



PANACHE

Protected Area Network Across
the Channel Ecosystem

CONFERENCE FINALE

17-18 MARS 2015 - TORQUAY



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**Socioeconomic effects of MPAs
in the UK and France.
Evidence from the PANACHE project**

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FINAL CONFERENCE - MARCH 17th-18th 2015 - TORQUAY


PANACHE - Workpackage x

www.panache.eu.com/home_panache/the_project/workpackages_en

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EN FR RESTRICTED AREA

THE PROJECT MARINE PROTECTED AREAS OUTPUTS RELATED INITIATIVES



Home Panache > The project > Workpackages



WORKPACKAGES

Five work packages have been identified:

- Assess ecological coherence across the marine protected area network.
- Pool and share experience in monitoring these areas.
- Strengthen coherence and foster interaction for improved marine protected area management.
- Heighten awareness of marine protected areas: create a sense of ownership and shared expectations through citizen science programmes.
- Establish a public GIS database.

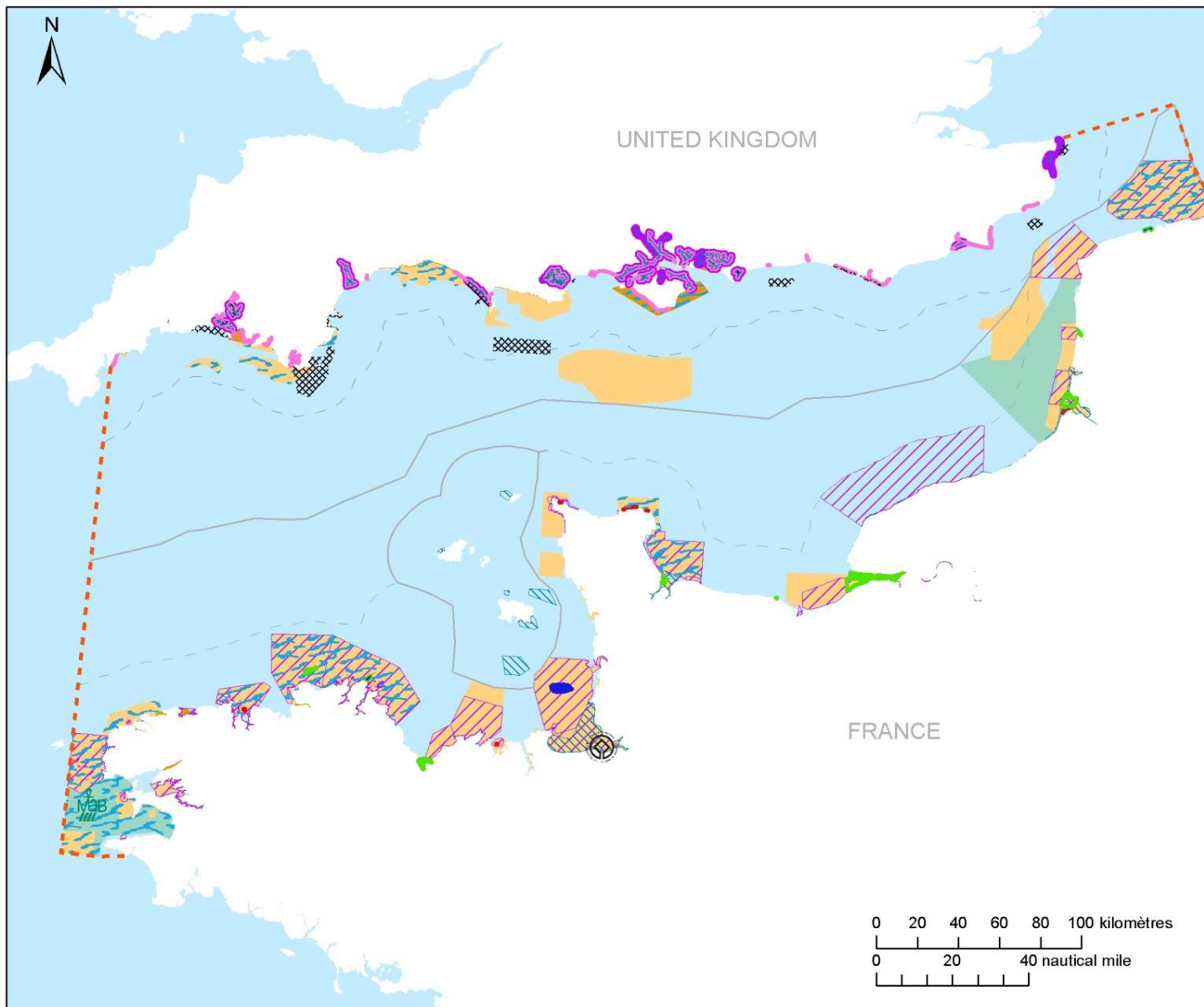
THE PROJECT

- > Goals and activities
- > **Workpackages**
 - Ecological coherence
 - **Monitoring**
 - Management
 - Awareness and citizen sciences
 - Databases
- > Application area
- > Partners
- > INTERREG



Halictystus auricula

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**Marine Protected Areas Network
PANACHE Project**

National Marine Protected area

- Parc naturel marin
- Réserves naturelles nationales et régionales
- Aire de protection de biotope
- Domaine public maritime relevant du Conservatoire du Littoral
- Site of Special Scientific Interest SSSI
- Marine Conservation Zone

International Marine Protected Area

- Site d'importance communautaire SIC
Site of Community Importance SCI
- Zone spéciale de conservation ZSC
Special Area of Conservation SAC
- Zone de protection spéciale ZPS
Special Protection Area SPA
- World Heritage Site
- Biosphere Reserve
- Marine Protected Area OSPAR
- Wetlands of international importance
RAMSAR

Maritime boundaries

- Territorial waters (12 nm)
- Territorial sea boundary or continental shelf
under law and bilateral agreement
(or fisheries agreement (Guernsey))
- PANACHE project

Data source :

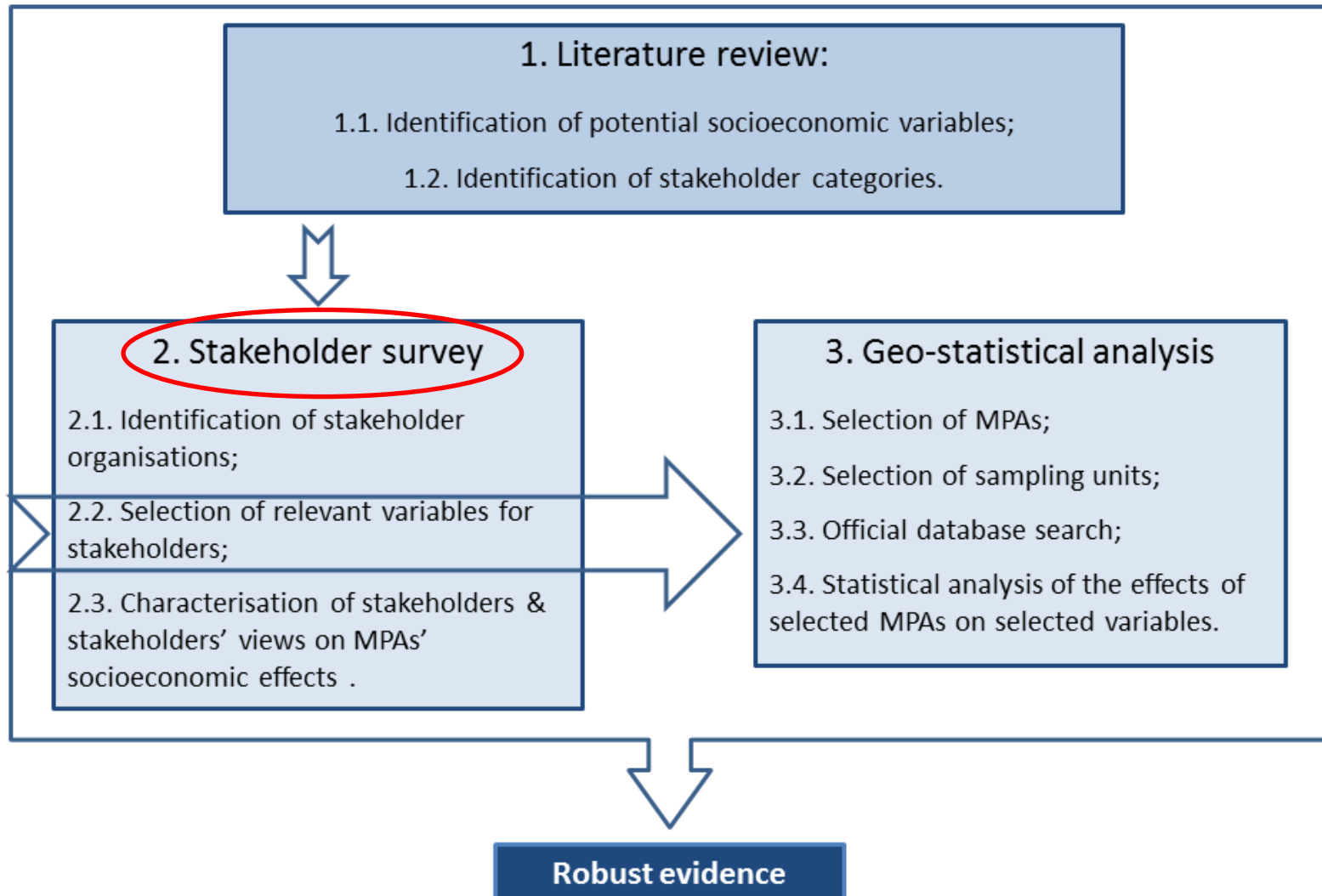
- Sites Natura 2000 : INPN-MNHN/AAMP, octobre 2012 - JNCC, 2012
- RNN : INPN/AAMP, 2012
- APPB : INPN/AAMP, 2012
- PNM : AAMP, 2012
- DPM relevant du CdL : INPN/AAMP, 2012
- RNR : INPN/AAMP, 2012
- RAMSAR : JNCC/INPN/AAMP, 2012
- OSPAR, 2012
- UNESCO, 2012
- MCZ : JNCC, 2013
- Limites des 12 MN et délimitations des eaux territoriales : Délimitations indicatives et provisoires de l'espace maritime français métropolitain (d'après données du SHOM et de l'IGN pour les limites officielles et des accords réalisés par l'Agence des aires marines protégées), juillet 2008, Marine Biological Association UK
- Limites départementales, IGN GEOFLA;
- Trait de côte européen, ESRI
- Système de coordonnées : Lambert 93 / RGF93 / IAG GRS 1980

‘Do MPAs have an effect on local communities and economies?’



Mixed methods research design

Assessing MPA effects on local socio-economy



2. Stakeholder survey

Methods

- 20 Stakeholder categories → 90 organisations in the UK and France: national associations, federations, unions...;
- Technique: Online survey (Survey Monkey);
- 10 questions
- Replies on behalf of their organisations

2. Stakeholder survey

Impact of MPAs on organisations

Organisational view	Very affected	Somehow affected
<p>Positive</p>	<p>Royal Society for the Protection of Birds;</p> <p>Wildlife Trusts;</p> <p>Southern Inshore and Fisheries Conservation Authority;</p> <p>Greenpeace-France;</p> <p>Fondation Nicolas Hulot;</p> <p>Ville de Marseille</p>	<p>Marine Institute (Plymouth University);</p> <p>World Wildlife Fund-UK;</p> <p>VisitEngland;</p> <p>Natural England;</p> <p>Centre for Environment, Fisheries and Aquaculture Science;</p> <p>Department for Environment, Food and Rural Affairs;</p> <p>Museum National d'Histoire Naturelle;</p> <p>Fédération Nationale des Pêcheurs Plaisanciers et Sportifs;</p> <p>FranceGuide;</p> <p>Ville de Brest;</p> <p>Institut Français de Recherche pour l'Exploitation de la Mer;</p> <p>Marine Management Organisation</p>
<p>Neutral</p>	<p>National Federation of Fishermen's Organisations;</p> <p>Union des Plaisanciers Français</p>	<p>New Under Ten Fishermens Association;</p> <p>British Marine Aggregate Producer's Association;</p> <p>National Federation of Builders;</p> <p>Angling Trust;</p> <p>Fédération Française d'Études et des Sports Sous-Marins;</p> <p>Armateurs de France;</p> <p>Comité National des Pêches Maritimes et des Elevages Marins</p>

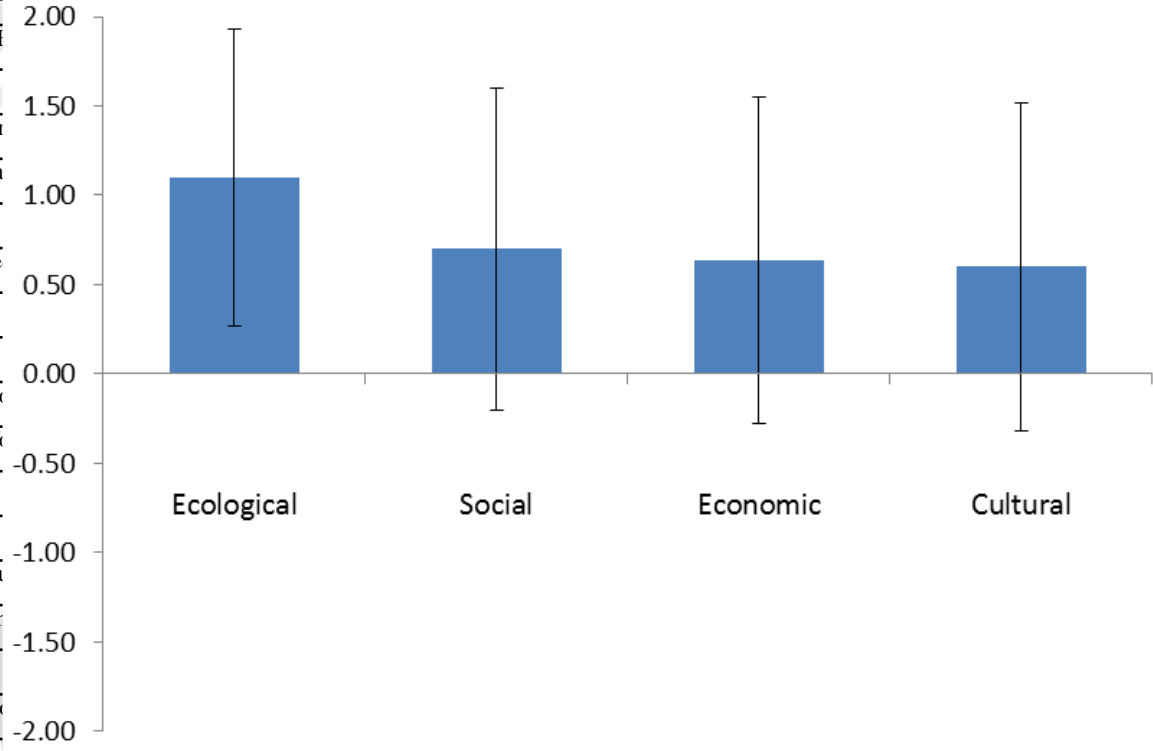
Results



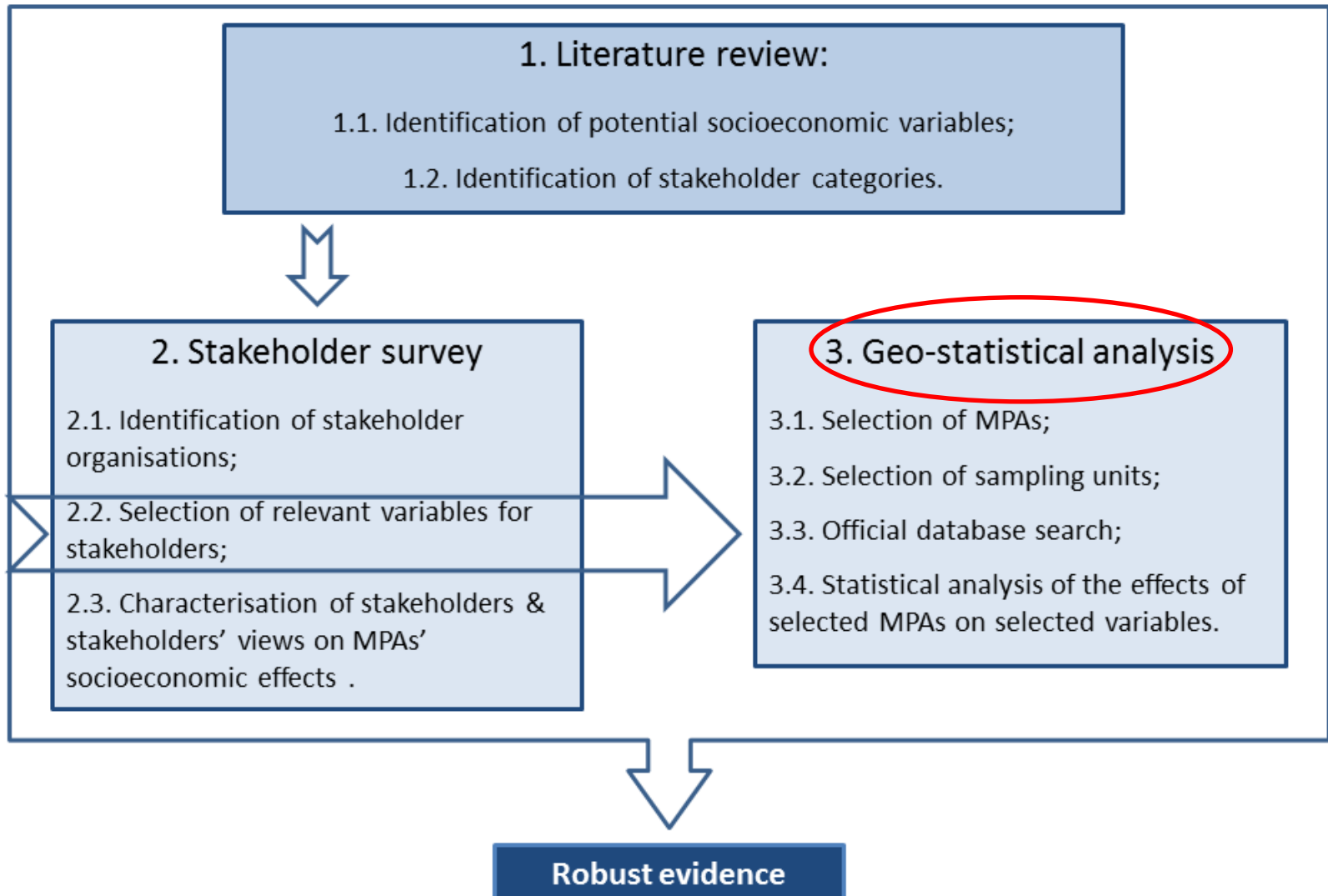
(*) show organisations that declined to participate as they stated the topic did not concern them

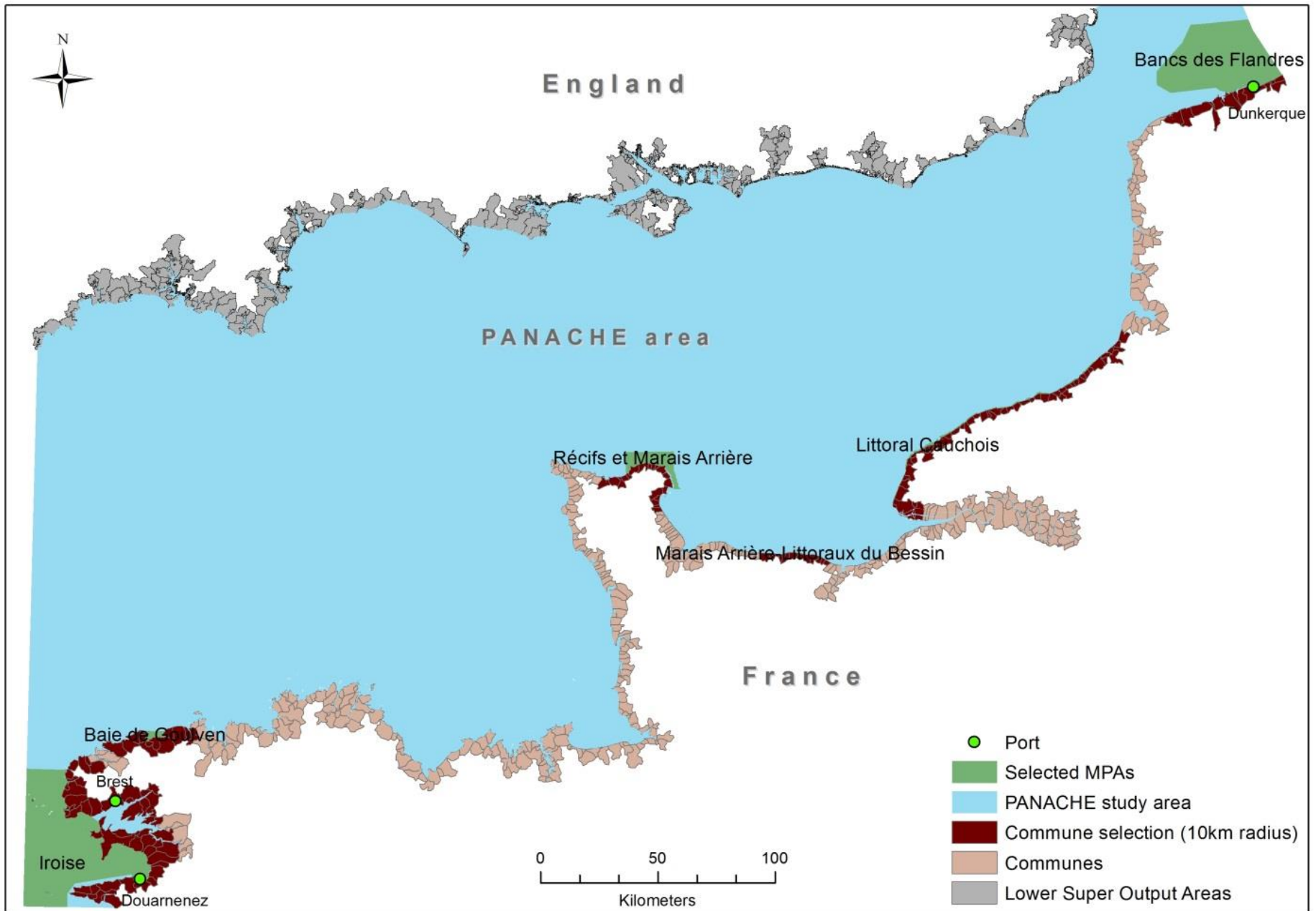
Main MPA effects perceived by organisations

Organisation	Ecological	Social	Economic	Cultural	Mean
Royal Society for the Protection of Birds	2	1	1	1	1.25
The Wildlife trusts	1	2	2	2	1.75
New Under Ten Fishermen's Association	0	-1	-1	-1	-0.75
Marine Institute (Plymouth University)	2	0	2	-1	0.75
World Wildlife Fund-UK	2	2	2	2	2.00
VisitEngland	2	2	1	2	1.75
Southern Inshore Fisheries and Conservation Authority	2	2	2	2	2.00
Association of Fishermen	2	1	1	1	1.00
Association of Fishermen	2	0	0	0	0.50
British Marine Fishing Organisation	1	0	0	0	0.00
National Fishermen's Organisation	1	0	0	0	0.00
National Fishermen's Organisation	1	0	0	0	0.50
National Fishermen's Organisation	1	-1	-1	-1	-0.75
National Fishermen's Organisation	1	1	1	1	1.00
National Fishermen's Organisation	1	0	0	0	0.00
Centre for Environmental and Estuarine Science	1	0	0	0	0.50
Department for Environment, Food and Rural Affairs	1	1	1	1	1.25
Department for Environment, Food and Rural Affairs	1	0	0	0	0.00
Department for Environment, Food and Rural Affairs	2	2	2	2	2.00
Musée de la Pêche Maritime	1	1	1	1	1.00
Fédération Française de la Pêche Maritime	0	0	0	0	1.00
Fédération Française de la Pêche Maritime	2	2	2	2	2.00
Fédération Nationale des Pêcheurs d'Élevage Marin	1	1	1	1	0.00
Fédération Nationale des Pêcheurs d'Élevage Marin	0	0	0	0	0.25
Union des Plaisanciers Français	1	0	-1	0	0.00
FranceGuide-AGISM	1	1	1	1	1.00
Fondation Nicolas Hulot	0	1	1	1	0.75
Comité National des Pêches Maritimes et des Elevages Marins	0	0	0	0	0.00
Institut Français de Recherche pour l'Exploitation de la Mer	1	1	1	0	0.75
Ville de Brest	2	1	1	1	1.25
Mean ± sd	1.10 ± 0.83	0.70 ± 0.90	0.63 ± 0.91	0.60 ± 0.92	0.76



Assessing MPA effects on local socio-economy





Methods

Statistical analysis

14 variables:

Number	Scope	Scale
8	Global (community)	Commune
6	Sectorial (fishing)	Port

Mixed Factorial ANOVA (MPBACI) & descriptive statistics (n<5)

Results

- The MPAs selected do not seem to have a socioeconomic effect at the community level;
 - All multiple-use MPAs;
 - ‘Masking effect’ of delayed management?
- Possible (n=3) effects on specific sectors (fishing):
‘average length of fishing boats’, ‘number of fishers on coastal fishing boats’, and ‘total power of coastal fishing boats’ **vs** ‘volume & value of landings’ (?)

Conclusions

- No evidence of MPA effect on the range of SE variables analysed at the community level (commune scale) for the assessed MPAs;
- SE effects of MPAs at the community level might happen in other contexts (MPAs) or for different variables;
- **Future MPA SE monitoring should focus on effects on specific stakeholders**

Stakeholder survey!!!



Project Outputs

•‘Methods for monitoring the socioeconomic effects of MPAs’
(Project report);

•‘A method for monitoring
socioeconomic effects of
case studies’



Assessing the socioeconomic effects of multiple-use MPAs in a European setting: A national stakeholders' perspective



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ARTICLE INFO

Article history:
Available online 17 January 2015

Keywords:
Marine protected area
Multiple use
Socioeconomic assessment

ABSTRACT

The designation of marine protected areas (MPAs) may have intense social and economic effects on human communities. Driven by overarching global and European policies and national legislations, current systematic conservation planning in the UK and France requires an ecosystem approach that takes into account not only nature but also the human activities that take place in an area. Here, we identified a set of 64 socioeconomic variables potentially relevant for marine and coastal stakeholders in a European context and a comprehensive set of 20 marine and coastal stakeholder categories. Ninety national orga-



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Thank you for your attention



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Methods

a) Pilot MPA selection: criteria (attribution & data availability)

Criterion	Importance
It needs to have a coastal part to which most of the possible socioeconomic effects relate	Essential
It cannot overlap with other MPAs designated previously which could confound the intended effects	Essential
It must be surrounded by unprotected coast in order to select adequate control sites	Essential
Its designation date should be close to that of the assessment to facilitate data availability before and after designation	Essential
It should have an international designation to increase the interest and exportability of the outcomes	Desirable
It should not include estuaries, harbours, marinas, or big cities acting as confounding variables	Desirable
It should have a minimal size to warrant an effect	Desirable

b) Data availability (LSOA & Commune): Official databases (ONS, MMO, EA, Data4NR, NE, JNCC, EH, CEFAS, INSEE, IFREMER, ONML, MEDDE, AAMP, ADRHMF).....

Variable	Type	Number of MPAs	No. communes / ports	Statistic and significance level
Number of unemployed people	Economy	6	47 (43 after deleting outliers: Grande-Synthe, Dunkerque, Dieppe and Brest)	$F_{(2,40)}=1.001$; p-value=0.377
Population density	Social	1	11	$F_{(1,9)}=1.413$; p-value=0.265
Number of new establishments created	Economy	2	15	$F_{(2,12)}=1.028$; p-value=0.387
Number of new construction establishments created	Economy	1 (BdF)	4	Average increase before-after (%): Inside = 46.42; Partially = 183.33 ; Outside =111.11
Number of new establishments of services created	Economy	1 (BdF)	4	Average increase before-after (%): Inside = 23.46; Partially = -15.69; Outside = 12.12
Income (median)	Economy	6	47	$F_{(2,44)}=0.077$; p-value=0.926
Number of hotel rooms	Economy	1 (BdF)	4	Average increase before-after (%): Inside = 33.08; Partially = 1.19; Outside = -20.31
Number of camping places	Economy	1 (BdF)	4	Average increase before-after (%): Inside = -6.16; Partially = 0; Outside = -6.53
<i>Number of coastal fishing boats</i>	Economy	5	11	$F_{(2,8)}=1.471$; p-value=0.286
<i>Number of fishers on coastal fishing boats*</i>	Economy	2	3 (ports: Dunkerque, Duarnenez & Brest)	Average increase before-after (%); Inside = -19.38 Outside = 6.09
<i>Average length of fishing boats</i>	Economy	2	3 (ports: Dunkerque, Duarnenez & Brest)	Average increase before-after (%): Inside = -10.90 Outside = 0.53
<i>Total power of coastal fishing boats</i>	Economy	2	3 (ports: Dunkerque, Duarnenez & Brest)	Average increase before-after (%): Inside = -32.21 Outside = 11.27
<i>Volume of landings</i>	Economy	2	3 (ports: Dunkerque, Duarnenez & Brest)	Average increase before-after (%); Inside = 27.97 Outside = 15.80
<i>Value of landings</i>	Economy	2	3 (ports: Dunkerque, Duarnenez & Brest)	Average increase before-after (%); Inside = 45.75 Outside = 8.38



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Les projets VALMER et PANACHE ont été sélectionnés par le programme européen de coopération transfrontalière INTERREG IV A France (Manche) – Angleterre co-financé par le FEDER.



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The VALMER and PANACHE projects were selected under the European cross-border cooperation programme INTERREG IV A France (Channel) - England, co-funded by the ERDF.