furtherium

DUAL USE

AI-powered

NVIDIA Inception Program

TACTICAL SITUATIONAL AWARENESS

Click on Last Update

San Jose, CA Munich

Friend-or-Foe • Comms • Sensors • Signal Intelligence

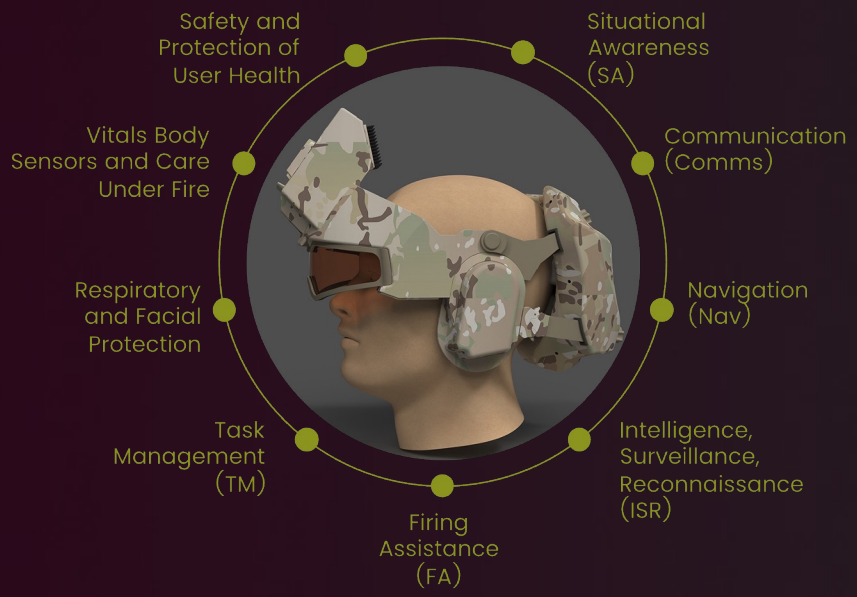
Summary

AI-powered Tactical Situational Awareness Mobility Platform provides superhuman combat capabilities while being stealthy and invulnerable against the enemy.

Superiority over the enemy in fire contact range, threat detection, speed of decision making and Multi-Domain Ops, target distribution, elimination of crossfire and friendly fire, Care Under Fire

Ecosystem

4 MIN READ



User's Pains

2 MIN READ

Fog of war, Friendly fire, BLOS stealth comms for everyone, Fire contact range, Drones & Robots, RF space, All Threats Detection, Night Vision, One shot - One hit, Soldier-as-Sensor

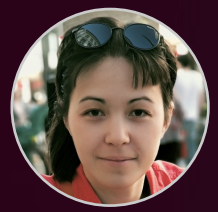
User Interface

8 MIN READ

Co-Founders

Basil Boluk
CEO / CTO

MechEng, EEE / Embedded, Optics, Physics, R&D, PM, MGMT, Marketing



Tess Volkova
VP SW Dev

Software / Embedded Eng, AI/ML, Computer Vision, Sensors, Signal Processing

Mentors & Advisors

• AI • Aerospace • Defense • Dual-Use • SaaS • $4M • SOM $119B+ • TRL-5 •

Prof. Dr. Tobias Strobl

Strategies, Venture Capital, Dual Use Markets, Launching, Implementation

Jan Philipp Krahn

Bundeswehr: Military Intel., Cyber Innovation Hub der Bw

James Monroe

U.S. Marine Corps Veteran, Combat Engineer, EOD, Additive Tech Expert

Lex Herrera

U.S. Marine Corps Veteran, Fire Team Leader, Cyber Security Expert

Anton Donets

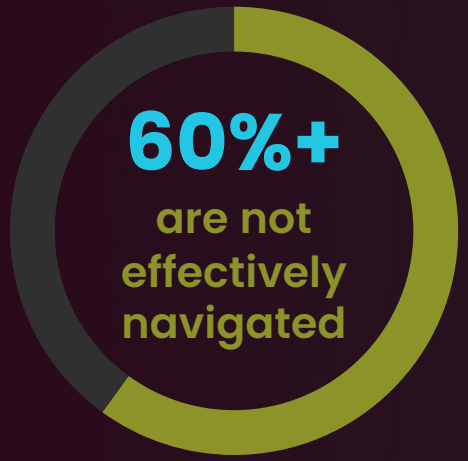
EEE / Embedded, IC, MCU, FPGA / ASIC, PCB, Radio Tech Expert & Researcher

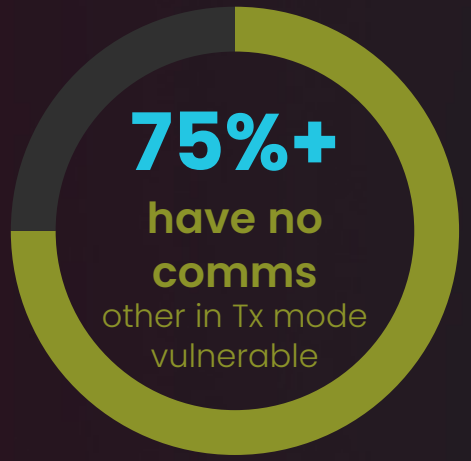
Michael Murphy

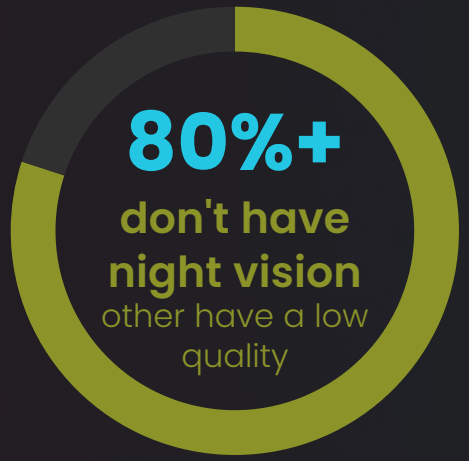
Royal Australian Navy Veteran, Combat Systems, AI forecasting, entropy detection

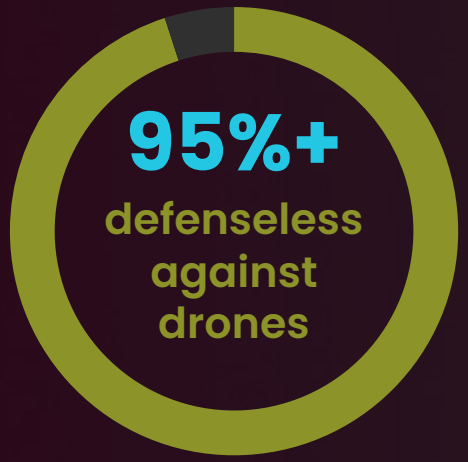
furtherium

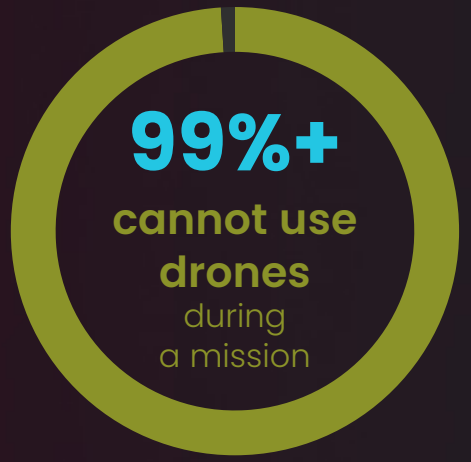
Problem











User's Pains

2 MIN READ

Solution

THE WORLD'S FIRST

Hardware

- CPU 20 cores, 28 threads
- GPU 32 Cores
- NPU 128 Cores
- HD, HDR, SWIR, LWIR multi sensor cams
- Optical zoom 24x
- DLP 4K UHD, no illumination outside
- Screen fading pads, full reflection
- Dome microphone array x13
- High-directional RF antenna phased array 3x28
- FPGAs, DSPs, MCUs based modules
- Active cooling
- Long-life battery

Software

- Identification Friend-or-Foe & Navigation Grid
- Omnichannel Messenger
- Universal RC Controller for drones & robots
- Fire Assistant, ballistic calculation, ML spotting
- Synthetic Night Vision
- Instant Messaging System
- Cameras and Multimedia
- Map and Navigation, Path Tracking
- Software Defined Radio Scanning 2 MHz – 8 GHz
- Radio Direction Finding, Digital Beamforming
- Gunfire, RF Drone Locator, Radar Warning
- Compass, Intelligent Notifications and Hints
- Computer Vision & Audition detection tools
- Passive Radar, EOD Scanner
- Tasks & Auto-Tasks, Mission Management
- Wiki, Virtual Mentor
- Multi-Domain Operations
- Vitals Body Sensors System, Care Under Fire

Healthcare

- ULPA-15, activated charcoal respiratory protection
- Dynamic positive airway pressure
- Built-in drinking system
- Hearing and barotrauma protection
- UV & blindness protection
- ECG, NIBP, t, SpO_2, $ETCO_2$, RR, HYDR, Glasgow Test
- Automatic tourniquets x8 (add-on)
- Automatic external defibrillation (add-on)
- Automatic fluid resuscitation (add-on)
- Pulmonary resuscitation
- Under helmet ventilation
- Advanced face and head protection

Add-ons

- High-precision muzzle line indicator
- Handheld metal re-radiation radar
- Care Under Fire set

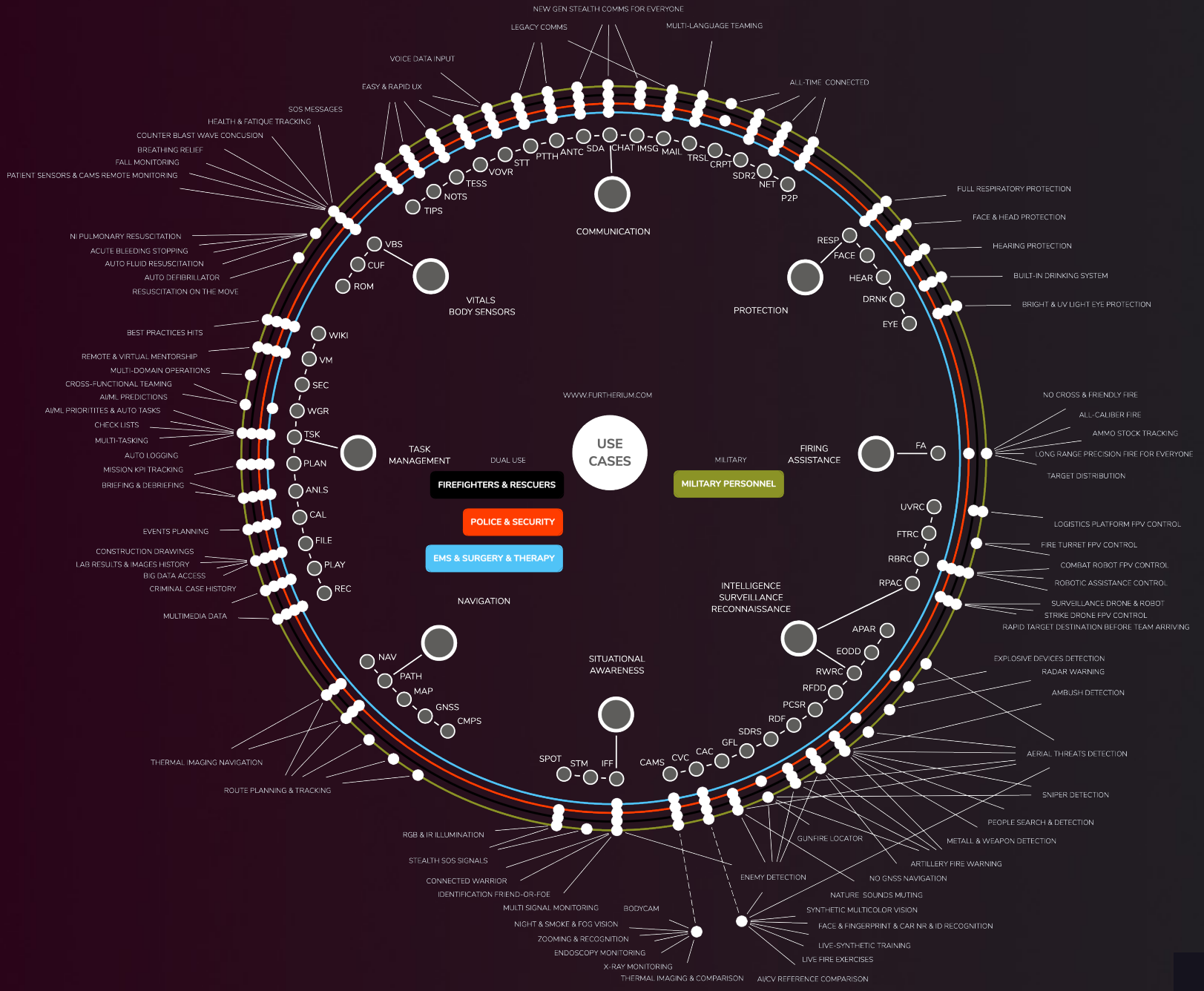
Integration

- CJADC2 and C5ISR Systems (BMS, Big Data)
- Life-Synthetic Training Environment Systems (L-STE)
- Drones, robots, fire turrets (UxS, C-UxS)

Best Human-Machine Teaming

24 MIN READ

Dual-Use



TO MAXIMIZE

Market in 2034

$52B
TAM
14.7M+ users

TAM (Total Available Market):
14.7M+ users per year: 4.4M+ NATO and allied troops, 3.2M+ police and security officers, 4.9M+ firefighters, 1.0M+ surgeries and EMS physicians, 1.1M+ private security

$31B
SAM
8.7M+

SAM (Serviceable Addressable Market):
8.7M+ users per year or $30.6B (Defense and Security only)

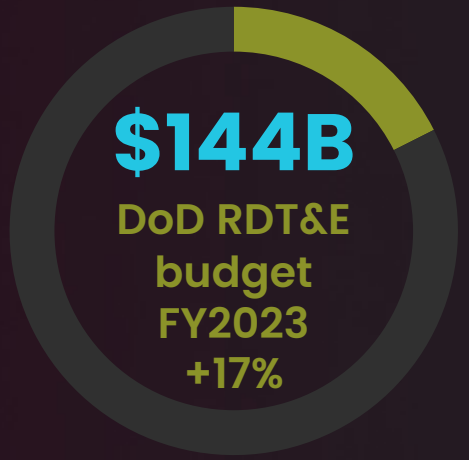
$20B
SOM
5.7M

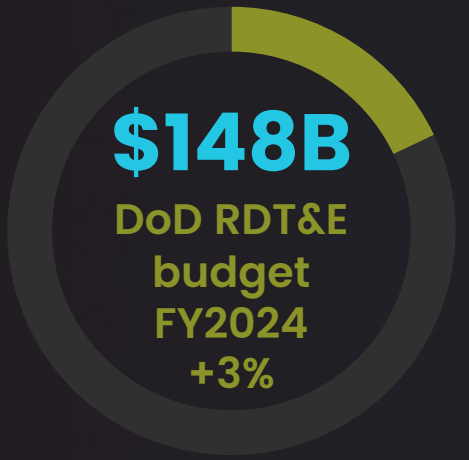
SOM (Serviceable Obtainable Market):
1.435M+ x4 kits* or 5.7M users per year or $20.2B

** Limit output multiplied by the average useful life (4 years - average contract period)*

LTV	Annual Charge-Offs	
$12,480	$2,340	Model One: Basic Pack (Hw + Sw) full set
$21,213	$3,978	Model 2: Basic Kit One (+4 add-ons)
$30,813	$5,778	Model 3: Total Kit (+7 add-ons, distribution)
$18,767	**$3,519**	**Ave Value**

Research, Development, Test & Evaluation





Data Room 17 MIN READ

Competition

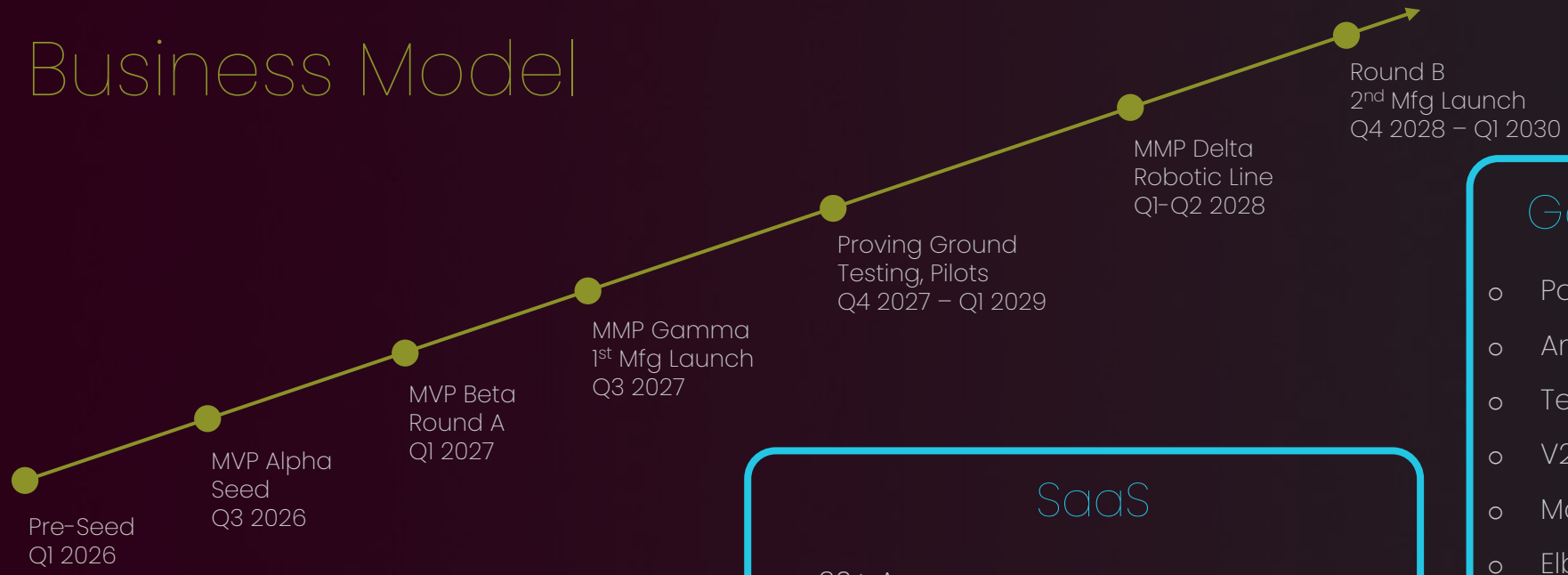
	Furtherium ARHUDFM Model 1	**Microsoft** IVAS 1.2 / Next	**L3Harris** ENVG-B / GPNVG	**Elbit Systems** SBNVG	**Smartshooter** SMASH Handheld
Type / FOV	Headset / 105°h 33°v	Headset / 60°h 28°v	Headset / 32°h 24°v / 97°h 40°v	Headset / 40°	Handheld
Display Resolution, px	3840x2160 4K UHD	2048x1080 FHD	1280x1024, FOM 2400, 75 lp/mm	FOM 2400+, 81 lp/mm	640x480
Night Vision	SWIR / LWIR / Synthetic	SWIR / LWIR	LWIR / I^2 white phosphor Gen 3	LWIR / I^2 white phosphor Gen 3	SWIR
Signal-to-Noise Ratio	>40, Computer Vision	>26	32	<34	>20
Illumination outside	NO	YES (visible light)	YES (NIR)	YES (NIR)	YES (NIR)
Optical zoom	24x	1x	3x	1x	1x
Halo effect	NO	NO	YES	YES	NO
Torque (problem of fatigue)	Low	Low	High	High	Low
Map & Navigation	YES	YES	NO (compass only)	NO	NO
IFF, Omnichannel Messager, RC Controller, SDRS, GFL	YES	NO	NO	NO	NO
AI Detection & Assistance	YES	NO	NO	NO	YES (any functions)
Fire Assistant, Ballistic calc., Target lockup, AI-Spotter	YES	NO	NO	NO	YES (any functions)
Weight, lbs	2.8	2.5	2.5	2.3	1.6
Price, $	3,600 + 1,440/y SaaS	46,000 – 55,000	25,490 – 41,000	6,600 – 19,400	24,000

Competitive Environment

6 MIN READ

No details yet from the winners of the Soldier Borne Mission Command Challenge (Rivet–PLTR spin-off, Anduril-Meta)

Business Model



ODM / OEM

- Virtual Prototyping Environment
- Fully robotic production
- 79x scaling within 7 years
- Germany & United States located
- Affordable price for everyone

SaaS

- 30+ Apps
- User Experience First
- Open Source
- Wide integrated ecosystem
- Event-Driven Architecture
- Uniform coding standards
- High-performance code only
- Self-tested software architecture
- High ARPU

Go-to-Market Partnership

- Palantir
- Anduril
- Teledyne FLIR
- V2X
- ManTech
- Elbit Systems
- Lockheed Martin
- Northrop Grumman
- Raytheon (RTX)
- BAE Systems
- Rheinmetall
- Bell Textron
- General Dynamics
- Thales Group

Engagement Capability Statement

17 MIN READ

More details & feedback for investors and partners (.PDF)

Collaboration

R&D

- Joining efforts to exchange expertise and hypotheses
- Dataset exchange for training ML, LM, CV, and CA models
- Training pipeline engineering

Integration

- Integration of different products with common goals
- Creation of joint projects

Distribution

- Joining efforts for promotion and contracts
- CAGE code: 9AMZ2
  DUNS code: 030938614
- C4758516, CA C-Corp, Jun 26, 2021

We are supported

Let's start a discussion in our community: Link to Sign-Up

Funding Ask

Looking for a lead investor — three co-investors lined up

Customer Development

- Research and validation of needs
- Priorities of the roadmap

Product & Technology

- Variable costs, tools, equipment
- Cloud services and computing

Team & Operations

- Hiring A-player only, flexible, ESOP
- Onboarding and high-motivated corporate culture

Cash Runway: 18 months

Burn Rate: $180-260K/m

Key Achievements

- Problem & Solution Research
- Competitive Environment Research
- DoD requirements and innovation requests, feedback
- Startup Acceleration Program
- Foundation and development grant
- NVIDIA Inception Program
- Mentorship
- Hardware and software architecture
- Fully equipped lab
- CAD models, ugly prototype validation
- UX/UI prototype
- Project documentation & Whitepaper

Traction Timeline & Roadmap

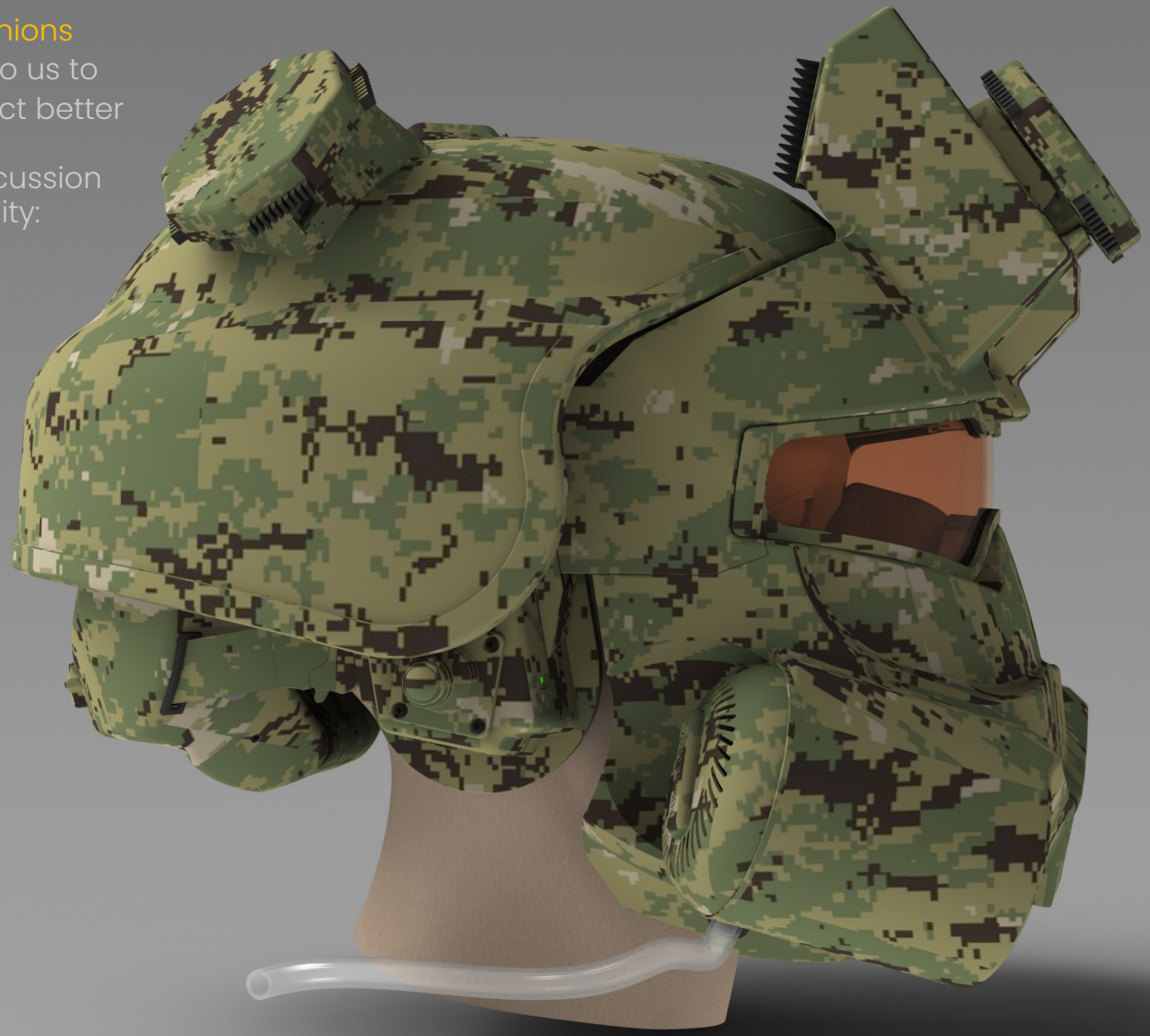
8 MIN READ

Engagement

your expert opinions
are important to us to
make the project better

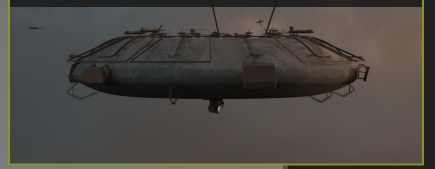
Let's start a discussion
in our community:

Link to Sign-Up



See also:

Investor edition



Expert edition

Thank you

Basil Boluk, CEO and CTO

(408) 856-9404

basil.boluk@furtherium.com

https://furtherium.com

Furtherium, Inc.

1321 Upland Dr. PMB 20159
Houston, TX 77043