

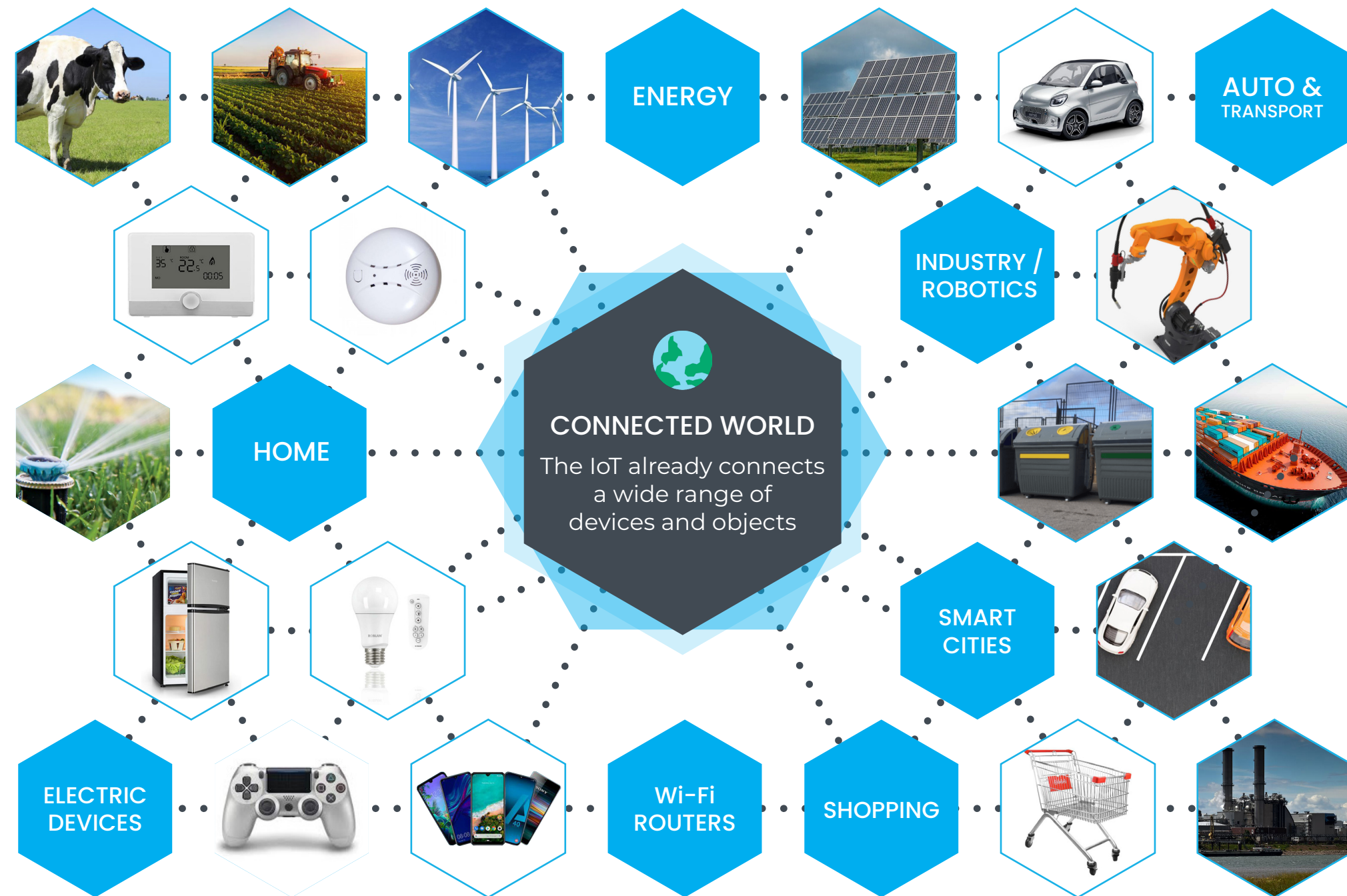
INTERNET OF THINGS



The IoT is a technological system that allows different devices to connect to each other through a network (Internet, LoRaWan, SigFox...), so that we can control them remotely.

At FOSSA Systems we connect industrial IoT devices through our constellation of satellites, offering IoT connectivity at all times, even in areas where there is no mobile coverage.

WHAT IS IoT & HOW IT WORKS



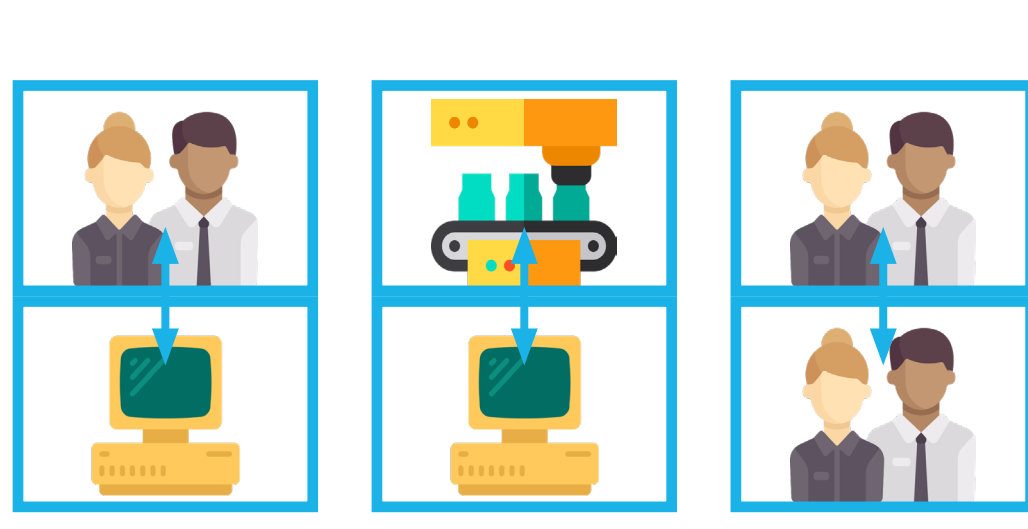
Type of Sensors



Sensors collect and transmit a wide variety of data, such as:

- LOCALIZATION
- TEMPERATURE
- HUMIDITY
- Movement
- PH LEVELS
- PRESSURE
- SALINITY

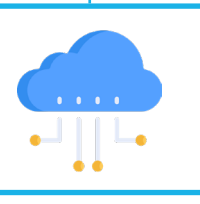
Type of Connection



INALAMBRIC CONNECTIONS
RFID, NFC, WiFi, LoRa, SigFox, Bluetooth, Zigbee...



BIG DATA & CLOUD COMPUTING
They have an important role in data analysis and storage.



PROBLEM

Industrial IoT devices need an Internet connection to be able to send data to each other. However, only around 20% of our planet has GSM, 2G, 3G coverage... and covering the other 80% is currently very expensive.

SOLUTION

By deploying small satellites we can achieve global coverage, even in remote areas. The small size of picosatellites makes their manufacture and launch enormously cheaper, and, consequently, reduces the cost of communication.

IoT CONNECTIVITY THROUGH SATELLITES



The sensors, distributed throughout the study assets, collect and encrypt the data with a private key that only the client knows.

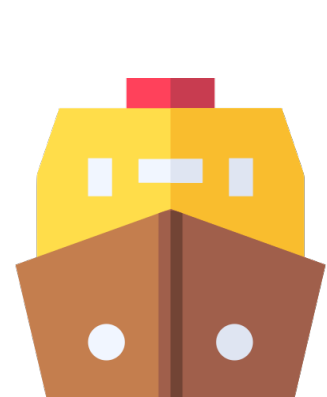
This encrypted data is sent to the picosatellite, which receives it and automatically sends it to the ground station.

The ground station receives the data, secure and encrypted, and sends it to the client's network server.

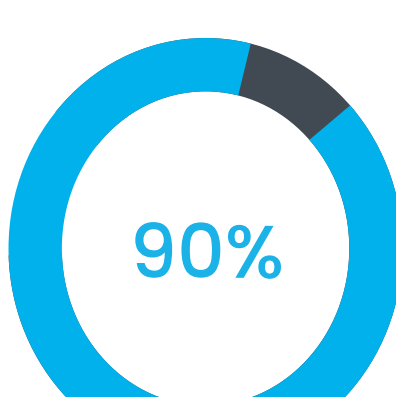
The client, with its private key, can decrypt the content and display the data for further analysis.

USE CASE – LOGISTICS

OVERVIEW OF THE LOGISTICS MARKET WORLDWIDE



+ 50k ships
from +150 countries



90%
of the international market

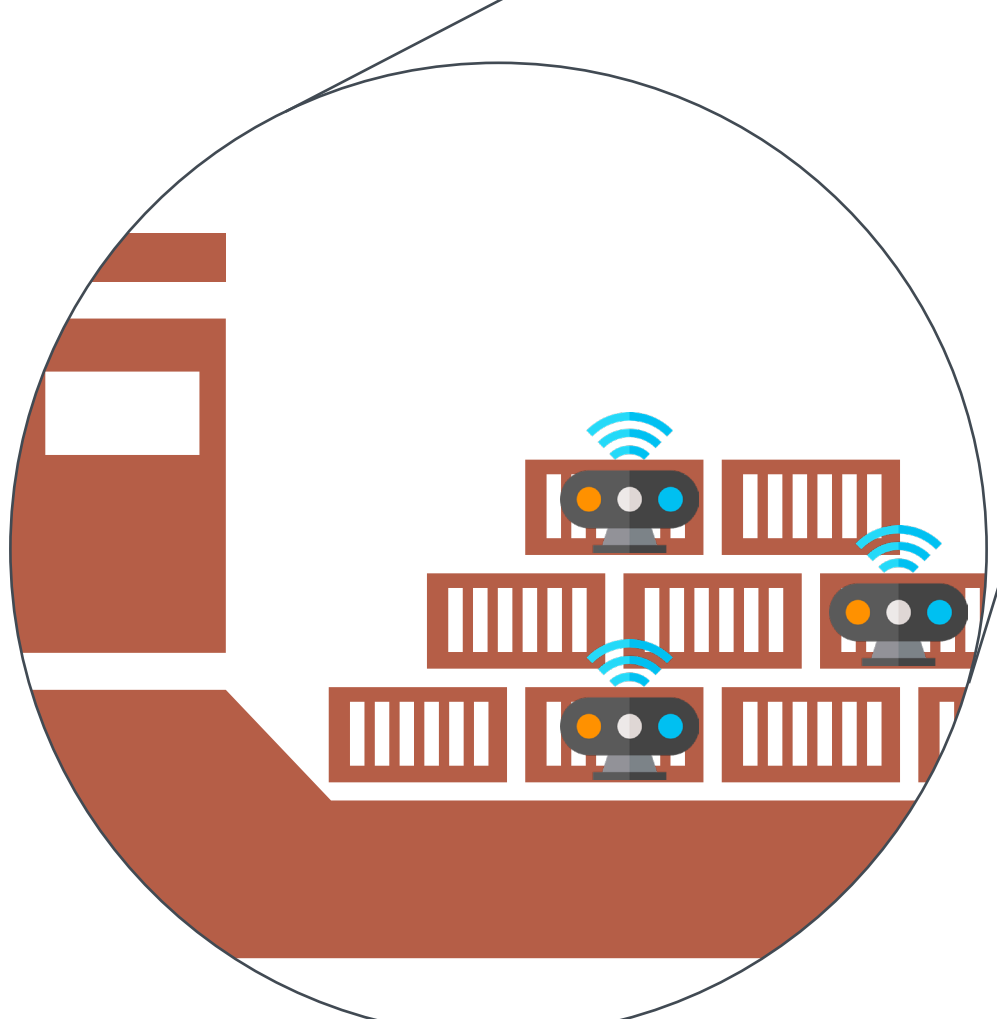
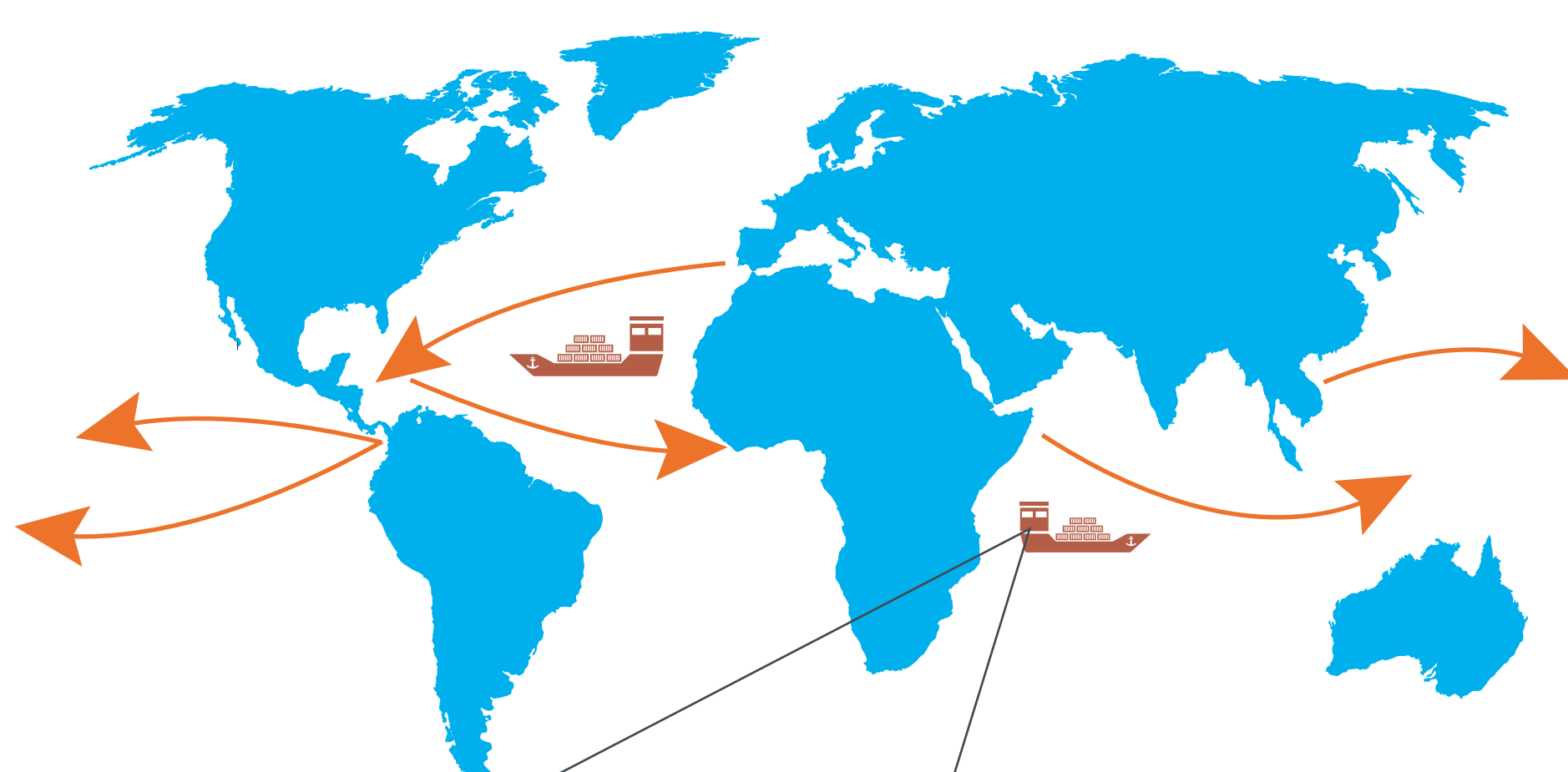


10.7B
of tons



3,2% growth
for 2023

Maritime trade routes cross points on the planet that are completely isolated in terms of connectivity, where companies are completely unaware of the status of their merchandise.



By distributing IoT sensors in shipping containers, we can obtain relevant data on the status of the assets at every moment, thanks to IoT connectivity through satellites.

- REAL TIME LOCATION
- TEMPERATURE CONTROL
- COLD CHAIN CONTROL
- SECURITY AT OPENING DOORS
- HANDLING OF ASSETS