

Marine and Water Intelligence

Coastal evidence for targeted water assessments

XSensee maps coastal water indicators to help environmental teams examine spatial patterns and focus local sampling programmes.

Service example



1 m optical output for local context

Spatial water patterns

A view beyond isolated sampling points

Sampling priorities

Areas that merit local measurement

Comparable observations

Context for investigating temporal patterns

Coastal monitoring and sampling

Water monitoring teams need to understand how indicator patterns vary across an area before choosing locations for local measurements.

Who uses the evidence

Environmental authorities

Coastal monitoring and sampling plans

Water and coastal operators

Context for local water investigations

Research and consulting teams

Comparison with field measurements

Satellite analysis workflow

01

Area of interest

Territory and client question

02

Valid data

Suitable dates and source data

03

Service analysis

Application maps and estimates

04

Local review

Comparison with client records

Where should local sampling investigate the coastal patterns visible in satellite observations?

What it supports

Spatial water patterns

A view beyond isolated sampling points

Sampling priorities

Areas that merit local measurement

Comparable observations

Context for investigating temporal patterns

1 m optical detail at lower cost

XSensee reconstructs Sentinel-2 imagery on a 1 m output grid, helping teams examine local context with a lower-cost optical baseline.

Sentinel-2 RGB input



XSensee super-resolution



1 m output

Reconstructed optical imagery for local review.

Proprietary 10× algorithm

More visual detail from Sentinel-2 imagery.

Lower-cost baseline

Optical context for territorial screening.

Measurement scale

Thermal, water and carbon retain their source scale.

Same reference scene. The 1 m output is a reconstruction of optical imagery.

Coastal evidence from complementary indicators

Chlorophyll-a and suspended matter describe different aspects of the same reference area.

Chlorophyll-a

Review spatial patterns associated with phytoplankton conditions.

Suspended matter

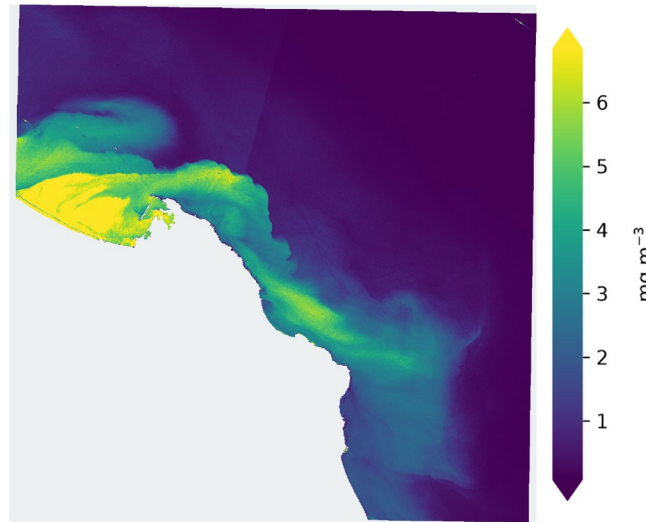
Examine total suspended matter as context for turbidity investigations.

Observation comparison

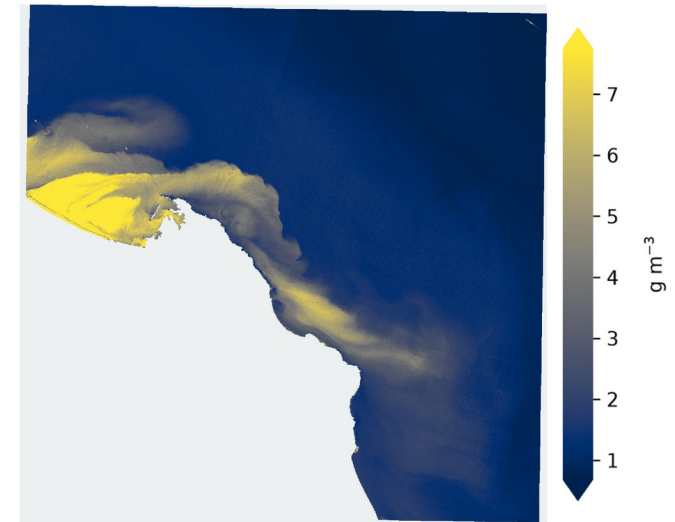
Use valid dates and local measurements to interpret the patterns.

Chlorophyll-a and suspended matter in the same area

Chlorophyll-a



Suspended matter (TSM)



Water indicators retain their source information scale. Local measurements and observation quality guide interpretation.

Applications and local follow-up

The same service evidence supports different client decisions. Local records and field assessments complete the investigation.

Targeted sampling

Select locations for field measurements where indicator patterns merit investigation.

Pattern review over time

Compare valid observations and local records to investigate recurring or changing coastal conditions.

Satellite evidence supports the local investigation and the decision on follow-up.

Water indicators retain their source information scale. Local measurements and observation quality guide interpretation.

A pilot on your territory

The pilot starts with a defined client question. Its scope reflects the territory, available data and the decision your team needs to make.

Pilot scope	Evidence and inputs	Deliverables and review
Coastal area and question Select the reference area and the water conditions to investigate.	Dates and local measurements Agree valid observations and available sampling records.	Indicator maps and review Assess mapped patterns with the environmental team and plan local follow-up.

A shared review of the evidence defines the next local checks and the scope of any further work.

A pilot for your next territorial decision

Tell us the area you need to assess and the decision the evidence should support.

Contact:

support@xsensee.com

www.kolibree-tech.com

www.public-dev.xsensee.com

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Explore the platform and watch the demonstration.