



Data Science platform for disease analytics for building reliable Medical Imaging AI solutions

current situation

THE \$17.1 BILLION PROBLEM

COSTS

THE ANNUAL
COST OF
MEASURABLE
MEDICAL
ERRORS IS
SIGNIFICANT

current situation



SHORTAGE OF RADIOLOGIST & PATHOLOGISTS



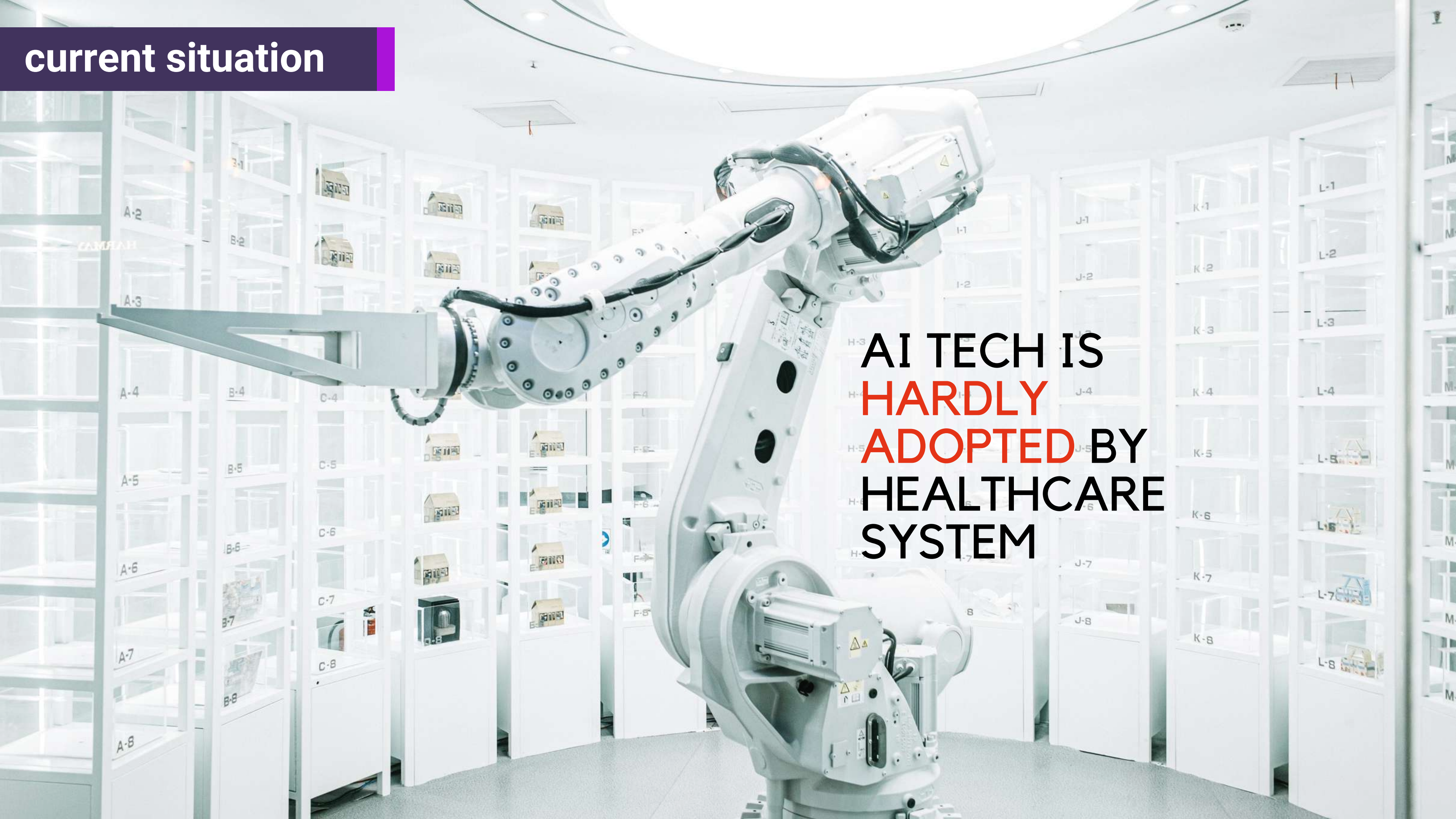
current situation



AGING
POPULATION
WITH
INCREASING
HEALTHCARE
DEMANDS



current situation

A white robotic arm is positioned in the center of a large, circular room. The room is filled with white shelving units arranged in a grid, each labeled with letters and numbers (e.g., A-1, B-2, C-3, etc.). Some shelves contain small cardboard boxes. The robotic arm is extended towards the left side of the frame. The overall scene is brightly lit and clean, suggesting a modern industrial or laboratory environment.

AI TECH IS
HARDLY
ADOPTED BY
HEALTHCARE
SYSTEM

Why?

HIGH
PROJECT
COSTS

UNRELIABLE
RESULTS

The **failure** rate of AI projects in
healthcare is between **60%-85%**

MAIN CHALLENGES IN AI FOR MED-TECH

1 INSUFFICIENT AMOUNT OF DATA

Healthcare entities are not open to share with R&D teams sensitive patient data.

2 LACK OF INSIGHT GENERATION

Data processing takes up to 80% of development time, and the lack of efficient tools makes it difficult & requires multiple trials!

3 POOR UNDERSTANDING WASTES RESOURCES.

Unrealistic expectations from executives, combined with budget planning not based on data, lead to frequent project overruns.

WHAT DO WE OFFER?

LEVEL UP THE GAME!

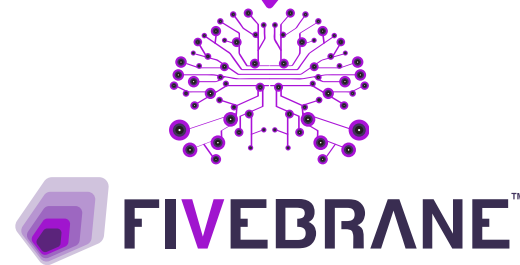
OPTIMIZE WORKFLOW OF
SKYROCKET CHANCES

AI TEAMS IN MED-TECH:
OF **SUCCESS**.



Collaborate with Data Privacy

Med-Tech Company



1 INSUFFICIENT AMOUNT OF DATA

Reduce the barriers to data access
build reliable AI keeping data remotely
use only what AI needs: meta-information



We provide **infrastructure** to **MedTech** companies to build AI leaving data in hospitals

Improve AI Model Performance while Training

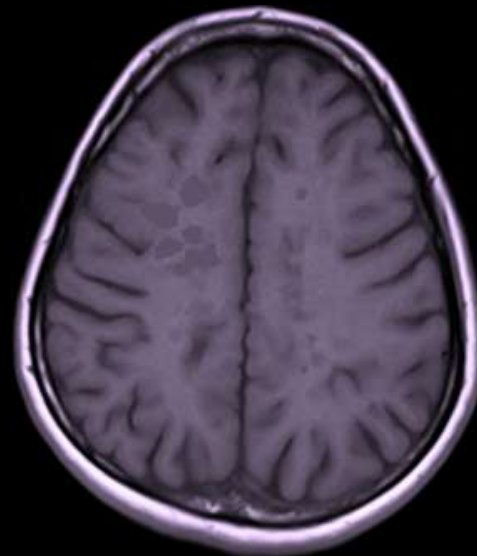
1 INSUFFICIENT AMOUNT OF DATA

FiveBrane algorithms enrich the dataset during training with more data based on pathology description.

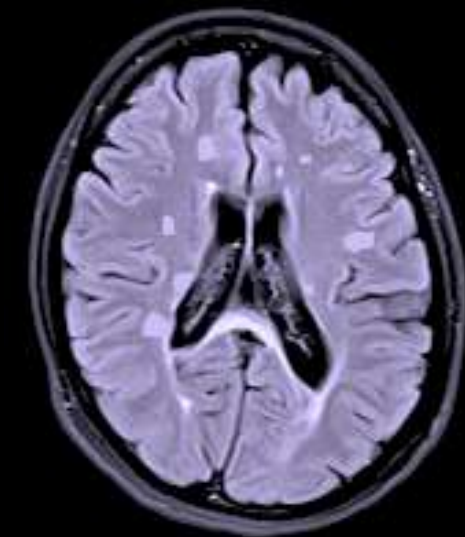
- No extra labeling effort is required
- We have anatomically correct data



Multiple Sclerosis image
MRI T1 regime



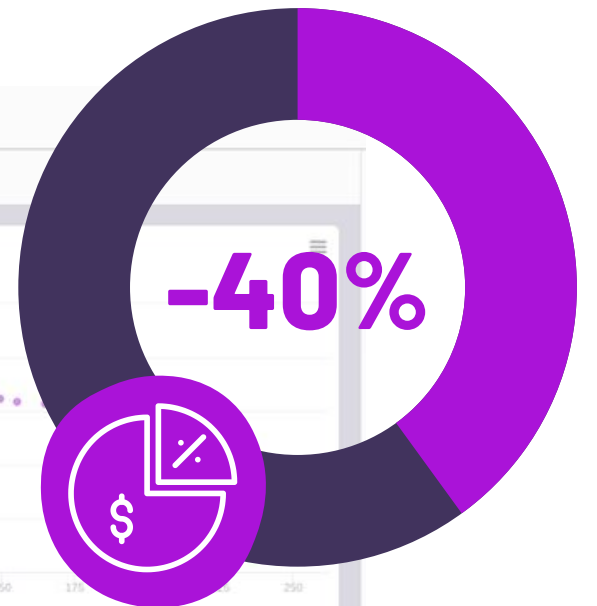
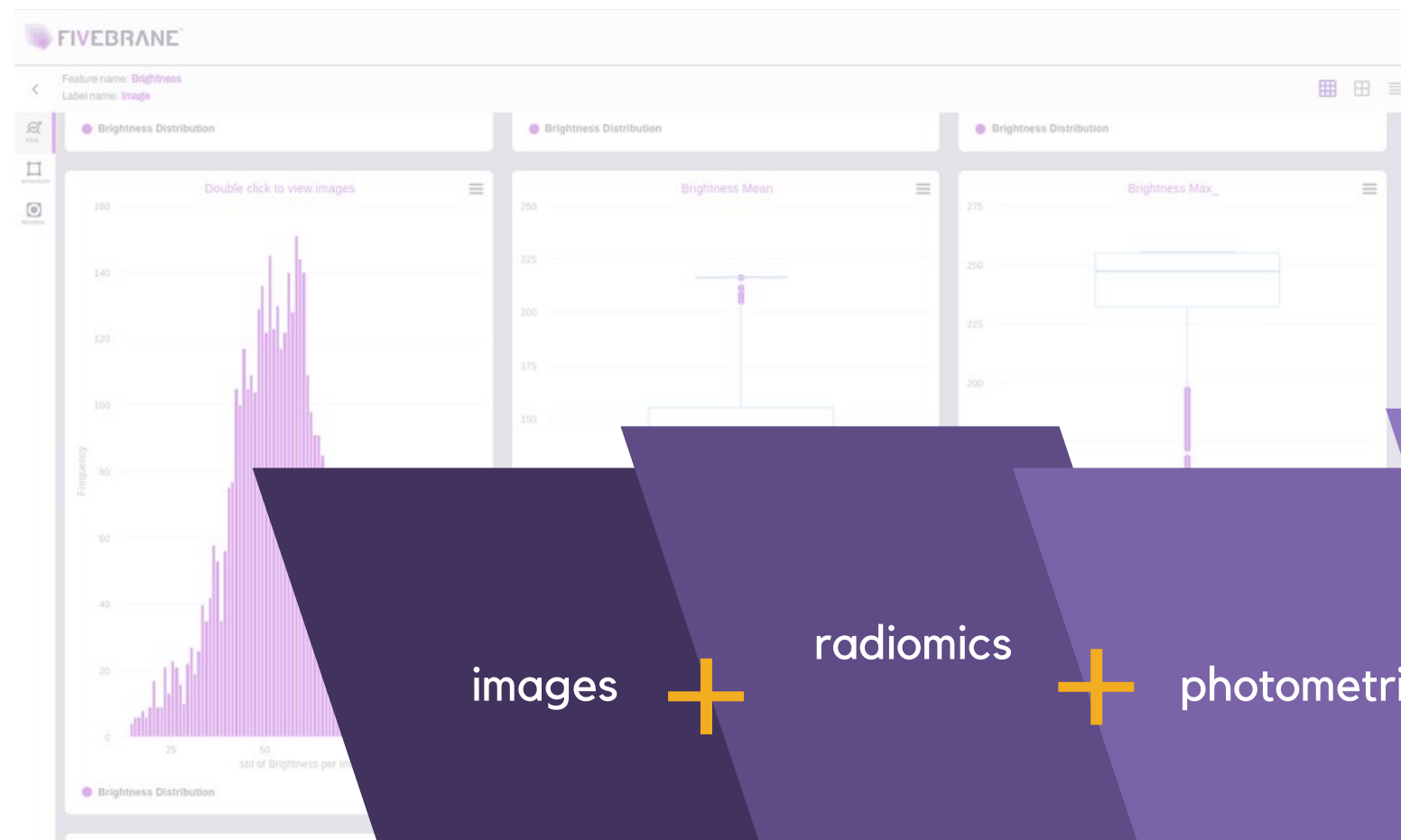
Multiple Sclerosis
new image
MRI FLAIR regime



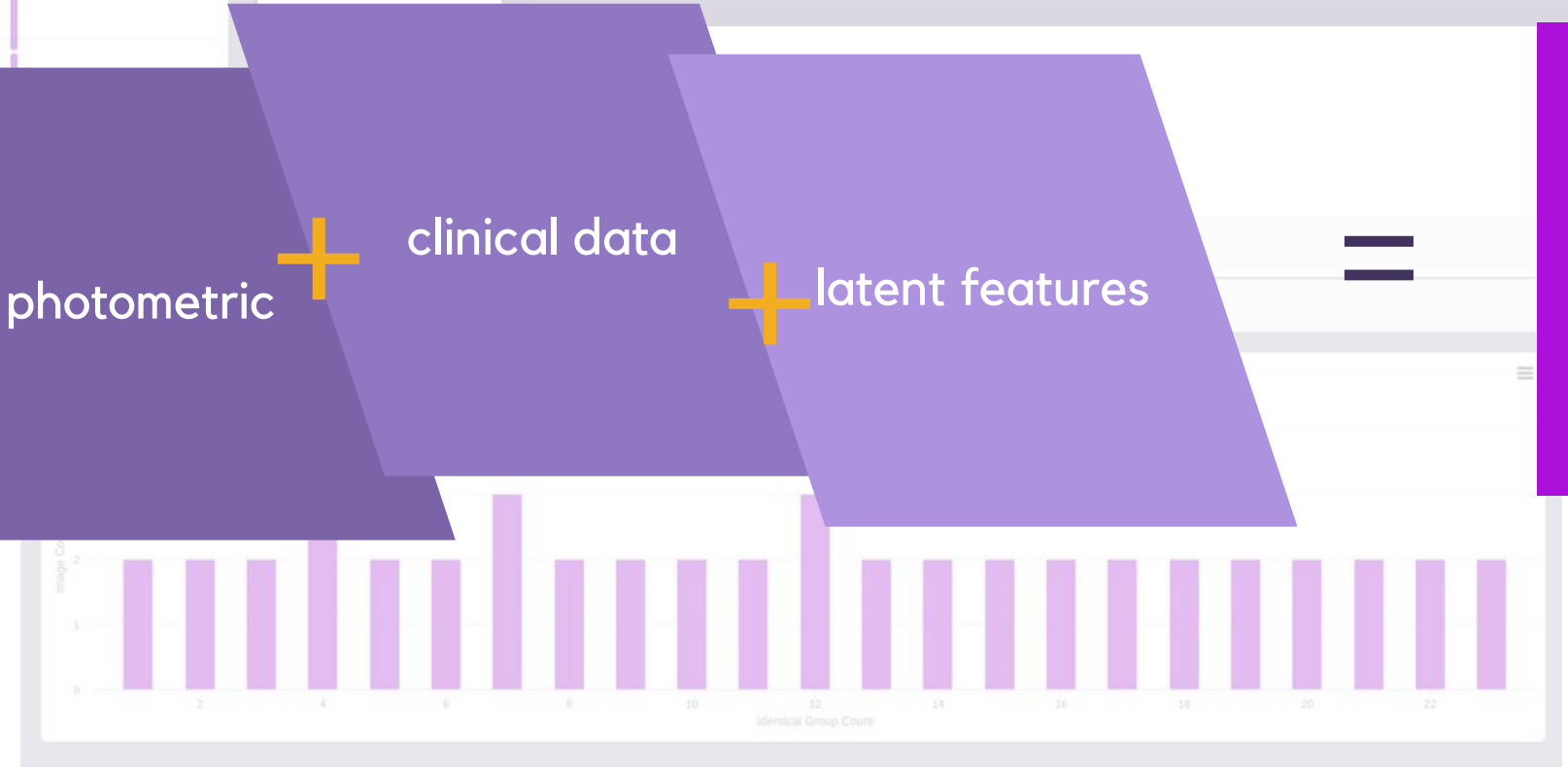
2 LACK OF INSIGHT GENERATION

Core data selection based on analytics

Focus on identifying and prioritizing high-impact data for AI models. Achieve accurate AI in healthcare while managing costs effectively. Understand data for better AI.



images + radiomics + photometric + clinical data + latent features = FULL PICTURE



Costs Forecasting

3 POOR UNDERSTANDING WASTES RESOURCES.

AI solution development data driven budgeting and model performance prediction

FiveBrane predicts the required amount of images that can improve the model performance.

Predicts how well AI model will perform & how much it'll cost to reach that level.



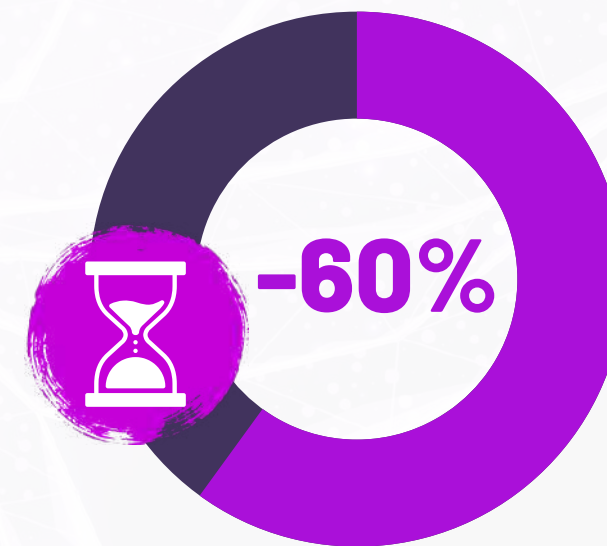
AI Powered Review

*"Experienced radiologists who evaluate chest X-rays as normal or abnormal contradict themselves **20%**."*

- Daniel Kahneman -

Strengthen Consensus

Leverage unsupervised AI for unbiased review and reduced costs.



Traction

Early Adopters



Their revenue: 1,7 billion EUR



Their revenue: 3,25 billion EUR

In the Pipeline



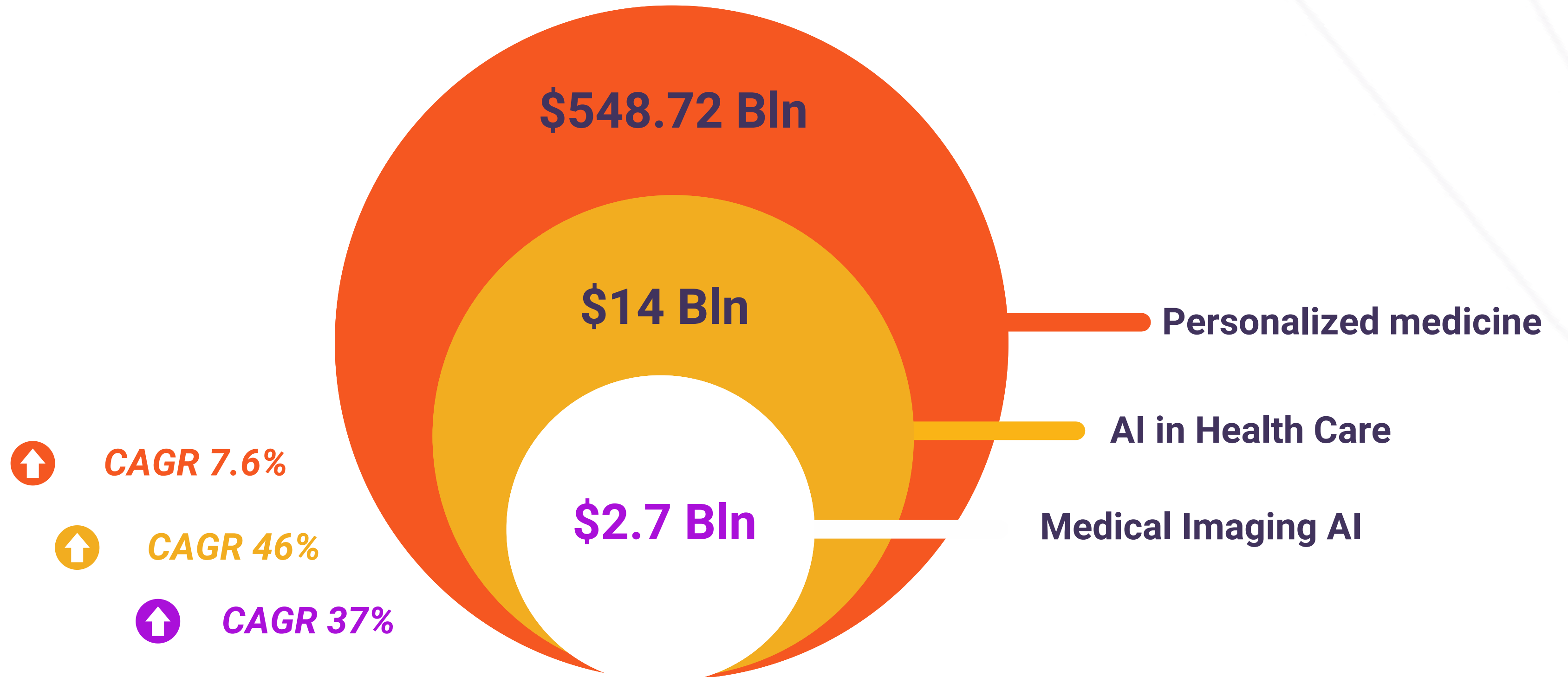
Target Market



Partners in Healthcare



Market



[market info 1](#)

[market info 2](#)

[market info 3](#)

Competitive Landscape



The **purple** are **FiveBrane** in-house designed IPs that reduce the development costs and development efforts

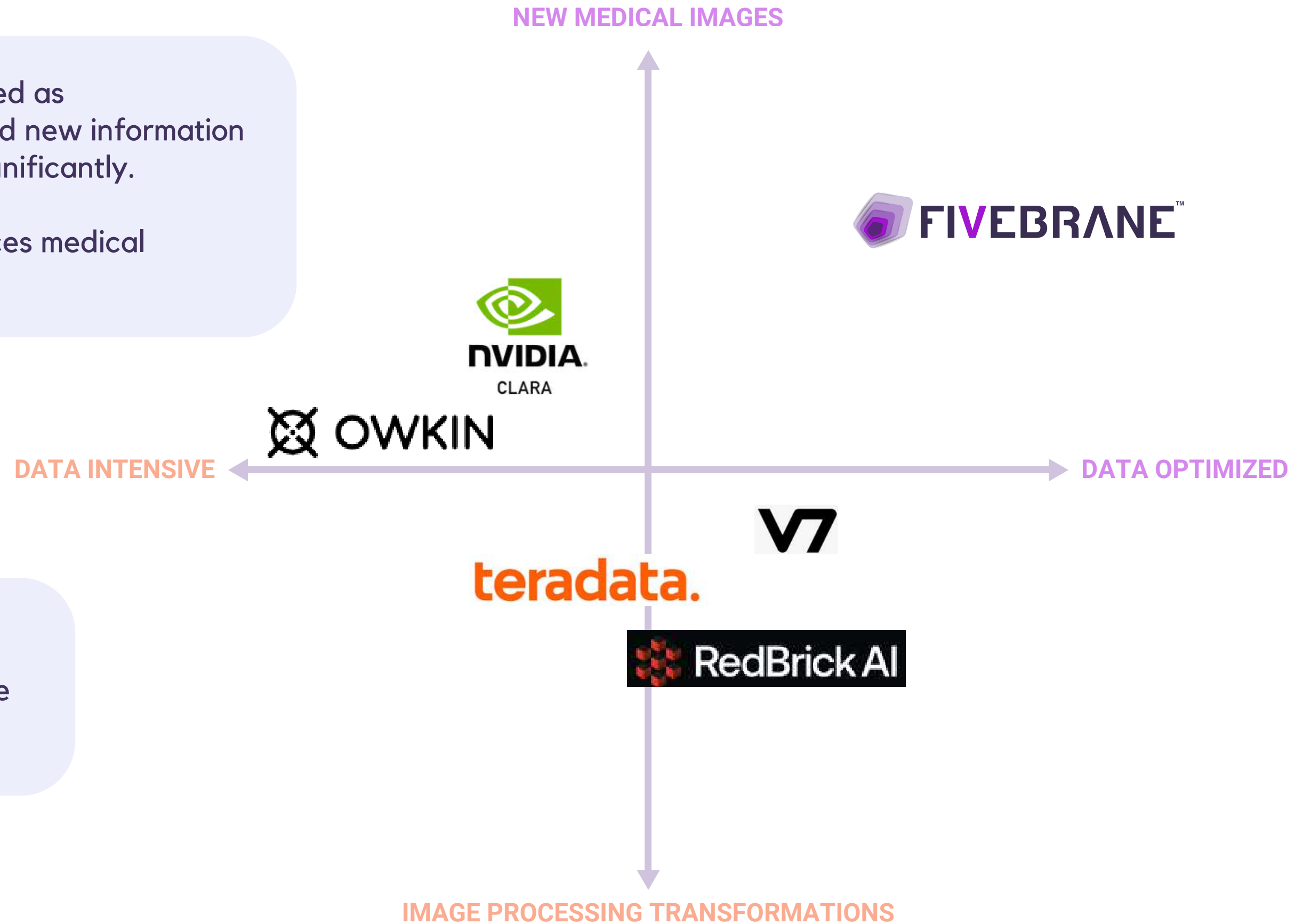
	Auto Labeling	Remote Training	Multimodal Data Analysis	Data Enrichment	AI Verifier	Coreset Selection	Budget Estimation
FIVEBRANE™							
NVIDIA CLARA							
OWKIN							
teradata.							
RedBrick AI							
V7							

Competitive Landscape Business Wise

Mostly data augmentation methods are used as regularization techniques, which do not add new information and do not improve model performance significantly.

Increases AI model reliability by 8%, reduces medical experts labeling efforts.

Budget planning/estimation targeted for CEO/CFOs increases incentive to adopt the whole platform, upsell.



Business Model

SINGLE USER

- SaaS in public cloud
- Dataset analysis

50 USD - 5000 files

TEAM SUBSCRIPTION

- SaaS in public cloud
- Dataset analysis
- AI powered annotation
- AI model development

20.000 USD - 10.000 files credits

PREMIUM SUBSCRIPTION

- On-premise solution or
- Remote/distributed training
- Experiments tracking and management

500.000 USD - 2 years license

Go-to-market Strategy for upcoming 12 months

CHANNELS

- Partnerships & Publications
- Internal Sales
- Brand & Content Marketing
- Sponsoring offline healthcare related events

TARGET REGION

- Italy
- Portugal - we work with our advisor for marketing FiveBrane in Portugal
- USA

Team



ANNA SHAHINYAN
CEO/co-founder

- PhD in Physics
- Former CTO at a global deep-tech company
- AI consultant
- Spun-off two AI startups
- Presidential Prize 2011 in Quantum Physics



ARAM MOVSIYAN
CSO/co-founder

- PhD in Physics
- 100+ publications
- Made the first measurements of asymmetries in Deeply Virtual Compton Scattering (unique scientific phenomena)
- 10+ years Data Science experience



TIGRAN GEVORGYAN
CPO/co-founder

- PhD in Physics
- Serial Entrepreneur
- 10+ years in R&D
- Presidential Prize 2011 in Quantum Physics



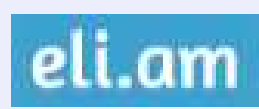
RAFAYEL RAHANYAN
CTO/co-founder

- Serial Entrepreneur
- 10+ years in R&D
- Build large scale products with multi-million users & multi-billion images.



VADZ GHAZARYAN
Head of UX&Product Design

- Serial Entrepreneur
- Senior product designer
- Brand promotion



HAMLETINA TONAKANYAN
AI Engineer

- Computer vision AI
- NLP
- Data Science



Advisers and Partners



Kostan Galumyan

PhD Radiologist, Head of Radiology
President at Armenian Association
of Radiology



Edoardo Maria Toscani

Business Advisor



Marco Vidal

Partner at



Matteo Moriotti

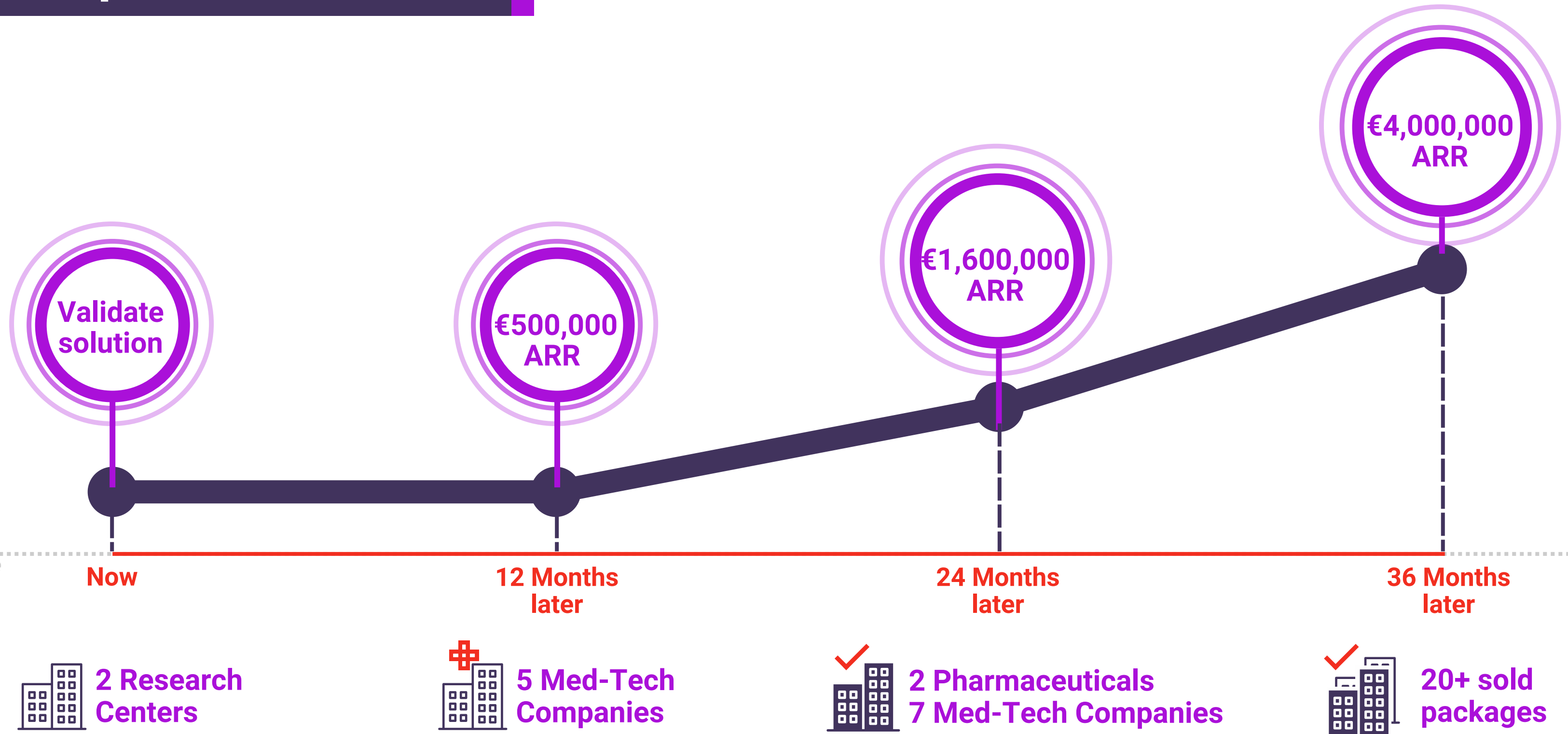
Global Client Partner at



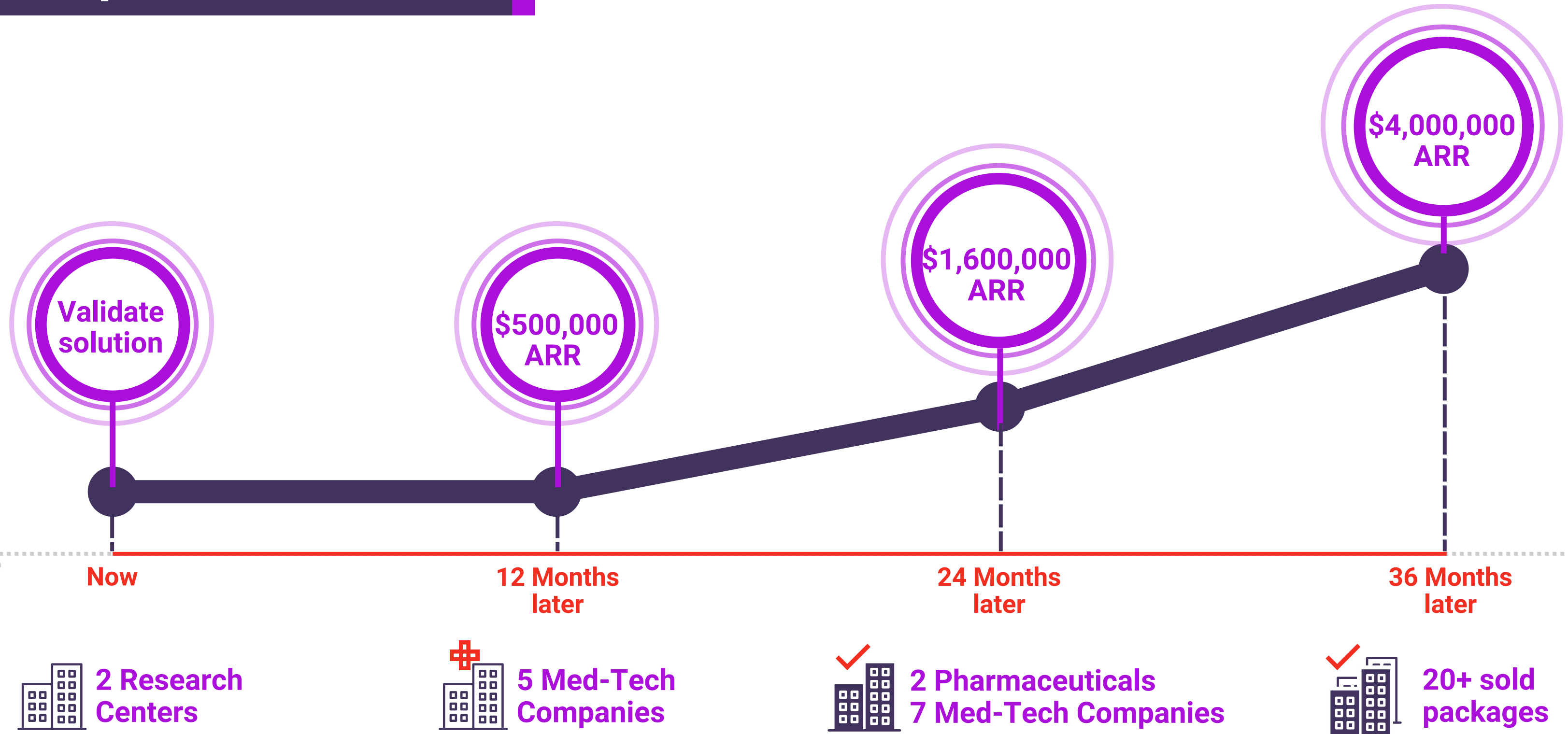
Next Steps

- What are we going to do during the next 3 months?
 - Publish a research paper with third parties
 - Adopt compliance regulations
 - Focus on sales
 - Decide on branding strategy
- Roadmap
 - Q2-2024: third party validation & adopt regulations. Acquire a paying customer.
 - Q3-2024: Invest on branding & marketing, raise 2 mln EUR, participation in conferences
 - Q4-2024: Launch remote model training
 - Q1-2025: Achieve 500K EUR ARR

Roadmap for 36 months



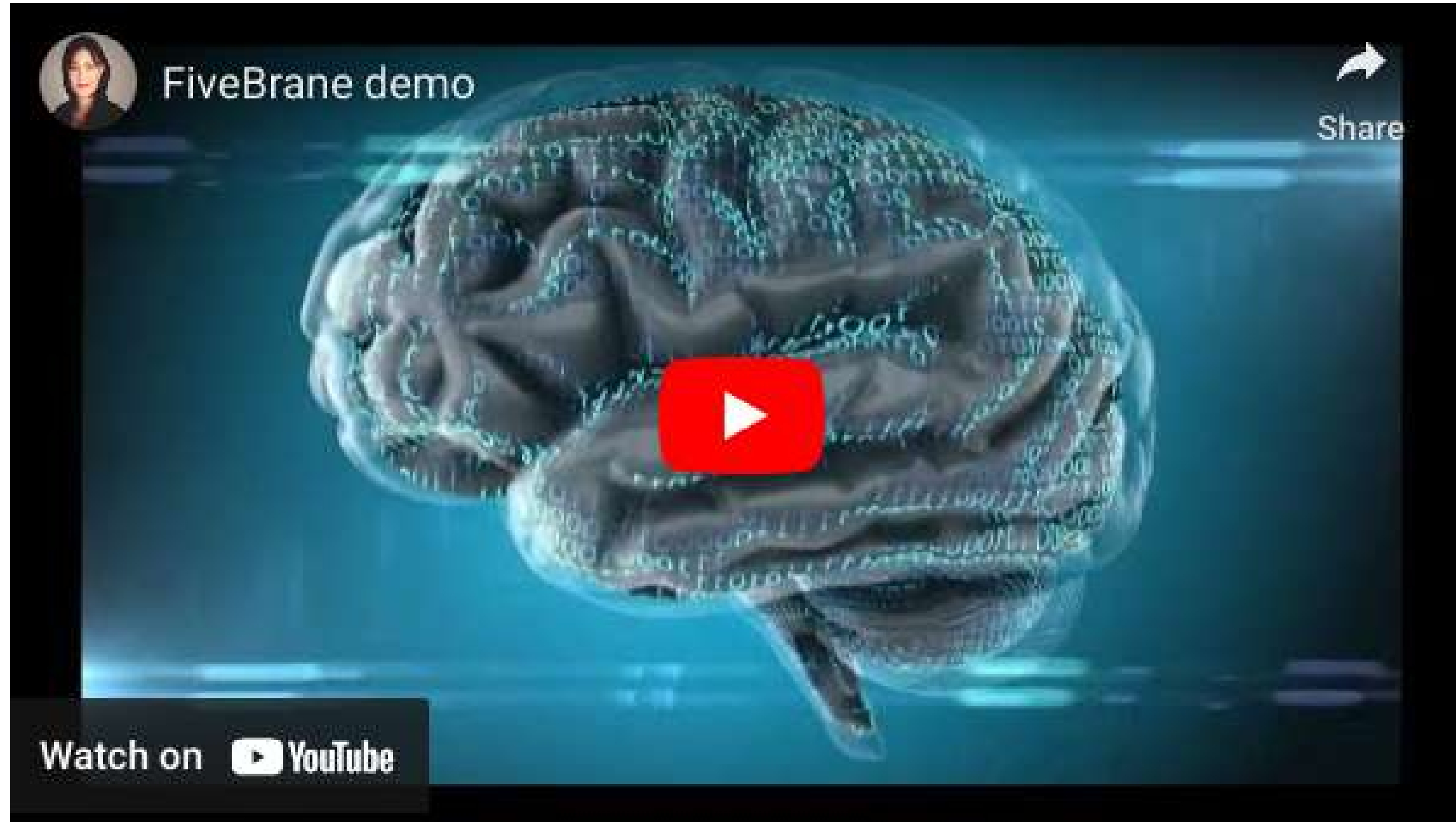
Roadmap for 36 months



Anticipated Public Benefits

- Connecting healthcare providers, fostering collaboration
- Democratizing healthcare, since our tech allows to reduce development budget of AI powered solutions and increase access to medical experts.

Demo Video



Thank You!

Join us! We make **boundless** healthcare reality.

Schedule a meeting [here](#)

anna@fivebrane.com

Appendix

Label Data Effectively



Each dataset which have **M** samples holds promise for **N%** accuracy.

	Amount of data	Iterations count
Others	20%-50%	M/1000
Us	1%-5%	M/5000

10-20x

Budget

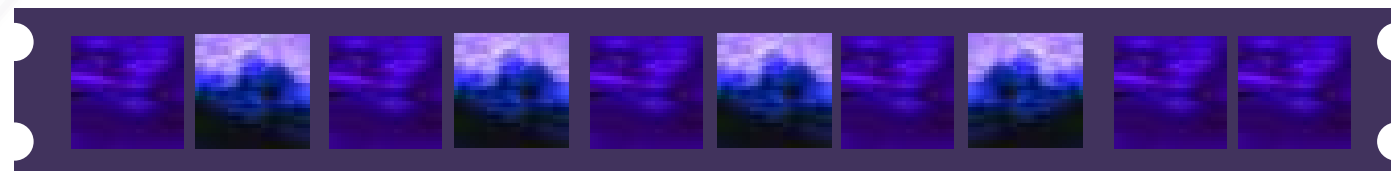
5x

Hardware & time

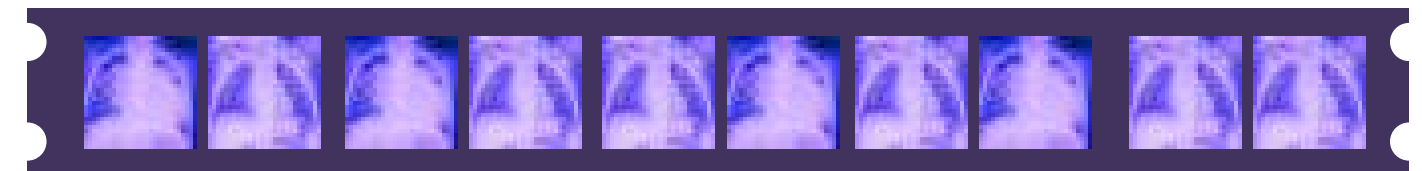
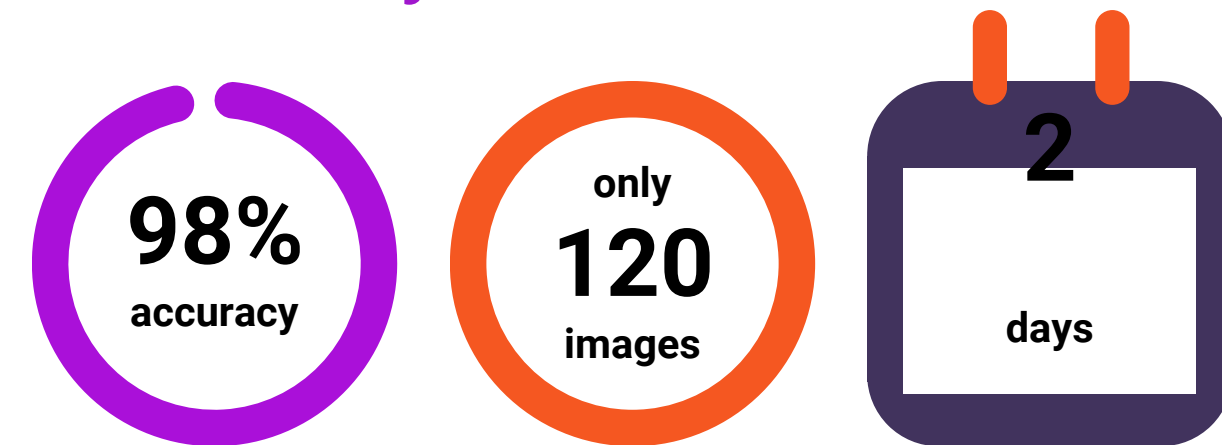
Case Studies

Power of FiveBrane: Achieving **comparable accuracy** with a mere **120** images, instead of the conventional 2000+.

CT: Breast Cancer



XRay: Pneumonia



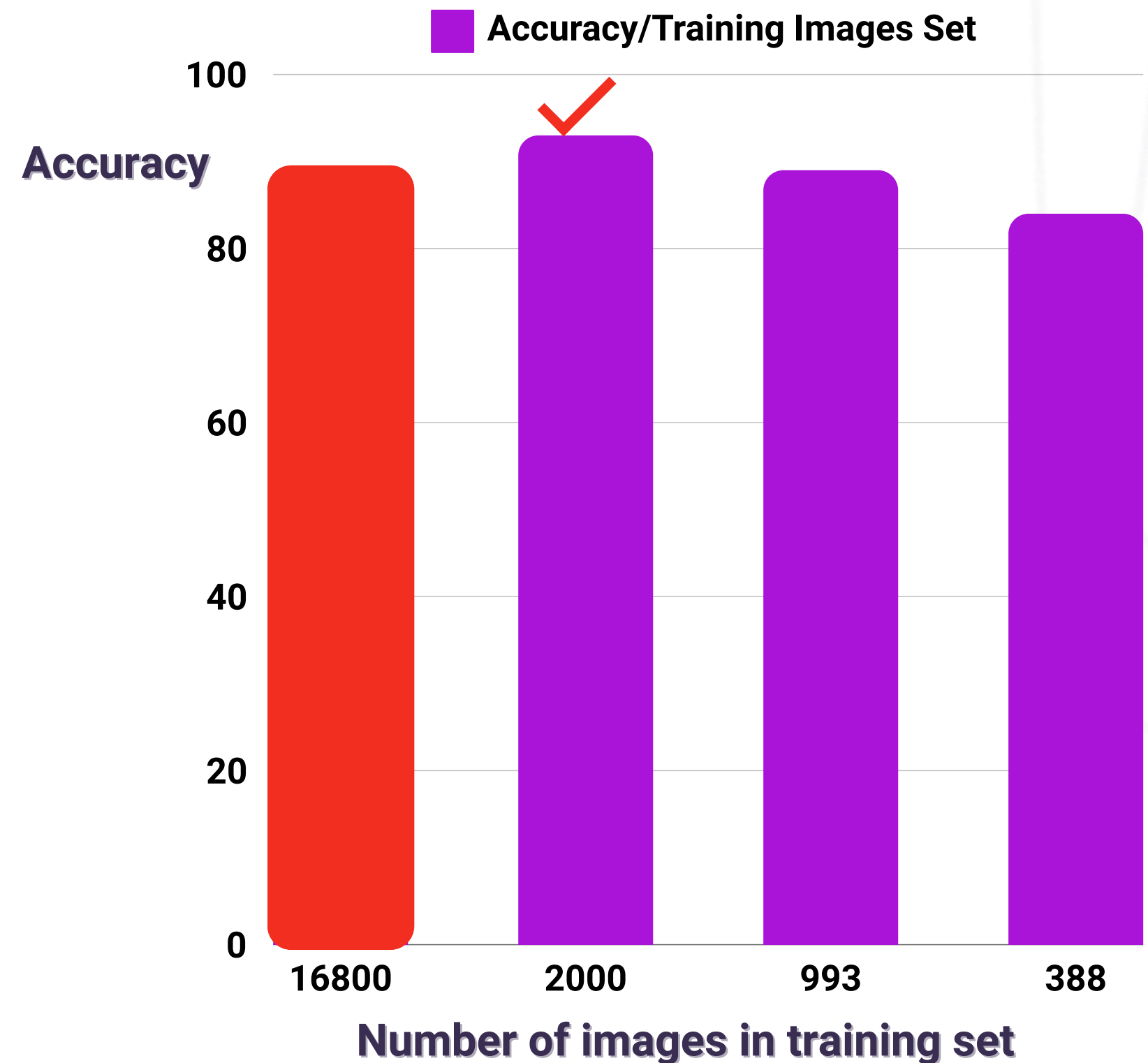
Core Set Selection Benchmarks

The original dataset has 20,765 images, 16,800 images for training, and the rest is used for testing.

4% better results with 90% less data.

The **purple** corresponds to FiveBrane selected subset performance.

The **orange** is the original.

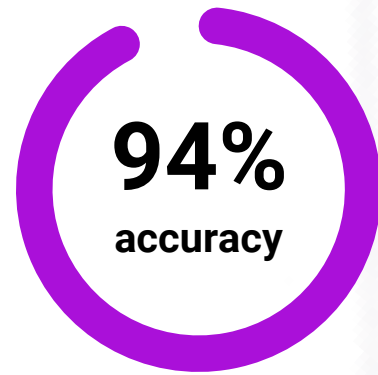


AI Review Benchmark

Without guidance from a Medical Expert our AI technologies can classify

MRI: Brain Tumor

We use this technology for AI powered verification



Slashing efforts by 40-fold while surpassing all performance benchmarks.