LiCCo - Living with a Changing Coast
INTERREG Iva Programme 2011-2014
Multidisciplinary expertise to guide policies of adapting to coastal changes
An approach which is local but also transferable
- 5 sites on the Normandy

- Coordination:
  - Conservatoire du littoral

- 6 Partners:
  - CSLN
  - GEMEL
  - Réserve Naturelle de France
  - Syndicat Mixte Espaces Littoraux de la Manche
  - Syndicat Mixte Littoral Normand

for an evaluation of ecological features
A common planned methodology

**Partners involved**
- Multidisciplinary approach
  - LiCo
  - Gemel
  - ADEME
  - Ecomar

**Acquisition and analysis of data**
- Settlements or populations
  - Intertidal benthic habitats
  - Birdlife
    - Shorebirds + Kentish plover + Pale-bellied Brant goose
  - Botanical habitats
  - Fish fauna

**Surface analysis**
- LIDAR
  - Topography
    - Havre de La Sienne
    - Saire Valley
    - Veys bay
    - Orne bay
    - Saâne valley

**Combination of surface analysis**
- Cartography

Sources: based on Gemel-N

for an evaluation of ecological features
Definition and testing of data collection protocols

- Choice of materials and methods which could be reproduced elsewhere at a later date

To understand the effects of global change, it is necessary to have:

- Long strings of data
- Inter-site comparisons to distinguish local changes from global changes

Methods which combine scientific rigour with practicality on the ground
Analysis of data and results

- For each biological sector, a reference is defined:

To achieve an evolutionary view of coastal change over medium and long term periods:

- Gathering of species
- Parameters of abundance
- Parameters of spatial distribution

Necessary to compare local areas of abundance and possible evolutions in areas of distribution
Characterisation of ecological site/features

- Creation and updating of a joint GIS:

  Layering of diagnoses for each biological sector studied + topography

  - Localising for each site areas of high ecological significance
  - Producing a map for future workshops with policy-makers and local representatives

Establishing links between ecological features and socio-economic contexts
Simulations and scenarios regarding coastal changes (2025 & 2050)

- Current layout of ecological features and simulations with scenarios of average sea level rises predicted for 2050:

  Ideal situation: guide a natural transfer of coastal and estuary habitats to land areas

  - Accept coastline movement to maintain the natural dynamics of coastal ecosystems
  - Accept the loss of land for the benefit of ecological features and their uses (shellfish farming, fishing, hunting, extensive agriculture, etc.)
Prospects and scenarios regarding coastal changes (2025 & 2050)

In a more restricted context (urbanised and fixed coastline): define zones of transfer for inland areas and local use of ecological engineering to artificially maintain the threatened features.

- Partial opening-up to the sea of land with control structures, while maintaining the original coastline.
Prospects and scenarios regarding coastal changes (2025 & 2050)

Mixed context (urbanised coastline + possibility of a dynamic coastline)

- Combination of the two according to the scenarios of territorial projects and/or effects of global change: guiding coastal dynamics + reinforcing the coastline
Outlook

- Promoting repeated ecological diagnoses in other areas at a later date:

Data collection must be systematically organised for searchable databases, to be used by policy-makers and stakeholders in coastal areas

- Management and organisation of permanent coastal and inter-site observatories to respond to the issues raised by adaptation

- Production of spatial approaches for the evaluation of ecological features and their associated uses: for adaptation policies
  - Observatories in partnership with the State, the CdL, etc. but also with regions, departments and coastal communities...
Outlook

- Need to integrate the ecological features with the coastal change adaptation policies:

Education must be provided on a local level to demonstrate the importance of maintaining and restoring ecological features for the sake of the socio-economic balance.

- “Permanent” workshops to be set up in coastal areas to bring all issues together: social, economic and ecological features, as well as their associated uses?

- Close links to be established (or reinforced) between coastal acquisition policies and coastal ecology observation networks for a better integration of ecological features within adaptation strategies.
All of the scientific partners thank you for listening!