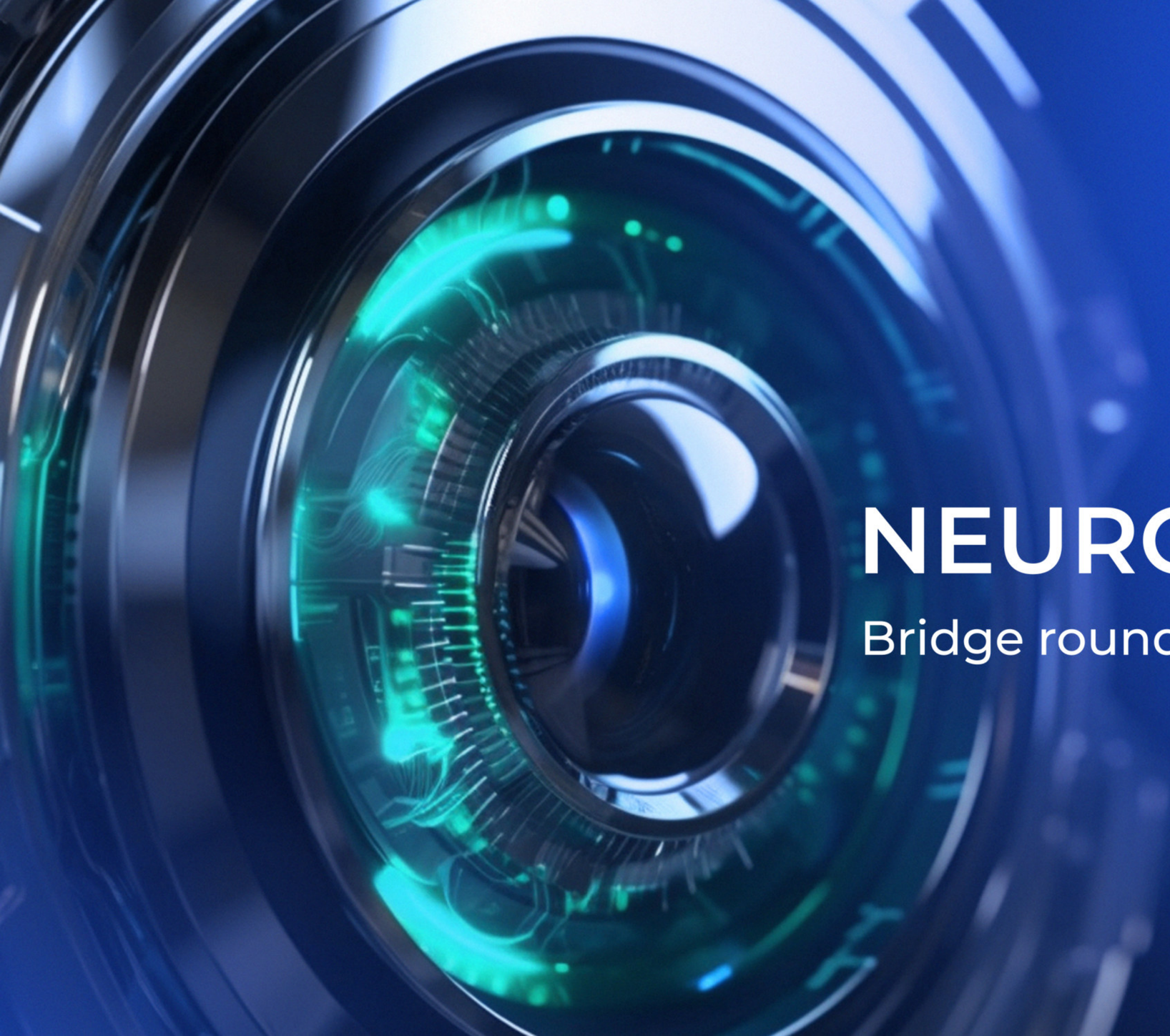


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NEUROSECURITY

Bridge round for the development of an alpha version

2024

In the conditions of ongoing price increases, many major retail networks in the USA and Europe are experiencing growing losses from theft for the fourth consecutive year.



In the USA alone, by the end of 2023, **thefts cost retailers a total of $122 bln** (according to the National Retail Federation — NRF).



The theft-to-sales ratio **in some states of the USA exceeds 10%, while in the EU, it ranges from 3-7%**.

The shoplifting pandemic signifies that tackling theft by retailers alone is extremely challenging and has become a major problem, given the noticeable increase in their costs.

Losses from theft in the US in 2023: ***$122 BLN***

Losses from theft in the EU in 2023: ***€110 BLN***

The average theft rate in retail has increased ***from 1% to 5%***

Retail sales revenue lost to theft *(in billions)*



Source: National Retail Federation

*Projections based on source data



Consumer engagement.

Sen-Vision is an analytical complex consisting of 5 modules, providing crucial management data to reduce losses and increase sales by recognizing key incidents and breaches of order that lead to losses.



Anti-theft - predicting and detecting theft



Merchandisers' control and optimization of their work



Monitoring of staff behavior on the trading floor



Monitoring of cashiers' work and behavior

The modules are developed sequentially, with the anti-theft module being developed first.
It serves as the foundation, and all subsequent modules are designed based on its architecture.

HOW DOES THE ANTI-THEFT MODULE WORK?

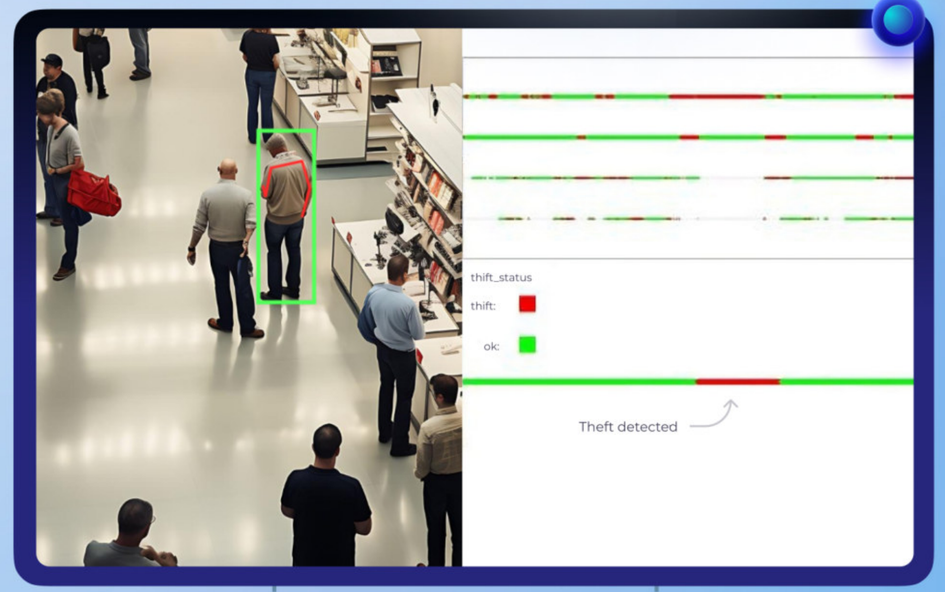
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The system operates using regular cameras and doesn't require significant additional equipment for the premises.

- The video stream passes through the Sen-Vision server and is continuously analyzed.
- Upon detecting unusual behavior or theft, a video clip of the incident is sent to the security guard for verification.
- The system tracks the object to the checkout area, transmitting its image through the cameras.
- In the payment zone, the system compares the items and makes a final decision on the theft, either confirming it or dismissing it.



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SEN-VISION ROAD MAP

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JULY 2022 - MARCH 2023

Research to confirm the algorithm's functionality

JULY - DECEMBER 2023

Development of the pre-alpha version of the anti-theft module

JANUARY 2024

Launch of the alpha version of the anti-theft module and opening of a bridge round

MAY 2024

Commencement of testing the anti-theft module in stores

DECEMBER 2024

Ready-to-use anti-theft module (MVP)

JANUARY - MARCH 2025

Beta testing, creation of departments, preparation for the seed round.

APRIL 2025

Start of sales for the anti-theft module.

DECEMBER 2024 - MAY 2025

Development and implementation of an additional four modules of the system

JUNE 2025

Entering the seed round, active sales of the Sen-Vision system.

Pre-seed round

57 000 € raised

The basic version of the theft assessment solution based on the skeleton detector has been developed.

Initial results for detecting three types of theft have been obtained.

Optimization has been carried out, and preparations for transferring the solution to a new facility are underway.

The corporate style has been developed, and agreements for technical trials have been signed with A1000, Sky Mobile, and YOLO stores.

Pre-alpha version

110 000 € raised

Three major updates of the core algorithm have been implemented, incorporating over 20 improvements and enhancements.

We achieved an ***85% theft detection rate*** in the test environment, with the solution's performance increasing more than fivefold, and a threefold reduction in system requirements.

The neural network has learned to identify deviant behavior and detect all types of simple thefts from any perspective and camera angle.

ALPHA VERSION DEVELOPMENT PLAN & TRACKING

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- **Optimizing system algorithms**, exploring optimal scaling strategies, and minimizing dependency on equipment capacities and requirements for closed-circuit television (CCTV) cameras.
- **Developing a user-friendly application, personal online accounts** for users with premium features, and integrating embedded analytics with a mobile app-to-app connection.
- **Scaling the solution** to various retail environments to detect a wide range of behavioral patterns and customer thefts.
- **Testing the standalone mode of the solution in real-world conditions**, developing an automated system to assess algorithm accuracy (auto testing), generating data sets, and fine-tuning the model in automated mode.
- **Integrating new solutions into local IP cameras in stores** and optimizing the algorithm to reduce hardware requirements for the end product.
- **Lowering the requirements for image quality** and, consequently, the communication channel for analyzing customers, with the subsequent use of Wi-Fi cameras.

ALPHA VERSION DEVELOPMENT PLAN & TRACKING

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Sen-Vision's analytical complex, featuring a **unique neural network based on machine vision**, achieves impressive results:

90% reduction in theft incidents

90% improvement in regulatory compliance

90% increase in the efficiency of promotional campaigns

90% boost in efficiency in enterprise and personnel management

20% **increase in company turnover, and a profit increase of 3%**

COMMERCIALIZATION

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The company's business model involves selling **licenses for the use of software (SaaS)**. The license price will be determined by several factors and applied to each connected camera.

Economic prosperity and purchasing power of an individual country:	Number of connected devices	Number of connected modules	Subscription period
The license cost may vary based on the economic conditions and purchasing ability of each specific country.	Number of connected devices: The more devices connected, the lower the cost, encouraging broader adoption.	Number of connected modules: Clients can choose which of the 5 modules to use, and connecting each module increases the license cost.	The subscription period has a minimum of one year, and clients can opt for a maximum subscription without a specified end date, with the option to cancel with official notice one month in advance.

This flexible pricing model takes into account the economic conditions, scalability, and customization preferences of clients.

Let's consider 3 license sales options, using average values for one store:

Cost of Anti-theft module: **25 €** including VAT per month

Cost of each additional module: **5 €** including VAT per month

Cost of all five modules: **40 €** including VAT per month

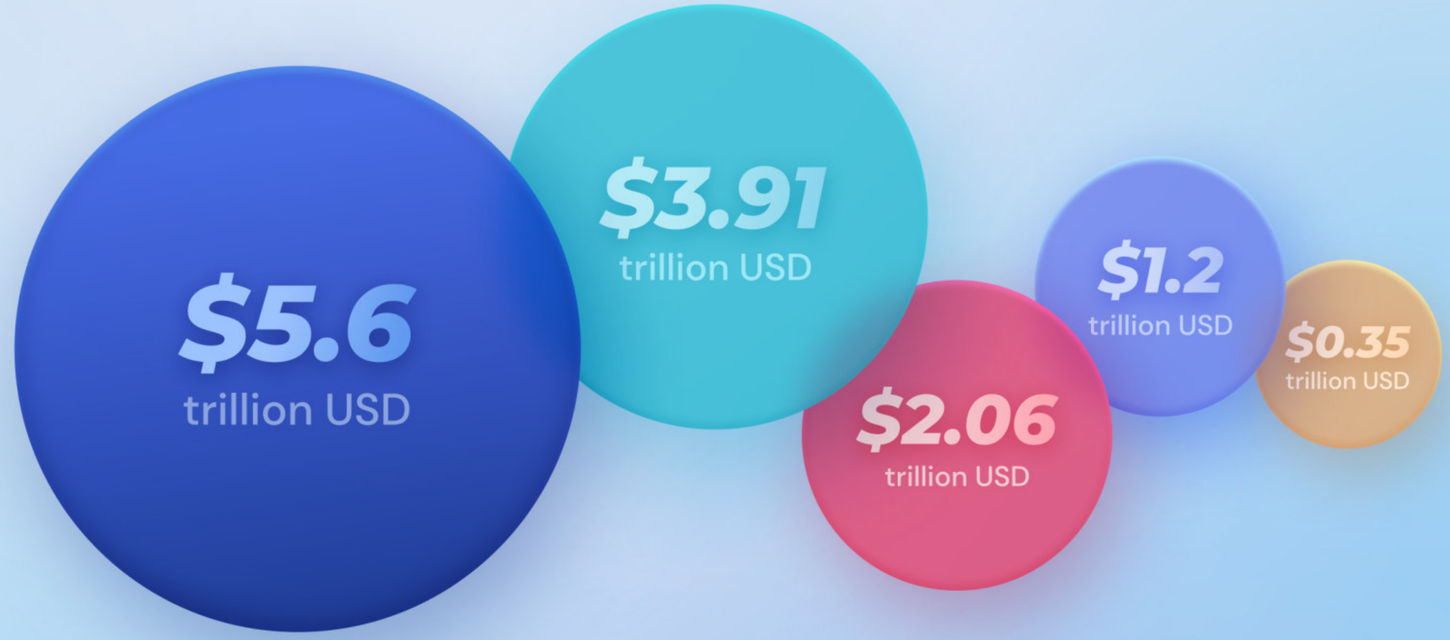
FACTORS	STORE NEAR THE HOUSE	SUPERMARKET	HYPERMARKET
Average number of cameras, per facility	30 CCTVs	150 CCTVs	500 CCTVs
The cost of the license for the anti-theft module, per month / year in €	750 / 9000	3750 / 45K	12,5K / 150K
The cost of the license for 3 modules, per month / year in €	1050 / 12600	5250 / 63K	17,5K / 210K
The cost of the license for all 5 modules, per month / year in €	1200 / 14400	6000 / 72K	20K / 240K

The cost of connecting the facility will be approximately equal to the monthly license fee for it.

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According to Statista, the current global ranking in the retail trade sector looks as follows:

- USA
- Europe
- China
- India
- Mexico



If we calculate the losses from theft on the five presented markets at the minimum value of ***3% of turnover***, we get an impressive ***$363.6 billion per year***. However, this represents only 60% of the total global trade. It can be assumed that global figures significantly exceed the $0.5 trillion mark, which, for example, surpasses the budget of Austria.

These numbers emphasize ***the importance of measures to reduce theft levels and enhance security in markets***, aiming to minimize losses for individual companies and the global economy as a whole.

The completion of the ***development of the anti-theft module is planned by the end of 2024***, with sales starting at the same time.

The development cost of the alpha version of the anti-theft module is 300 000 €.

We offer you the opportunity to invest based on *30 000 € for a 1% stake* in the company.

The return on investment occurs after connecting the first 100 facilities, and we aim to achieve these milestones by 2025.

COMMERCIALIZATION POTENTIAL

euros 30,000 per 1% of company

- at a company valuation of ***3 mln €***
- with the potential for the price to increase to ***10 mln €*** after the alpha version



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What you receive as an investor in the strategic perspective?

5 Years expected upside x100-250

Upon reaching an average of 20 thousand connected facilities in 5 years, the company's turnover by 2030 will be approximately 1 billion euros, with a net profit of 250 million.

The market value of a 1% stake in the company will be 25 million. Securing contracts with 3–5 major retailers will be a key factor in achieving these results.



SCENARIOS OF SALES

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Let us consider three reference ***5-year scenarios*** (given that the initial trend persists and neither additional capitalization nor diversification takes place):

PESSIMISTIC

500 objects

5-YEAR NET PROFIT:

8,1 mln €

BASELINE

5,000 objects

5-YEAR NET PROFIT:

72,8 mln €

OPTIMISTIC

50,000 objects

5-YEAR NET PROFIT:

675 mln €

Let us calculate the average values of three scenarios:

5-year turnover — ***~ 1 bln €***

5-year net profit — ***250 mln €***

The company's market value: 2.5 bln euros / 1% — ***25 mln €***

RETURN ON INVESTMENT AND PORTFOLIO GROWTH

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Let's consider the return on investment based on the basic scenario from the start of sales:

Interest dilution: from **1%** to **0,8%**

Profit distribution: for business development **70%**, for dividend distribution **30%**

At **1%**, the investor receives as dividends:



Totaling **€172,800** over 5 years, deducting the initial investment, resulting in a net profit of **€143,000**.

PORTFOLIO GROWTH

With each new funding round, the company's capitalization increases, and the value of ***1%*** will be:

Bridge round	***Seed round***	***5 years forecast***
€100,000	***€1,000,000***	***€25,000,000***
End of 2024	3rd quarter of 2025	End of 2029

In the market of anti-theft solutions, there are several competitors; however, our system stands out based on several key parameters:



Detection Accuracy

Even at the pre-alpha stage, our system demonstrates high accuracy in detecting and predicting theft, reaching 85%, surpassing the performance of most competitors (45–65%).



Unique Algorithms

Unlike competitors using basic assessment methods, our system employs proprietary theft detection algorithms, enhancing its effectiveness.



Development Plans

Our company has clear plans for developing additional modules, making us more prospective in the long term.



Development Speed

The ability to achieve high results within a year, unlike competitors who report the need for improvements and plan to implement them in several years.

These factors make our system competitive and promising in the anti-theft technology market.

NEUROSECURITY TEAM

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If you are interested in participating in SEN-VISION project or want to get in touch and know more about our system, please contact us.

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Email address



Alexandr SOKOLOV

CEO, Board member of Neurosecurity OÜ



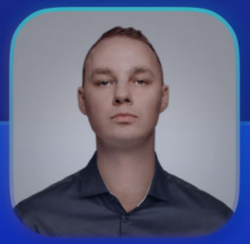
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