

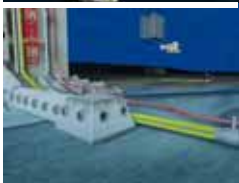
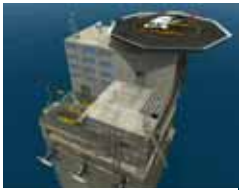
INITIAL VIEW

Undersea activity grows exponentially

High demand for knowledge and technology

Requires reliable environmental guarantees

Accessibility threshold is critical yet deterrent



PLOCAN Consortium

The Promoting Administrations are:



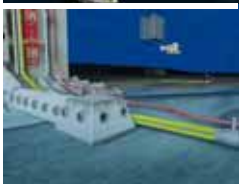
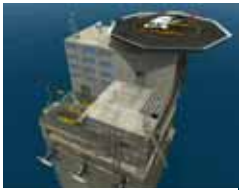
Plan de ICTS



Plan Canario de I+D (PICDI)

DYNAMIZING AGENT





The Final Collaboration Agreement between the Education and Science Ministry and the Canarian Government for the creation of the PLOCAN Consortium was Publicised in :

- **BOE sábado 5 de abril 2008** (Resolución de 14 de enero de 2008 de la Secretaría General de Política Científica y Tecnológica).
- **BOC viernes 23 de mayo 2008** (Resolución de 9 de mayo de 2008).



PLOCAN is a scientific-technological initiative



Situated at the limits of knowledge

Requires and provides

A significant amount of scientific research

Advantage of being developed through

Research groups

Mobilization of public and private R&D

Note: Plocan is included in the Spanish and European Infrastructure Map, which in turn is incorporated in the VII FP

MAPA DE INSTALACIONES CIENTÍFICAS Y TÉCNICAS SINGULARES



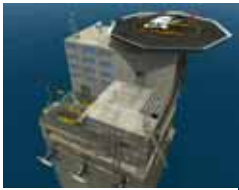


Initiative one → colonization of the oceanic environment



DISCIPLINES (I)

- Marine animal conservation.
- Management of marine resources.
- Marine organisms and their associated systems.
- Reproduction of marine endangered species.
- Diverse organism pathologies, inclusive of those induced by way of anthropogenic activities.
- Marine environmental pollution.
- Climate change and CO₂.
- Metal traces in marine environment.



Initiative two → colonization of the oceanic environment



DISCIPLINES (II)

Mineralogy and mineral resources.
Marine geology and sedimentology.
Vulcanology, Hydrogeology.
Geomorphology and geology applied to industry.
Physical Oceanography.
Chemistry and Biology.
Ecophysiology and Ictiology.
Modelisation and applied teledetection.
Fisheries management.
Submarine maritime law.



Also due to the need for uncomplicated and sustainable access to the ocean environment – and in a way that cultivates social responsibility.

Initiative 3 seeks innovative actions - with the aim

(i) to foster International private-public socio-economic competitiveness and (ii) mobilise excellence in marine and science technology.

It is proposed to construct and operate:

An Oceanic Platform

With which to:

- produce,
- observe,
- optimise resources
- generate services

At increasing depths



ORIGIN AND CONTEXT OF THE INITIATIVE

Population density, distribution, standard of living, intensity in land-use, energy and water consumption

generate

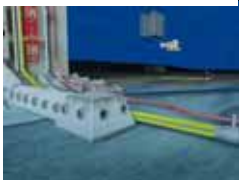
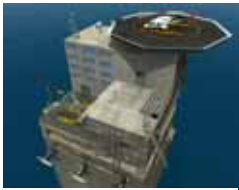
Specific problems

Recognised in the

CANARY ISLANDS

Common concerns produced an innovative concept - for the development of oceanic environment based solutions

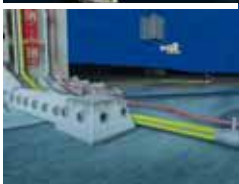
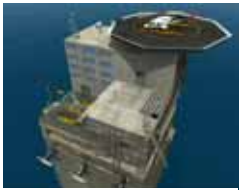
Opportunity of situation and capacity



¿WHY LOCATED IN THE CANARY ISLANDS?

The Canary Islands geography provides many unique characteristics which complement and increase the potential added value of Plocan

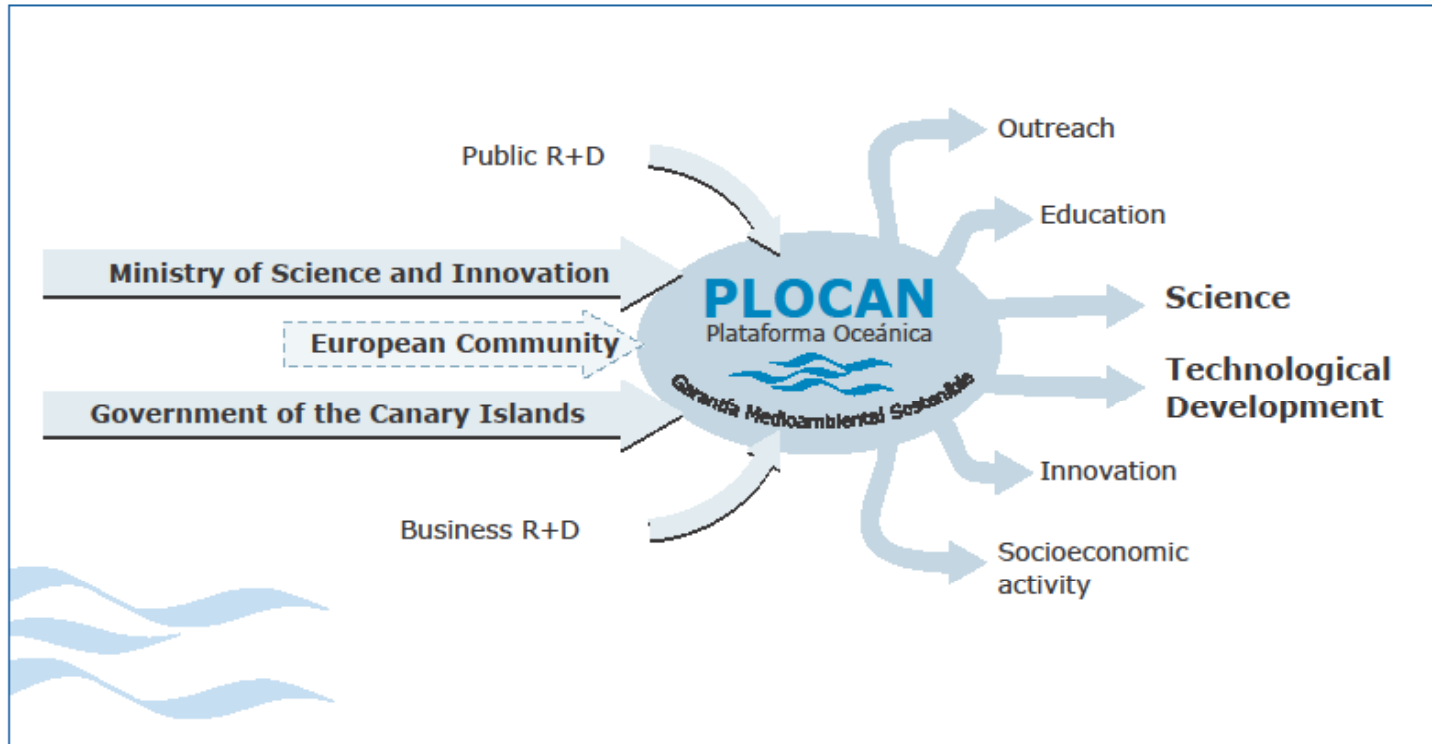
- Exceptional near/off shore access to deep-sea waters
- Favourable environmental conditions for procedures related to marine extraction
- Excellent climatic conditions for continuous operations
- Excellent air-sea transport connections
- Growth of offshore petroleum activity in Western Africa.



One of the key strengths of the Oceanic Platform of the Canary Islands is by way of the specifics included in the infrastructure design,

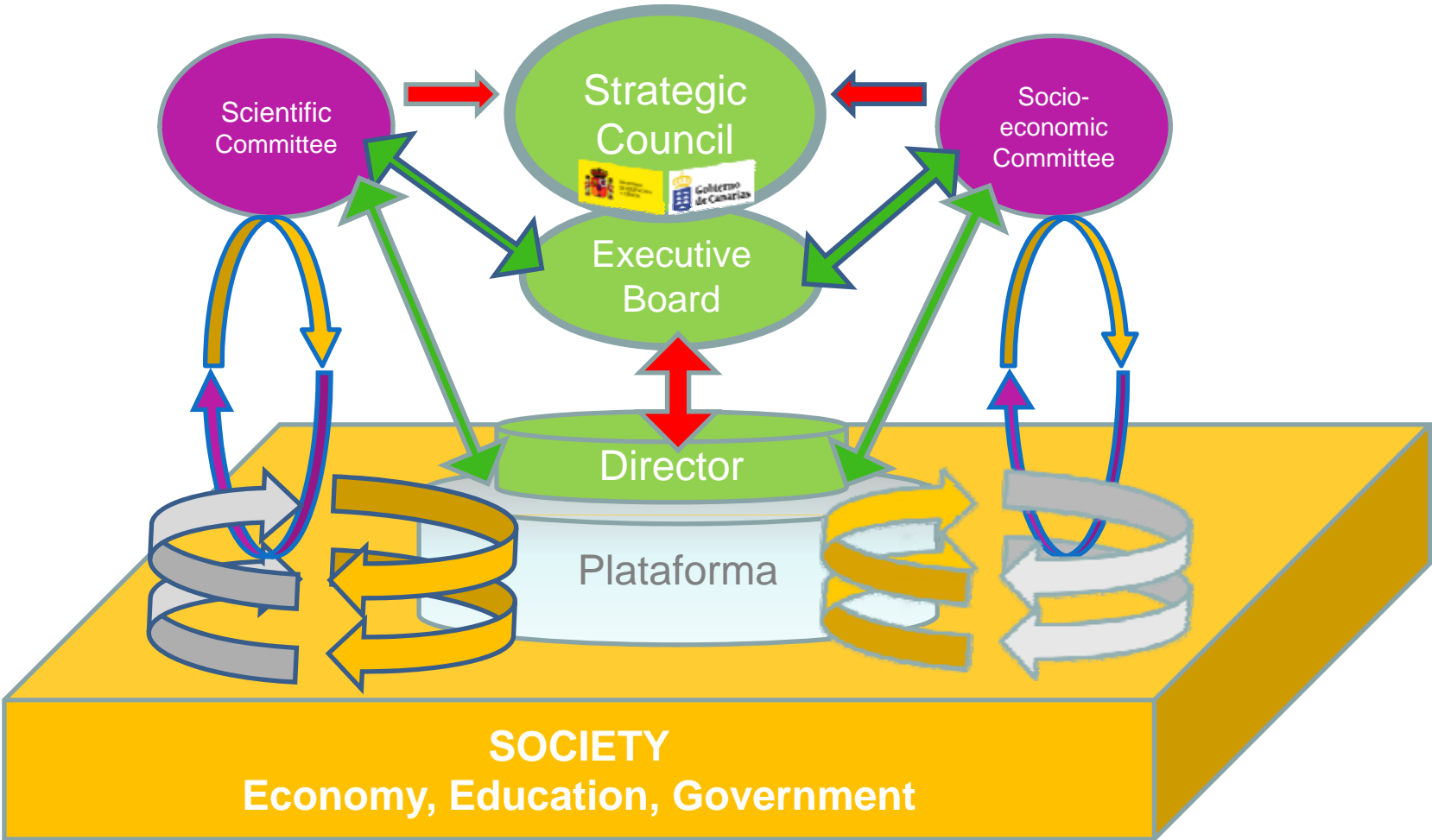
The infrastructure is intended to enable ocean access to great depths, close to its base.

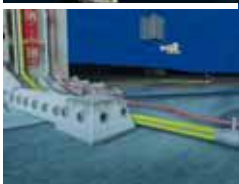
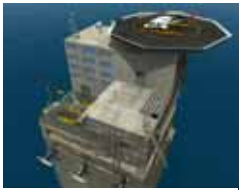
The design phase also included considerations such as the optimisation for operations and security, whilst minimising the overall venture costs





PLOCAN Consortium



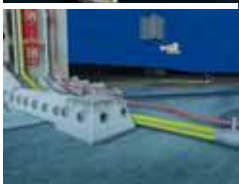
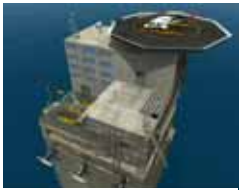


SCOPE OF PERFORMANCE

It is intended that the vicinity surrounding the Observatory will provide a specific set-a-side ZONE for associated EXPERIMENTAL ACTIVITIES and to PERFORM as a TESTBED

This ZONE could also be extended to encompass alternative and relative sections of the surrounding Ocean

Plocan will act as a REPOSITORY for the GENERATION and MANAGEMENT of KNOWLEDGE and for the implementation of INNOVATION driven SCIENCE and TECHNOLOGY



The initiative



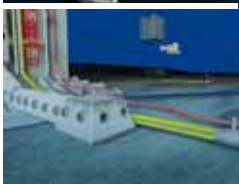
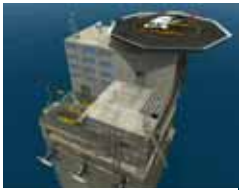
2nd Generation
“Off Shore”

(reaches **depths** > than 50 m)

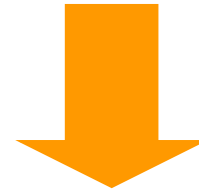
Current Petroleum Technologies achieve great depths but the methods are not transferable to other ocean related activities:

Two reasons include:

- The **Associated High costs**, and
- **Environmental guarantees** are secondary concern.

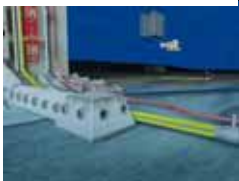
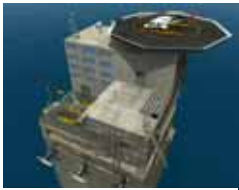


Therefore it is clear that alternative oceanic activities will only be successful if supported with transparent and recognised ...



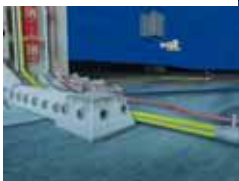
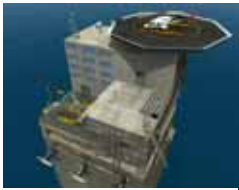
**ENVIRONMENTAL GUARANTEES
or Environmental Impact Assessments**

...and these will need to be provided by
Accredited Scientific Organisations



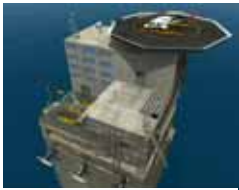
IMPORTANT points incorporated during Plocan's Design Phase

- **Energy Efficient and Autonomous**
- **Equipped with high quality living amenities**
- **Equipped with state-of-art investigating, and testing facilities**
- **Connected to land,**
- **Accessible from sea and air,**
- **Capacity to support sufficient human resources to enable operations (i.e. divers, engineers, researchers etc).**



PROPOSED INNOVATION DRIVERS

1. Technological innovation platform
2. Test bed
3. Base for underwater vehicles and instruments
4. Multi-disciplinary deep-sea water observatory
5. High level specialization centre

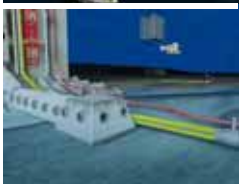
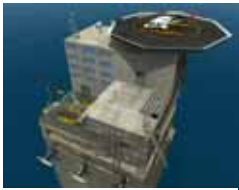


PLOCAN: TRAINING AND EDUCATIONAL RESOURCES

Provision of a general and internationalised specialization programme at all institutional levels. To include: masters degrees as well as other accreditation pathways (technical, etc.)

It is also envisaged that to complement - ongoing scientific and technological programmes, Plocan will provide a conduit for the development and implementation of a continuous training syllabus.

The observatory will unlock opportunities for the implementation of Scientific programs by way of a demand process



PROJECT TIMELINE

2007

Establishment of the Consortium

2008

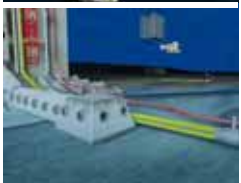
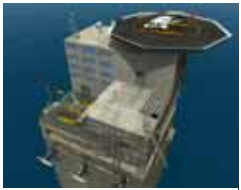
Implementation of a public tendering process for management and construction

2009

Adjudication and start of construction phases

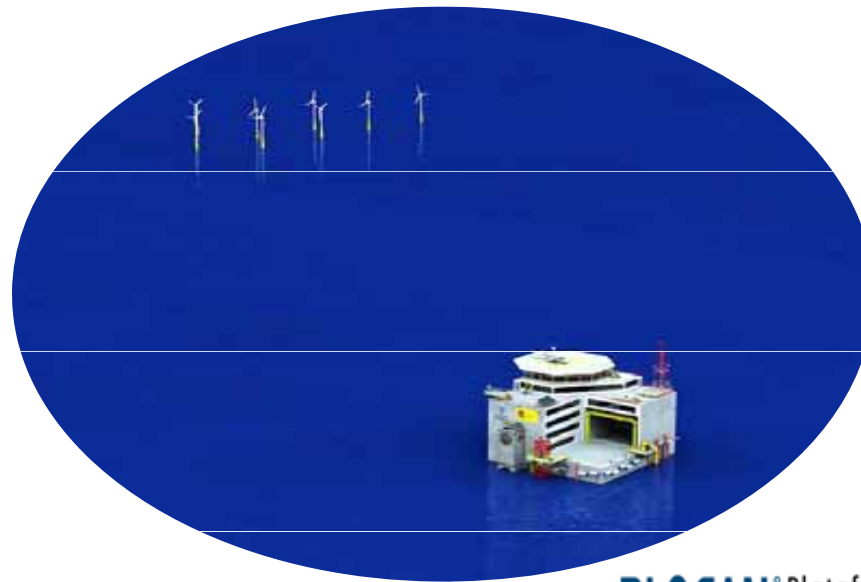
2011

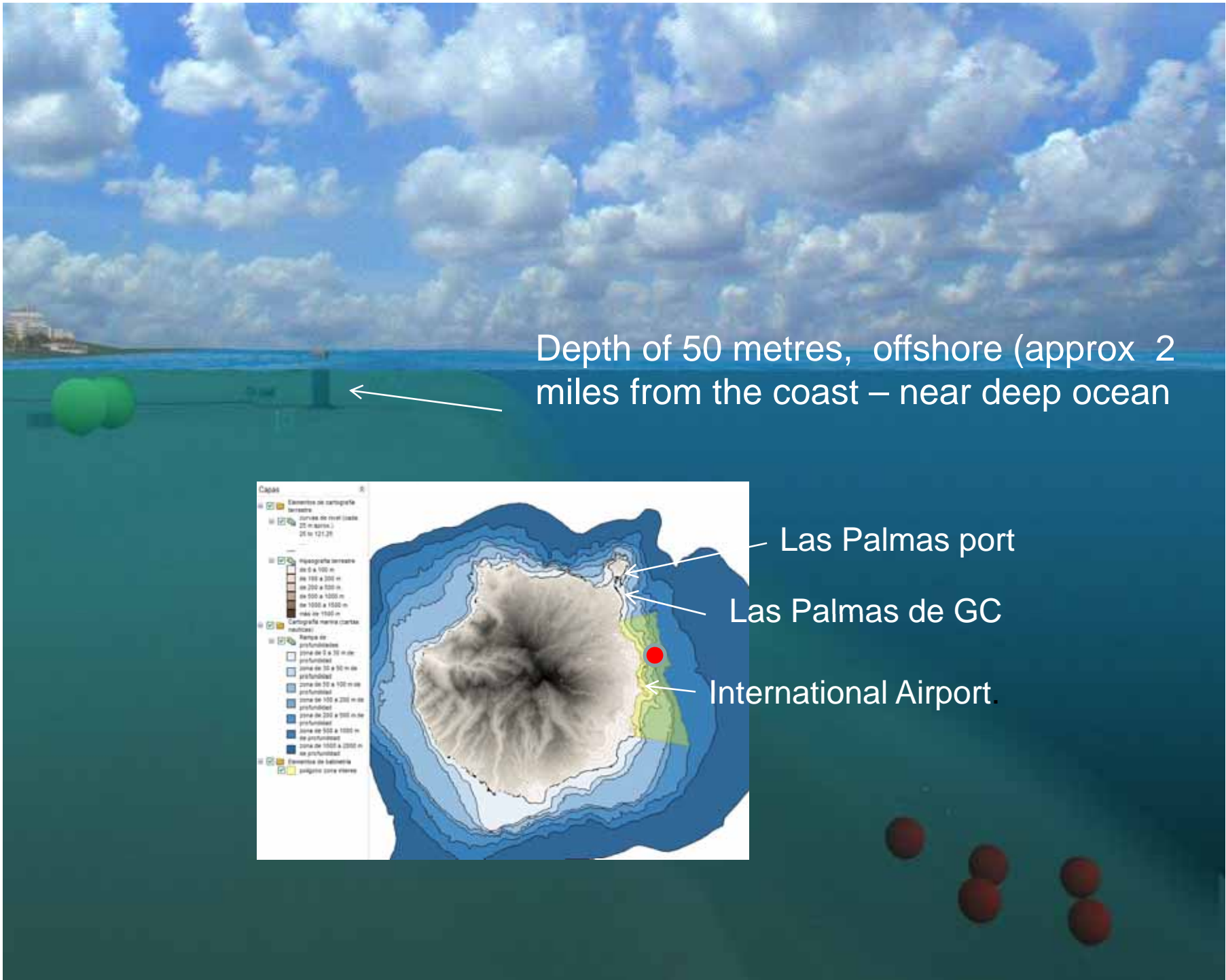
Coming into operation



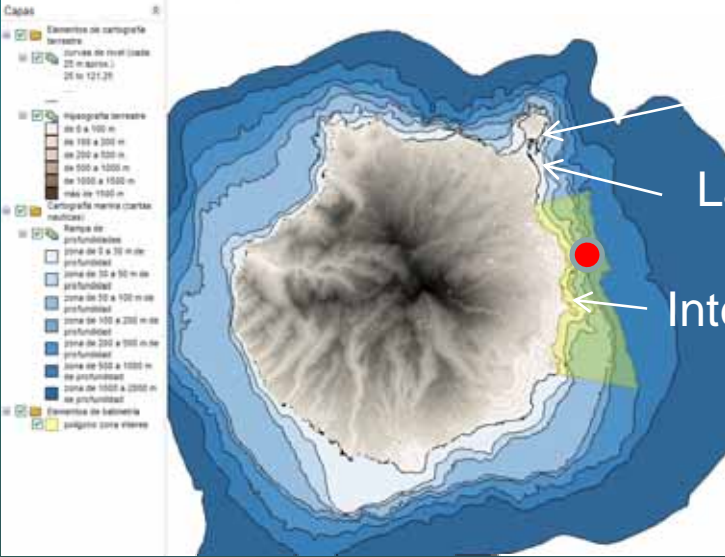
The first technological phase

The design and building of PLOCAN





Depth of 50 metres, offshore (approx 2 miles from the coast – near deep ocean)



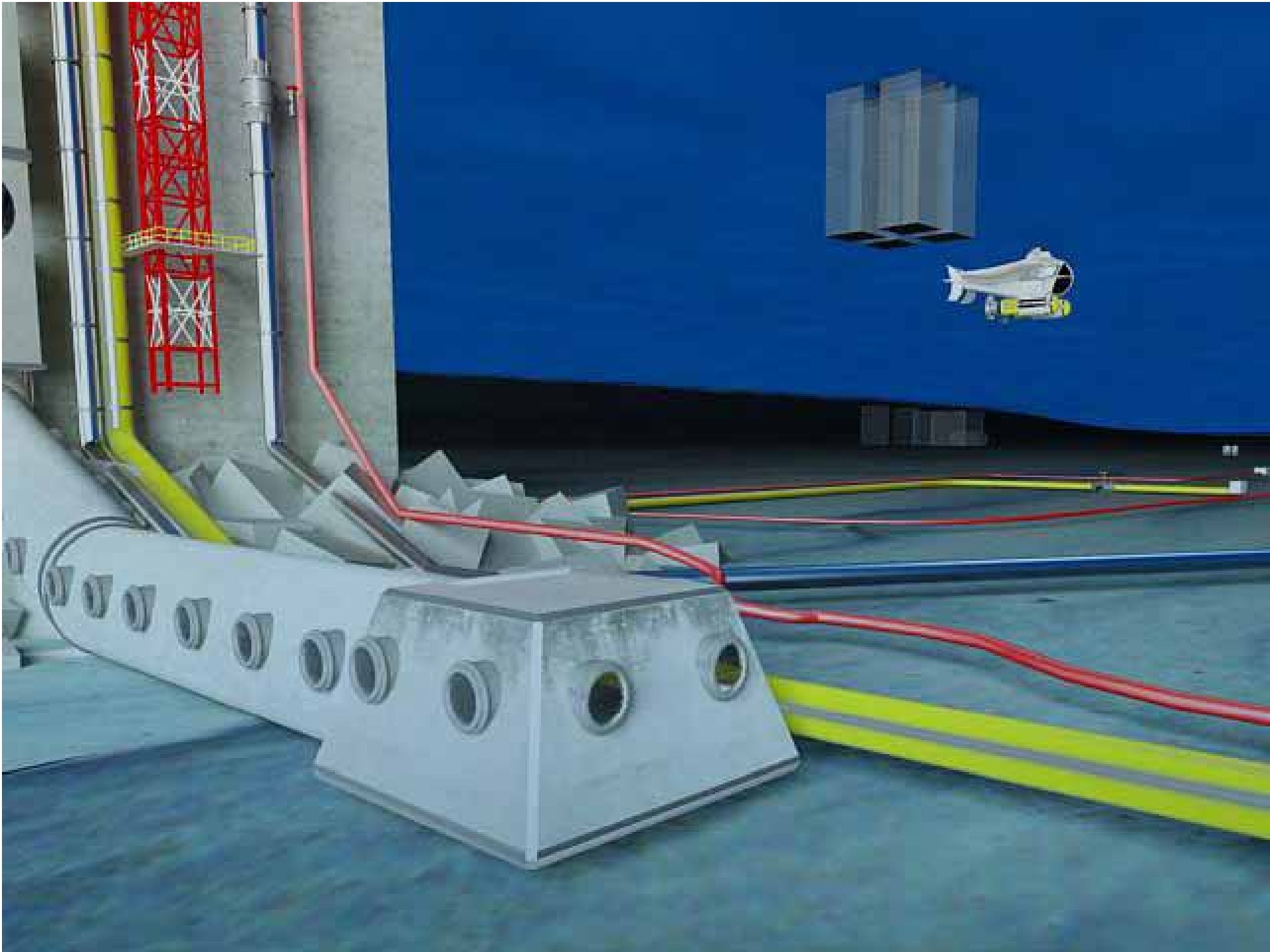
Las Palmas port

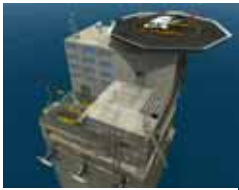
Las Palmas de GC

International Airport.

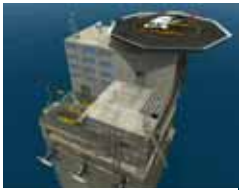
PLOCAN





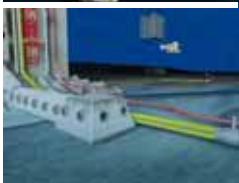
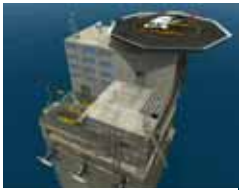


ACTIVITY	2008		2009		2010		2011	
	12 months	18 months	24 months	30 months	36 months	42 months	48 months	
Definition including construction site	■	■						
Tendering process		■	■					
Building work			■	■	■	■	■	■
Equipment	■	■	■	■	■	■	■	■
Environmental impact evaluation	■	■	■	■	■	■	■	■
Operation			■	■	■	■	■	■



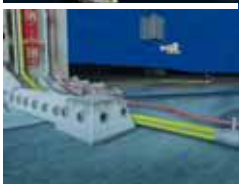
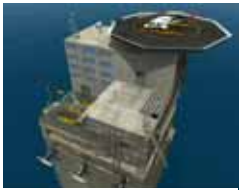
BUSINESS OPORTUNITIES (I)

- Construction and operation of the Platform
- Provision of and access to 'high tech' operational support services
- Development of specialised equipment and unique services
- Services for the supply, testing and training for operations associated with undersea instruments and vehicles
- Access to a State-of Art and Innovative Testbed for undersea operations



BUSINESS OPORTUNITIES (II)

- Non-obstructive accessibility for a wide range of high tech apparatus
- Approved environmental guarantees for deep-sea operations
- Competitive advantage especially with regards to a dedicated environment and the effectiveness of testing undersea instruments
- Overall risk reduction for carrying out deep sea activities.
- The development of standards and regulatory references.



WAYS OF COMPANY PARTICIPATION

CURRENTLY



Brain-storming and definition refinement

SHORT-TERM



Tendering process, project design and construction

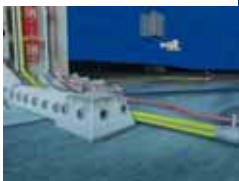
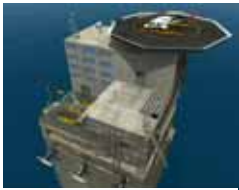
Tendering process for implementation of equipment and services

inclusive: Companies –associated institutions

SHORT-MEDIUM TERM



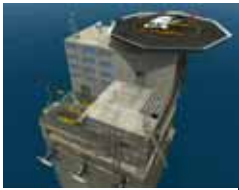
Develop and present ideas and/or propositions



ADITIONAL SUPPORTING MEASURES

CANARY ISLANDS

- Fiscal management
- Vessel special register.
- ZEC and RIC.
- Regional funds (07/13).
- Land availability for on-shore base



Within this Call

Interest: TOPIC 2 & 3

Test and Measure Environmental impact of new technologies on marine ecosystems and the environment at large including Off-shore Energy devices and CO2 storage technologies

Thank you

Contact: info@plocan.eu

Web: www.plocan.eu