ReMeMaRe

3: Empowering Communities

Chair - Diana Pound,
Managing Director,
Dialogue Matters

Ocean and Coastal Futures

Environment Agency

THE CROWN ESTATE




Its all about power!

Diana Pound BSc MSc CEnv FCIEEM

Dialogue Matters ltd

Specialists in designing, facilitating training and advising on co-operative decision making in policy and practice

A STORY TO INSPIRE

A story of two halves

Dialogue Matters

Summit to Sea

- Rewilding project
- Environmentalists made decisions in advance on area and vision
- Engage and consult to persuade others
- Massive push back
- Farmers feared collapse of their way of life and communities
- Project collapse
- **POWER OVER**

Tir Canol (Middle Ground)

- Two years of co-design – 'designing with not for'
- Sheep farmers heavily involved
- Humility, listening, learning together, self-reflection
- No fixed goals
- What works will emerge from process of experimentation and learning together
- **POWER WITH -TRANSFORMATIVE POWER**

UNDERSTANDING POWER

Power – not what we think

- Power is not fixed - its not zero sum
- It can be cumulative
- It can be held, shared, given away, or used to block or enable
- Power is good and bad – and which can depend on purpose and context
- **Power affects the nature and quality of decisions**

Power is…

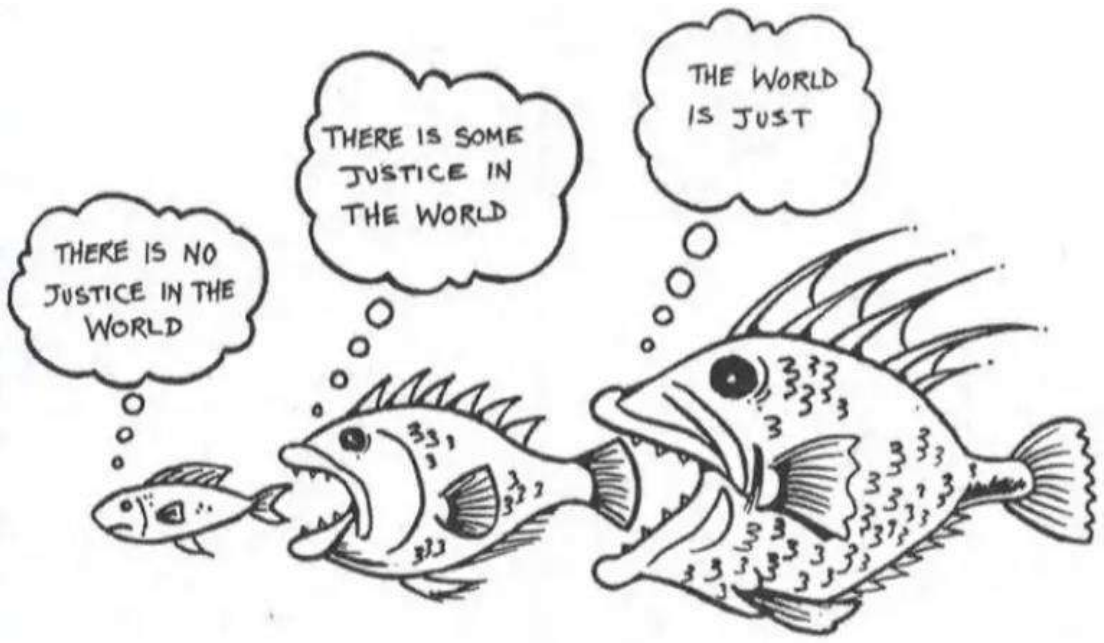


Image: Robert Mankoff, The New Yorker Collection/The Cartoon Bank

- Held by groups, individuals and nature
- Dependent on context and moments
- Relational, dynamic, not binary, messy
- Ever changing, contested and contradictory
- Intersectional – gender, race, ethnicity, cast, class, sexuality, history, location

Power relations

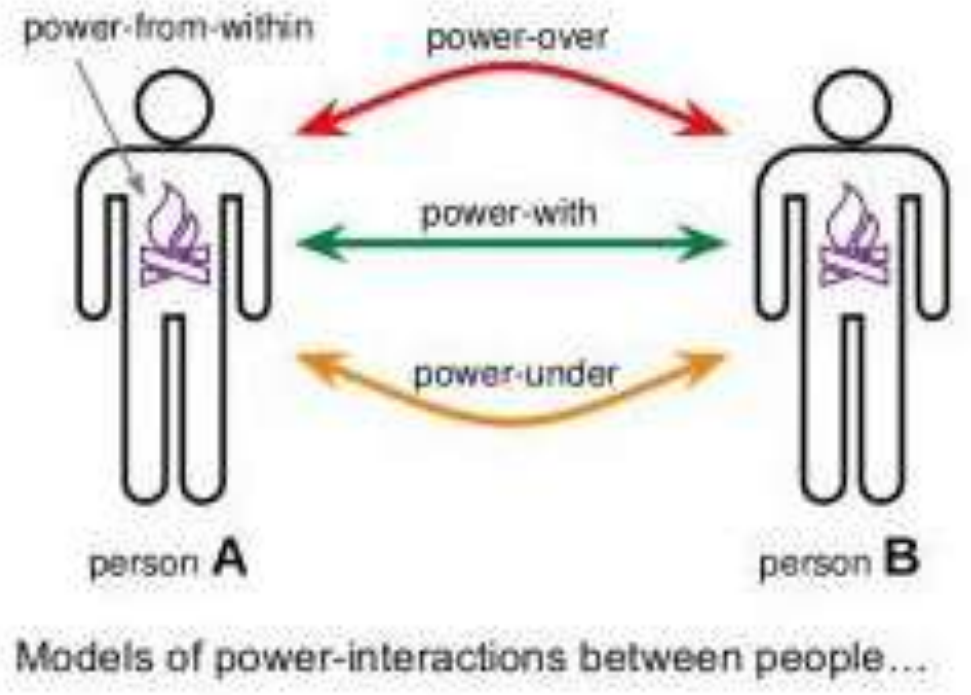
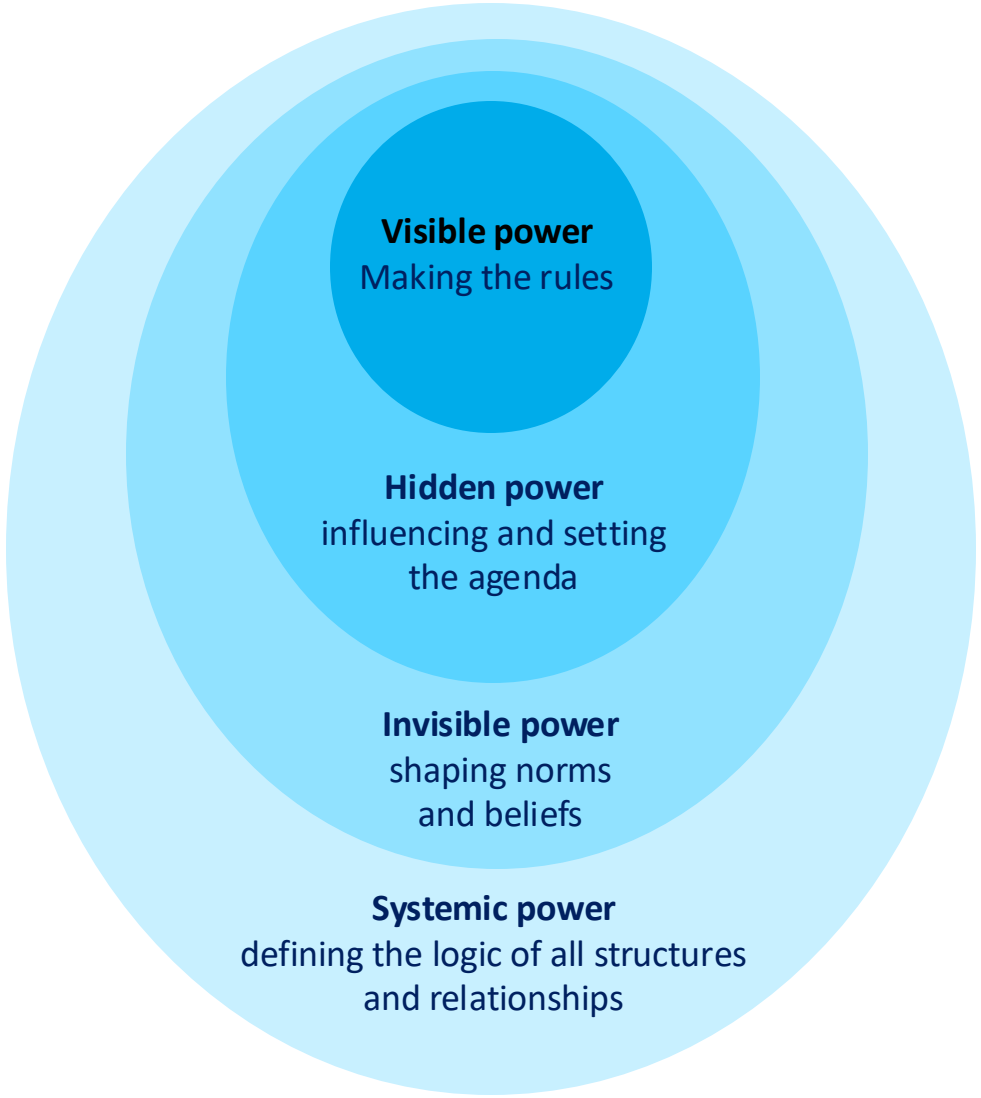


Image: https://www.slideshare.net/tetradian/bridging-enterprisearchitecture-and-systemsthinking

- **Power over** – exerting control and influence over others
- **Power with** – social power, capacity for collective action
- **Power to** – ability to create change and take action
- **Power within** – self worth, agency in one's ability to act

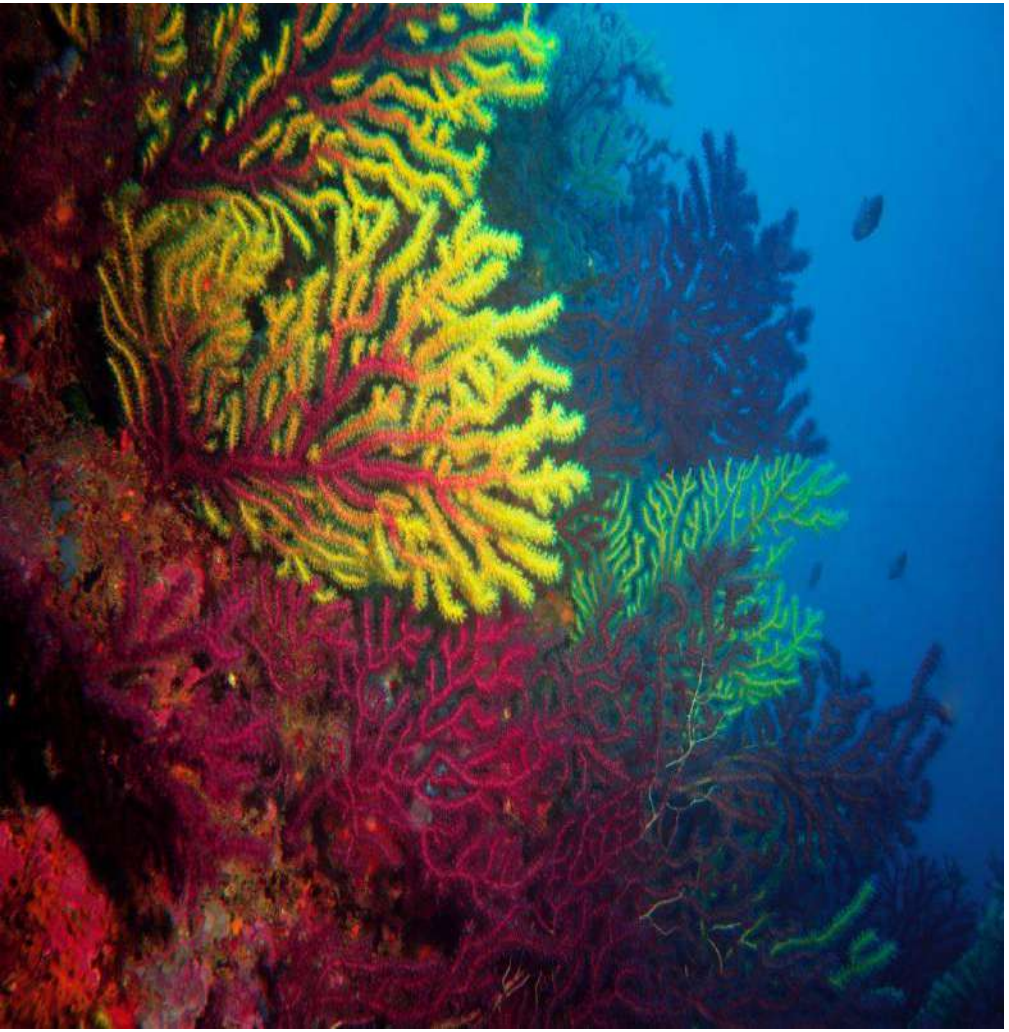
Power context



Visible power	Deciding: e.g. geographic focus, time frames, project budget, overall purpose, that change is needed
Hidden power	Behind the scenes: creating allies and alliances, lobbying, bribing, including or excluding certain voices
Invisible power	Beliefs, social norms, culture of bias or favour to particular perspectives. E.g. in environment world there is a bias towards science and technical knowledge
Systemic power	Embedded social and economic context e.g. colonialism, capitalism, patriarchy, structural racism, sexism

WHY POWER AWARENESS MATTERS

BUT…. the Legitimacy Paradox



Marine governance research shows:

Participatory Governance	↑	=	**Legitimacy & trust in the governance**	↓

(Fudge 2018)

But also….

People are more willing to accept outcomes that are not their own first preference if they think the process has been legitimate. (Dietz et al. 2008)

The answer….

- The benefits claimed around engagement and involving others are dependent on:
  - The power shared in decision making
  - The diversity of knowledge participants hold
  - The quality of the participatory decision-making processes.
- Power shared through high quality, inclusive and participatory processes result in better outputs in terms of '***ambition, agreement and stringency***' – which leads to better outcomes.

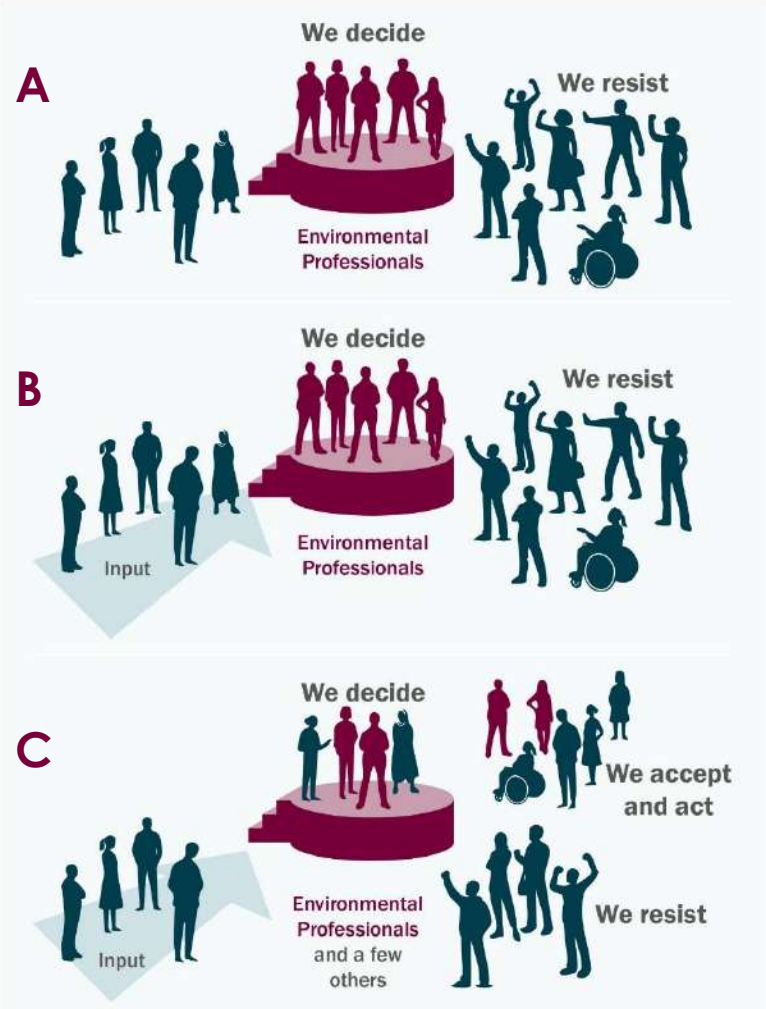
Reed 2008, Reed et al 2018,
Newig et al 2016, Newig et al 2018,
Newig et al 2019, Newig et al 2023

SHIFT TO TRANSFORMATIVE POWER

Ask key questions:

- Who is creating the space?
- Who is included and excluded?
- Who sets the agenda?
- For what purpose?
- Whose voices are heard?
- Whose knowledge counts?
- Who decides what?
- Who defines the meaning of involvement of others?
- What kind of transparency is there?
- What dimensions of power are at play?

Shift from these forms of power over…



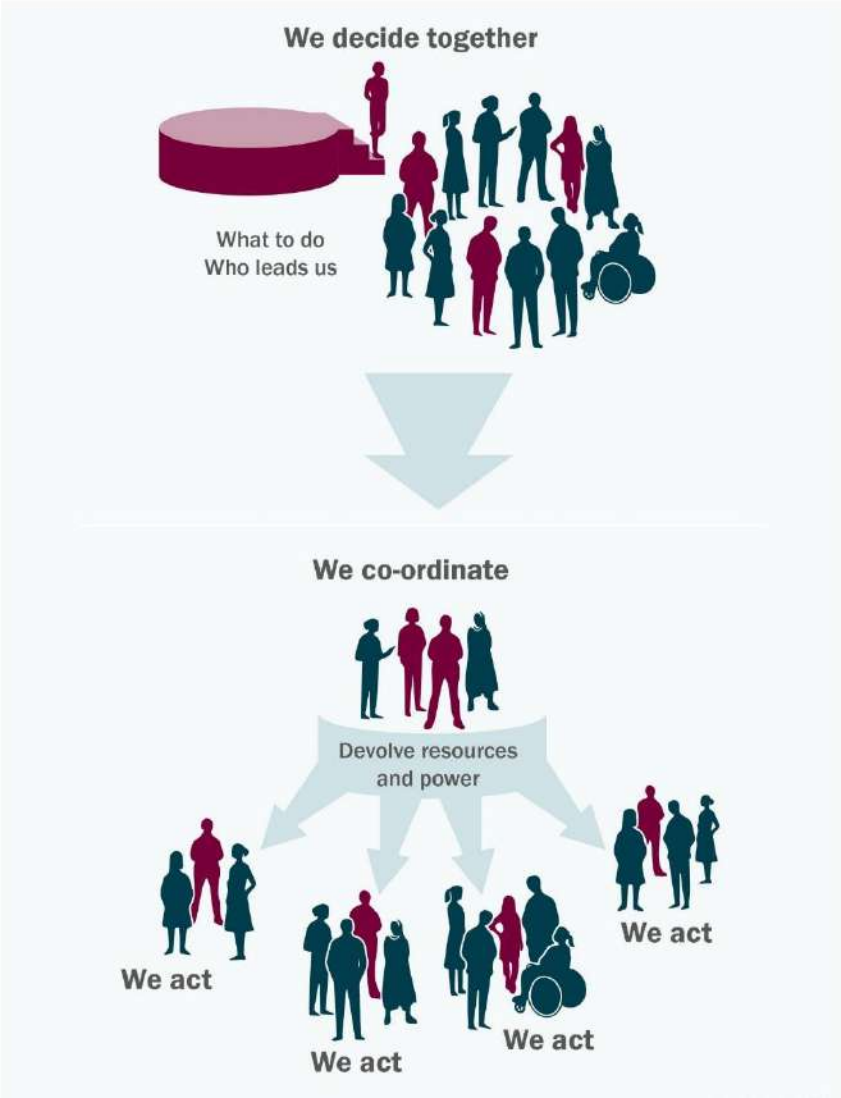
A. Environmentalists make all the decisions on their own

B. Environmentalists carry out engagement to gather input and opinions to inform their own decisions

C. Environmentalists involve a few other perspectives in the decision making

Pound, D. et al. (2025)

To power with

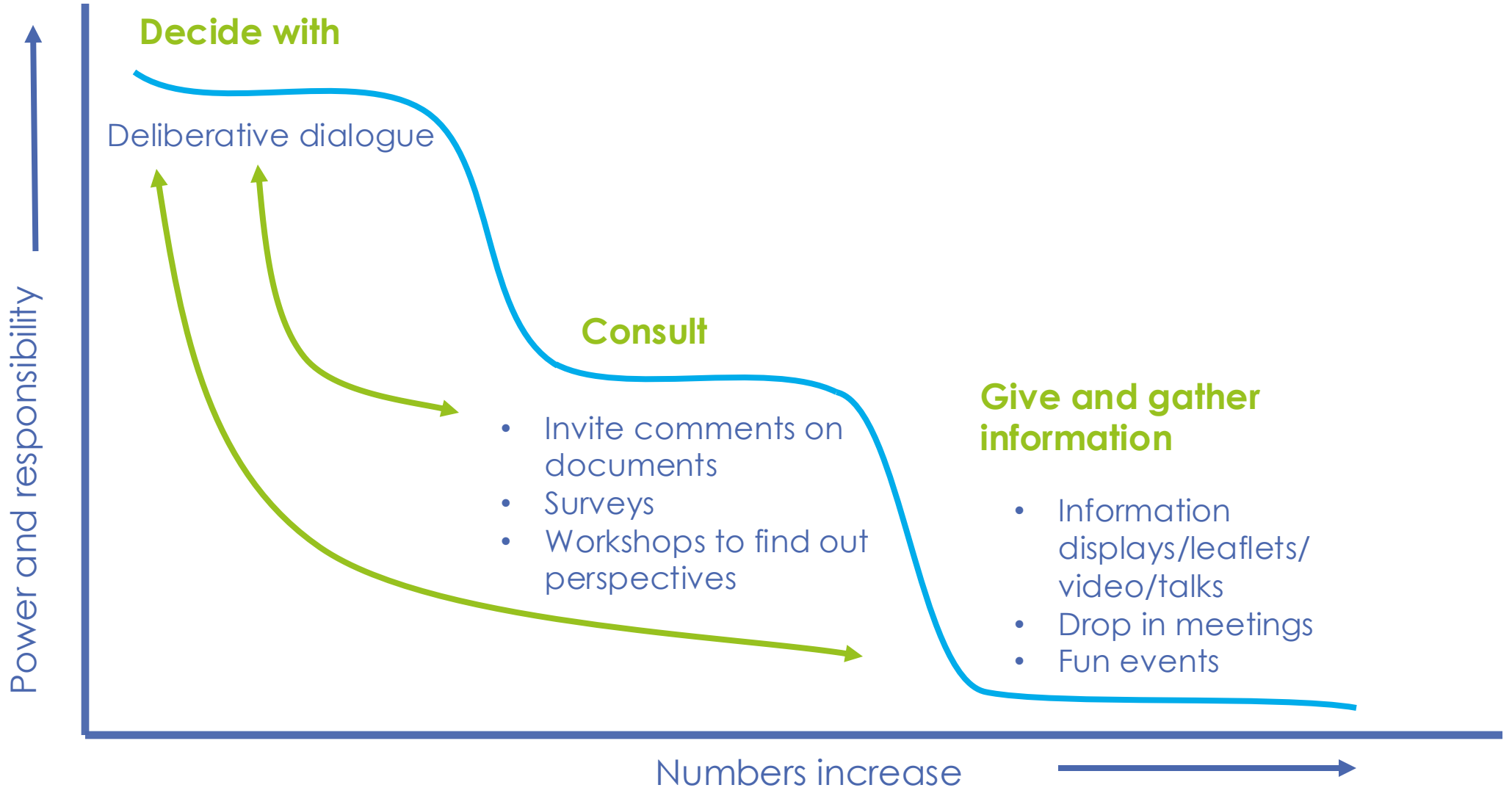


Pound, D. et al. (2025)

Work as equals with a rich mix of people with different values, ways of knowing, concerns, hopes, and aspirations.

Reap the dividends in better outcomes for nature, people and social justice.

Power and responsibility - methods



Co-production: co-design, co-create, co-delivery, co benefits

Working together as equals to share resources, power and responsibility to both plan and implement change…. and share and enjoy the benefits

(D. Pound, 2016)

Apply procedural justice

- Transparent and just decision making
- Balanced inclusion for legitimacy and to integrate knowledge systems
- Unbiased neutral process design & facilitation
- Deliberative & principled negotiation (seeking win/wins)
- Organisation, stakeholders and communities work together as equals to:
  - Share knowledge and understanding
  - Agree priorities.
  - Resolve differences
  - Co-produce ideas
  - Agree governance
  - Implement change

To find out more

- To get a copy of recent research
- To sign up for our occasional resource update
- To hear about training or conferences we do (new course on partnership working in design)

Stronger Shores

Department for Environment Food & Rural Affairs

Environment Agency

Flood and coastal resilience innovation programme

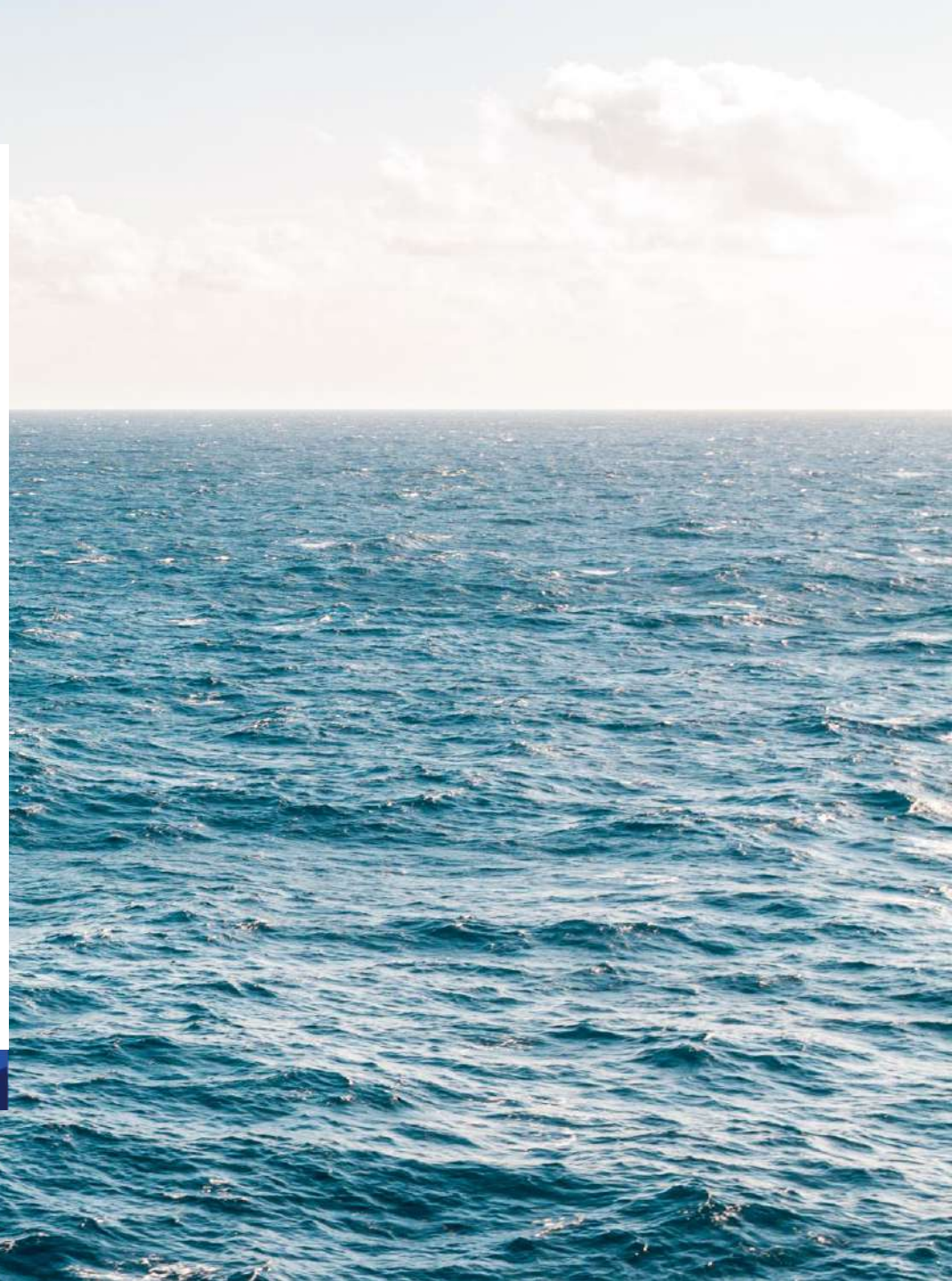
Part of the £200m
Flood and coastal innovation programmes

Protecting Our Coasts:

Collaborative Approaches in the Stronger Shores Project

Emily Ross, Project Delivery Officer

South Tyneside Council



Innovation

£200m Flood & coastal innovation programmes

3
Unique programmes

35 projects

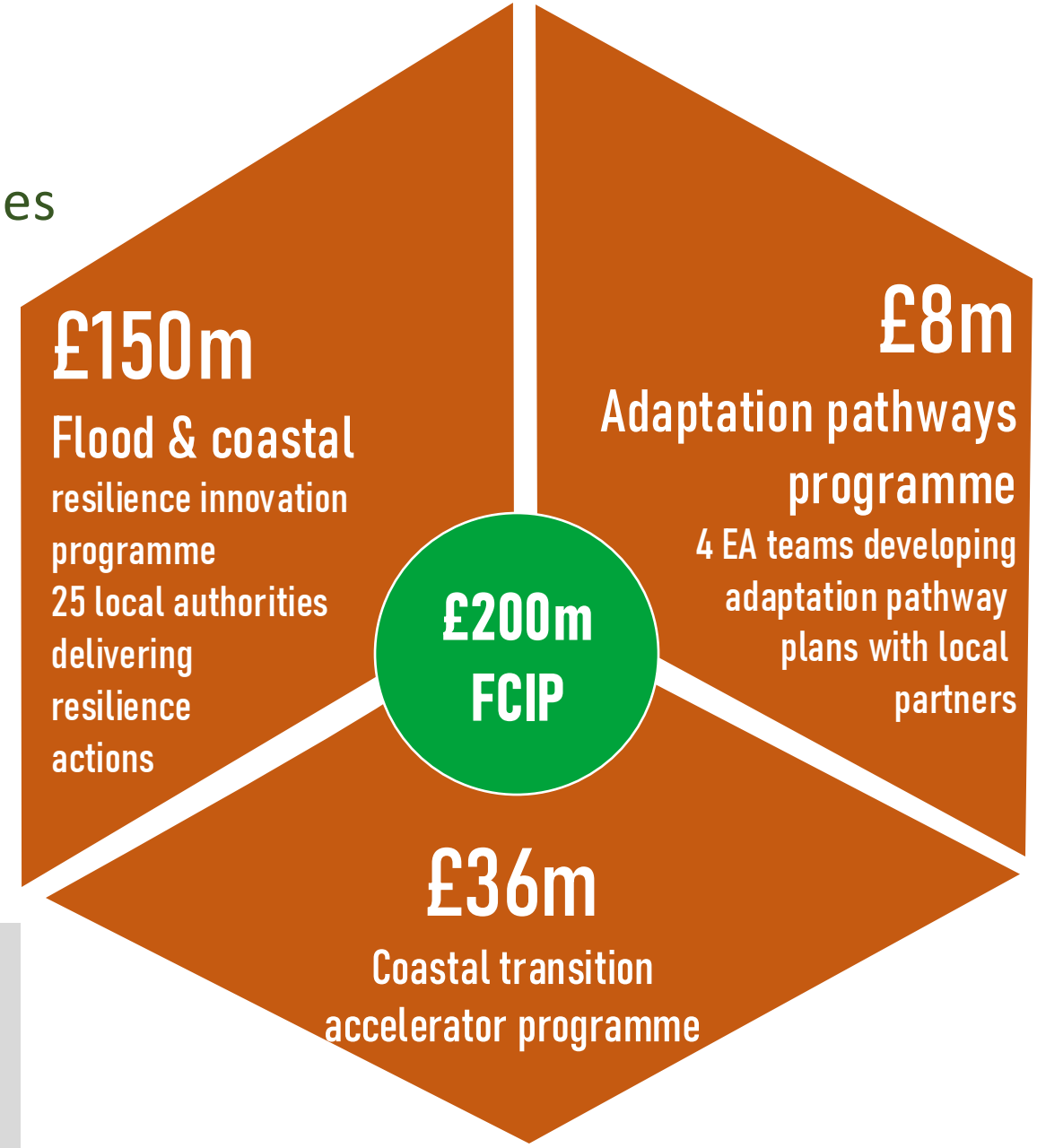
30 local authorities

324
Organisations

£200m

~500
Project staff

6 YEARS
2021–2027



We will drive innovation in flood and coastal resilience and adaptation to a changing climate. We're investing £200 million to test and develop new ways to create a nation resilient to flooding and coastal change.

Improve understanding of the coastal protection qualities of marine habitats **(seagrass, kelp, native oyster reefs)** and their wider benefits to climate change, biodiversity, and society.

Photo credit: Project Seagrass

Pippa Moore, Newcastle

Richard Lilley / Uni

COMMUNITY ENGAGEMENT

ENGAGED WITH OVER 14,500 PEOPLE

4,000+ PEOPLE PRESENTED TO.

3000+ conversations started in 52 sessions using 5 innovative engagement resources.

2700+ YOUNG PEOPLE ENGAGED IN CLASSROOM AND OUTDOOR-BASED SESSIONS.

£56,000 awarded to 13 grassroot community groups and organisations.

270+ ENGAGEMENT SESSIONS

500+ PEOPLE CONNECTED TO THEIR LOCAL COASTLINE THROUGH ART.

6 DELIVERY PARTNERS:
South Tyneside Council; North Sea Wildlife Trusts; Wild Oysters Project; Tees Rivers Trust; Newcastle University; University of Plymouth.

ENGAGED WITH A VARIETY OF PEOPLE:
Community Members; Decision Makers; Businesses and Investors; and Researchers and Academics.

750+ pupils engaged using our education packs.

Stronger Shores

500+

PEOPLE CONNECTED TO THEIR LOCAL COASTLINE THROUGH ART.

Stronger Shores

BEACH of DREAMS

£56,000

awarded to 13 grassroot community groups and organisations.

Stronger Shores


Take yourself to
the
Now walk.
Sit, stand, crouch – peer
into a rockpool. Listen to
the coralline's pink breath.
Hear the pop of an air
bubble and in your bones
feel the grind of kelp as it
photosynthesises in its
salt bath.

3000+

conversations started in 52 sessions using 5 innovative engagement resources.

Stronger Shores

6 DELIVERY PARTNERS:

South Tyneside Council; North Sea Wildlife Trusts; Wild Oysters Project; Tees Rivers Trust; Newcastle University; University of Plymouth.

Stronger Shores

Restoration Realities: Challenges

- Access limitations to sensitive habitats
- Environmental constraints
- Technical complexity of restoration work
- Capacity and time constraints
- Health and safety

Empowering Coastal Communities: Local Action, Lasting Impact

- Case study examples – showcasing best practice for empowering, engaging and building local capacity.
- Evidence the

Thank you for listening

emily.ross@southtyneside.gov.uk

Stronger Shores

Department for Environment Food & Rural Affairs

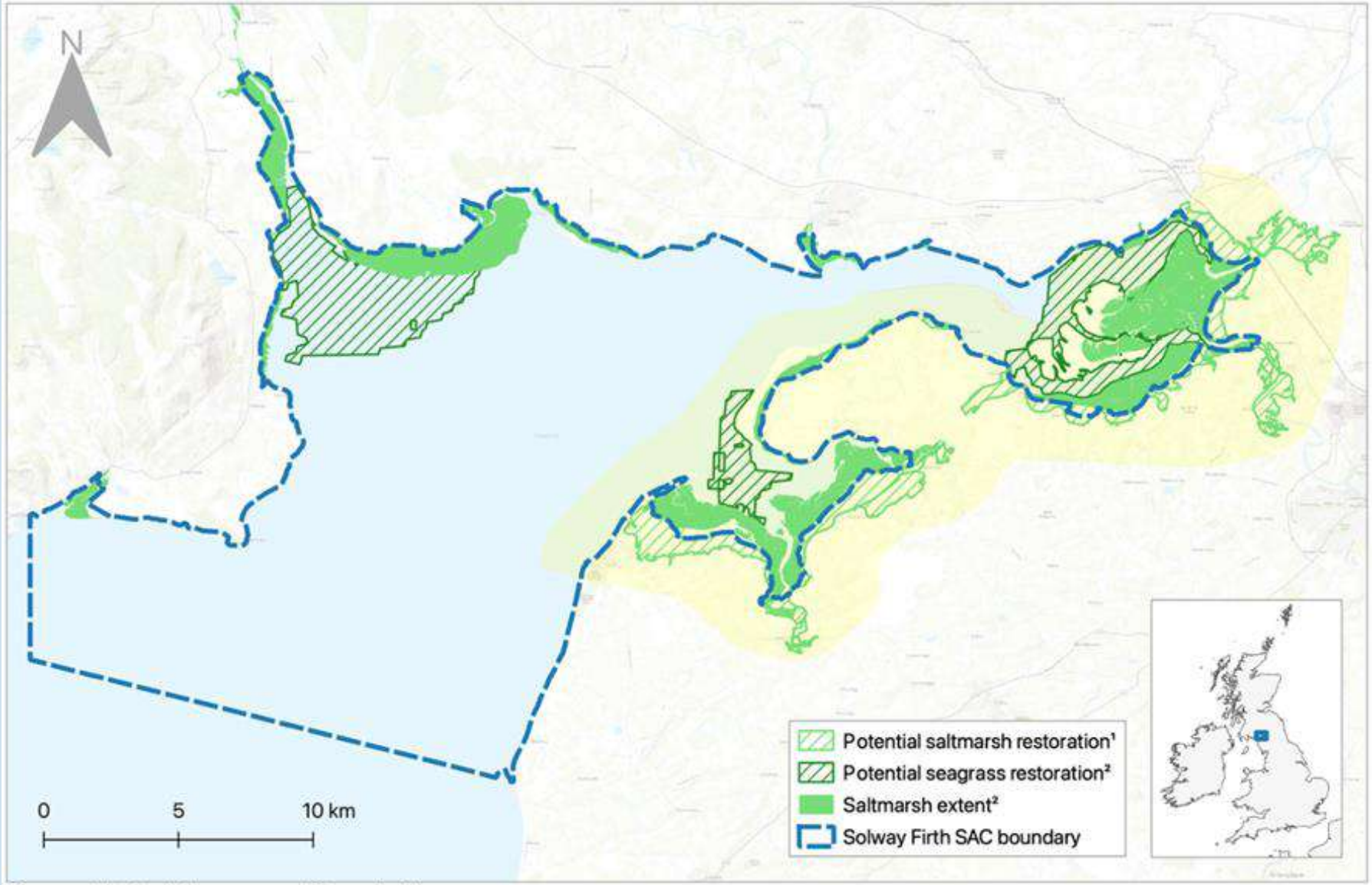
Environment Agency

Flood and coastal resilience innovation programme

Part of the £200m
Flood and coastal innovation programmes

Solway Firth Partnership

Swansea University
Prifysgol Abertawe



¹Source: Marine Management Organisation
²Source: Environment Agency

Solway Firth Partnership

Swansea University
Prifysgol Abertawe

The Mission

“

to combine local knowledge with field surveys to enhance and restore saltmarsh, seagrass and reef habitat in the Cumbrian Solway Firth.

”

Solway Firth Partnership

Swansea University Prifysgol Abertawe

Phase 1: SCOPING Jan-Mar 2023

- Stakeholder focus groups formed
- Field sites scoped
- Equipment procured

Phase 2: MONITORING & CITIZEN SCIENCE Oct 2023-Mar 2024

- Hydrodynamic surveys/habitat suitability assessments
- Citizen science workshops

Phase 3: RESTORATION Oct 2024-Mar 2025

- BESE-elements® matting installed at 3 sites
- Landowner permissions secured
- Monitoring ongoing

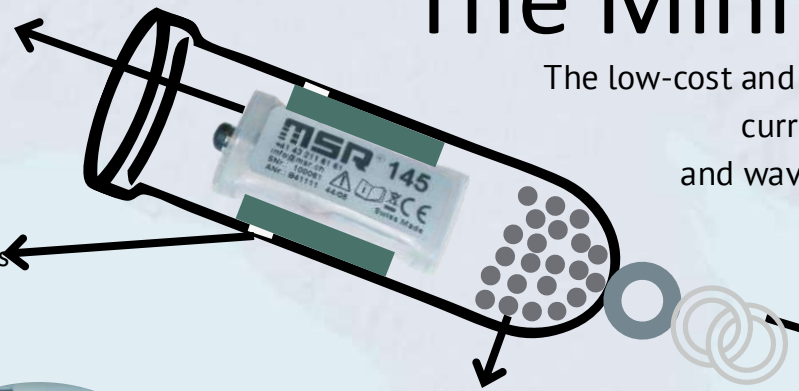
Solway Firth Partnership

Swansea University Prifysgol Abertawe

The Mini Buoy

The low-cost and home-made tides, currents, and waves sensor

Data Logger
Detects movement.



Floral Foam Keeps it secure.

Steel Shot
Increases sensitivity.

Wire Loops
For free movement.

Deploy in the Field:

- Place a stake in the ground, attach the Mini Buoy using cable ties, and ensure the swivels can move freely.
- Retrieve the Mini Buoy ideally after 15 days or more to capture a full Spring-Neap cycle.

Get Your Mini Buoy Ready:

- Place the logger in the tube, held firm with floral foam.
- Seal the lid of the tube using silicone sealant.

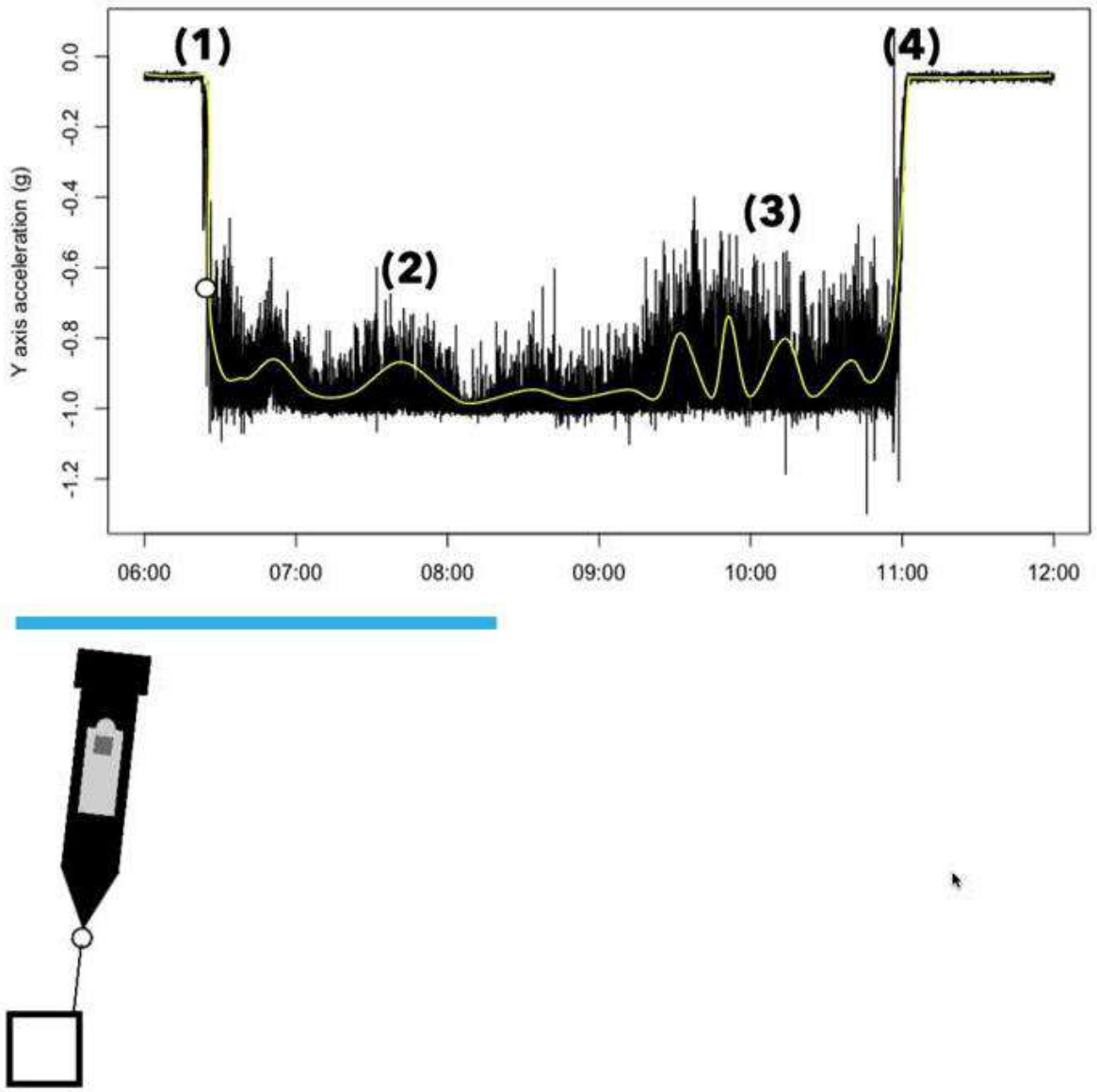
Programming the Data Logger:
Use the MSR software to set the logger to record data every few seconds along the y-axis.

Data Collection and Analysis:
Download the data using the MSR software and analyse it using the Mini Buoy App.

By monitoring potential sites for coastal habitat restoration, the Mini Buoy supports healthier, more resilient coastal ecosystems.

Solway Firth Partnership

Swansea University
Prifysgol Abertawe



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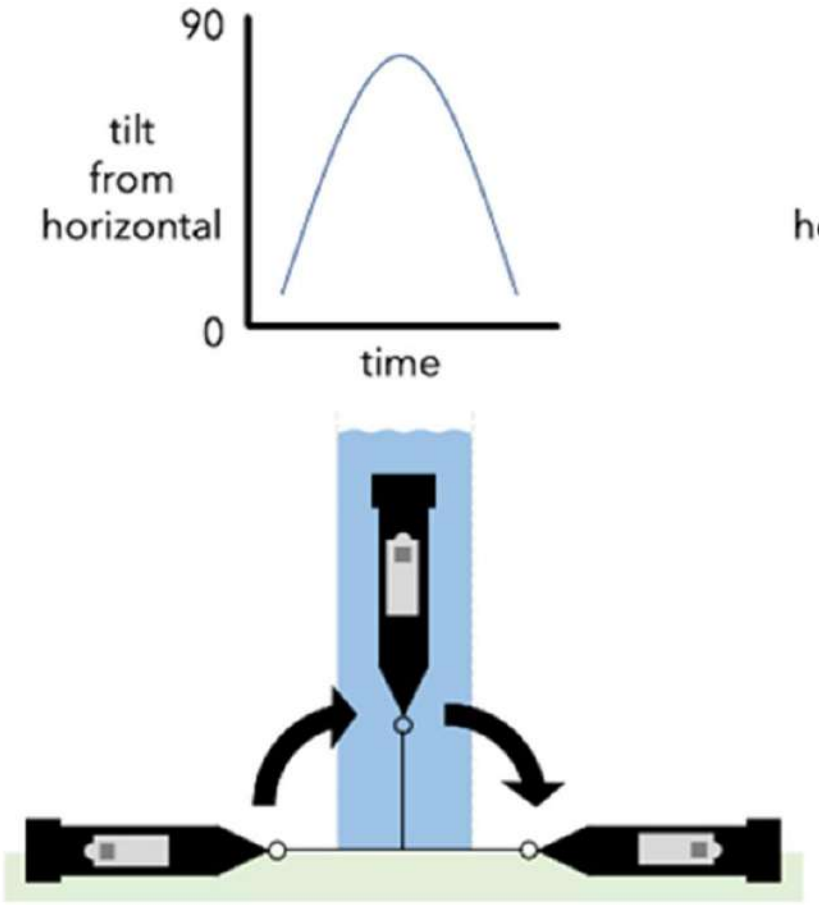
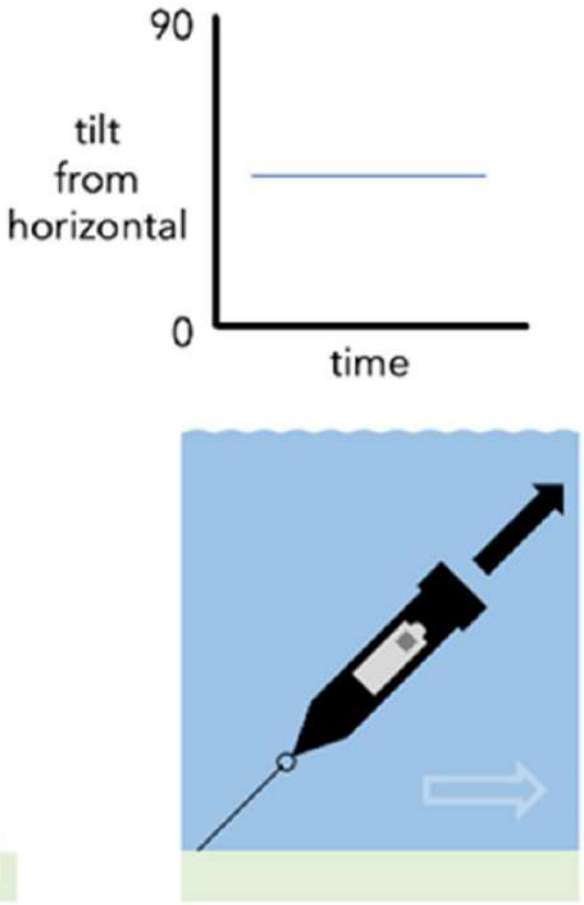
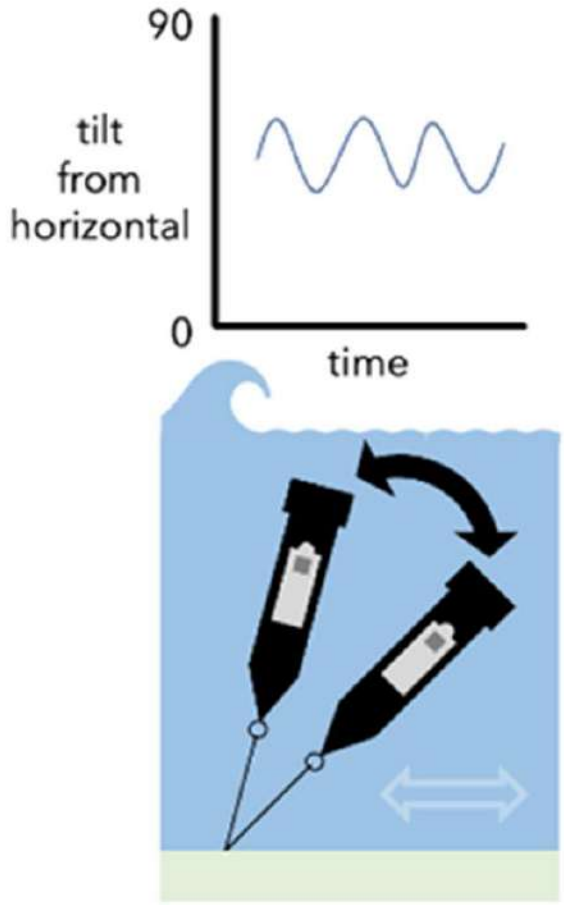
Inundation duration



Current velocity



Wave orbital velocity



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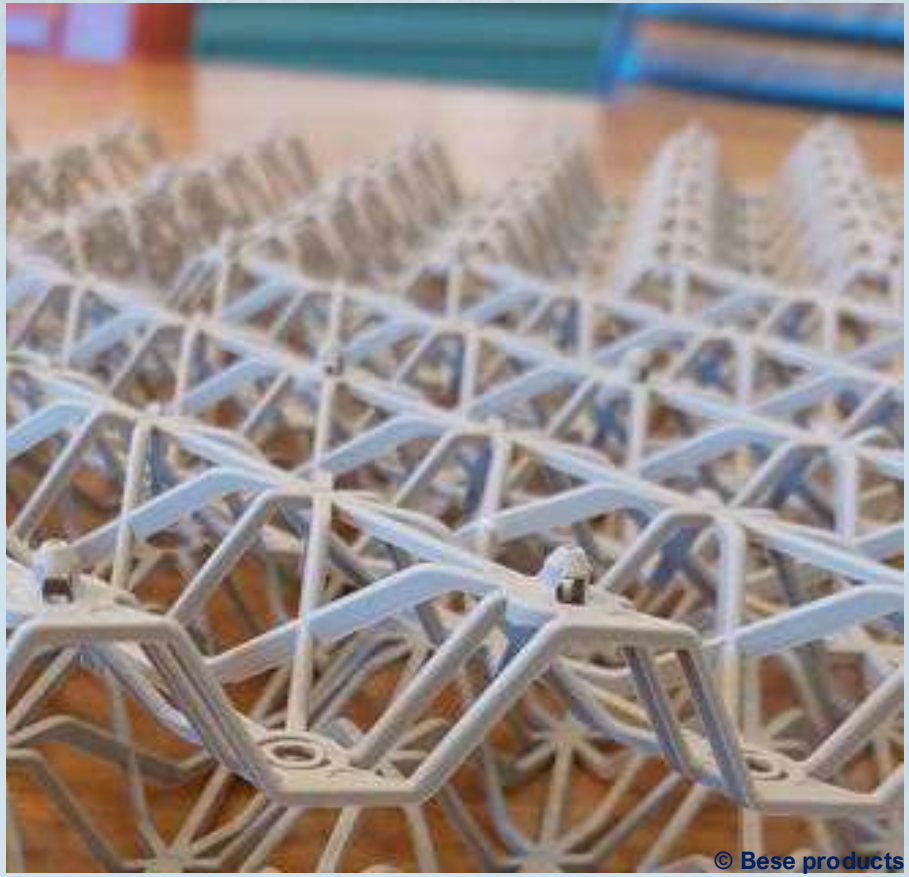
Parameter	Unit	Anthorn	Cardurnock	Campfield	Glasson	Burgh (middle)	Burgh (inner)	Rockcliffe
Rate of lateral change	[m/yr]	-0.14 ± 0.30	-0.40 ± 0.00	0.01 ± 0.05	1.09 ± 1.34	-0.92 ± 0.95	-0.21 ± 0.37	0.17 ± 2.70
Replicates	[n]	1	2	2	1	2	2	2
Survey period	[days]	49.02	49.02	24.51	49.02	49.02	49.02	24.55
Inundation frequency	[n/day]	1.53	0.59	1.31	1.20	1.31	0.41	0.45
Inundation duration	[%]	17.91	3.86 ± 0.42	10.43 ± 0.31	10.92	12.29 ± 0.04	2.35 ± 0.39	2.10 ± 0.72
Longest emersion period	[days]	4.7	9.8	8.8	7.7	7.7	13.4	10.6
Median current velocity	[m/s]	0.27	0.08 ± 0.08	0.09 ± 0.09	0.24	0.10 ± 0.11	0.06 ± 0.06	0.11 ± 0.12
Upper current velocity	[m/s]	0.58	0.42 ± 0.05	0.38 ± 0.05	0.49	0.22 ± 0.07	0.31 ± 0.01	0.45 ± 0.11
Median wave orbital velocity	[m/s]	0.08	0.06 ± 0.01	0.05 ± 0.01	0.04	0.03 ± 0.01	0.05 ± 0.01	0.07 ± 0.02
Upper wave orbital velocity	[m/s]	0.17	0.17 ± 0.01	0.23 ± 0.04	0.12	0.09 ± 0.00	0.13 ± 0.01	0.19 ± 0.07

BESE-elements® are made from a starch biopolymer derived from potato waste and are designed to reduce local currents and waves, provide stability, and create shelter for organisms.



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Positionality

'…where one is located in relation to their various social identities (gender, race, class, ethnicity, ability, geographical location etc.); the combination of these identities and their intersections shape how we understand and engage with the world'

(Alcoff, 1988)

Alcoff, Linda. Cultural Feminism Versus Post-Structuralism: The Identity Crisis in Feminist Theory. Signs: Journal of Women in Culture and Society Vol.13, no.3 (1988).

Post-political

‘Political contradictions are reduced to policy problems to be managed by experts and legitimated through participatory processes in which the scope of possible outcomes is narrowly defined in advance’

(Wilson & Swyngedouw, 2014)

Wilson, J. & Swyngedouw, E. (eds.) (2014). *The Post-Political and Its Discontents*. Edinburgh University Press.

Solway Firth Partnership

Swansea University Prifysgol Abertawe

Find out more:

Solway Firth Partnership

Swansea University Prifysgol Abertawe

Restoring Reefs, Engaging Communities: How Citizen Science is Supporting European Flat Oyster Restoration

A. Pilsbury, A. Inman, W. Sanderson, N. Kennon, C. Godfrey,
E. Cooper-Young, C. Walker, H. Bester, A. Hughes

MARINE CONSERVATION SOCIETY

RESTORATION FORTH

Restoration Forth

- Working with communities around the Firth of Forth, Scotland. Launched in 2022.
- The aim is to restore and enhance European flat oyster beds and seagrass meadows.

Partnership

WWF

Scottish Seabird Centre

MARINE CONSERVATION SOCIETY

the ecology centre

PROJECT SEAGRASS

HERIOT WATT UNIVERSITY

FIFE COAST & COUNTRYSIDE TRUST

EDINBURGH SHORELINE · EDINBURGH SHORELINE ·

Oyster restoration sites

Community involvement

Raising awareness: community briefed about the project through a range of events (festivals, lectures, stalls)

Training: new skills developed through biosecurity and deployments

Citizen science: new surveys developed – oyster observer, habitat assessment, biodiversity monitoring

Developing new citizen science activities for Restoration Forth

Valuable data to:

- Identify suitable oyster deployment sites
- Determine the impact that oysters have on biodiversity

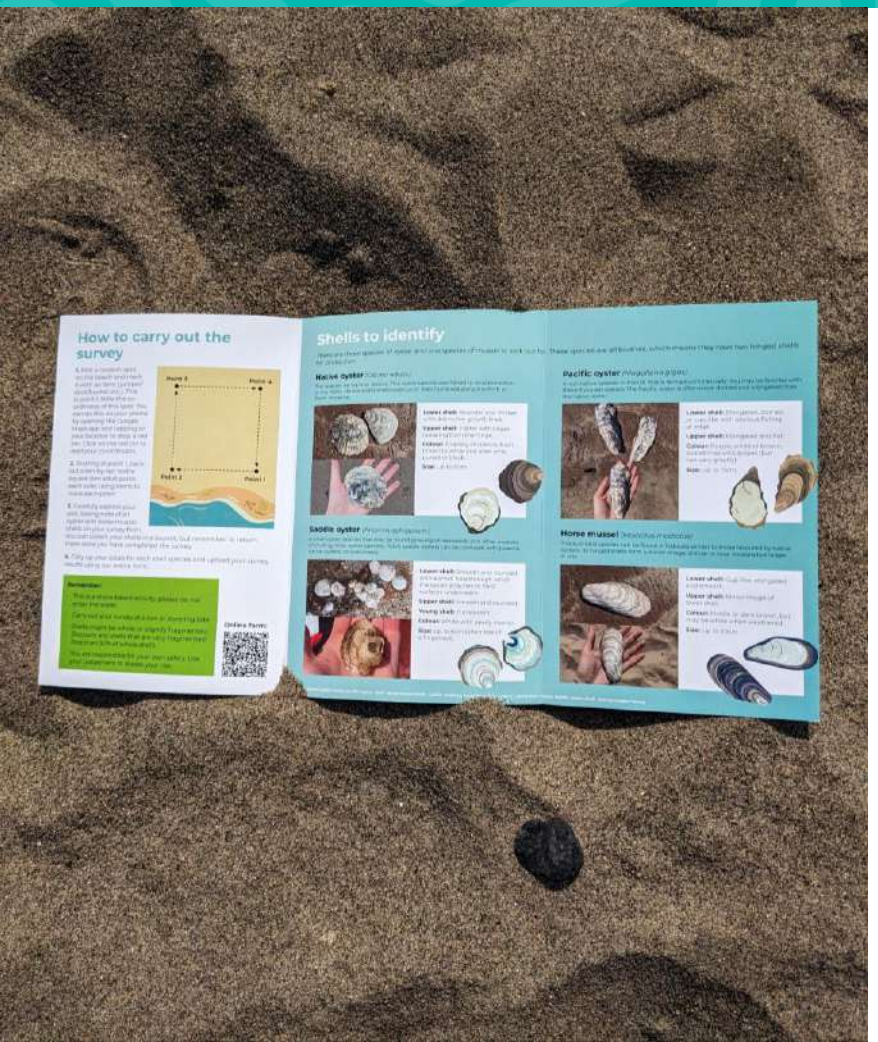
- Designed a series of citizen science activities
- Held community focus groups to discuss ideas and gather feedback

Developing new citizen science activities for Restoration Forth

Community feedback:

- Most interest in ad hoc, staff-led events.
- Local concerns raised e.g. flooding/wildlife disturbance etc.
- Consensus that the community would like to prioritise data that can be used to influence policy and have the highest impact.

Oyster observer & habitat asse



- Site selection - identify historic sites where oysters once thrived & identify areas of shell or gravel material
- Broad engagement potential and good accessibility
- Any beach, anywhere around the Firth of Forth coastline
- Option for self-led or learn skills at training events

HERIOT WATT UNIVERSITY · MARINE CONSERVATION SOCIETY · RESTORATION FORTH

OYSTER OBSERVER RECORDING FORM

About you and your location

Your postcode:	Your age:
Date of survey:	Time of survey:
Beach name:	
Map co-ordinates or what3words of your location:	

How would you describe the beach type in your survey? (please tick)

☐ Mostly mud ☐ Mostly sand ☐ Mostly gravel ☐ Mostly pebble

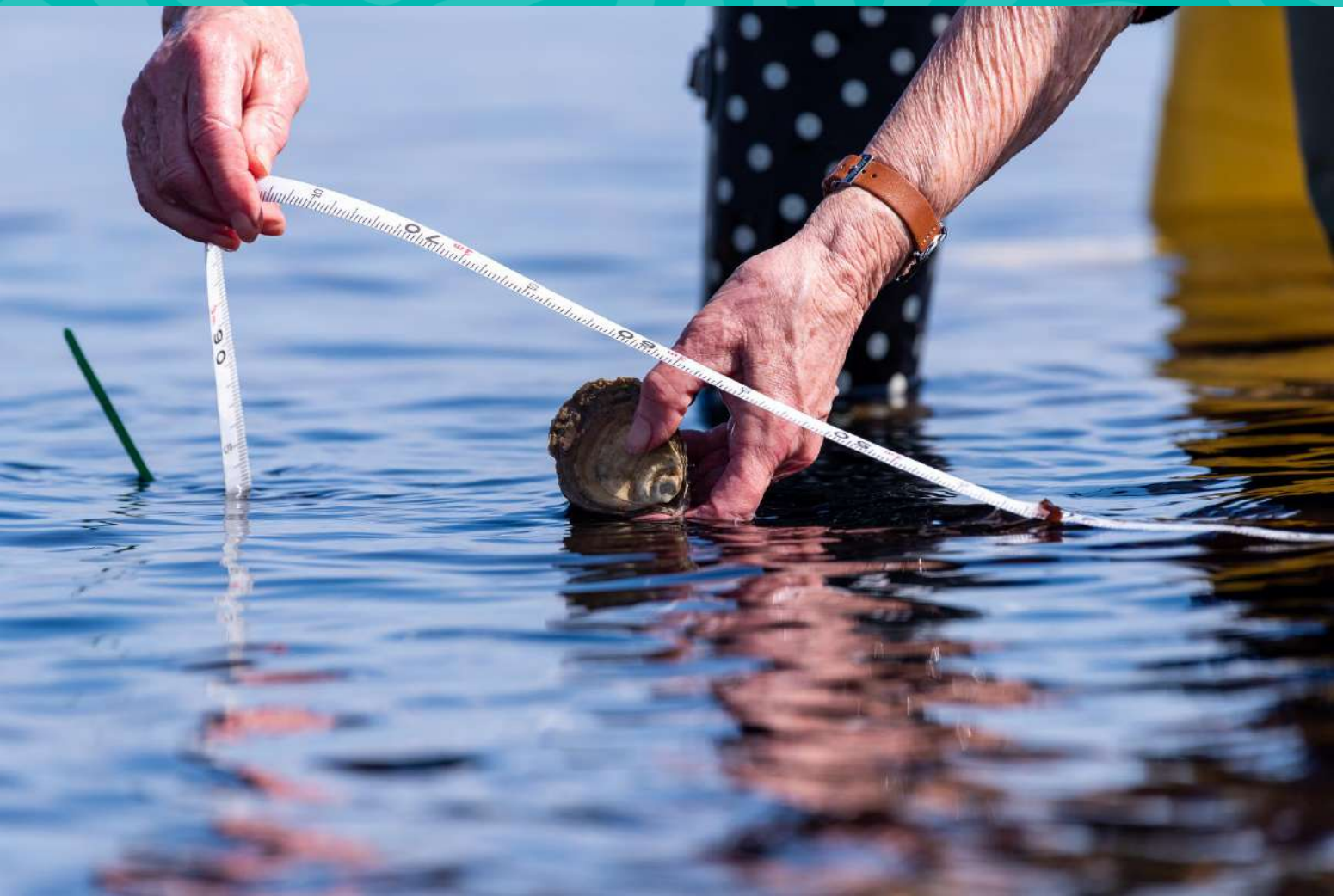
Shell recording

Keep a running tally (𝍸 ||) as you survey and record the total

Shells to look for	tally	total
European flat oyster		
Pacific oyster		
Saddle oyster		
Horse mussel		

Thanks so much for taking part in an oyster observer survey! Your data helps us find the best places to restore oysters. Scan the QR code to submit your survey results:

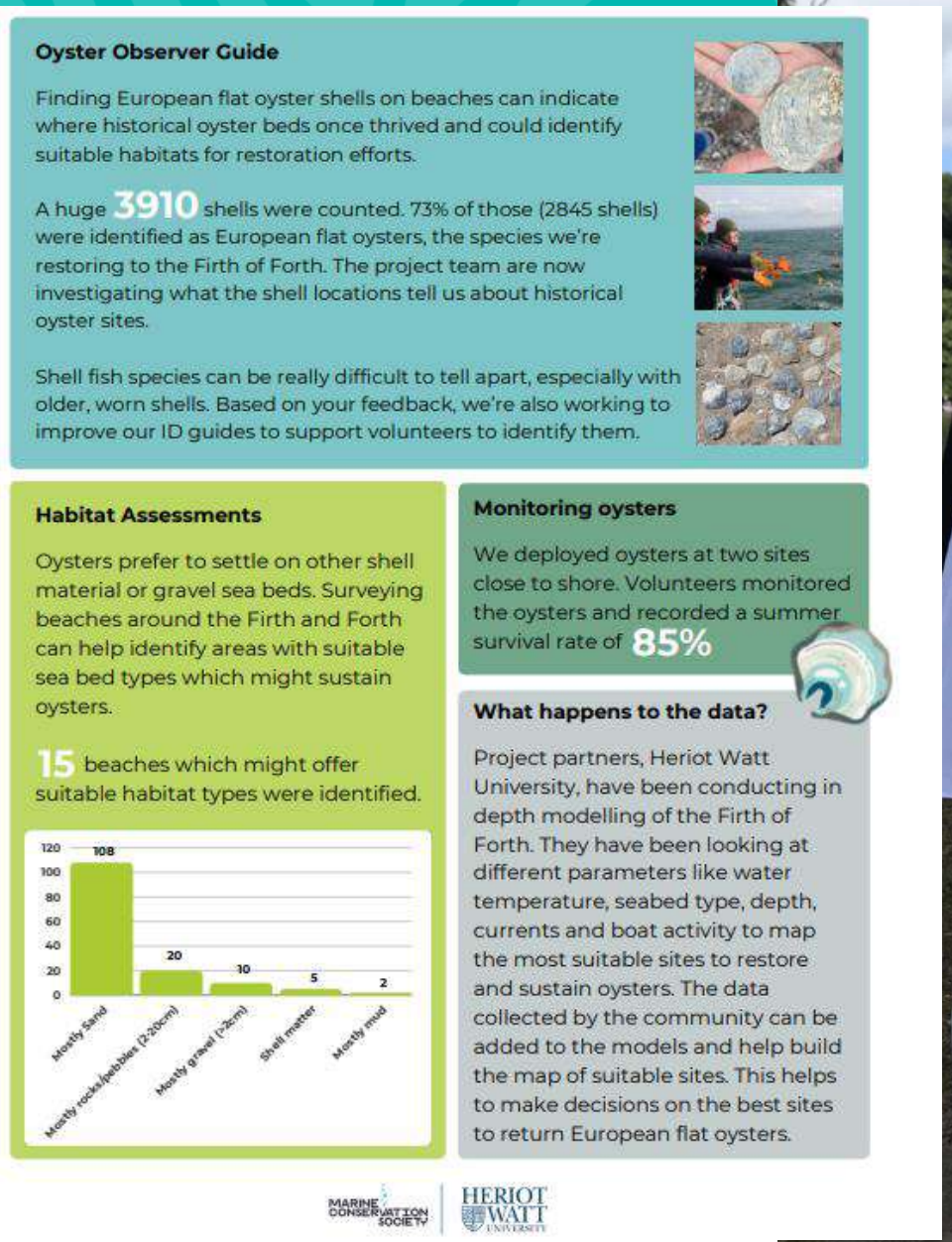
Monitoring of intertidal oysters



- Measuring growth & survivability of intertidal oysters
- Monitoring biodiversity
- Led activities with project staff
- Some marine species ID required
- Locations limited – intertidal sites only

Results so

- **213 people** joined a citizen science trai
- Confidence in abili was higher after tr
- **385 people** conduc the different activit
- Participants record recorded various s the Firth of Forth
- One annual data re volunteers



Oyster Observer Guide

Finding European flat oyster shells on beaches can indicate where historical oyster beds once thrived and could identify suitable habitats for restoration efforts.

A huge **3910** shells were counted. 73% of those (2845 shells) were identified as European flat oysters, the species we're restoring to the Firth of Forth. The project team are now investigating what the shell locations tell us about historical oyster sites.

Shell fish species can be really difficult to tell apart, especially with older, worn shells. Based on your feedback, we're also working to improve our ID guides to support volunteers to identify them.

Habitat Assessments

Oysters prefer to settle on other shell material or gravel sea beds. Surveying beaches around the Firth and Forth can help identify areas with suitable sea bed types which might sustain oysters.

15 beaches which might offer suitable habitat types were identified.

Monitoring oysters

We deployed oysters at two sites close to shore. Volunteers monitored the oysters and recorded a summer survival rate of **85%**

What happens to the data?

Project partners, Heriot Watt University, have been conducting in depth modelling of the Firth of Forth. They have been looking at different parameters like water temperature, seabed type, depth, currents and boat activity to map the most suitable sites to restore and sustain oysters. The data collected by the community can be added to the models and help build the map of suitable sites. This helps to make decisions on the best sites to return European flat oysters.

MARINE CONSERVATION SOCIETY | HERIOT WATT UNIVERSITY

Results so far...

Next steps...

- Launch the new Restoration Forth monitoring guide
- Launch pre & post activity survey to gather feedback
- Deliver a variety of staff-led training events around the Forth
- Create & share annual data report with volunteers

Thank you for listening!

caitlin.godfrey@mcsuk.org

RESTORATION FORTH

MARINE CONSERVATION SOCIETY

COMMUNITY IDENTIFICATION OF CHALLENGES AND OPPORTUNITIES FOR MARINE RESTORATION AND ENHANCEMENT

Tanya Riley,
Rebecca Geisler,
Kathryn Allan,
Rachel Shucksmith

background

- Shaped by unique natural influences
  - Tidal systems
  - Seasonal variations
- Species
  - At the limits of their natural range
  - Stopping point for migratory species
  - Commercial and conservation important species and habitats
- Local livelihoods
  - Aquaculture
  - Fishing
  - Tourism

2021 2030 United Nations Decade of Ocean Science for Sustainable Development

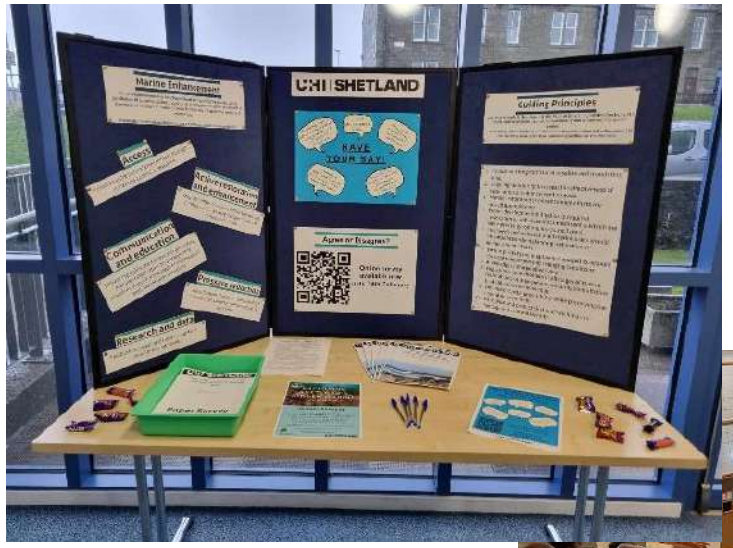
The project

Community Councils

Government Agencies

Challenges & Opportunities

Agreeability



Environmental NGOs

434 people engaged

Marine Industry Representatives

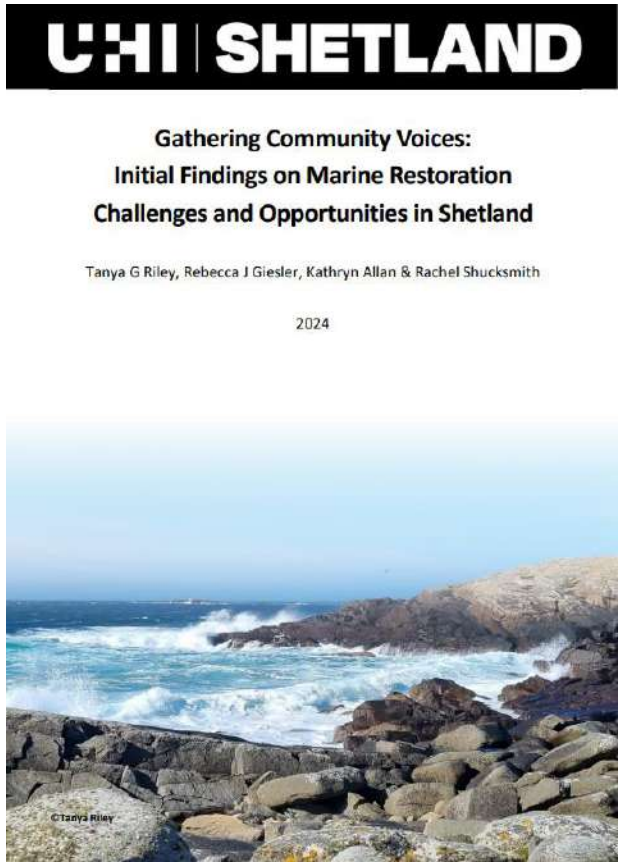
Members of the Public

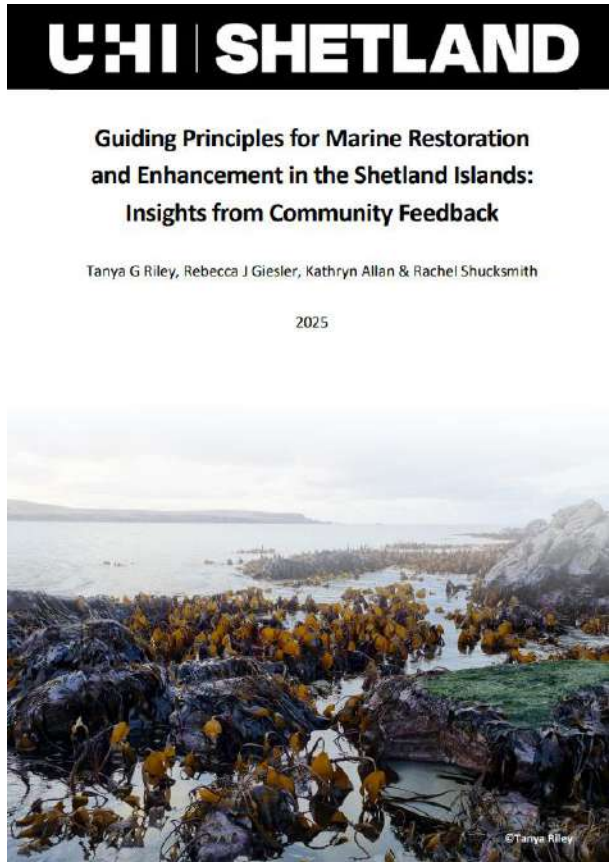
2021 2030 United Nations Decade of Ocean Science for Sustainable Development

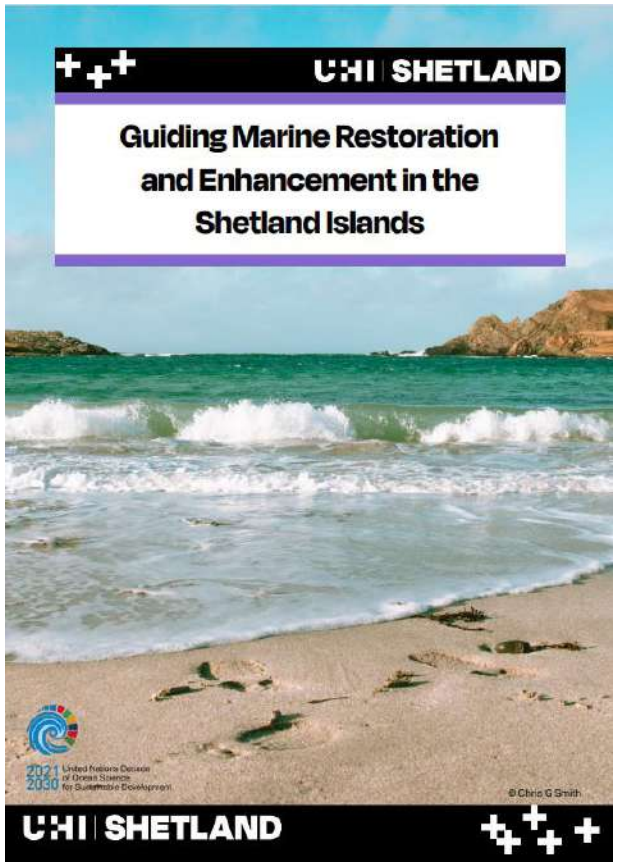
UHI | SHETLAND

Key findings

- **Challenges and opportunities** identified
  - Measures spanned the **land, coast, and marine** environments
- Strong stakeholder agreement from early engagement on key issues:
  - **Marine litter** as a shared concern
  - **Need for baseline data** and ongoing **monitoring**
- Stakeholders recognised **both positive efforts** and **ongoing barriers**







What did we do with the information

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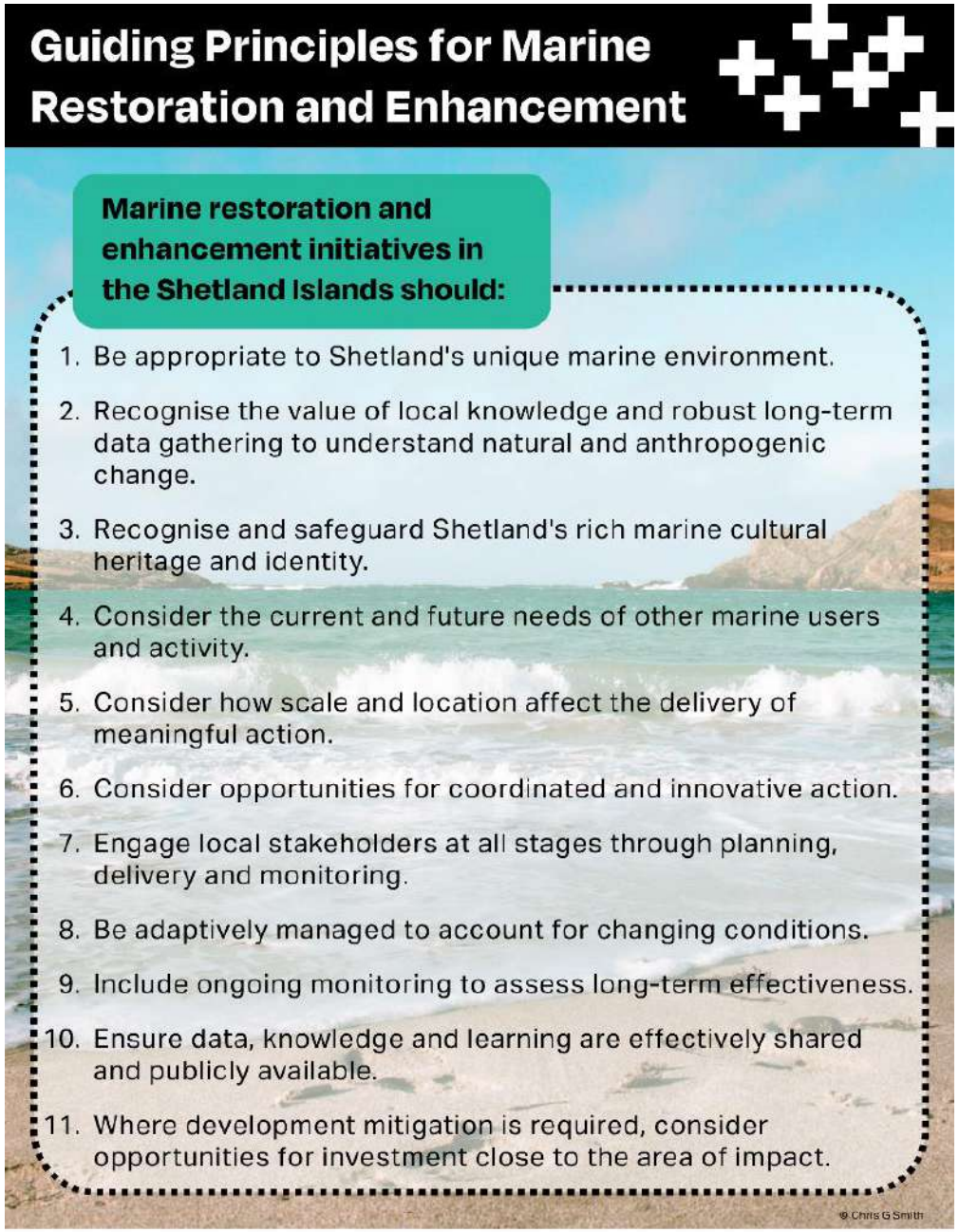
Guiding principles

Codeveloped with the Shetland community



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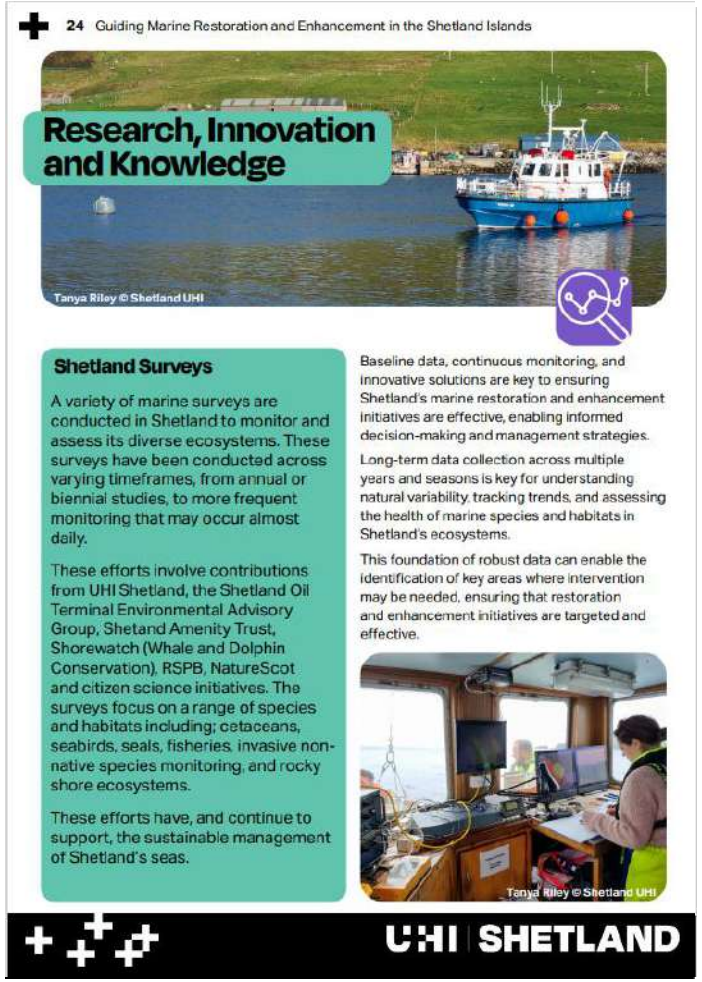
Potential opportunities for action

- Access
- Active Restoration
- Communication, Education and Awareness
- Pressure Management
- Research, Knowledge and Innovation



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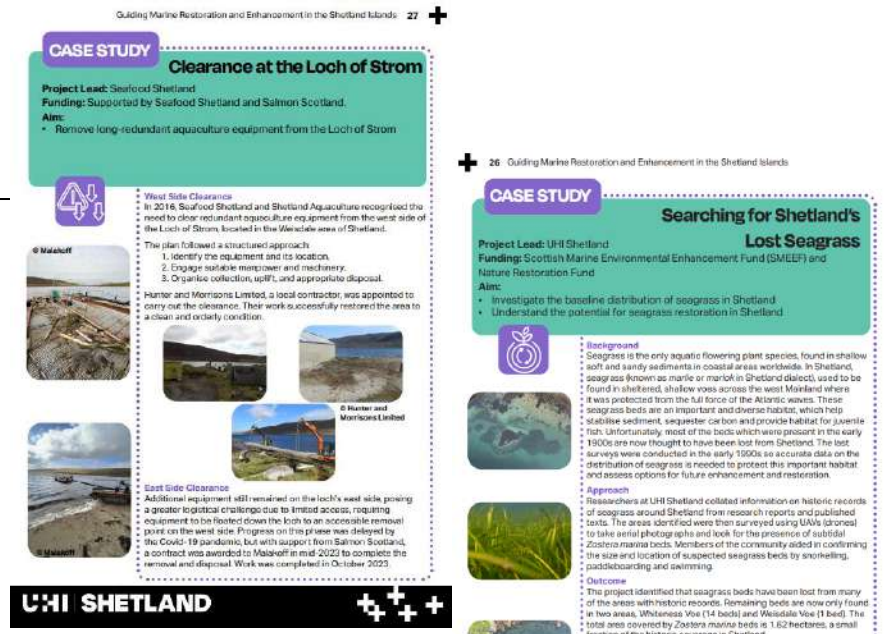
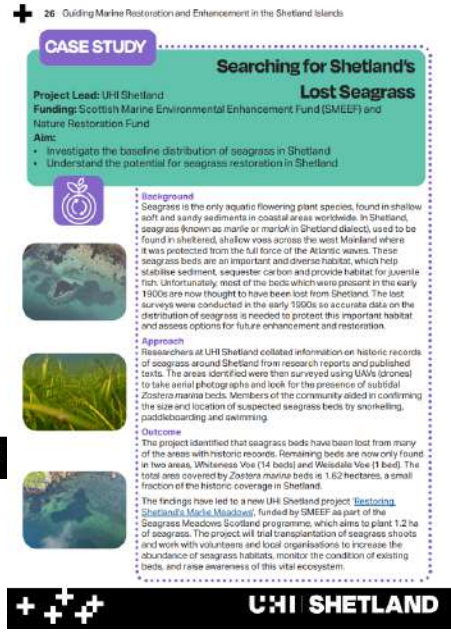
Local case studies

- Shetlands Lost Seagrass
- Hermaness Boardwalk
- SSMO Closed Areas
- Loch of Strom Clearance

Minis

- Noss Predator Management
- Fishing For Litter
- Da Voar Redd Up
- Shetland Surveys
- INNS Monitoring





Diving deeper: what comes next?

- Integrate with the implementation phase of Shetland Islands Regional Marine Plan
- Support sustainable development

- Further Publications
  - Policy brief on the local implementation of national objectives
  - **Riley, T. G.** & Shucksmith, R. Bridging the Gap: Coastal Governance and Marine Restoration Across the Land-Sea Interface. (*In Prep*)

Thanks for listening

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Marine Scientist
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Riaghaltas na h-Alba

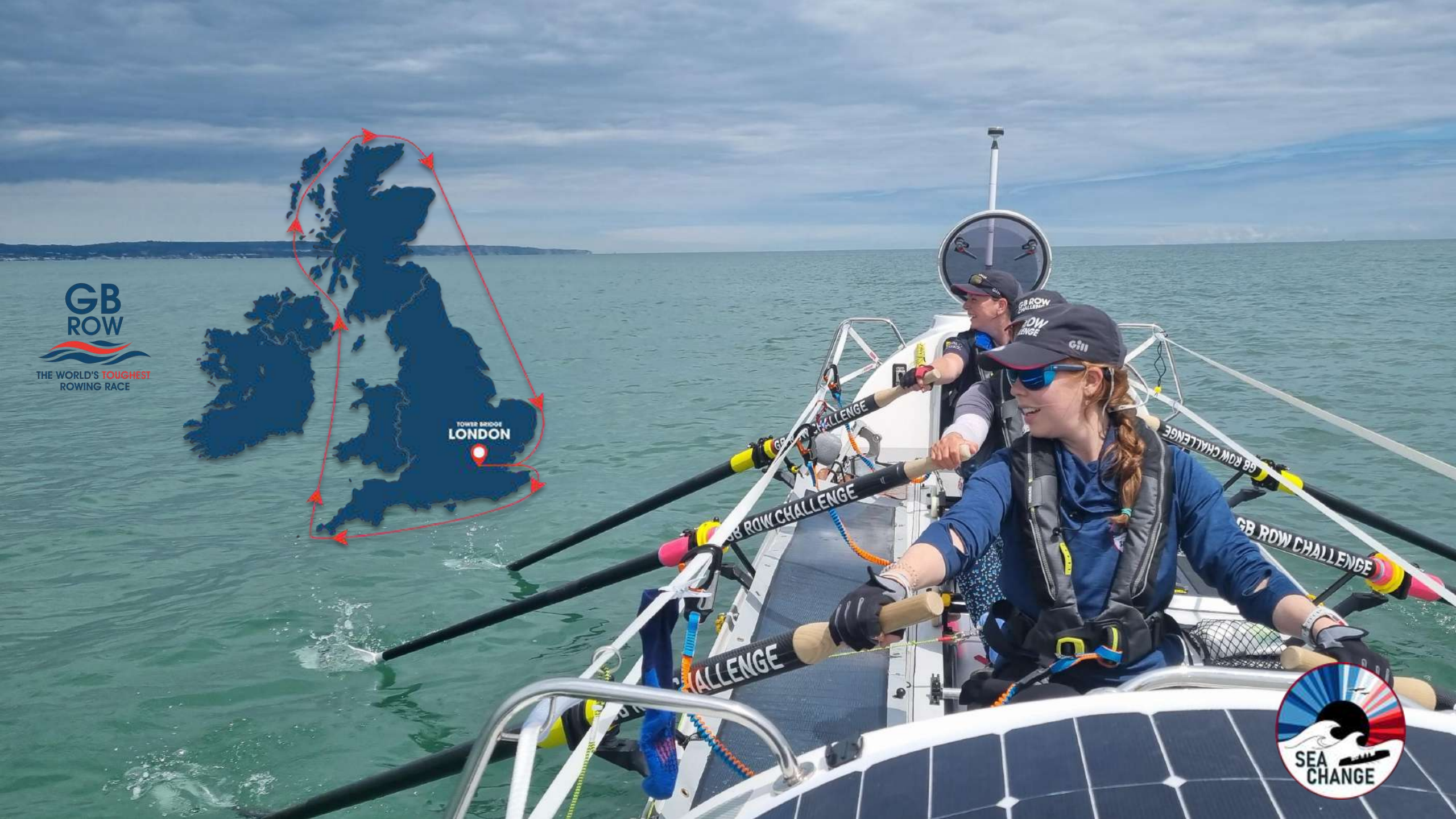
IT'S NOT TOO LATE, TOO HARD, OR TOO EXPENSIVE TO TURN THE TIDE FOR THE OCEAN

SEA CHANGE

Kat Bruce
Sea Change
Skipper

Aoife Luscombe
Sea Change
First Mate

Adventure + Science + Storytelling


GB ROW
THE WORLD'S TOUGHEST ROWING RACE
TOWER BRIDGE
LONDON
GB ROW CHALLENGE
SEA CHANGE

Dr Kat Bruce

Founder of NatureMetrics & specialist in eDNA monitoring

Aoife Luscombe

Net Zero Consultant at Accenture

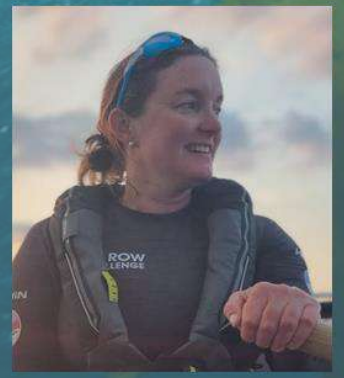
Chrissy Durkin

Founder of WildMon, and a specialist in acoustic monitoring

Madeline Craig

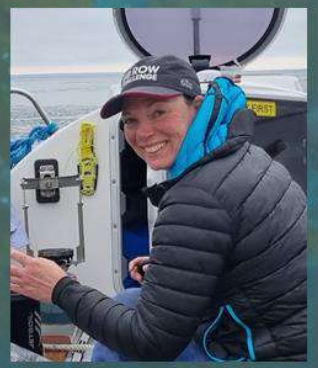
Ecologist & environmental communications expert

Jessica McIver



Cultural Heritage consultant at ERM London

Lorena Nichols



Finance & ESG professional

SEA CHANGE

Solar panels

Science Equipment

Jess, Chrissy & Lorena
+
Water maker

3 rowing seats

Kat, Aoife & Madeline
+
Nav, comms & safety kit,

Microplastics

Underwater sound

Environmental (e)DNA

Sea Surface Temp

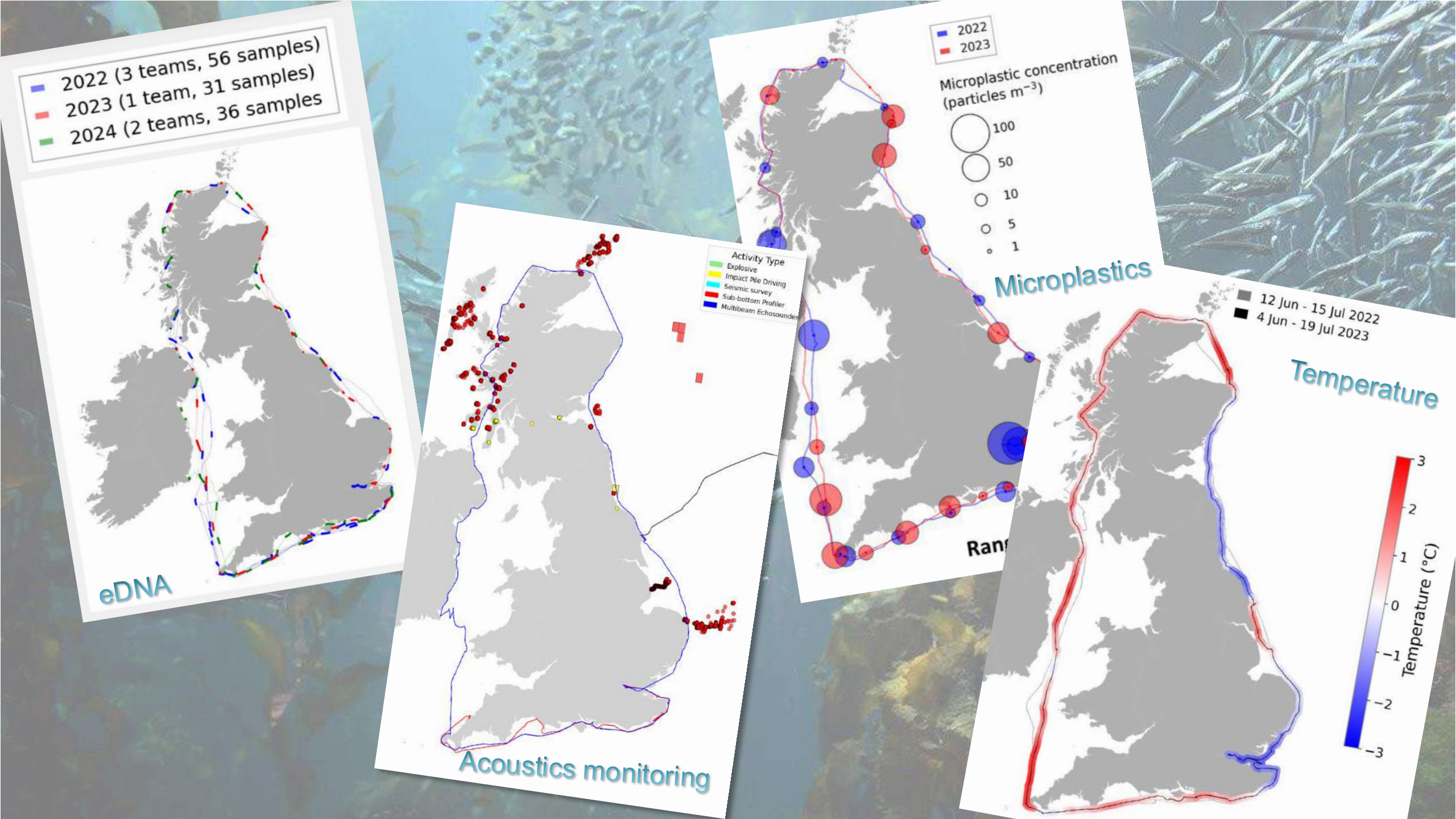
UNIVERSITY OF PORTSMOUTH

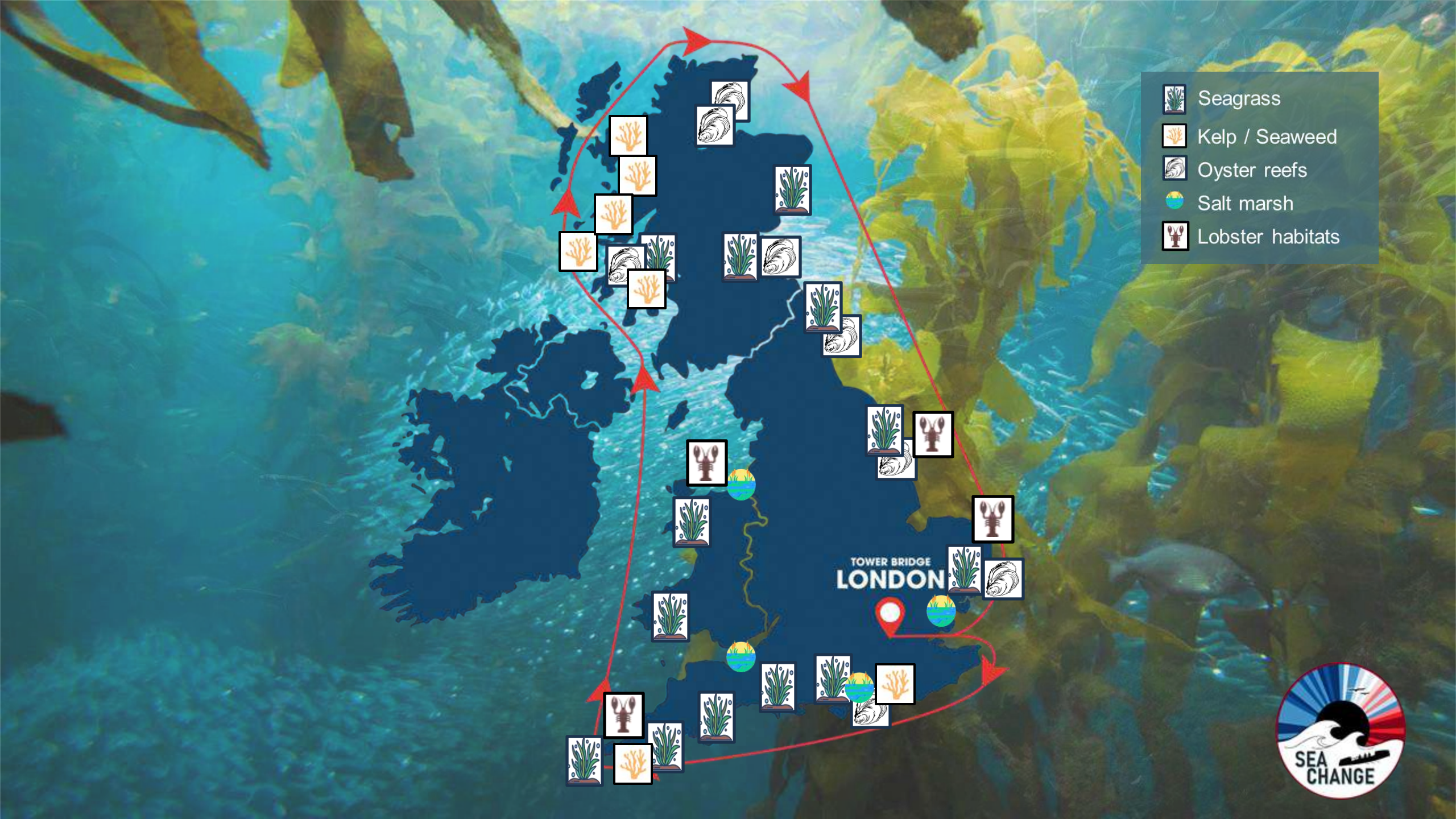
HARWiN

NATURE METRICS

porvair filtration group

RS AQUA


2022 (3 teams, 56 samples)
2023 (1 team, 31 samples)
2024 (2 teams, 36 samples
eDNA
Activity Type
Explosive
Impact Pile Driving
Seismic survey
Sub-bottom Profiler
Multibeam Echosounder
Acoustics monitoring
2022
2023
Microplastic concentration
(particles m^{-3})
100
50
10
5
1
Microplastics
12 Jun - 15 Jul 2022
4 Jun - 19 Jul 2023
Temperature
Temperature (°C)
3
2
1
0
−1
−2
−3


Seagrass
Kelp / Seaweed
Oyster reefs
Salt marsh
Lobster habitats
TOWER BRIDGE
LONDON
SEA CHANGE

Hebridean Whale & Dolphin Trust

SEASHELL

rspb

SEAWILDING
Community-led Marine Habitat Restoration

Ullapool Sea Savers

SEAGROWN
WILD OCEAN FARMING

SEA CHANGE

ReMeMaRe

Communities at the heart and the head.

Empower communities to design their own solutions, with financial support that recognises the services they are delivering.

Focus on co- benefits

Eco Systems can recover!

Embracing different types of knowledge in science
And
recognising the value in ‘indigenous’ understanding. Is key to making positive change.

Shifting baselines is a significant problem

The need for monitoring tools