

RGBd and Thermal Computer Vision Platform for Home Monitoring and Telehealth



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Bestie Bot, PennAITech Aging Focus Pilot Core

BACKGROUND

Fewer Paid Caretakers

- > 50% of current workforce is over 50
- High turnover rate of 43%
- Average US wage \$13.56 / hour

Shifting Burden

- 53M unpaid caregivers in the US
- 32M work FT in addition to caregiving
- Has a direct cost of \$7,262 per annum



Monitoring Safety & Burn-Out

ULTIMATE SOLUTION

Embodied intelligence, like Rosie from the Jetsons

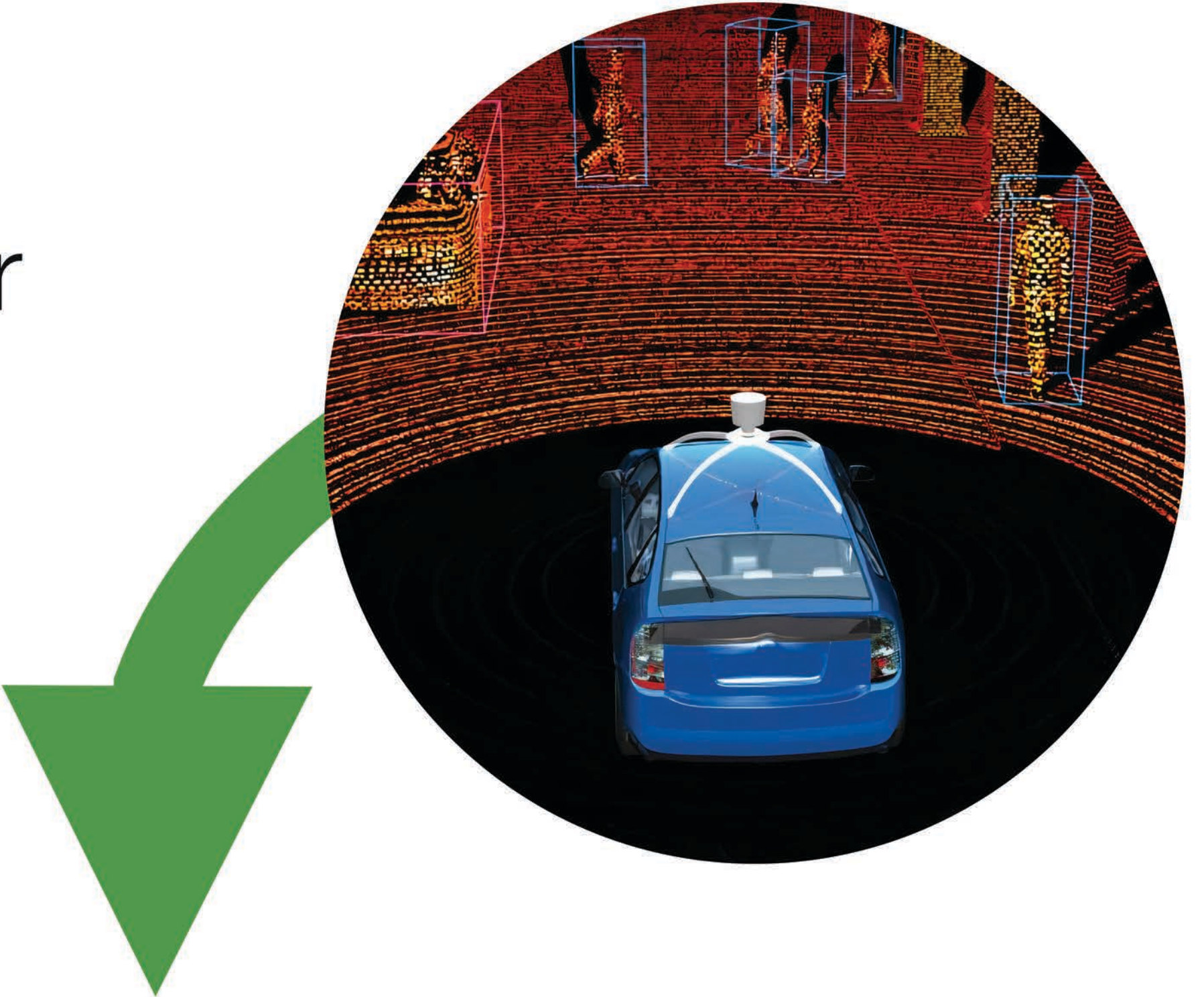
BUT...

at least
6+
years away



OUR SOLUTION

THINK
Self-driving Car
in the Home



Patented Multi-Sensor AI

We combine 3D simulations, unique thermal and depth cameras, and custom neural networks with the patented Erana Engine™ to deliver insanely awesome results. Our systems will lead the market in production accuracy for human tracking and provide unique telehealth capabilities.



Safe & Private Monitoring

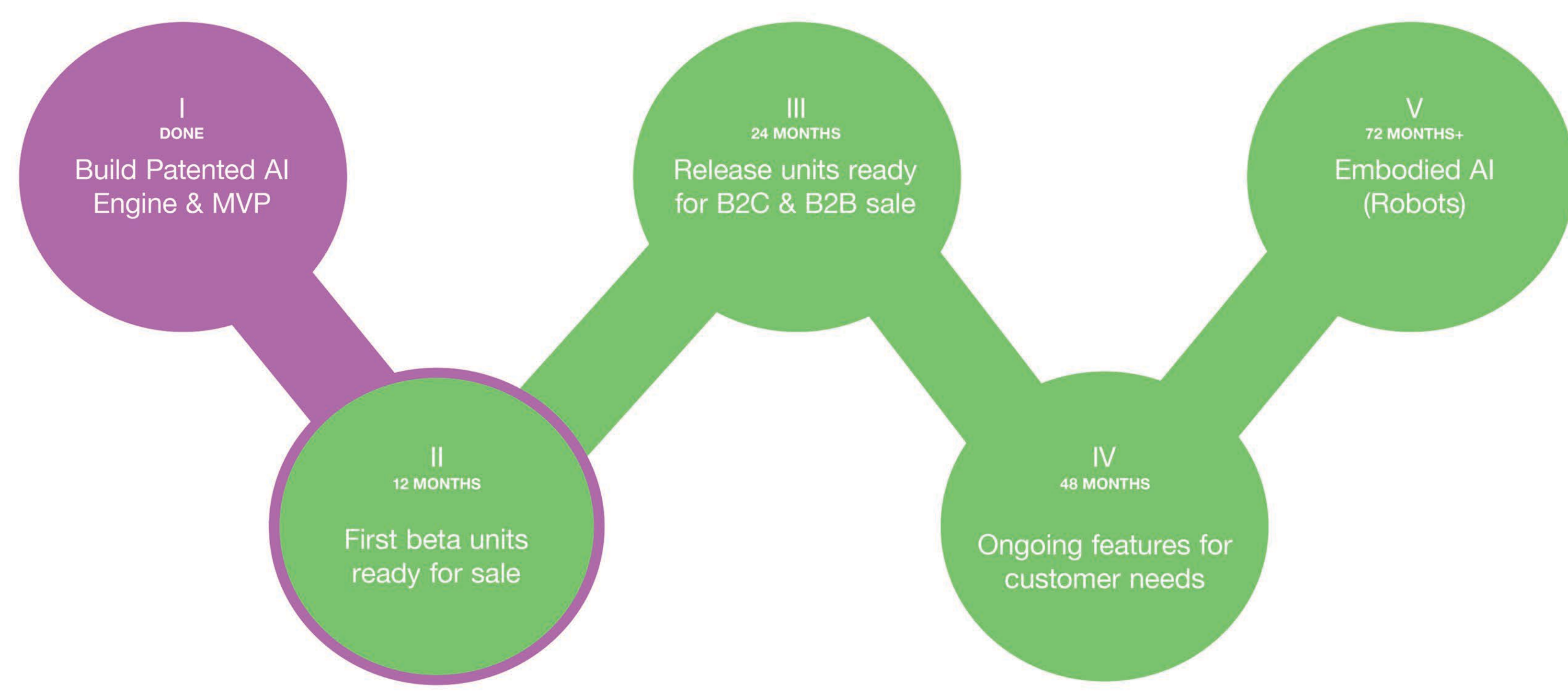
Fall Detection, alerts, mobility assessments and encrypted 2-way communication for safety.



Design & Function

We involve our customers at multiple touchpoints in the design and development process for a customer-centric user experience.

MILESTONES



KEY MARKET DATAPPOINTS

18 MILLION

Number of individuals taking care of someone with dementia or other aging in place care

~\$25B

Service Obtainable Market (SOM) directly for 18 million individuals and through various services

VALUE PROPOSITIONS



Direct Consumer & In-Home Nursing

Extending time in the home is worth over \$7000 in savings per month



55+ Living & Group Homes

Maintain full facility coverage with fewer staff

ACKNOWLEDGEMENTS

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RESOURCES

Marchese, S. (2022, December 20). The Caregiver Shortage: Which States Are Doing Best? Asbestos.com. From <https://www.asbestos.com/support/caregivers/shortage-by-state/>
AARP and National Alliance for Caregiving. Caregiving in the United States 2020. Washington, DC: AARP. May 2020. <https://doi.org/10.26419/ppi.00103.001>
Numbers via US CDC, Caregiver.org, AHIP.org, APlaceForMom.com
<https://www.seniorliving.org/nursing-homes/costs/>