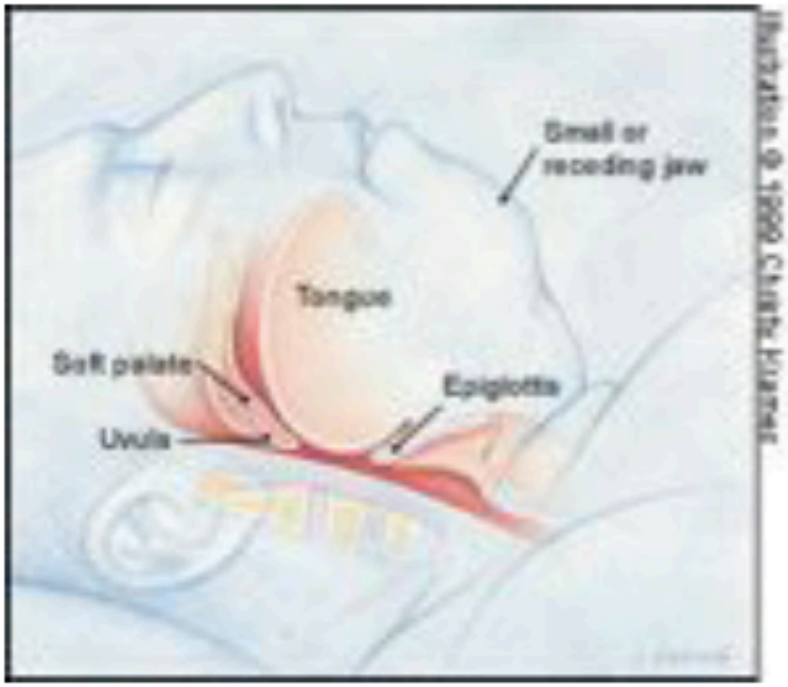
OAP Examples

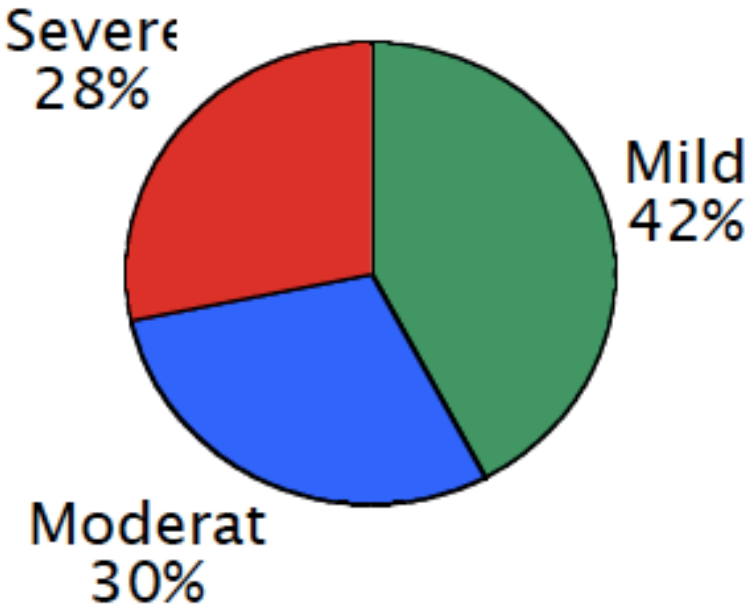
Example
Implantable Medical Device

Obstructive Sleep Apnea

A prevalent disorder with growing visibility



A sleeping disorder resulting in repeated cessation of breathing



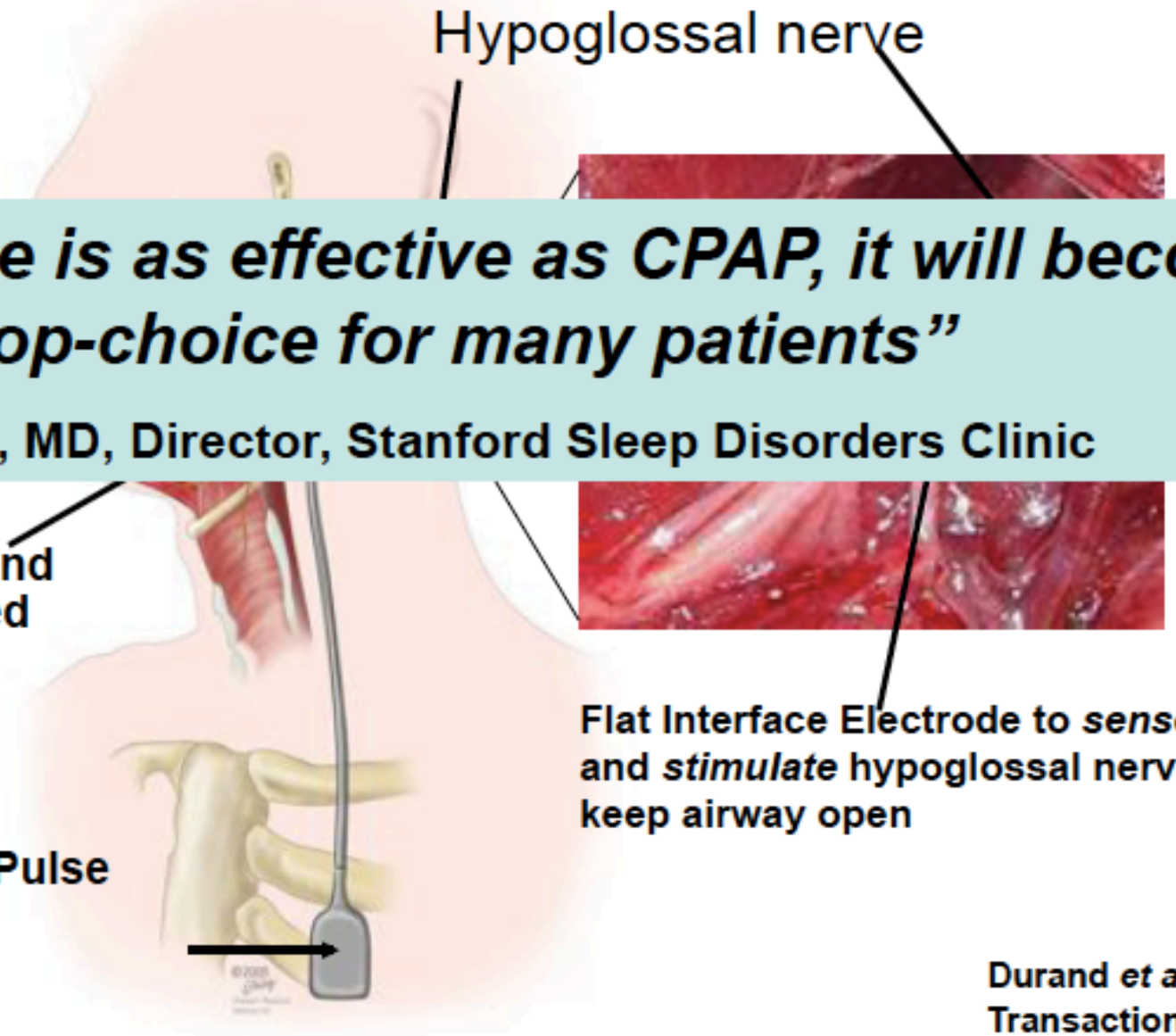
8 Million adults in the U.S. have severe OSA

Total OSA 28.6 Million

MedTech Insight February 2004

Implantable Neural Stimulation Solution

IP protected, Class III stimulation system implanted in outpatient setting



"If your device is as effective as CPAP, it will become a top-choice for many patients"

Jed Black, MD, Director, Stanford Sleep Disorders Clinic

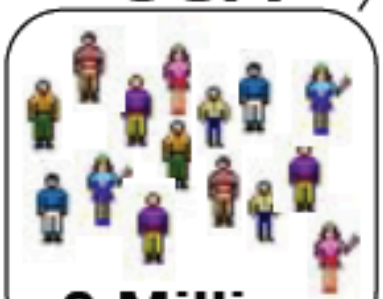
Durand *et al.*, IEEE Transactions on Biomedical Engineering

IP protected by several US patents

Target Customer

Current treatment ineffective

Severe OSA



8 Million

Treated

686,000

Untreated

7.4 Million

Therapeutic treatment of OSA growing at CAGR of 17%

Frost & Sullivan

Option #1: CPAP

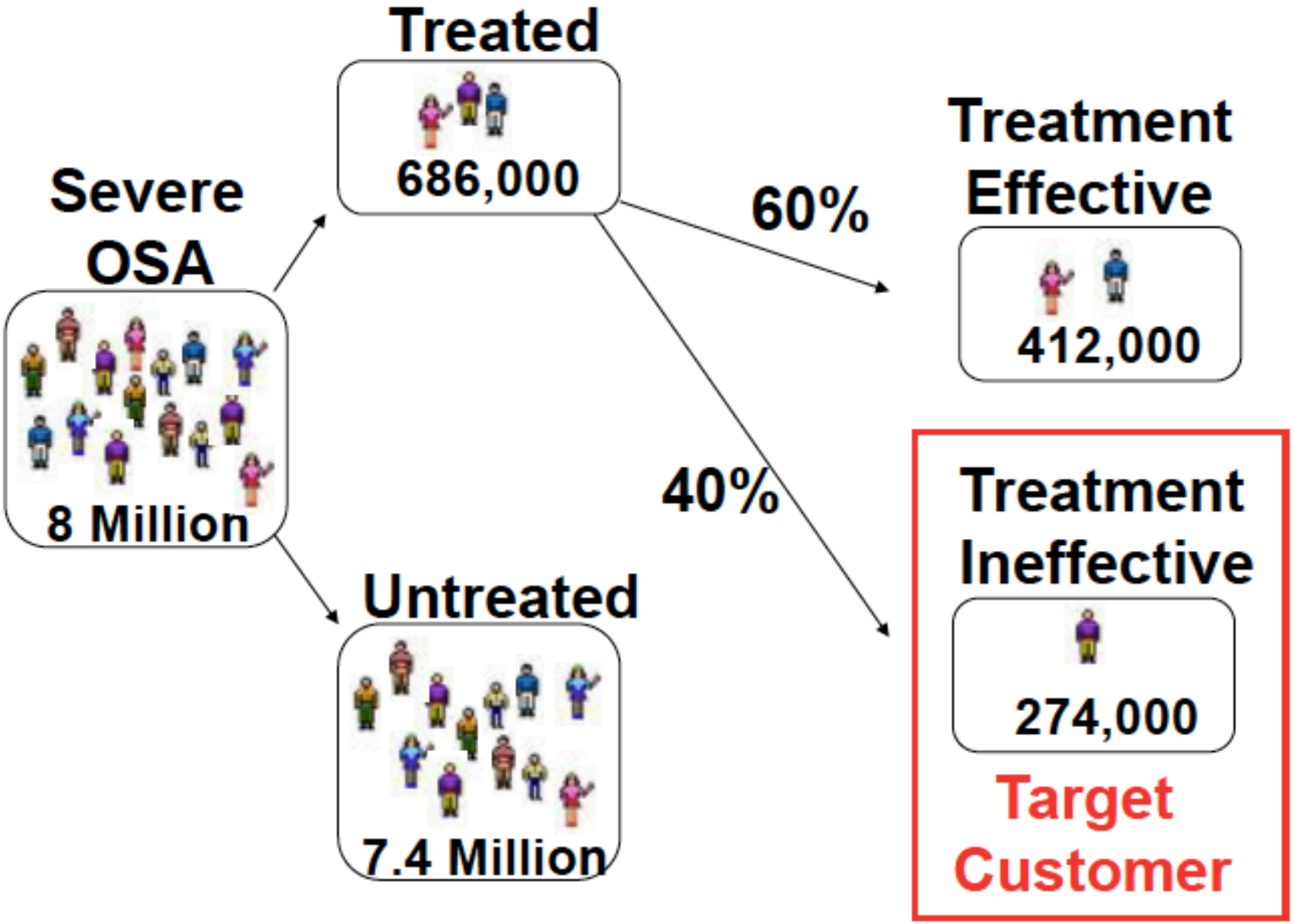
Continuous Positive Airway Pressure

Option #2: Surgery

Uvulopalatopharyngoplasty
Maxillomandibular Advancement
Tonsillectomy

Initial Target Customer

Current treatment ineffective



Market opportunity overview

Projected revenue of $800M and neural stimulation market growing

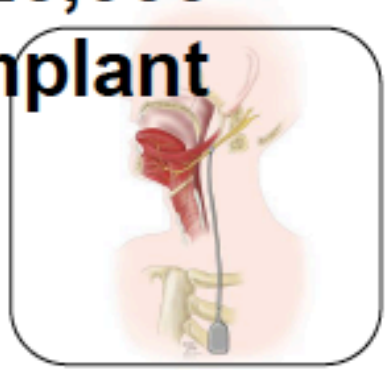
$5 Billion Target Market

Initial Market Size

274,000

+

$20,000 Implant



Revenue

Time

Compan y Launch

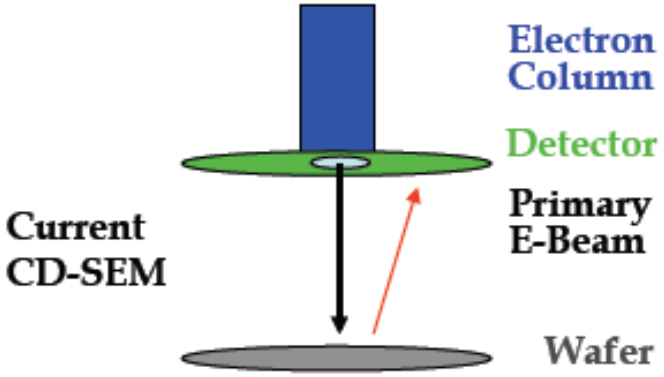
Year 6 $50 M

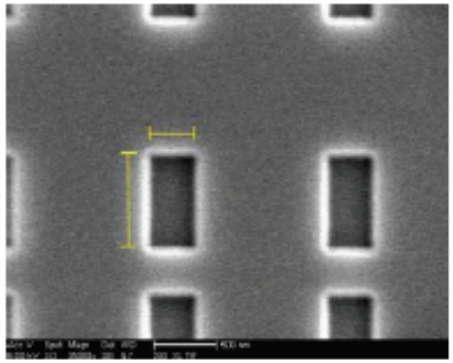
Year 11 $800 M 15% Market

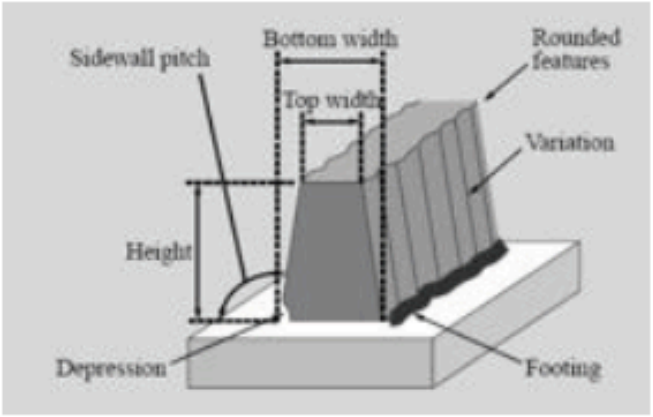
$ $ $ $ $ $

Opportunity

2D CD metrology will not meet industry needs

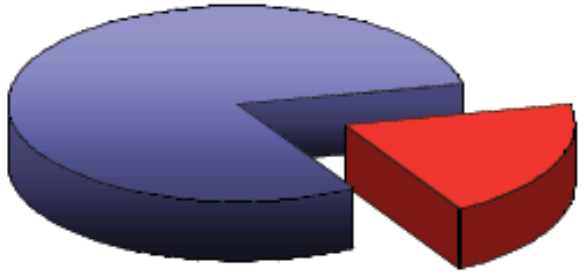






Sidewall height and angle critical for 3D chips

3D CD Metrology Market in 2010
$2 Billion (TAM) *



$500M(SAM)

NanoPrecision

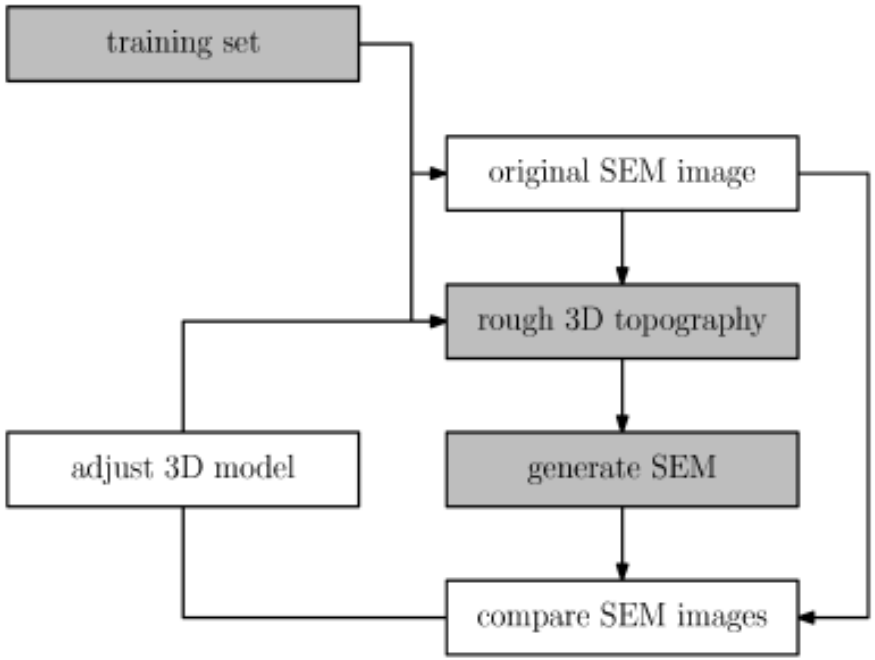
** Adapted from VLSI Research*

Our Solution

Computational 3D SEM

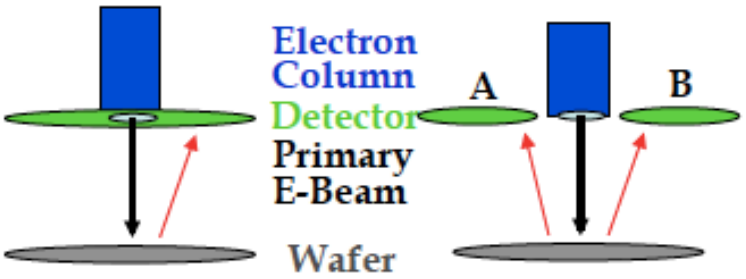
Software/Firmware (Core competence)

CTO's Research at Stanford with Prof. Fabian Pease



Computational methods for nano-scale 3D reconstruction

Hardware(Context)



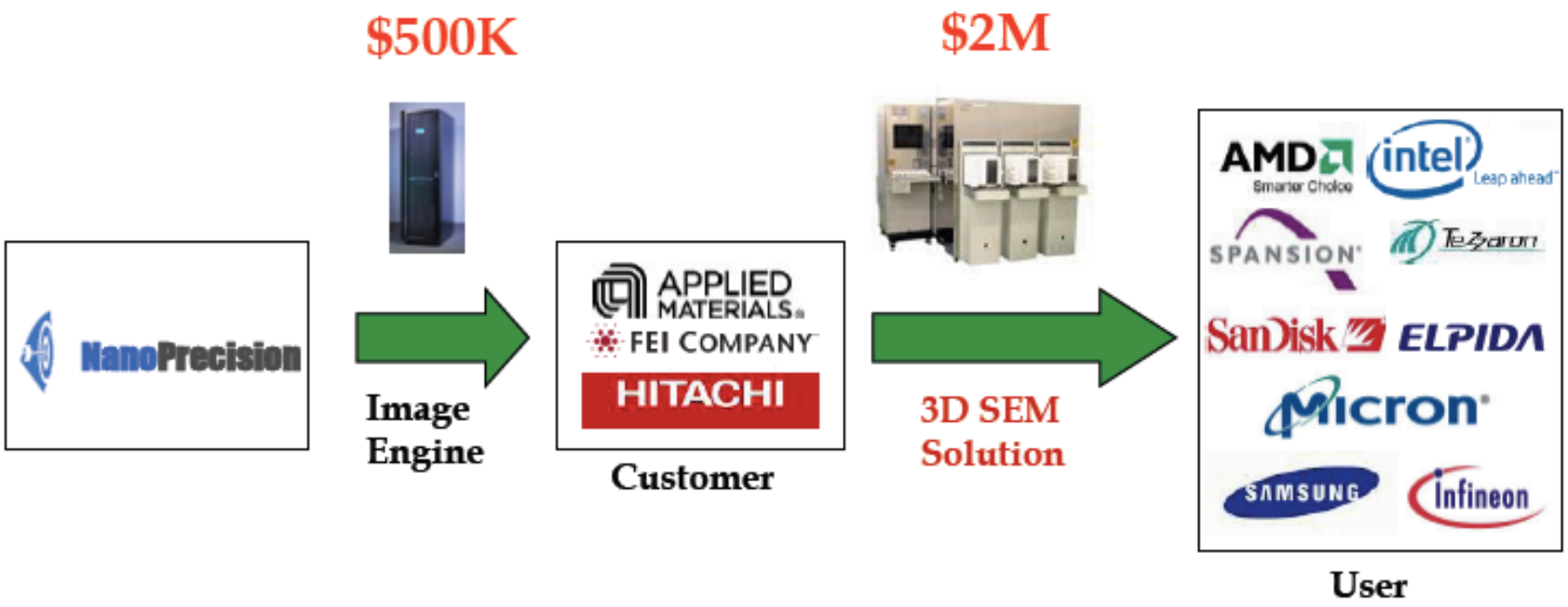
Current 2D SEM **New 3D SEM**

Patents Pending

- **3D Reconstruction**
- **Calibration Targets**

Business Model

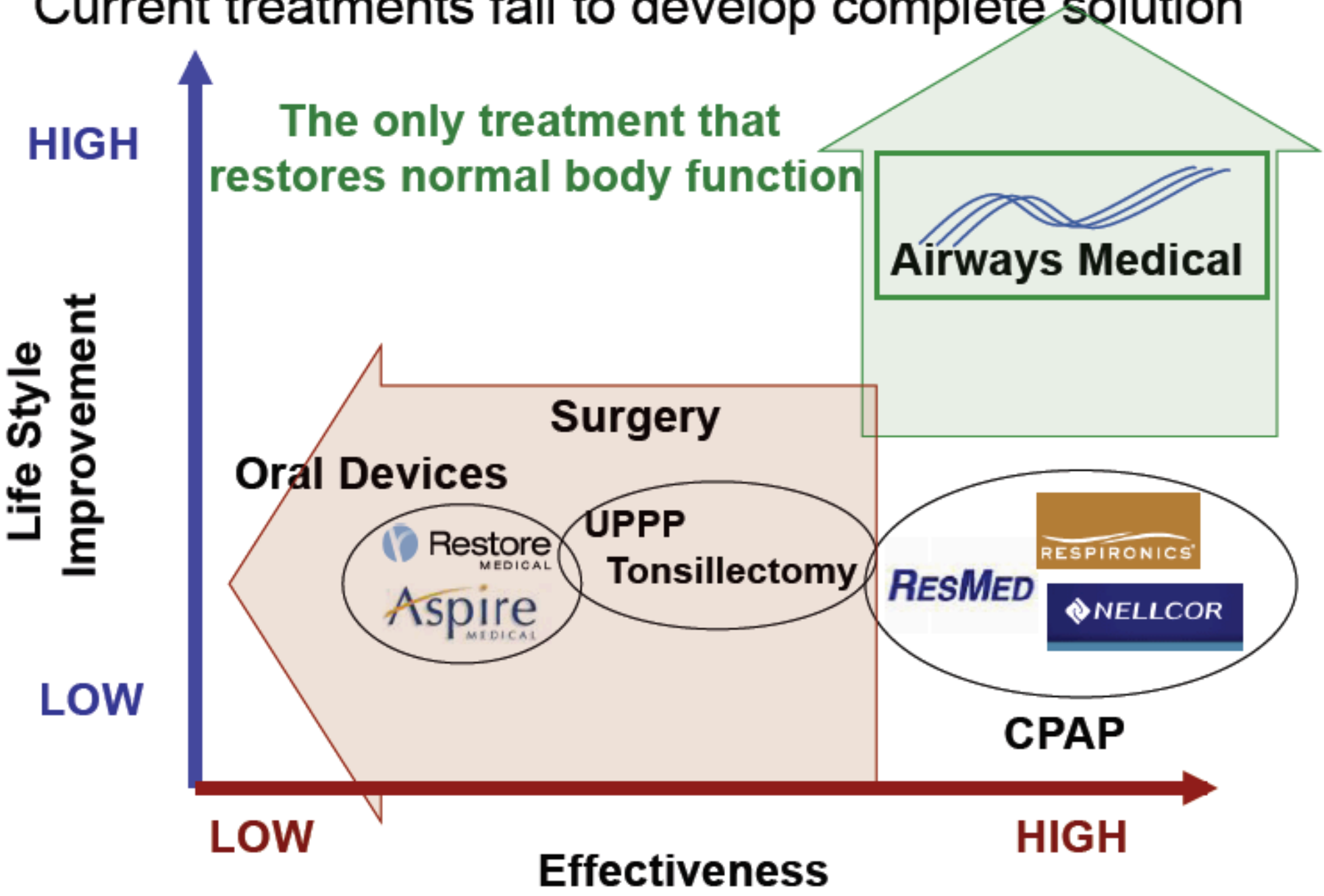
OEM Image Processing Engine to SEM manufacturers



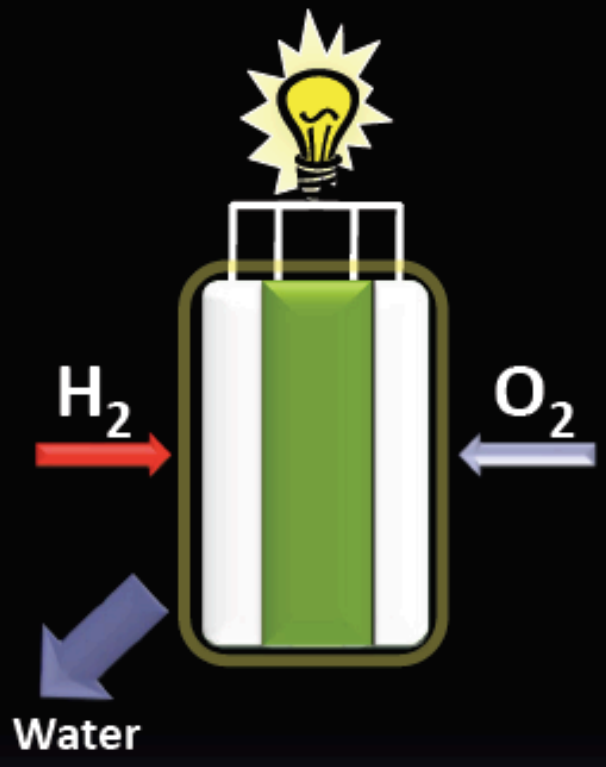
Support subcontract for Image engine is $50K/year for 4 years

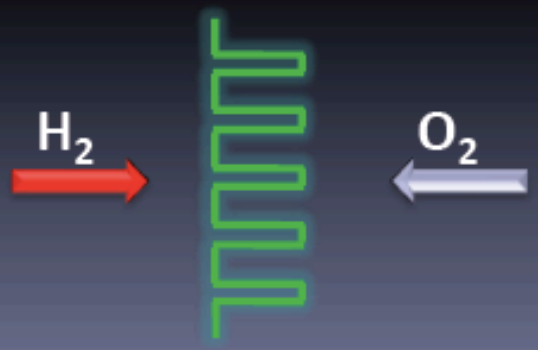
Severe OSA Competitive Landscape

Current treatments fail to develop complete solution



Our Technology





Novel electrode material

Lower cost than platinum
Properties enable greater efficiency
More robust (no catalyst poisoning)

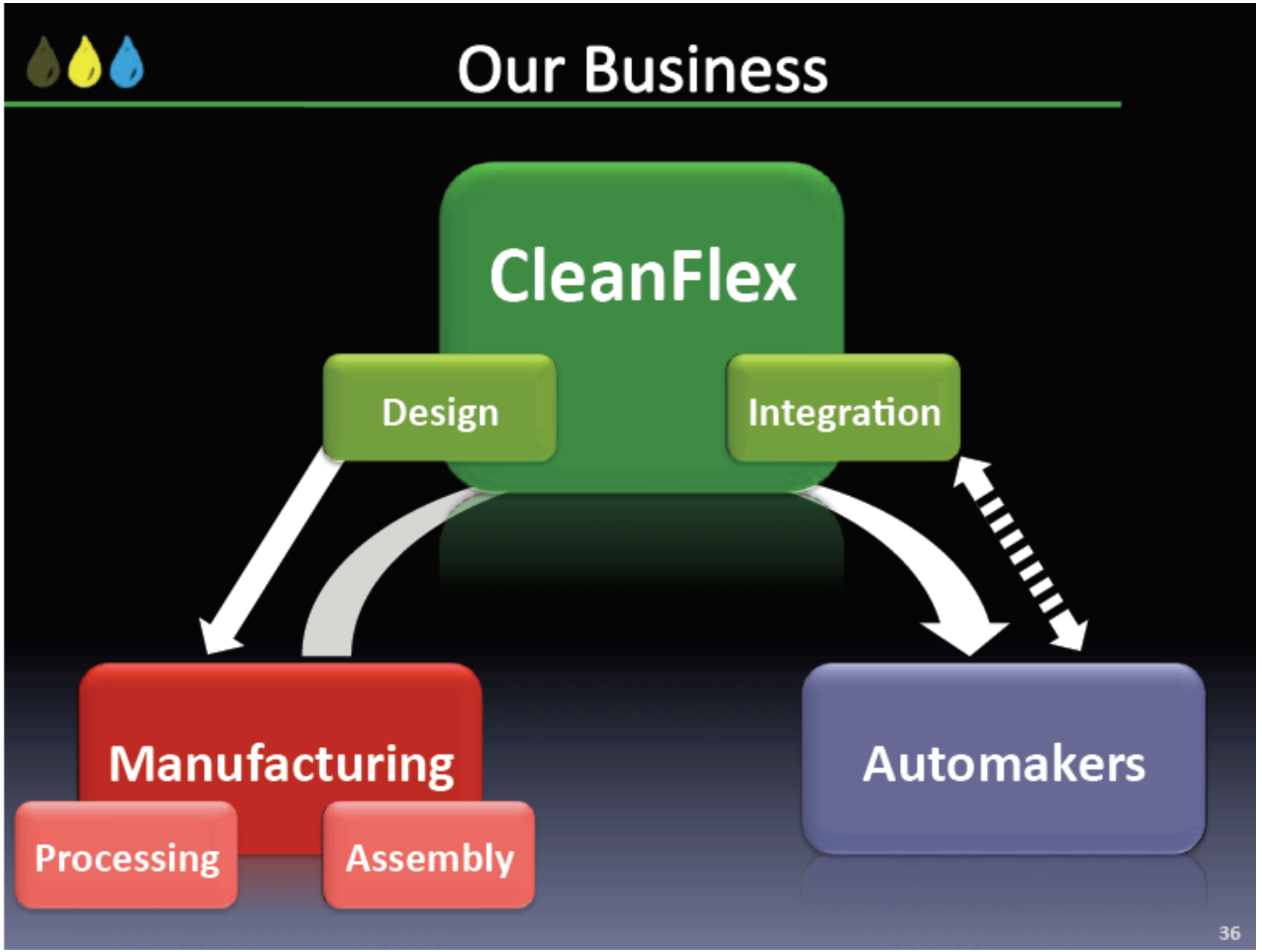
Ultra-thin materials processing

Atomic layer deposition (ALD)
100s µm → 100s nm (1000X thinner)
Smaller diffusion distance

Nanowire template

Grow nanowires, deposit on top
More surface area → more power

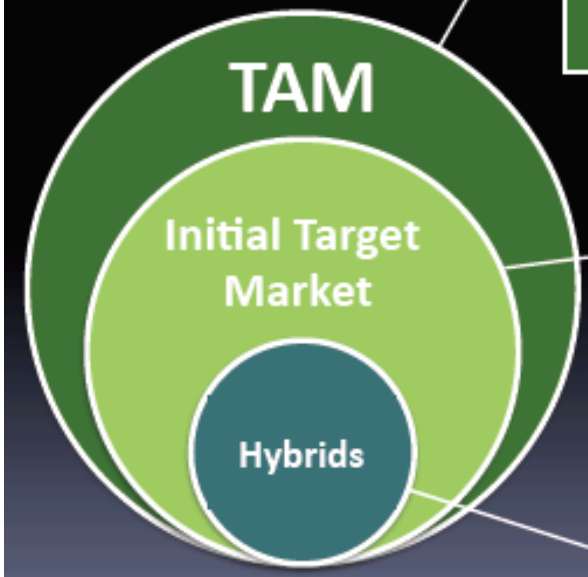
Our Business



Market Size

$4,000 / unit
DOE target

We believe consumers would be willing to pay a 10% premium over the Prius for a fuel cell vehicle.
Bob Wimmer, Toyota National Manager Technical and Regulatory Affairs, Environment



70M vehicles produced per year in the world
$280 B

Automakers pursuing cleantech
(GM, Toyota, Ford, Honda, Chrysler, BMW)
$131.4 B

Hybrid market
(300,000 hybrids sold in US 2007)
$1.2 B

Key Business Assumptions

SALES	Direct sales to automakers
TECHNOLOGY ADOPTION RATE	Similar to hybrid vehicles
PRICE POINT	$4,000 / unit (@ 0.5M units annually, DOE target)
COGS	$2,500 / unit

Fuel Cell Stack	
Materials	$ 151
Support Structure	$ 100
Insulation	$ 80
Power Conditioner	$1250
Assembly	$ 200
Labor	$ 200
Shipping	$ 200
Overhead	$ 300
TOTAL COGS	**$2,481**

Example
UAV Software

The Market Opportunity

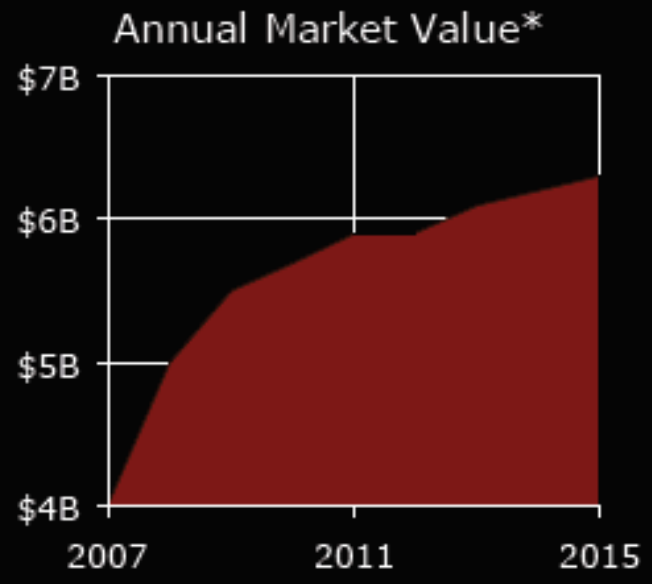
practical autonomy

Unmanned Aerial Vehicles: High endurance robots for dangerous missions

A Potential Six Billion Dollar Market:

With the right blend of autonomy

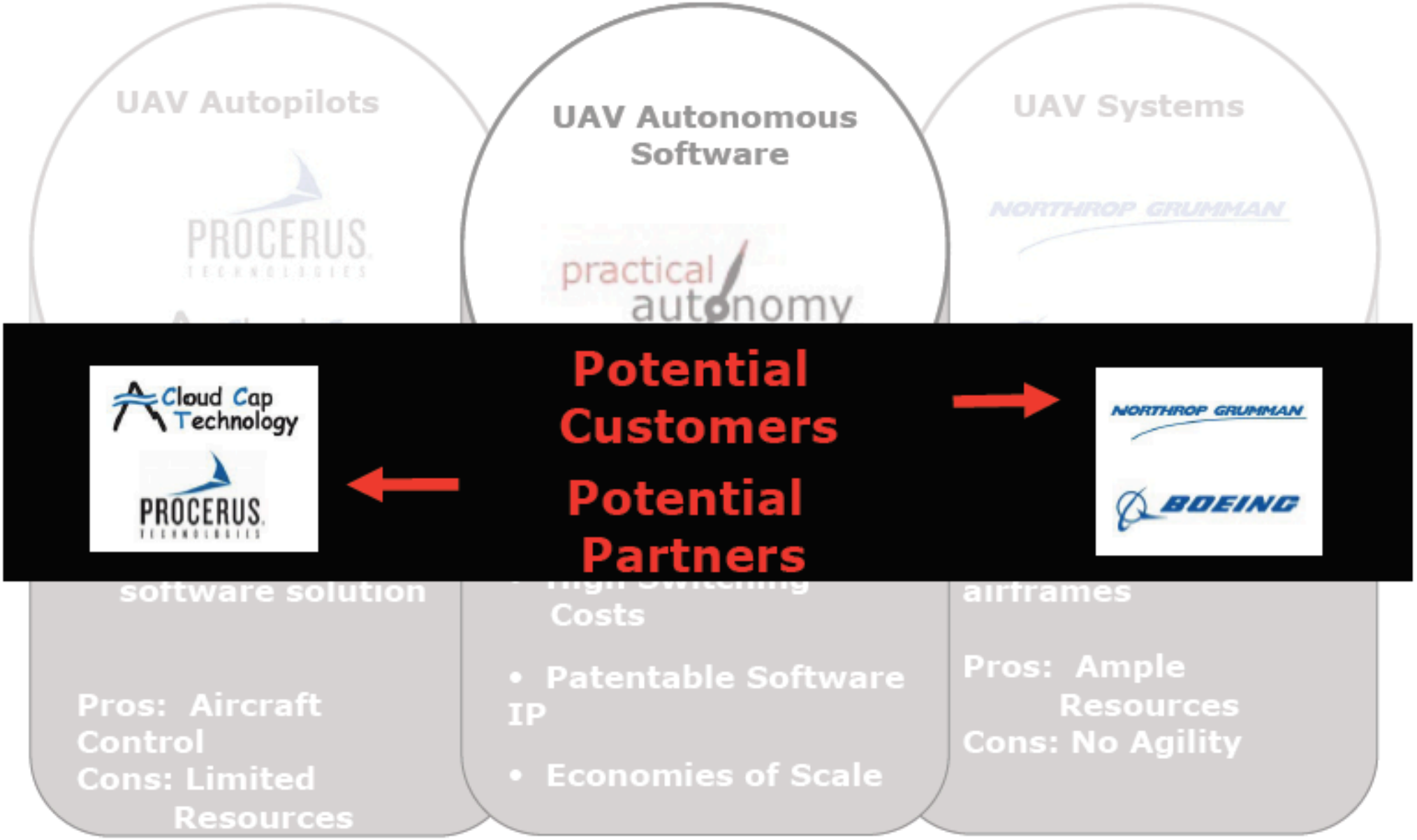
*Moiré Inc., US UAV Market Forecast, Feb. 2005**



Reconnaissance | Search & Rescue | Fighting Wildfires | Aerial Mapping | Border Patrol

Competitive Landscape

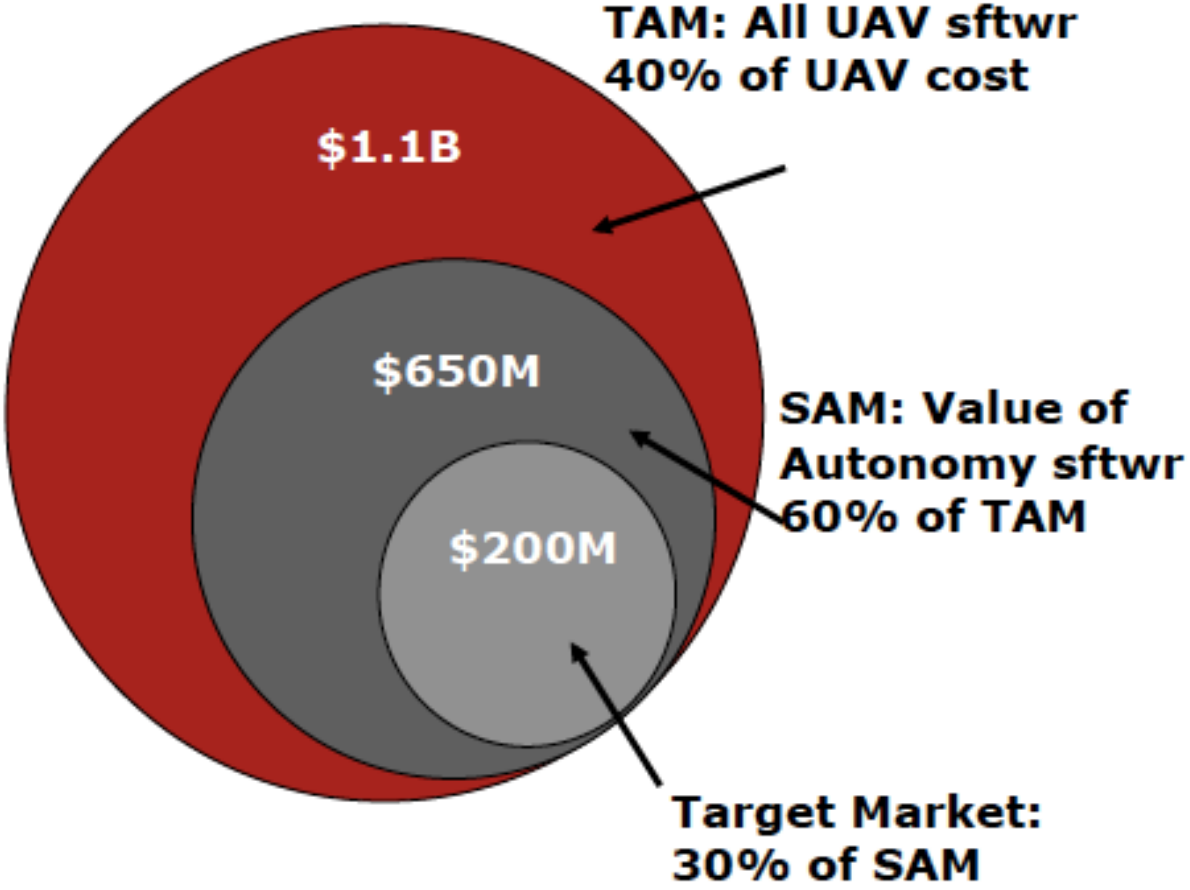
What are the barriers to entry?



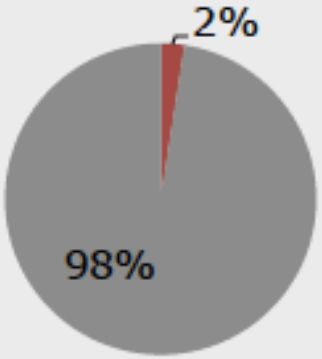
Market Landscape

What is our slice?

2013 Market Opportunity

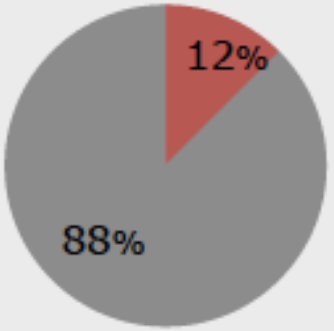


2007 US UAV Market: $4B



- **Defense CAGR: 20%**

2013 US UAV Market: $6B



- **Civil/Private CAGR: 22%**

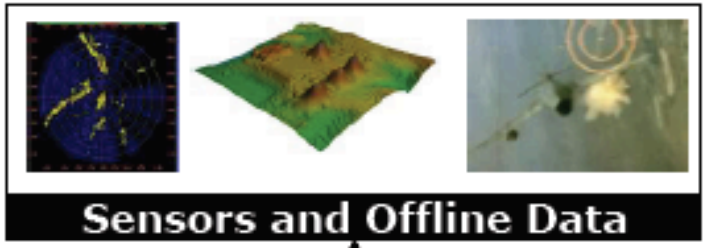
Defense Civil / Private

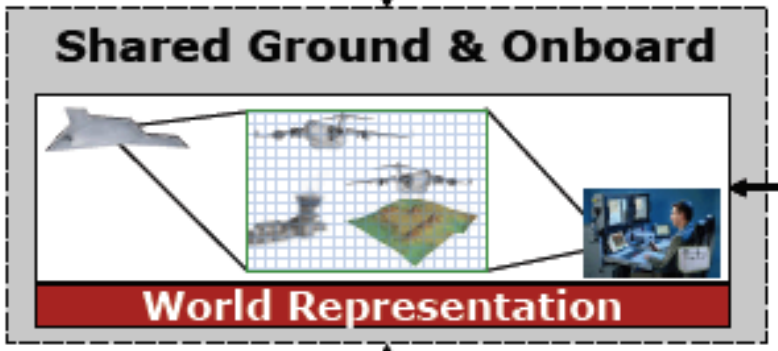
Source: Moiré Inc., US UAV Market Forecast, Feb. 2005

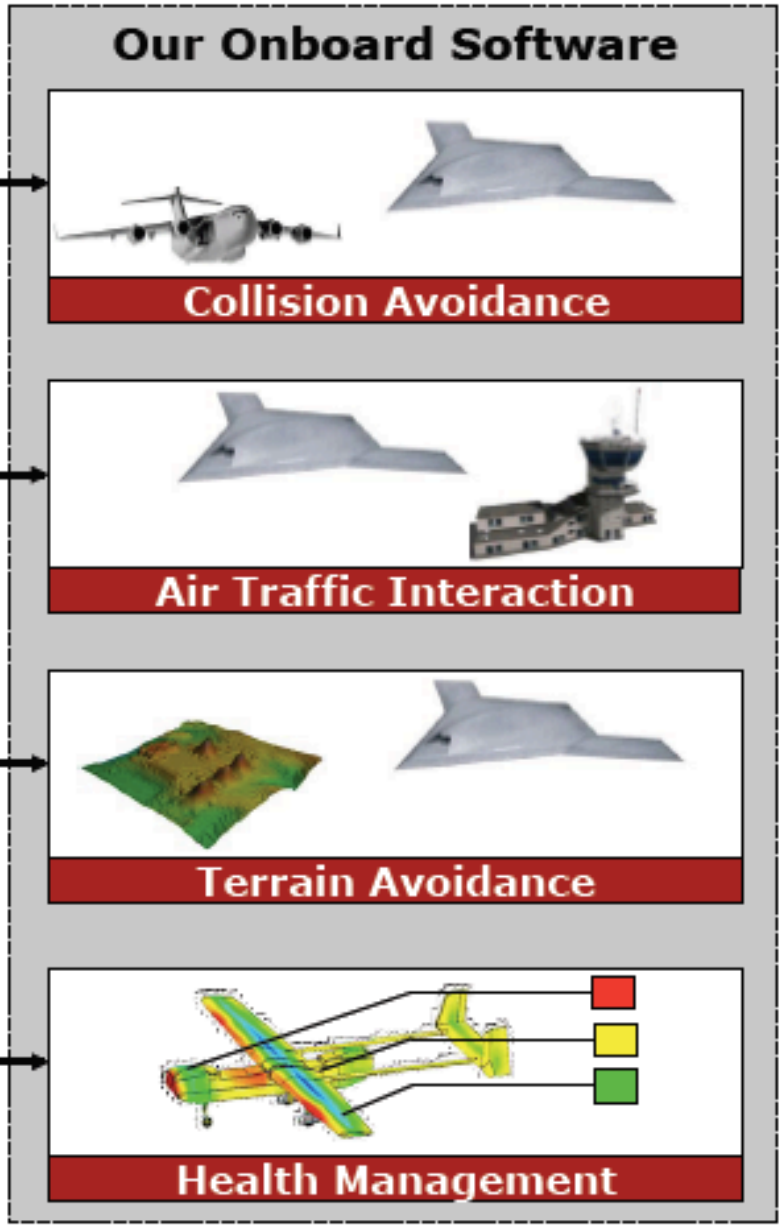
Our Solution

Modular, adaptable software in a unified framework

practical autonomy





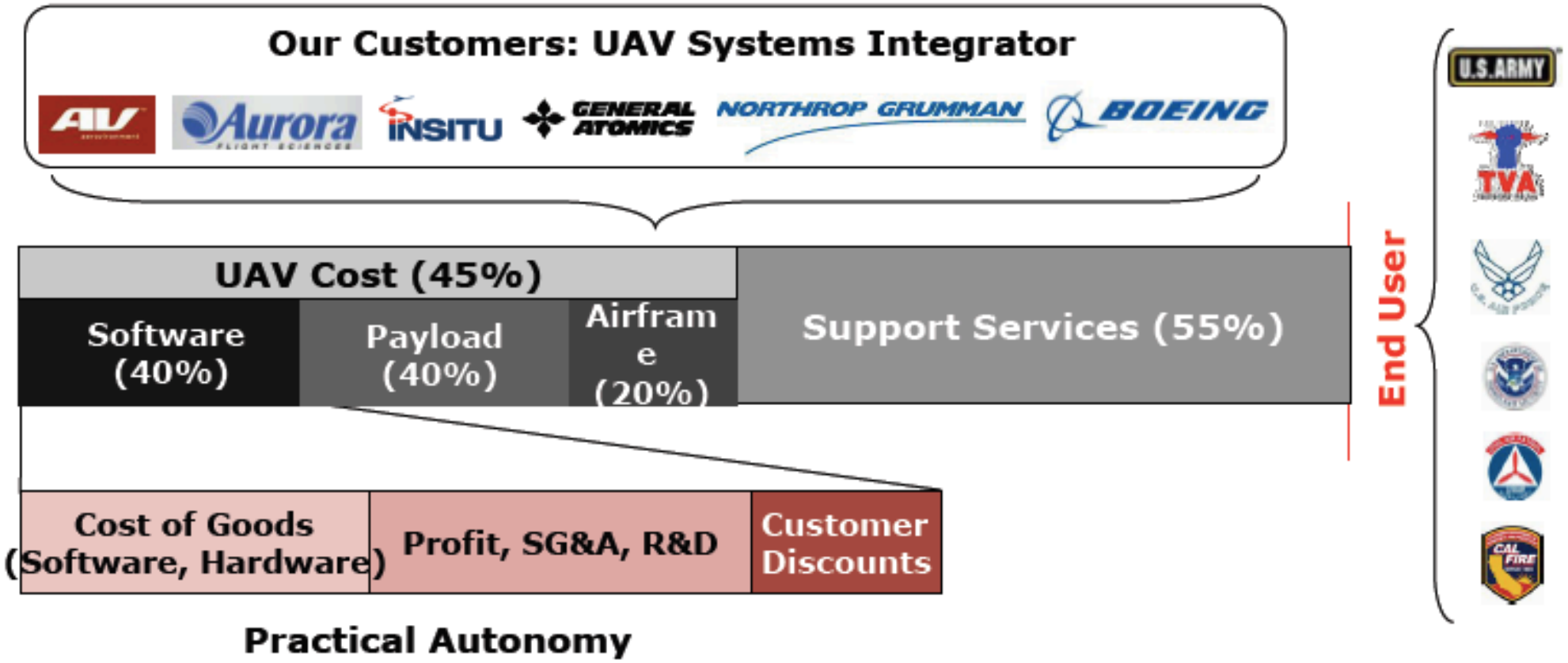


Business Model

Who are the customers and how do we fit in *their* value chain?

Our company provides software and services to the UAV industry

- We use a B2B model to sell directly to our customers



Sales Strategy

What is the market structure?

We target our customers by weight class