

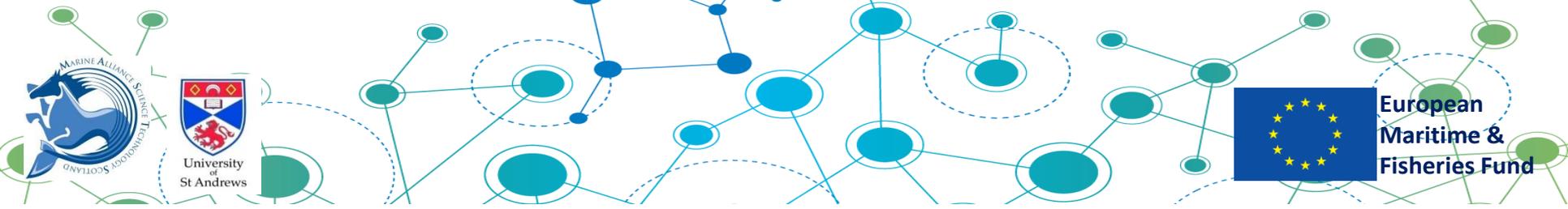
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Scottish Inshore Fisheries
Integrated Data System

Identifying Fishing Activities and Their Associated Drivers

Work Package 8

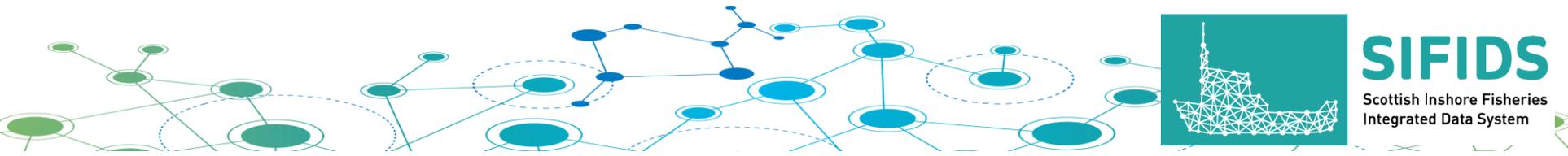
Scottish Inshore Fisheries Conference - 27th April 2017



Information we plan to collect

Detailed surveys of fishing operations on >105 vessels, recording;

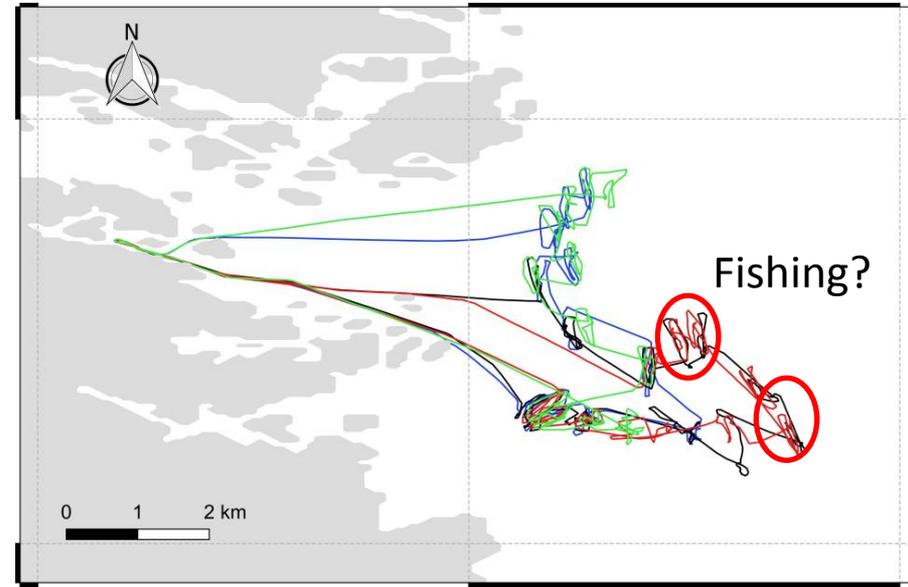
- Deck layout
- Fishing “behaviours” (steaming, how gear is deployed and recovered, how catch is processed and stored)
- Type and quantity of gear
- Information on equipment and crew
- Positional information (GPS points) for specific fishing events plus a GPS track of vessel’s movement over the entire trip
- Reasoning behind skippers decisions on how, where and when to fish



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How will the information be used?

- To develop vessel activity profiles for example; 'steaming', 'shooting' and 'hauling'.
- These profiles could then be used to automatically identify specific fishing activity from vessel tracking (GPS) data – potentially supplemented with additional sensor data – such as hydraulic sensors to detect winch activity for example.



Why investigate where fishing occurs?

- Ability to accurately chart where fishing is taking place within the 12nm limit will allow an **evidence base** to be developed that can be used by the industry to **defend their access rights within the scope of marine spatial planning**.
- If tied to landings data this information could be used to assign a monetary value to a given area of sea, allowing local fishermen to efficiently **demonstrate their businesses dependence** on a given location.

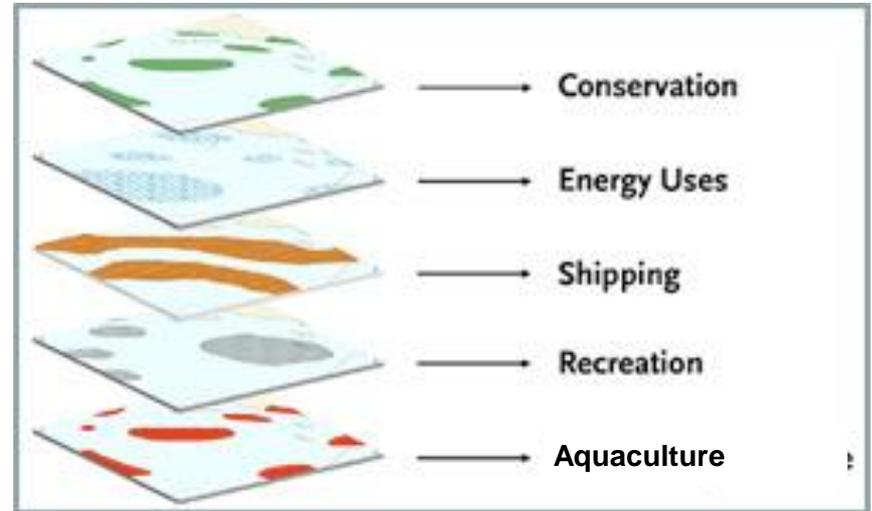
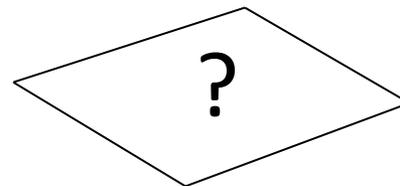
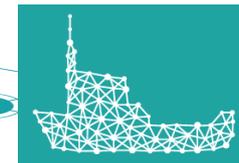
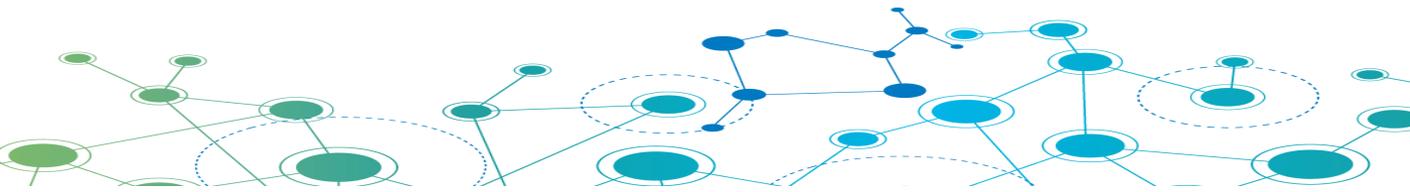


Image (c) Ocean Conservancy.



→ Inshore fishing?



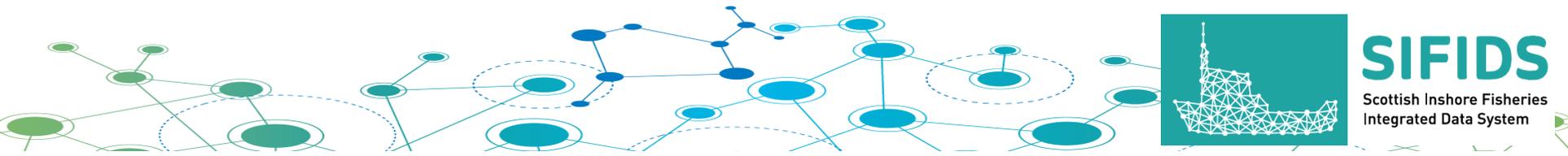
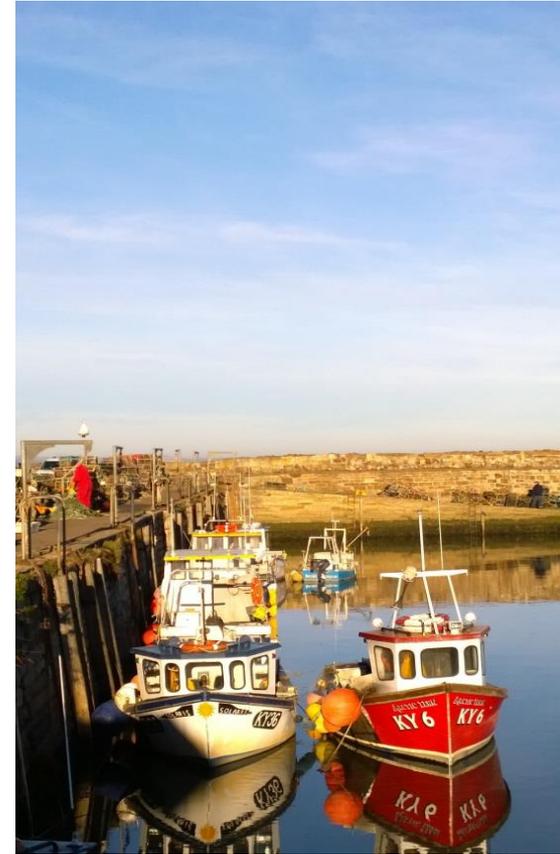
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Fleet Behaviour

Which factors are affecting fleet behaviour?

- weather
- fuel costs
- catch prices
- MPAs
- fisheries regulations

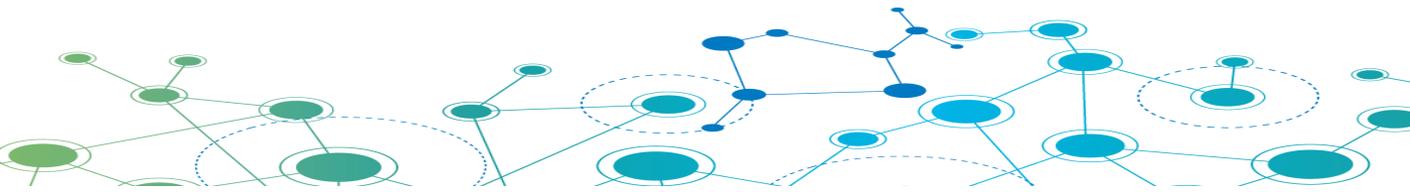
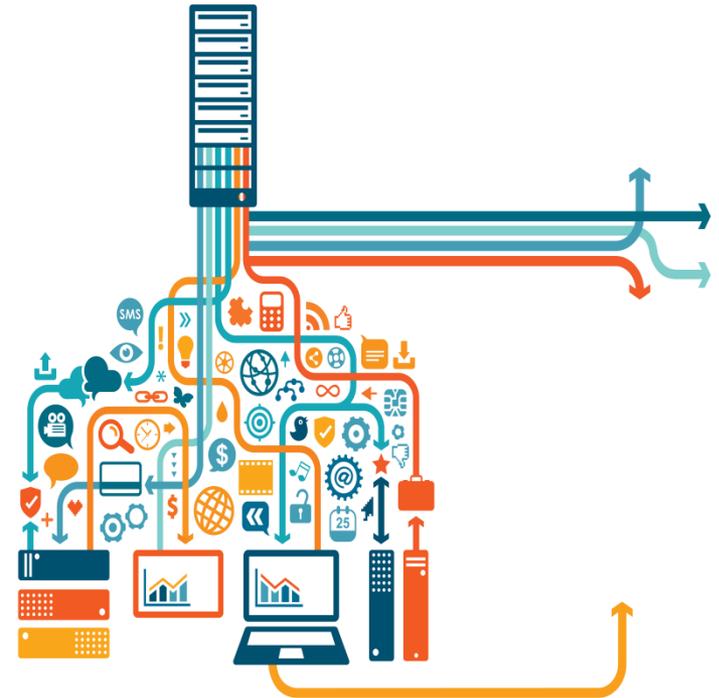
Will help to identify and understand the main factors influencing fishing activity in different inshore areas



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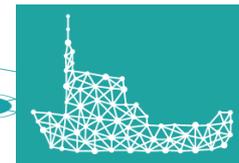
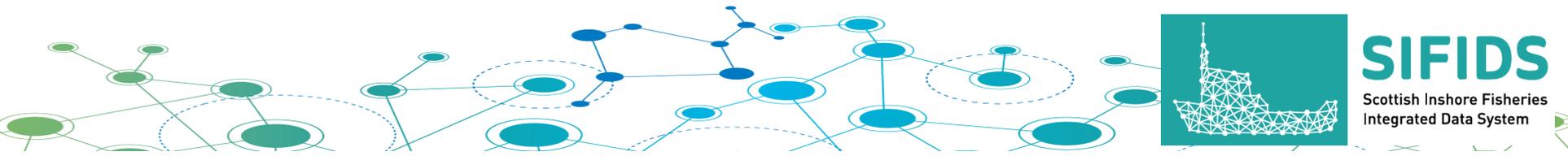
Why investigate what influences fishing?

- The development of behavioural models will enable assessment of **how different factors such as climate change and new legislation might impact the inshore industry**
- Ability to inform on the impacts of economic, climate or legislative change on the inshore sector will **allow regulators, legislators and the industry itself to act pre-emptively** to buffer these effects – **increasing resilience.**
- The capacity to model the potential outcomes of policy change and the siting of for example MPAs will influence future fisheries management and **marine planning decisions** and lessen the impact of these on inshore fishermen.



Industry Participation

- 105 vessels will be approached to participate (identified through a series socio-economic criteria)
- Researchers will go to sea and undertake detailed on board operational surveys and engage with skippers as to the factors informing their decision making
- Interviews conducted with fishermen to gain insights into drivers motivating fishing behaviour
- Interviews with industry members to determine which factors they would like us to explore (what if type questions).



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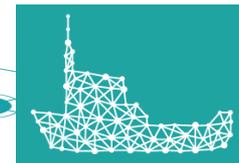
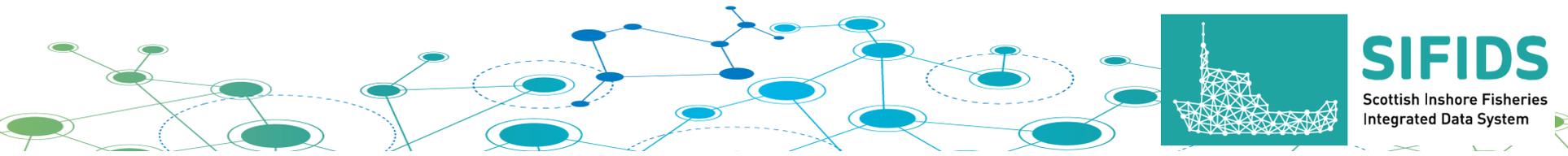
Thank you for listening

For further information on WP8 please contact the Project Facilitators

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