

SeaGIS

seagis.org

Cooperation for ecosystem based planning of the marine environment using GIS



<http://seagis.org>

Project leader: Jens Perus

Project period: June 2011-Oct 2014 Budget: 1 M€

Aim of SeaGIS

The overarching aim of SeaGIS is to produce an increased knowledge base and make it more accessible in order to increase the possibilities of a coordination of ecosystembased regional holistic planning of marine areas and create a common platform for knowledge storing, planning and future decision making in the Kvarken region.

Quark region



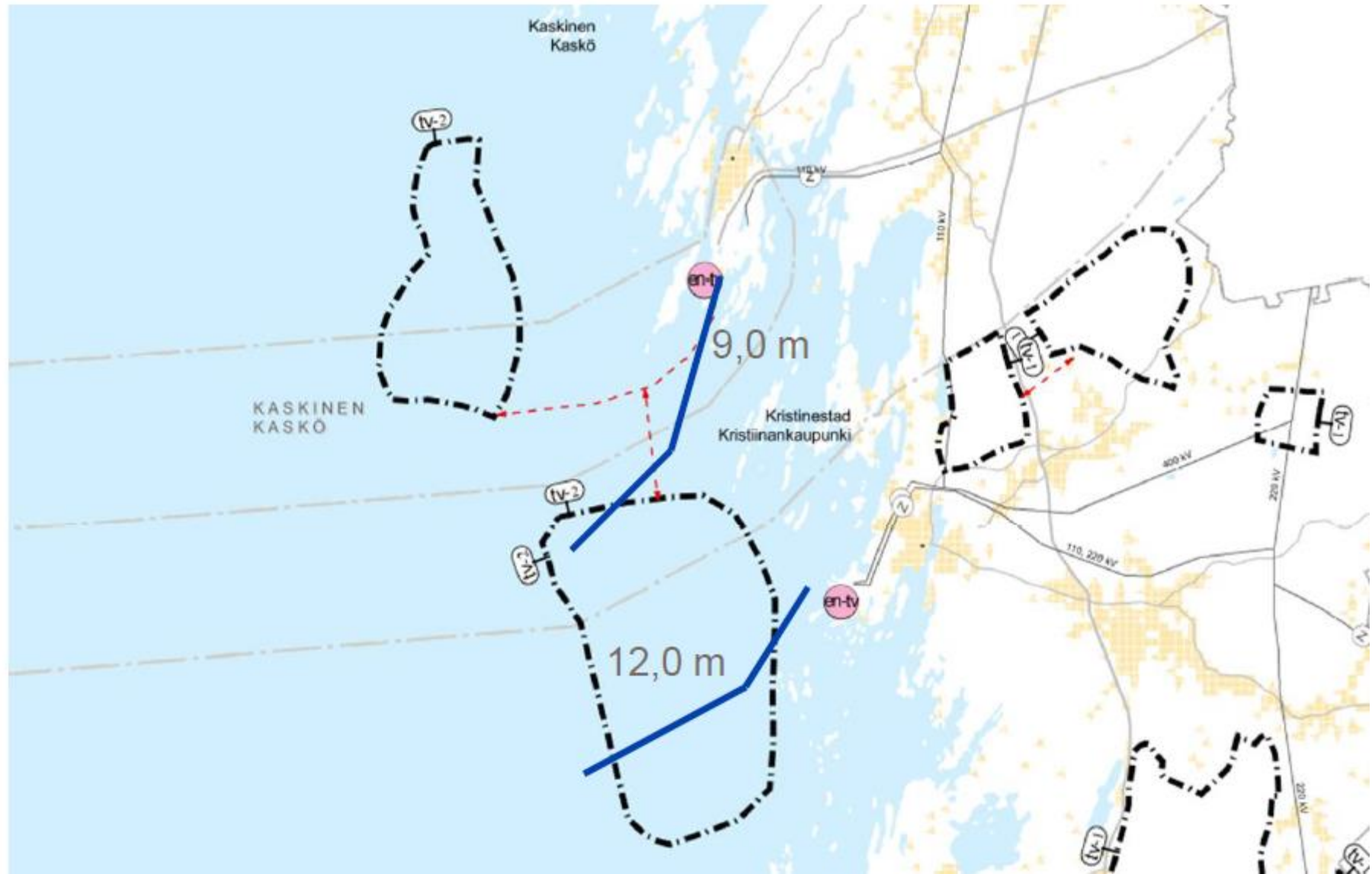
SE: 4 municipalities
FI: 12 municipalities

Different sizes –
different preparedness

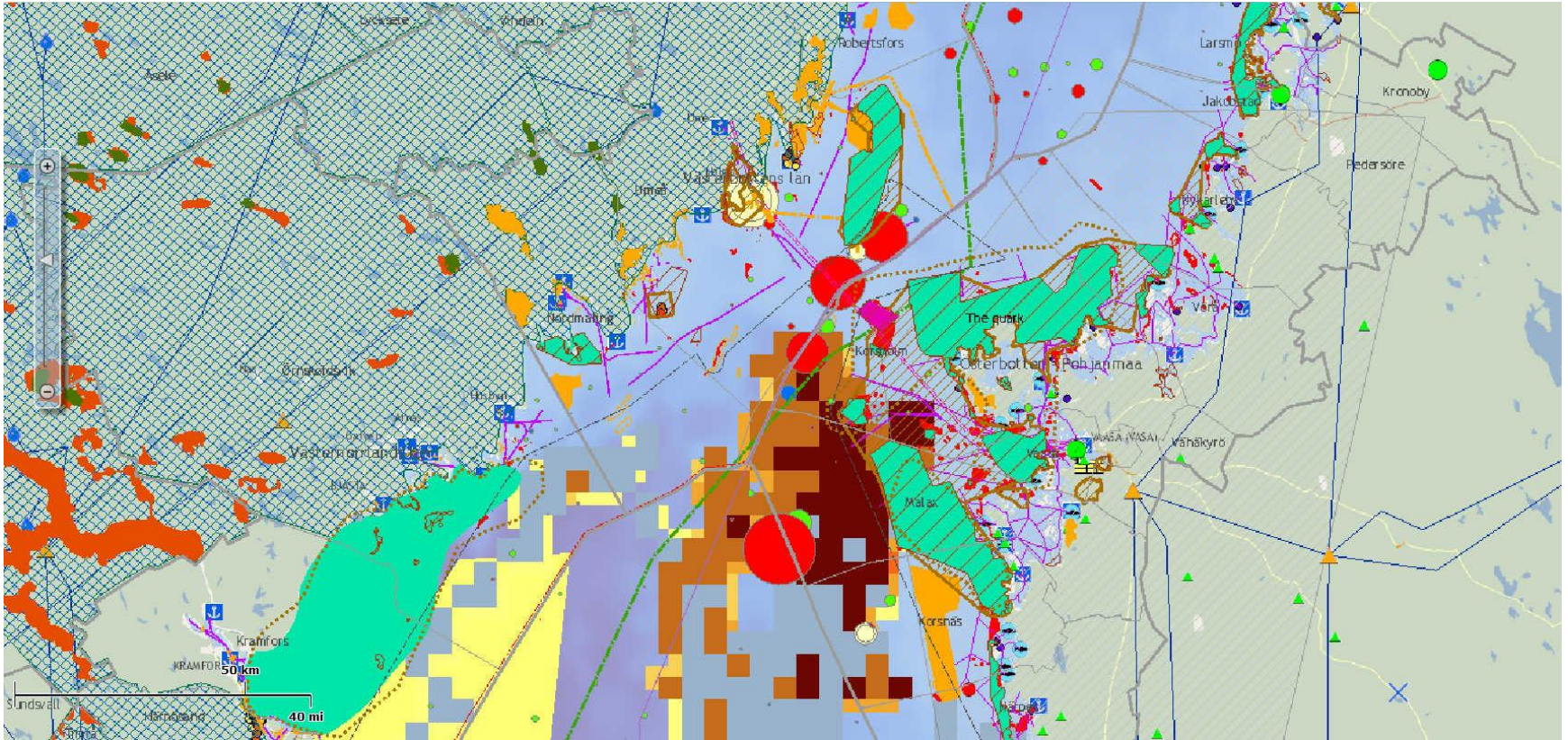


Shipping route–Windpower park

Pohjanmaan vaihemaakuntakaava 2, luonnos, 19.12.2011



The Quark



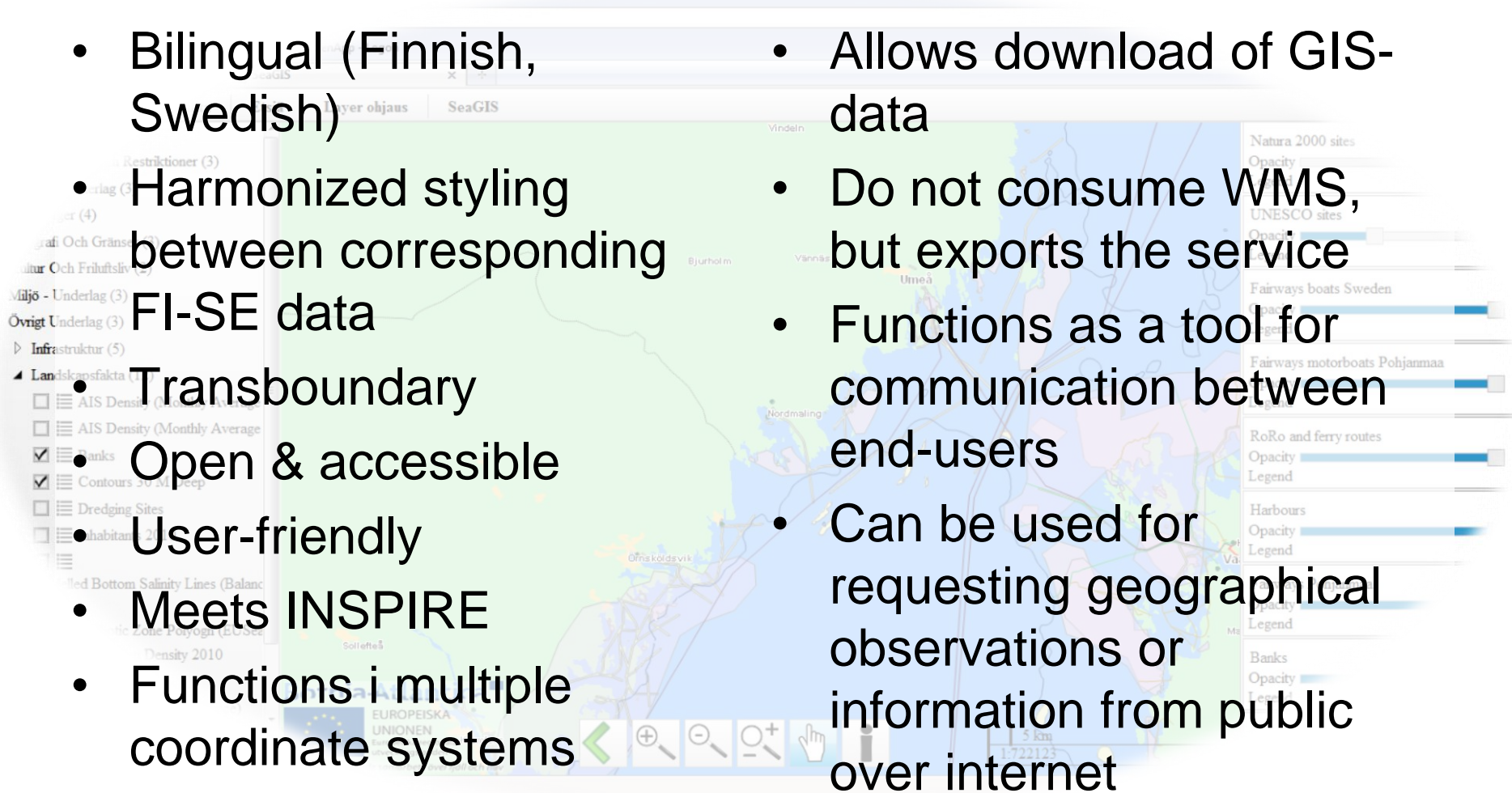
Data from Planbothnia-project

- Natura 2000
- UNESCO sites
- Cables
- Tourism
- Risk of oil spills
- Fish catches
- Spawning areas
- Harbours
- Bird areas
-
- Wind energy
- Fairways
- Military
- Seal protection areas

- Development of a transregional GIS-based knowledge platform for storing of data and analysing different marine planning situations.
 - Tool for communication of errands and projects between public, end-users, sectors and responsible planning administrations.
- Thorough pilot-testing on different planning scenarios and scales of the developed planning data found in GIS-based knowledge platform
 - Local, regional and transboundary
- Support FI-SE implementation of EU MSD in a common sea area in the Quark

The platform

- Bilingual (Finnish, Swedish)
- Harmonized styling between corresponding FI-SE data
- Transboundary
- Open & accessible
- User-friendly
- Meets INSPIRE
- Functions in multiple coordinate systems
- Contains ~550 GIS layers out of which 300 visible
- Allows download of GIS-data
- Do not consume WMS, but exports the service
- Functions as a tool for communication between end-users
- Can be used for requesting geographical observations or information from public over internet



content

Choose

-by point, line or
area

Tools

-Coordinates
- Show
- Go to
- Check
-Map contrast

Log on

Copyright

©

Measure

-distances
-areas

Search

-point, line, area
-text

Layer
control

The screenshot shows the seagis.geografiks.se web application. The interface includes a top navigation bar with links: Innehåll, Mätning, Välj, Sök, Verktyg, Logga in, and Lager kontroll. Below this is a list of themes: Planering och strategier (3), Kulturmiljö och friluftsliv (2), Näringar och infrastruktur (5), Naturskydd (5), Miljötillstånd (6), Biologi (4), and Landskapsfakta (9). The main map area displays a geographical map with various overlays, including a grid and colored regions. A scale bar at the bottom right indicates 5 km and 1:557426. The bottom of the screen shows a Windows taskbar with various application icons and a system clock displaying 12:37 on 9.6.2014.

seagis.geografiks.se

Innehåll Mätning Välj Sök Verktyg Logga in Lager kontroll

Planering och strategier (3)
Kulturmiljö och friluftsliv (2)
Näringar och infrastruktur (5)
Naturskydd (5)
Miljötillstånd (6)
Biologi (4)
Landskapsfakta (9)

Themes:

- Planning and strategies
- Cultural environment and recreation
- Industry and infrastructure
- Nature protection
- Environmental status
- Biology
- Landscape facts

Time series

Print
-adjust
and zoom
in printout
window

Save

User

5 km
1:557426

12:37
9.6.2014

Natura 2000

seagis.geografiks.se

Innehåll Mätning Vällj Sök Ve

Make whole layer visible

Hotade och sällsynta naturtyper (4)

Formellt skydd (11)

Biotopskyddsområden

☐ Skydds och naturskyddsområde (Fin)

☐ Naturresevat (Sve)

☐ Naturminne punkt (Sve)

☒ Natura 2000

☐ View Entire

☐ Export

☐ Metadata

☐ View Tables

☐ Exit

☐ Fagelskyddsområde (Sve)

Internationellt utpekad (6)

Strandskydd (3)

Fiske (5)

Miljöstillstånd (6)

Biologi (4)

Gränser (4)

Landskapsfakta (9)

Koordinatsystem
ETRS89 / ETRS-LAE

Fil format
ESRI ShapeFile

Ok Avbryt

Koordinatsystem
ETRS89 / ETRS-LAE

Nuvara
ETRS89 / ETRS-LAE

Europe
WGS 1984

Finnish
ETRS89 / ETRS-LAE

Sweden
RT90

SWE

Layers L38_NV_riksintr_N2000_SPAR

L38_NV_riksintr_N2000_SPAR@SEAGIS
Last changed - 2014-02-11 12:39

Key	Value
Copyright	Naturvårdsverket
Datum	2012 (laddades upp 2013 i karttjänsten SeaGIS)
Hyperlink	
Kart Namn	
Keywords	(riksintresse, planer, SPA, natura 2000, fågel, restriktioner)

L38_NV_riksintr_N2000_SPAR@SEAGIS Export Export All Visa i karta Sum Set tree Stäng

1 2 3 4 5 6

OBJECTID	SITECODE	NAMN	AREA_HA	SHAPE_area	SHAPE_len
1	SE0510101	Biskopstorp	758.04	7580404.38159	25129.4137243
2	SE0510049	Getteröns fågelreservat	350.398	3503978.3454	9030.12375547
3	SE0510176	Båtafjorden	255.053	2550531.74129	11897.2245798
4	SE0410041	Torhamn-Hästholmen	1809.969	18099690.1307	44285.2118406
5	SE0520037	Breviks kile-Toftenäs	774.819	7748190.4166	21145.904604
6	SE0410042	Tromtö-Almö	3358.444	33584445.3135	50223.1858735
7	SE0540163	Blängsmossen	447.248	4472480.49347	13207.3521532
8	SE0530030	Öjemossarna	381.215	3812152.65915	13978.3997815
9	SE0210284	Storskogen	139.076	1390755.04101	7784.07672936
10	SE0230291	Kvillingeförkastningen	189.676	1896761.08325	13001.0189665
11	SE0230363	Ågelsjön	264.387	2643870.57075	15930.9250167

Errands or communication

between administrations, municipalities or with the public

e.g. 'New recreation areas'

The screenshot shows a web application for managing recreation areas. It includes a map with various colored zones, a sidebar with a category list, a top navigation bar, and a right-hand panel for errand details. Yellow callout boxes highlight specific features:

- Mark your proposed area - point, line, polygon**: Points to a blue polygon on the map.
- Description of your errand or question**: Points to the text input area in the 'Errand Control' panel.
- Explain your proposal (e.g. sailing area, jet-ski area, scuba-diving, canoeing, scenic view, sport-fishing, other, etc.)**: Points to the large text input area below the description.
- Save and it is available to others in the errand to have a look at**: Points to the 'Save' button and the 'Palauta oletusarvot' (Reset default values) button.
- All data in platform available for support**: Points to the sidebar menu.
- Possible to pre-mark important data sheets relevant to question at hand**: Points to the 'Välj' (Select) button in the top navigation bar.

Errand Control

Friluftslivsområde

Lämpliga områden för främjande av friluftsliv och turism

Seglingsområde ☐

Vattenskoterområde ☐

Dykintressant område ☐

Paddlingsområde ☐

Besöksvärt område ☐

Fritidsfiske ☐

Annat

Save Palauta oletusarvot

Innehåll | **Mätning** | **Välj** | **Sök** | **Verktyg**

- Biologi (4)
- Kulturmiljö och friluftsliv (2)
- Landskapsfakta (9)
- Miljötillstånd (6)
- Närings- och infrastruktur (5)
- Naturskydd (5)
- Planering och strategier (3)

- ☐ Energi 42
- ☐ Friluftsliv 36
- ☐ Friluftslivsområde 37
- ☐ Infrastruktur 43
- ☐ Naturområde 44
- ☐ Utvinning av material 43
- ☐ Vattenbruk 47
- ☐ Yrkesfiske 46

Administration

- 4-5 organisations with full administration rights (2-3 per country)
 - Can upload/update GIS-data
 - Make errands / GIS-surveys
- Cost
 - ~10 000euro/year
- Platform basis built
 - Good foundation for geographicla expansion to neighbouring regions

Problems

- Had to obmit data due to request for money for delivery
- Data owners choose not to show data, due to low confidence in accuracy
- Classified data (settle for coarser resolution)
- Transformations of data
- Coordinate systems

Suceses

- Great tech-support from platform-consultants
 - Allowed us to evolve from original ideas
- Low costs for upholding system
- Easy administration
- Public communication tool
- Serve tourism?
- Regional Helcom HUB-model with risk-analysis
- Diverse content (social, cultural, environment) in high-resolution environment

SeaGIS- a best practise

NATURAL ENVIRONMENT

The SeaGIS project



Location Kvarken (Sweden/Finland)

Partner(s) Kvarken Council

Timescale 2012-2014 and onwards

Funds INTERREG and national funds

What is it?

The SeaGIS project is an INTERREG IVA project that aims at providing developers and decision-makers with tools and data, given the extra difficulties involved in doing spatial planning in a three-dimensional marine environment. The project has the further purpose of communicating this information to the general public.

Origin of the practice

The SeaGIS project is anticipating the EU Directive on Maritime Spatial Planning & Integrated Coastal Management: regional environmental and planning agencies wanted to be ready for the implementation of cross-border marine spatial plans in the region.

Objectives and implementation

The objective of the SeaGIS project is to expand knowledge of the Strait of Kvarken and to make it more accessible to enhance the possibilities for planning marine areas at regional scale. General public will have access to an internet based multilingual knowledge platform, in which most available data concerning the environment, infrastructure and socio-economic will be presented. All responsible environmental and planning authorities on both sides of the Kvarken strait are involved in the project. Municipalities are involved in pilot studies and provide relevant data to be uploaded on the platform. Universities on both sides of the Kvarken have looked into existing (maritime, environmental and planning) national legislation and made researches on how the current planning system works and how to approach forthcoming ecosystem based planning in the Kvarken area.

Key success factors

The SeaGIS project is an interesting practice because it anticipates the EU directives on marine spatial planning and preservation of coastal ecosystems at a cross-border level. It participates to a deeper and shared knowledge of the strait's natural environment, which is not always an easy thing considering the difficulties for some authorities to share data for free.

Similar studies and reflexion on the current planning system could be transferred to other straits to improve their capacity-building and to answer to the needs identified by the NOSTRA baseline study.

Contact Jens Perus and Johnny Berglund
Website <http://seagis.org/>

nostra
network of straits

What is Nostra Pro

Nostra follows the overall biodiversity and natural h



issues of economic development, transport,

network of straits

Completion of Seascapes Character

Assessment for the Dover Strait (Dead more)

Consortium

Lead partner:

Centres for Economic Development, Transport and the Environment in southern Ostrobothnia

Partners:

Åbo Akademi University

University of Vaasa

County administrative board of Västerbotten

Umeå University

IGIS

Metsähallitus



Närings-, trafik-
miljöcentralen



METSÄHALLITUS
FORSTSTYRELSEN



Åbo Akademi



VASA UNIVERSITET



Länsstyrelsen
Västerbottens län



IGIS

INNOVATIVA GEOGRAFISKA INFORMATIONSYSTEM



Cooperating with: Kvarken Council, Regional Council of Ostrobothnia, Region Västerbotten, Finnish Transport Safety Agency, Municipalities in Finland and Sweden.

Thank you for your
attention!

For more information or questions,
contact:

jens.perus@ely-keskus.fi

johnny.berglund@lansstyrelsen.se

