



COMPANY NAME

Mercato Centrale Firenze

XOVIS PARTNER

Visionarea

LOCATION

Florence

INDUSTRY

Retail

APPLICATION

IT Management

CASE STUDY

High-end shopping experience in revived ancient market

VISIONAREA AND XOVIS JOIN FORCES TO DELIVER REAL-TIME DATA

CHALLENGE

Reviving a deserted area of Florence, this project aims to bring back the ancient market in the San Lorenzo neighborhood. The project management faces challenging requirements and hence is keen to monitor the success of the project. Xovis Certified Partner Visionarea is entrusted with delivering data in a challenging environment:

- Accurate real-time information on footfall counting in a dense and highly frequented area
- As the Mercato Centrale Firenze is in a historical building, the data gathering has to meet architectural restrictions

SOLUTION

The Xovis 3D technology is the most accurate real-time solution on the market. Remotely accessible and modest in design, Xovis 3D Sensors accommodate any architectural constraints. Visionarea chose the Xovis PC2 model to meet the demanding requests and to provide a broad range of highly precise real-time KPIs:

- Real-time data in unstructured areas
- Traffic counting inside as well as outside the market area
- Modest design to successfully merge with historical environment
- The data is remotely accessible with Visionarea's cloud solution

BENEFITS

By accurately monitoring real-time traffic in a dense, high-end market, Visionarea and Xovis streamline internal processes as well as the shopping experience:

- Improved data from traffic counting at every entrance at the market
- Optimized access to the data through Visionarea's cloud solution
- Optimized project planning based on precise real-time data
- Flexible solution due to remotely accessible data
- Improved customer service at an unique venue; high-end food court experience at the revived historical site

CASE STUDY

How does it work?

Responding to the fast-growing demand for solutions that bridge the gap from conventional people counting to comprehensive in-store analytics, a growing number of retail experts measure KPIs such as footfall, dwell times and conversion rates with the Xovis 3D Sensors and software. Unlike the conventional people counting solutions, Xovis can connect numerous 3D sensors to deliver insights beyond the doorstep.

A BROAD PORTFOLIO

There is a broad portfolio of Xovis 3D Sensors with the widest viewing angle available on the market to count and track people anonymously. One sensor can be mounted on ceilings from 2.2 to 30 m (7.5 ft. to 65 ft.) and covers up to 100 m² (1100 sq.ft.) of tracking area.

The more than 50'000 Xovis 3D Sensors in the field stand out with unmatched accuracy, reliability and ease of use. Xovis 3D Sensors can easily be integrated into an existing software environment. Over 150 system integrators trust in Xovis to measure a broad range of KPIs.

INTEGRATION MADE EASY

The user-friendly WebGUI guides through the simple first-time set-up or any reconfiguration at a later time. The sensor software (firmware) also enables the designation of 99 counting lines and dwell zones per sensor as well as the set-up of a Multi-sensor with up to 9 sensors to track people continuously through large areas. No additional hardware or software is required.

Count statistics, heat maps, and other basic tools come along with the sensor software. For further visualization and analysis, Xovis 3D Sensors can easily be integrated into an existing software environment and

third-party applications via XML-based interface and API. There are also additional, easy-to-integrate Xovis hardware devices with new software modules for applications such as queue and POS management in large, hectic areas with an unlimited number of sensors.

UNMATCHED ACCURACY

A high-resolution 3D image or stereo image of the covered/ recorded area is calculated on the sensor up to 30 times per second. Based on this, every person entering the covered area is counted and tracked anonymously. Persons are recognized individually even if they are next to each other. Counting Accuracy over 99% is guaranteed, i.e., 99% of the persons in the covered area are counted and tracked.

A FUTUREPROOF INVESTMENT

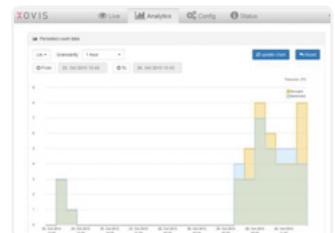
Power over Ethernet (PoE) to combine data connection with power in one cable and a Mean Time Between Failure (MTBF) of 25 years simplify installation and keep the total cost of operation low. Image processing occurs directly on the sensor. No video stream leaves the sensors and data privacy is guaranteed. The Xovis portfolio includes a model with wireless functionalities as an add-on, though the Xovis technology does not depend on signal-emitting devices and is highly robust against all kinds of external influences such as shadows, light changes, and heat emissions.



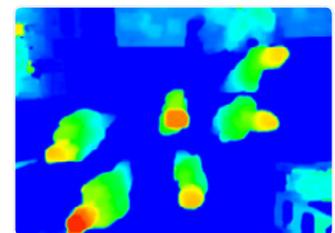
PC2R with WiFi-Module



PC3



Xovis 3D sensor and firmware can easily be integrated



3D image computed by Xovis sensor indicating heights and distances by different colors

CASE STUDY

Technical Data

WORKING PRINCIPLE:	3D stereo vision / distance measurement
INSTALLATION ANGLE:	+/- 15° in x-axis +/- 5° in y-axis
OPERATION TEMPERATURE:	0°... 50 °C
WITH OUTDOOR HOUSING:	-20°... 50 °C
STORAGE TEMPERATURE:	-20°... 70 °C
AIR HUMIDITY:	20 ... 80%
CONNECTION:	RJ-45 Ethernet
POWER SUPPLY:	PoE Class 0 / (IEEE 802.3af)
POWER CONSUMPTION:	< 5W
REQUIRED ILLUMINATION:	min. 2 lux
SIZE (LxWxH):	PC2/ PC2R/ PC2S: 13.0 x 9.4 x 3.0 cm PC3: 33.0 x 6.1 x 4.0 cm PC3-0: 38.5 x 9.0 x 8.6 cm
WEIGHT:	PC2: 350 g/ PC2R & PC2S: 250 g PC3: 600 g/ PC3-0: 1700 g
MOUNTING HEIGHT:	PC2/ PC2R/ PC2S: up to 6 m PC3/ PC3-0: up to 20 m

ABOUT XOVIS

With more than 60'000 Xovis 3D Sensors in the field, Swiss-based Xovis is the market leader in people flow monitoring in the airport and retail industry. More than 65 international airports and 150 system integrators in the retail industry count on the combination of Xovis 3D Sensors and software solutions to move people more smoothly through their facilities, optimize their resource planning and increase customer satisfaction as well as revenues. Founded in 2008, Xovis has evolved from a three-man start-up to a high-tech company with over 80 employees. Xovis is headquartered at the gates of the Swiss capital Bern. The US office is Boston, MA.