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## Port of Cadiz

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### CLIENT

The Port of Cadiz Bay is in a strategic position at the mouth of the Strait Of Gibraltar between the Atlantic and North Africa, a popular port of call for cruise liners on their seasonal voyages between the Mediterranean and the Caribbean and vice versa.

There are five different ports in the Bay of Cádiz, all of which are supervised by the Bay of Cádiz Port Authority. The port is in a magnificent location in continuous use by traffic between Tangiers and the Canary Islands. It has grown slowly but steadily into one of the Spain's most important ports.

Record volumes of cargo are handled by the Port of Cadiz Bay year after year.

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## Secure all port operational activities

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### CUSTOMER NEEDS

The Port of Cadiz Bay required a high security system that would enable the Port Control Centre to carry out all its port operations, such as berthing and unberthing of vessels, loading and unloading, access control, authorising services, dealing with emergencies, managing dangerous cargoes and maritime signalling, among others.

The port communications centre is the body that the Ministry of the Interior contacts to report variations in port facility protection levels in compliance with the International Ship and Port Facility Security (ISPS) Code.

The port needed a system that would enable it to verify alarms activated by unauthorised activity quickly and efficiently, and the DAVANTIS video analytics system was the ideal surveillance system.

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## Installation of Daview LR equipment, designed to secure large perimeters

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### SOLUTION

The Port of Cadiz Bay chose DAVANTIS to provide the video analytics surveillance systems to protect its infrastructures.

Our systems ensure perimeter security in the Port of Cadiz Bay, providing security services with the tools they need to:

- Detect intrusions into the security perimeter
- Immediate intruder alert management
- Rapid response

Our business partner Enyca was in charge of the installation of our systems on site. They are a company with wide experience in designing technological projects.

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25 thermal and  
10 conventional  
cameras  
equipped with  
DAVANTIS  
video analytics  
systems

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## TECHNOLOGY

With such an extensive perimeter to protect, we suggested using Daview LR (long range) combined with thermal cameras that would keep costs down while ensuring reliable detection.

Daview LR is specifically designed to work with thermal cameras. It is also equipped with advanced long-distance functions.

Daview LR has image stabilisation for total reliability, avoiding false alarms due to camera shake triggered by the wind.

The project consists of 25 thermal and 10 conventional cameras equipped with DAVANTIS video analytics systems, also integrated in the Bosch VMS. Each dome camera was pre-set to react in seconds for fast alarm checks.

Enyca was the company in charge of the installation of the whole project.

THREE SUBSYSTEMS WERE CONFIGURED BASED ON  
LATEST GENERATION TECHNOLOGIES.

A set of fixed thermal cameras was installed for detection in sensitive areas of the site

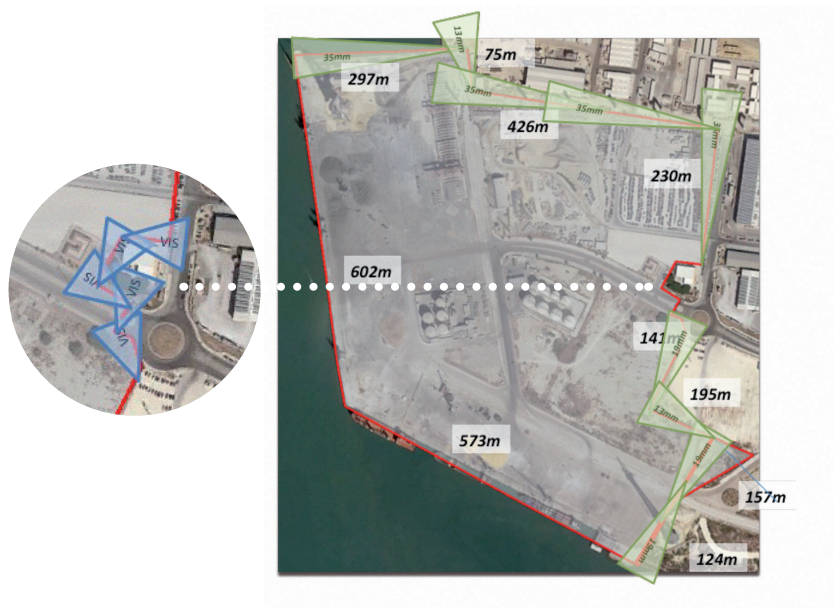
A smart video analytics solution designed to monitor thermal and conventional cameras

A viewing and management platform for the security control centre

This makes it possible to detect intruders by analysing video images captured by the set of cameras installed on the perimeter and to view the alarms generated in the control centre management platform.

# Cabezuela

## THE AREAS PROTECTED ARE:



The perimeter of the port of Cabezuela protect the perimeter with:

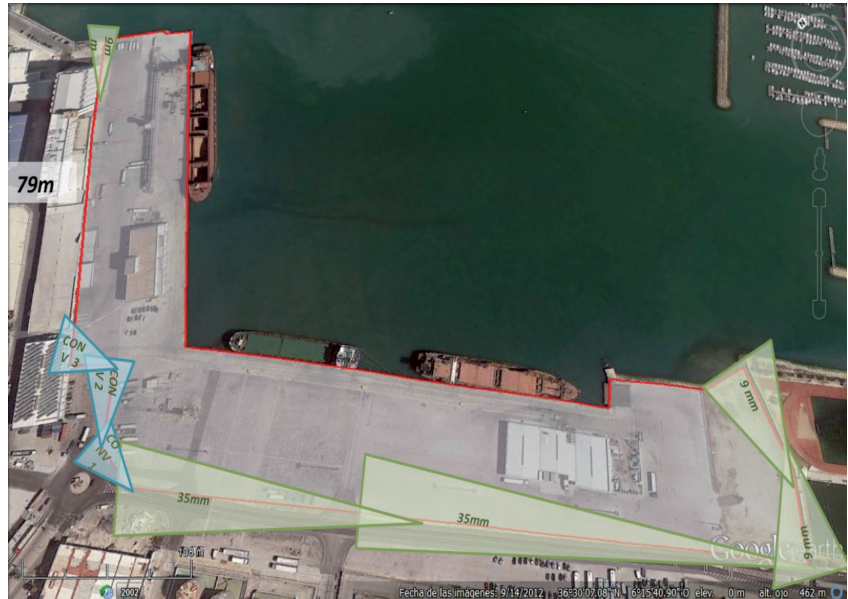
TYPE OF CAMERA	QUANTITY	ESTIMATED HEIGHT OVER POST	BLIND DISTANCE	DETECTION DISTANCE
35 mm thermal	4	4 m	30 m	300 m
19 mm thermal	3	4 m	9 m	175 m
13 mm thermal	2	4 m	6 m	120 m
Conventional	5	4 m	3 m	60 m

## Point entrance coverage (bridge)



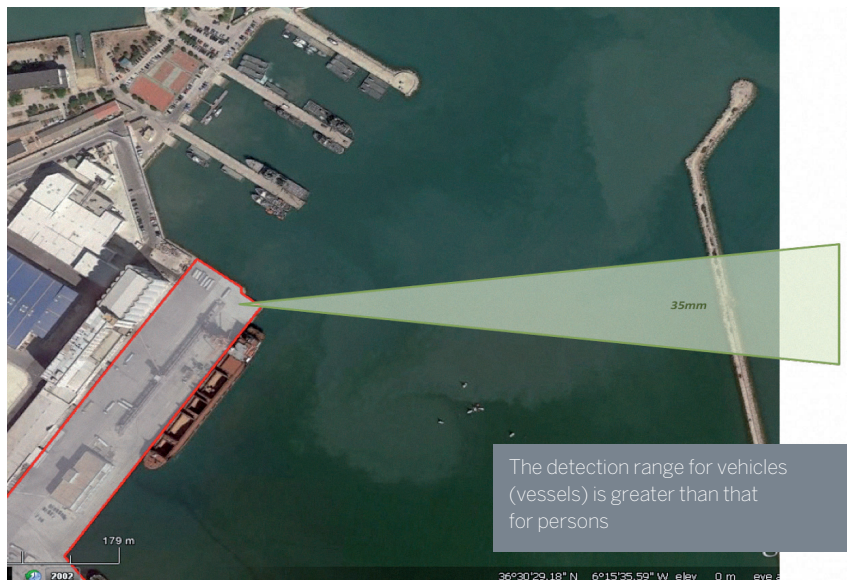
TYPE OF CAMERA	QUANTITY	ESTIMATED HEIGHT OVER POST	BLIND DISTANCE	DETECTION DISTANCE
35 mm thermal	3	4 m	30 m	300 m

## Free trade zone



TYPE OF CAMERA	QUANTITY	ESTIMATED HEIGHT OVER POST	BLIND DISTANCE	DETECTION DISTANCE
35 mm thermal	2	4 m	30 m	300 m
9 mm thermal	3	4 m	4 m	75 m
Conventional	3	4 m	3 m	60 m

## Port entrance free trade zone



TYPE OF CAMERA	QUANTITY	ESTIMATED HEIGHT OVER POST	BLIND DISTANCE	DETECTION DISTANCE
35 mm thermal	1	4 m	30 m	300 m

# Port of Cadiz 1



TYPE OF CAMERA	QUANTITY	ESTIMATED HEIGHT OVER POST	BLIND DISTANCE	DETECTION DISTANCE
19 mm thermal	2	4 m	9 m	175 m
13 mm thermal	1	4 m	6 m	120 m
9 mm thermal	1	4 m	4 m	75 m
Conventional	2	4 m	3 m	60 m

# Port of Cadiz 2



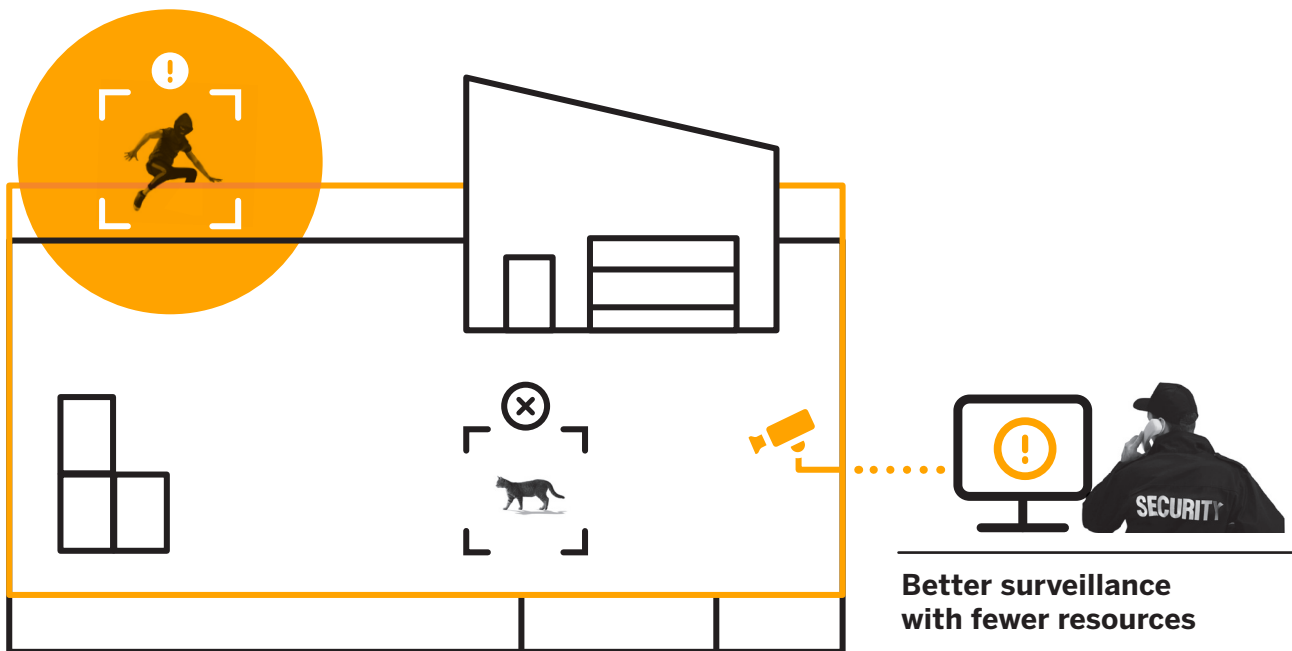
TYPE OF CAMERA	QUANTITY	ESTIMATED HEIGHT OVER POST	BLIND DISTANCE	DETECTION DISTANCE
35 mm thermal	2	4 m	30 m	300 m
19 mm thermal	1	4 m	9 m	175 m

## Entrance to port of Cad



TYPE OF CAMERA	QUANTITY	ESTIMATED HEIGHT OVER POST	BLIND DISTANCE	DETECTION DISTANCE
35 mm thermal	1	4 m	30 m	+ 300 m*
19 mm thermal	1	4 m	9 m	175 m

\* Since the object to detect is considerably larger than a person, the detection distance is significantly greater. A table showing thermal cameras for vessels is attached.



### Click 1

**Snapshot**  
with a box highlighting the cause of the alarm.



### Click 2

**Video**  
of the alarm at the activation point.



### Click 3

**Live access**  
to the camera for immediate verification.

Once the alarm has been verified, the system activates dissuasive devices

#### BENEFITS FOR INSTALLERS

DAVANTIS provided on-site assistance and support during start up, making all the technical adjustments and settings required in collaboration with the customers' technical staff to ensure correct functioning of the system.

In addition, once the system is up and running, DAVANTIS gave system administrators and users a training course. The course included system settings, networks, channels and maintenance. System users learned how to manage events and alarms correctly.

This represents a great competitive advantage, since the combination of technology and security personnel makes this a superior, more efficient solution than its competitors, which often rely on additional investments in resources and more guards per shift.

Better margins and profits. Technology sales margins are often greater than those for security staff. This is an opportunity for installers to improve profit margins.

#### BENEFITS FOR END USERS

To facilitate operator activity, DAVANTIS sends video analytics-based alarms to Bosch VMS. Control centre operators manage these using the usual Bosch interface. When an alarm is received, the operator checks it by video by means of a photograph with a frame around the intruder, a video clip framing the intruder or the live camera.

To enable verification, DAVANTIS combines fixed (visible or thermal) and PTZ cameras.

In case of an alarm, the system positions a dome camera with defined pre-settings and generates a video with the images captured. Operators can then view both videos associated with the alarm, one from the video analytics camera that detected the intrusion and one from the additional PTZ camera.