



GENOMTEC



PRESENTATION INVESTOR



The company is listed on
Warsaw Stock Exchange

December 2024

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MANAGEMENT



Miron Tokarsky

Chairman of the Management Board,
Co-founder of the Company

Co-creator of Genomtec technology and patents
Doctor of Medical Sciences in the field of molecular biology.
Honored by Forbes in the "Leaders of the Future" ranking.



Michael Wachowski

Member of the Management Board,
Financial Director

14+ years of experience in: corporate finance,
investment management and business consulting. He
was an investment director in a Venture Capital fund.



international team of 20 experts



two locations: Wrocław and Kent (UK)

CO-FOUNDERS



Margaret Little-Masurian

Chief Research Officer

Over 10 years of experience in molecular biology. Head of the
Department of Molecular Techniques at the Medical University of
Wrocław. Author of scientific publications and co-author of
Genomtec patents.



Henryk Roguszcak

Design Director

Author of patents and over 80 domestic and foreign scientific
publications.
Previously an expert at the Wrocław University of Science and Technology at the
Faculty of Microsystems, Electronics and Photonics. Coordinator of research
activities in the field of photonics.

GENOMTEC 

Technology

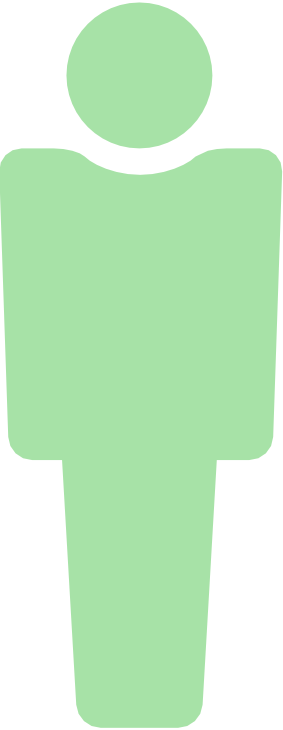
Delivering innovative diagnostic technologies close to the patient – Point of Care



SNAAT technology

TEST SCOPE

- Infections
- Epidemiology
- Environmental testing



TESTING LOCATION

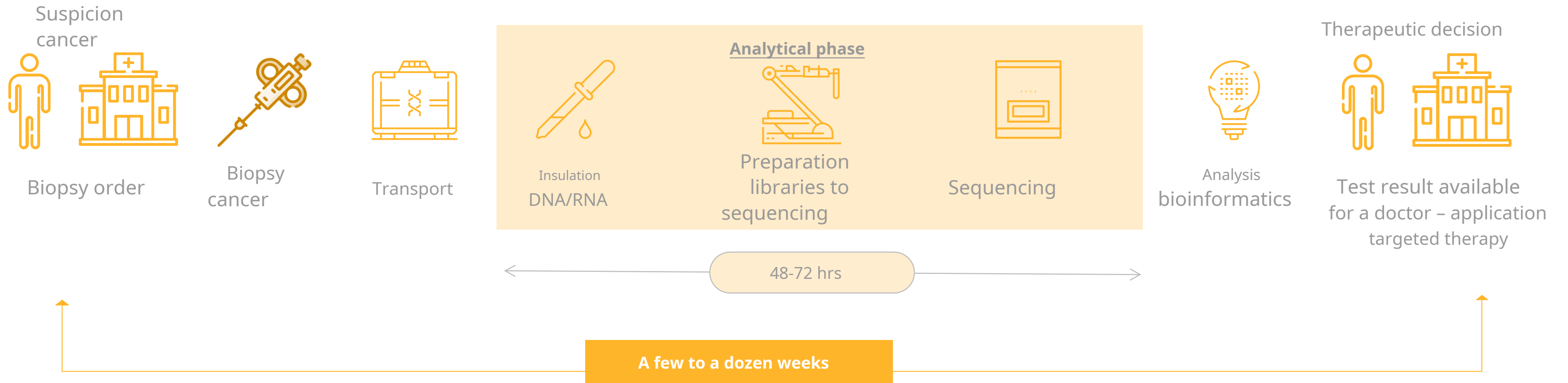
-  Clinics
-  Doctor's offices
-  Emergency Department
-  Patient transportation
-  Airports

Genomtec is a MedTech company specializing in the development of advanced genetic diagnostics technologies.

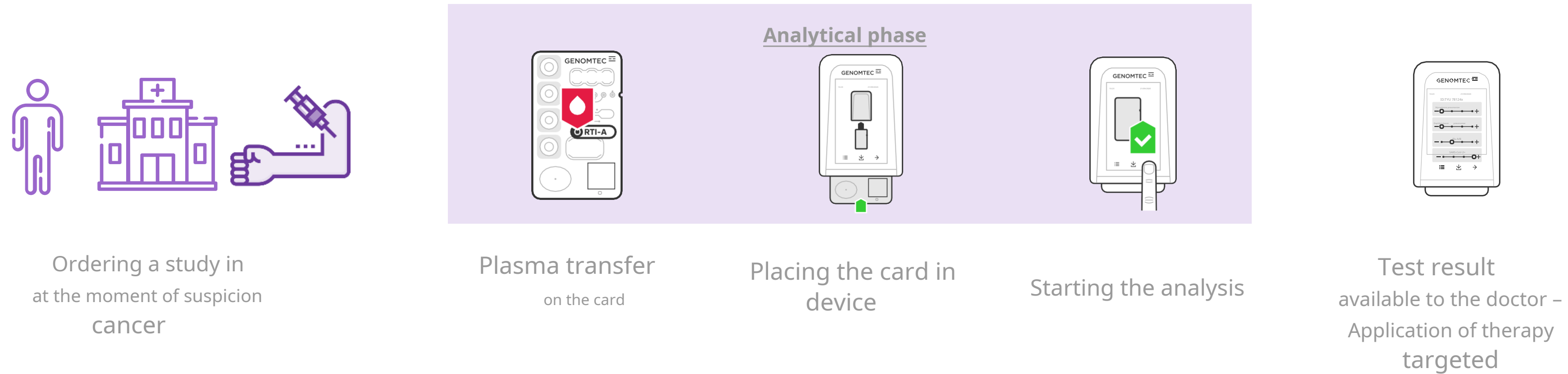
What makes LAMP isothermal technology unique?

PCR	LAMP
Requires temperature cycling	Isothermal – one constant temperature
Requires 2 starters	Requires 6 starters
Free: usually over 1 hour	Fast: usually <30 min
Requires a separate reverse transcription step	Reverse transcription occurs together with the amplification step
Typical yield approx. 0.2 µg	Typical yield approx. 10-20 µg
Sensitive to inhibitors from the biological sample - it is necessary cleaning	Inhibitor-insensitive – native sample can be used biological
Requires thermal denaturation	The unraveling of the strands is caused by polymerase
Requires advanced thermal cycler	Compatible with both thermal cyclers and plate readers, and heating blocks
It allows to detect a specific DNA fragment at the level nanogram (10 ⁻⁹ g)	It allows to detect a specific DNA fragment at the level femtogram (10 ⁻¹⁵ g)
High specificity	Very high specificity due to greater coverage DNA/RNA segment amplified by primers

Current standard



Genomtec



SPEED AND HIGH PRECISION

- High accuracy results
- Carrying out multiple amplification reactions simultaneously (multiplexing)
- Easy procedure conducting a study

MOBILITY

- Small analyzer dimensions and compact card microfluidic
- Possibility of use outside the laboratory (POCT)
- Room temperature stability
- Low energy requirements

VERSATILITY

- Identification of pathogens such as viruses and bacteria.
- Identification of genetic variants (e.g. CDx, prediction).
- Possibility to connect multiple analyzers

LOW COST

- Simplified construction microfluidic card
- Relatively low cost of the analyzer and reagents
- Lower cost of analysis thanks to multiplexing technology

The logo for GENOMTEC features the company name in a bold, grey, sans-serif font. To the right of the text is a graphic element consisting of three horizontal bars: a green bar on top, a yellow bar in the middle, and a red bar on the bottom. The yellow bar is shorter than the others and is positioned to the left of a purple bar that is the same length as the yellow bar.

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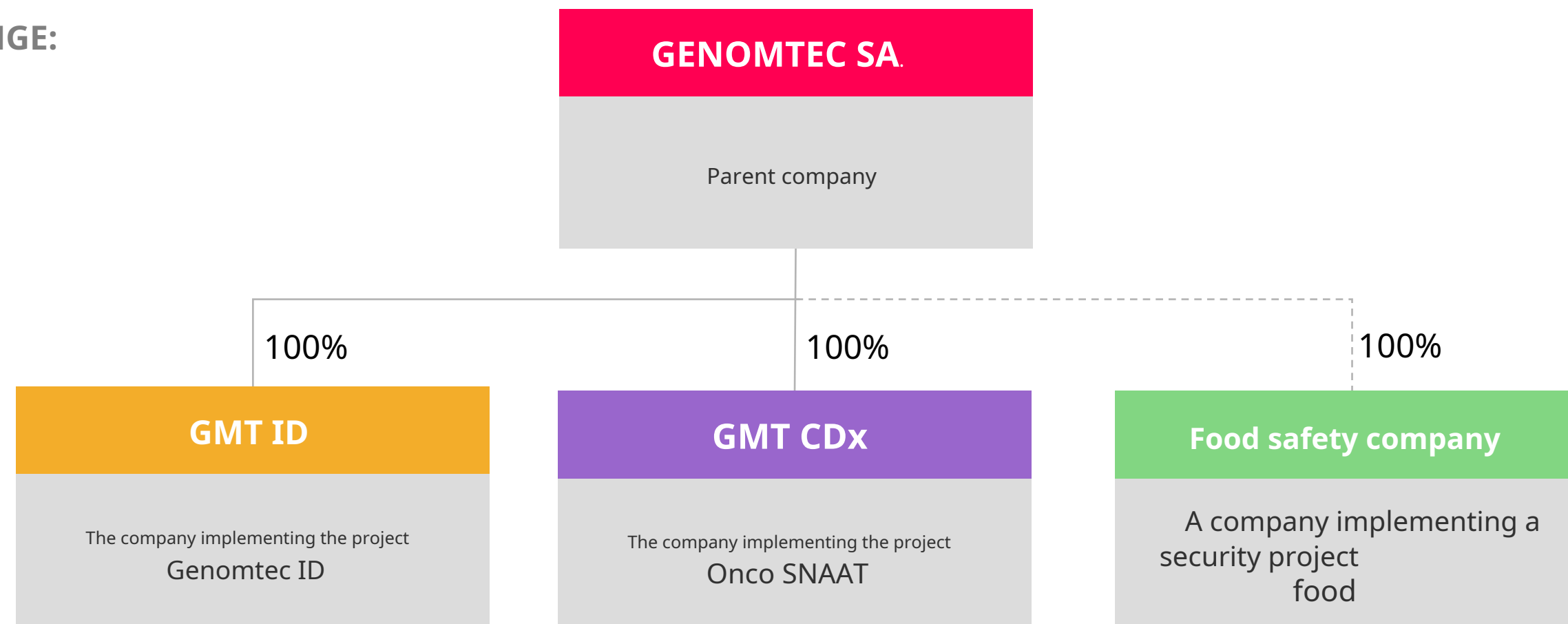
**Change of structure
organizational**

Changes in the organizational structure of the company in connection with the M&A process

CURRENTLY:



AFTER CHANGE:



- Adjustment down needs buyers
- Accelerate M&A transactions
- Increase in transaction value

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**Current activities
operational**

Several dozen meetings

July 2023 - Present
Building a list of interested parties

Signing of contracts
NDA

Signing of confidentiality agreements with a number of interested entities.

5 areas interests

Exchange of data regarding technologies offered by both parties to NDA agreements.

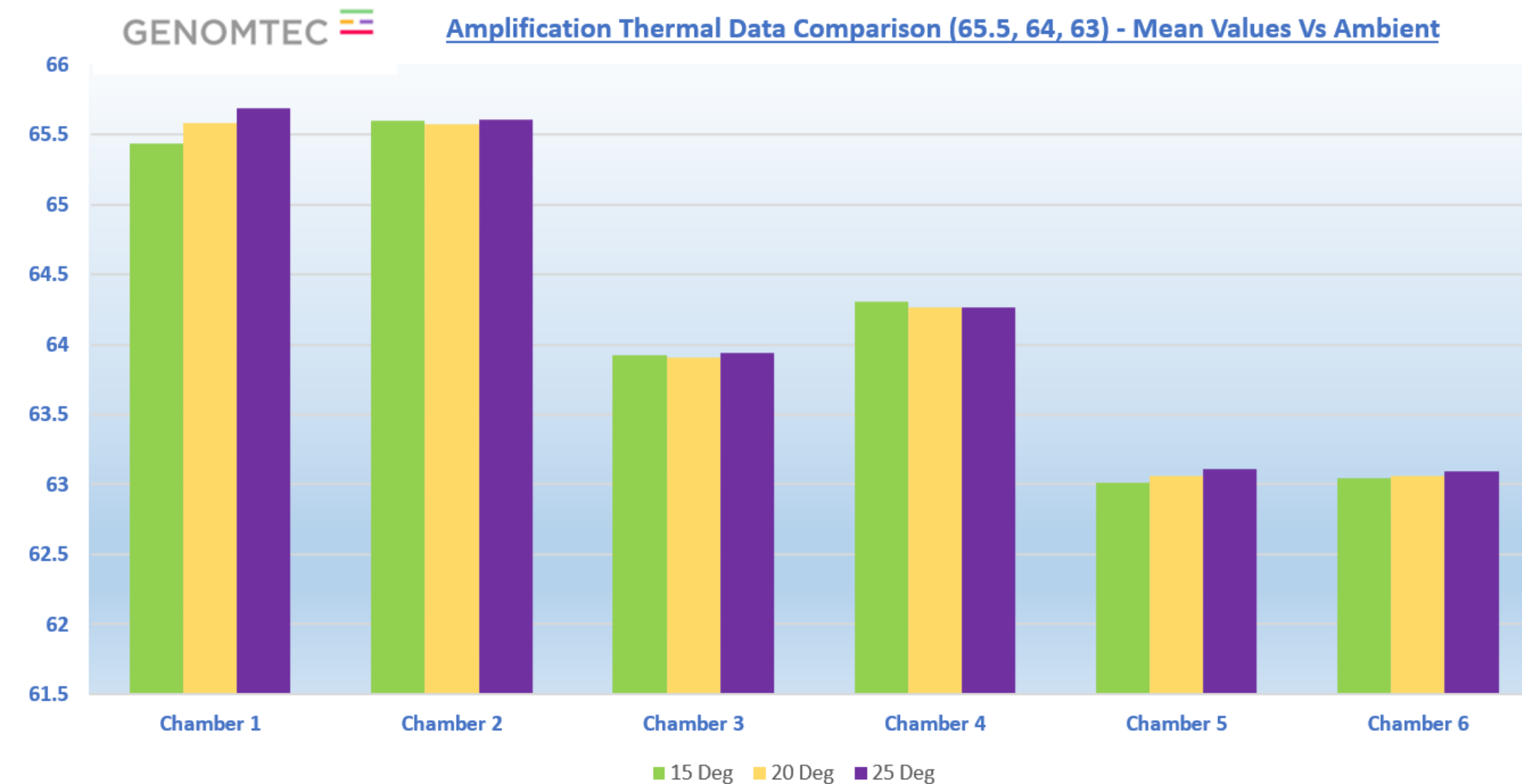
- Environmental requirements and stability of use of the Genomtec ID platform (including temperature, humidity).
- Costs of producing large-scale reaction cards.
- Leverage amplification technologies owned by potential partners.
- Diagnostics acceleration capabilities using Genomtec ID. (Q4 2024)
- Methods for detecting genetic changes using isothermal technologies developed by Genomtec. (Q4 2024)



Environmental requirements and stability of use of the Genomtec ID platform (including temperature, humidity)

- A series of tests and optimizations of algorithms controlling the non-contact heating system were carried out in an extended range of outside temperature and relative humidity.

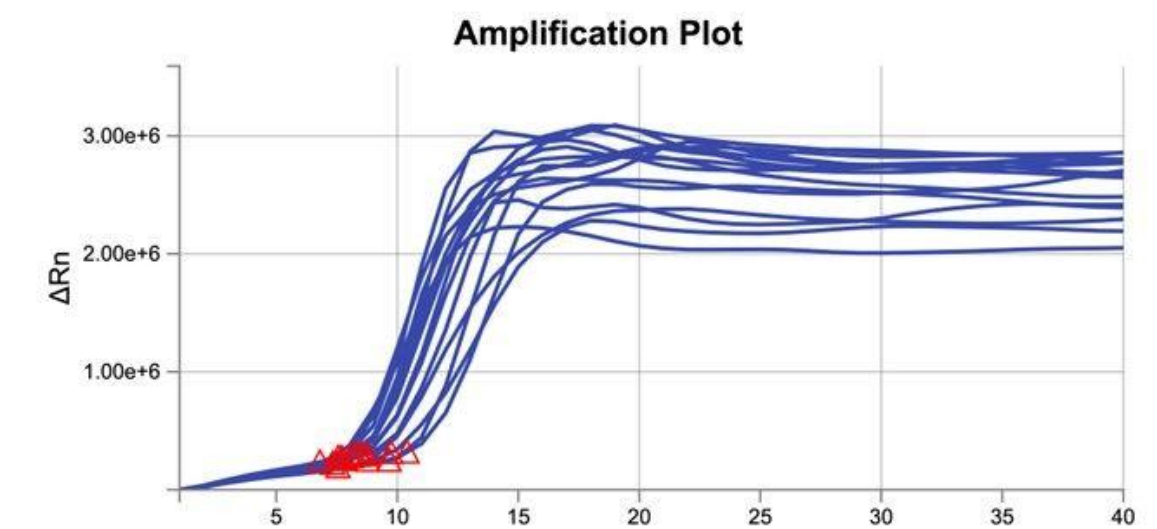
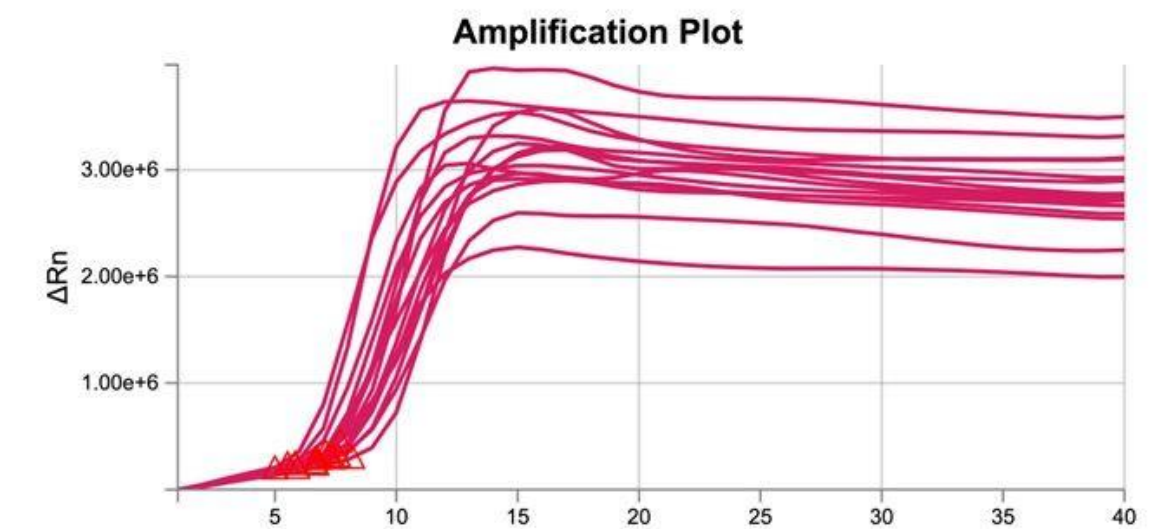
- Temperature stabilization was achieved at level $\pm 0.15^{\circ}\text{C}$ with a temperature difference between heating zones of up to 5°C . In combination with the use of 3 heating zones we managed to cover the full temperature range for LAMP technology $60-70^{\circ}\text{C}$



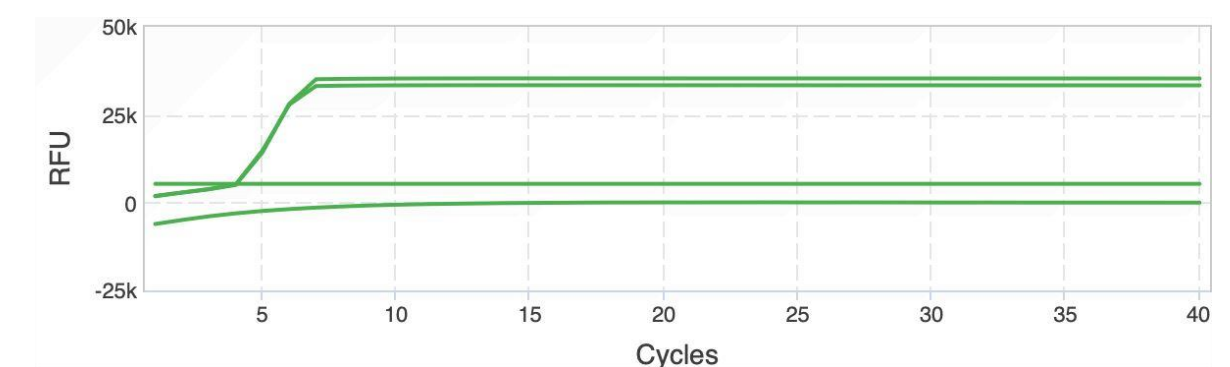
- Confirmed **no influence of outside temperature changes and humidity** from the tested range on the efficiency of the heating system.
- The stability of the heating system was confirmed between subsequent analyses.
- The stability of the heating system over time has been confirmed.
- **Work on increasing the resolution of the heating system is coming to an end – more heating zones – greater accuracy of the analyses performed.**

Possibilities of accelerating diagnostics using Genomtec ID.

- In conjunction with the work focused on reducing the cost of producing the reaction card, at the request of one of the potential partners, the possibilities of using new reagents to shorten the test time were investigated.
 - It was carried out **several thousand reactions** allowing the use of proprietary primers from the RP5-Plex panel (influenza A, influenza B, RSV A, RSV B, SARS-CoV-2, M. pneumoniae, Ch. pneumoniae) in combination with new enzymes.
- The work also includes the development of a shortened protocol for isolating RNA viruses.
- The above activities aim to create a panel of viral infections with TAT ~15 min.
- **As part of the work carried out, the amplification time in the LAMP technique was shortened to <10 min. for viral pathogens along with an improvement in the detection limit.**
- Work is underway to optimize a shortened procedure for isolating genetic material.



Amplification curves for influenza A (top), B (middle) at 50 GE/reaction and for influenza A at 10,000 GE/reaction (bottom)



Costs of producing large-scale reaction cards.

- **Discussions were held with a number of partners specializing in the production of lab-on-chip microfluidic systems.**
- **Two independent quotes (CDMO partners) were obtained related to scaling up mid-scale production – semi-automatic line and large scale – automatic line.**
- **In order to define the function of the production lines, it was necessary to determine the requirements related to the stabilization of reagents allowing them to be stored at room temperature.**
 - Several hundred amplification reactions were performed to determine the impact of a number of stabilization processes on the diagnostic parameters of the tests.
- **The work carried out allowed us to determine the requirements for production lines, along with their equipment and costs.**
- **Achieved over 70% reduction in production cost of card and reagents.**
- **Work also focused on optimizing reagent costs.**
 - **Obtained up to 80% reduction in reagent costs.**



500+

Conducted laboratory reactions Development of an original method for diagnosing single-nucleotide changes

cftDNA

Selection of sample volume parameters. Start of work on DNA isolation method.

IP

Actions aimed at obtaining and extending intellectual property protection.

21.6_M PLN

FENG PARP funding amount - completion of the grant project planned for the 1st half of 2027



The Genomtec project entitled: "Development of technology and an automatic system for detecting mutations in the field of clinical oncology based on the lab-on-chip solution and isothermal nucleic acid amplification techniques" was among 198 applications entered by PARP on the list of projects assessed positively in the SMART Path Measure FENG.01.01-IP.02-001/23/2023 under the European Funds for Modern Economy Programme.

* The recommended amount of funding for the project is approximately PLN 21.6 million with a total project budget of approximately PLN 40 million. If funding is received, the project will be implemented in the period from January 2024 to June 2027.

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Market Potential
food safety

- Pathogens such as **Salmonella, Listeria monocytogenes and E. coli** pose a significant threat to food safety. In recent years, there has been an increase in the number of cases of Salmonella, E. coli and Listeria in food products.
- Millions of cases of infections caused by foodborne microorganisms occur every year.
- Problems with control: staff shortages (e.g. veterinarians), insufficient training of sanitary inspectors.
- Polish food was reported as one of the most frequently contaminated in the EU: in 2017, 87 notifications of unsafe food were received from Poland, and in the following years these numbers increased, respectively in 2018 - 131 cases, in 2019 - 203 cases, in 2020 over 273 cases.
- Growing demand for fast, accurate and affordable diagnostic tests in the food sector.

- Reports of contamination of Polish products constitute 13 percent of cases worldwide.
- In addition, the European Commission Audit showed that Sanitary Inspection inspectors did not have sufficient knowledge about taking swab samples to detect this bacteria. This is confirmed by the Report from the period 2017-2018, which indicates that 6.5% of veterinarians left work, which meant that over 60% of teams were unable to perform their tasks correctly.
- Poland, which is the seventh largest food exporter in the EU with a result of over EUR 30 billion per year and is responsible for food safety both on the Polish and international markets, but does not have effective legal methods, nor does it take sufficient actions to guarantee the safety of food introduced to the market.

Microbiological cultures waiting time from 48h to >21 days

Rapid diagnostic tests low sensitivity and specificity
complicated diagnostic process

Genetic identification
long waiting time >14 days, high cost of analysis
Very often it is necessary to conduct pre-cultivation



Salmonella

- **Standard:** PN-EN ISO 6579-1:2017-04
- **Methodology:** multi-step detection process, including biochemical and serological confirmations
- **Duration:** up to 7 days
- **Modern solutions:** molecular methods (Real Time-PCR, LAMP) allowing to shorten the diagnostic time

E. coli

- **Reference standard:** ISO 13136 (for STEC)
- **Assistive techniques:** identification of pathogenicity genes (molecular biology), cultivation on media
- **Other standards:**
 - PN-ISO 16649-1, 16649-2, 16649-3 (determination of beta-glucuronidase-positive E. coli)
 - PN-ISO 4831, 4832 (determination of coliform bacteria)

Listeria monocytogenes

- **Standards:** PN-EN ISO 11290-1:2017-07, 11290-2:2017-07
- **Process:** preincubation, cultivation on selective media (ALOA, PALCALM)
- **Confirmatory tests:** motility, hemolysis, carbohydrate breakdown

Test Type	Sensitivity (%)	Specificity (%)	Limit detection (CFU/g or ml)	Time to obtain result	Cost (USD)
PCR (reaction chain polymerases)	95-99	98-100	1-10 CFU/g	1-4 hours	15-50
ELISA-test	85-90	90-95	10 ³ -10 ⁴ CFU/g	2-6 hours	5-20
Tests Immunochromographic	80-85	85-90	10 ⁴ -10 ⁵ CFU/g	10-30 minutes	2-10
Breeding bacterial	90-100	100	1-10 CFU/g	24-72 hours	1-5

Market value: By 2030, the pathogen diagnostics market will grow to **9 USD billion.**

Quick tests (mainly antigenic) will increase from USD 3 billion (2021) to USD 5.8 billion (2030).

Growth of the molecular methods market: 9% per annum.

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Q&A session



investors@genomtec.com



genomtec.com

Genomtec ID: fast, cheap, portable, 5-pathogen test

❖ Genomtec ID –passive reaction card and simple design - a source of competitive advantage


GENOMTEC
Estimated price
€35



Competitive cost production: without sensors, chips, components electronic and mobile

Cepheid,
Gene Expert

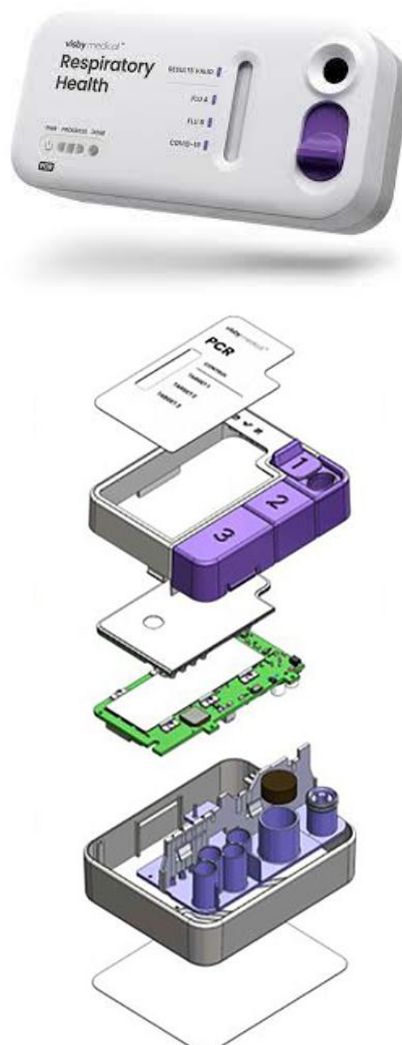
Average price
€35-50



Complex mechanical structure – including valves, bushings syringe, seals

Visby Medical

Average price
\$50



Disposable device with electronics and moving parts

Binx

Average price
\$60 - 75



Expensive cartridge with semiconductors and sensors

Bosch Vivalytic

Average price
€50-80



Complex construction – multi-layer system flow, membranes, PCB, electrodes

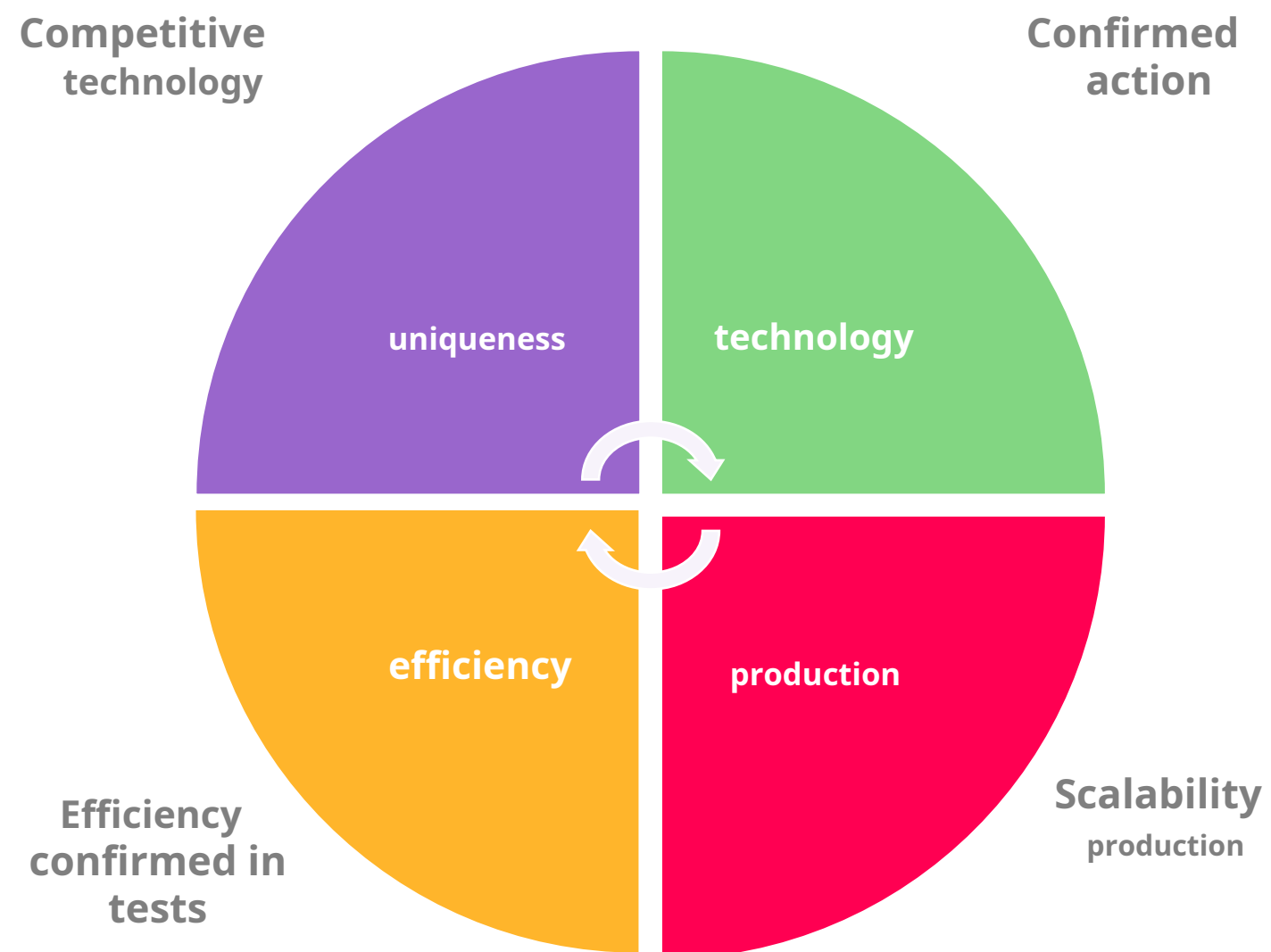
Lucira Health

Average price
\$40-45



Universal device disposable with electronics and heaters

Technology parameters sought by potential acquirers:



Clairfield Partners – M&A Advisor

has extensive experience in M&A transactions, including in the area of medical technology and biotechnology, including the genetic diagnostics sector.

Objective:

Establishing strategic partnerships, selling licenses and/or selling all or part of your intellectual property and the technology associated with it.

Planned activities:

- identification and selection of potential buyers and partners.
- preparation of necessary materials and establishment of contacts with global companies from, among others, the sector of medical devices for in vitro diagnostics
- organization of the due diligence process,
- shaping the negotiation strategy
- coordinating the process of final talks related to a potential transaction