



BIOCAM
CAPSULE ENDOSCOPY

Biocam.ai

Remote capsule endoscopy
supported by AI

The Deadliest Cancer



Colorectal Cancer is the **deadliest** cancer for men

AGED 20-49



The cancer of Millennials and Generation Z



The American Cancer Society indicates that by 2030 the number of colon cancer cases will increase by

90%



Problem We Face



Colon and rectal cancer cases are going up among people younger than 50, researchers say

By Jacqueline Howard and Faith Karimi, CNN

Updated 9:59 PM EDT, Sat August 29, 2020

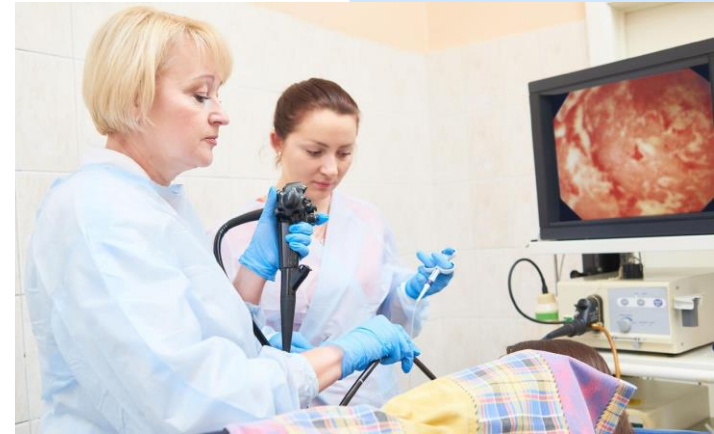


>70%

of all digestive system cancers are detected in the **last 2 stages** of development

*According to American Cancer Society, WHO

Social fear of traditional endoscopy



Problem Effect

COVID-19 accelerated the digitization of the healthcare system by at least a decade



A group of medical staff in blue scrubs, with a female nurse in the foreground smiling and wearing a stethoscope. The background is blurred, showing other staff members. The overall tone is professional and positive.

Medical Staff Shortages

PROBLEM WITH ENDOSCOPIC CAPSULES



High price (1000-3000 €)



Intended only for single
segment of GI track



Long time to interpret
results (3-12 h)



Monopoly of capsule
companies



Technological stagnation



Biocam AI Endoscope



Key Features

- Low invasive measurement
- Safety
- Automatic recognition of lesions and pathologies
- Measurement results available in the cloud
- High image resolution
- Wireless communication
- Remote – at home examination

BioCam Solution



Hardware

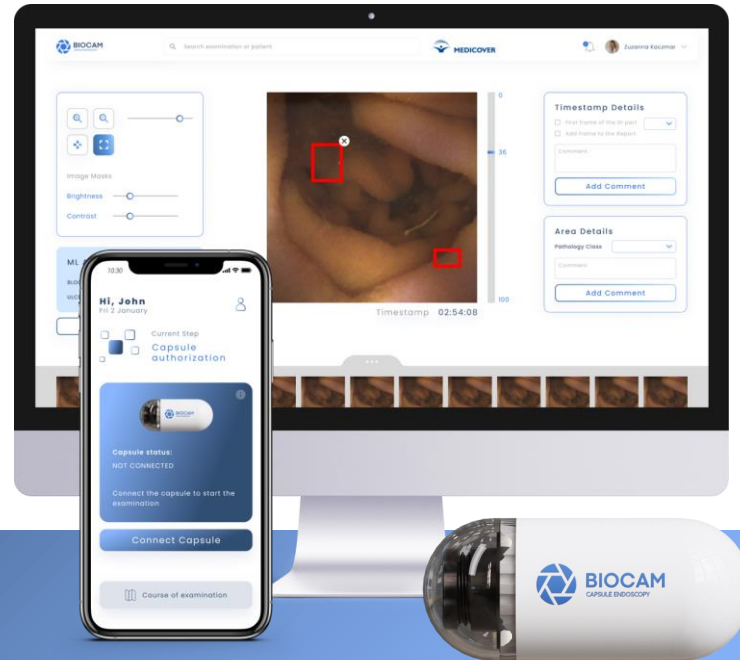
Endoscopic capsule & receiver

Software

Capsule, receiver, mobile app and telemedicine platform

Own AI system

Advanced algorithms for automatic pictures analysis



EXAMINATION PROCESS

1

Swallow

2

Capsule travels through stomach and intestines and takes **over 74000 pictures**

3

Capsule sends data to mobile phone

4

Mobile phone sends data to telemedicine platform on the cloud

5

AI algorithms analyzes pictures **automatically**

Complete Remote Solution

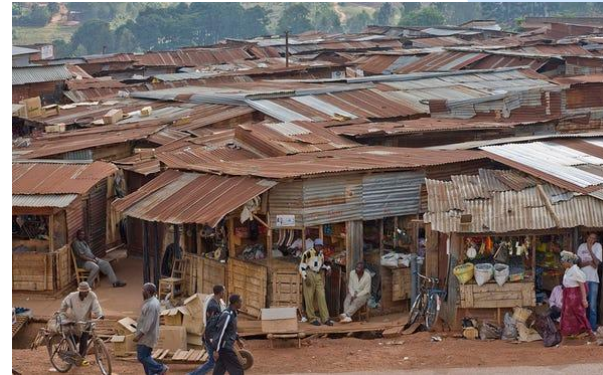


Remote Solution for gastrointestinal examination

The technology allows you to carry out the entire examination without interrupting your daily activities



Examination in extreme conditions



Animal examination



Possibility of examination
animals digestive system



Animals capsules



Humans capsules
existing endoscopic capsules



Big endoscopic capsule for animals
capsule for horses



Endoscopic capsule for animals
capsule for dogs and large cats



Small endoscopic capsule for animals
capsule for small dogs and cats

- + Larger capsule size = extend service life and new features
- + New methods of communication
- + Larger field of view of the capsule

- + New technology for animals
- + NBI lighting
- + Receiver adapted for animals

- + Capsule diameter smaller by almost 20%
- + New hardware solutions

Medical Drugs & Nutrition

Effectiveness Proof



Assess the effectiveness
of products
on the market



Monitor the testers during the
development process
of new products



Evaluate the effects
of treatment of
patients' digestive
system diseases



PROS OF HAVING YOUR OWN CAPSULE ENDOSCOPY SYSTEM



Independence from third parties



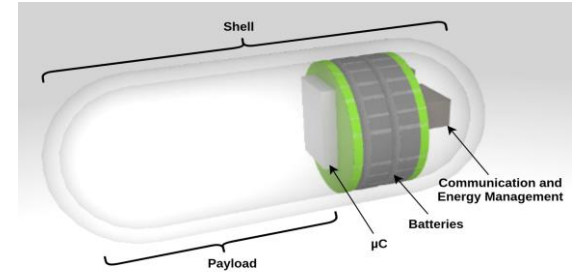
Scalability



Flexibility



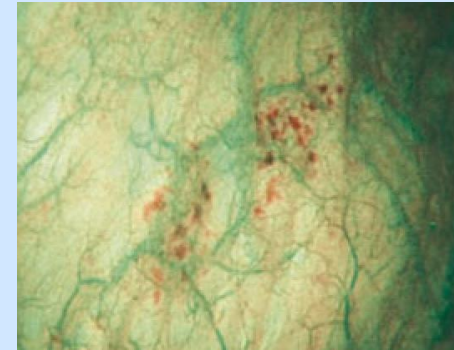
Ease of implementation



NBI lightning













Normal white light



NBI light

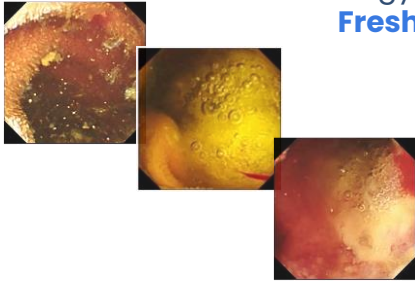
NBI provides additional diagnostic value by illuminating tissues with different wavelengths of light

Competition Analysis

	Low Invasive	Wireless Communication	Automation Analysis	Remote Solution	Eximine entire GI track	NBI (Narrow Band Imaging)	Pet Examination
 	✓	✓	✓	✓	✓	✓	✓
 	✓	✓	✗	✗	✗	✗	✗
 	✓	✓	✗	✗	✗	✗	✗
 	✓	✓	✗	✗	✗	✗	✗
 	✓	✗	✗	✗	✗	✗	✗

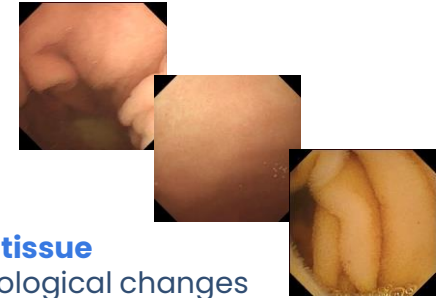
Power of our own AI system

Pathology tissue:
Fresh blood



The **Biocam model** learns to recognize many different pathologies of the stomach and small intestine.

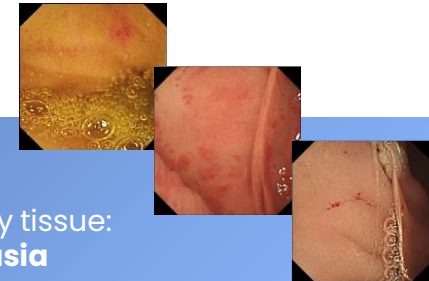
Normal tissue
no pathological changes



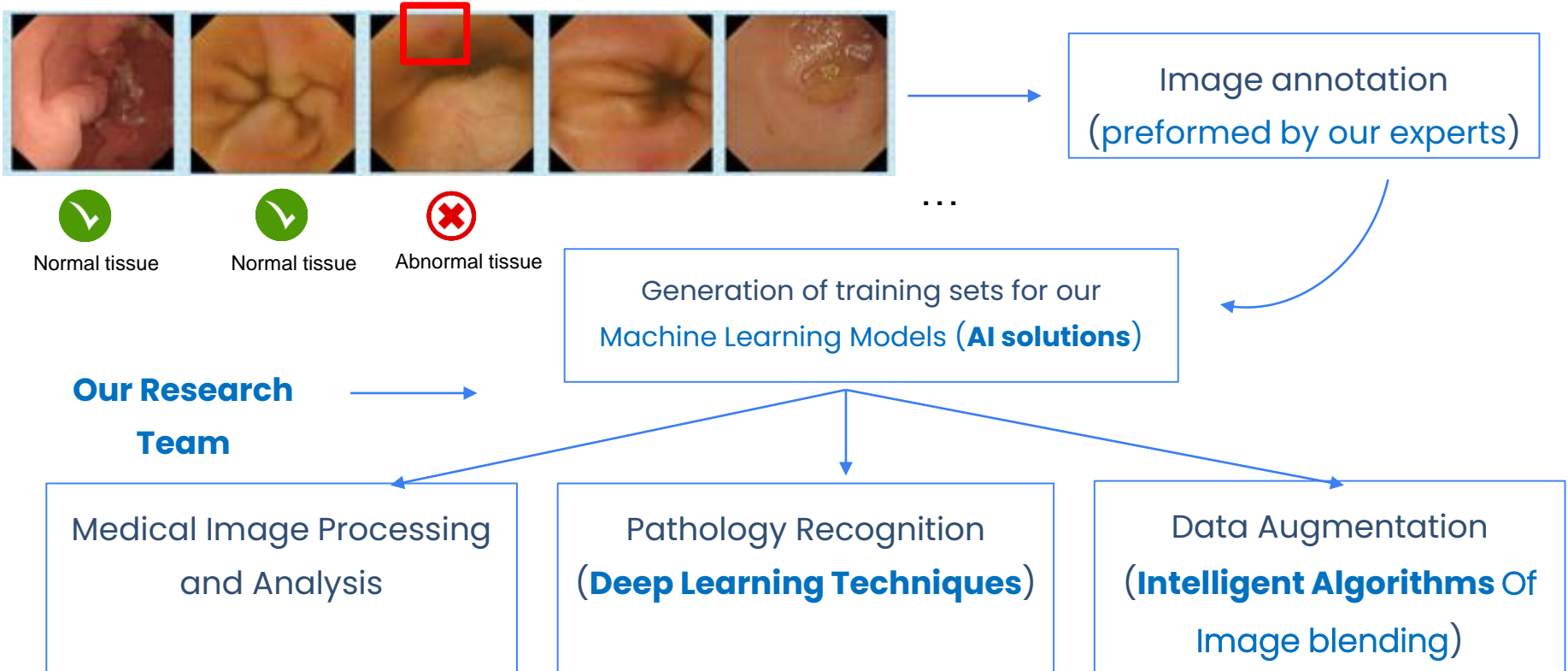
Pathology tissue:
Ulcer



Pathology tissue:
Angiectasia

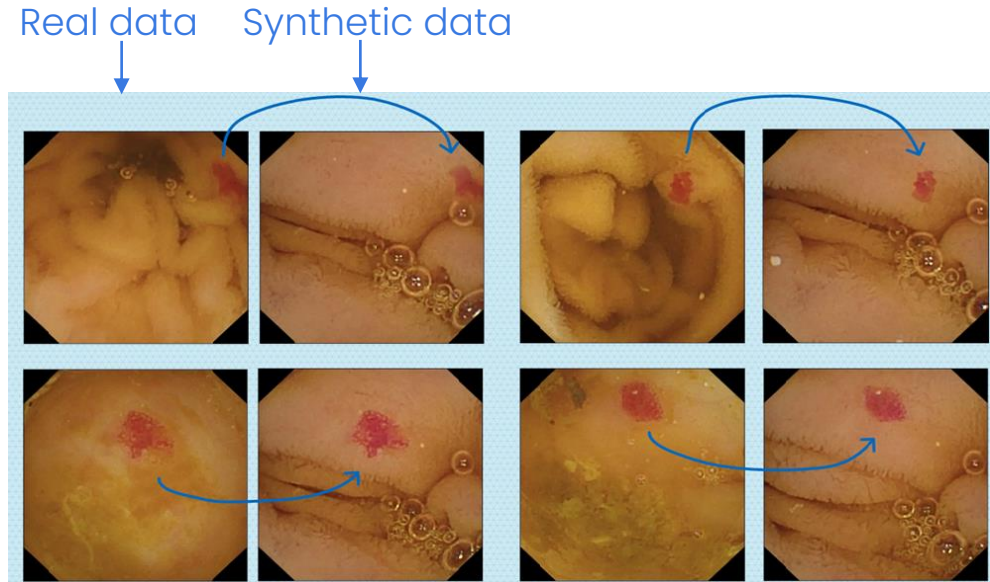


Research Process Flowchart



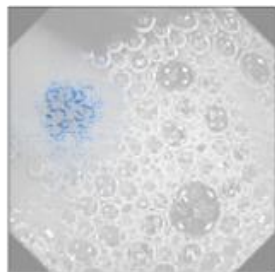
Intelligent Algorithm Of Image blending

We merge pathology regions with the normal tissue images (assuming corresponding transformations between the pathology regions)

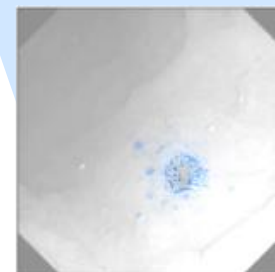
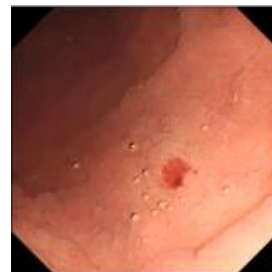


Power of our own AI system

A visualization confirms **classification accuracy**



Angiectasia



Angiectasia

97% classification accuracy per image and
100% classification accuracy per patient

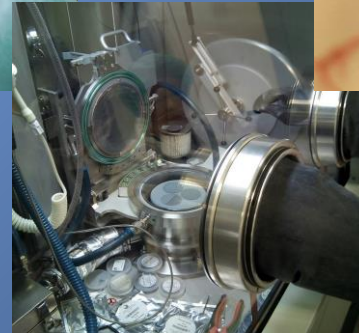
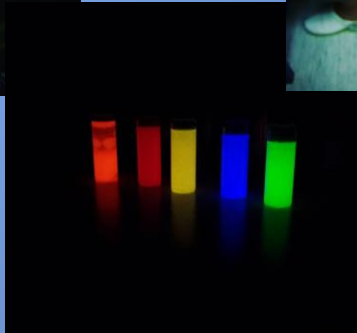
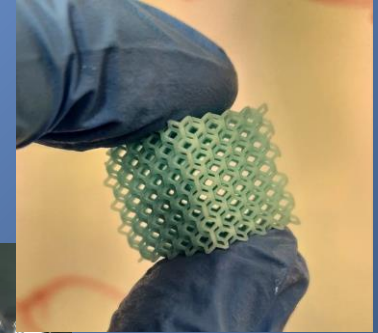
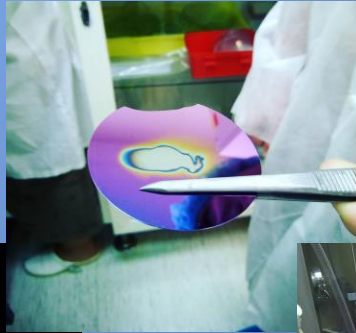
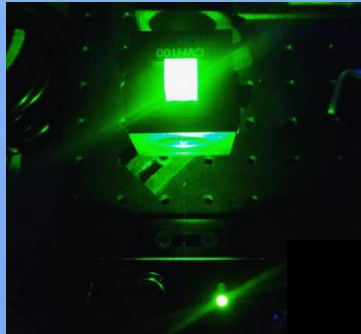
Biocam Team



Our ambition is to develop a new, completely safe and non-invasive endoscopic capsule-based system for gastrointestinal observation and diagnosis of abnormalities and diseases, capable of recording and imaging the entire gastrointestinal tract, which can be easily used by the patient at home while physicians can monitor the results in real time.



Biocam Experience



*Image Source: Jakub Niemczuk

Exceptional team of over 40 professionals



MACIEJ WYSOCKI
CEO



MICHAŁ ADAMCZYK
cco | coo



MARTIN TABAKOW, ENG. PHD
**AI RESEARCH AND
DEVELOPMENT DIRECTOR**



MATEUSZ MICHALAK
**HARDWARE
DESIGN LEADER**

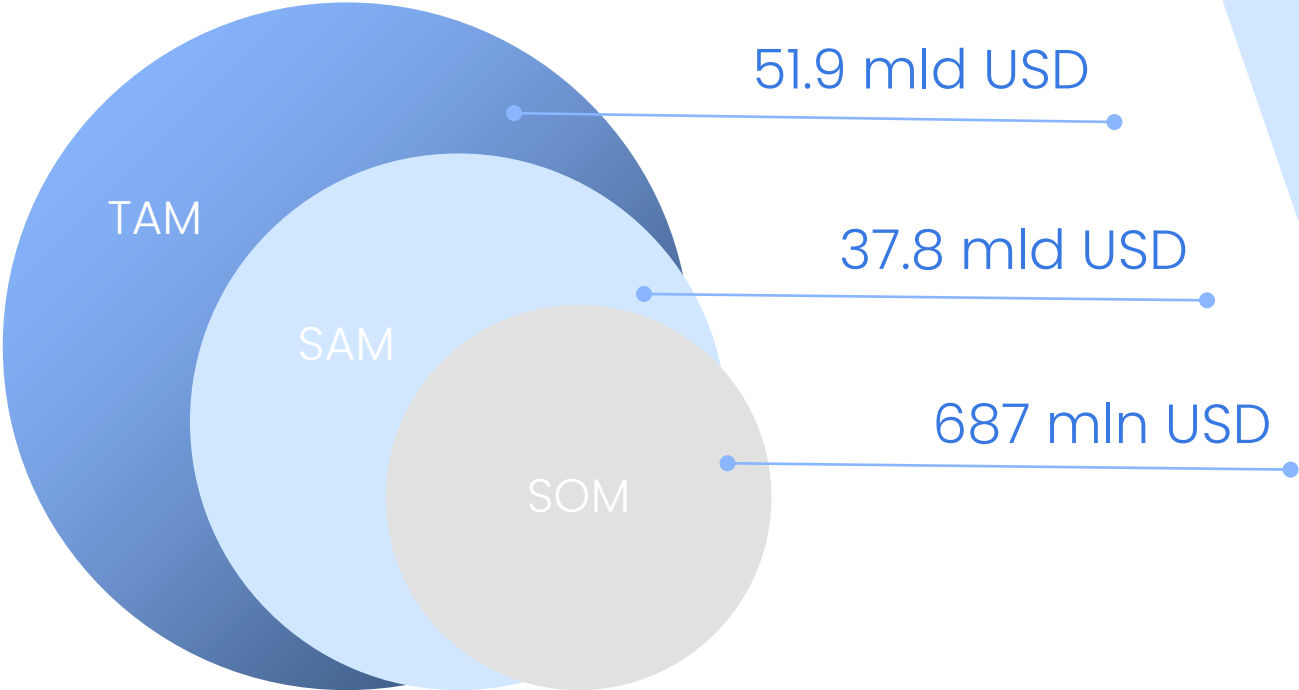


JAKUB NIEMCZUK
**CO-FOUNDER AND SENIOR
ELECTRONICS SPECIALIST**



ROBERT STACHURSKI
**CO-FOUNDER AND
ADVISOR**

Market opportunity

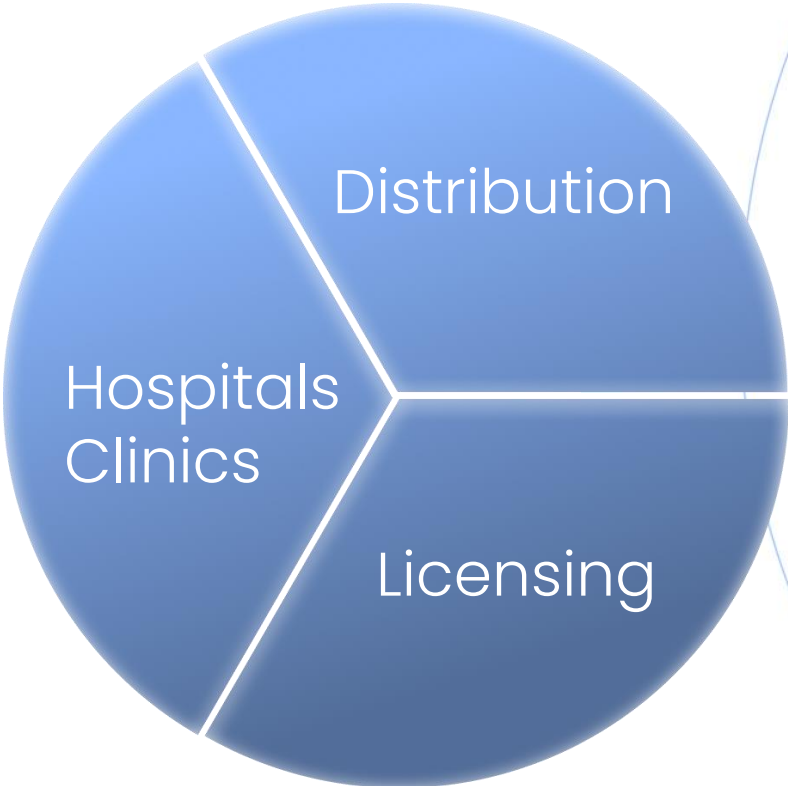


Global market for treatment of gastrointestinal cancers

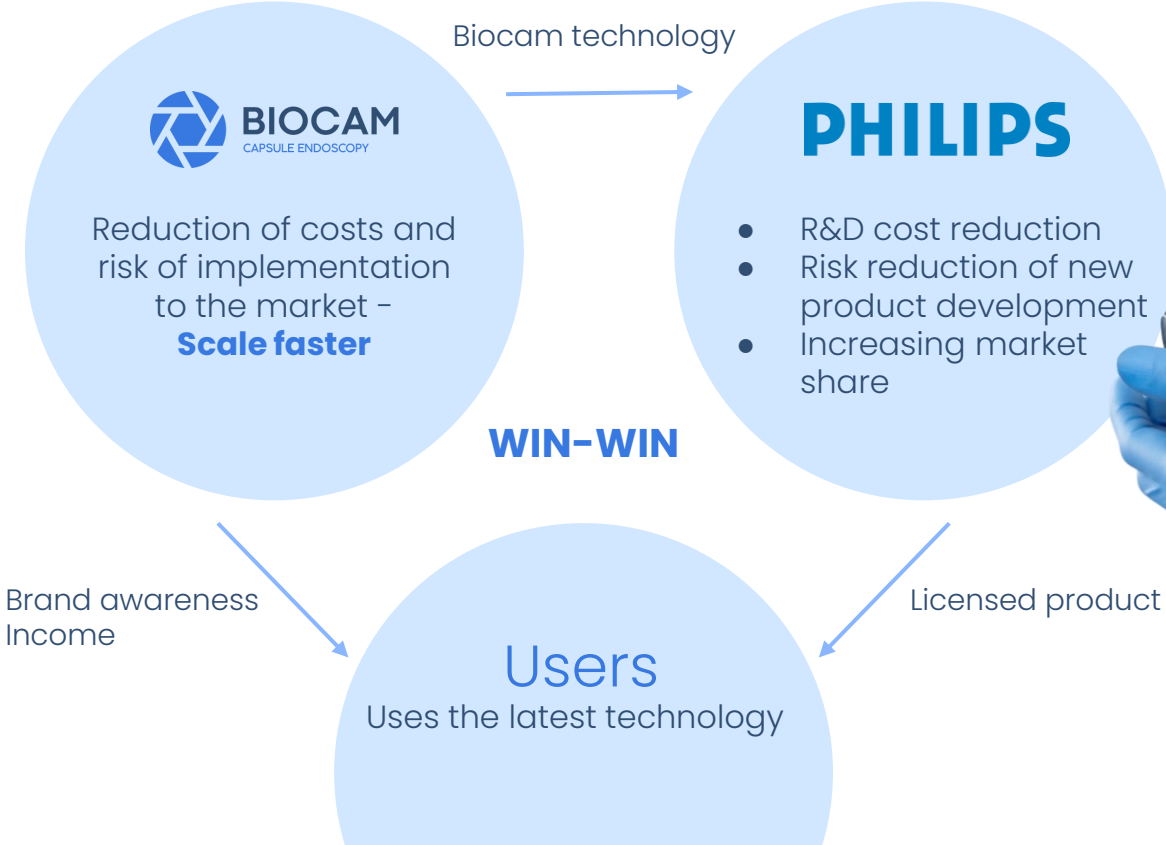
Global market for endoscopy devices

Global market for capsule endoscopy

Business model



Why licensing?



Deals in pipeline



Human

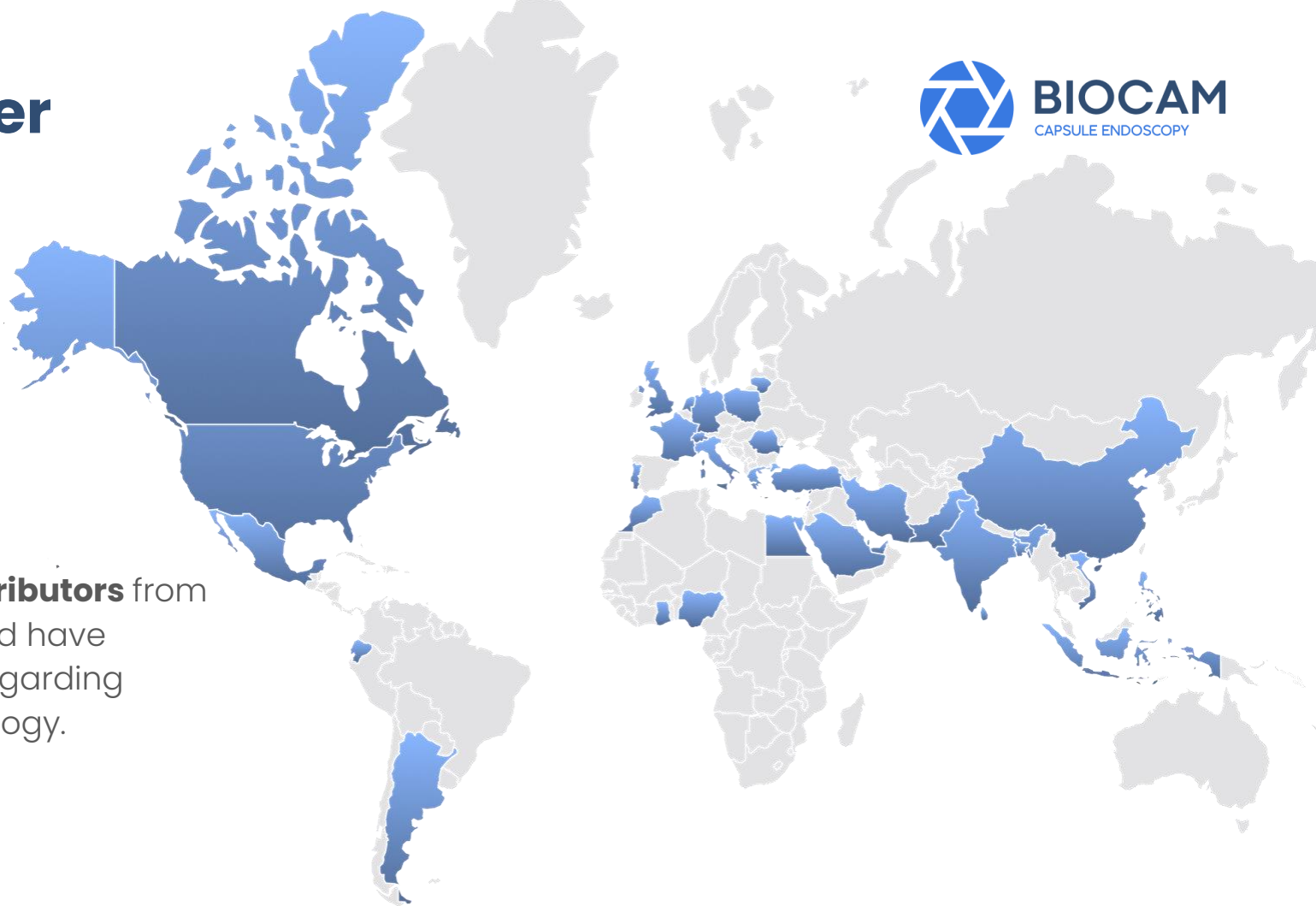
Animal (signed LOIs)



Customer interest



Almost 100 distributors from all over the world have contacted us regarding BioCam technology.



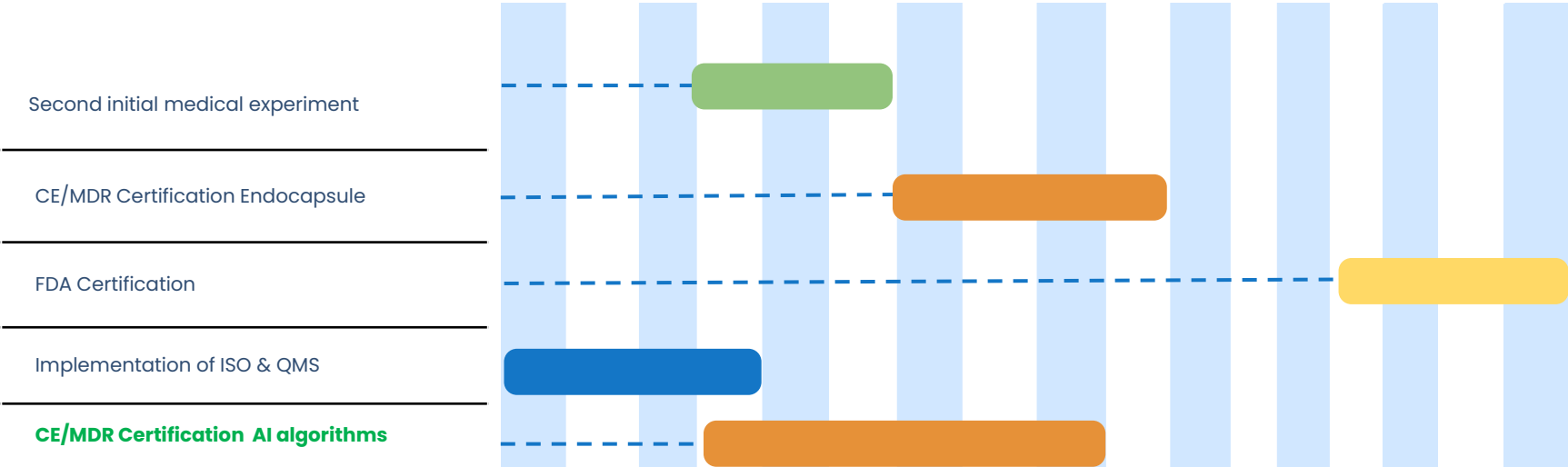
Medical certification strategy

Class of device: II a
Class of device (AI): II a (TBC)
FDA procedure: 510(k)

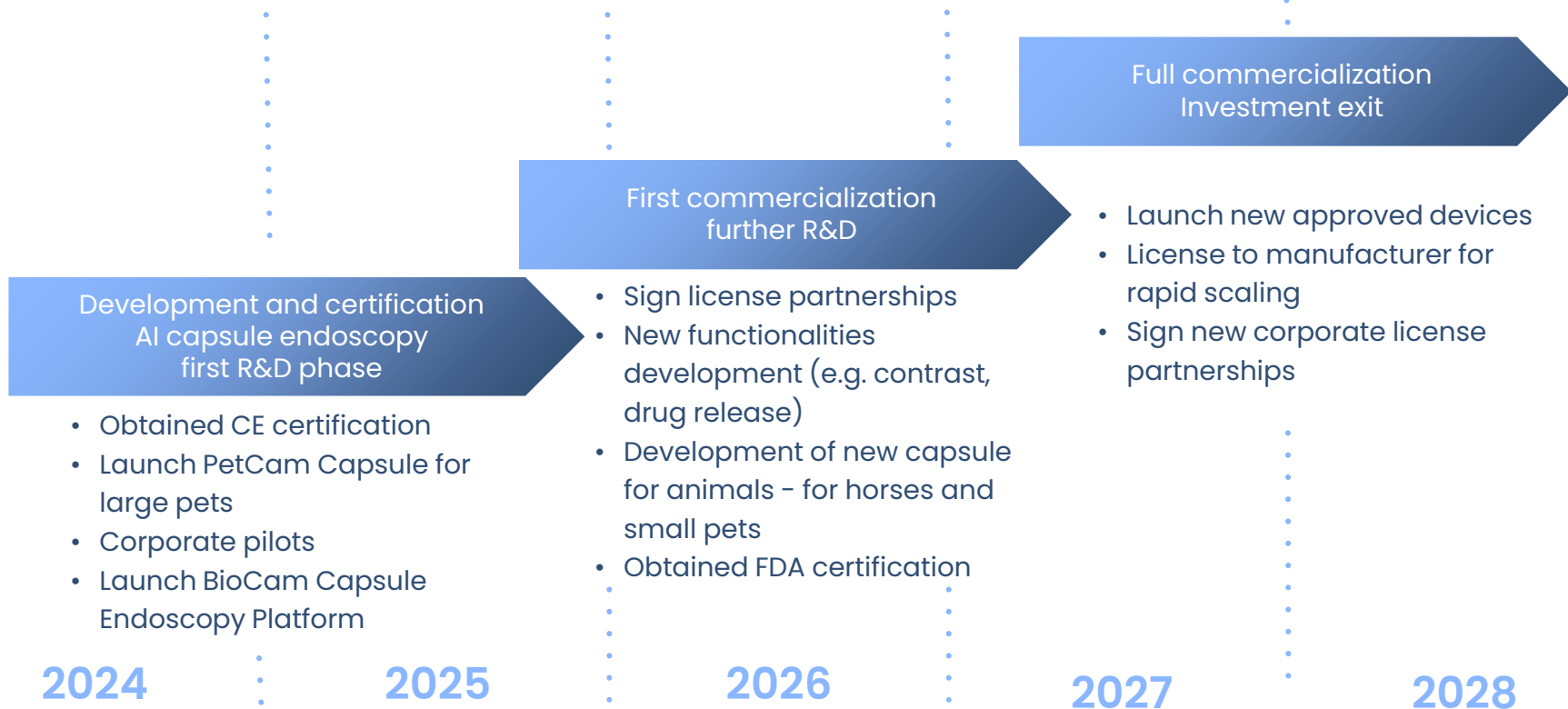
2024

2025

06 07 08 09 10 11 12 01 02 03 04 05 06 07 08 09 10



Future roadmap



Business plans for 2024



- Starting the QMS / ISO 13485 implementation process
- Experimental patients / zero – animals / dogs (beagles)



- Start of a medical experiment on 120 patients*
- Pilot studies on animals



- Start of clinical trials and certification process to obtain CE certification for European market
- Signing license / distribution agreements
- Pilot sales of vet / pet capsules
- **IPO**
- Potential start of the vet grant*
- Potential start of the regional grant*

BioCam financing



10.5 mln PLN

Capital from investors,
VC funds and
European grants



Planned IPO

Planned IPO on
NewConnect in
Q4 2024

Thank you for attention



Vs





Let's save more lives together



Maciej Wycoski

CEO BioCam

maciej.wysocki@biocam.ai

+48 668 059 027