



living planet BONN 23-27 May 2022

TAKING THE PULSE OF OUR PLANET FROM SPACE

na Azevedo¹, António Araújo²



EUMETSAT €ECMWF EUSPA ■



Market Potential of Earth Observation Data applied to the Oil and Gas Industry

> Aurhor Ana Azevedo, António Araújo Department of Mechanical Engineering, Faculty of **Engineering, University of Porto,**

ESA UNCLASSIFIED - For ESA Official Use Only



Agenda



- 1 EDAM Universities
- 2 Background
- 3 Oil & Gas industry
- 4 Objectives
- 5 Methodology
- 6 O&G Industry Challenges
- 7 Conclusion

EDAM Universities













Universidade do Minho



- Universidade do Minho (UMinho), School of Engineering, www.uminho.pt;
- Faculdade de Engenharia da Universidade do Porto (FEUP), www.fe.up.pt;
- Instituto Superior Técnico (IST), www.ist.utl.pt;
- Massachusetts Institute of Technology (MIT), <u>www.mit.edu</u>;

Background

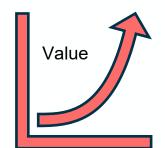


Satellite observation enables a diverse set of options to monitor Earth from different perspectives

Primarily EO was propelled by governmental funding but over time, satellite EO-based services were made available to private clients, boosting revenue and the services industry's

The global market for commercial Earth observation data and services are expected to reach \$8 billion by 2029

new commercial markets and defence



How to monetize Earth Observation data?





Expectations

Needs

Oil and Gas Industry



Oil and gas industry has used remote sensing for EO technologies for several years, dating back to the early 1970s

This industry needs complete, accurate, consistent and updated information about the operation sites and regions of interest

Combining satellite imaging products with other types of geological data, such as seismic assessments and geological interpretations, can help find oil and gas resources.

Objective



The objective of the study is to provide a description of the current barriers to the development of this type of business, as well as the barriers to entry into the market, which is an essential piece of information for any company trying to get into the market or trying to establish a strong position on it

This study will open the door to ways of maximizing the potential to generate wealth from currently available Earth Observation data, in relation to the Oil and Gas industry

Outline how a service that is adequate to the final user might be created

Methodology



Markets
identification (
Oil&Gas,
Renewable
Energies,
innovative
business yet to be
identified)



Contact key actors (public and private) to understand the end-user perspective



Identification of potential area of development



Business
Plan for the
areas
identified



Oil and Gas Industry Challenges



Lack of knowledge of the different services

Lack of in-house EO expertise capable of processing

Under-explored enduser perspective

Conclusion



- > It was Identified the need of EO data monetisation
- Oil & Gas industry has been identified as a good case study Growth Limitations
- > The clear identification of the currently existing barriers is an essential step in order to develop mechanisms in the European Ecosystem that will allow companies to develop faster and be more efficient
- ➤ The next step will be to perform surveys/questionaries to understand the user perspective in the Oil and Gas industry to identify the current barriers they are facing and identify mechanisms to overcome these barriers

