



# *Coastal Atlas Flanders/Belgium: moving from a classical static to an interactive data driven atlas.*

**Kathy Belpaeme** - Coordination centre on Integrated Coastal Zone Management

10 July 2008 – EEA coastal atlases conference, DK



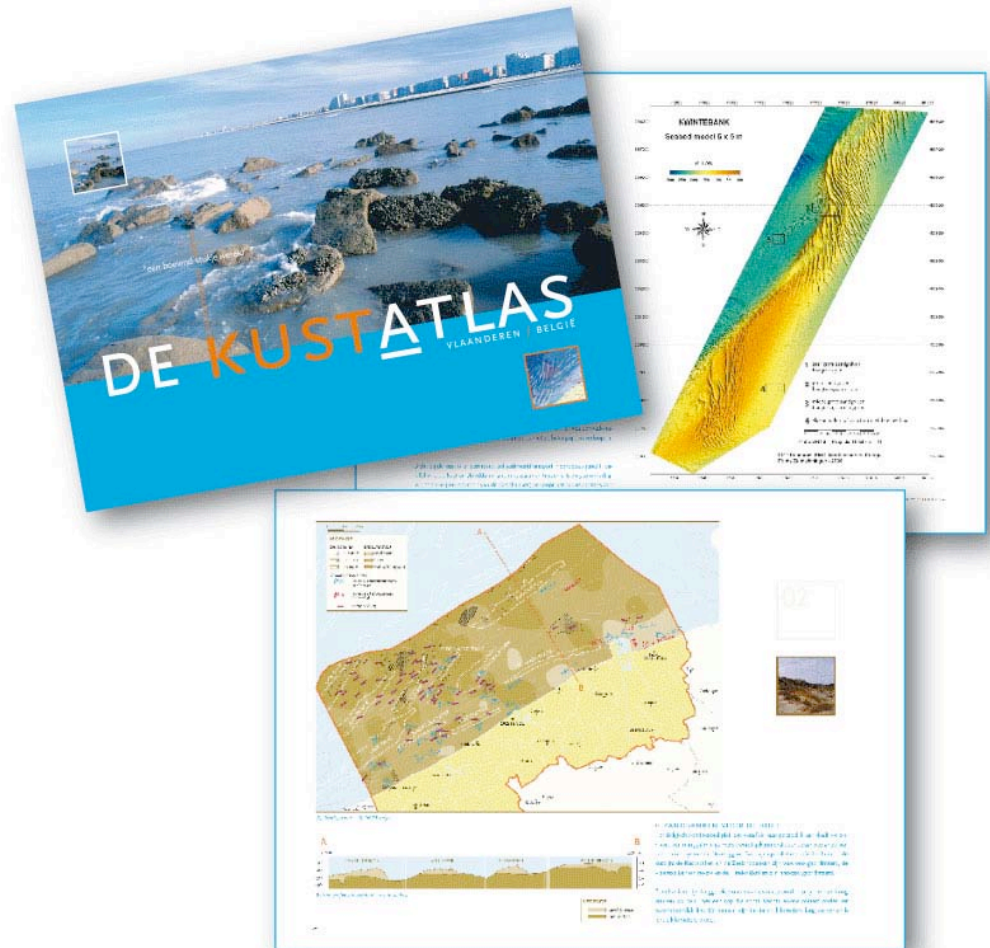
# Content

- What has been developed?
  - The Coastal Atlas Flanders/Belgium
  - Going surfing: [www.kustatlas.be](http://www.kustatlas.be)
- The process and framework
- Future plans/perspective
- Some thoughts



# The real thing...

- ...a desktop book
  - Little text
  - Lot's of maps
  - Lot's of pictures
  - Timeless information





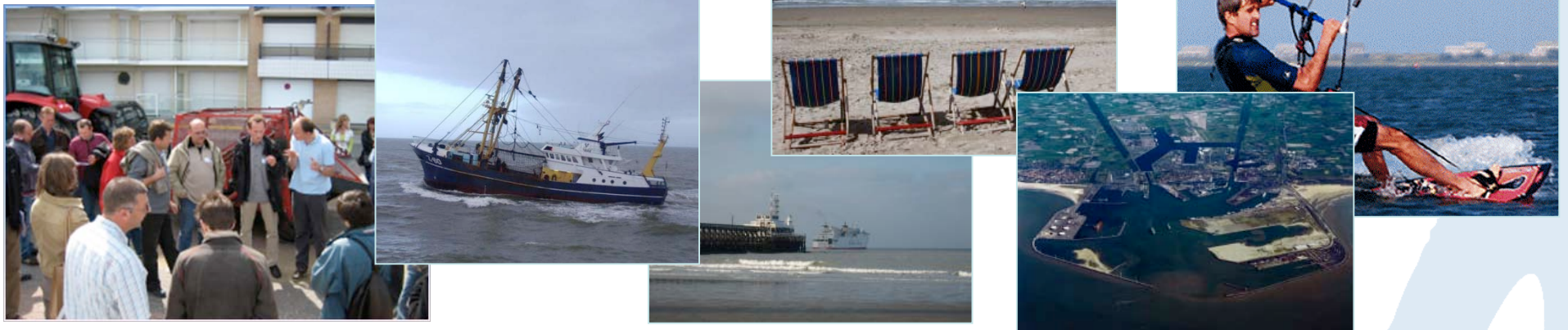
## Why this atlas?

Because of the European ICZM recommendations ( 413/2002/EC)  
...every member state needs to draw up a national coast inventory...

**Not a dusty report, but a communication tool!**

# Target audience

- For everybody who is interested in the coast...(local governments, nature guides, stakeholders...)



- A balance between scientific correct data and information, also attractive to a broader public...

# Now in your bookshop...

- Atlas was presented in October 2004.
- 300 Dutch copies sold in a few months (€ 46,25)

3 The sustainability barometer for the Flemish coast at: [www.kustbeheer.be/indicatoren](http://www.kustbeheer.be/indicatoren)

### A FINGER ON THE PULSE

» THE SUSTAINABILITY BAROMETER FOR THE COAST  
In order to determine whether developments in the coastal region form a basis for a sustainable development, the Coordination Center for Integrated Coastal Zone Management (ICZM) has created the sustainability barometer for the coast. This convenient measuring instrument monitors the evolution of a set of themes or 'indicators' that are important for the coast and coastal policy.

The sustainability indicators form an ideal measuring instrument, allowing us to gain an insight into the current state of the coast. Moreover, they can serve as signals for a necessary adjustment of coastal policy and a harmonization of policies in the different sectors. They also form an important means of communication.

Each of the indicators reflects a visible trend in the coastal region, thus allowing us all to keep a finger on the pulse.

» The indicator "Ageing rate"  
This indicator gives us an insight into both the stable and dynamic nature of a community. An ageing population has an (economic) impact on the health care and pension system.

Each year, the ageing rate of the study area is significantly higher than that of Flanders and Belgium. It continues to increase in the coastal region, where it is higher than in other parts of Belgium.  
Source: [www.kustbeheer.be/indicatoren](http://www.kustbeheer.be/indicatoren)



CO-ORDINATION CENTRE FOR INTEGRATED COASTAL ZONE MANAGEMENT  
WWW.KUSTBEHEER.BE





CO-ORDINATION CENTRE FOR INTEGRATED COASTAL ZONE MANAGEMENT  
WWW.KUSTBEHEER.BE

# Go surfing:

## [WWW.KUSTATLAS.BE](http://WWW.KUSTATLAS.BE)



target audience?





# The website:

- The same 'look and feel' of the book. Keep it simple
- available in 4 languages <-> the book: 2 languages



DE KUSTATLAS ONLINE

U bent hier: [Home](#) - Gebruik van de zee

4. Gebruik van de zee

[ Home ] [ Zoeken ] [ Plus ] [ Mail ]

- Multifunctioneel gebruik van de zee
  - > Maritiem transport
  - > Zand- en grindwinning
  - > Bagger- en stortplaatsen
  - > Militair gebruik
  - > Communicatiekabels en gasleidingen
  - > Energiewinning
  - > Natuur
  - > Visserij - recreatie
- Monitoring en onderzoek

© 2007 [www.kustatlas.be](http://www.kustatlas.be) | [FAQ](#)

GEBRUIK VAN DE ZEE  
*"open en multifunctioneel"*

**/ MULTIFUNCTIONEEL GEBRUIK VAN DE ZEE**

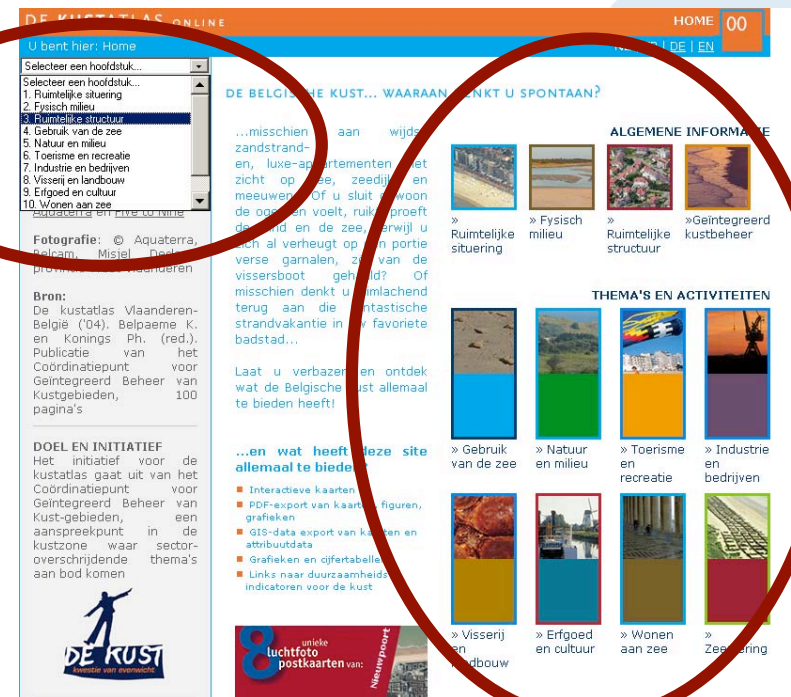
maritiem transport » zand- en grindwinning » bagger- en stortplaatsen » militair gebruik » communicatiekabels en gasleidingen » energiewinning » natuur » visserij - recreatie

# The website:

- The same 'look and feel'
- Available in 4 languages
- Same structure of the book

## 12 themes:

Spatial setting  
Physical environment  
Spatial structure  
Use of the sea  
Environment and nature  
Tourism and recreation  
Industry and business  
Fishery and agriculture  
Culture and heritage  
Living by the sea  
Coastal defense  
Integrated coastal zone management





# Link with coastal indicators and data

DE KUSTATLAS ONLINE TOURISM AND RECREATION 06


You are here: [Home](#) - Tourism and recreation NL | FR | DE | EN

6. Tourism and recreation

- Tourism at the coast and in the hinterland
- 10 coastal municipalities / 13 seaside resorts
- Coastal tourism
  - >Accommodation types
  - >Beach tourism
  - >Day tourism
  - >Tourism in the hinterland

© 2008 [www.kustatlas.be](http://www.kustatlas.be) | [FAQ](#)

An initiative by the Co-ordination Centre for Integrated Coastal Zone Management



TOURISM AND RECREATION  
*"a popular destination"*

/ TOURISM AT THE COAST AND IN THE HINTERLAND

/ 10 COASTAL MUNICIPALITIES / 13 SEASIDE RESORTS

/ COASTAL TOURISM

accommodation types » beach tourism » day tourism » tourism in the hinterland

**Indicators for tourism and recreation :**

- Demand for road travel on the Coast
- Pressure for coastal and marine recreation
- Area of land and sea protected by statutory designations
- Loss of cultural distinctiveness
- Significance of tourism
- Sustainable Tourism
- Bathing water quality
- Amount of marine and coastal litter



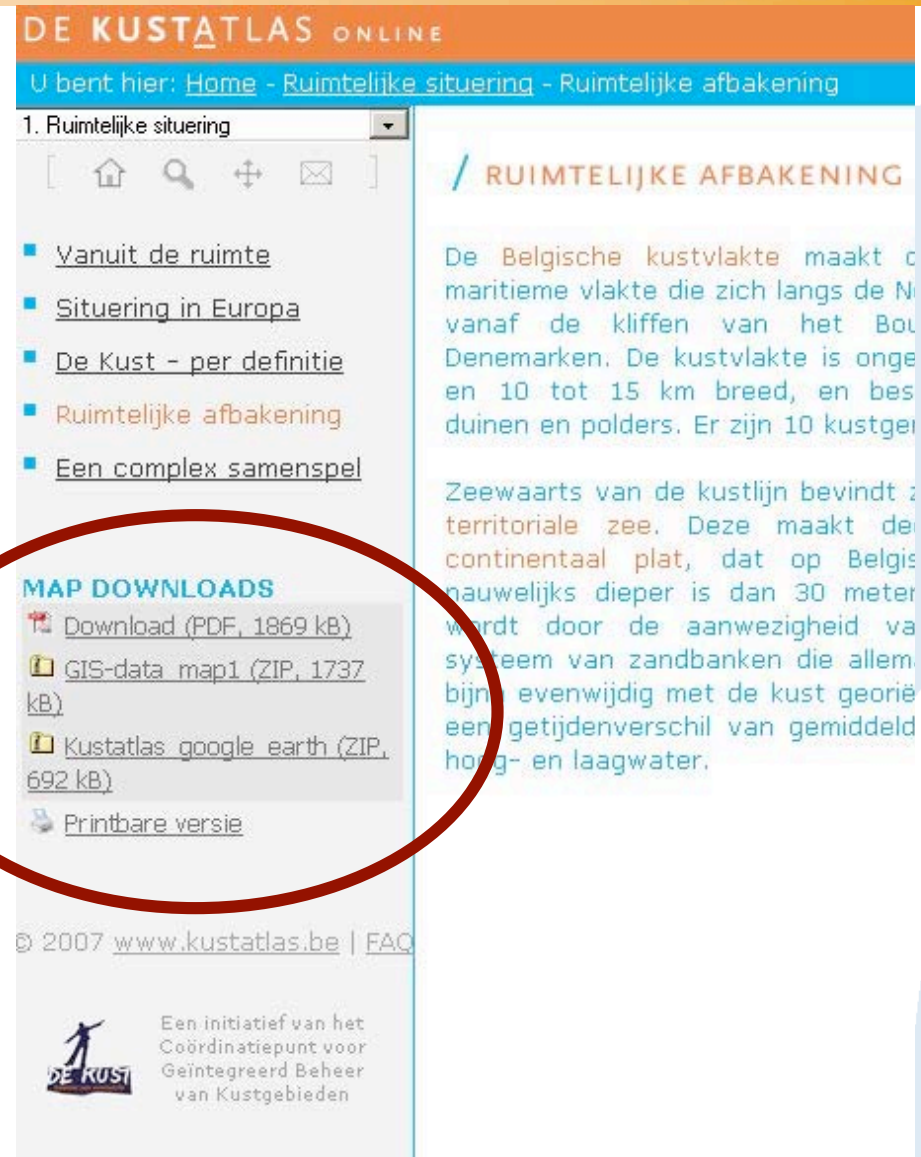
# The coastal atlas: Interactive

## First phase:

- Do-It-Yourself maps
  - Selected category
- PDF's of all the maps and graphs

## Second phase:

- GIS- Layers available for arc view
- Data in Excel files
- Interactive Google earth layers



DE KUST ATLAS ONLINE

U bent hier: [Home](#) - [Ruimtelijke situering](#) - [Ruimtelijke afbakening](#)


1. Ruimtelijke situering

- [Vanuit de ruimte](#)
- [Situering in Europa](#)
- [De Kust - per definitie](#)
- [Ruimtelijke afbakening](#)
- [Een complex samenspel](#)

**MAP DOWNLOADS**

- Download (PDF, 1869 kB)
- GIS-data map1 (ZIP, 1737 kB)
- Kustatlas google earth (ZIP, 692 kB)
- Printbare versie

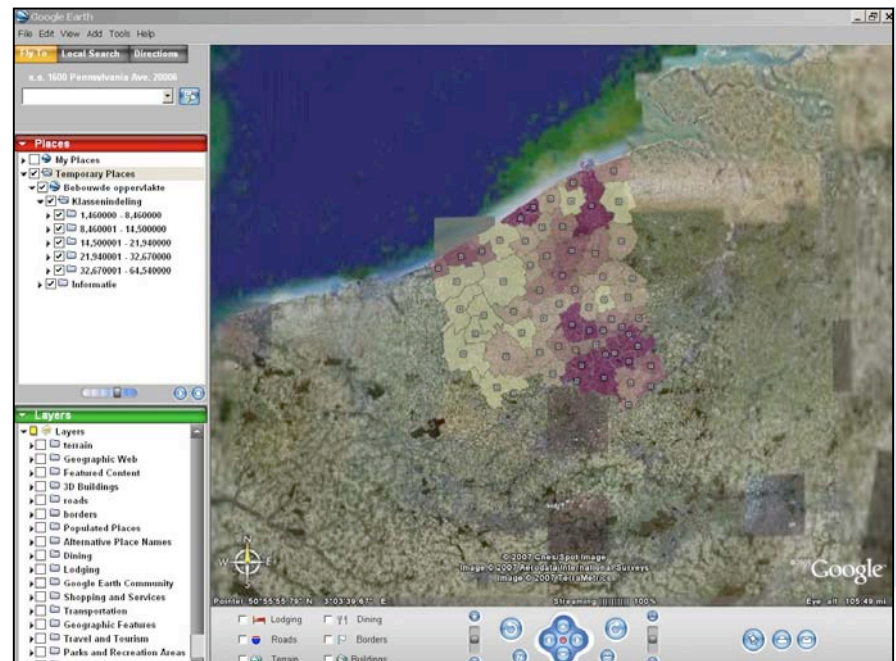
© 2007 [www.kustatlas.be](#) | [FAQ](#)

 Een initiatief van het Coördinatiepunt voor Geïntegreerd Beheer van Kustgebieden

## Coastal atlas & Google Earth

The coastal atlas presents:

- Maps
  - Information about the maps
  - Links to back ground information
  - Links to sustainability indicators
- 
- Google Earth
  - Used as background
  - Zooming
  - Including data
  - Information storage



# Technology used

- The whole website was set up in PHP/HTML.
- The structure, navigation, style, content was made “google-friendly”
- Interactive maps: flash application
- All downloads: pdf/xls/gis format

Design and web development by  
“Five to nine” ([www.fivetonine.be](http://www.fivetonine.be))



# Software needed

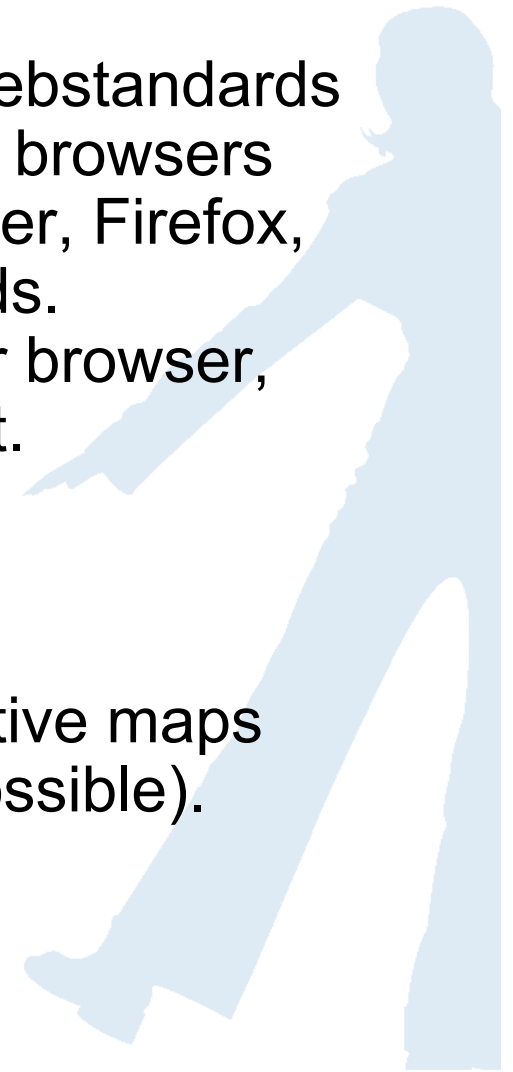
## 1. Browsers

website is made according to the current webstandards and is therefore easy to consult with modern browsers (Internet Explorer 6, Netscape 6.2 and higher, Firefox, Safari 1.2, e.a.) that support these standards.

The site can also be looked at with an older browser, although the result may then not be perfect.

## 2. Plug-ins

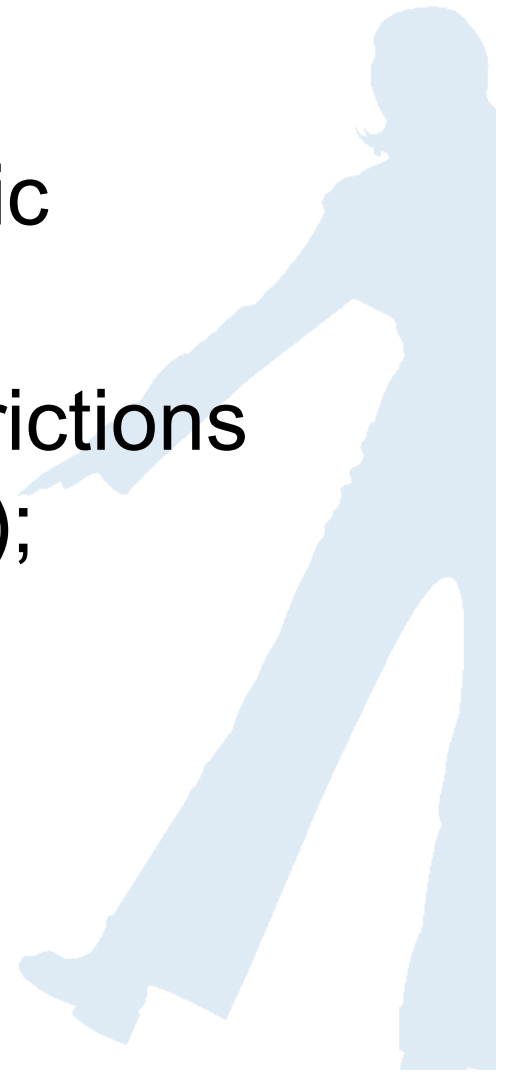
- Flash version 6: in order to look at interactive maps Flash player 6 is needed (free download possible).
- Adobe Acrobat Version 5 (free download)





# Data/cartographic information

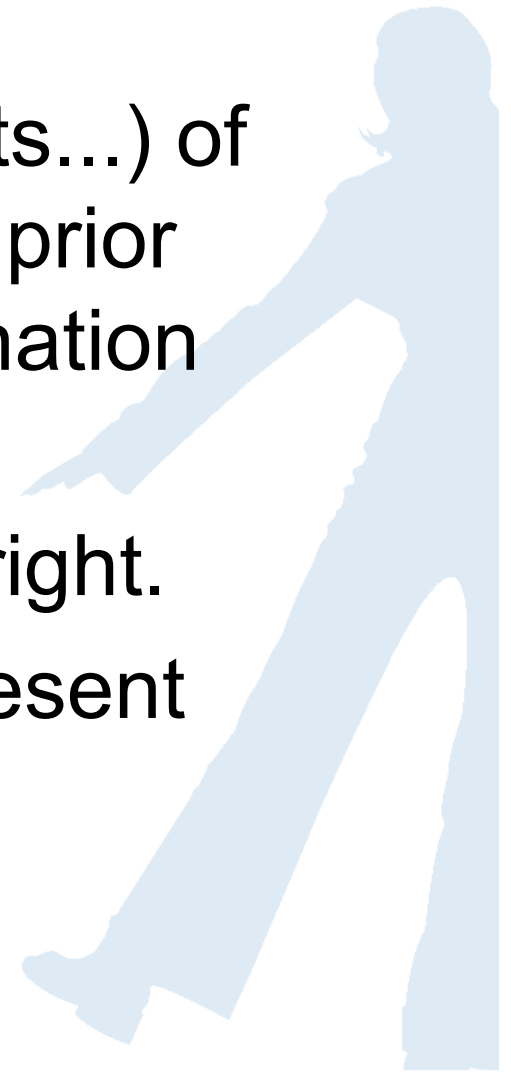
- All data is public accessible;
- All maps are available form public authorities;
- For indicators data: specific restrictions can occur (e.g. wind speed data);





# Data accessibility

- Elements with respect to content (illustrations, pictures, maps, texts...) of this atlas can be used subject to prior written permission of the Coordination Center.
- The pictures are subject to copyright.
- Very little service elements at present (indicators?)





CO-ORDINATION CENTRE FOR INTEGRATED COASTAL ZONE MANAGEMENT  
WWW.KUSTBEHEER.BE

# Shout it out...spread the news

**GLOEDNIEUW EN UNIEK!**

**LUCHTFOTOATLAS van de KUST**

Vlaanderen - België

**deel 1**  
Westkust

- De Panne
- Koksijde
- Oostduinkerke
- Nieuwpoort
- Westende
- Middelkerke
- Oostende

**deel 2**  
Oostkust

- Oostende
- Bredene
- De Haan
- Wenduine
- Blanckenberge
- Zeebrugge
- Knokke-Heist





CO-ORDINATION CENTRE FOR INTEGRATED COASTAL ZONE MANAGEMENT  
WWW.KUSTBEHEER.BE


[WWW.KUSTATLAS.BE](http://WWW.KUSTATLAS.BE)

> 2000 visitors a month





# Process/organisation

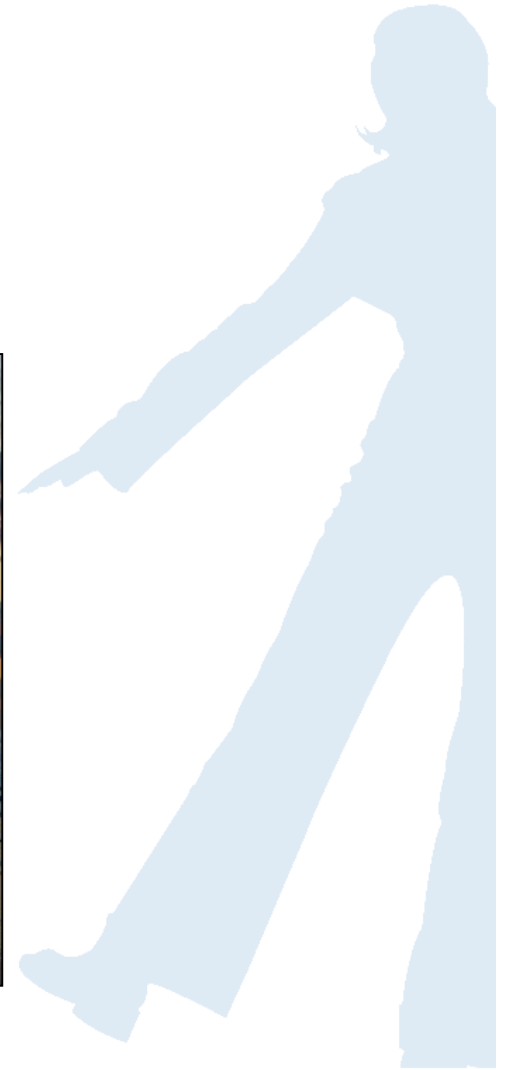
- the Atlas is an initiative of the Coordination center ICZM (partnership)
- initial work financed through an Objective 2 project (EU). Lack of money for upgrade.
- website hosted by VLIZ 
- institutional support: ad-hoc task-force for coastal atlas and website. All partners of the Coordination Center involved.
- Legislative base: ICZM. Maritime Policy?

# Legislative base

- ICZM Recommendation and Communication (2007).



Claude Willaert, 2008



# European context

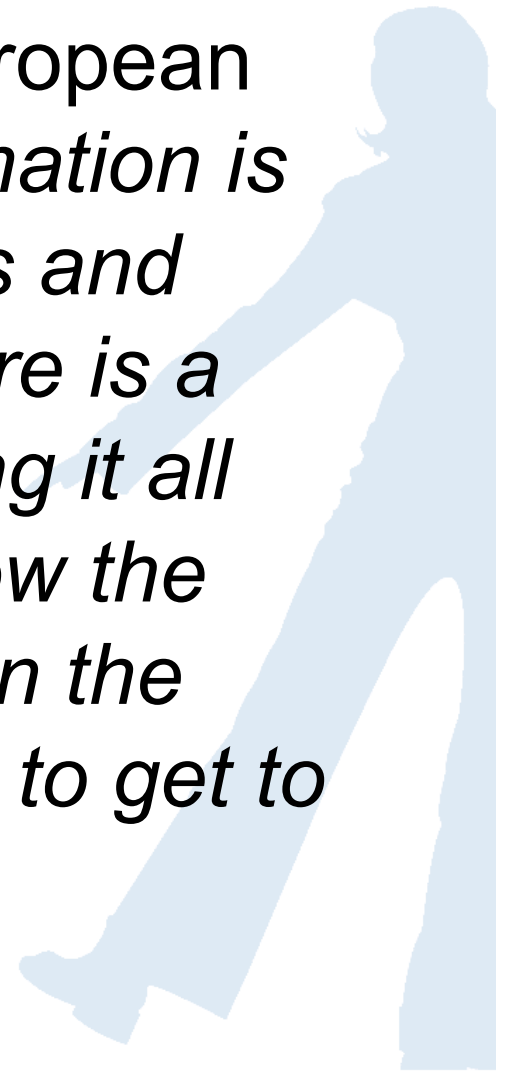
- Communication “An integrated Maritime Policy for the European Union” – 2007.  
=> Need to link up with working group on the European Coastal Atlas.





# The European context

Towards implementation of the European Maritim Strategy: *“...much information is available about Europe's Oceans and about maritime activities, but there is a lack of published material bringing it all together in a form that would allow the general public, those interested in the sea, and young people at school to get to know the maritime world.”*



# The international context

## International Coastal Atlas Network (ICAN)

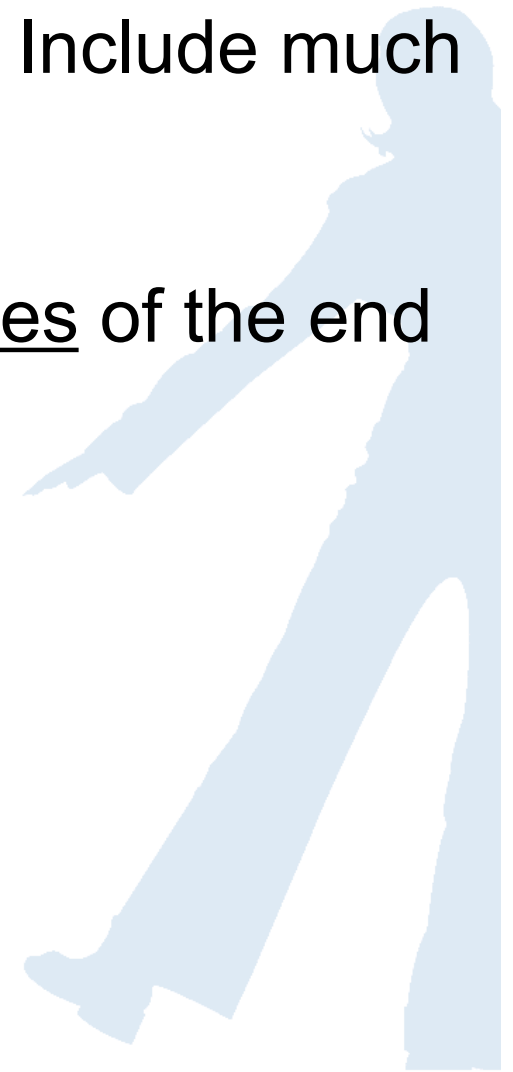
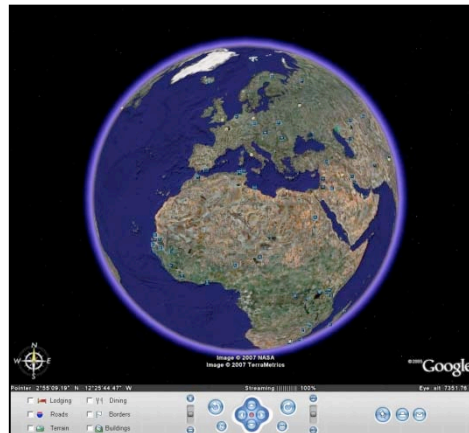




# The future plans...(1)

Collaboration with planners and scientists. Include much more GIS based maps.

Based on analysis of current use and wishes of the end users and clients.



## The future plans...(2)

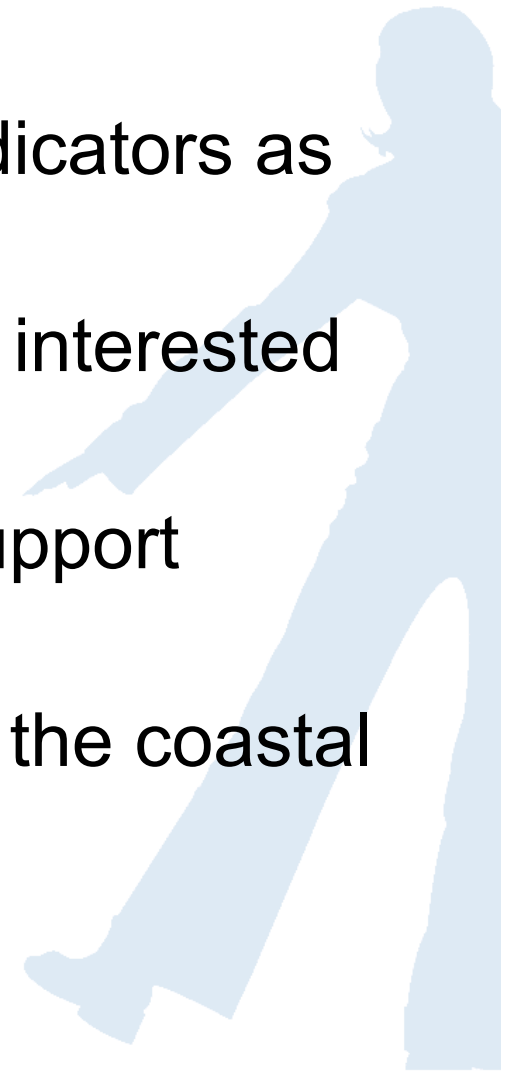
Link the maps to the sustainability indicators for the coast.

- 21 measurements to measure the state of the coast...
  - Social aspects
    - Employment
    - Population structure
  - Economical aspects
    - Economical structure
    - Goods in harbor
  - Ecological aspect
    - Fish stocks within safe limits
    - Nature protected area's



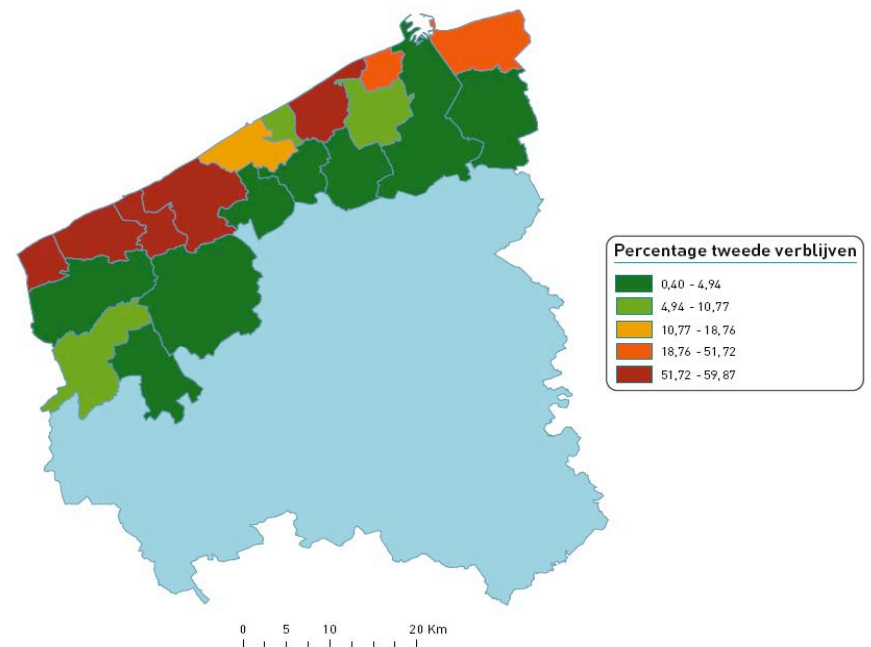
# Indicators

- Goal
  - Using data, measurements and indicators as a communication tool
  - Distribute the indicators to a broad interested public
  - Stimulate them as management support system
  - Not an evaluation of the coast and the coastal policies



## Enforcement of social and cultural aspects

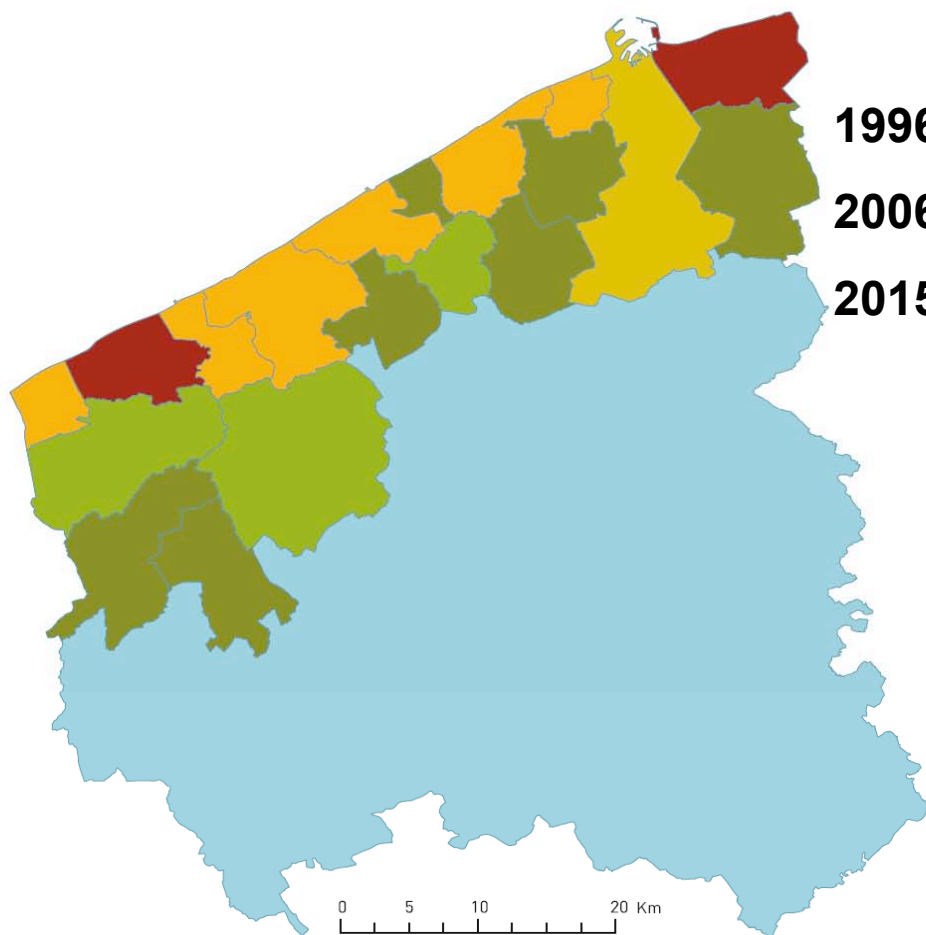
- Second houses
  - 2003 -> 2006: + 2.3% of 6000 more places to live
  - Number of second houses decreases : 35,53% nr 35,13%



Bron Kadaster, verwerking Steunpunt Sociale Planning

## Age structure of people who are living at the coast

### **Kaart 1 De verouderingsgraad in de kustregio, 2006**



1996 -> 121 <60 tov 100 <20

2006 -> 156 <60 tov 100 <20

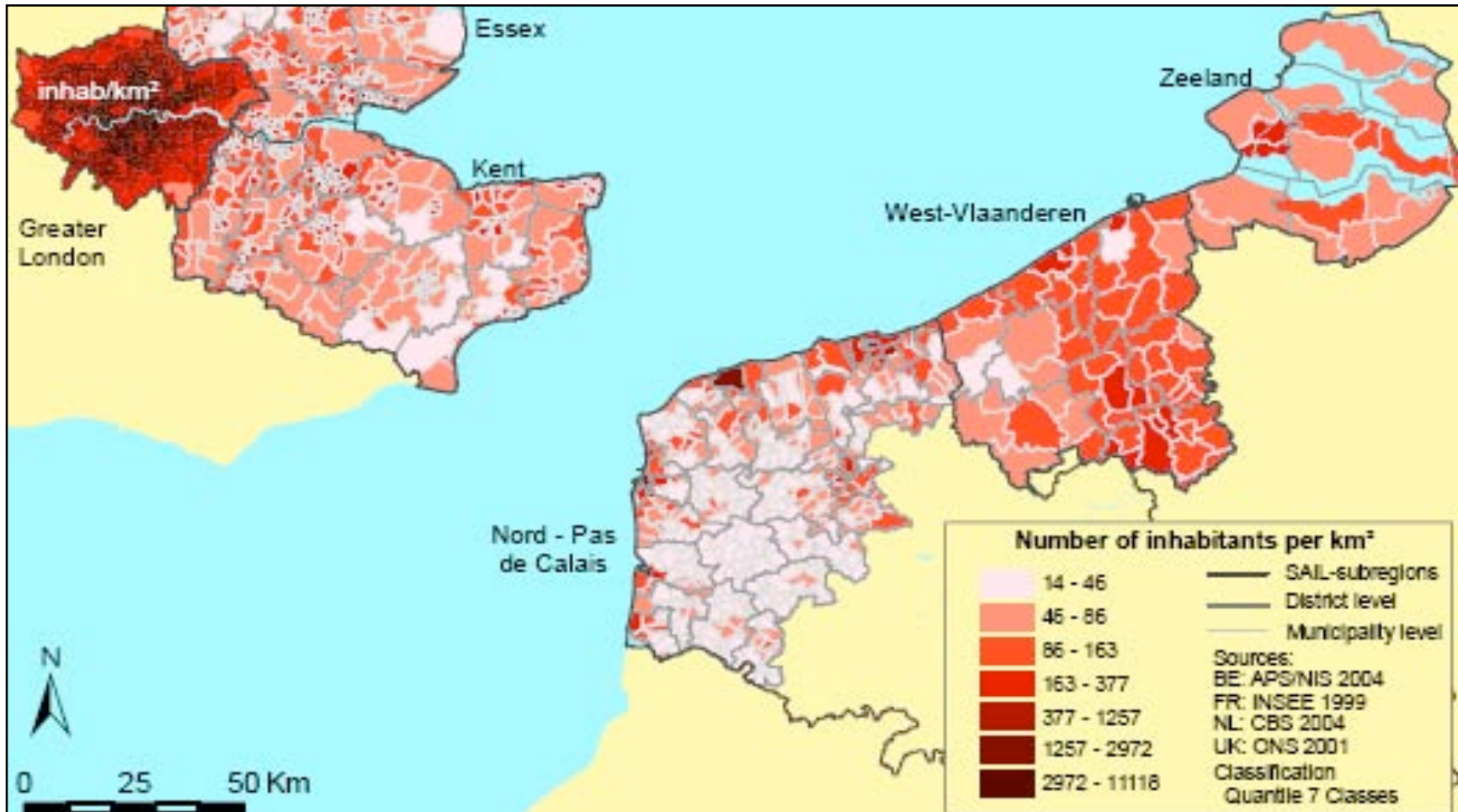
2015... 200 < 60 tov 100 <20

#### VEROUDERINGSGRAAD 2006

87-95	(Sterke vergroening)
96-106	(Vergroening)
107-124	(Lichte vergrijzing)
125-185	(Vergrijzing)
186-208	(Sterke vergrijzing)

**Bron** SVR, Bevolkingskubussen

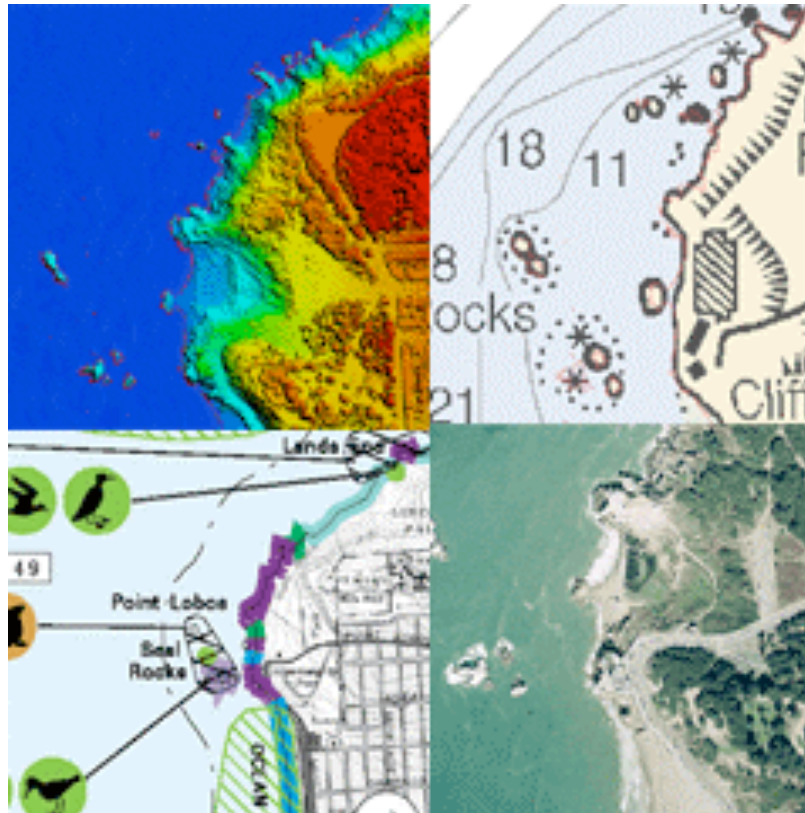




VLIZ, 2006. State of the Coast of the Southern North Sea.

## The future plans...(3)

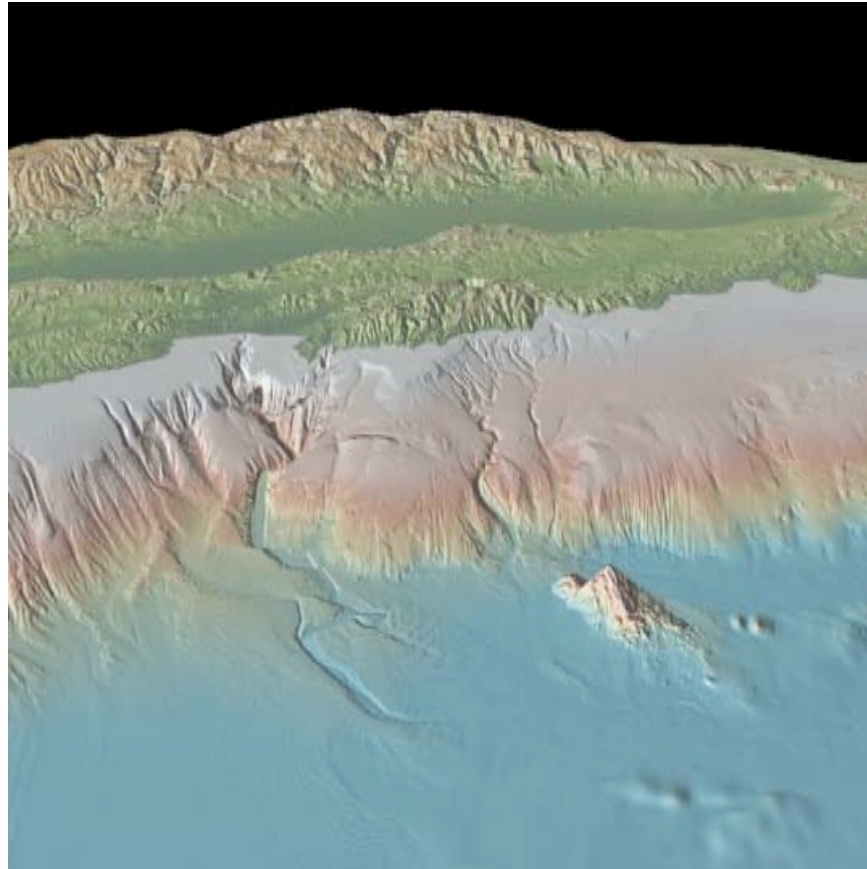
- Move towards a Coastal Explorer
- Develop tools, service elements





CO-ORDINATION CENTRE FOR INTEGRATED COASTAL ZONE MANAGEMENT  
[WWW.KUSTBEHEER.BE](http://WWW.KUSTBEHEER.BE)

# Google ocean?

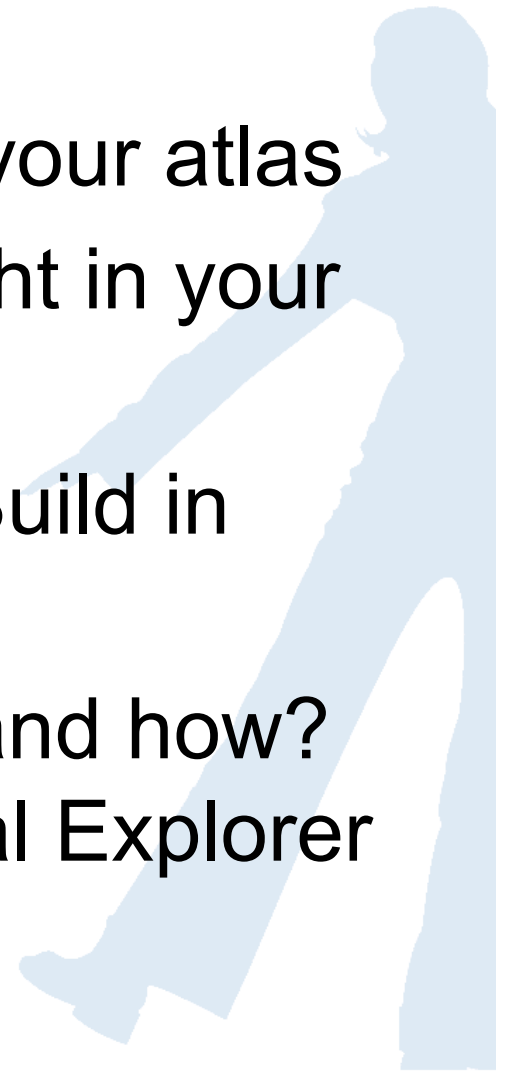






# Some thoughts

- Define your target audience
- Think carefully about the aim of your atlas
- Stimulating the integration thought in your atlas: cut across borders!
- What do your end-users want? Build in users feedback.
- Interoperability: to what degree and how?  
Collaboration with Dorset Coastal Explorer



# Users

- Who uses the atlas? How do they use it?  
⇒ Analyse the use of the current atlas
- End-user consultation: what do they want to see?  
⇒ Involve planners and end-users throughout the whole process





# Thanks

- Flanders Marine Institute
- YOU for your attention





CO-ORDINATION CENTRE FOR INTEGRATED COASTAL ZONE MANAGEMENT  
[WWW.KUSTBEHEER.BE](http://WWW.KUSTBEHEER.BE)

# Thank you!

