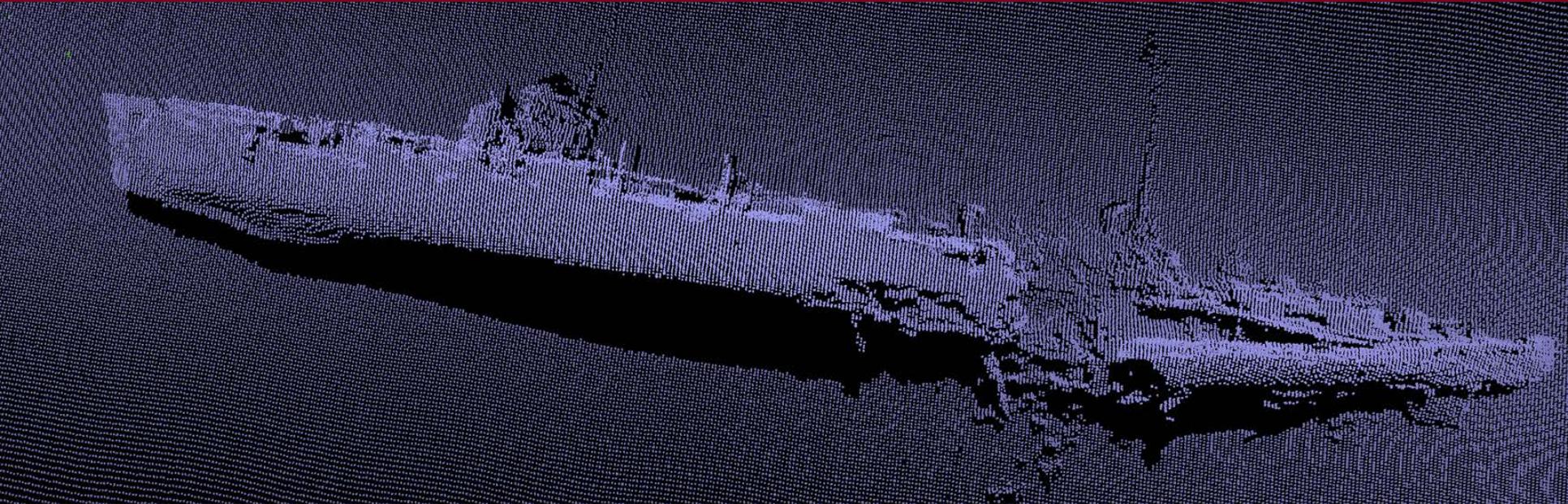




HISTORIC SCOTLAND
ALBA AOSMHOR

Historic environment guidance for wave and tidal energy



Philip Robertson and Adele Shaw, Historic Scotland
(Antony Firth, Fjordr Ltd)

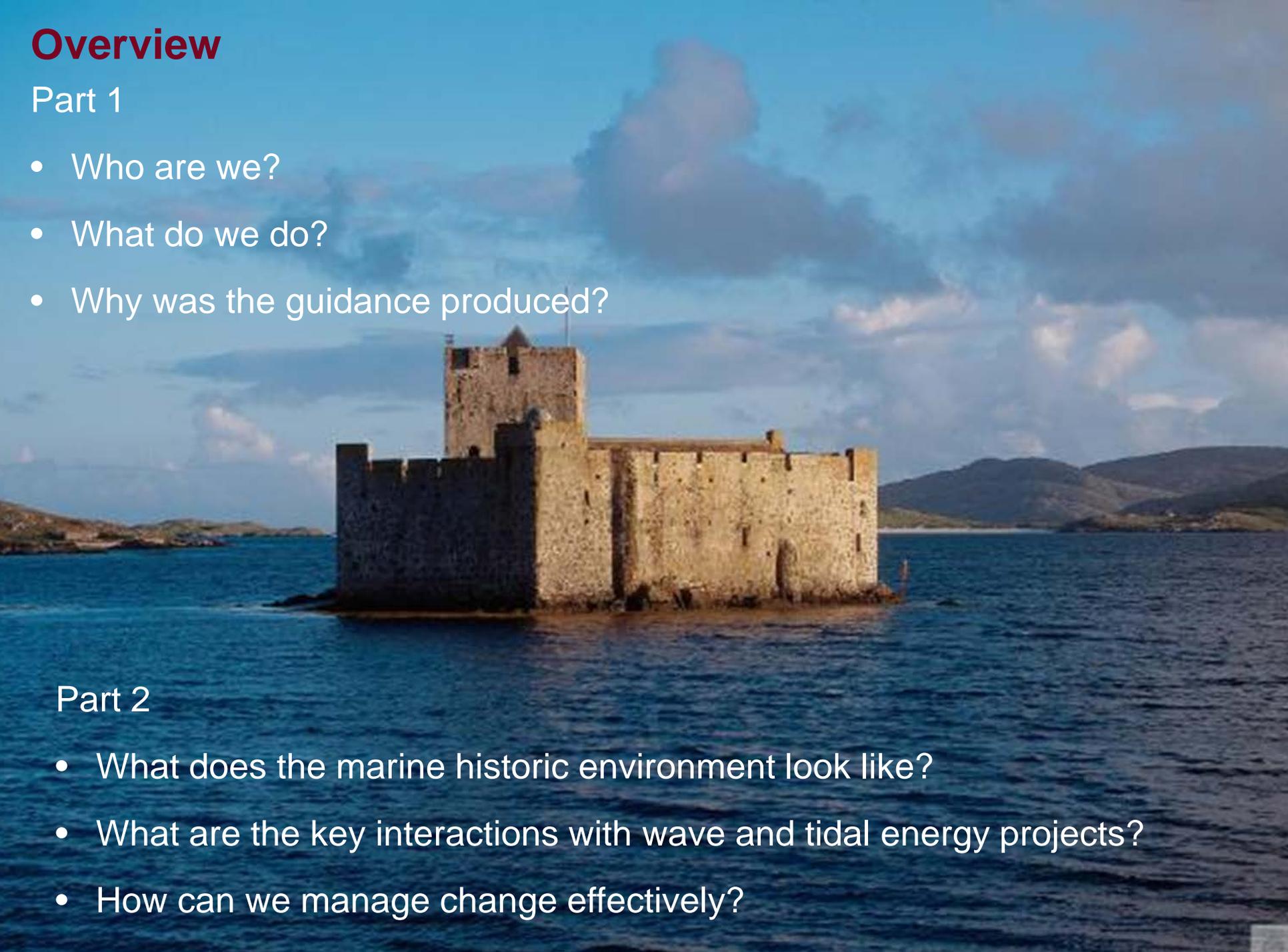
Overview

Part 1

- Who are we?
- What do we do?
- Why was the guidance produced?

Part 2

- What does the marine historic environment look like?
- What are the key interactions with wave and tidal energy projects?
- How can we manage change effectively?



Who are we?

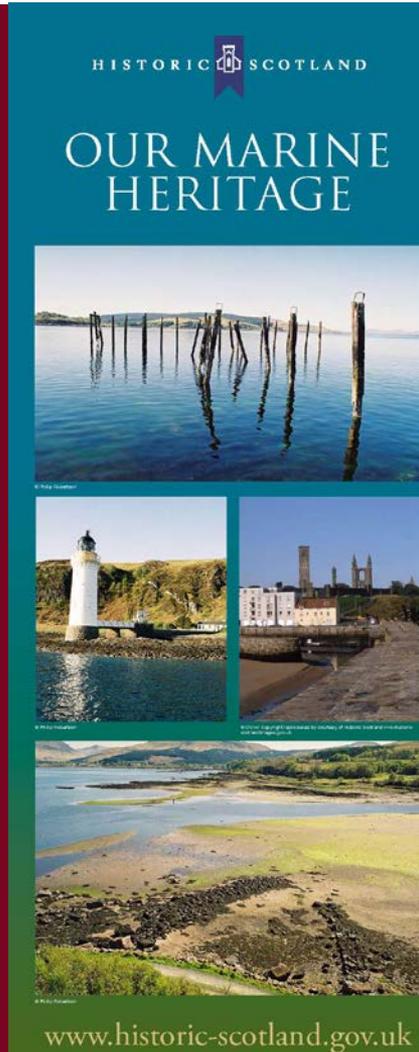
- Historic Scotland is an agency of the Scottish Government
- Historic Scotland has a role in delivering the Scottish Government's marine vision
- Vision includes protecting and where appropriate, enhancing our most important coastal and marine heritage sites.



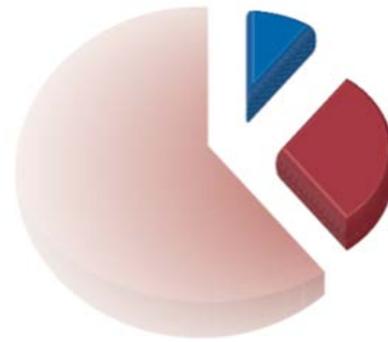
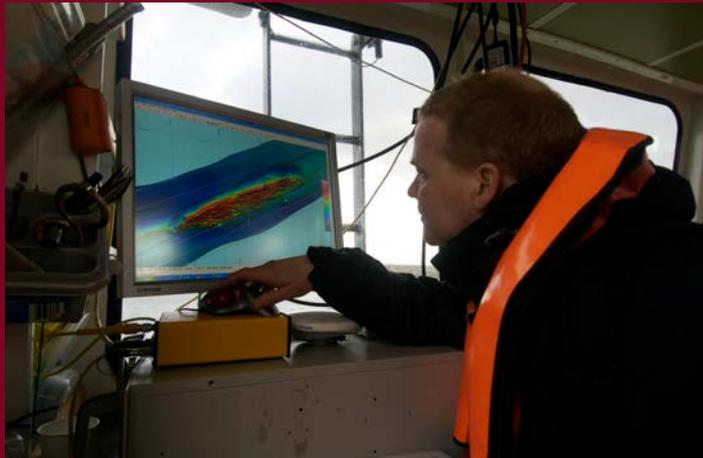
Historic Scotland's approach

Historic Scotland's Marine strategy 2012-15 identifies priorities under three strategic aims

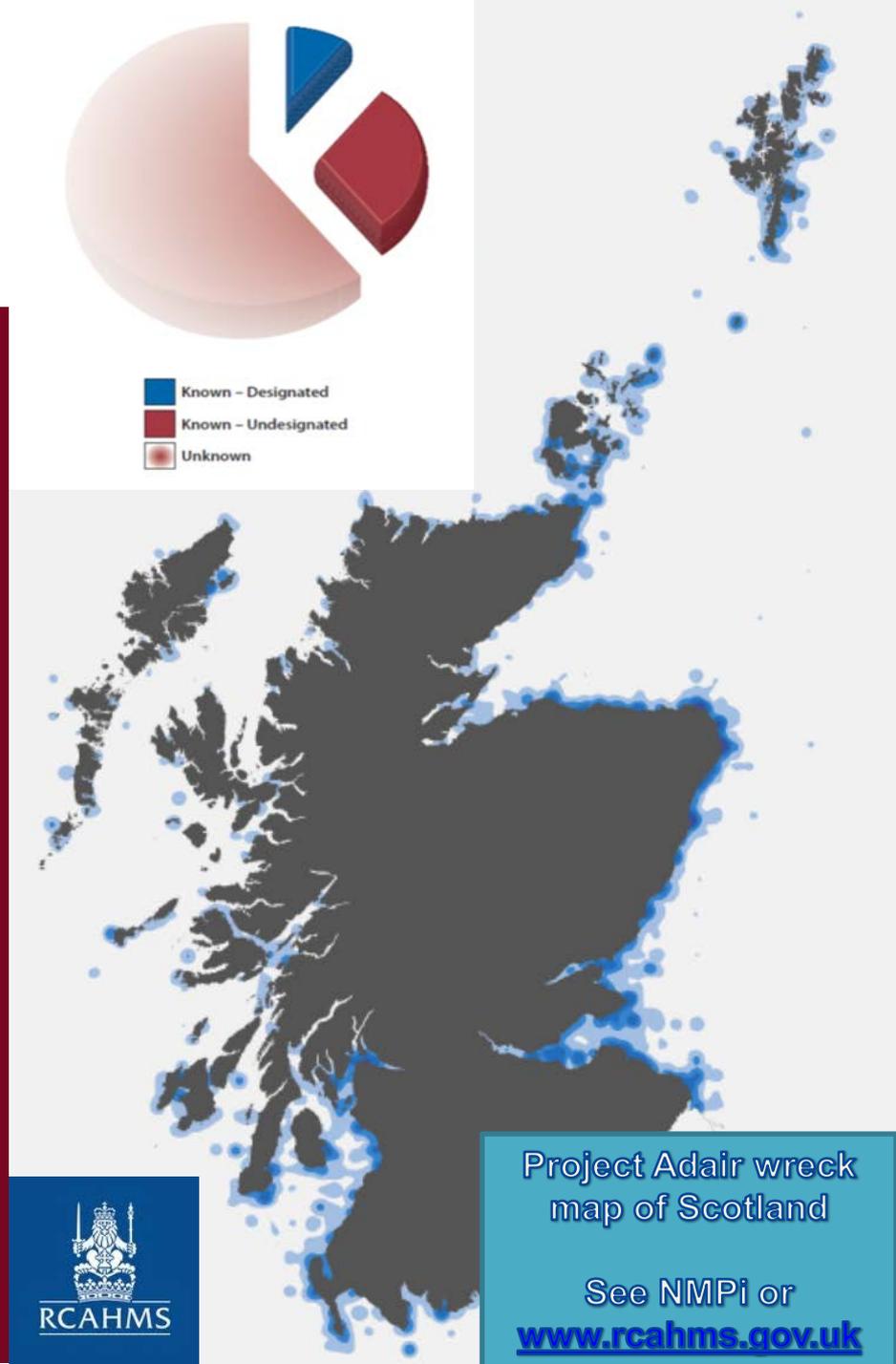
- Advancing knowledge about marine heritage and make information widely available
- Improving stewardship of key marine heritage sites
- Developing wider understanding and enjoyment of marine heritage



Advancing knowledge and making information available



Known - Designated
Known - Undesignated
Unknown



Project Adair wreck
map of Scotland

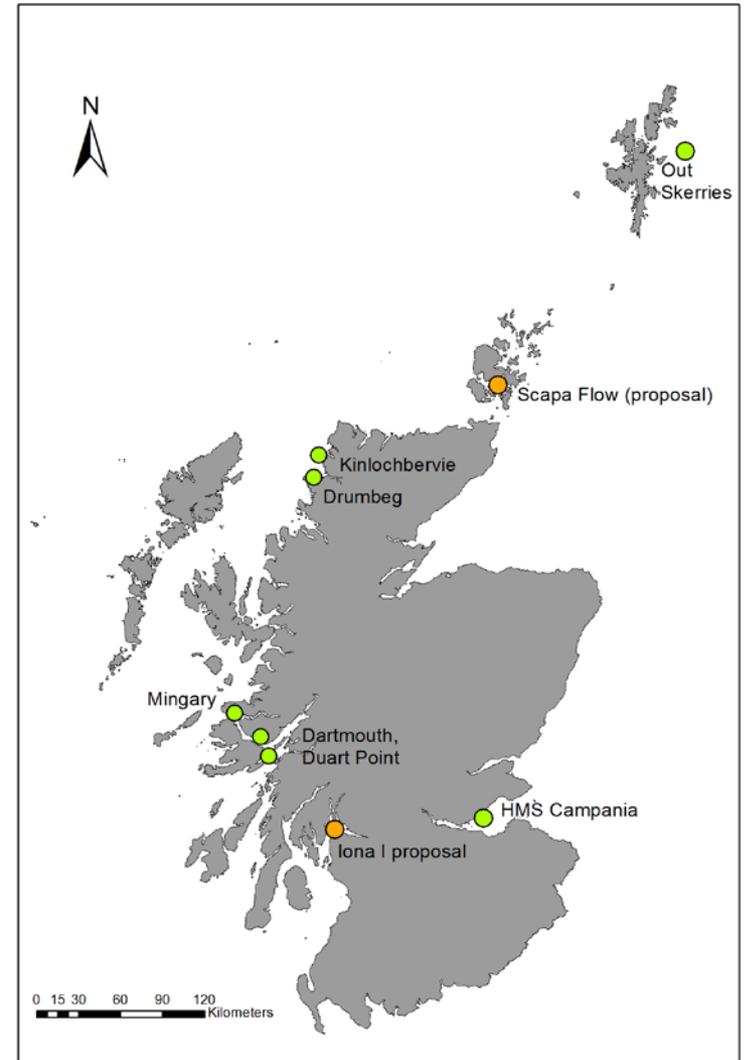
See NMPi or
www.rcahms.gov.uk



Improving stewardship – Historic Marine Protected Areas



Drumbeg Historic Marine Protected Area



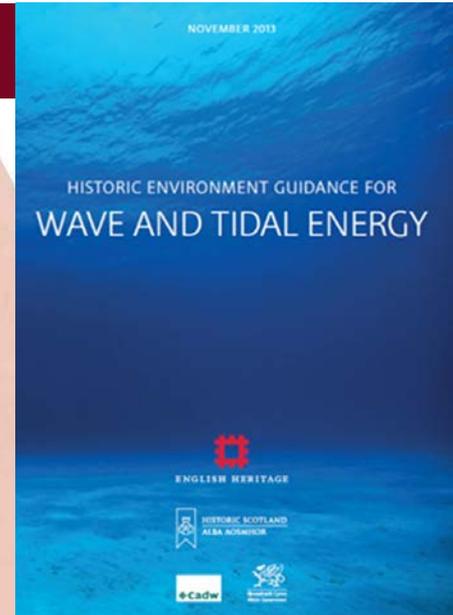
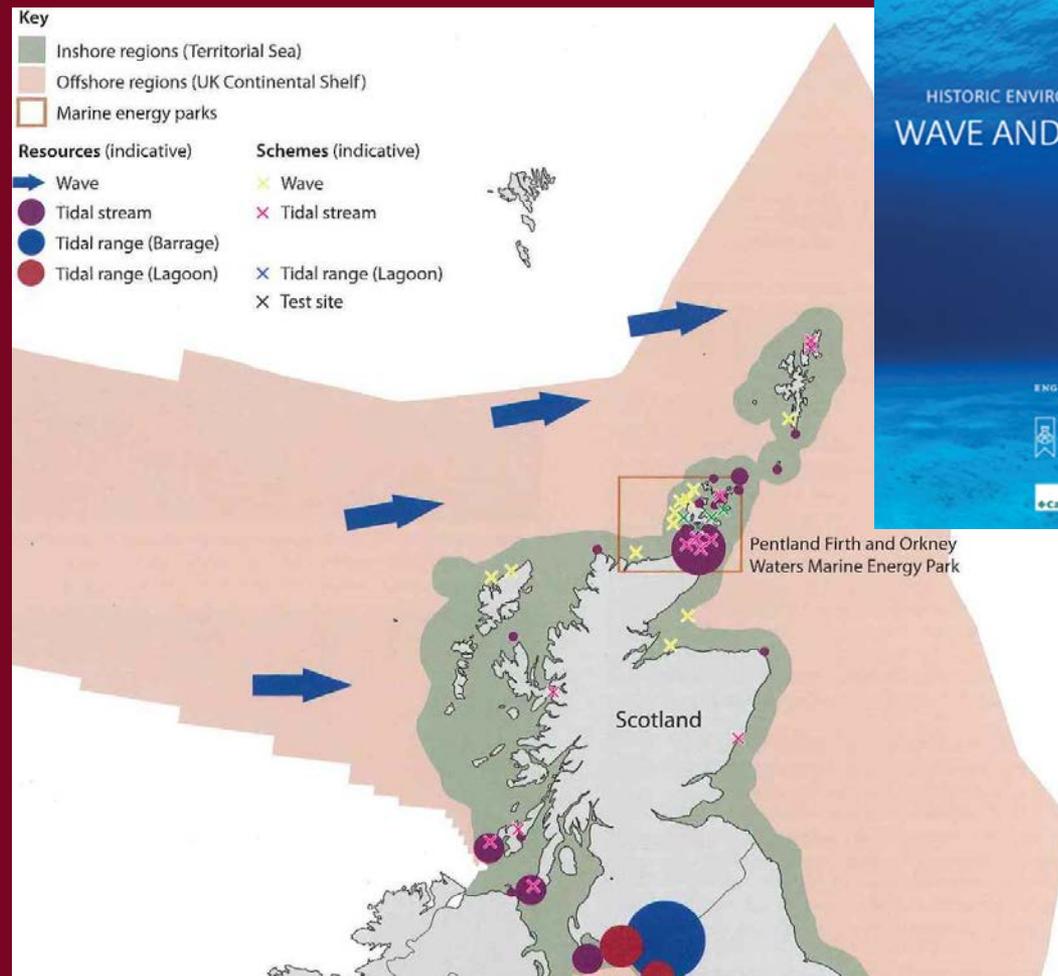
Developing wider understanding

Why focus on wave and tidal?

Geographical scope

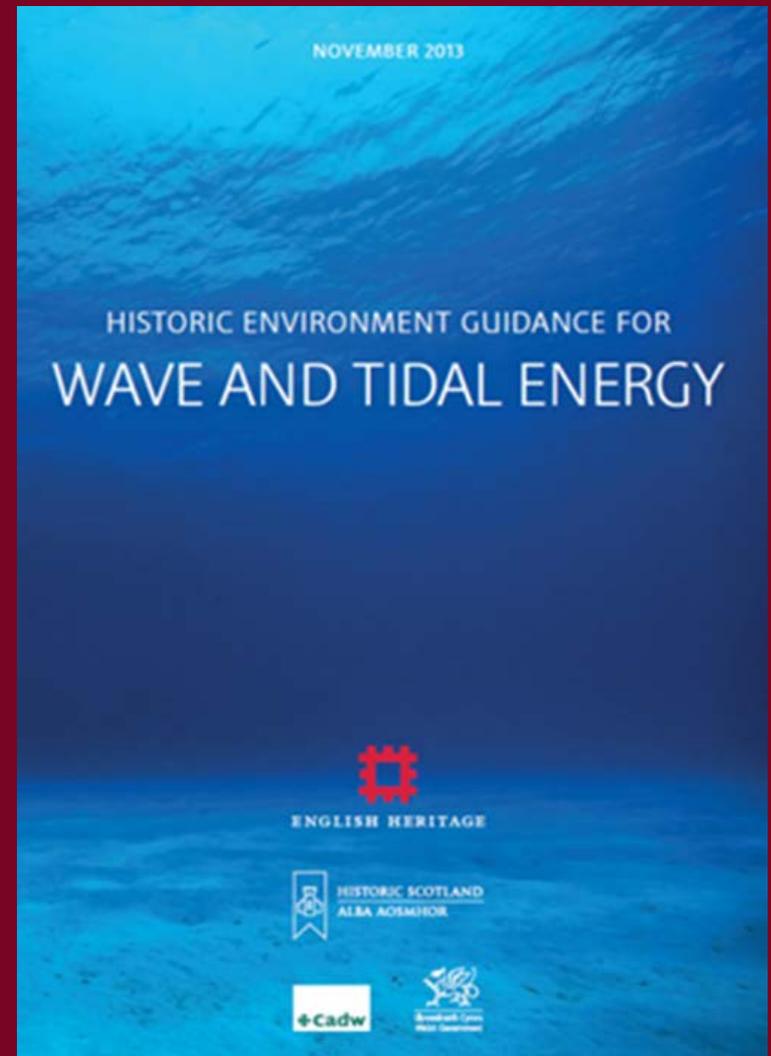
Who was involved?

- Joint funding from three national historic environment bodies
- The Crown Estate
- Developers and consultants
- Public consultation

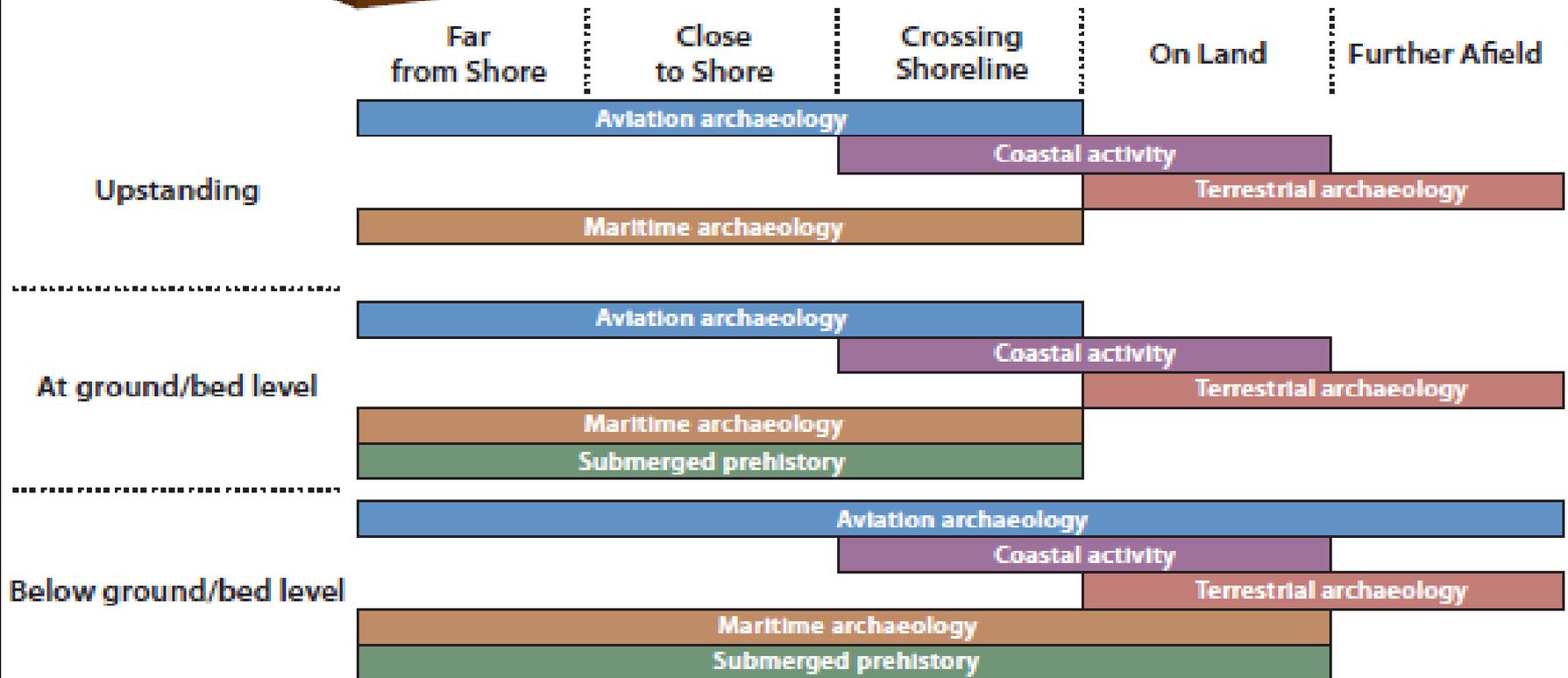
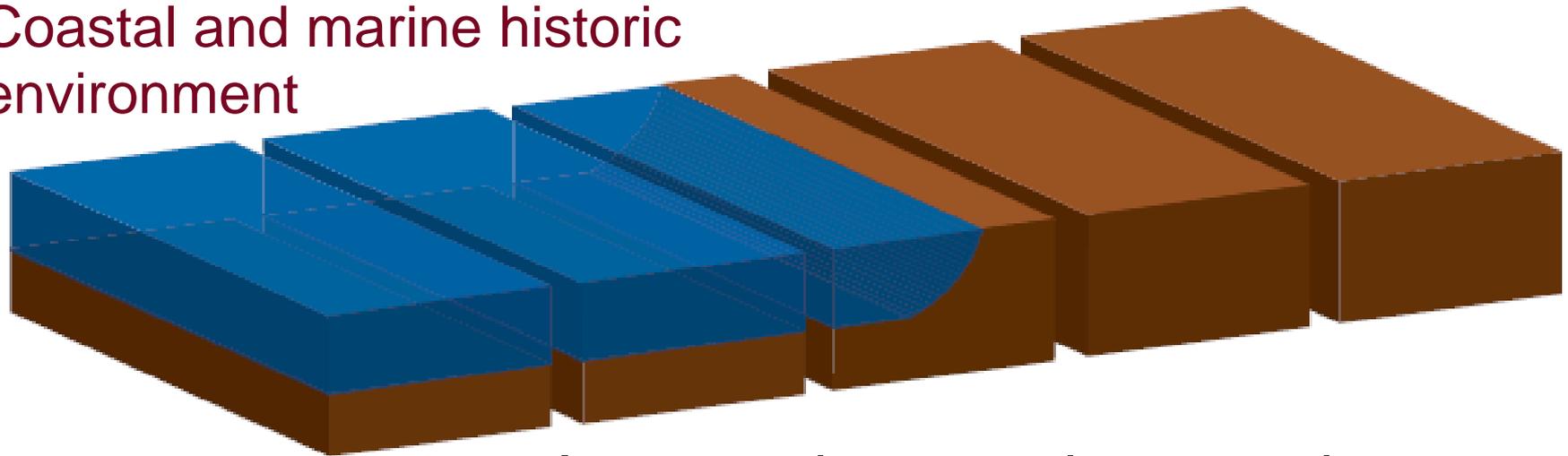


Scope of the guidance

- Policies and guidance
- Roles and processes
- The marine and coastal historic environment
- Status and trajectory of the wave and tidal industry
- Consideration of effects
- Other key issues including enhancing public benefit, data management and archiving and publication



Coastal and marine historic environment



Calanais, W.Isles



Skara Brae,
Skail Bay,
Orkney

Duart Point , Courtesy RCAHMS/ADU/Colin Martin



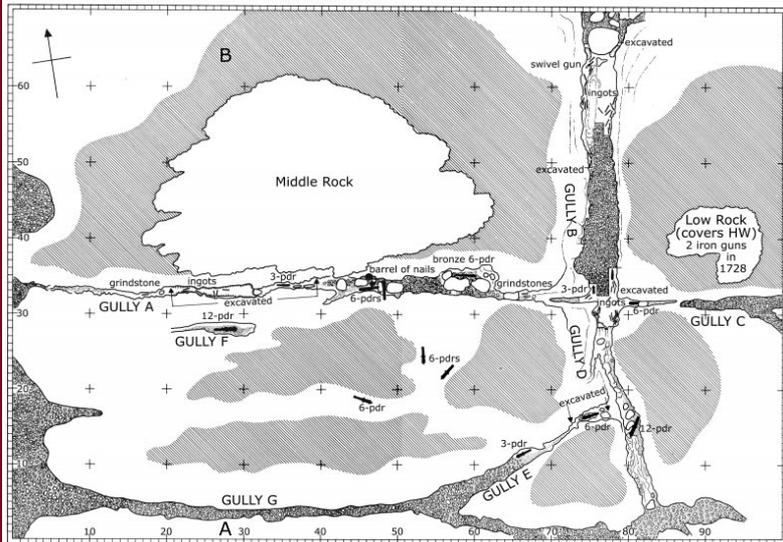
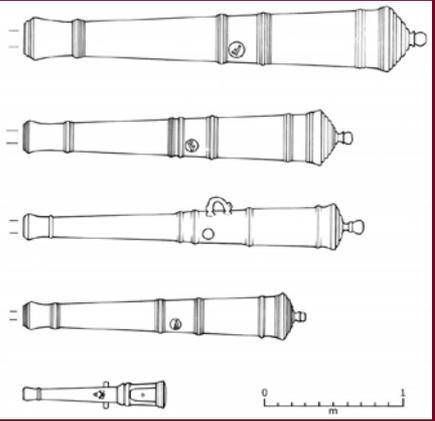
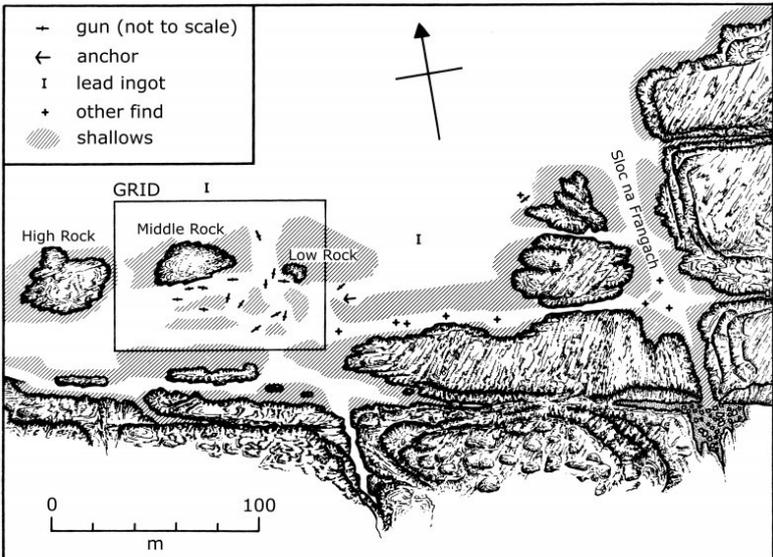
German Fleet, Scapa Flow – courtesy Lawson Wood



Can archaeology survive in high energy environments favoured for wave/tidal renewables?

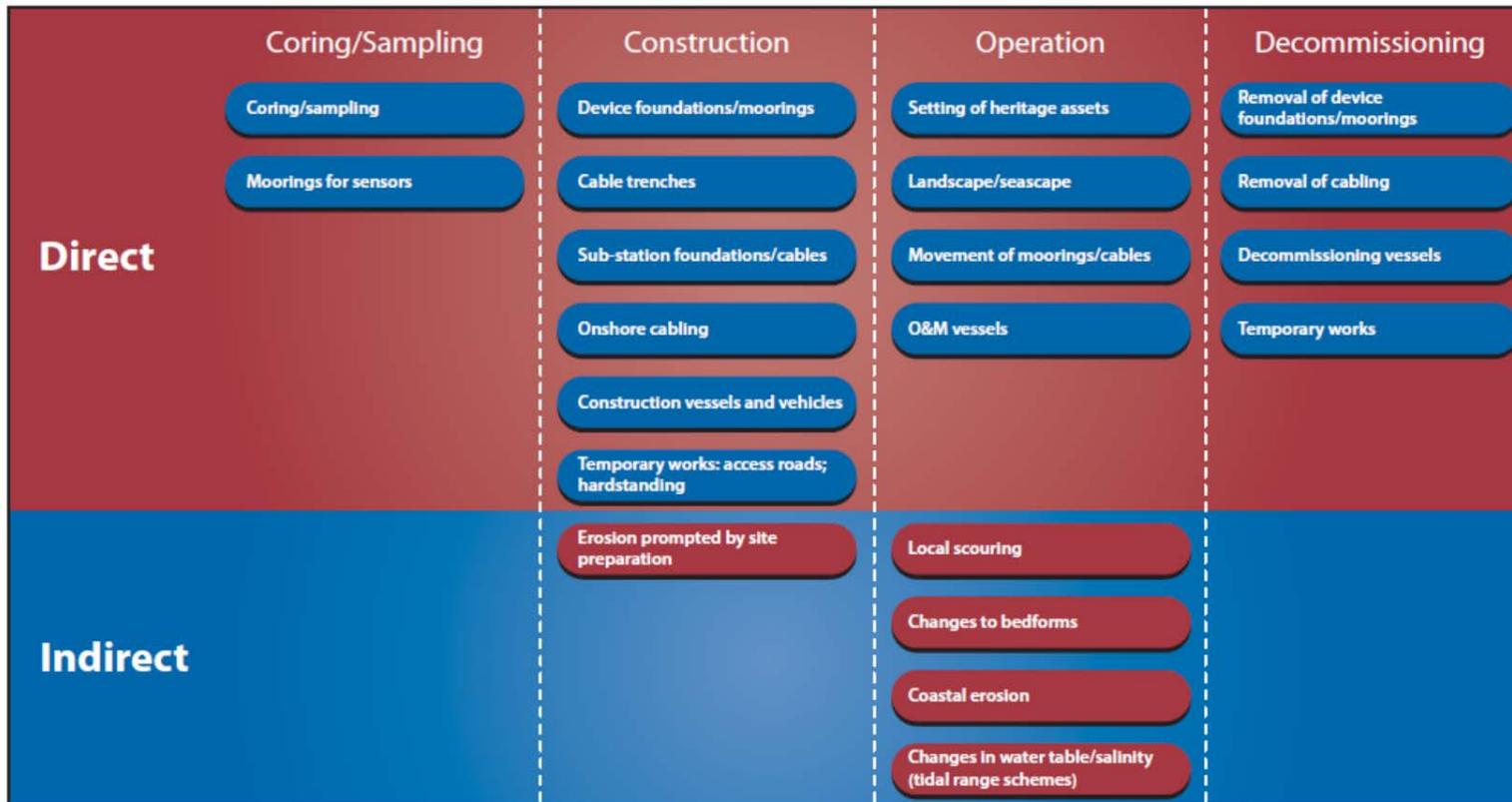


Adelaar, Barra, images courtesy RCAHMS/Colin Martin

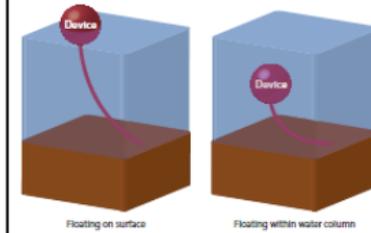




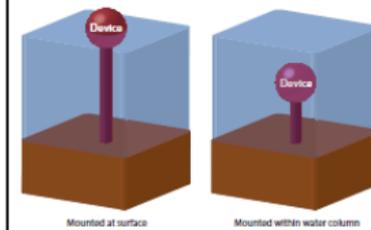
Historic environment interactions with wave/tidal renewables



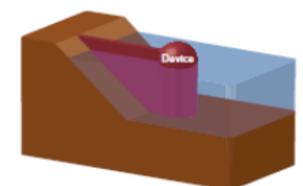
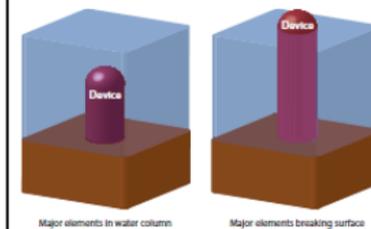
Tethered to the seabed



Supported from the seabed



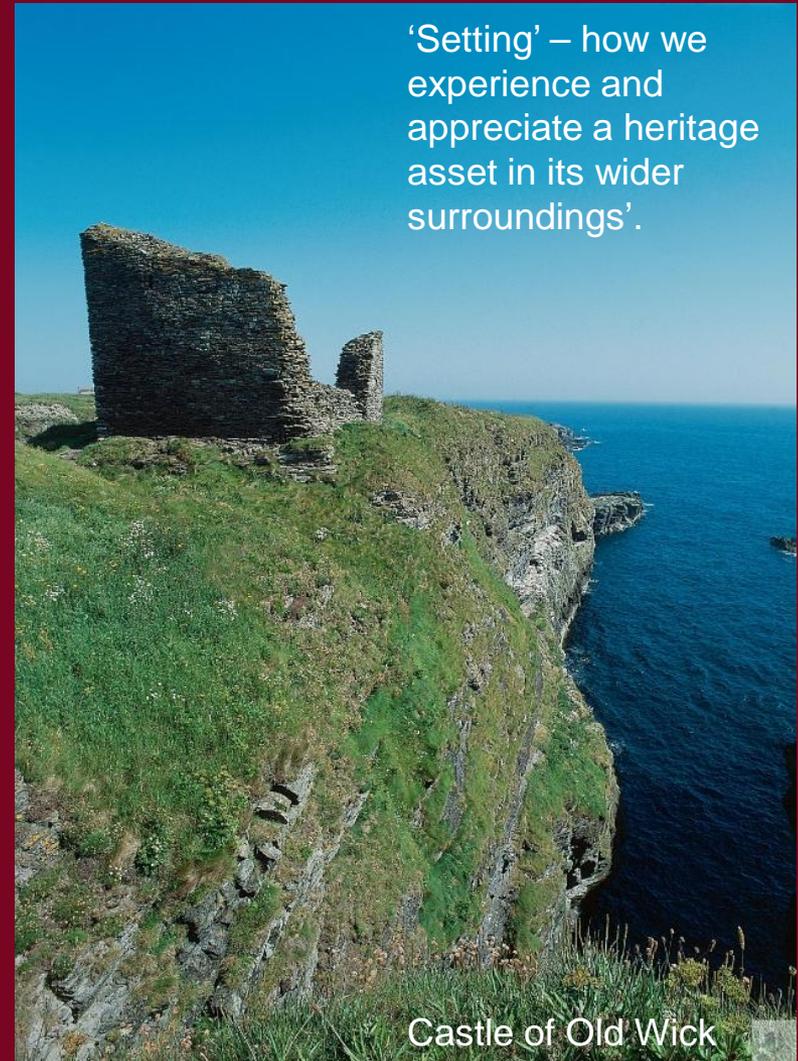
Built onto the seabed



$$\text{Magnitude of Impact} \times \text{Significance of Heritage Asset} = \text{Significance of Effect}$$

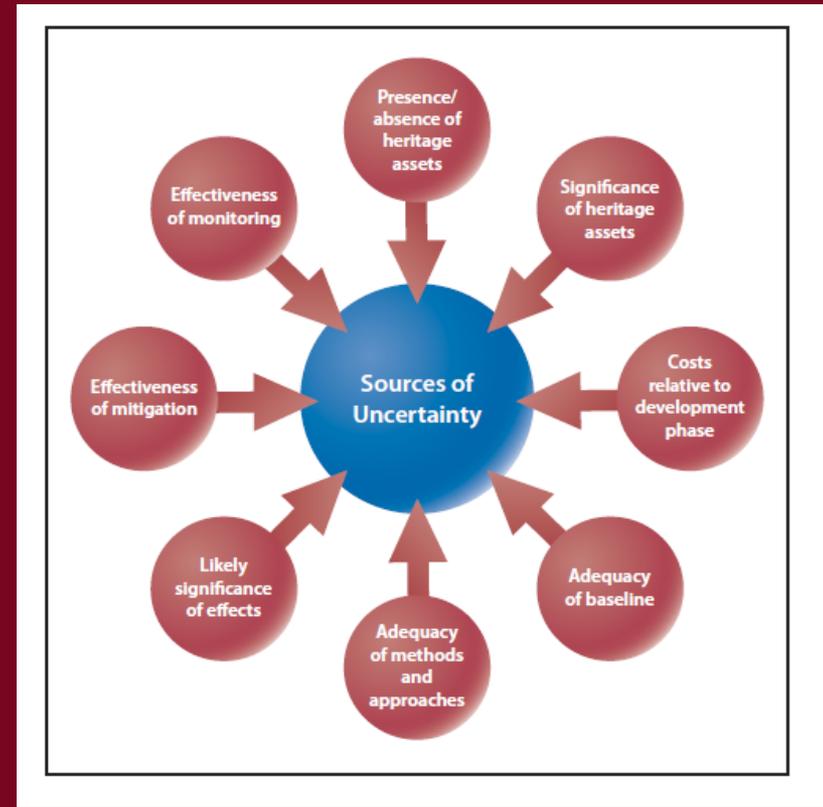
Visual impacts

- ‘Setting’ of coastal heritage assets can be affected by wave and tidal developments
- Visual impacts needs to be considered for devices offshore and coastal infrastructure
- Impacts strongly related to the appearance of energy devices and structures (those at sea, and onshore infrastructure)
- Impacts likely to be more localised than for offshore wind installations which can be visible from far afield.



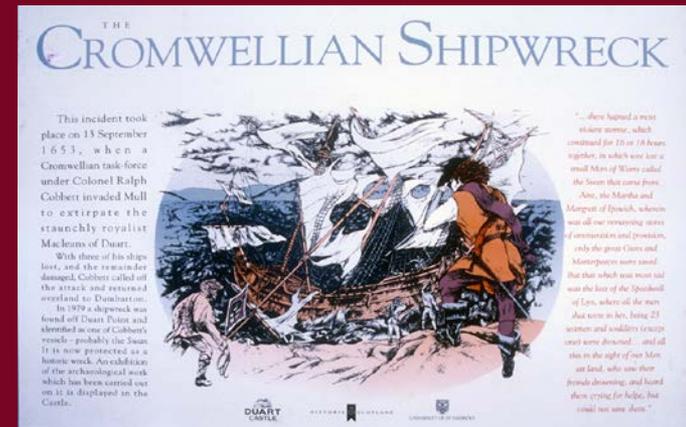
Dealing with uncertainty and risk

- ‘.....much can be done to reduce costs and risks through early and thorough integration of archaeological objectives with other site investigations.....’



Opportunities for enhancing public benefit

- Enhancing knowledge and understanding about heritage for social/economic benefit:
 - Making information and data from surveys available to the public through effective archiving (RCAHMS;MEDIN)
 - Promoting marine renewables and heritage through effective outreach (e.g reports; leaflets; interpretation; publications; news media).



...closing comments

- Information about heritage sites
 - PastMap – <http://pastmap.org.uk>
 - Heritage designations - www.historic-scotland.gov.uk
 - NMPi - <http://marinescotland.atkinsgeospatial.com/nmpi/>
- Guidance
 - Wave and tidal - <http://www.historic-scotland.gov.uk/wave-tidal-energy-guidance-nov-13.pdf>
 - Code of Practice for Seabed Developers - http://www.jnpsc.org.uk/jnpsc_brochure_may_2006.pdf
 - Historic Environment Guidance for the Offshore Renewable Energy Sector - <http://www.thecrownestate.co.uk/media/354779/2007-01%20Historic%20Environment%20Guidance%20for%20the%20Offshore%20Renewable%20Energy%20Sector.pdf>
 - Offshore Geotechnical Investigations and The Historic Environment Analysis - <http://www.thecrownestate.co.uk/media/354783/2011-01%20Offshore%20Geotechnical%20Investigations%20and%20Historic%20Environment%20Analysis%20-%20Guidance%20for%20the%20Renewable%20Energy%20Sector.pdf>
- Advice
 - Historic Scotland Heritage Management Directorate - www.historic-scotland.gov.uk
 - Association of Local Government Archaeological Officers (ALGAO) - <http://www.algao.org.uk/membership#scotland>