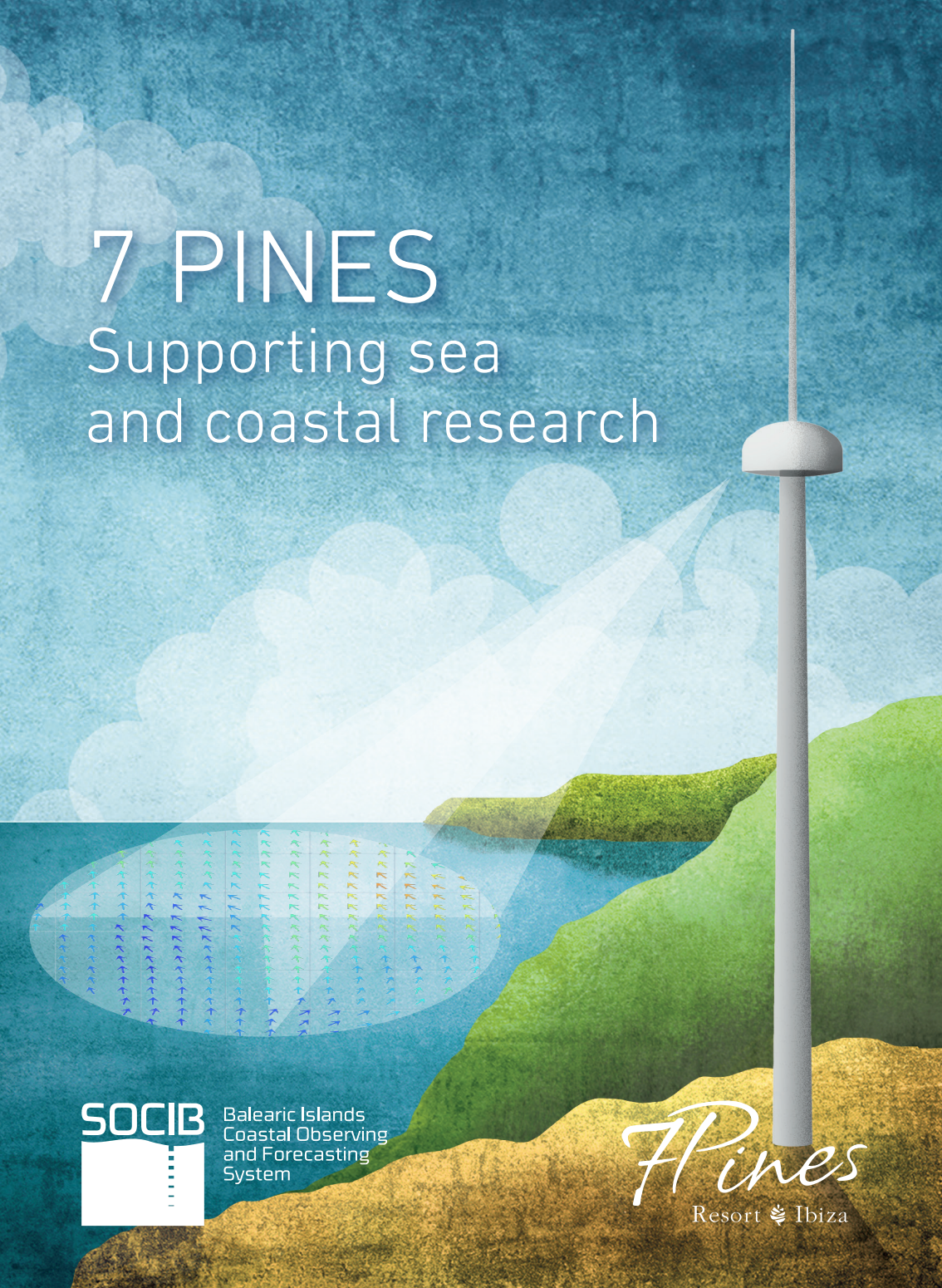
7 PINES
Supporting sea and coastal research



SOCIB
Balearic Islands
Coastal Observing
and Forecasting
System

7Pines
Resort Ibiza

SOCIB's HF radars:
a revolution in the measurement of sea currents

The High Frequency (HF) radar is a remote sensing technology, based on the analysis of backscattered radio waves, which enable to obtain high-resolution maps of surface currents over extensive coastal seawaters.
Since 2012, SOCIB operates two coastal HF radar stations with the purpose of monitoring the surface currents of the Ibiza Channel.

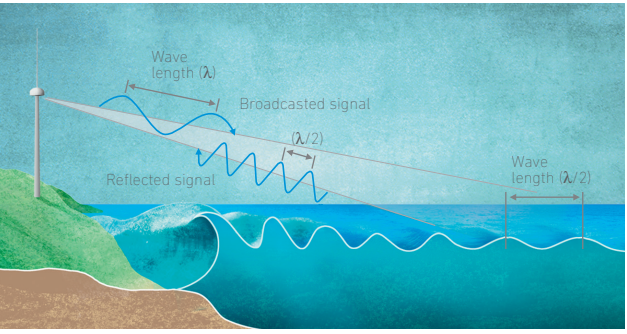
IMAGES: 7 PINES

Why the Ibiza Channel?

The Ibiza Channel is an area of great ecological importance due to its high biodiversity. It is a choke point of circulation where the fresher Atlantic water masses coming from the Atlantic Ocean interact with saltier waters from the Mediterranean. This interaction also plays an important role in the Mediterranean's climate.

AF Radar applications

- Navigation safety
- Sustainable management of fisheries
- Oil spill control
- Search and rescue
- Water quality
- Scientific knowledge



How does the HF radar work?

The HF radar antenna transmits the radio signal and detects and analyzes the reflected sea echo.
Radial current velocity (toward or away from the radar antenna) is given by the frequency shift of the reflected signal compared to the actually transmitted.

- Harmless radiation
- Low output radiated power (40w)

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