Catálogo de Aplicaciones de la ICTS SOCIB 2025

Servicio de Estrategia Corporativa, Comunicación y Transferencia del Conocimiento

15 de mayo de 2025

SOCIB Sistema de Observación y Predicción Costero de las Illes Balears

MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES | CSIC | Govern de les Illes Balears

Índice

Resumen ejecutivo

El **Catálogo de Aplicaciones de la ICTS SOCIB 2025** reúne un conjunto de 15 herramientas digitales diseñadas para apoyar la gestión sostenible de los recursos marinos y costeros, promover la educación científica y facilitar la toma de decisiones informadas. Estas aplicaciones están organizadas en cuatro categorías principales que responden a necesidades específicas de diversas personas usuarias y sectores estratégicos.

El **Catálogo de Aplicaciones de la ICTS SOCIB** organiza sus **15 aplicaciones** en torno a **cuatro tipologías principales**, diseñadas para satisfacer diversas necesidades y abordar retos específicos relacionados con la gestión sostenible de los ecosistemas marinos y costeros:

1. **Aplicaciones de apoyo en la toma de decisiones:** 6 herramientas que proporcionan información estratégica basada en datos avanzados y modelos operativos para evaluar riesgos, proyectar escenarios y gestionar recursos.
2. **Aplicaciones de información integrada:** 2 soluciones que recopilan y presentan datos multidimensionales de forma accesible para facilitar el análisis de fenómenos complejos.
3. **Aplicaciones de datos e imágenes:** 6 herramientas que permiten el acceso y la visualización de datos meteoceánicos en tiempo real e históricos.
4. **Aplicaciones divulgativas:** 1 aplicación diseñada para fomentar la cultura oceánica y la sensibilización medioambiental entre públicos diversos mediante narrativas accesibles respaldadas por datos científicos.

Estas aplicaciones reflejan el compromiso de SOCIB con la transferencia de conocimiento, la innovación tecnológica y la sostenibilidad. Al integrar datos científicos con herramientas prácticas, SOCIB contribuye a la educación, la gestión basada en evidencia y la promoción de políticas informadas para enfrentar los desafíos globales que afectan los ecosistemas marinos y costeros.

1. Introducción

La ICTS SOCIB dispone, en 2025, de un catálogo de 15 aplicaciones diseñadas y actualizadas para transferir conocimiento, promover la sostenibilidad marina y costera, y apoyar la toma de decisiones basadas en evidencia científica. Estas herramientas tecnológicas, integradas dentro de la colección de producción tecnológica de SOCIB, destacan por su capacidad para responder a las necesidades de sectores y usuarios estratégicos y facilitar la gestión informada de los recursos marinos y costeros.

El desarrollo de estas aplicaciones ha sido posible gracias a los conocimientos adquiridos por SOCIB en sus actividades científicas y técnicas, así como al acceso a fuentes de datos meteoceánicos propias y de instituciones internacionales. Este enfoque permite a SOCIB diseñar herramientas digitales avanzadas que proporcionan soluciones prácticas y eficaces para usuarios y sectores clave.

El Catálogo de Aplicaciones de la ICTS SOCIB refleja su compromiso con la transferencia de conocimiento, la integración de datos y la promoción de una gestión marina y costera fundamentada en la ciencia. Asimismo, fomenta la cooperación entre la comunidad científica, las administraciones públicas, el sector empresarial, la comunidad educativa y la ciudadanía, fortaleciendo así los vínculos esenciales para una gestión sostenible y efectiva.

2. Términos de uso y licencias

Todas las aplicaciones del Catálogo de Aplicaciones de la ICTS SOCIB son de **acceso público y gratuito**. Están diseñadas para facilitar el acceso a datos e información científica, para facilitar la investigación, marina y costera, apoyar la toma de decisiones informada y fomentar la educación y el compromiso ciudadano.

Salvo que se indique lo contrario en cada aplicación específica, todas las herramientas están disponibles bajo la licencia:

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- **Sin restricciones adicionales**: No se pueden imponer condiciones legales o tecnológicas que limiten el uso que la licencia permite a otras personas.

El uso de datos, resultados o contenidos derivados de las aplicaciones debe acompañarse de la **citación correspondiente**, disponible en cada ficha de aplicación. Se recomienda incluir además el enlace directo a la herramienta utilizada.

SOCIB ofrece estas herramientas y sus contenidos con el objetivo de apoyar la gestión y el conocimiento del medio marino. Aunque se ha puesto el máximo cuidado en su desarrollo, no se garantiza que toda la información sea siempre exacta o actualizada. El uso de las aplicaciones es responsabilidad de cada persona o entidad usuaria, y SOCIB no puede asumir responsabilidades por posibles errores o interpretaciones derivadas de su uso.

SOCIB se reserva el derecho de actualizar, modificar o retirar temporal o permanentemente cualquier aplicación sin previo aviso. Las aplicaciones se mantienen activamente, pero la continuidad de cada servicio depende de la disponibilidad de recursos técnicos y humanos.

Para dudas, sugerencias o soporte técnico sobre las aplicaciones, puede contactar directamente con el personal responsable indicado en cada ficha de aplicación, o a través de: info@socib.es, www.socib.es.

3. Tipologías de aplicaciones

El catálogo de aplicaciones de SOCIB se estructura en cuatro tipologías principales, cada una diseñada para satisfacer necesidades específicas, responder a desafíos diversos y contribuir a la toma de decisiones informadas.

- **Aplicaciones de apoyo en la toma de decisiones:** Estas herramientas están diseñadas para proporcionar información estratégica y práctica a administraciones públicas, responsables de políticas y otros actores clave. Permiten evaluar situaciones complejas, proyectar escenarios y tomar decisiones fundamentadas en datos científicos y técnicos.
- **Aplicaciones de información integrada:** Soluciones que recopilan, integran y presentan datos multidimensionales de forma accesible y comprensible. Estas aplicaciones combinan información proveniente de diversas fuentes, facilitando el análisis de

fenómenos complejos y promoviendo la gestión sostenible de recursos marinos y costeros.

- **Aplicaciones de datos e imágenes:** Herramientas especializadas en el acceso y la visualización de datos e imágenes meteoceánicos. Son fundamentales para usuarios que necesitan monitorear condiciones en tiempo real, analizar datos históricos o interpretar imágenes relacionadas con el Mediterráneo y sus costas.
- **Aplicaciones divulgativas:** Diseñadas para la educación y la comunicación científica, estas herramientas fomentan la cultura oceánica entre públicos diversos. A través de narrativas accesibles respaldadas por datos científicos, estas aplicaciones sensibilizan sobre los ecosistemas marinos del Mediterráneo y los desafíos relacionados con su conservación y sostenibilidad.

4. Aplicaciones de apoyo en la toma de decisiones

El Catálogo de Aplicaciones de la ICTS SOCIB dispone, en 2025, de 6 aplicaciones innovadoras de apoyo en la toma de decisiones diseñadas para diversos sectores, incluidos la gestión costera, la conservación marina, la adaptación al cambio climático y la predicción de riesgos extremos. Estas herramientas utilizan datos avanzados, observaciones satelitales y modelos operativos para proporcionar soluciones prácticas.

1. **ONA Toolbox:** Evaluación de los impactos del cambio climático a escala local. ONA Toolbox
2. **Observatorio TIAMAT:** Monitorización en tiempo real de los entornos marinos en los Parques Nacionales Españoles. TIAMAT Observatory
3. **Sub-regional Mediterranean Sea Indicators:** Visualización de indicadores oceánicos multivariados en el Mediterráneo y las Illes Balears. Sub-regional Mediterranean Sea Indicators
4. **Sub-regional Mediterranean Marine Heat Waves:** Monitorización de olas de calor marinas y sus efectos relacionados con el cambio climático. Marine Heatwaves Monitoring Tool
5. **Sa Costa:** Visualización de datos cartográficos sobre la sensibilidad ambiental de la costa de las Illes Balears. Sa Costa
6. **Meteo Tsunami Forecast - BRIFS:** Predicción de eventos extremos de oscilación del nivel del mar en el puerto de Ciutadella (Menorca). BRIFS Forecast

ONA toolbox: Operational tool for climate chaNge impActs at local scales	
MAIN APPLICATION DATA	
Name/Production title/Heading	ONA-toolbox: Operational toolbox for climate chaNge effects at locAl scales
Subtitle/Sub-heading	The Operational tool for climate chaNge impActs at local scales (ONA toolbox) is a computer software with forecast data for the Balearic Islands using hydrodynamic variables from SWAN and LISFLOOD models.
Keywords	operational software, climate change, coastal flooding, extreme events, modelling
Description/Summary	Following the scientific and methodological bases of the regional study PIMA ADAPTA COSTAS IB, the ONA-Toolbox (Operational tool for climate change impacts at locAl scales) has been developed, designed to carry out local studies of coastal flood levels and estimated beach erosion relative to sea level rise from the RCP4.5 and RCP8.5 projections to 2050 and 2100 together with 100-year (T100) return period extreme wave events. Unlike the regional study, the ONA tool accounts for local factors that affect the spatio-temporal evolution of the sea level surface, such as the bi-dimensionality of the wave propagation processes (shallowing, refraction, diffraction, breaking and set-up) and the configuration of the coast at a local scale (bathymetry, shadow areas such as islets, capes and bays) in order to quantify potentially flooding areas and give an approximation of the related coastal erosion.
Used data	SOCIB metocean data from a sea-level and storms database and data generated from SWAN and LISFLOOD models.
Citation	Fernández-Mora, A., Bonet, M., Criado-Sudau, F., & Tintoré, J. (2022). *ONA toolbox: Operational tool for climate change impacts at local scales*. [Computer software]. Balearic Islands Coastal Observing and Forecasting System, SOCIB.
OTHER RELEVANT APPLICATION DATA	
Public or internal application	Public: this production is public
Organisations involved	ICTS SOCIB, Dirección General de Energía y Cambio Climático
Publication date	31/12/2022
Type of access	Open access
Language	English
URL	https://help.onatoolbox.socib.es/
SOI	PRD/2022-33775617
Related project	PIMA ADAPTA
Type	Decision support applications
Sectors	Science and innovation Coastal and marine management and governance Marine conservation and sustainable ecosystem Extreme hazards and safety Climate and adaptation Ocean weather and prediction
Users	Academic/scientific community Business/industry

	Public administration and policy makers
SOCIB staff responsible	Àngels Fernández-Mora (mafernandez@socib.es)
Link to application user manual	https://help.onatoolbox.socib.es/

TIAMAT Observatory	
MAIN APPLICATION DATA	
Name/Production title/Heading	TIAMAT Observatory: a marine observatory of climate change in the Spanish National Park Network
Subtitle/Sub-heading	Web application with near real-time and historical data of the Spanish National Park Network with natural marine systems for monitoring ocean indicators derived from CMEMS satellite products.
Keywords	web application, satellite observations, ocean indicators, Spanish National Parks, marine monitoring, global change, Copernicus
Description/Summary	The TIAMAT Observatory facilitates the continuous monitoring of the marine environment in the Spanish National Park with natural marine systems in a context of climate change. ● Cabrera Archipelago Maritime-Terrestrial National Park (Balearic Islands) ● Atlantic Islands of Galicia Maritime-Terrestrial National Park (Galicia) ● Doñana National Park (Andalusia) The TIAMAT Observatory allows for the analysis of the spatial and temporal evolution of essential oceanic variables (sea surface temperature, sea surface salinity, chlorophyll concentration, sea level, currents, and winds) and other specific indicators (marine heatwaves and water quality). This observatory provides daily monitoring (ocean conditions and detection of extreme events), monthly monitoring (monthly and seasonal variability), and annual monitoring (interannual variability and trends) through graphs (maps and time series). The TIAMAT Observatory aims to be a management and decision-making tool for the National Park Network and other marine protected areas at regional, national and international levels. It also creates a channel for awareness raising and communication to society about the challenges that the Parks are facing regarding their conservation in a complex context of global change.
Used data	CMEMS satellite observations and model forecasts
Citation	Juza, M., Caballero, I., Gómez, A.G., Ribot, L., Rodríguez, R., Heredia, S., & Navarro, G. (2024). *TIAMAT Observatory: a marine observatory of global change in the Spanish National Parks network* [Web app]. TIAMAT. https://apps.socib.es/observatoriotiamat/
OTHER RELEVANT APPLICATION DATA	
Public or internal application	Public: this production is public
Organisations involved	SOCIB, IIM, ICMAN, Copernicus Marine Service,
Publication date	15/05/2024
Type of access	Open access
Language	English, Spanish
URL	https://apps.socib.es/observatoriotiamat/
Related project	TIAMAT

Type	Decision support applications
Sectors	Science and innovation Coastal communities, beach and tourism Coastal and marine management and governance Marine conservation and sustainable ecosystem Extreme hazards and safety Climate and adaptation Ocean health Education, social engagement, and ocean literacy
Users	Academic/scientific community Public administration and policy makers Citizenship
SOCIB staff responsible	Mélanie Juza (mjuza@socib.es)
Link to application user manual	https://www.socib.es/users/mjuza/observatoriotiamat/ManualUsuario_observatoriotiamat.pdf

Sub-regional Mediterranean Sea Indicators	
MAIN APPLICATION DATA	
Name/Production title/Heading	Sub-regional Mediterranean Sea Indicators
Subtitle/ Sub-heading	Web application with near real-time and historical data in the Mediterranean Sea monitoring ocean indicators derived from satellite products of CMEMS, in situ observations of MetOffice and SOCIB.
Keywords	web application, Mediterranean Sea, observations, ocean indicators, academic/scientific community
Description/Summary	The *Sub-regional Mediterranean Sea Indicators* tool is dedicated to the monitoring and visualisation of multivariate and sub-regional ocean indicators in the Mediterranean Sea and around the Balearic Islands. This application consists in providing continuous information about the ocean state and variability from daily (events) to interannual/decadal (climate) scales in a simple way that could be consulted by the scientific community, educators in marine science, decision-makers and environmental agencies.
Used data	CMEMS satellite observations and model forecasts, MetOffice and SOCIB in situ observations
Citation:	Juza, M., & Tintoré, J. (2020). *Sub-regional Mediterranean Sea Indicators* [Web app]. Balearic Islands Coastal Observing and Forecasting System, SOCIB. https://apps.socib.es/subregmed-indicators
OTHER RELEVANT APPLICATION DATA	
Public or internal application	Public: this production is public
Organisations involved	SOCIB, Copernicus Marine Service.
Publication date	31/12/2020
Type of access	Open access
Language	English
URL	https://apps.socib.es/subregmed-indicators

Related project	-
Type	Decision support applications
Sectors	Science and innovation Coastal and marine management and governance Marine conservation and sustainable ecosystem Extreme hazards and safety Climate and adaptation
Users	Academic/scientific community Public administration and policy makers Citizenship
SOCIB staff responsible	Mélanie Juza
Link to application user manual	https://apps.socib.es/subregmed-indicators/PUM_Subregional_MedSea_Indicators.pdf

Sub-regional Mediterranean Marine Heatwaves	
MAIN APPLICATION DATA	
Name/Production title/Heading	Sub-regional Mediterranean Marine Heatwaves (MED Marine Heatwaves)
Subtitle/Sub-heading	Web application with near real-time and historical data in the Mediterranean Sea monitoring marine heat waves computed from satellite products and models of CMEMS
Keywords	web application, Mediterranean Sea, satellite observations, model forecasts, marine heat waves, academic/environmental/scientific community
Description/Summary	Sub-regional Mediterranean Marine Heatwaves is dedicated to the monitoring and visualisation of marine heatwaves (MHW) in the Mediterranean Sea. This web application consists in providing continuous information about MHWs from event detection in real-time to long-term changes in response to global warming. This user-friendly interface aims at sharing relevant and timely ocean temperature information at sub-regional scale to diverse stakeholders (e.g. scientific community, education, public, policy decision-makers and environmental agencies).
Used data	CMEMS satellite observations and model forecasts
Citation	Juza, M., & Tintoré, J. (2021). Sub-regional Mediterranean Marine Heatwaves [Web app]. Balearic Islands Coastal Observing and Forecasting System, SOCIB. https://apps.socib.es/subregmed-marine-heatwaves
OTHER RELEVANT APPLICATION DATA	
Public or internal application	Public: this production is public
Organisations involved	ICTS SOCIB, Copernicus Marine Service.
Publication date	31/12/2021
Type of access	Open access
Language	English
URL	https://apps.socib.es/subregmed-marine-heatwaves
Related project	-

Type	Decision support applications
Sectors	Science and innovation Coastal communities, beach and tourism Coastal and marine management and governance Marine conservation and sustainable ecosystem Extreme hazards and safety Climate and adaptation Ocean health Ocean weather and prediction
Users	Academic/scientific community Business/industry Public administration and policy makers Citizenship
SOCIB staff responsible	Mélanie Juza
Link to application user manual	https://apps.socib.es/subregmed-marine-heatwaves/doc/PUM_Subregional_MedSea_Marineheatwaves.pdf

Sa Costa	
MAIN APPLICATION DATA	
Name/Production title/Heading	Sa Costa
Subtitle/Sub-heading	Web application viewer with static data at Balearic Islands using cartographic data.
Keywords	web application, viewer, Balearic Islands, coastal data, decision makers
Description/Summary	The *Sa Costa* is dedicated to display cartographic data related to the environmental sensitivity of the coastline of the Balearic Islands. This web application viewer consists in providing geomorphological classification of the coast, coastal biological resources, and human use data. This user-friendly interface aims to be a decision-making tool to support responses to potential oil spills of public administration and policy makers.
Used data	-
Citation	March, D., Balaguer, P., & Frontera, B. (2015). *Sa Costa* (Coastal Environmental Sensitivity Atlas) [Web app]. Balearic Islands Coastal Observing and Forecasting System, SOCIB. http://gis.socib.es/sacosta/
OTHER RELEVANT APPLICATION DATA	
Public or internal application	Public: this production is public
Organisations involved	SOCIB
Publication date	31/12/2015
Type of access	Open access
Language	Spanish
URL	http://gis.socib.es/sacosta/
Related project	-
Type	Decision support applications
Sectors	Coastal communities, beach and tourism Coastal and marine management and governance

	Marine conservation and sustainable ecosystem
Users	Business/industry Public administration and policy makers Citizenship
SOCIB staff responsible	Pau Balaguer (pbalaguer@socib.es)
Link to application user manual	-

Meteo Tsunami Forecast - BRIFS	
MAIN APPLICATION DATA	
Name/Production title/Heading	Meteo Tsunami Forecast - BRIFS (BRIFS forecast visualisation)
Subtitle/Sub-heading	Web app with forecast data at Ciutadela harbour using meteo tsunami variables from BRIFS model of SOCIB.
Keywords	web application, Ciutadella, numerical models, meteo tsunami forecast, academic/scientific community
Description/Summary	The *BRIFS forecast visualisation* allows interactive representation of the meteo-tsunamis forecasting system that aims at predicting extreme sea level oscillation events in Ciutadella Harbour (Menorca, Spain) for past, present and 2-day forecast dates through several visualisation types (warning levels, maps, animations, time series) [BRIFS: Balearic RIssaga Forecasting System].
Used data	Atmospheric and oceanic variables from SOCIB BRIFS model forecast
Citation	Balearic Islands Coastal Observing and Forecasting System, SOCIB. (2014). *Meteo Tsunami Forecast - BRIFS* [Web app]. https://www.socib.es/es/que-hacemos/prediccion-del-oceano/modelo-brifs
OTHER RELEVANT APPLICATION DATA	
Public or internal application	Public: this production is public
Organisations involved	ICTS SOCIB, IMEDEA, Aemet, PortsIB
Publication date	31/12/2014
Type of access	Open access
Language	English, Spanish, Catalan
URL	https://www.socib.es/es/que-hacemos/prediccion-del-oceano/modelo-brifs
Related project:	-
Type	Decision support applications
Sectors	Science and innovation Extreme hazards and safety Ocean weather and prediction
Users	Academic/scientific community Business/industry Public administration and policy makers
SOCIB staff responsible	Camilo Melo (cmelo@socib.es)

Link to application user manual	-

5. Aplicaciones de información integrada

Las Aplicaciones de información integrada de SOCIB son soluciones diseñadas para recopilar, integrar y presentar datos multidimensionales de manera accesible y comprensible. Estas herramientas combinan información de múltiples fuentes, facilitando el análisis de fenómenos complejos y promoviendo la gestión sostenible de los recursos marinos y costeros. En 2025, SOCIB cuenta con 2 aplicaciones principales que destacan por su utilidad en diversos sectores, como la ciencia e innovación, la gestión costera, el turismo y la predicción de riesgos.

1. **Página web corporativa de la ICTS SOCIB:** Difusión de contenido institucional, transferencia de conocimiento y visibilidad de las actividades de SOCIB. Página Web de SOCIB.
2. **Repositorio Institucional de la ICTS SOCIB:** Preservación, organización y difusión de resultados científicos e institucionales. Repositorio Institucional

SOCIB Corporate Website	
MAIN APPLICATION DATA	
Name/Production title/Heading	SOCIB Corporate Website
Subtitle/Sub-heading	A centralized platform for marine science dissemination, knowledge transfer, and institutional visibility
Keywords	SOCIB, marine science, oceanography, corporate website, knowledge transfer, communication, visibility, institutional development
Description/Summary	SOCIB Corporate Website consolidates all institutional content, including . With a focus on accessibility and functionality, the website serves as a comprehensive resource for internal and external stakeholders, supporting SOCIB's mission to optimize online presence and facilitate its activities.
Used data	-
Citation	Frontera, B., Rodríguez, R., Ortiz, V., Fernández, J.G., Alcalde, M.A., Ribot, L., García, N., Notario, X., Castrillo, E., Rotllán, P. SOCIB. (2023). [Web app]. Balearic Islands Coastal Observing and Forecasting System, SOCIB. https://www.socib.es/
OTHER RELEVANT APPLICATION DATA	
Public or internal application	Public: this production is public
Organisations involved	ICTS SOCIB
Publication date	31/12/2023
Type of access:	Open access
Language:	English, Spanish, Catalan

URL:	https://www.socib.es/
Related project:	-
Type	Integrated information applications
Sectors:	Science and innovation Coastal communities, beach and tourism Coastal and marine management and governance Marine conservation and sustainable ecosystem Trade and marine navigation Extreme hazards and safety Climate and adaptation Ocean health Ocean weather and prediction Education, social engagement, and ocean literacy
Users:	Academic/scientific community Business/industry Public administration and policy makers Educational community Citizenship
SOCIB staff responsible	Rosa Rodriguez (rrodriguez@socib.es)
Link to application user manual	-

SOCIB Institutional Repository	
MAIN APPLICATION DATA	
Name/Production title/Heading	SOCIB Institutional Repository
Subtitle/Sub-heading	A digital archive for preserving and sharing marine science and institutional outputs.
Keywords	SOCIB, institutional repository, marine science, oceanography, digital archive, knowledge dissemination, open access, research outputs.
Description/Summary	The SOCIB Institutional Repository is a dedicated digital platform for the preservation, organization, and dissemination of SOCIB's institutional and scientific outputs. The repository aligns with SOCIB's commitment to open access, fostering collaboration and supporting the global marine science community.
Used data	The repository hosts a wide range of data and resources, including peer-reviewed publications, technical reports, institutional documents, datasets, and visual materials. It integrates metadata standards and ensures compatibility with international repositories, providing a robust platform for long-term digital preservation and accessibility.
Citation	Frontera, B., Rodríguez, R., Ortiz, V., Alcalde, M.A., Fernández, J.G., & Notario, X. (2023). Repositorio institucional SOCIB [Web app]. Balearic Islands Coastal Observing and Forecasting System, SOCIB. https://apps.socib.es/repositorio-institucional/es/
OTHER RELEVANT APPLICATION DATA	
Public or internal application:	Public: this production is public
Authors	Frontera, B., Rodríguez, R., Ortiz, V., Alcalde, M.A., Fernández, J.G., & Notario, X.
Organisations involved	ICTS SOCIB

Publication date	31/12/2023
Type of access:	Open access
Language:	English, Spanish, Catalan
URL:	https://apps.socib.es/repositorio-institucional/es/
Related project:	-
Type:	Integrated information applications
Sectors:	Science and innovation Coastal communities, beach and tourism Coastal and marine management and governance Marine conservation and sustainable ecosystem Trade and marine navigation Extreme hazards and safety Climate and adaptation Ocean health Ocean weather and prediction Education, social engagement, and ocean literacy
Users:	Academic/scientific community Business/industry Public administration and policy makers Educational community Citizenship
SOCIB staff responsible	Rosa Rodríguez (rrodriguez@socib.es)
Link to application user manual	https://apps.socib.es/repositorio-institucional/es/

6. Aplicaciones de imágenes y datos

Las Aplicaciones de datos e imágenes de la ICTS SOCIB son herramientas especializadas que facilitan el acceso y la visualización de datos meteoceánicos en tiempo real e históricos. Estas aplicaciones permiten a los usuarios monitorear condiciones actuales, analizar datos históricos e interpretar imágenes relacionadas con el Mediterráneo y sus costas. En 2025, SOCIB dispone de 6 aplicaciones principales que destacan por su capacidad para integrar y presentar información de manera accesible y comprensible.

1. **Catálogo de Datos de SOCIB (SOCIB Data Catalog):** Descubrimiento, visualización y descarga de datos multianuales y en tiempo real desde las instalaciones de observación de SOCIB. SOCIB Data Catalog
2. **DApp (SOCIB Multiplatform Viewer):** Visualización en tiempo real de la red multiplataforma de observación de SOCIB. DApp
3. **LW4NC2 (Lightweight for NetCDF Viewer):** Exploración y visualización de campos en malla por variables o fechas. LW4NC2
4. **BEAMON (BEAch MONitoring Viewer):** Monitorización de playas a través de imágenes y datos meteorológicos y de oleaje en tiempo real. BEAMON Viewer

5. **Profile viewer:** Análisis y visualización de perfiles de variables oceánicas, como temperatura y salinidad, a diferentes profundidades. Profile viewer
6. **SOCIB Satellite Imagery:** Generación de imágenes a partir de productos satelitales de CMEMS para analizar el estado y la variabilidad de la superficie oceánica en el Mediterráneo occidental. SOCIB Satellite Imagery

SOCIB Data Catalog	
MAIN APPLICATION DATA	
Name/Production title/Heading	SOCIB Data Catalog
Subtitle/Sub-heading	Web application data catalog with multiyear and near real-time data at the Mediterranean Sea collecting physical, biological, chemical, and hydrodynamic variables from multi observing facilities of SOCIB.
Keywords	web application, data catalog, Mediterranean Sea, multi observing facilities, scientific community
Description/Summary	The *SOCIB Data Catalog* is dedicated to the discovery, visualization, and download of the data available at the SOCIB Data Repository. This web application data catalog consists in providing data from the SOCIB API services.
Used data	SOCIB metocean data from gliders, research vessel, lagrangian platforms (drifters, profilers), fixed stations (coastal stations, sea level stations, oceanographic buoys, weather stations), HF radar stations, and oceanographic turtles.
Citation:	Frontera, B., & Rotllán, P. (2018). SOCIB Data Catalog [Web app]. Balearic Islands Coastal Observing and Forecasting System, SOCIB. http://apps.socib.es/data-catalog/
OTHER RELEVANT APPLICATION DATA	
Public or internal application	Public: this production is public
Authors	Frontera, B. & Rotllán-García, P.
Organisations involved	SOCIB
Publication date	31/12/2018
Type of access	Open access
Language	English
URL	http://apps.socib.es/data-catalog
Related project	-
Type	Data and image applications
Sectors	Science and innovation
Users	Academic/scientific community
SOCIB staff responsible	Juan Gabriel Fernández (jfernandez@socib.es)
Link to application user manual	-

DApp	
MAIN APPLICATION DATA	
Name/Production title/Heading	DApp (SOCIB multiplatform viewer)
Subtitle/Sub-heading	Web application viewer with near real-time data at the Mediterranean Sea collecting weather and ocean data of observing multiplatform facilities of SOCIB.
Keywords	web application, viewer, multi observing facilities, Western Mediterranean, scientific community
Description/Summary	The *DApp* is dedicated to allow the visualization of the observing multi-platform facilities network operated by SOCIB. This web application viewer consists in providing the visualization of gliders, profiling floats, surface drifters, research vessels, and turtles, for both active and completed deployments.
Used data	SOCIB metocean data from gliders, research vessel, lagrangian platforms (drifters, profilers), fixed stations (coastal stations, sea level stations, oceanographic buoys, weather stations), HF radar stations, and oceanographic turtles.
Citation	Frontera, B., & Rotllán, P. (2018). SOCIB Data Catalog [Web app]. Balearic Islands Coastal Observing and Forecasting System, SOCIB. http://apps.socib.es/data-catalog/
OTHER RELEVANT APPLICATION DATA	
Public or internal application:	Public: this production is public
Authors	Balearic Islands Coastal Observing and Forecasting System, SOCIB.
Organisations involved	ICTS SOCIB
Publication date	31/12/2012
Type of access	Open access
Language:	English,Spanish, Catalan
URL:	http://apps.socib.es/dapp
Related project	-
Type	Data and image applications
Sectors	Science and innovation Ocean weather and prediction
Users	Academic/scientific community
SOCIB staff responsible	Juan Gabriel Fernández (jfernandez@socib.es)
Link to application user manual	-

LW4NC2	
MAIN APPLICATION DATA	
Name/Production title/Heading	Lightweight for NetCDF viewer (LW4NC2)
Subtitle/Sub-heading	Web Application Viewer which allows the user to browse through gridded fields by variable or date, through requests to data stored in SOCIB THREDDS catalog.
Keywords	web application, viewer, Western Mediterranean, THREDDS, scientific community
Description/Summary	The Lightweight for NetCDF viewer (LW4NC2) allows the user to browse through gridded fields by variable or date, through requests to data stored in SOCIB THREDDS catalog. It also allows the user to extract time series at chosen locations, change styles, animate layers, and perform other visualization tasks.
Used data	SOCIB metocean data from SOCIB WMOP model forecasts, SAPO IB, HF Radar.
Citation:	Llodrà, J., & Frontera, B. (2015). SOCIB WMOP currents model visualization [Web app]. Balearic Island ds Coastal Observing and Forecasting System, SOCIB. https://thredds.socib.es/lw4nc2/index.html
OTHER RELEVANT APPLICATION DATA	
Public or internal application	Public: this production is public
Authors	Llodrà, J., & Frontera, B.
Organisations involved	ICTS SOCIB
Publication date	31/12/2015
Type of access	Open access
Language	English, Spanish, Catalan
URL	https://thredds.socib.es/lw4nc2/index-menu.html
Related project	-
Type	Data and image applications
Sectors	Science and innovation Ocean weather and prediction
Users	Academic/scientific community
SOCIB staff responsible	Juan Gabriel Fernández (jfernandez@socib.es)
Link to application user manual	-

BEAMON	
MAIN APPLICATION DATA	
Name/Production title/Heading	BEAch MONitoring Viewer (BEAMON Viewer)
Subtitle/Sub-heading	Web application with image, wave and weather data at the Balearic Islands collecting beach images from Beach Monitoring Stations of SOCIB
Keywords	beach monitoring, coastal stations, camera system, wave, weather
Description/Summary	The Beach Monitoring Viewer (BEAMON Viewer) is a user-friendly interactive app showing the locations of beaches monitored by the Balearic Islands Coastal Observing and Forecasting System (SOCIB), which are: Cala Millor and Playa de Palma, in Mallorca; and Playa de Son Bou, in Menorca. This app was designed for all types of users, from coastal scientists to coastal managers and the general public, having easy and advanced options to cover a wide range of users interests. BEAMON Viewer allows users to track beach morphological changes viewing the latest as well as the historical snapshots, weather and wave conditions captured by the beach monitoring stations installed along the Balearic Islands coast. Four types of image products are provided by the app: a snapshot, a time-exposure image (timex), a variance image, and an image of line sampled pixels along the surf and swash zones during image acquisition time (time-stack).
Used data:	Ocean current trajectories from observations and model forecasts
Citation:	Fernandez-Mora, A., Criado-Sudau, F., Bonet, M.. (2022). *BEAMON: BEAch MONitoring* [Web app]. https://apps.socib.es/beamon/
OTHER RELEVANT APPLICATION DATA	
Public or internal application	Public: this production is public
Authors	Fernandez-Mora, A., Criado-Sudau, F., Bonet, M.
Organisations involved	SOCIB
Publication date	06/08/2022
Type of access	Open access
Language:	English, Spanish, Catalan
URL:	https://apps.socib.es/beamon/
SOI:	PRD/2022-12264345
Related project:	-
Type	Data and image applications
Sectors	Science and innovation Coastal communities, beach and tourism Coastal and marine management and governance Extreme hazards and safety Climate and adaptation Ocean weather and prediction
Users	Academic/scientific community Public administration and policy makers

	Educational community Citizenship
SOCIB staff responsible	Àngels Fernández (mafernandez@socib.es
Link to application user manual	https://ayuda.beamon.socib.es/

Profile viewer	
MAIN APPLICATION DATA	
Name/Production title/Heading	Profile viewer
Subtitle/Sub-heading	Web application with static data at Mediterranean Sea using ocean variables from gliders, research vessel and lagrangian platforms of SOCIB.
Keywords	web application, ocean variables, profile viewer, glider, research vessel, lagrangian platforms
Description/Summary	The profile viewer for oceanographic observation is a web application that allows oceanographers to visually analyze and interpret data profiles, such as temperature and salinity, collected at different depths in the ocean, facilitating efficient exploration and comparison of oceanic parameters.
Used data	SOCIB metocean data from multi observing facilities.
Citation	Balearic Islands Coastal Observing and Forecasting System, SOCIB. (2023). *Visor de perfiles.* [Web app]. https://apps.socib.es/profiles-viewer/es/
OTHER RELEVANT APPLICATION DATA	
Public or internal application	Public: this production is public
Authors	Balearic Islands Coastal Observing and Forecasting System, SOCIB
Organisations involved	ICTS SOCIB
Publication date	15/11/2023
Type of access	Open access
Language	Spanish, Catalan, English
URL	https://apps.socib.es/profiles-viewer/es/
Related project	-
Type	Data and image applications
Sectors	Science and innovation Ocean weather and prediction
Users	Academic/scientific community
SOCIB staff responsible	Juan Gabriel Fernández (jfernandez@socib.es)
Link to application user manual	-

SOCIB Satellite Imagery	
MAIN APPLICATION DATA	
Name/Production title/Heading	SOCIB Satellite Imagery
Subtitle/Sub-heading	Web app with near real-time and historical data in the Mediterranean Sea collecting ocean variables from satellite products of CMEMS
Keywords	web application, Mediterranean Sea, satellite imagery, ocean variables, academic/scientific community
Description/Summary	The *SOCIB satellite imagery* generates images from CMEMS satellite products, providing added-value information about the surface ocean state and variability in the western Mediterranean Sea and its sub-regions from the open ocean to coastal areas. This application provides useful information (daily bulletin, climatological statistics, events, estimations of regional features) for oceanographic campaigns (preparation and/or operation), the scientific community, environmental agencies and educators in marine science.
Used data	Physical and biogeochemical ocean variables from CMEMS satellite observations
Citation	Juza, M., & Tintoré, J. (2021). *SOCIB Satellite Imagery* [Web app]. Balearic Islands Coastal Observing and Forecasting System, SOCIB. https://apps.socib.es/satellite-imagery
OTHER RELEVANT APPLICATION DATA	
Public or internal application	Public: this production is public
Authors	Juza, M. & Tintoré, J.
Organisations involved	SOCIB, Copernicus Marine Service.
Publication date	31/12/2021
Type of access	Open access
Language	English
URL	https://apps.socib.es/satellite-imagery
Related project	-
Type	Data and image applications
Sectors	Science and innovation Extreme hazards and safety
Users	Academic/scientific community Public administration and policy makers
SOCIB staff responsible	Mélanie Juza (mjuza@socib.es)
Link to application user manual	https://apps.socib.es/satellite-imagery/PUM_Satellite_imagery.pdf

7. Aplicaciones divulgativas

Las Aplicaciones divulgativas de la ICTS SOCIB están diseñadas para promover la educación y la comunicación científica, fomentando la cultura oceánica entre públicos diversos. Estas herramientas combinan narrativas accesibles con datos científicos, sensibilizando sobre los ecosistemas marinos del Mediterráneo y los retos asociados a su conservación y sostenibilidad. En 2025, SOCIB ofrece una aplicación destacada en este ámbito:

1. **Follow the Glider:** Seguimiento en tiempo real de las misiones de los planeadores submarinos o *gliders* en el Mediterráneo, de manera interactiva y visual. Follow the Glider

Follow the glider	
MAIN APPLICATION DATA	
Name/Production title/Heading	Follow the glider
Subtitle/Sub-heading	Web application viewer with near real-time data at Mediterranean Sea collecting physical and hydrodynamic variables from gliders of SOCIB.
Keywords	web application, viewer, Mediterranean sea, gliders, educational community
Description/Summary	The Follow the Glider is dedicated to allow students and teachers to follow the path of the gliders in near real-time in the Mediterranean Sea. This web application viewer consists in providing a multi-language web-based educational tool for European children, schools, and the general public with an interest in new ocean monitoring technologies such as autonomous underwater gliders. This user-friendly interface aims at browsing the historic missions, understanding the data collected and valuing the importance of coastal research to develop predictive models and deal with phenomena such as climate change and/or sound and science-based coastal and ocean management.
Used data	SOCIB metocean data from gliders.
Citation	Cañellas, T., Garau, À., de Hugarte, B., & Rodríguez, R. (2014). Follow the glider [Web app]. Balearic Islands Coastal Observing and Forecasting System, SOCIB. http://followtheglider.socib.es/
OTHER RELEVANT APPLICATION DATA	
Public or internal application	Public: this production is public
Authors	Cañellas, T., Garau, À., de Ugarte, B. & Rodríguez, R.
Organisations involved	SOCIB, CEFAS, IMEDEA
Publication date	31/12/2014
Type of access	Open access
Language	English, Spanish
URL	http://followtheglider.socib.es/
Related project	-

Type	Outreach applications
App Version	-
Sectors	Education, social engagement, and ocean literacy
Users	Educational community Citizenship
SOCIB staff responsible	Rosa Rodríguez (rrodriguez@socib.es)
Link to application user manual	-

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