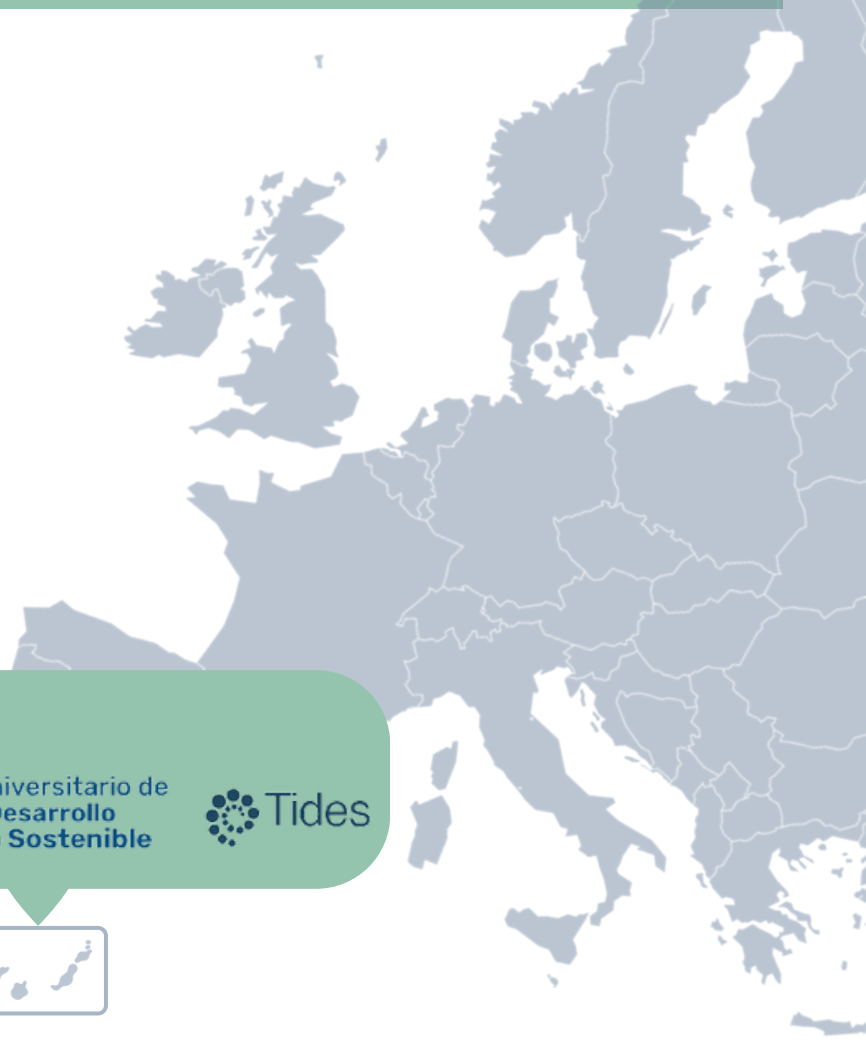


CLIMATE CHANGE ADAPTATION TOOL FOR ISLANDS

UNIVERSIDAD DE LAS PALMAS DE GRAN CANARIA



DESTINATION TYPE:
Island destinations

CLUSTER:
Industry support and guidance level

GLASGOW PATHWAY: Collaborate

AIM:

The aim of REIS platform is to enhance island destination's decision-making on climate risk assessment and adaptation pathways.



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European Regions for
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WHY WE DO IT:

European islands, including remote areas, are especially at risk from climate change. The surrounding oceans play a critical role by absorbing a lot of CO₂, which helps reduce global warming. However, this process also leads to ocean acidification, severely affecting marine life that relies on calcium to form shells and skeletons. It is anticipated that these islands will experience significant climate impacts well before 2100, even if emissions are reduced. Also, these islands are rich in biodiversity, hosting about a third of the world's endangered species, with many unique to these locations. Unfortunately, climate change is causing a steady loss of this rich biodiversity.

Furthermore, many islands do not have natural groundwater and depend entirely on rainwater. Places like the Greek islands are seeing less rainfall, which not only threatens agriculture but also increases the risk of forest fires and legal disputes related to these changes. Island economies are also heavily dependent on tourism, particularly the sun, sea, and sand activities, which are highly sensitive to changes in weather and the health of the coastal and marine environments.



WHAT WE DO:

In 2024, TiDES, the Institute of Tourism and Sustainable Economic Development at the University of Las Palmas de Gran Canaria, Spain, launched an innovative platform aimed at enhancing decision-making for island destinations regarding climate risk assessment and tourism adaptation pathways. This platform, known as the **REIS - Regional Exchange Information System- platform**, was developed to provide island stakeholders with access to specific knowledge and updated information about the impacts of climate change on their regions.



OUR STORY



HOW WE DO IT:

The REIS platform, funded through Horizon 2020, was developed with the collaboration of tourism businesses and environmental experts. The platform's main objective is to support island destinations in understanding the physical, non-market, and socio-economic consequences of climate change, and to propose alternative viable adaptation pathways.

The REIS platform offers three primary services:

1. Multidisciplinary networking amongst experts, including a search engine to provide advice and solutions to regional climate change policy challenges
2. Access to island-level information and models useful for climate-policy design and decision-making
3. A manual of best practices of mitigation and adaptation tailored to island conditions.

The platform serves as a comprehensive adaptation support tool that helps non-experts understand climate change impacts, functions as a data-collecting information system, and acts as a networking hub for future collaborative work. It allows users to filter information based on the island of interest, the blue economy activity (such as tourism, maritime transport, marine energy, and aquaculture), and the specific climate hazard.

The development of the REIS platform followed a pilot project involving 24 representative companies from various EU islands and outermost regions, including the Azores, the Balearic Islands, the Baltic Islands, the Canary Islands, Crete, Cyprus, Madeira, Malta, Sicily, and the French West Indies. Since its launch, the REIS platform has been instrumental in informing tourism policy, such as the National Tourism Strategy 2020-2030 of Cyprus and the Crete 2020 Regional Climate Adaptation Plan.

Additionally, it has supported over 50 professionals from the Macaronesian islands through the course "Introduction to Climate Change" and benefited approximately 60 Master students in their research activities. REIS has also been used by multiple international research organizations, for example, the Laboratory of Rangeland Science and Natural Protected Areas in Greece for designing a fire spread and behaviour simulator that evaluates changes in fire behaviour characteristics under different fuel scenarios (2020-2021).

OUR STORY

HOW WE DO IT:

The platform has gained visibility and positioning thanks to the exploitation plan of SOCLIMPACT. Today, REIS is hosted by eight platforms and networks: Med Blue Economy Stakeholders Community, CPMR Islands Commission, Horizon Results Platform, Horizon dashboard, Technology Centre Mapping, Clean Energy for EU Islands Secretariat, Climate Adapt and Climate Change Mitigation Portal.

Despite these successes, the REIS platform has faced several challenges. The tool's full potential has not been realized due to the difficulty in recruiting and involving a diverse range of stakeholders, including government agencies, local authorities, energy providers, research institutions, community organizations, and industry representatives. Also, ensuring the continuous updating and reliability of the provided information remains a significant challenge.

The short-term impact of the REIS platform is the establishment of a permanent advisory and networking system for island stakeholders. This system facilitates the search for partners and the reuse of new relevant local information and data, which can be utilized in new climate actions, projects, capacity building, and policy design. The long-term impact envisioned is the increased resilience of island destinations to climate change, ensuring that tourism activities can adapt effectively to climate change.

Key success factors for the transferability of the REIS platform include the participatory assessment and validation process involving over 300 local stakeholders and 24 partners across 12 EU islands and outermost regions. This extensive collaboration ensured that the tool was tailored to the geographic, economic, and social contexts of each island. Additionally, the REIS platform's design allows for the replication of its models and methods to analyze climate risks for other sectors, such as energy.

In summary, the REIS platform represents a significant step forward in climate adaptation for island destinations. By providing a comprehensive, adaptable, and user-friendly tool, it empowers stakeholders to make informed decisions and collaboratively develop effective climate adaptation strategies. This initiative highlights the importance of participatory development and the need for continuous engagement and updating to maintain its relevance and effectiveness in the face of evolving climate challenges.



OUR STORY



OUR TOP TIPS:

When designing a climate service, it is crucial to ensure its long-term sustainability. This involves securing funding for regular updates of information and fostering genuine stakeholder engagement. Develop a robust exploitation plan early in the design phase to ensure ongoing viability.

STRATEGIC APPROACH

The REIS platform is embedded in the EU Missions Adaptation to Climate Change portal Climate ADAPT, which focuses on supporting EU regions, cities and local authorities in their efforts to build resilience against the impacts of climate change.

OBJECTIVES



The tool provides access to specific knowledge on the physical, non-market and socio-economic consequences of climate change for 12 EU islands and proposes alternative viable adaptation pathways. It helps:

- To understand climate change impacts (physical, market and non-market effects).
- As data-collecting information system (climate models, vulnerability analysis and ranking of priority adaptation actions).
- To provide a networking area for engaging partners, experts and researchers.

RESOURCES

The initiative was funded by Horizon 2020 programme, through the project SOCLIMPACT (GA776661). With a total budget of **4 million euros**, **24 institutional partners of 9 countries** led by University of Las Palmas Gran Canaria-TIDES- (Spain) and **12 islands' case studies**, the total duration of this research and innovation action was **4 years**.

ACTIVITIES

TIDES, the Institute of tourism and sustainable economic development part of the University of Las Palmas de Gran Canaria, Spain, launched and developed the REIS platform as an adaptation support tool for islands.

The tool gives access to specific knowledge and updated information regarding physical, non-market and socio-economic consequences of climate change for 12 EU islands and Outermost Regions and proposes alternative viable adaptation pathways.

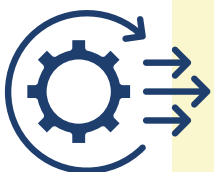
The Adaptation Support Tool is a compass where information can be filtered according to the island of interest, the blue economy activity (tourism, maritime transport, marine energy and aquaculture) and the climate hazard.

The tool is useful for Step 1. Preparing the ground for adaptation, Step 2. Assessing climate change risks and vulnerabilities, and Step 3. Identifying adaptation options.

In this process, the platform offers the opportunity to request more information or full data using the networking area, by contacting the specialists in each field.

REIS is a permanent platform for advising and periodic exchange between islands' stakeholders delivered as a form of information system and networking area. It facilitates the search of partners: experts and researchers focused on the study of island territories, and the re-use of new relevant local information/data (climate models, vulnerability analysis and ranking of priority adaptation actions) that can be utilised in new climate actions/projects, capacity building and policy design.

OUTPUTS

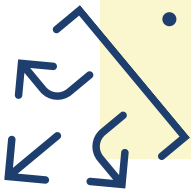


- +50 platform users
- New updated climate data and projections about 12 EU islands: The Azores (Ilha do Faial, Ilha de Sao Miguel e Ilha do Pico), The Balearic Islands (Mallorca), The Baltic Islands (Fehmarn), The Canary Islands (Gran Canaria), Crete, Cyprus, Madeira, Malta, Sicily, and The French West Indies (Martinique and Guadeloupe) translated into 8 languages.

(Cont'd)

OUTPUTS

- +300 local stakeholders (SME and policy makers of the blue economy) of the 12 islands implicated in the validation on the platform
- 28 Island workshops and policy sessions as part of the dissemination plan of the platform
- 100 dissemination resources available in form of Infographics, factsheets and high-resolution maps about the new climate change projections and related socio-economic forecasts
- 20 regional statistics offices and climate research organizations received customised promotion
- One education programme from Erasmus Mundus PANGEA Master in Palaeobiology, Geoconservation, and Applied Palaeontology benefited by the platform, 60 students annually.



IMPACT

SHORT-TERM

- REIS is hosted by several international organizations
- 3 local governments incorporated the information and utilised the tool for tourism policy design (Canary Islands, Greece, Malta)
- Two policy support initiatives utilise the tool:
 - European Environment Agency through the CLIMATE ADAPT platform.
 - Clean Energy for EU islands
- +50 professionals (tourism SMEs) in the Macaronesian islands from diverse blue economy sectors have benefited from the course "Introduction to Climate Change", which utilises the REISadaptool (2021-2022).
- 1 Interreg project led by the Government of Gran Canaria utilising and funding the platform.
- A network with other 9 EU-funded projects focused on island context has been created.
- Joint publication of a White Paper on the Replication of Island Decarbonisation Projects with 9 EU-funded projects.

LONG-TERM

We envision REIS as a great networking system/data and information exchange from and for the islands, assuming the reliability of the information provided; but long-term impact also depends on the capacity to continuously update the information.

CHALLENGES



The tool use has not reached full potential although the actions undertaken and the extensive islands partnership are consolidated and active through the REIS platform. It can be a challenge to recruit and involve government agencies, local authorities, energy providers, research institutions, community organizations, and industry representatives to actively participate in the replication process.

KEY SUCCESS FACTORS FOR TRANSFERABILITY

Participatory assessment and validation with more than 300 local stakeholders among 24 partners across 12 EU islands and Outermost regions ensures the tool usability for islands decision making adapted to the geographic, economic, and social context of each island. It is essential to identify and engage the right stakeholders and prospective participants to engage in pilot testing and validating the prototype.

An important strength is that REIS is a huge opportunity for networking to all European islands to stimulate debates, further research, joint projects, and intensively discuss in order to establish a benchmark for adaptation. It also articulates information in a coherent way from diverse disciplines around a central point (climate hazards).

All the models and methods can be replicated for the analysis of climate risks for the energy sector and productivity of Renewable Energy Systems.

The replicability cost or effort for (new) usage is: The use of the tool is free, however, updates and integration of new information such as additional projects or islands might have a cost of €500 to 3000 approximately.

FURTHER INFORMATION

- The REIS platform is available [here](#)
- The REIS platform is included in the portfolio of [tools of the EU](#)
- Other support available: [video tutorial](#)

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