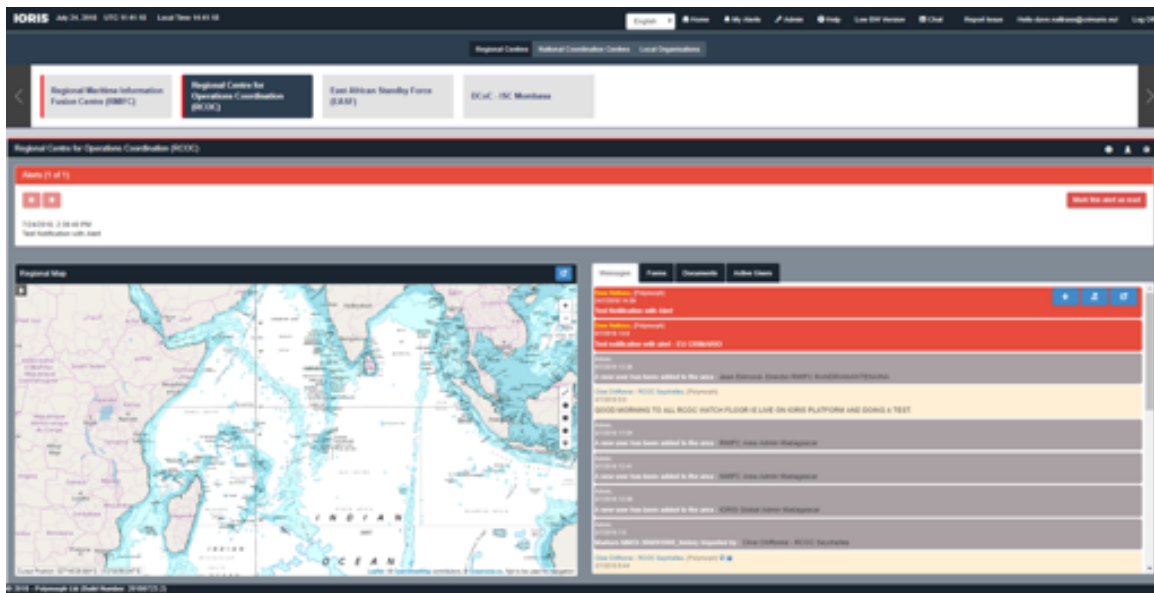# IORIS: Maritime Coordination and Information Sharing Platform

IORIS platform is a web-based maritime coordination and information-sharing tool available for regional and national multi-agency use. **Its functions are flexible and dictated by the mandate and role of the specific centre**. In its primary function, IORIS provides maritime centres with a means to plan and coordinate maritime operations, also offering command and control functions for crisis/incident management. Information Fusion centres are also able to use the tool to share information and distribute enriched data.

Development of IORIS based on user-oriented method

IORIS is recognised as a credible, secure and user-friendly tool, tested and tried by regional and national centres. It was launched by EU CRIMARIO in 2018 after a long process of collaboration with regional partners involving countries at all stages of the design and development process initially for the benefit of the western Indian Ocean countries. After feedback from operational use and major exercises including Cutlass Express 19.1 & 19.2, an updated version 2.0 was released on October 2019.

IORIS designed to be a flexible and neutral tool

The integrated modules are designed to achieve: (a) coordination of maritime operations including real time management of incidents at sea; (b) information sharing in a secure and flexible environment; (c) secure communications between users (national agencies, regional centres); and (d) providing autonomy of data control to members and access rights for their respective designated areas.

This tailor-made platform includes the following key functions:

➡ **Multiple areas**: ability to manage day-to-day coordination, collaboration, information sharing, communications and operations within their respective maritime community in a private and secure environment by creating dedicated areas for each regional centre, national centre, local organisations, incidents or operations. Moreover IORIS offers users the ability to remain in a Single Information Sharing Environment (SISE) by providing the instant capability to switch from private community to any IORIS community as required.

➡ **Messages**: An instant 'messages' area is provided within each area created and is private to all members within that group. Information exchanged here is usually related to routine daily exchanges, operations, or incidents, and once posted is permanent. The 'messages' feature provides an ideal record of events that can be output to PDF for archiving or legal finish if required.

➡️ **Private chat**: Users can utilize a secure chat feature either 1 to 1, or group chat to exchange information and discuss in privacy. Access is in total confidence and not available to anyone outside of the chat group.

➡️ **Audible notification**: Notification for all new messages include an audible alert. In addition, high priority messages can add an 'Alert' that displays the message with a prominent red banner on screen. Email notifications will also be sent to notify users who are not logged in.

➡️ **Voice over IP (VoIP)**: VoIP provides an integrated voice capability where maritime centres and IORIS users can connect with no associated call charges.

➡️ **Advanced mapping**: using open source maps and dedicated nautical charts (inc. EEZ overlay), the module allows the import and export of maps and navigation markers (location of vessels, tracking, etc.), to plot various marker configurations. It also shows the range of vessels based on the last known direction of travel and estimated speed to extrapolate where a vessel might be now.

➡️ **Vessel intercept:** A vessel intercept function is included which can determine the optimal course and speed to intercept a vessel or target of interest within the mapping features. This feature is quick and easy to use and once the solution is formulated, it can be shared within the IORIS messages area.

➡️ **Document feature:** A set of folders are created by default when an area is created. The user can easily upload files, encrypt, send for release, share, view documents, delete etc.

➡️ **Forms**: Developing cases can be documented using pre-formatted reports to ensure a fast and efficient sharing of information.

➡️ **Interoperability**: IORIS is already interoperable with SeaVision, the maritime situational awareness tool developed by US Navy and US Department of Transportation. CRIMARIO II is also exploring further interoperability opportunities with other platforms and complementary data sources such as satellite radar.

➡️ **Low bandwidth feature**: Deployed patrol vessels and aircraft can use IORIS by switching to a 'low bandwidth' version. This will switch off the main mapping function, but retain the messages, private chat and access to files functionality.

➡️ **Multilingual**: The current menu options are in English, French, Portuguese, Somali & Arabic. Languages are easily selected by default when creating a user, or it can be switched manually once logged in. Additional languages are foreseen and can be added on request.

> IORIS has 2 identical platforms: IORIS Live and a mirror platform utilised for training and exercises.
>
> Organisations and users can request access to IORIS training at any time for internal use, or can request CRIMARIO support.

➡️ **Area management**: designated administrators at the national and/or regional level will define operational areas, access rights and the membership for centres, local organisations or incidents.

Special attention to the security and the sustainability

The IORIS platform is **only accessible to authorized users** designated by partner countries, maritime centres and regional organisations. IORIS incorporates the latest technologies for ensuring a high level of security in a highly secure hosting environment (further information on IORIS security can be provided on request to authorised organisations). IORIS is a cost-effective solution offering low running costs to ensure a long-term sustainability.

Growing number of trained and connected users

A full training package is available, including user guide, training curricula, and training videos.

The IORIS platform is already used by national and regional maritime agencies in the Western Indian Ocean and Horn of Africa including Comoros, Djibouti, Kenya, Madagascar, Mauritius, Saudi Arabia, Seychelles, Regional Maritime Information Fusion Centre (RMIFC, Madagascar), Regional Centre for Operational Coordination (RCOC, Seychelles) and EUNAVFOR Atalanta JOC. Additional requests are frequently received by the CRIMARIO team on a daily basis.

> A request for access to IORIS platform can be officially requested by countries and regional organisations by contacting dave.nattrass@crimario.eu.