

*Séminaire*

LUN 20 NOV 2017

9H30 | 18H

# ACE-ICSEN



## WHAT DO WE OBSERVE WHEN WE CONDUCT **COMMUNITY-CENTERED** TRANSDISCIPLINARY WORK?

Lessons from Senegal, India (Kerala and Tamil Nadu), Vietnam (Saigon and Dong Nai watersheds including Ho Chi Minh City), Canada (New Brunswick), France (Britany), Russia (Sakha Republic) and the USA (Alaska).

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This was made possible through extensive fieldwork

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## Outline

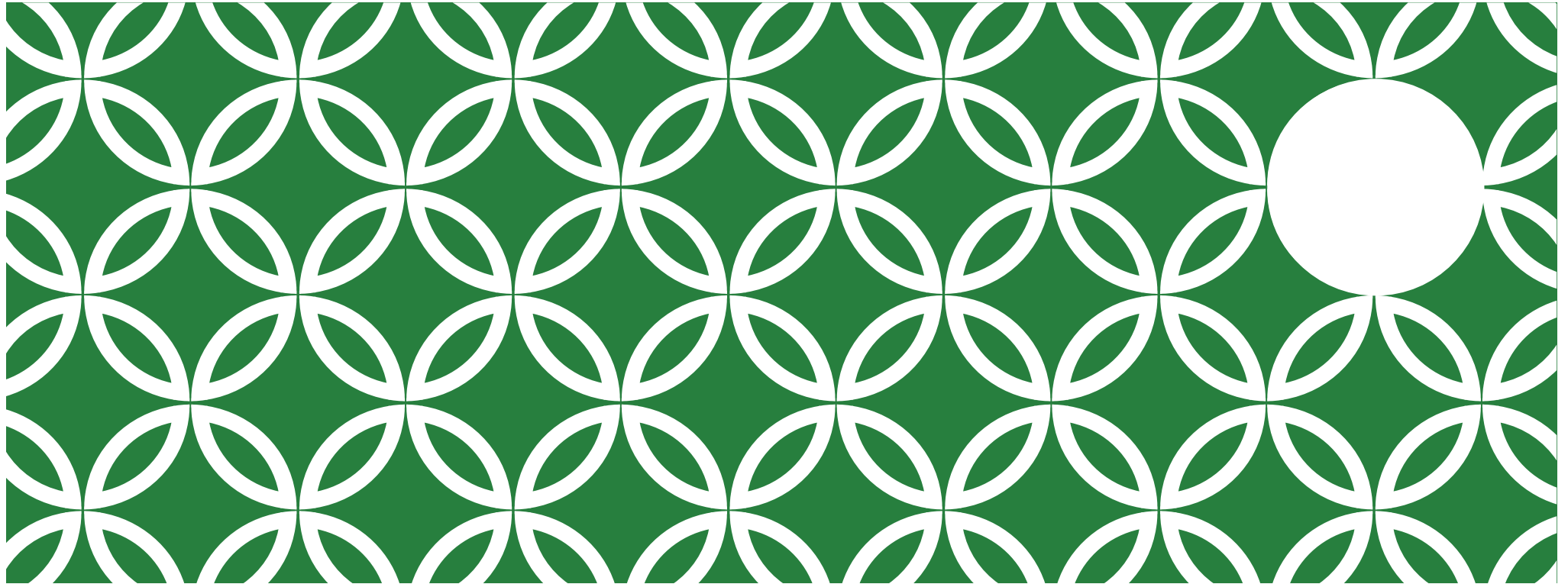
Introduction

Conceptual  
framing and methods

Lessons form the field  
sites and discussion

Conclusion





# Introduction

Where one takes a look at the “transdisciplinary turn,” and the interest of analyzing this turn as it is occurring within coastal areas.

# Things have changed!

**1969:**

“...the selection of problems on the basis of non-scientific criteria, as a form of deviance...” (Crane, 1969)

**1999:**

“A new contract must now ensure that scientific knowledge is 'socially robust', and that its production is seen by society to be both transparent and participative.” (Gibbons 1999)

**2016:**

“There are times when science can seem to lose its connection to society and its needs, and sometimes its objectives are not fully understood, even if they are well intended. [...] But science cannot work in isolation, and advances in science and technology are not an objective in their own right.” (EC, 2016)

vs

Pedagogy of the oppressed 1968

vs

Participatory action research

vs

Citizen science and/or extended peer review

## Belmont Challenge

“ which is a “funders' vision for the priority knowledge and capabilities derived from **environmental research that society needs**, and the underpinning research challenges over the next decade to deliver them.”  
(Belmont Forum 2016)

### Coastal vulnerability call

#### ARTtisticc project

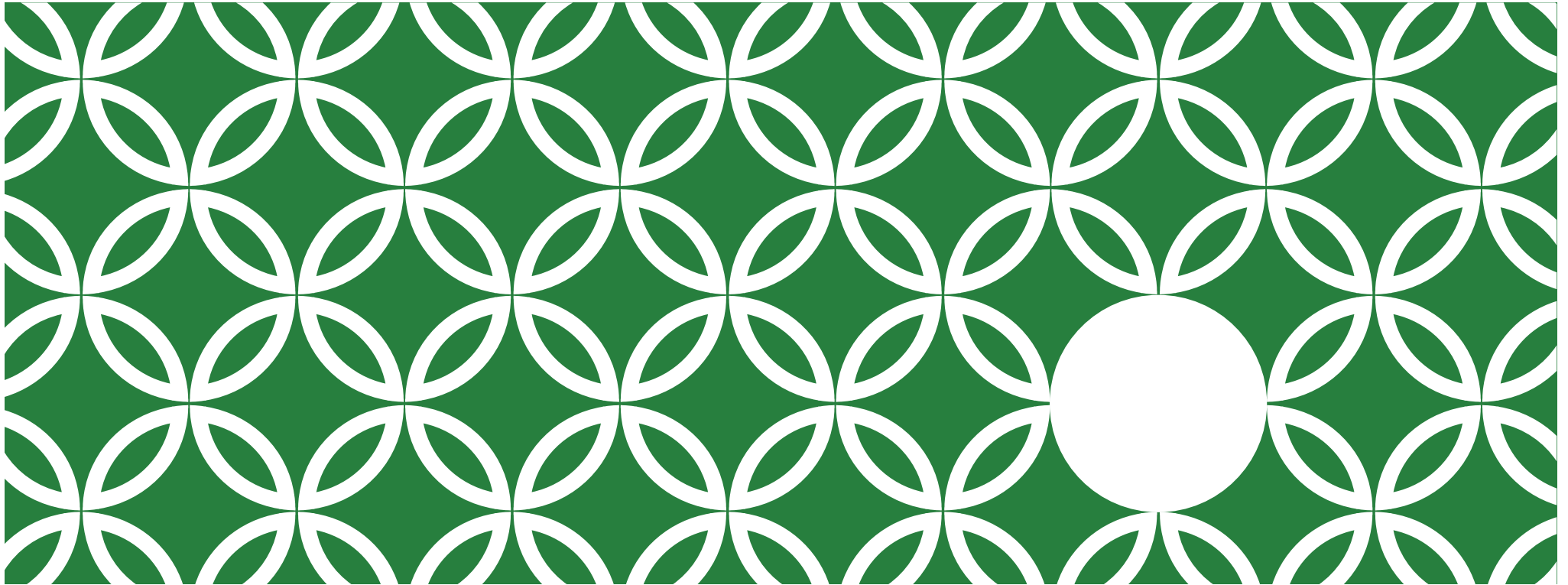
**“what are the coastal community-level challenges to be taken into account in view of the definition and implementation of scientifically robust, evidence-based adaptation policies.”**

**“, coastal environments may be degraded by multiple stresses arising from local to global scale drivers [...] difficult because of the complex interactions between these drivers and competing concerns [...] what science based knowledge enables people (e.g., individuals, communities, businesses, etc.) to change their habits and practices.”**  
(Belmont Forum 2012)

**“how is this transdisciplinary turn taking shape locally?”**

What are the (imagined) effects of such a transdisciplinary turn

- Science is put to a better use?
- People develop a better understanding of the world?
  - and thus adopt attitude and behaviors that are more adapted to reality (their expectations does not threaten their existence, a Poperian framework)?
- The support for science is more important.
  - and thus evidence based policy making gains support?

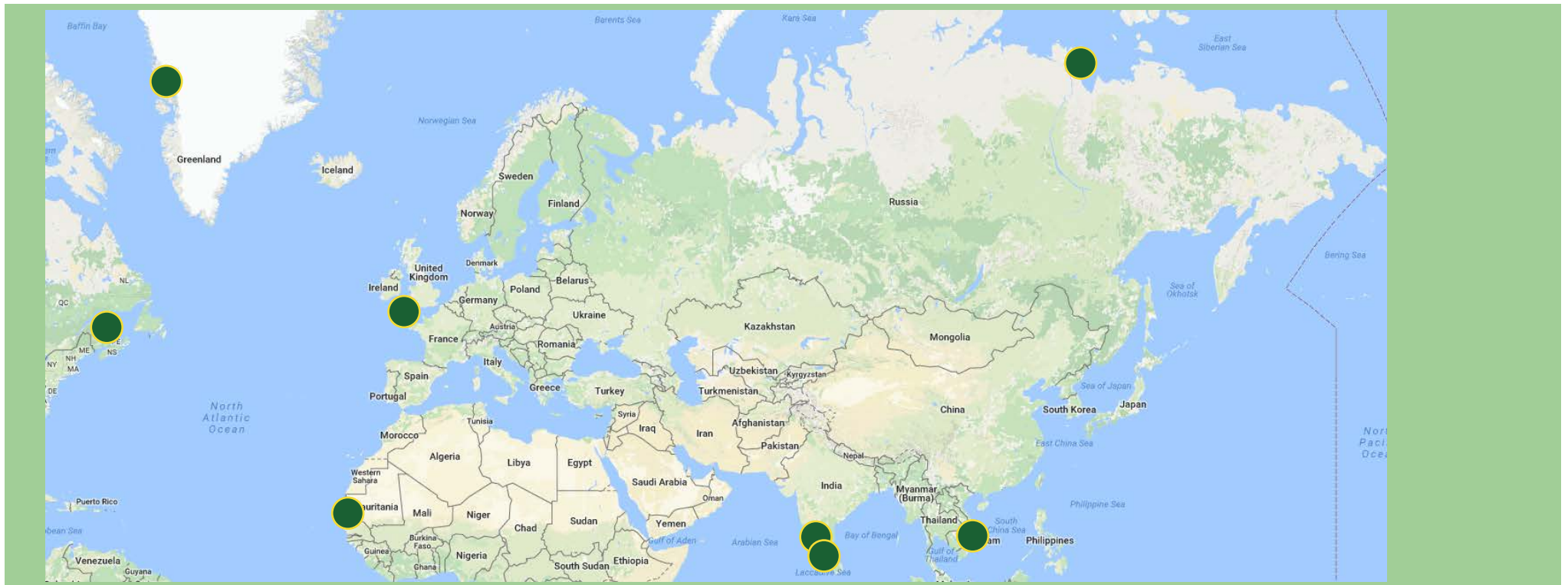


## Conceptual framing and methods

Where one discovers how we went about observing the “transdisciplinary turn” as it deploys itself within coastal communities

## Exploratory, inductive approach

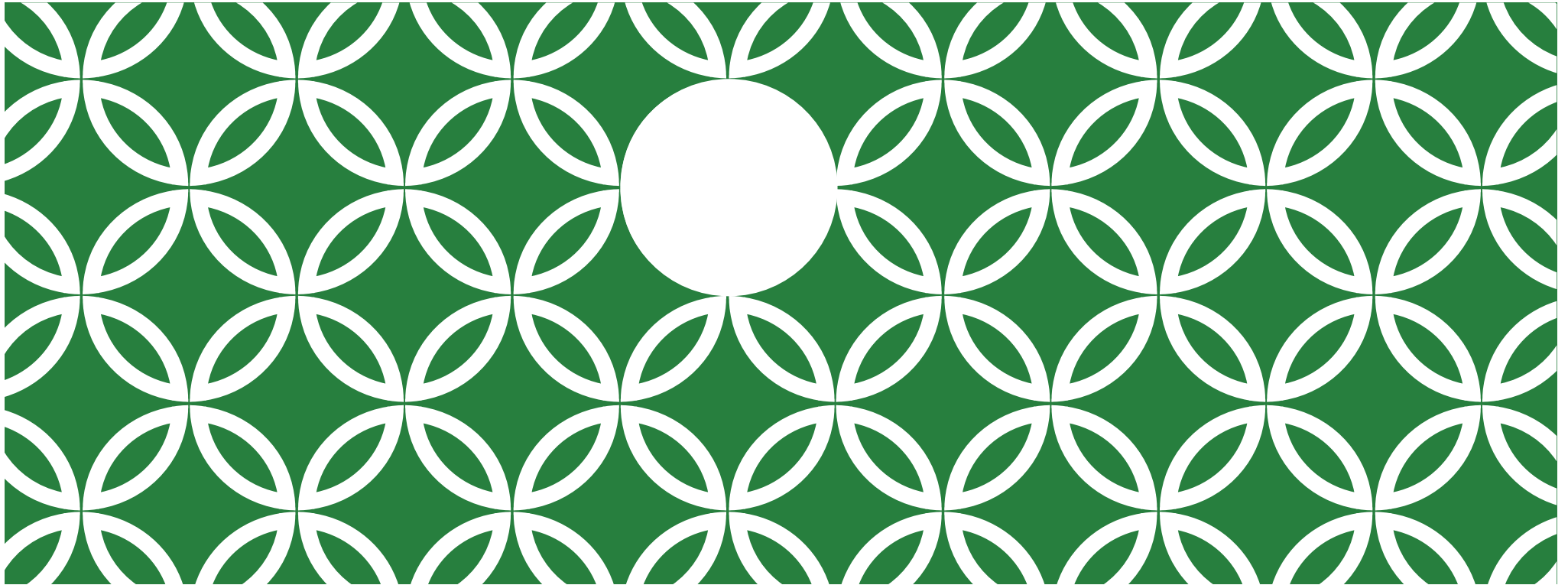
- ▪ Generation of a series of local corpuses
  1. Past instance(s) of adaptation
  2. Current adaptation practices
  3. Framing of anticipatory adaptation
  4. Art-science experiments
- ▪ Situated within the continuum between **grounded theory and Actor-Network-Theory**
- ▪ **An explicit desire to explore how to operationalize Latour's "attempt at a compositionist manifesto."**



Field visits and training by coordinator (when needed)

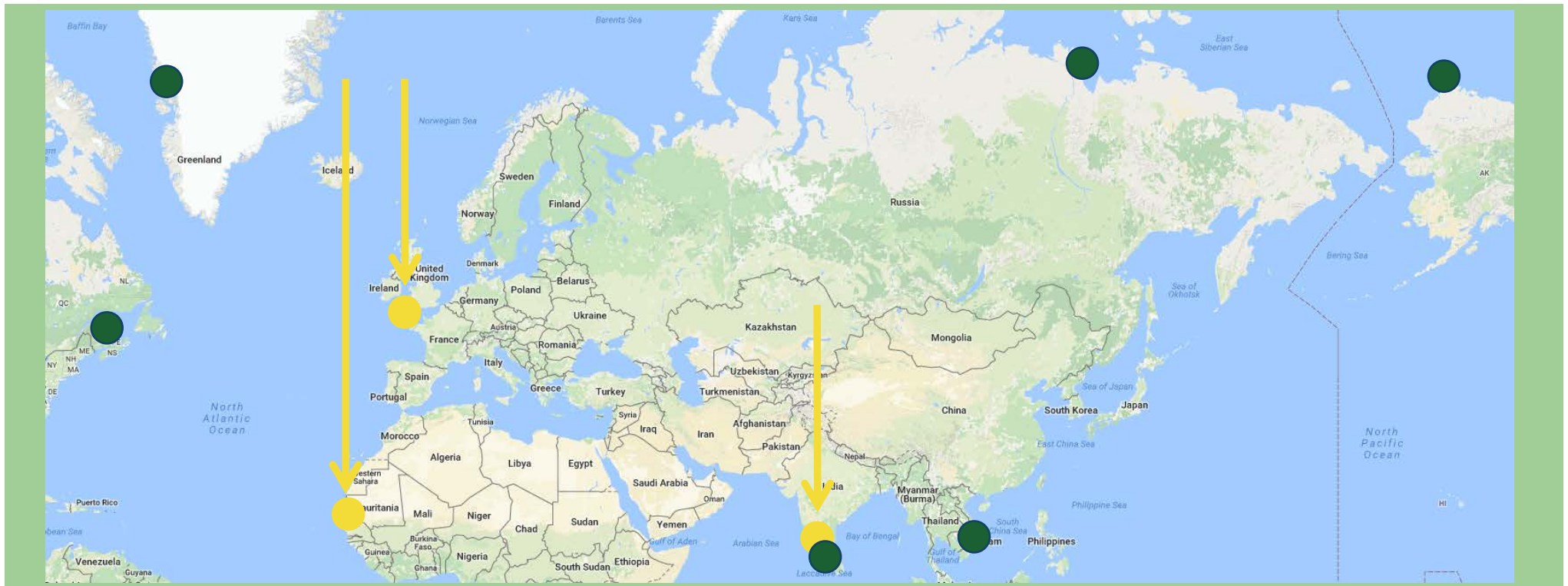
A series of 9-monthly retreats for harmonization/interpretation.

Not a comparative approach *stricto sensu*, yet comparisons were made.



## Lessons form the field sites (a sampler) and discussion

When one finds out that current agency and local environmental history and intertwined, that power is discreetly are all over the place – like super blinkers and that art has a role to play – when scientists are ready.



**Type 1:** Science is somehow utilized to solve interpretative tensions associated to a “local communities vs external forces” power play.

### Stitching science and policy back together:

Science for robust local policy making is turned into a political tool to reinforce or contest current power relations.



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### DWINDLING FISHLANDINGS

One causal chain, associated overfishing, is within intervention reach of national authorities. The other, starting with climate change shifts the burdens elsewhere, even outside of Senegal – and generates potential “opportunities” through the confiscation of funds earmarked for adaptation.

The local deployment of science has bearing on an extremely sensitive power play.

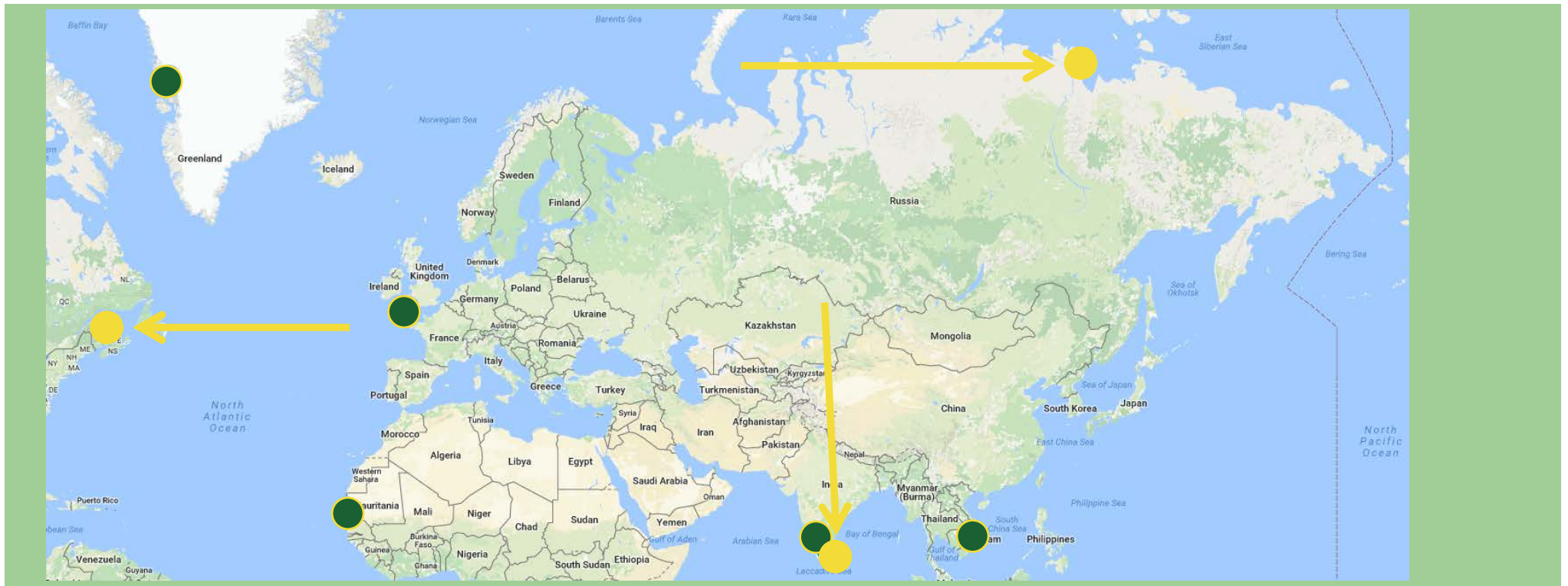


ANTICIPATORY ADAPTATION AND TOXIC ALGAE BLOOM  
Inclusion of anticipatory adaptation techniques within  
a stakeholder based water management body.

Who sets the ground rule?

An (extremely cautious) professional facilitator.  
The most powerful players who, "*chemin faisant*",  
annihilate the process

The local and collective  
practice of science was  
quickly identified by a  
dominant group as a threat –  
that group rendered the  
process meaning less.



**Type 2:** Science is deployed to make sense of what is observed, to connect the past, the present, and the future.

### Stitching science and policy back together:

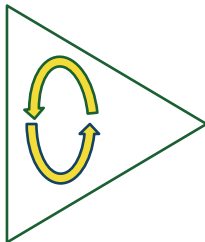
Adds legitimacy to current action or lack thereof, contributes to local agency



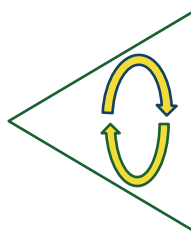
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These changes are natural

Nature always finds its way



Signs of change



These changes are anthropogenic

**USSR-CCCP**

Only

**USSR-CCCP**

(well almost) way out is through massive central state intervention

Expressing causality is about expressing local history in its interconnectedness in order to make sense of what is observed



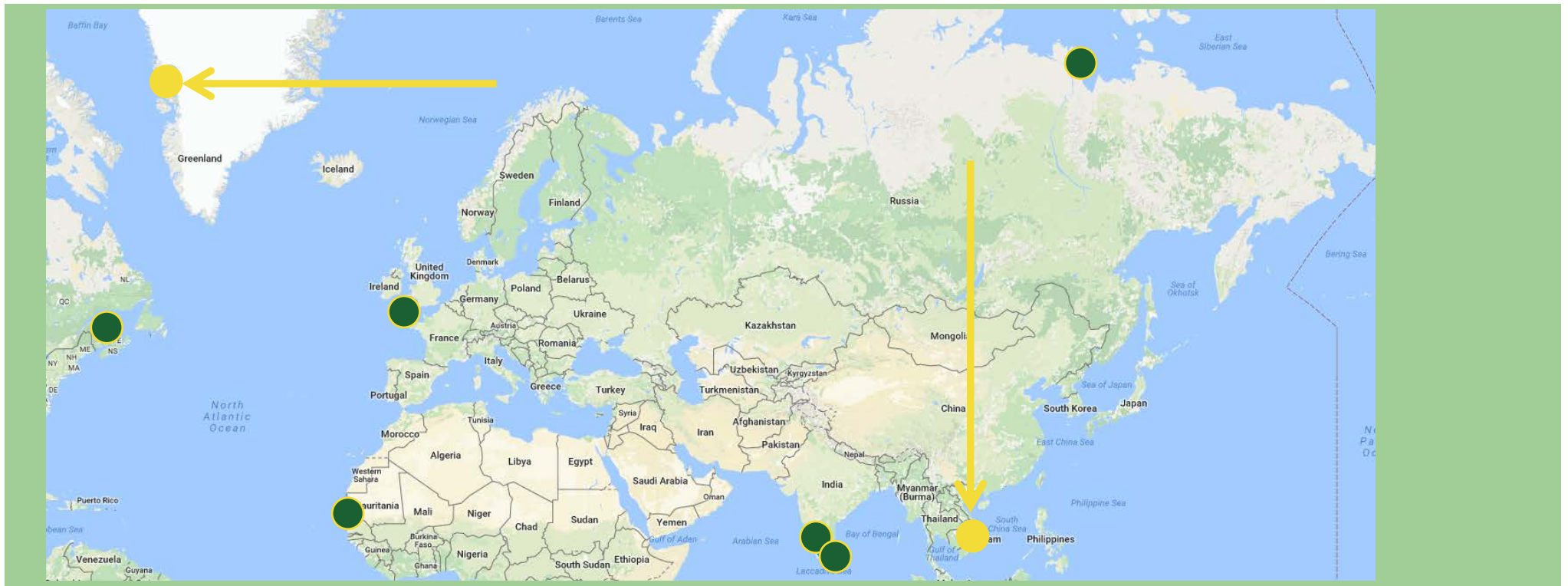
Science used as a way to associate meaning to local  
citizen science.  
A focus is on the understanding of the communities'  
watersheds environmental history and historical  
environmental status.

Transdisciplinary turn may  
have occurred a long time  
ago, yet here it has been  
limited to policy and  
regulatory salient issues



Increasing occurrence of fisherfolks falling victim of local organized crime or being imprisoned abroad.  
Negotiation of boundaries are under way.  
Legitimacy, and reasons for disempowerment, found in climate science -> is this just contributing to justification regime? Is this just a relatively passive opportunistic move?

Potential use of externally driven science as leverage for much needed action.



**Type 3:** Science deploys as if business as usual prevail, this in spite of a radically shifting risk envelope..

**Stitching science and policy back together:**

Pretending or acknowledging that there is no need for this.



Science is mobilized proactively to design a (gigantic) plan, in order to simultaneously manage flood risk while not interfering with the unexpected (?) consequences of a progressive transition to a market based economy.

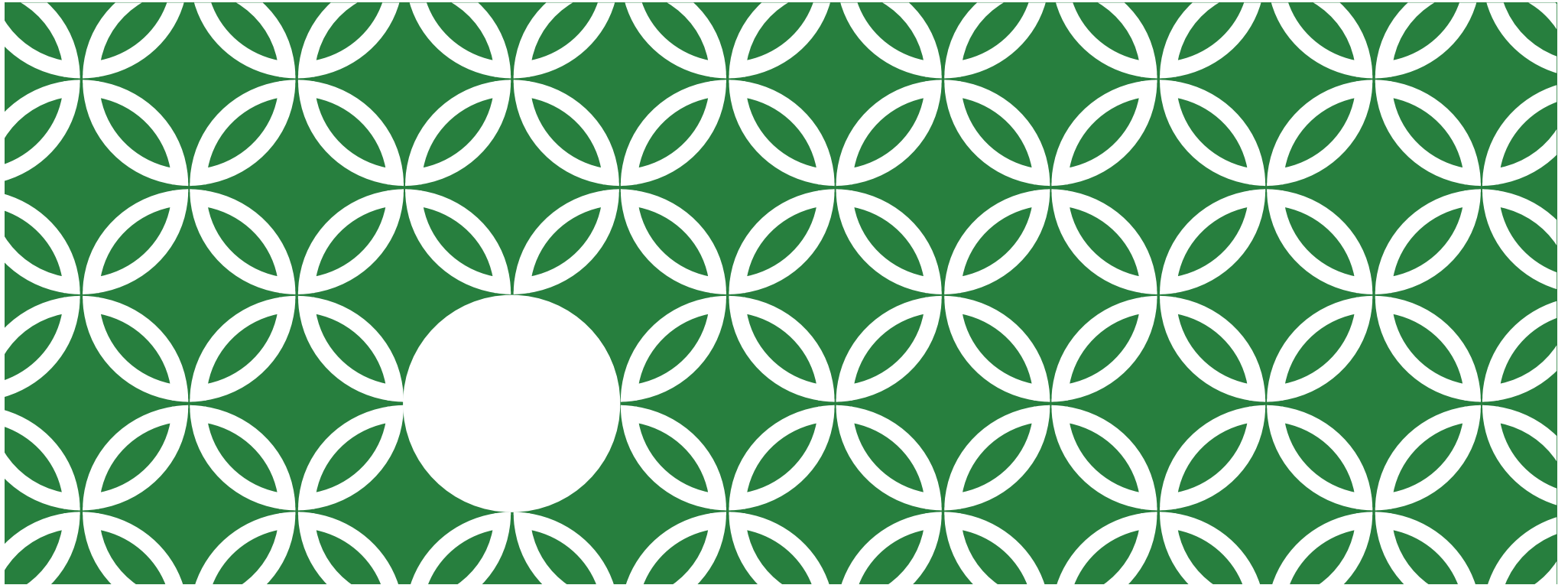
Science is mobilized as mean to adapt to political and economic forces at work – ... – that themselves are threatened by climate change



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Local knowledge, embedded into local practices, qualifies change with a rather high resolution. Connecting science, and its lower resolution, to local observation is challenging at best.

Sense making, is bidirectional, local practices may shed a quite crude light on science as scientists practice it . What is needed is a stitching of knowledges, not policy with science.



## Conclusion

Where we see old  
meaningful categories  
resuscitate and where we  
see other categories  
facing their demons.

## The transdisciplinary turn, as seen through science and technology studies analysis.

Who is in the driver seat?

- Not yet stabilized, there may be a struggle going on.

With what aim?

- Power, legitimacy?
  - Over things, maybe, over people for sure.

How are the command and control organized?

- Indirectly, still needs to be invented

Who assesses

- Saliency, credibility, legitimacy : no one,
  - or more precisely pseudo assessment are used in order to pursue other agenda

## Overarching conclusion

### TRANSDISCIPLINARY RESEARCH

- Is framed as some sort of tool box with very simple causal statements in mind

### YET TRANSDISCIPLINARY RESEARCH SEEMS TO BE

- More about power play

### AND ABOVE ALL ABOUT

- Contributing to local agency through sense making
- This last contribution would be more than enough to justify the transdisciplinary turn — **needs confirmation through work like the one conducted by the ACE-ICSEN project/program/Institute**

# Thank you!

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