



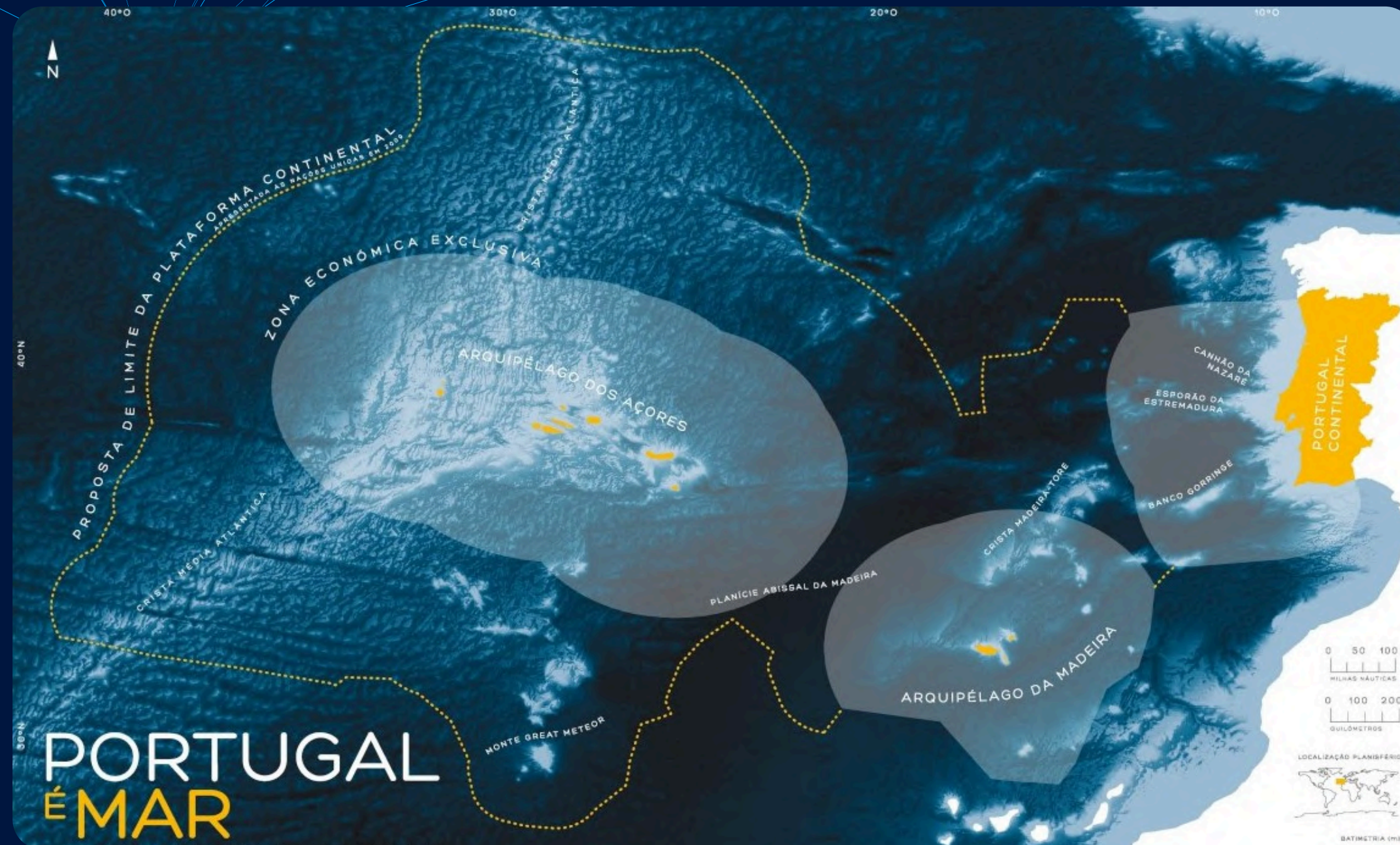
# DEEPBLUE22

## COMPUTER VISION ON WATER



# PROBLEM

## Security and Surveillance Challenges in Portugal's Exclusive Economic Zone & Europe



# PROBLEM

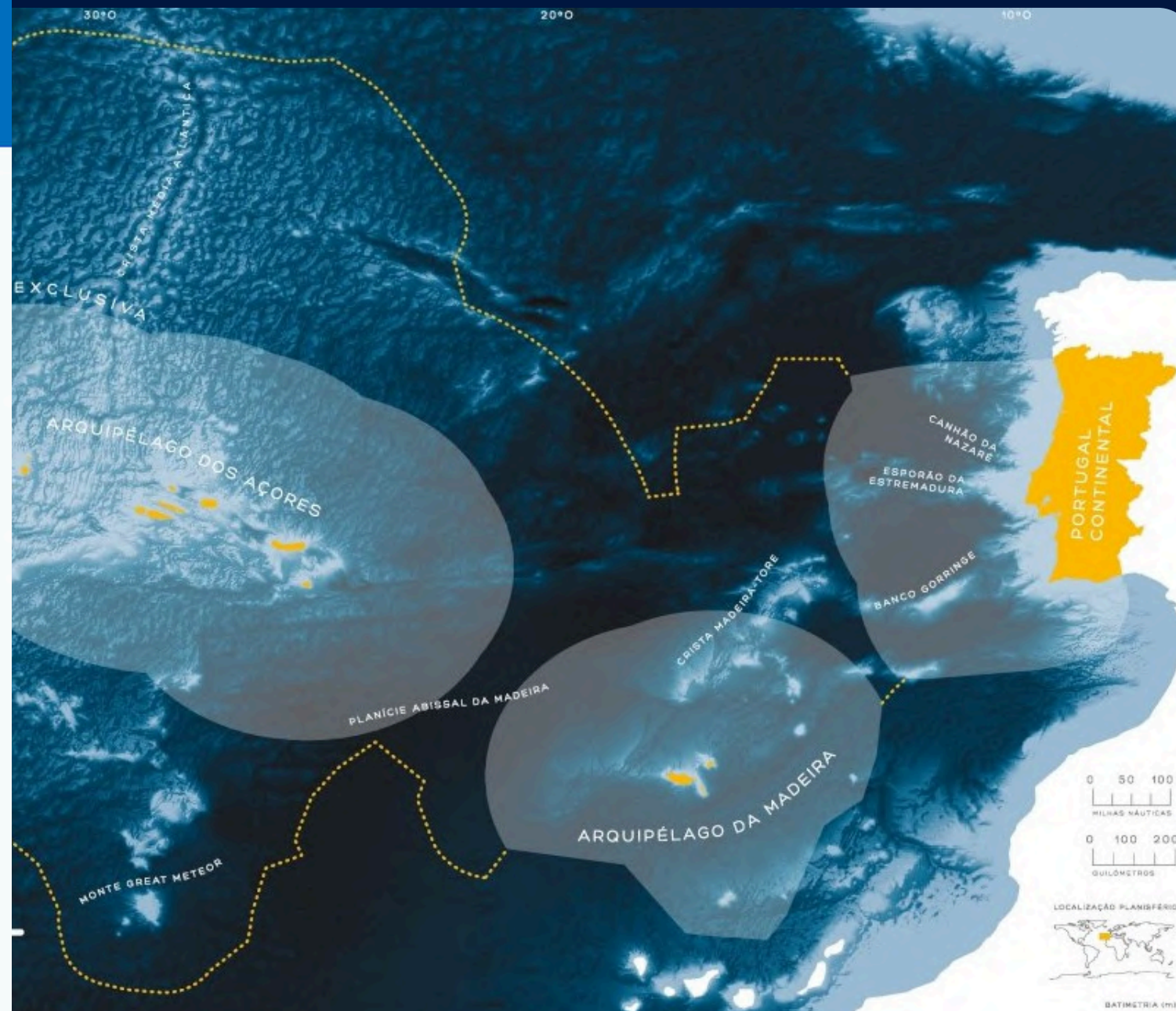
## Security and Surveillance Challenges in Portugal's Exclusive Economic Zone & Europe



**Dia Europeu do Mar | Portugal é o 5.º país europeu com maior Zona Económica Exclusiva (ZEE), apesar de ser apenas o 16.º maior país em área terrestre**

**Dimensão da ZEE dos países europeus – top 15 (milhares de km<sup>2</sup>)\***

País	Dimensão da ZEE (milhares de km <sup>2</sup> )	Peso da ZEE na área total (%)
França	11.691	96%
Reino Unido	6.806	97%
Dinamarca	2.551	98%
Noruega	2.385	87%
<b>Portugal</b>	<b>1.727</b>	<b>95%</b>
Espanha	1.039	68%
Islândia	751	88%
Itália	542	65%
Grécia	506	80%
Irlanda	410	86%
Suécia	161	28%
P. Baixos	154	82%
Ucrânia	147	20%
Chipre	99	91%
Finlândia	87	22%



\* Exclui Rússia e Turquia que têm uma parte significativa da sua costa fora do espaço europeu. Fonte: International Institute for Law of the Sea Studies e Banco Mundial. | Produzido a 20 de maio de 2022

**+ factos**



# PROBLEM

Portugal has the 5th largest Exclusive Economic Zone (EEZ) in Europe, covering 1.7 million km<sup>2</sup>, with a proposal to expand it to nearly 4 million km<sup>2</sup>

In 2023, Portugal invested approximately €4.48 billion in National Defense (1.58% of GDP).

The **Portuguese Navy** escorted **143 Russian** ships along the coast between **2022 and 2024**, sometimes requiring Air Force support.

In 2023, the **Port of Lisbon** recorded **2,045 cargo ship calls**.

In 2024, **2,553 recreational vessels** entered the marinas of **Madeira's** Autonomous Region.

In 2024, **Portuguese authorities** seized a **record-breaking 22.5 tons** of cocaine, **more than double** the 9.5 tons confiscated in **2019** and surpassing the 16.3 tons seized in 2022.

In 2025, Portuguese authorities **intercepted a semi-submersible** with 6.5 tonnes of cocaine **500 nautical miles south of the Azores**, in coordination with Spain, the U.S. DEA, and UK forces.



# MARKET

## **SERVICEABLE OBTAINABLE MARKET (SOM):**

Considering only Portugal and Spain (2024):  
~1.3 billion euros and 2030 ~1.5 billion euros

## **SERVICEABLE ADDRESSABLE MARKET (SAM):**

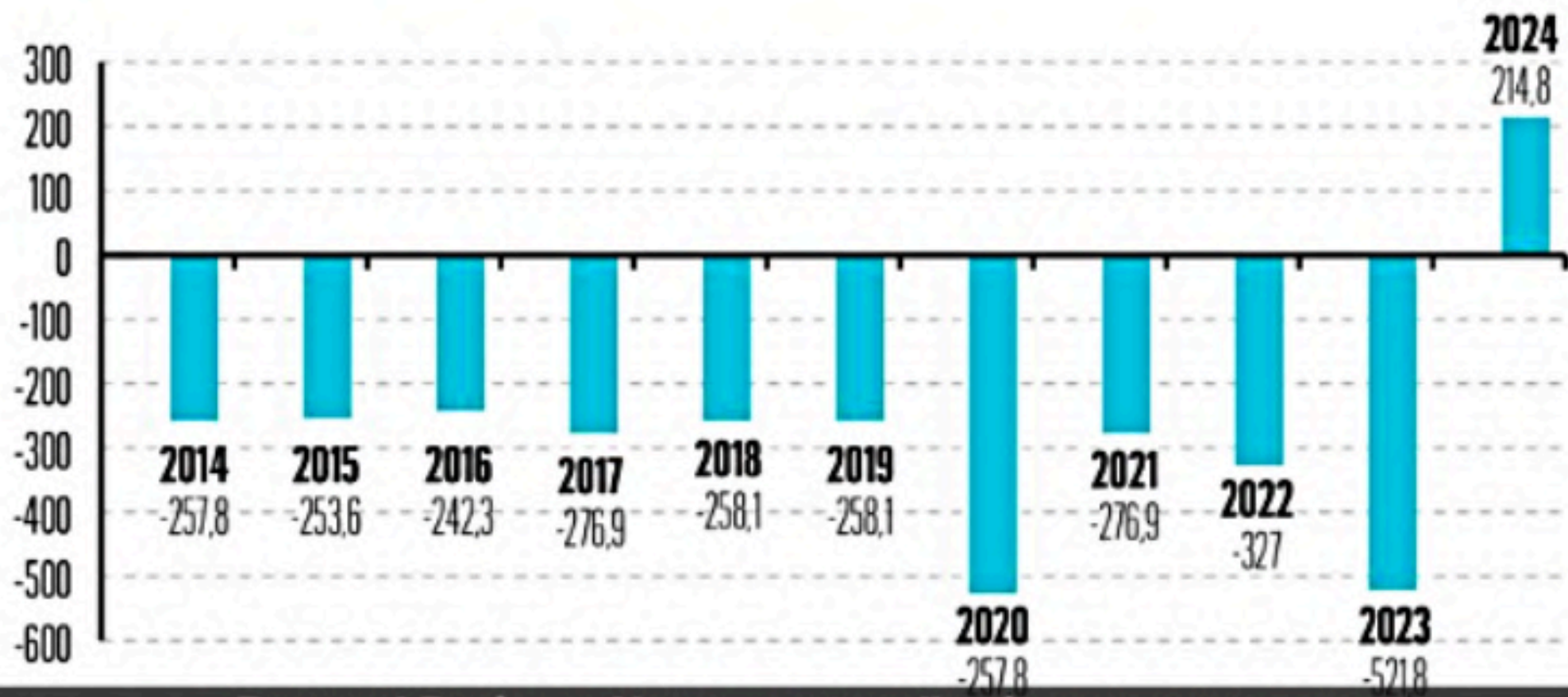
Considering only on Europe (2024):  
~€6.4 billion euros and 2030 ~€9 billion euros

## **TOTAL ADDRESSABLE MARKET (TAM):**

Global maritime surveillance market size (2023):  
~\$32 billion USD and 2030 ~\$50 billion USD



# Difference between Portugal's actual expenditure in Defence and what was planned in the State Budget



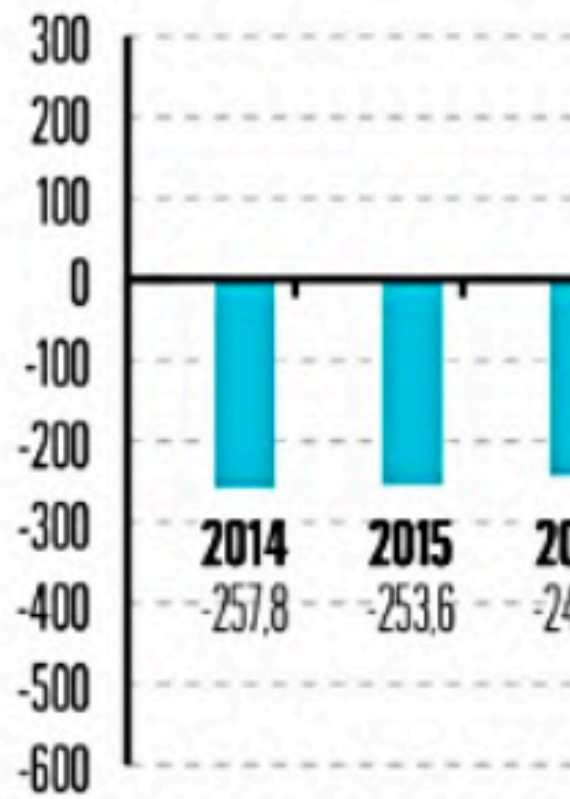
Portugal Business News - [portugalbusinessnews.com](http://portugalbusinessnews.com)

GLOBAL MARITIME SURVEILLANCE MARKET SIZE (2024):

~\$32 billion USD



# Difference between Portugal's actual expenditure in Defence and what was planned in the State Budget



Portugal Budget  
 Global Maritime Survey  
 ~\$32 billion USD

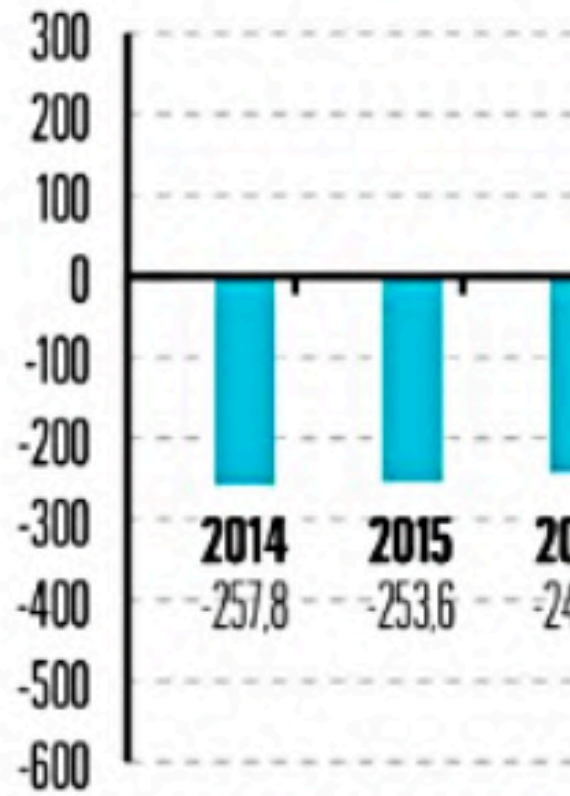
## SHARP RISE IN TOTAL EU MS DEFENCE SPENDING



Total Defence Expenditure vs the 2% of GDP NATO guideline

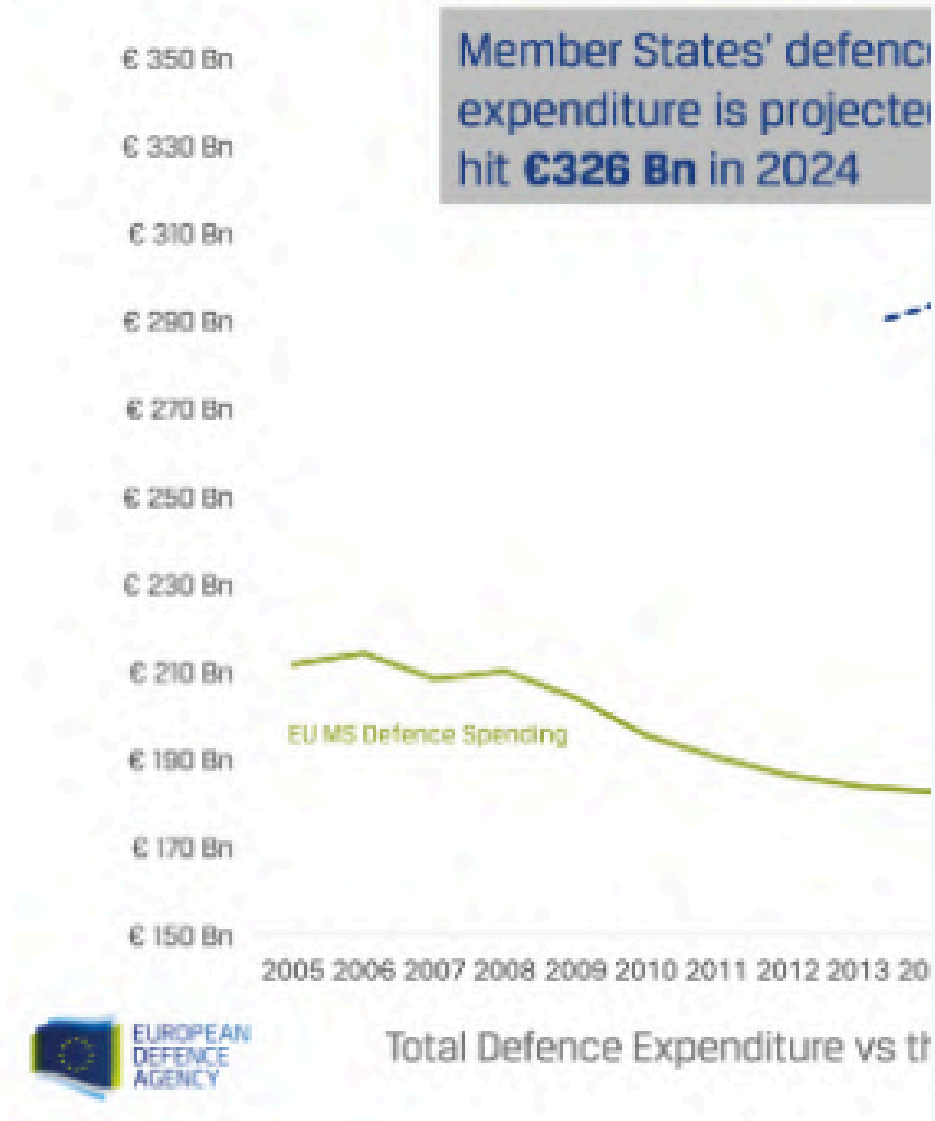


# Difference between Portugal's actual expenditure in Defence and what was planned in the State Budget



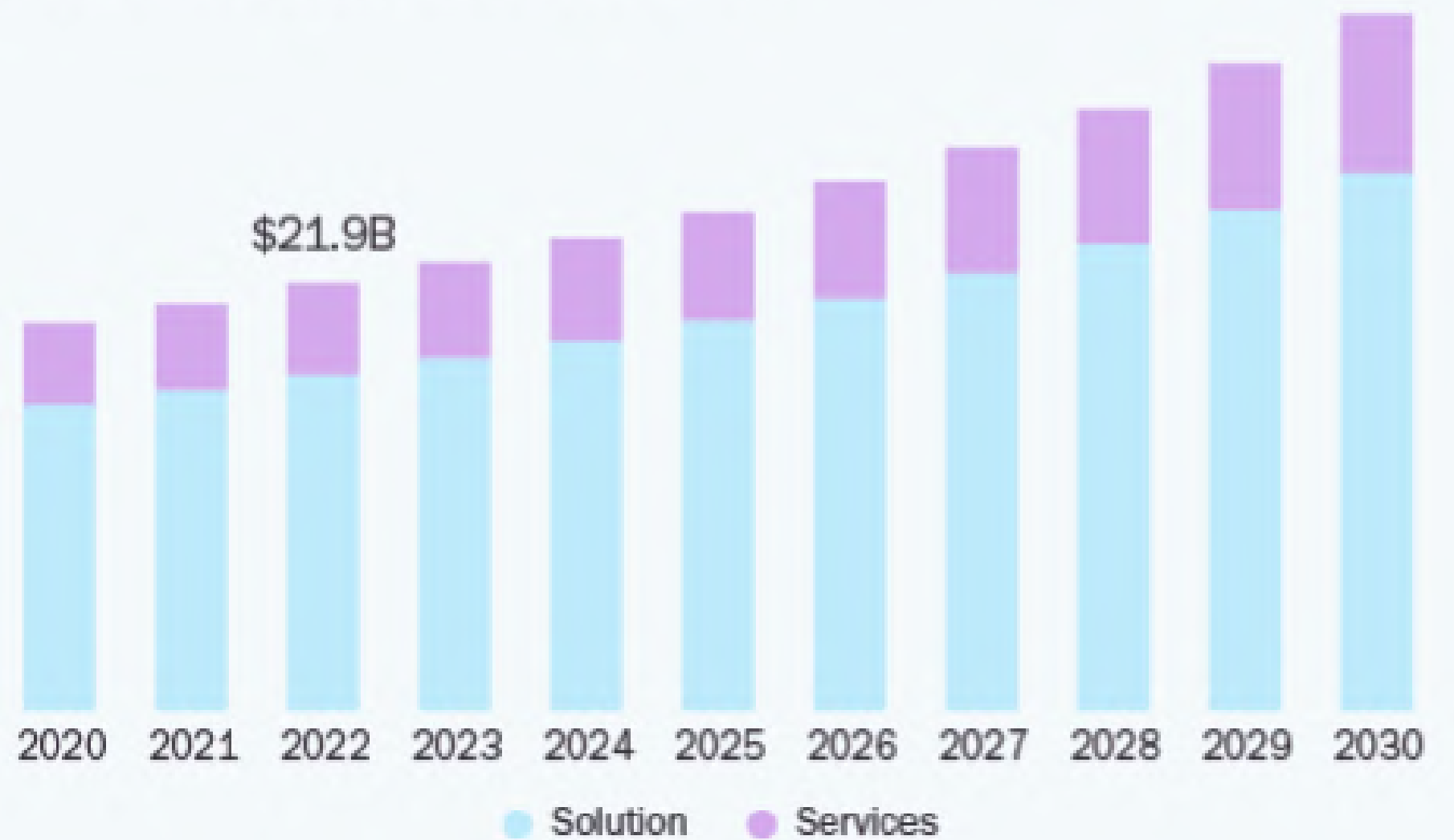
Portugal Budget  
 Global Maritime Surveillance  
 ~\$32 billion USD

## SHARP RISE IN TOTAL EU MS DEFENCE SPENDING



## Maritime Surveillance Market Size

by Component, 2020 - 2030 (USD Billion)





IDEA

o video pode ser posto  
aqui



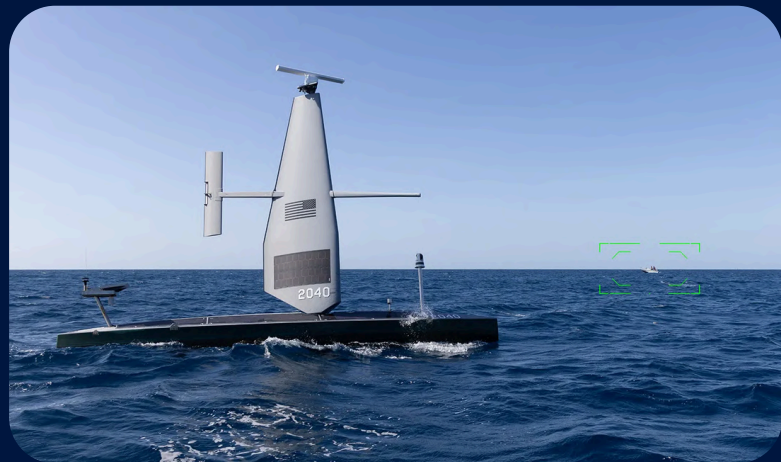
Local & Low Power



# PRODUCT

## MOBILE

Maritime Drones  
Aerial Drones  
Sea Buoy Network



## DESKTOP

Coast Line  
Beach & Cliff Cams

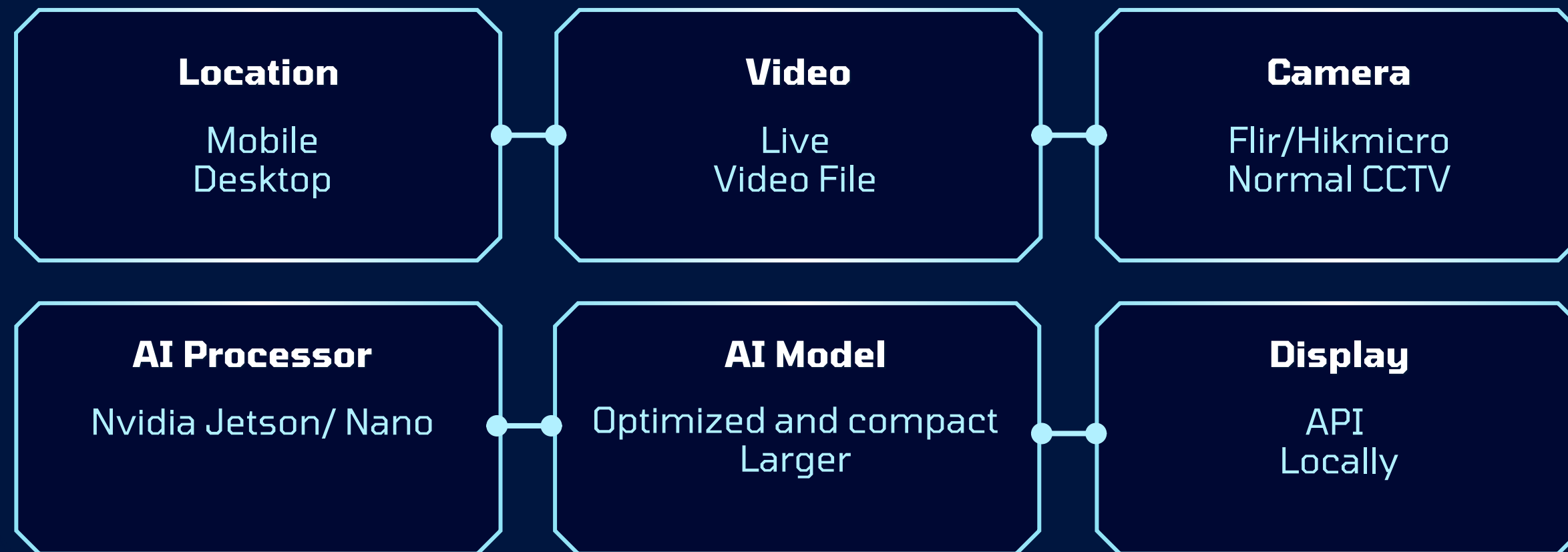
## OBJECTIVE:

Border Control  
Illegal Activities Control  
Object Detection  
Monitor/ Track Ships/ Vessels



# PRODUCT

Aspects to take into account



# PRODUCT

Aspects to take into account



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**Video**  
Live  
Video File

**Camera**  
Flir/Hikmicro  
Normal CCTV

processor  
Nano

**AI Model**  
Optimized and compact  
Larger

**Display**  
API  
Locally



# PRODUCT

Aspects to take into account



**Camera**  
Flir/Hikmicro  
Normal CCTV

**Display**  
API  
Locally

Larger



# PRODUCT

Aspects to take into account



**Camera**  
Flir/Hikmicro  
Normal CCTV



**Display**  
API  
Locally

Larger



# PRODUCT COSTS

Talked Price with person interviewed is around 30k-40k

PART	COST	PART	COST
EDGE DEVICE	600€	CAMERA COST	1K - 5K€
BASE SOFTWARE	~2K€	SOFTWARE UPGRADES	~10K€
PROFIT MARGIN ~X4	~8K€	CUSTOM SOFTWARE	~25K€
TOTAL	~10K€		












**TECNOLOGY  
DEMO**

AI Model Detection and display



# BUSINESS MODEL CANVAS

Desirability Risk  
Feasibility Risk  
Viability Risk

<p><b>Key Partners</b> </p> <p>Camera Manufacturers</p> <p>Edge Computing (e.g.:Nvidia)</p> <p>Data Labeling</p> <p>Portuguese Navy</p>	<p><b>Key Activities</b> </p> <p>AI model development</p> <p>System Development</p> <p>Product customization</p>	<p><b>Value Proposition</b> </p> <p>Tracking and Identification of Ships and boats</p> <p>Detection and warning of illegal activities</p> <p>Reduce Humane surveillance dependency</p>	<p><b>Customer Relationships</b> </p> <p>Personalized Solutions</p> <p>Dedicated Customer Support</p> <p>Conference/Faires</p>	<p><b>Customer Segments</b> </p> <p>Navy</p> <p>Defense Contractors</p> <p>Coastal Guards</p> <p>GNR</p>
<p><b>Cost Structure</b> </p> <p>Skilled Human Resources</p> <p>Infraestructure</p> <p>Edge computing Harware</p> <p>Data Labelling</p> <p>Marketing</p>		<p><b>Revenue Streams</b> </p> <p>System Sales</p> <p>System Upgrades</p> <p>Maintenance Fees</p> <p>Custom Implementation</p>		



# TECH INTERVIEWS

INTERVIEWEE

THEME

INSIGHTS

Professors at  TÉCNICO LISBOA

Feasibility of technology

Positive Feedback

Member of 

Knowledge about AI  
model training and  
datasets

Which Models to use and datasets  
Interview with CTO and CEO

2x Cofounder of



How to get customers

Talk talk talk

More Interviews



# MARKET INTERVIEWS

## INTERVIEWEE

## THEME

## INSIGHTS

Commander from  
the coastal control  
unit at



Interested on the functionalities  
provided by our product, view  
on current system to control  
the coast

Current problems, costs,  
procedures, feasibility of  
deployment, main events

People in innovation  
positions at



See if the navy is interested in  
monitoring intruding ships  
functionality

Need This Tech and wants to  
invest

Gimball Engineer at



Gimball & Computer Vision

They send the whole video to a  
base station at this moment but  
they want to process it locally at  
the Gimball in the future





# SCHEDULED INTERVIEWS

Navy day at the 17th and 18th of May  
Navy Innovation Day at the 29th of May

Letter sent to GNR, we will try to go in person next week

Contact with Thales/Edisoft, Beyond Vision, UAVision, idD Portugal Defence, Seapower



# KEY PARTNERS

Joint Venture - Two or more parties come together to pool their resources and expertise to achieve a specific goal

Key Supplier - Provides critical inputs, components, or services to a startup can be treated as a partner to foster efficiency and long term collaboration.



Marinha



# TEAM

**AFONSO RUIVO**



Computer Vision Engineer  
Designer

Thesis/ Interested in:  
Autonomous navigations  
systems integrated with  
computer vision

**HENRIQUE RIBEIRO**



Data Science Engineer  
Marketing

Thesis/ Interested in:  
Distributed consensus  
mechanisms for  
coordinating drone swarms

**LEONARDO COSTA**



Embedded Engineer  
Business Planning

Thesis/ Interested in:  
Advanced Computer  
architecture applied to AI

**RÚBEN OLIVEIRA**



Naval Architect  
Manager

Thesis/ Interested in:  
Mechanical Design  
Autonomous Ships



# QUESTIONS



**DEEPBLUE22**

**COMPUTER VISION ON WATER**





# GET IN TOUCH

Have questions, want to collaborate or invest?  
We'd love to hear from you. Contact us today to help  
our development journey.

## Contact Information

-  Deepblue22@gmail.com
-  Técnico Innovation Center



# OPERACIONAL FINANCIAL TIMELINE



REVENUE	
CUSTOMER ACQUISITION COST	6K €
PERCENTAGE OF PAYING USERS	50%
MONTHLY AVERAGE REVENUE PER PAYING USER	2K €
FIRST ASSET SALE PER PAYING USER	50K €
PERIODIC NEXT SALES PER PAYING USER	50K €
PERIODICITY OF NEXT ASSET SALES	6 MONTHS
ASSET SALE GROSS MARGIN	80%

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COMPUTER VISION ON WATER