market with proper payloads and analytics
- Execute multi-stage cost down plan to progressively expand addressable market size



OAS | Synergies

Combined business drives revenue and capital efficiency

Revenue Acceleration

- Robust customer pipeline across multiple countries; POs in hand
- Mature platform with customer acceptance
- Multi-national customer support and sales capacity
- Significant expansion of addressable market

Capital Efficiency

- Combination saves an estimated ~**\$30M** in spend over next 2 years
- Eliminates tens of millions in redundant R&D investment

Technology Leadership

- Ensures transfer of best parts of IP
- Combines industry-leading teams
- Increases opportunities to expand competitive moats
- Accelerates regulatory progress in multiple jurisdictions
- Combined investment of ~\$200M to date



The Optimus System

The world's leading autonomous drone platform



Market Leading Functionality



Payload Swapping

Cabinet holds up to 9 payloads



Battery Swapping

Cabinet holds up to 12 batteries



COVERAGE AREA

80 sq. km. coverage area



FULL AUTOMATION 24/7 MULTIPLE DATA COLLECTION

Allowing routine data capture without human intervention



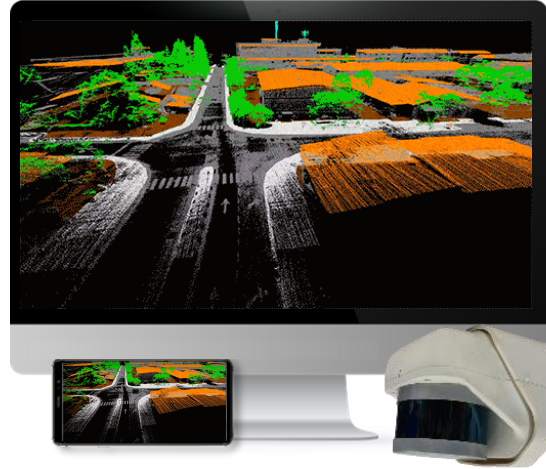
ROBUSTNESS

Rugged exterior and climate-controlled drone shelter for harsh weather and industrial environments

Payloads And Sensors



2D/3D MAPPING



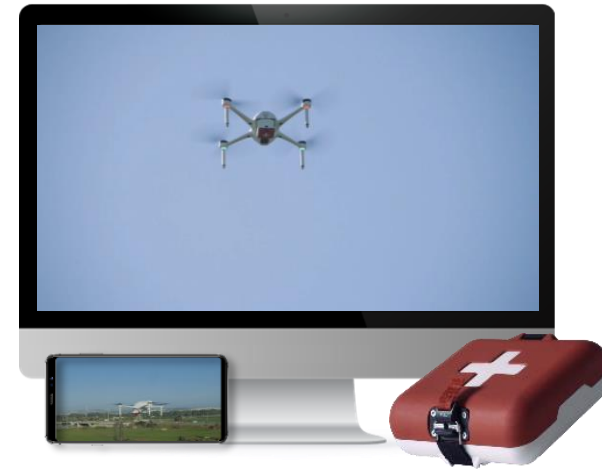
LASER SCANNING (LIDAR)



THERMAL VIDEO

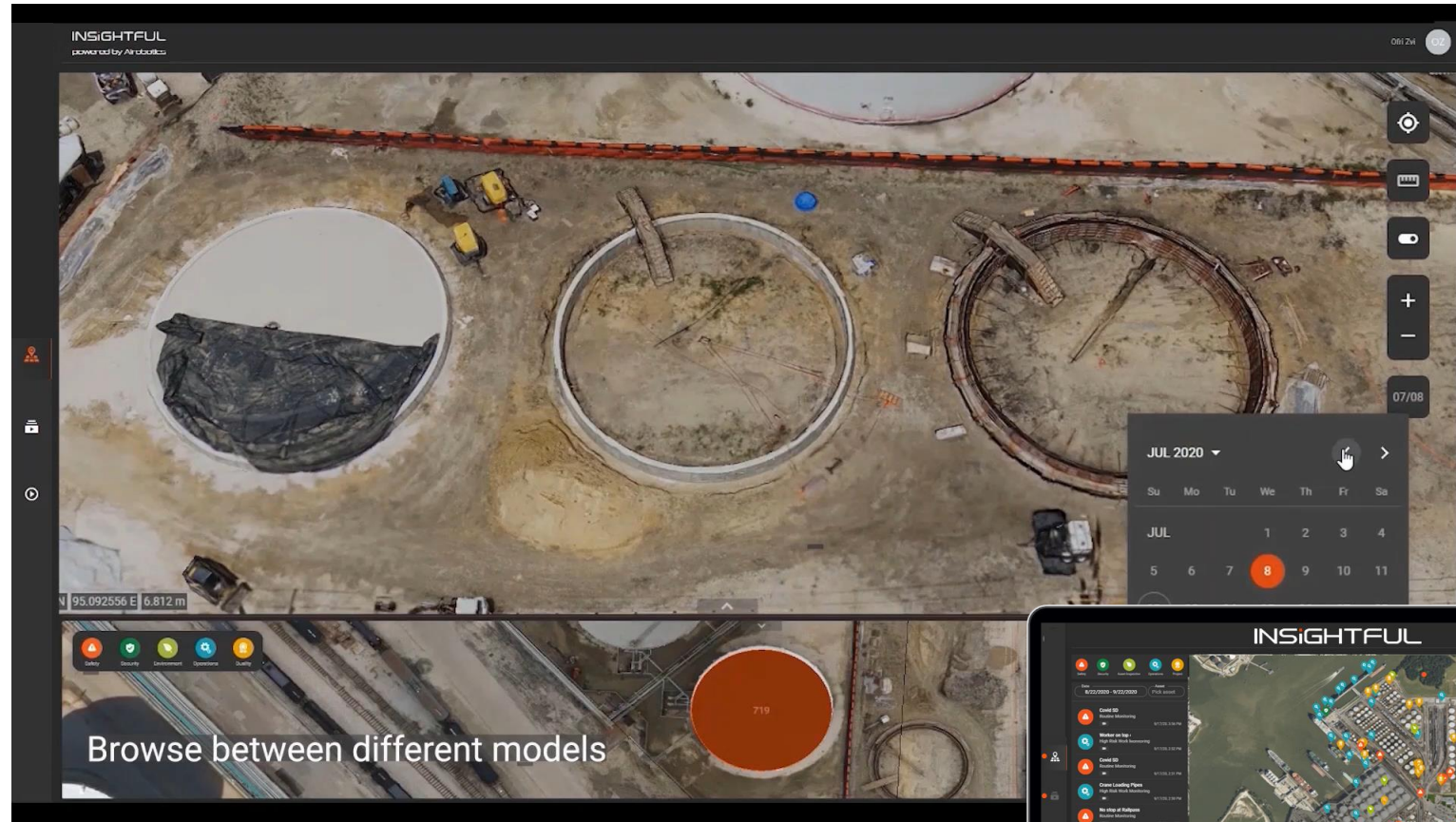


LIVE VIDEO



EMERGENCY RESPONSE DELIVERY

Insightful – Data Platform



The Optimus System

\$140M+ invested into the market's most mature product
Hardware reliability enables commercial growth



Durability Test



Parachute Test



Rain And Wind Test



Climate Test

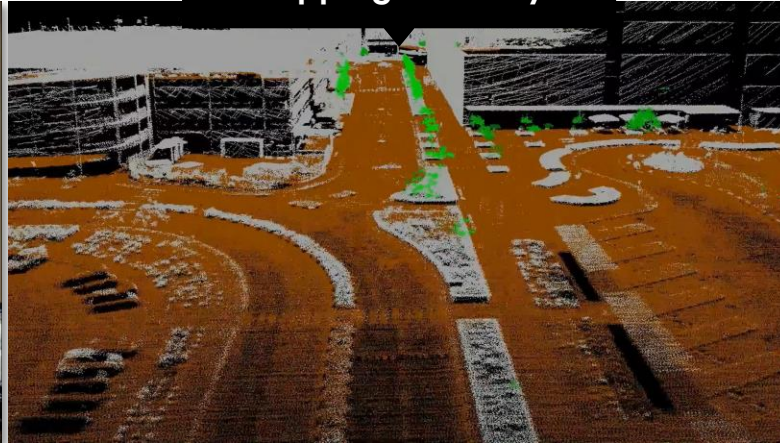


Fully Automated Applications

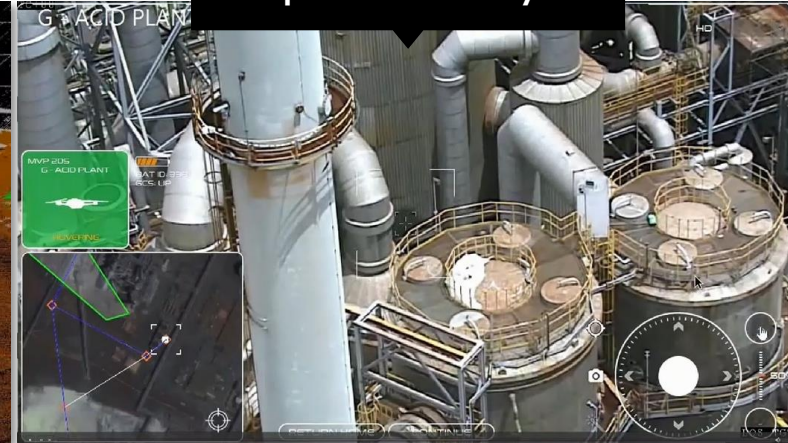
Remote Monitoring















Mapping & Survey









Inspection & Analysis



-  Video on demand and camera Perimeter
-  Security
-  Emergency Response
-  Project Remote supervision
-  Safety Supervision
-  Productivity Verification

-  3D/2D visualization
-  Digital Twin creation/updates
-  Project progress documentation
-  Assets As-Built Survey & Analytics
-  Designed vs Build analysis
-  Geospatial analysis (Flood, Volume, etc.)

-  Tank inspections and analysis
-  Pipeline inspections and analysis
-  Flare visual inspections and analysis
-  Railway visual inspections and analysis
-  Power utilities inspections and analysis
-  Light inspections and analysis

Optimus 1-EX UAS Regulatory Milestones



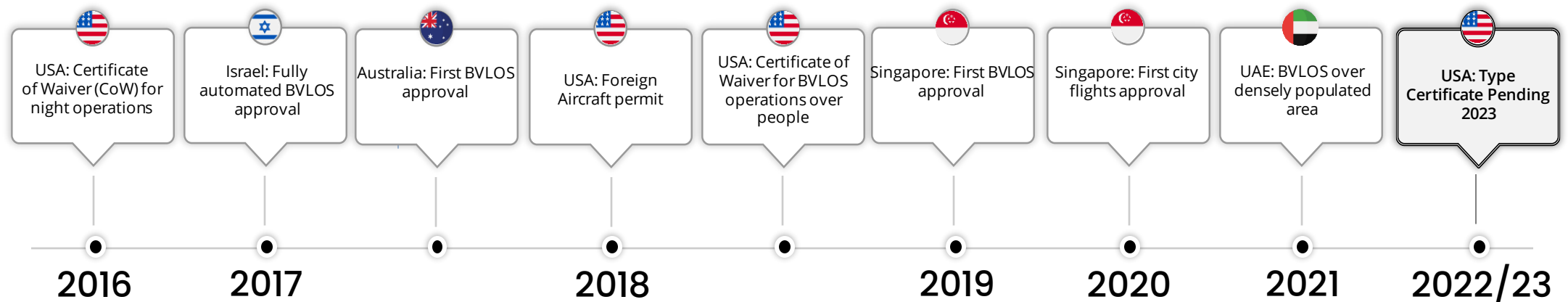
Airobotics has attained groundbreaking achievements in unmanned aircraft regulations



Airobotics is currently in the final phases of obtaining a Type Certification in the USA



The US Type Certificate will enable the Airobotics drone to fly overpopulated urban areas without the need for a designated permit

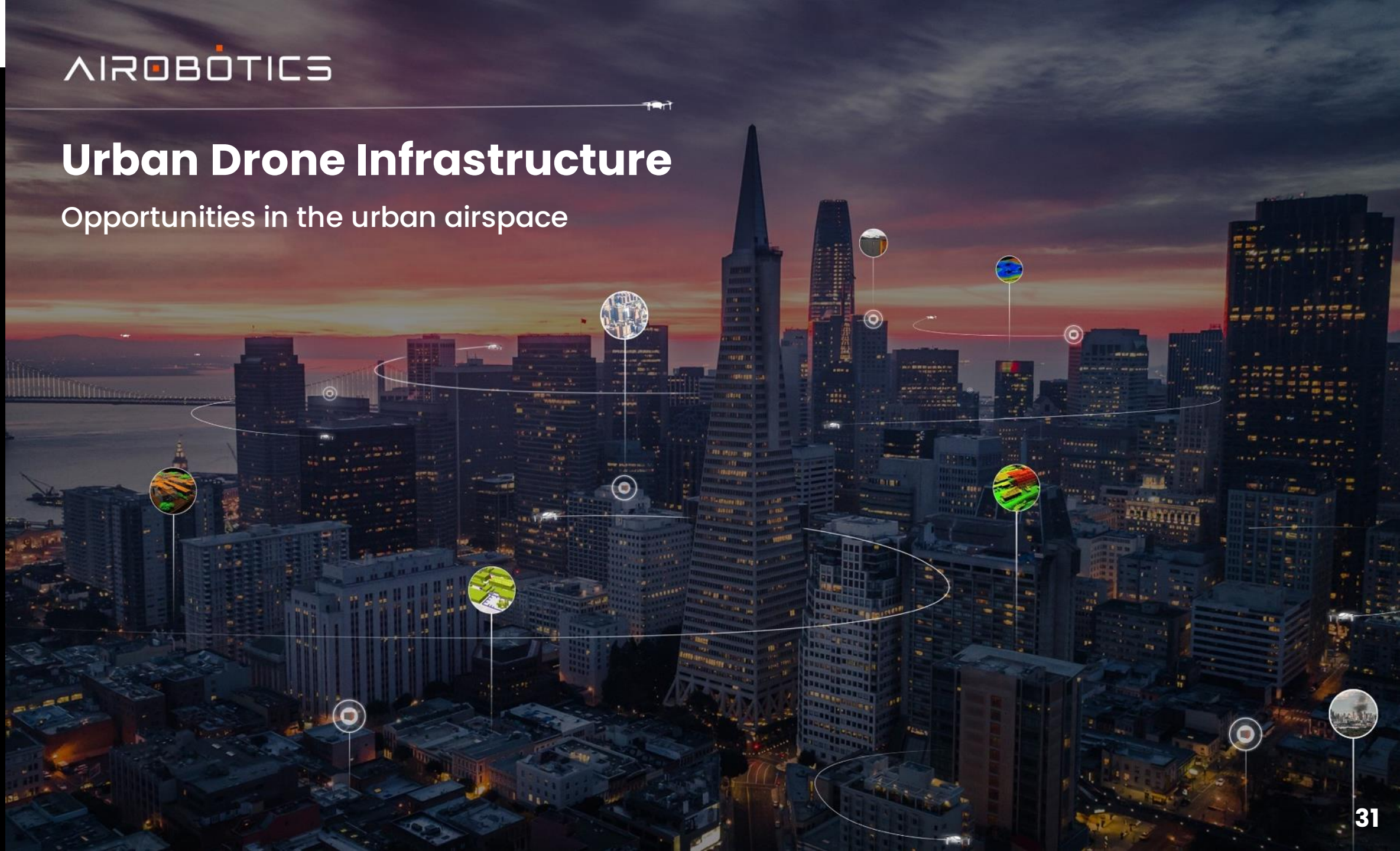


AIRBOTICS



Urban Drone Infrastructure

Opportunities in the urban airspace



Smart City | Go-To-Market



PUBLIC SAFETY



LAW ENFORCEMENT



PUBLIC SERVICES



COMMERCIAL SERVICES



**PHASE-1
ONBOARDING**

**PHASE-2
SCALE UP**

Business Model

Versatile Drone Platform Offers Multiple Monetization Strategies

DATA AS A SERVICE (DAAS)

- Systems is owned by Airobotics; customer pays subscription fees
- Multiple customers utilize same system in a shared service model such as municipal entities, emergency response departments and industrial facilities

JOINT VENTURE SERVICE PROVIDER

- Partner with local services provider in joint-economic model
- JV purchases Optimus; revenues and profits from JV are shared

DIRECT SALE

- Sale of Optimus System plus an annual maintenance package
- Typically for defense and homeland security (HLS) sectors



SMART CITY APPLICATION

- Deploy base station infrastructure
- Provide security and public safety applications
- Installed Urban Infrastructure enables adjacent customer applications



COMING SOON

THE FUTURE OF COUNTER DRONE TECHNOLOGY

**IRON
DRONE**
PROVIDED BY AIROBOTICS

OAS | Large Commercial Drone Markets

DRONE-IN-A-BOX (DIB) MARKETS

Data solutions drive over \$120+ Billion⁽¹⁾ TAM

**\$68.1
BILLION**

INDUSTRIAL MARKET

Sub-Markets: Oil & Gas, Solar, Nuclear, Hydro, Coal, Utilities, Construction, Ports, Railways, Prisons, Warehouses, Factories, Stockpile Yards, Mining, Delivery

**\$25.6
BILLION**

AGRICULTURE MARKET

Sub-Markets: Corn, Soybeans, Vineyards, Cranberries, Vegetables, Tree Fruits, Tree Nuts, Nurseries, Corporate Research, Seed Farms, Golf Courses, Hemp, Livestock

**\$20.2
BILLION**

DEFENSE MARKET

Markets: Border Security, Base Security, FOB Security, Embassy Security, Vehicle Security

**\$15.1
BILLION**

SMART CITY MARKET⁽²⁾

Sub-Markets: Police, Fire, Medical, Logistics, Construction, Utilities, Infrastructure, Ports, Airports, Environmental

**\$10.8
BILLION**

COUNTER DRONE MARKET⁽³⁾

Sub-Markets: Defense, Stadiums, Energy, Airports, Cities

**\$22.0
BILLION**

Sub-Market Callout: Oil & Gas

Top Use Cases: Fugitive Emissions (*methane detection*), Loss of Containment (*oil spill detection*), Asset Inspection, Security

(1) PWC, May 2016

(2) Management estimates; assuming cities must have 100,000+ population to qualify, and one Optimus system will be deployed for every 100,000 inhabitants.

(3) GrandView Research, 2020

OAS | Product Roadmap

Following the Tesla cost-down path



- Win market with high-end functionality and value.
- Progressively reduce cost to manufacture to reach broader market opportunities.

Phase	Tesla Equivalent	Product Version	Cost Reduction	Market Viability	Target Timing
1	Roadster	Optimus	-	High End: Smart Cities, Construction, Oil & Gas, Defense, Public Safety	Current
2	Model S	Optimus X	50%	Expanded Market: Urban Infrastructure, Oil & Gas, Rail, Utilities	Q4 2023
3	Model 3	Optimus-Scout Hybrid	85%	Mass Industrial: Oil & Gas, Rail, Mining, Aggregates, Utilities, Agriculture, Other	Success-based

OAS | 2023 Commercial Plan

Smart Cities, O&G, and Construction

Active Opportunities

Market	2023 Revenue	2023 Status	2024 Revenue
Smart Cities, Public Safety	\$7M+	78% under contract	\$15.0M+
Construction	\$400k+	100% under contract	\$1M+
Oil & Gas	\$250K+	50% under contract	\$5M+

Visible LT opportunities:

- 24+ systems in Dubai
- 20+ systems in Abu Dhabi
- 100s/1000s of systems with Fortune 500 O&G customers
- Advanced discussions with others in pipeline; customers currently being qualified

OAS | Fulfilling Demand

Ramping production to meet current customer demand

Inventory will drive revenue growth

- Supply constrained; current inventory sold out
- Manufacturing
 - 15 more units on order
 - Expect to receive 2 systems per month beginning mid-year
- Expect to place orders for additional Optimus systems in 2H for 2024 customer requirements

Expect high, sustained demand

- Significant growth via fleet expansion with announced customers
- Expect traction with targeted, requalified US customers, especially in O&G markets
- Pursuing partnership in additional markets

OAS | Financial Outlook

Urban infrastructure deployment in UAE is a major inflection point for fleet adoption

Target ~\$8 million of revenue in 2023

- Expect EBITDA loss due to initial scaling with existing POs and investment in product roadmap
- Expect 100%+ revenue growth in 2024
- Plan to increase Optimus production rates to support expected customer demand

Revenue Target Supported By:

- Purchase orders from UAE Government Agency, SkyGo, and others
- Expect existing customers to expand fleets during 2023 and 2024
- Expect new customers in both US and International markets

Consolidated Outlook

ONDAS
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NETWORKS

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AUTONOMOUS SYSTEMS



Consolidated Financial Targets

Our path to EBITDA profitability in 2024

	FY 2023
REVENUE	\$26 – \$30 million
Ondas Networks	\$18 – \$22 million
Ondas Autonomous Systems	~ \$8 million
Adjusted EBITDA⁽¹⁾	(\$19 – \$24) million

Expect 100%+ revenue growth in 2024 as platform adoption accelerates

CURRENT BACKLOG ~ \$12.9 MILLION

EBITDA profitability objectives

Ondas Holdings targets EBITDA positive in FY 2024 on consolidated basis

- **Ondas Networks** targets EBITDA break-even in Q4, positive EBITDA for FY 2024
- **Airobotics** targets initial EBITDA break-even quarter in 2024
- **American Robotics** profitability contingent on US market penetration

(1) Earnings (Loss) before interest, depreciation, amortization, stock-based compensation, taxes, amortization of debt discount and non-cash charges relating to intangibles and goodwill, as well as non-recurring costs related to restructuring.

Our Time is Now

Management team committed to shareholder value creation

- Addressing huge end markets
- Massive investments in technology platforms
- Business development efforts have entailed long cycles; inflection point here
- FullMAX and Optimus are seeing commercial adoption **now**; expect monetization along traditional technology adoption curves



QUESTIONS & ANSWERS

Appendix

**Ondas Holdings Inc.
Reconciliation
(Unaudited)**

	Year Ended December 31,
	2022
<i>(In millions)</i>	
Net income (loss) (1)	(53.2)- \$ (54.2)
Depreciation	0.4
Amortization of debt discount/interest expense	3.8
Amortization of intangibles	3.6
Stock based compensation	5.9
Adjusted EBITDA	(39.5)- \$ (40.5)

(1) The Company is currently carrying out its annual goodwill impairment analysis. The preliminary results above do not include the potential impacts of such goodwill impairment analysis. See the “Non-GAAP Financial Measures” section above.

THANK YOU

FOR LISTENING



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