Agenda

MEDICALgorithmics
INNOVATIVE SOLUTIONS IN MEDICINE

About us

01

Who we are and what we do?

01

We are a **technology company** providing **advanced software and AI algorithms** for **non-invasive cardiac diagnostics**

02

We are developing and commercializing **AI algorithms and software for arrhythmia diagnosis** (first FDA in 2009)

03

Our software can **detect 26 types of heart rhythm disorders** - one of the very best in class

04

We offer our products in **22 countries** (including USA, Canada, EU, Southeast Asia)

05

We are developing a new AI-based VCAST technology that could **revolutionize the diagnosis of coronary artery disease**

06

Ownership changes and **new growth strategy,** selling cash negative US subsidiary in 2022 - 2023

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EKG – Software / AI

Medicalgorithmics has developed proprietary AI algorithms for analyzing physiological signals such as electrocardiograms (ECGs).

The algorithms detect cardiac abnormalities from the ECG.

Medicalgorithmics' algorithms recognize 26 disorders.

Commercialize test analysis software or license the algorithms themselves.

Kit: Pocket EKG + software

PocketECG is a complete diagnostic technology for the detection of cardiac arrhythmias that gives the clinician access to the full ECG signal throughout the test and the richest diagnostic report on the market including full statistical analysis of the data.

Third-party white label solutions are also on offer from 2023.

Also used in the field of ensuring cardiac safety of new drug clinical trials.

VCAST

The Virtual Cardiac Stress Test (VCAST) is a patented, artificial intelligence-based medical system developed for non-invasive, clinical quantitative and qualitative analysis of CT scan data to assess the hemodynamic significance of coronary artery stenosis by atherosclerosis.

Currently in CE certification proces.
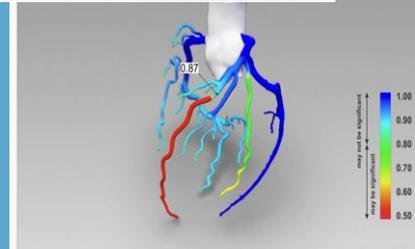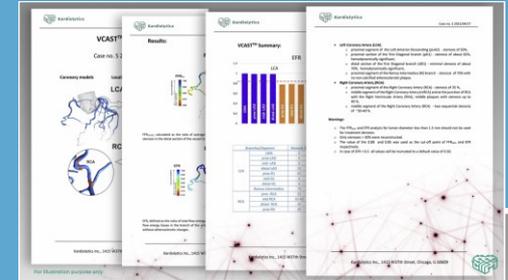
Medicalgorithmics in numbers

9
New ECG clients with MDG new strategy since 2023

8 k
Physicians actively using our products

144 k
ECG tests analysed by our AI software in 2023

Employing
120+
RnD engineers

Regulatory Clearances for
50+
countries

Customers in
22
countries

Summary 2023

Key Events 2023 - today

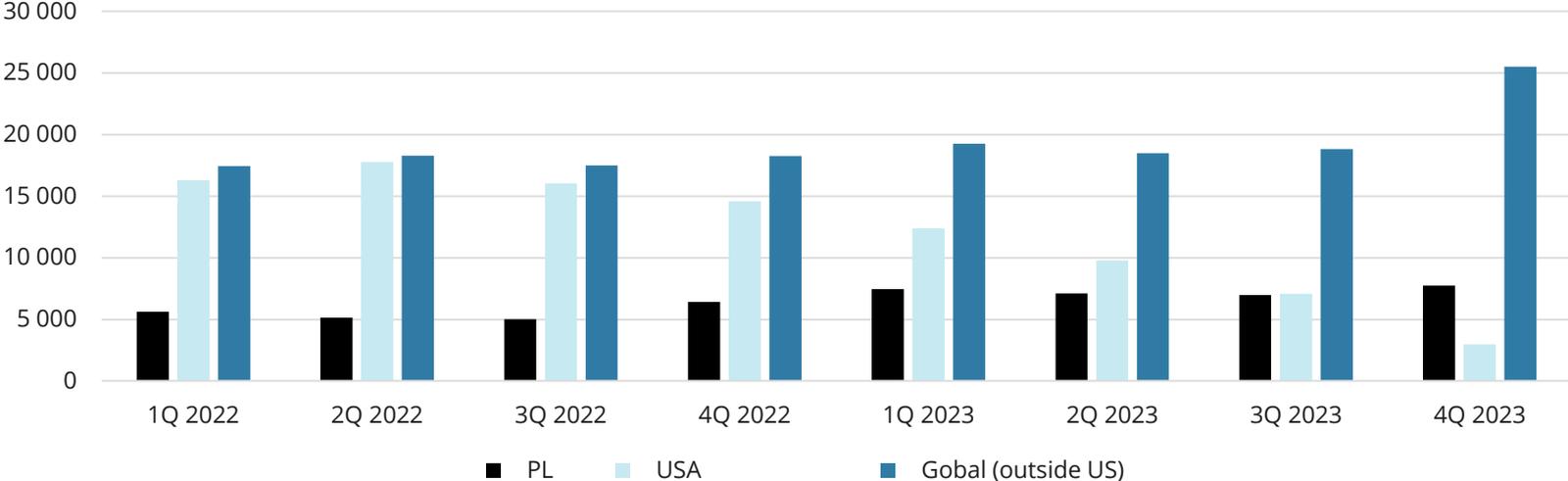|	
Adoption of a New Strategy:	- Continued operational and organizational changes under the majority shareholding of Biofund. - Implementation of a new U.S. market strategy, including the termination of exclusive agreements with React/Medi-Lynx. - Formulation and adoption of a growth strategy in June 2023.
Execution of the New Strategy:	- Acquisition of 9 new ECG clients across diverse commercial models (PC Client soft., algorithms, soft.+devices) in Poland, Western Europe, and the USA. - Sales Development, with ongoing negotiations aimed at securing at least 2 new clients quarterly.
ECG AI Software and Hardware Development:	- Advancement of the new Deep Rhythm Platform (DRP) toward FDA and CE/MDR certifications, targeted in the first half of 2024. - Enhancement and testing of the most sophisticated DRAI AI algorithm, also in special medical studies. - Expansion of the product line: a partnership with German livetec, resulting in a new Patch offering and multiple integrations with other software and hardware solutions.
New Business Development and VCAST in CE certification	- Finalization of the first generation of VCAST software. - Initiation of CE/MDR certification for VCAST, aiming for completion in the first half of 2024. - Securing new patents for VCAST. - Starting operations in the domain of cardiac safety for clinical trials of novel pharmaceuticals.

Growing business on the global market

Sessions EKG

	1Q 2022	2Q 2022	3Q 2022	4Q 2022	1Q 2023	2Q 2023	3Q 2023	4Q 2023
PL								
USA								
Gobal (outside US)								

Constantly growing sessions in the global market (outside the US)

Decline in USA due to terminating React to rebound in 2024 with new clients

Financial results
2023

Financial results

[k PLN]	Q4 2023	Q4 2022	2023	2022
Revenue	**12 537**	**18 564**	**43 089**	**62 719**
EBITDA	(116)	2 002	2 798	22 108
EBIT	(439)	1 561	433	17 212
Net result. Incl. discontinued Medi-Lynx in 2022	(678)	(9 315)	(578)	(30 404)

➢ Temporary reduction in revenues due to strategic shift in the US market towards a diversified model.

➢ Phased reduction in collaboration with React, ended by 31st December 2023.

➢ Growth in sales across the global market.

➢ Upgrade of PocketECG devices to the latest generation increasing revenues.

➢ Operational expenditures controlled: YoY a 9% overall reduction, with a 6% increase in employee costs.

➢ Adverse effects due to the depreciation of the USD in 2023 compared to 2022.

Strong cash position

[k PLN]	2023	2022
Operating cash flow	**181**	**6 331**
Investing cash flow	1 963	(1 812)
Financing cash flow	(2 808)	9 979
Net cash flow	**(664)**	14 498
Cash at end of period	**25 501**	26 165

➢ Positive cash flow from operations.

➢ Maintained a strong cash position during a transitional year.

➢ Free of long-term financial obligations, with remaining debts to be repaid by September 2023.

Global revenue diversification

[k PLN]	Q4 2023	Q4 2022	2023	2022
Revenue	12 537	18 564	43 089	62 719
Revenue from sale of services	**7 554**	**15 116**	**35 277**	**51 906**
Global (outside US)	*5 198*	*4 746*	*19 389*	*17 258*
USA	*2 356*	*10 371*	*15 888*	*34 649*
Revenue from device sales	**4 983**	**3 448**	**7 821**	**10 813**
Global (outside US)	*4 621*	*628*	*7 459*	*1 723*
USA	*362*	*2 820*	*362*	*9 090*

➢ Secured initial new contracts in the US in 2023, gradually starting in the first half of 2024, with ongoing additions.

➢ Strategic realignment in the US leading to a step-by-step decrease in React revenues.

➢ Growth in global market service sales.

➢ Global marked revenue growth from device sales, spurred by the launch of the new PocketECG 4th generation and upgrade campaigns transitioning from P3 to P4 models.

EKG

04

ECG Analysis workflow

An appointment in a physician's office for prescribing a 24-hour Holter or long-term ECG monitoring by a physician

↓

Patient hook-up. Start of the ECG recording

↓

ECG Signal Recording

↓

End of the ECG signal recording. Data are uploaded to the cloud for signal analysis.

↓

The report is delivered to the doctor, who can then make a decision regarding the next steps

Medicalgorithmics

Seamless and quick data transfer to the cloud

Signal analysis is performed by AI-based algorithms.

Ready-to-use PDF report available on any device with a web browser

The analysis results are verified by a qualified ECG team

DeepRhythmAI Algorithms

DeepRhythmAI (DRAI) is a new revolutionary technology for heart rhythm analysis. The product received FDA approval in 2022. DRAI is an algorithm that utilizes deep learning techniques to accurately and rapidly analyze electrocardiograms (ECGs) for identifying abnormal heart rhythms.

- DRAI is a set of **AI algorithms for autonomous ECG analysis**
- DRAI **can analyze multichannel ECG** data from various biosensors, such as **Holter, Event, and Mobile Cardiac Telemetry** devices
- DRAI uses deep learning techniques to **automatically detect and classify arrhythmias** with **high accuracy and reliability**
- **DRAI can** provide analysis results for very long ECG recordings in minutes, which can **significantly speed up the diagnosis process** and treat abnormal heart rhythms
- DRAI has been approved by the FDA as **one of the few AI-enabled medical devices for ECG analysis**

ECG analysis software

PC Client / PocketECG software is a state-of-the-art solution for cardiac diagnostics utilized by monitoring centers and hospitals from 22 countries in their daily practice.

Deep Rhythm Platform (DRP)

DRP is a new generation of the PC Client software by Medicalgorithmics, based on the DRAI technology. DRP is designed to provide faster and more accurate ECG analysis, using AI algorithms to detect and classify 26 types of arrhythmias. DRP is currently undergoing certification processes in the EU and the US, and it is expected to be launched soon.
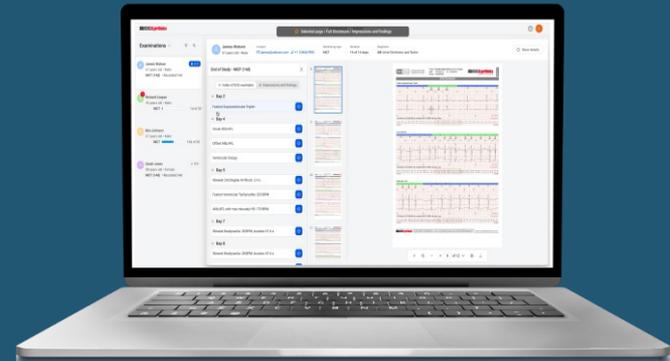
Clinical Trials - a new high margin business for Medicalgorithmics

Cardiac safety studies require near real time AF monitoring technology and reporting service

GOAL-HF-01

Heart Failure Drug

Randomized double - blinded, placebo - controlled

16 sites in 4 countries (Swe, UK, NL, IT)

Top Hospitals

OATD-01-C-03

Idiopathic Pulmonary Fibrosis

Randomized double - blinded, placebo - controlled

19 sites in 7 countries (US, UK, EU)

Treatment of sarcoiosis

November - 2022

Present - 2024

DETECT- POAF

Risk of Postoperative Afib after Cardiac Surgery

SAFE

Surgical Ablation of Atrial Fibrilation

16 countries, 2000 patients

VCAST
05

VCAST – Autonomous CT analysis

01 Computed Tomography

02 DICOM data

03 Cloud software for autonomous CT analysis

AI Powered
Vessel Segmentation and Reconstruction
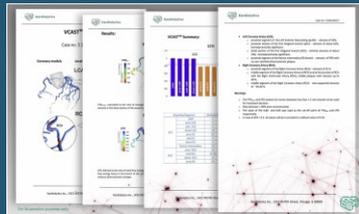
No CAD
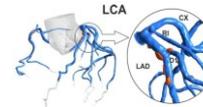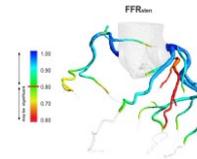
Stenosis <50%

Stenosis >50%

01 Regular monitoring

02 Pharmacotherapy

03 Invasive therapy

CAD – Coronary Artery Disease

VCAST – Autonomous CT analysis

VCAST is cloud-based software with a unique technological advantage of AI algorithms for segmentation and reconstruction of narrowed vessels. It provides personalized, color-coded 3D modelling of coronary arteries along with detailed functional diagnostic information related to blood flow. This includes calculated blood volumes, pressure, and velocity, aiming to assist the physician in both diagnosis and designing a treatment plan for coronary artery disease.

- **AI-based coronary analysis** for all uploaded computed tomography scans (3D model segmentation and vessel reconstruction using mesh models)
- **Numerical simulation** performed **in** AWS **cloud**
- Plaque location and basic **plaque classification** - soft, calcified
- The user have available **vessel parameters** like color-coded diameter and diameter in mm, **degree of coronary stenosis and FFR value**
- **Automatically** generated reports
- Currently in the process of **CE certification**
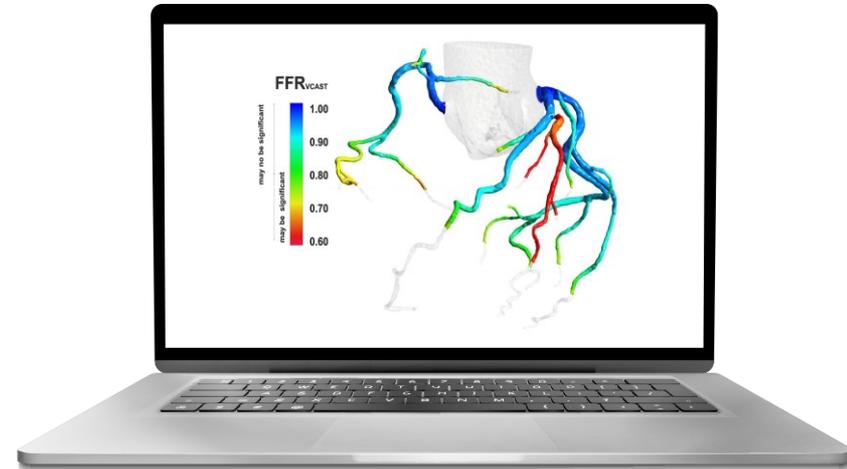
VCAST – certification roadmap

| 2018 | ... | 2022 | 2023 | 1Q 2024 | 2Q 2024 | 3Q 2024 | 4Q 2024 |

Biofund takes over IP from FRA

VCAST dev. towards automatic AI software

VCAST mergered into MDG

CE / MDR certification

FDA certification, timing tbc...

Commercialisation: w. CE; US after FDA

Main directions of current research and development work

Research on the next generation of AI/ML algorithms for ECG and CT image analysis

Development of software for ECG and CT data analysis centers

Integrations with devices for long-term patient monitoring offered by the third-party companies

Development of cloud platforms for ECG and CT data analysis

Development of middleware software enabling fast integration of applications

Custom development for current customers

06

Growth strategy

Group Strategy 2023 - 2026

Business Model: Utilize a flexible approach to offer proprietary PocketECG AI software and hardware on a non-exclusive basis or as standalone products.

Integrate proprietary software seamlessly with third-party devices for enhanced cardiac diagnostics.

Development of modern software, AI/ML algorithms, and cloud-based solutions for the healthcare sector.

VCAST Development: Progressing with new VCAST cardiac imaging software, anticipating CE/MDR EU approval in 2024, FDA certification to follow.

Research: Engage in scientific research to advance the frontiers of medical technology.

Drive organic growth and forge strategic business and technological partnerships.

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A **leading global provider of non-invasive cardiac diagnostic technology**, delivering specialized software for medical data analysis, AI/ML algorithms, and software compatible with third-party ECG monitoring products, ensuring a device-agnostic system.
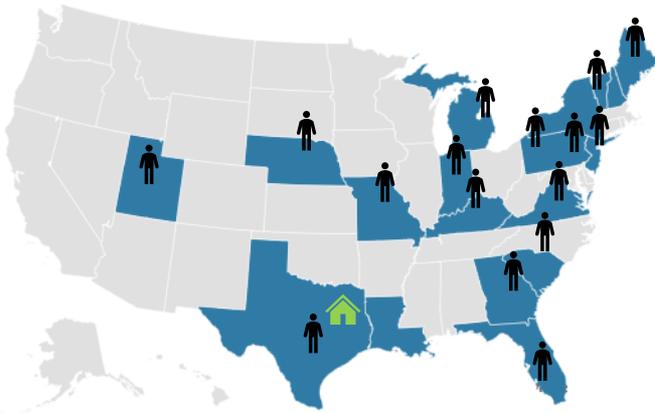
Currently
2023

The future growth
2026

USA strategy execution

Increasing market penetration and seeking for profitable business with multiple distributors and richer offering.

BEFORE:
An exclusive agreement with one partner (IDTF) and one product.

- An exclusivity agreement with one partner limited expansion and dynamic business growth.
- A small number of sales forces and lack of full territorial coverage.
- Limited product offer: PocketECG and nothing more.

NOW:
Collaboration with multiple partners and a wider product portfolio (AI) = growth & diversification.
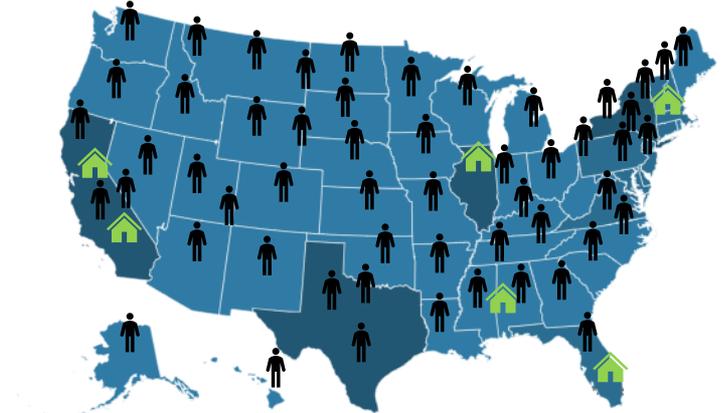
- **Targeted 115 IDTFs**.
- Already **contracted 4 IDTFs**. All launched and working.
- Successfull integrations and desired offer attracts a lot of interest.
- **Sales pipeline full of opportunities** with **7 advanced sales projects** progressing to contract negotiations.

🏠 IDTFs

🧍 Salesforce

US: market potential for arrhythmia diagnosticsand coronary artery disease diagnostics (VCAST)

Market opportunities for arrhythmia diagnostics:

Market opportunities for cardiac imaging:

121.5M
Americans suffer from cardiovascular disease

→

6.7M
Heart failure patients

6M
People with atrial fibrillation

4.7M
Estimated annual number of tests *

+

20M
People with coronary artery disease

10M
Procedures per year

Reimbursement amount for :
- Holter - $73.54
- Extended Holter - $274.49
- Event - $180.62
- MCT - $874.97

Reimbursement amount for:
- FFRCT - $900.72
- Analysis of atherosclerotic plaque -$950

AI providers get market rates of **10 to 20% reimbursement**.

*The figure given takes into account Holter, Extended Holter, Event tests. Mobile Cardiac Telemetry

07

2024 Outlook

Outlook for the next quarters

Scalable Business: aim to onboard **at least two new clients each quarter** with high operational leverage

Completion of VCAST technology **certification in the EU**, starting FDA in the US

Sales Recovery Target: **Attain monthly sales of Q3'23 as as milestone towards total cash break even**

Deep Rhythm Platform (DRP) to get FDA and CE/MDR certifications, targeted in the first half of 2024
Enhancement and testing of the most sophisticated DRAI AI algorithm, also in special medical studies

Profitability: **Operating with high gross margins to achieve overall cash positivity**

ESOP to Enhance Performance

01 FINANCIAL OBJECTIVE: Revenue 2024-2026

Bar chart showing revenue: 2024 = 45, 2025 = 55, 2026 = 70
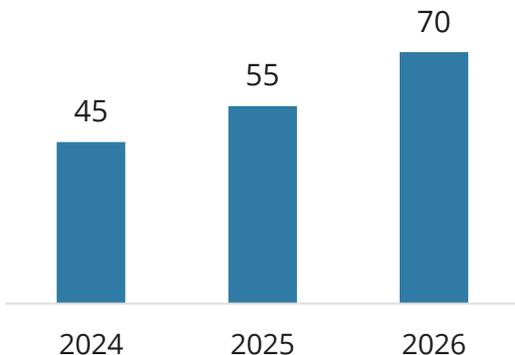
02 MARKET OBJECTIVE : Increase in share price

Annually, the target for Medicalgorithmics' share price is to exceed the sWIG80 Total Return index by 10 percentage points.

Both financial and market objectives that are not met can be pursued in subsequent years.

- The ESOP's purpose is to incentivize and keep key managers committed by aligning their interests with those of the shareholders.
- The program includes management and key personnel.
- The ESOP will allocate up to 298,584 shares within the company, which amounts to up to 3% of the share capital.
- Shares are priced at 26.72 PLN each, equivalent to 90% of the average price from the 90 days preceding the ESOP's approval.
- Vesting of shares is delayed for 2 years post-achievement of the ESOP's objectives, with the requirement that employees stay with the company during this period.
- Transaction incentive: in the scenario of a public tender for MDG shares, the offered or granted shares will become vested.

Summary

01 We are successfully executing the established business model transformation and growing into a global provider of innovative solutions for the healthcare sector

02 We expect that the implementation of the strategy will positively affect the company's value and strengthen its market position in the long term

03 We are focusing on the U.S. market, where we have the greatest growth potential through our technology and with the support of a new strategic investor Biofund

04 Our technological advantages enable us to scale our solutions globally
We are well positioned to scale our AI software operations in the US, Europe and Asia

05 Trends: Growing demand for diagnostics supported by AI algorithms and an increase in the number of patients requiring cardiac diagnostics

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Q&A

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Legal disclaimer

Thank you for your attention!