Immersive Experience Technologies for Showcasing INCOIS Services/Products

INCOIS has been providing ocean information and advisory services to society, industry, government agencies, and the scientific community in India and neighbouring countries through sustained ocean observations and continuous improvements driven by systematic and focused research.

INCOIS actively promotes ocean literacy and disaster preparedness through various outreach activities such as open days, student visits, public lectures, and awareness campaigns. It organizes training programs, including gender-inclusive and international capacity-building workshops. INCOIS also engages with coastal communities and partners with universities and NGOs to enhance resilience. It participates in major scientific events by setting up stalls to showcase oceanographic instruments, forecasting services, and research tools to raise awareness. By celebrating events like World Ocean Day, World Environment Day, and Tsunami Awareness Day, it raises public awareness through exhibitions, multimedia resources, and stakeholder collaborations across the region. For example, as part of its outreach program, every year INCOIS hosts a significant number of students from various schools, colleges, and universities at its facilities to raise awareness about INCOIS services and inspire young minds to explore the field of oceanography.

The content quality, visual appeal, and multilingual presentation in the outreach materials must be improved significantly to effectively communicate INCOIS's services and scientific contributions to the public and stakeholders. In this aspect, INCOIS is looking to develop immersive experience for five services initially, namely i) Tsunami Early Warning ii) Storm Surge Warning iii) Potential Fishing Zone (PFZ) advisory iv) Ocean State Forecast v) Coral Bleaching and Marine Heat Wave Advisory.

INCOIS is focusing on developing two categories of immersive experiences:

i) Portable setups that can be easily deployed at conferences, exhibitions, and similar events (including VR/MR headsets, Spatial Reality Devices, 3-sided/4-sided pyramid holograms, WebXR, mobile-based AR applications, and other feasible solutions);

and

ii) Fixed installations designed for the INCOIS Experience Centre and Museum (including VR/MR headsets, PC-based VR systems, interactive wall projection technologies, MultiTaction tables, and other relevant technologies).

The materials and content should be suitable for a diverse range of stakeholders, including school and college students, researchers, fishermen, policymakers, and the public.

Content of varying durations - long version (3–5 minutes) and short version (1–2 minutes) - is to be developed to accommodate different audience types and deployment environments. The content shall be customized for the specific proposed devices, considering their functionality, display capabilities, and interactivity, and must ensure compatibility with diverse workstations and platforms wherever applicable.

The material/content must be designed with a strong emphasis on scientific integrity, educational value, interactivity, and immersive storytelling. Content should use high-resolution 3D models, realistic textures, and fluid animations to recreate dynamic ocean environments. Spatial audio and ambient sound design should enhance realism (e.g., underwater sounds, waves, storms). Voiceovers should be clear, multilingual (English, Hindi, Telugu, and other regional languages as needed), and suitable for different age groups. Therefore, the content design and development should be carried out in close collaboration with the INCOIS team in a phased manner. Development in each phase shall proceed only after obtaining approval from the INCOIS team to ensure scientific accuracy is maintained throughout the content.

INCOIS is planning to tender out the development of an end-to-end solution in terms of a) Proposing the different immersive experience technologies/devices b) Procurement of required devices c) Content storyboard/script design and customization for different devices d) Content development and e) Warranty/AMC.

The proposed timeline for the project is expected to be 3 to 3.5 months.

In view of the above, INCOIS invites potential bidders to participate in an online discussion on **28th October 2025.** The bidders are expected to present their proposals, including ideas on possible immersive experience technologies, solution architecture, and any relevant previous scientific projects in the discussion meeting.

Interested bidders may register in the below google form link (https://forms.gle/f9Av3nNW6vRfkVep8).

Time-slot for the interaction and the link to join the meeting will be communicated on 27th October 2025 by 1730 hrs

INCOIS Website: https://incois.gov.in