

eocortex



**Face  
Recognition**



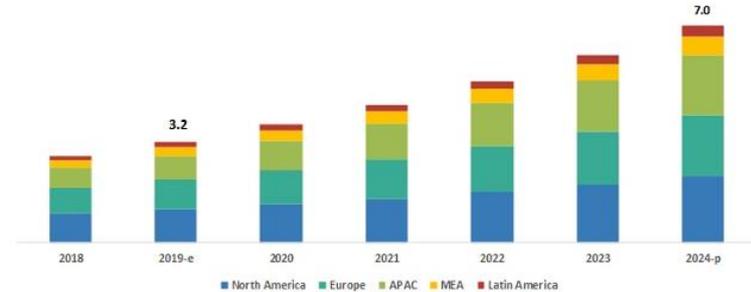
# World market for face recognition demonstrates annual growth of 16%

In 2019, the face recognition market volume amounted to \$ 3,2 billion.

According to expert estimations, the market grows more than 10% annually. In 2024, the market volume will be \$7 billion.

The two biggest drivers of this growth are surveillance in the public sector and numerous other applications in diverse market segments.

FACIAL RECOGNITION MARKET, BY REGION (USD BILLION)



[See the report](#)

# New features of Face Recognition



	Light	Complete	Unique Visitor Counting	Unique Visitor Counting + Complete	
Computing	CPU / GPU	<b>GPU</b>	GPU	GPU	
Face database	1	<b>20+</b>	20+	20+	Max. faces in the frame
	500	<b>Unlimited</b>	No	Unlimited	
Determining of gender and age	No	<b>Yes</b>	No	Yes	Search in the archive
	No	<b>Yes</b>	Yes	Yes	

# Before and after

	Basic Face Recognition	Complete Face Recognition	
Equipment cost	Expensive due to high CPU load	<b>Affordable due to usage of video card</b>	
	No	<b>Yes</b>	Recognition of faces in a crowd
Determination of age and gender	No	<b>Yes</b>	
	No	<b>Yes</b>	Search by faces in video archive
Cost of database of 500 people	\$ 3 090	<b>Free</b>	

# Face Recognition Light

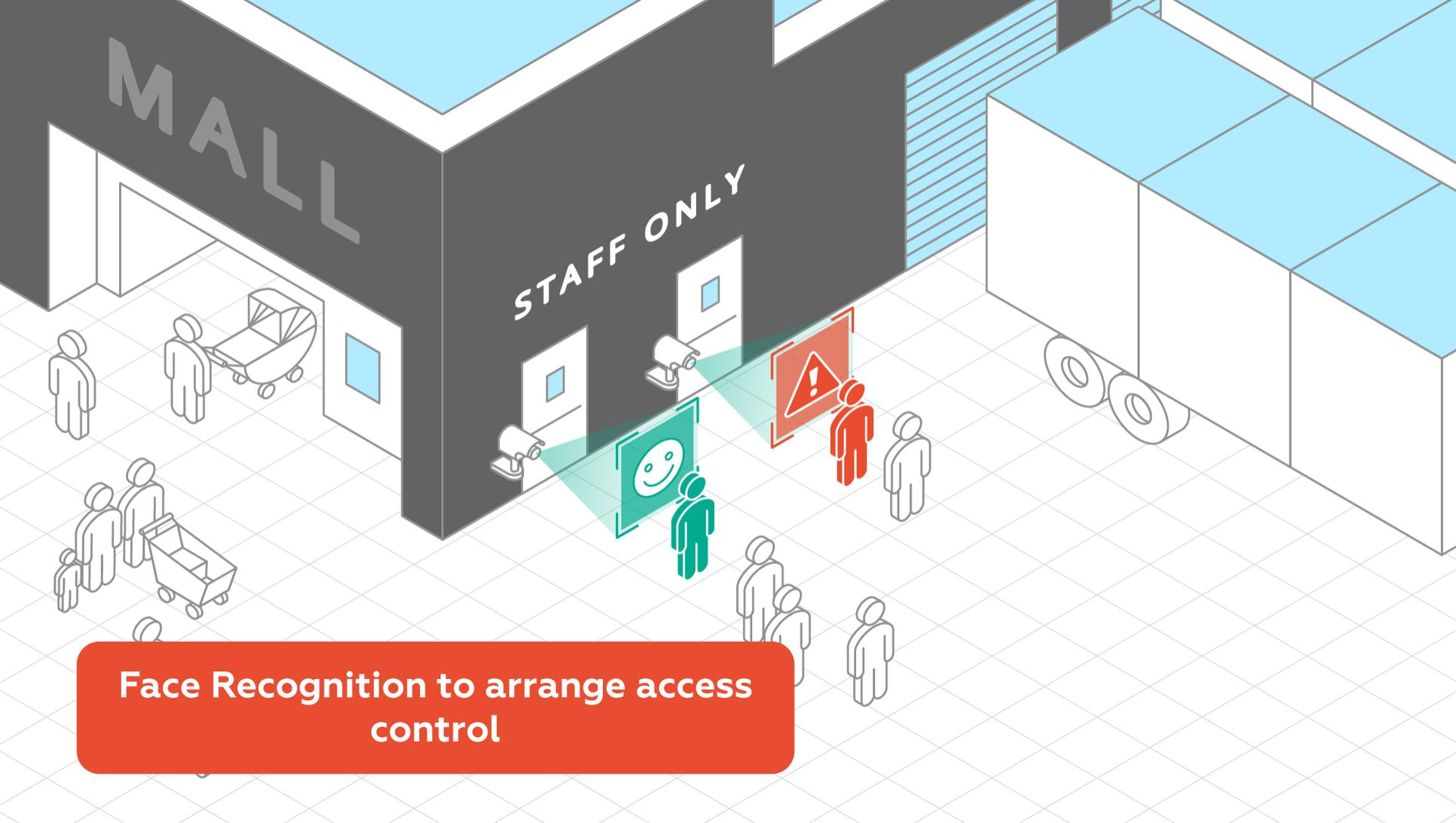
CPU	RAM	Number of cameras (1 MP)
Intel Core i5-2400	8 GB	<b>1</b>
Intel Core i7-2600	8 GB	<b>2</b>
Intel Core i5-2300	8 GB	<b>1</b>
Intel Core i5-2400	8 GB	<b>2</b>
Intel Core i5-3570	8 GB	<b>3</b>
Intel Core i7-2600	8 GB	<b>4</b>

# Face Recognition Complete

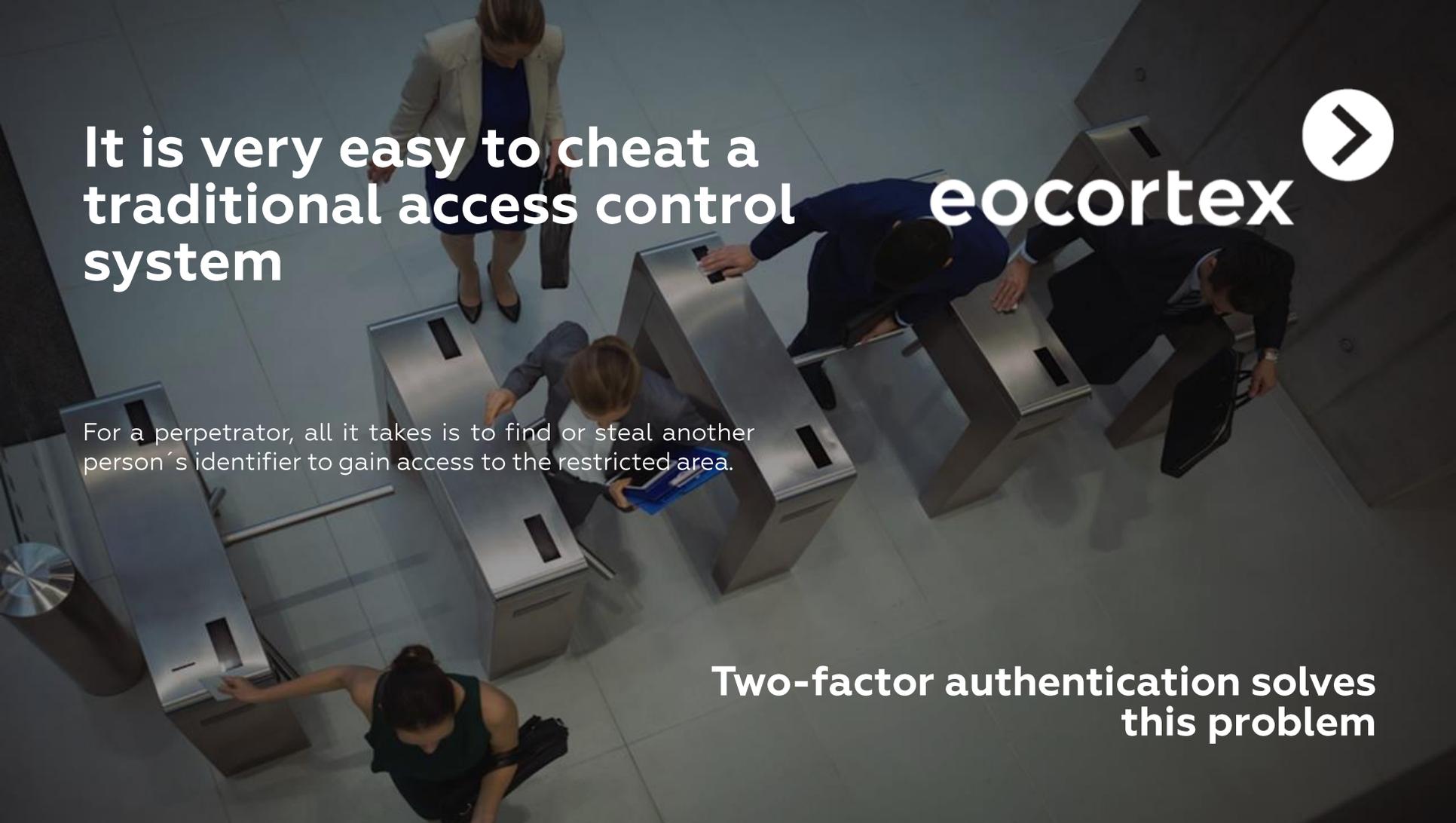
CPU	GPU	RAM	Number of cameras (2 MP)
Intel Core i5-2400	NVIDIA GeForce GTX1050 Ti	8 GB	<b>5</b>
Intel Core i7-2600	NVIDIA GeForce GTX1060	8 GB	<b>9</b>
Intel Core i7-7700	NVIDIA GeForce RTX2070	8 GB	<b>13</b>
Intel Core i9-9900K	NVIDIA GeForce RTX2080	12 GB	<b>20</b>

# Unique Visitor Counting

CPU	GPU	RAM	Number of cameras (2 MP)
Intel Core i5-2400	NVIDIA GeForce GTX1050 Ti	8 GB	<b>5</b>
Intel Core i7-2600	NVIDIA GeForce GTX1060	8 GB	<b>9</b>
Intel Core i7-7700	NVIDIA GeForce RTX2070	8 GB	<b>13</b>
Intel Core i9-9900K	NVIDIA GeForce RTX2080	12 GB	<b>20</b>



**Face Recognition to arrange access control**



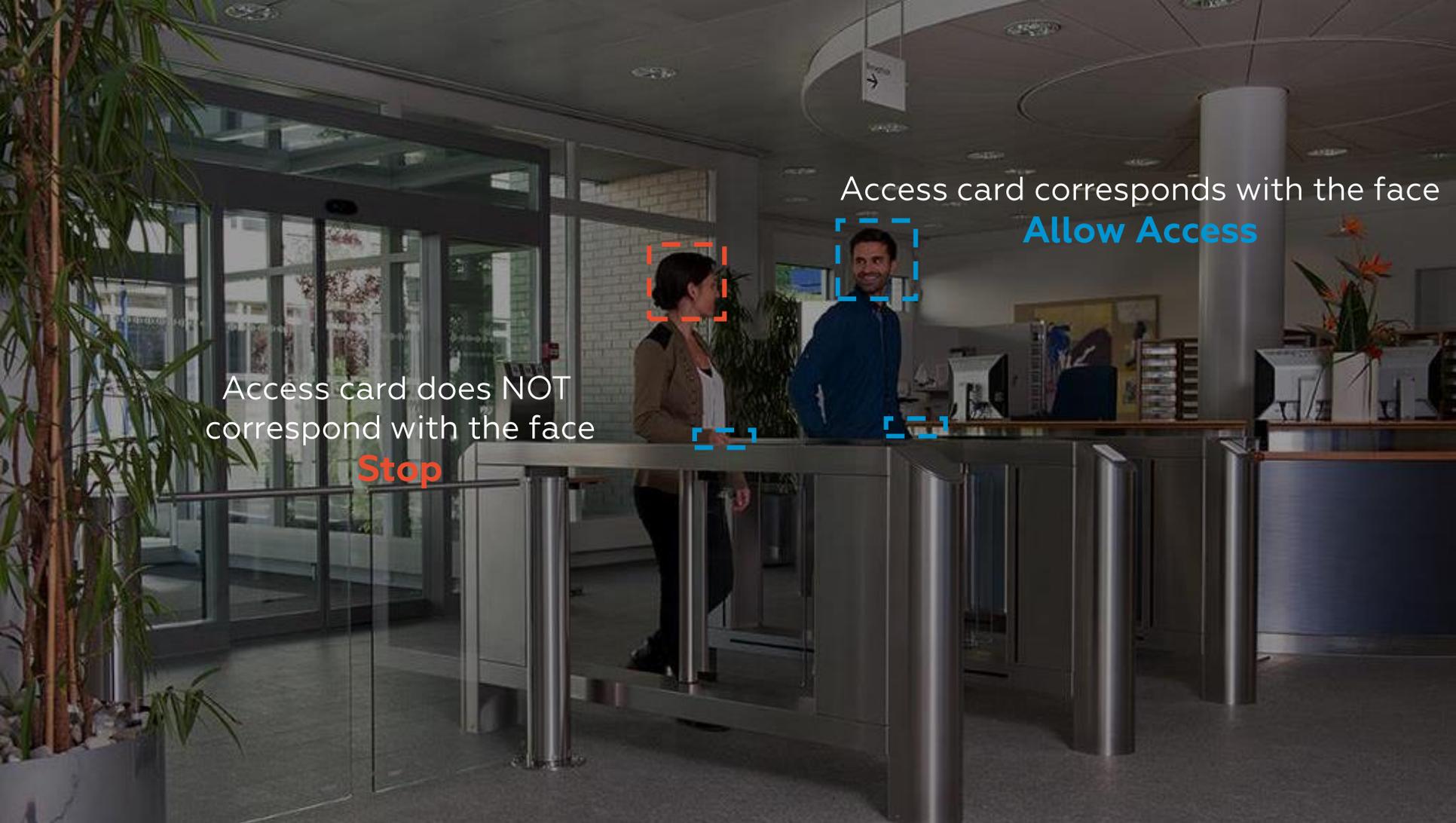
# It is very easy to cheat a traditional access control system

For a perpetrator, all it takes is to find or steal another person's identifier to gain access to the restricted area.

eocortex



**Two-factor authentication solves this problem**



Access card does NOT  
correspond with the face

**Stop**

Access card corresponds with the face

**Allow Access**

# Customer benefits



Minimization of risk of infiltrations to the site with stolen or fake passes

**BONUS**



**Precise logging of staff work time for HR and accounting departments**

03-05-1970 Mon 19:51:02

**Face database (Complete)** — □ ×

**Add record**    Total entries: 15 

	<b>Konstantine</b>	<span style="color: green;">●</span> White list	
	<b>Jane</b>	<span style="color: green;">●</span> White list	 
			
	<b>Den</b>		
	<b>Alex</b>	<span style="color: green;">●</span> White list	



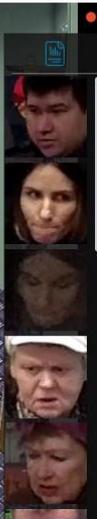
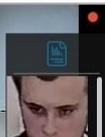
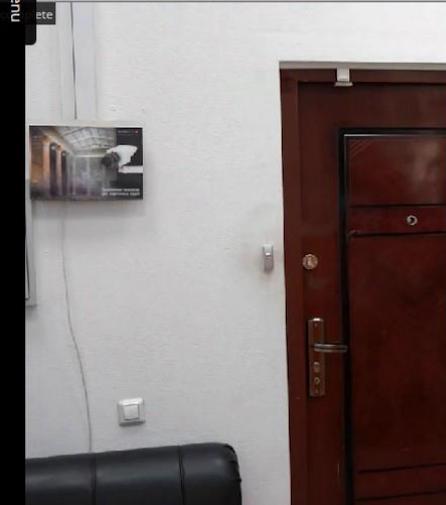
Surname

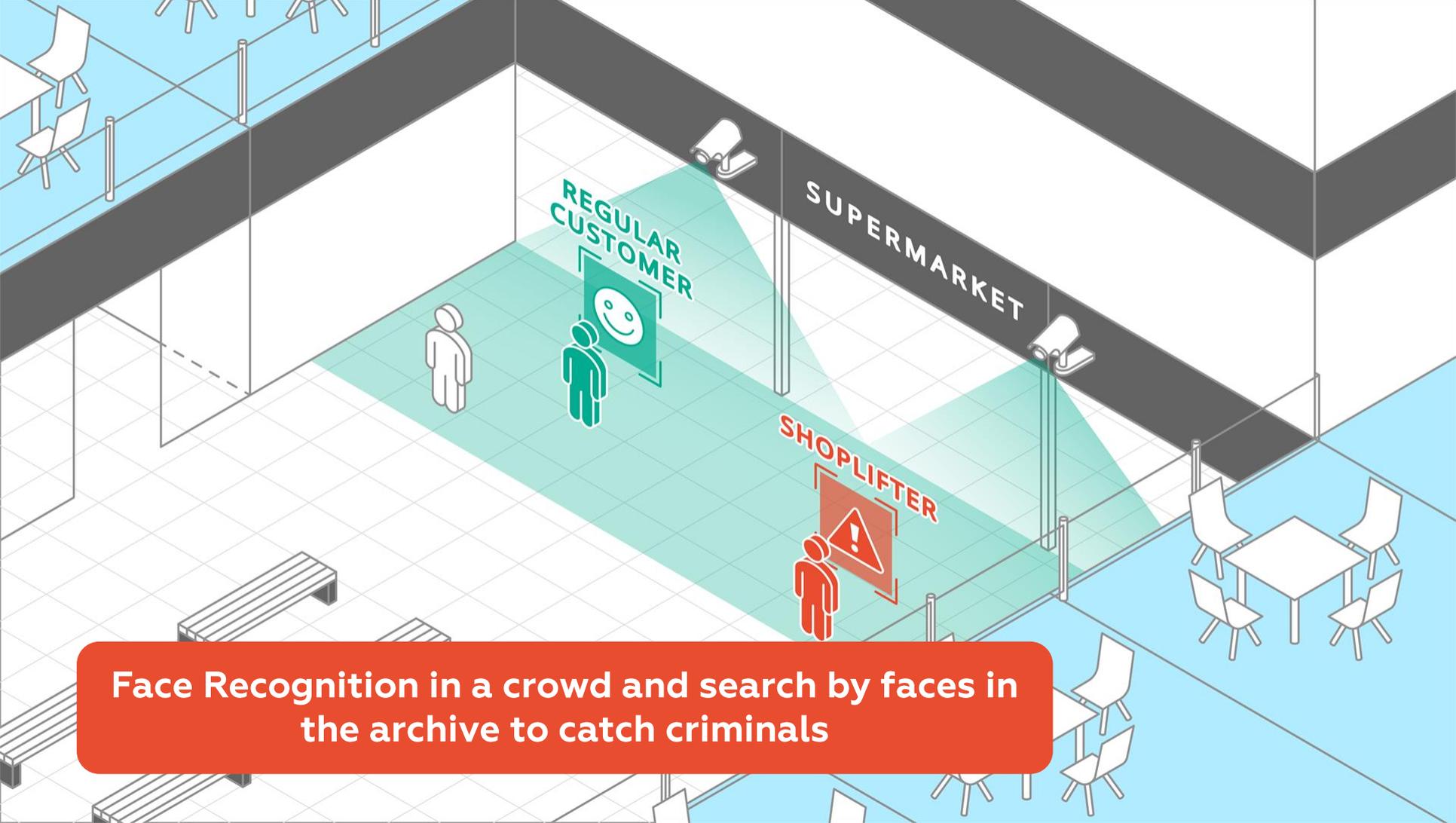
Jane

Patronymic

White list   

Additional information





**Face Recognition in a crowd and search by faces in the archive to catch criminals**

# Losses due to shoplifting

€ 35 million



\$50 billion



In 2018, retailers around the world lost more than \$100 billion due to shoplifting

# You know when a shoplifter is in the store

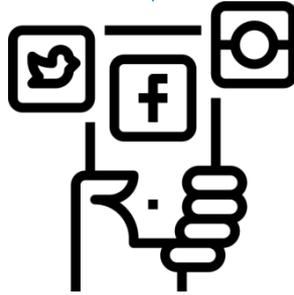
Person from black list found



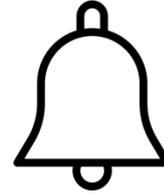
Message to email



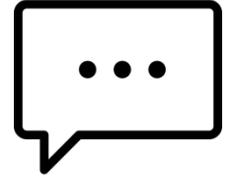
Notification on CCTV operator's monitor



Message to messenger (Viber, Telegram, Facebook) from Eocortex bot



PUSH notification from Eocortex app to a mobile device



SMS message

# 14:20

16 August 2019

-  CAMERAS
-  ARCHIVE
-  EVENTS
-  **REPORTS**
-  VIDEO WALL
-  SETTINGS
-  ADDITIONAL
-  EXIT



## REPORTS



Face	Date	Time	Camera	Groups	Full name	Accuracy	Gender	Age	Intercept
	16.08.2019	14:17:58	complete	<span style="color: red;">●</span> Interception		99%	Men 	39	
	16.08.2019	14:16:59	complete	<span style="color: red;">●</span> Interception		82%	Men 	26	
	16.08.2019	14:14:52	complete	<span style="color: red;">●</span> Interception		98%	Men 	23	
	16.08.2019	14:13:06	complete	<span style="color: red;">●</span> Interception		96%	Men 	27	
	16.08.2019	14:12:18	complete	<span style="color: red;">●</span> Interception		94%	Men 	40	
	16.08.2019	14:00:59	complete	<span style="color: red;">●</span> Interception		99%	Men 	39	
	16.08.2019	14:00:00	complete	<span style="color: red;">●</span> Interception		82%	Men 	26	
	16.08.2019	13:57:52	complete	<span style="color: red;">●</span> Interception		87%	Men 	23	
	16.08.2019	13:56:06	complete	<span style="color: red;">●</span> Interception		88%	Men 	27	

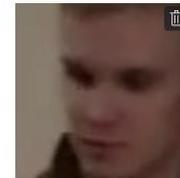
Select the report

Face Recognition (Complete)

Filter by time

Search by photo

Search for people from database



Likeness with sample not less than 80 %  
  
 above medium

Search by camera name

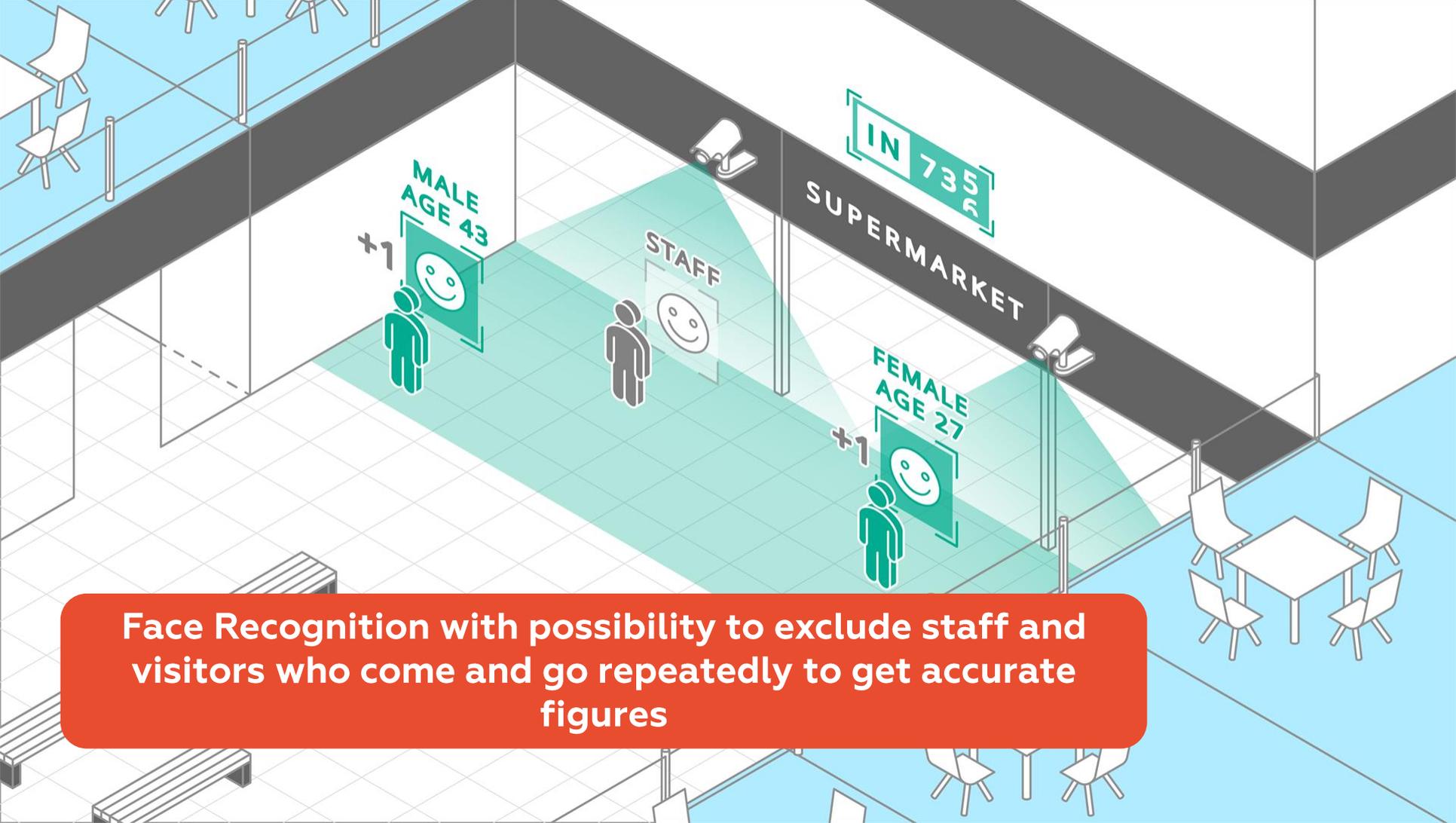
Expand all

Collapse all

All cameras

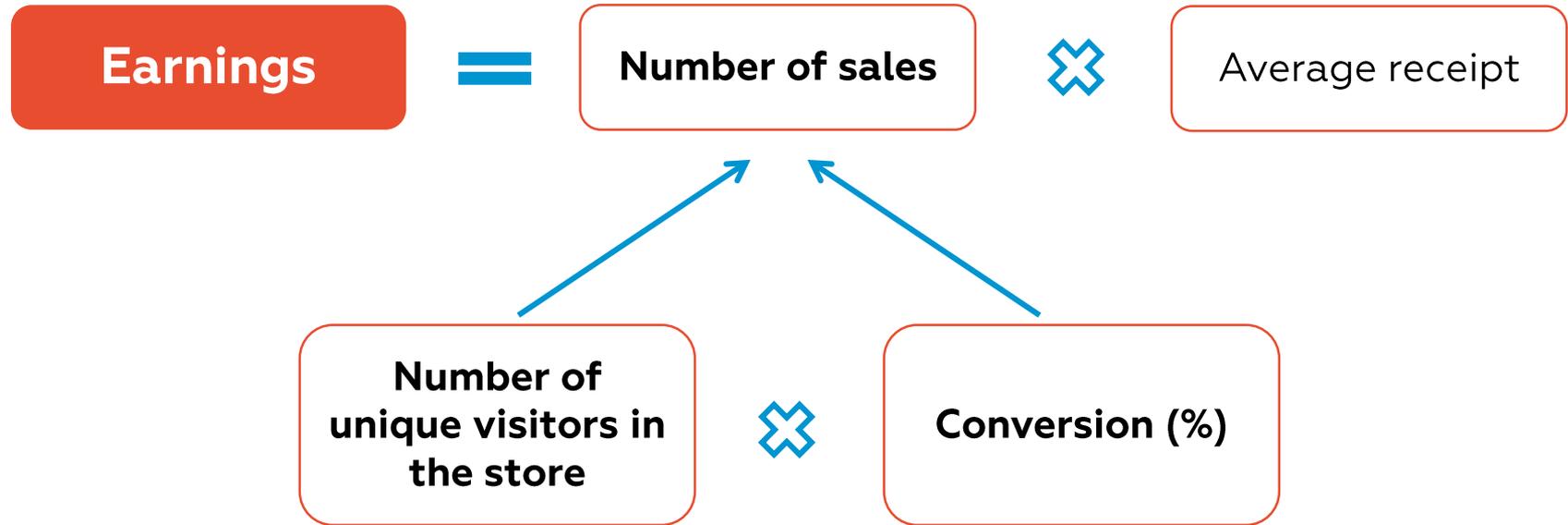
complete

Refresh Cancel



**Face Recognition with possibility to exclude staff and visitors who come and go repeatedly to get accurate figures**

# Earnings formula for the store



## 2% increase of conversion from visitor to buyer leads to 20% increase in sales proceeds

		Strategy 1	Strategy 2	Strategy 3
	Before modifications	Attendance +10%	Conversion +2%	Average receipt +10%
Visitors, pers.	881	969	881	881
Receipts, pcs	88	94	106	88
Conversion	10%	10%	12%	10%
Average receipt(\$)	30	30	30	33
Proceeds(\$)	2640	2820	3180	2904
Impact(\$)	-	180	540	264
Efficiency	-	+7%	+20%	+10%

14:25

16 August 2019



CAMERAS



ARCHIVE



EVENTS



REPORTS



VIDEO WALL



SETTINGS



ADDITIONAL



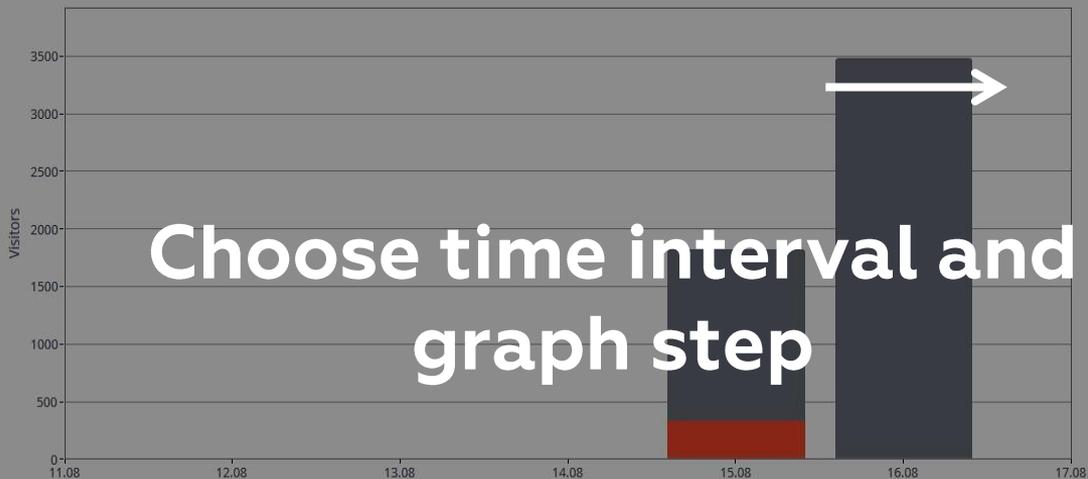
EXIT

## REPORTS

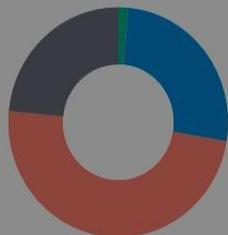
Total quantity — 5307

Men and women, 18 and younger, 18-30, 30-45, 45 and older

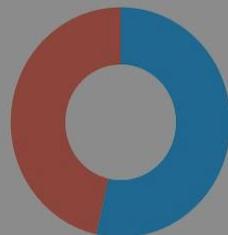
Including the unique visitors — 409

 Age and sex of unique visitors only

Age



Gender



Select the report

Unique Visitor Counting

Period from

12.08.2019 14:22:12

to

16.08.2019 14:22:11

Plotting step

Day

Exclude members of groups

—

Age

Any

Gender



Search by camera name

Expand all

Collapse all

 All cameras unique visitor counting uniq visitor counting

Export

Build

Cancel

14:23

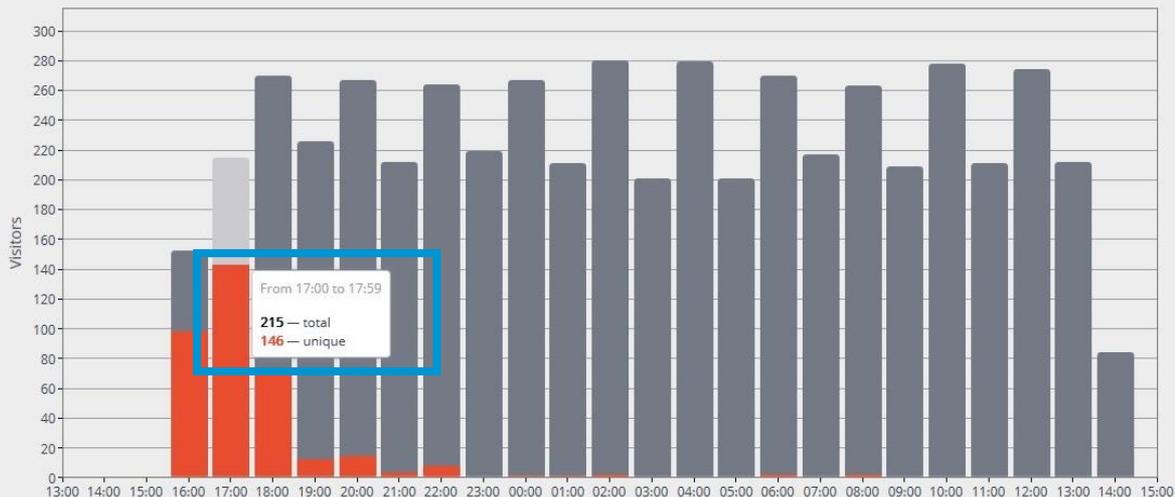
16 August 2019

- CAMERAS
- ARCHIVE
- EVENTS
- REPORTS
- VIDEO WALL
- SETTINGS
- ADDITIONAL
- EXIT

# REPORTS

Total quantity — 5282  
Including the unique visitors — 408

Men and women, 18 and younger, 18-30, 30-45, 45 and older



Age and sex of unique visitors only

Age



Gender



# The number of visitors will appear in the graph



Select the report

Unique Visitor Counting

Period from

15.08.2019 14:22:12

to

16.08.2019 14:22:11

Plotting step

Hour

Exclude members of groups

—

Age

Any

Gender



Search by camera name

Expand all

Collapse all

All cameras

unique visitor counting

unqi visitor counting

Export

Build

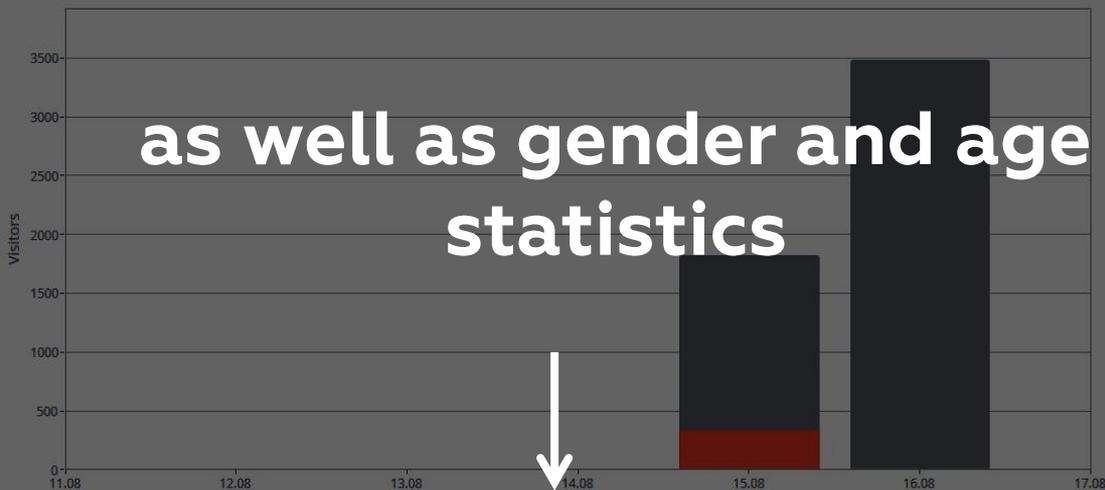
Cancel

14:25

16 August 2019

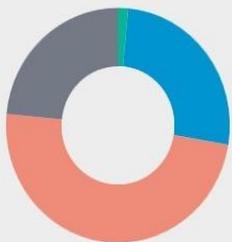
# REPORTS

Total quantity — 5307  
Including the unique visitors — 409  
Men and women, 18 and younger, 18-30, 30-45, 45 and older

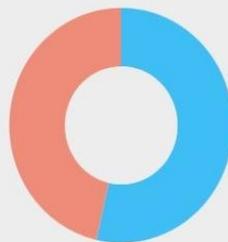


Age and sex of unique visitors only

Age



Gender



Select the report

Unique Visitor Counting

Period from

12.08.2019 14:22:12

to

16.08.2019 14:22:11

Plotting step

Day

Exclude members of groups

—

Age

Any

Gender

Search by camera name

Expand all

Collapse all

All cameras

unique visitor counting

unique visitor counting

Export

Build

Cancel

# Proven motives for purchasing counting applications

1

**Federal / large regional non-food retail chains.**

**Motives:** assessment of staff work efficiency (by calculating conversion); assessment of marketing effectiveness (by measuring attendance during the advertising campaign).

2

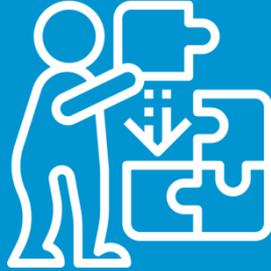
**Shopping centers with an area of 10 thousand square meters and up**

**Motives:** assessment of attendance to provide data to lessees, to determine the most visited places (and to adjust rental rates), to determine the seasonality and effectiveness of marketing.

3

**New shopping centers (those that are being built, reconstructed, commissioned).**

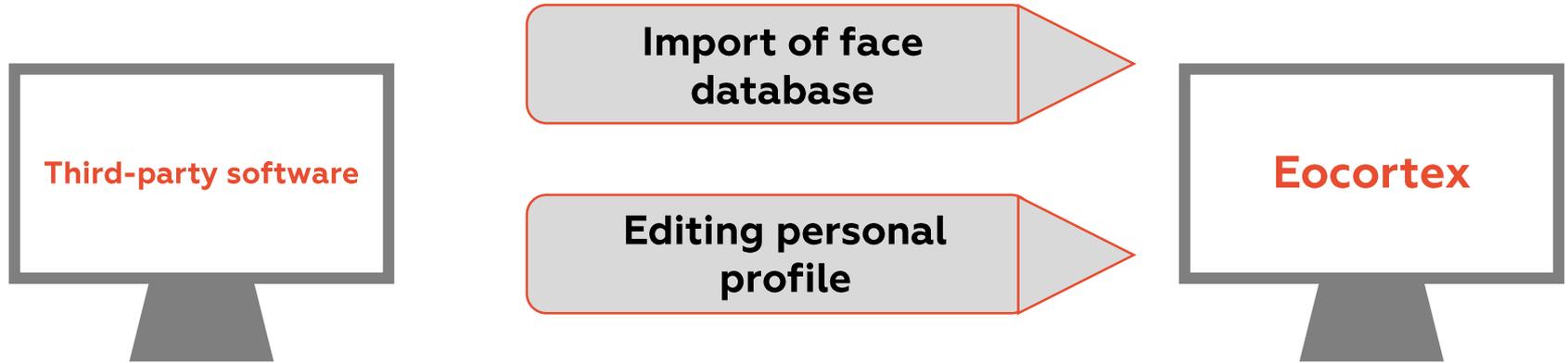
**Motives:** assessment of attendance to provide data to lessees, to determine the most visited places (and to adjust rental rates), to determine the seasonality and effectiveness of marketing.



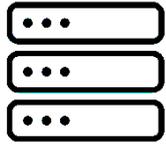
# Working with face database via REST-API

Advanced Integration Features

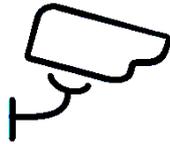
# Working with face database via REST-API



# Partner earns money!



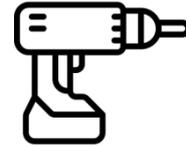
Sales of server equipment



Sales of cameras



**Sales of software**



System installation



System servicing



**License for a camera**

**%**

**Licencise for a module**

**%**



**As weel as**

- ✓ New projects
- ✓ Increase of average receipt

# Marketing and technical support for free

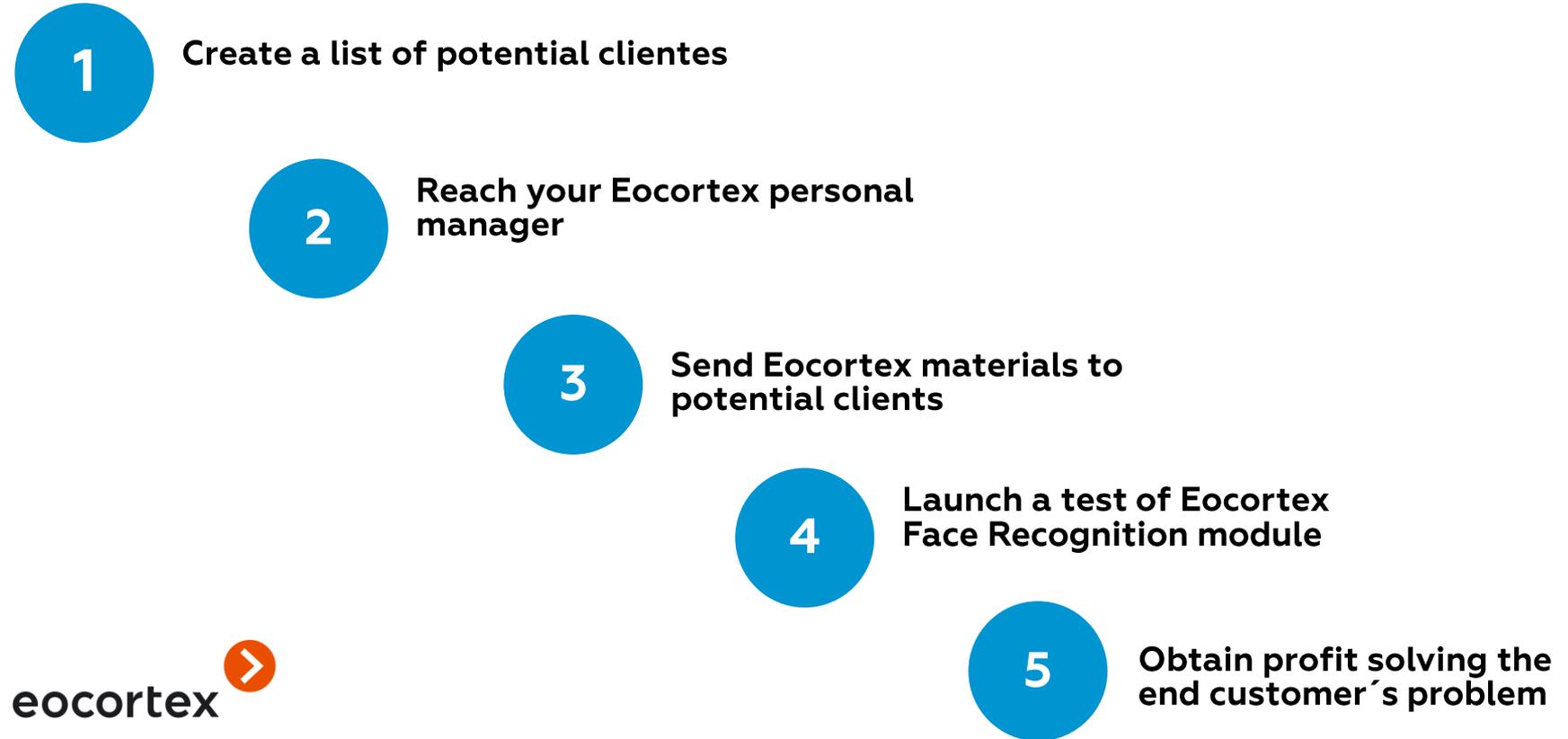


Your personal manager will provide a special presentation that should convince any of your clients to place an order.



Technical support will help you to set up your system and solve all the problems that may arise.

# 5 steps to generate profit





**We help people around the world to  
work more efficiently thanks to deriving  
benefits from visual information**



**We will be glad to answer  
your questions and cooperate  
with you**