



MAKING DATA SPEAK FOR ALL STAKEHOLDERS:

THE “COLLECT ONCE, USE OFTEN” ETHOS
IN PERMITTING

1540-1645

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JASON
AND THE ARGONAUTS

PERMITTING - THE CHALLENGES

- After finance, permitting is the biggest schedule risk
- Crucial that permit submissions are complete
- Marine Route Survey (MRS) design is key to success



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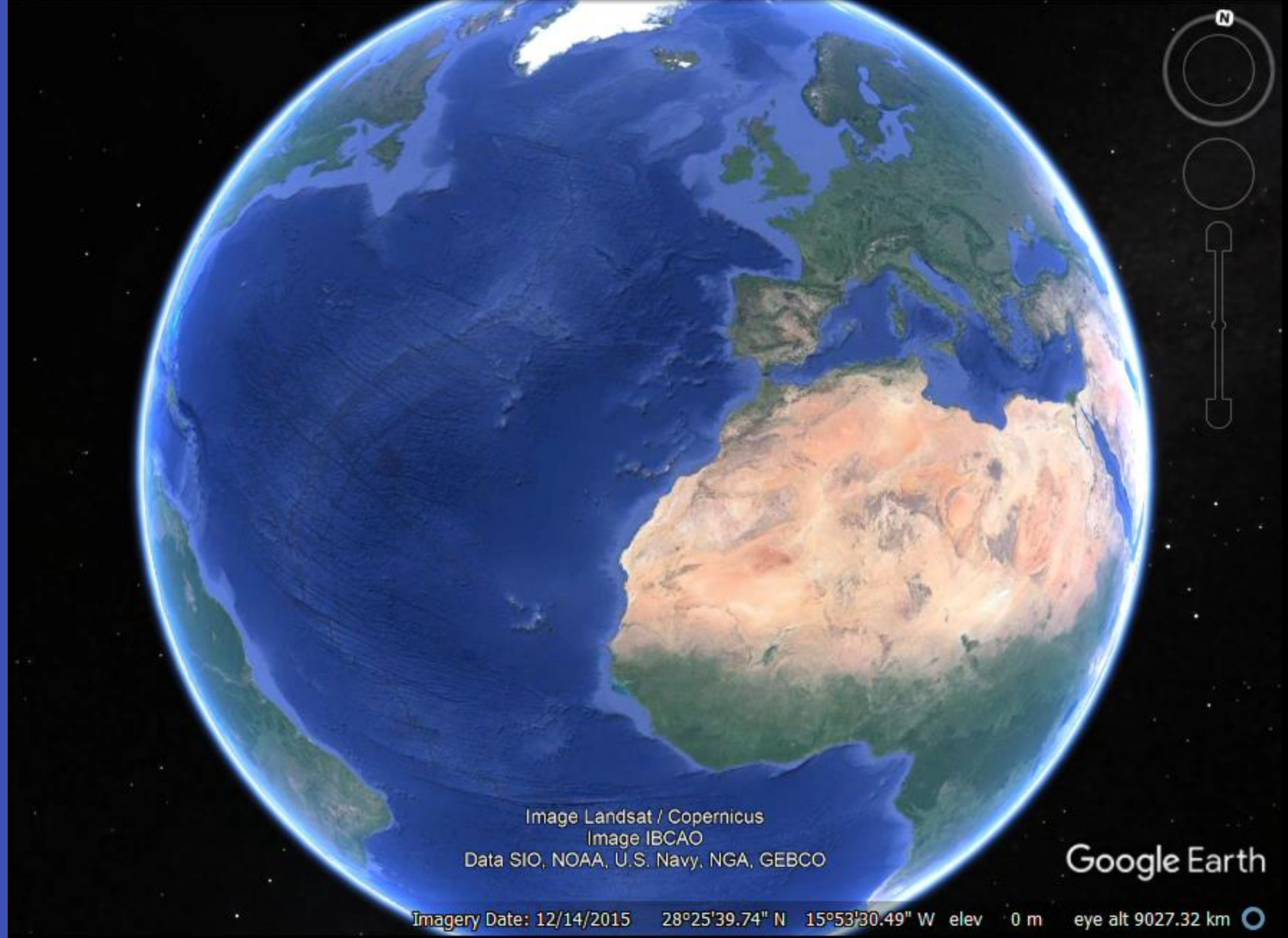


MARINE SPATIAL PLANNING

- Aim is to provide investment certainty to developers and reduce spatial and temporal conflicts
- Statutory / hard constraints - areas to avoid
- Advisory / soft constraints - features that could lead to additional studies and surveys.

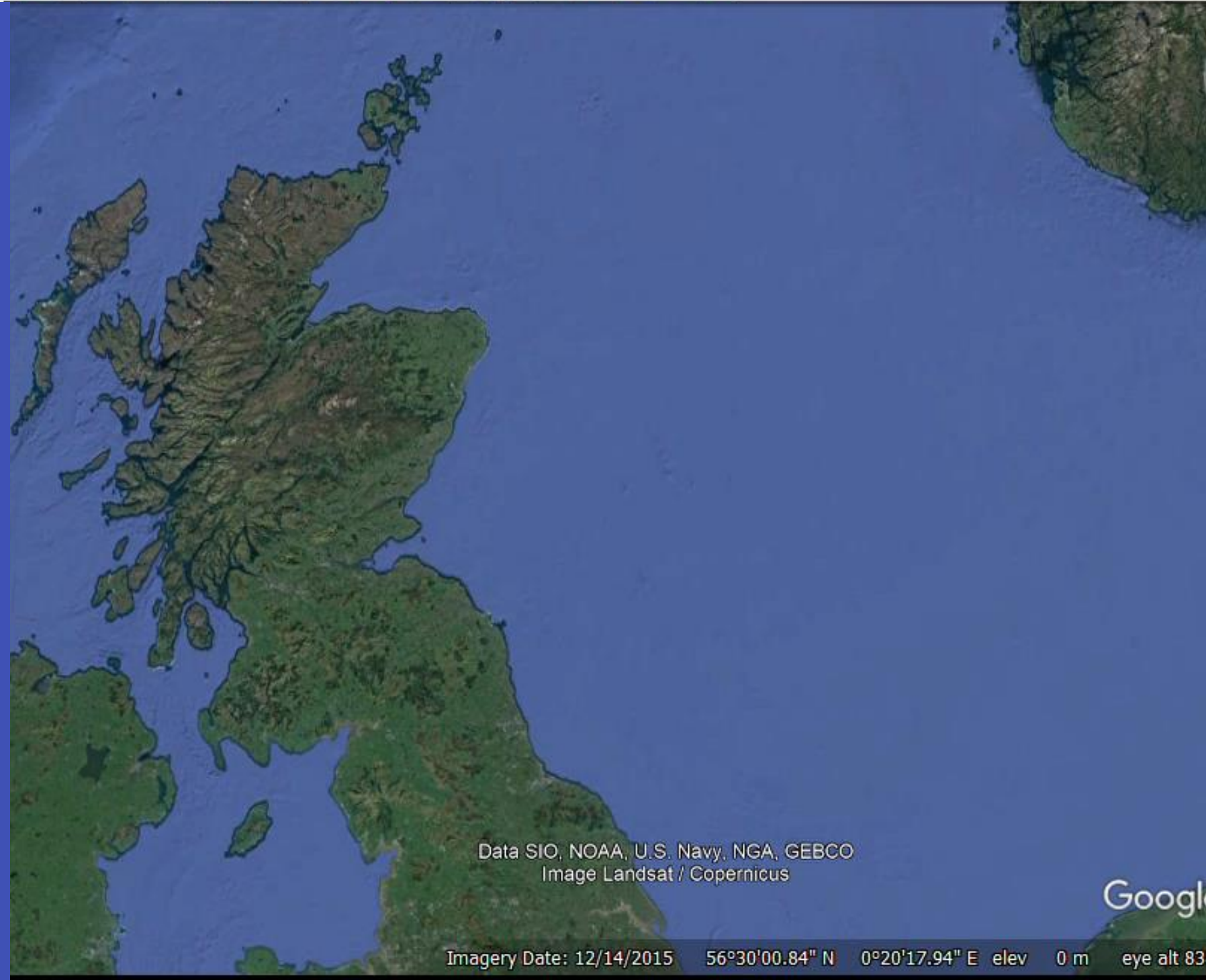
Hard Constraints:

- Offshore renewables
- O&G Pipelines and cables
- Aquaculture
- Coastal archaeology
- Designated nature conservation areas - seabed features
- Shipwrecks
- Recreation & tourism
- Aggregates industry



Soft constraints:

- Sandbanks
- Boulder fields
- Rock seabed
- Commercial fishing - mobile
- Commercial fishing - static
- Seabed habitats
- Shore species & habitats
- Birds
- Otters, seals, sea lions, turtles
- Whales & dolphins
- Major shipping routes
- Wastewater discharges



FILLING DATA GAPS

- MRS provides bathymetric profile within a prescribed corridor
- Benthic characterization
- Burial Assessment Study (BAS)
- Sediment Dispersal
- Archaeology / UXO Survey Information

Everything can be scoped into the MRS to save time and cost!



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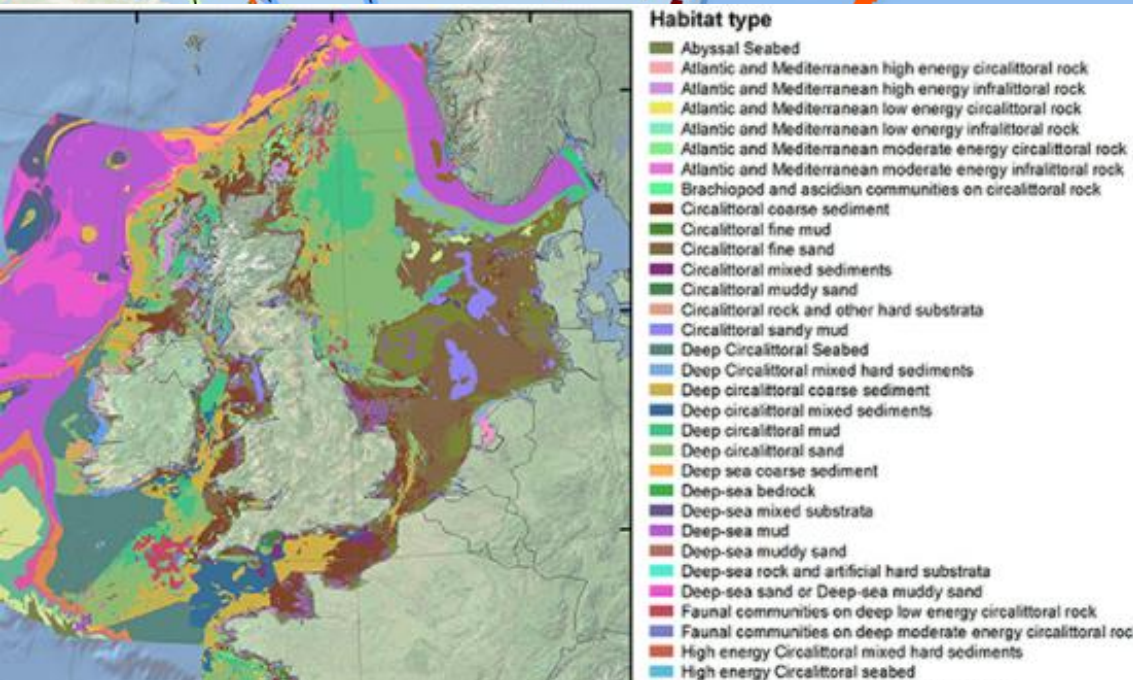
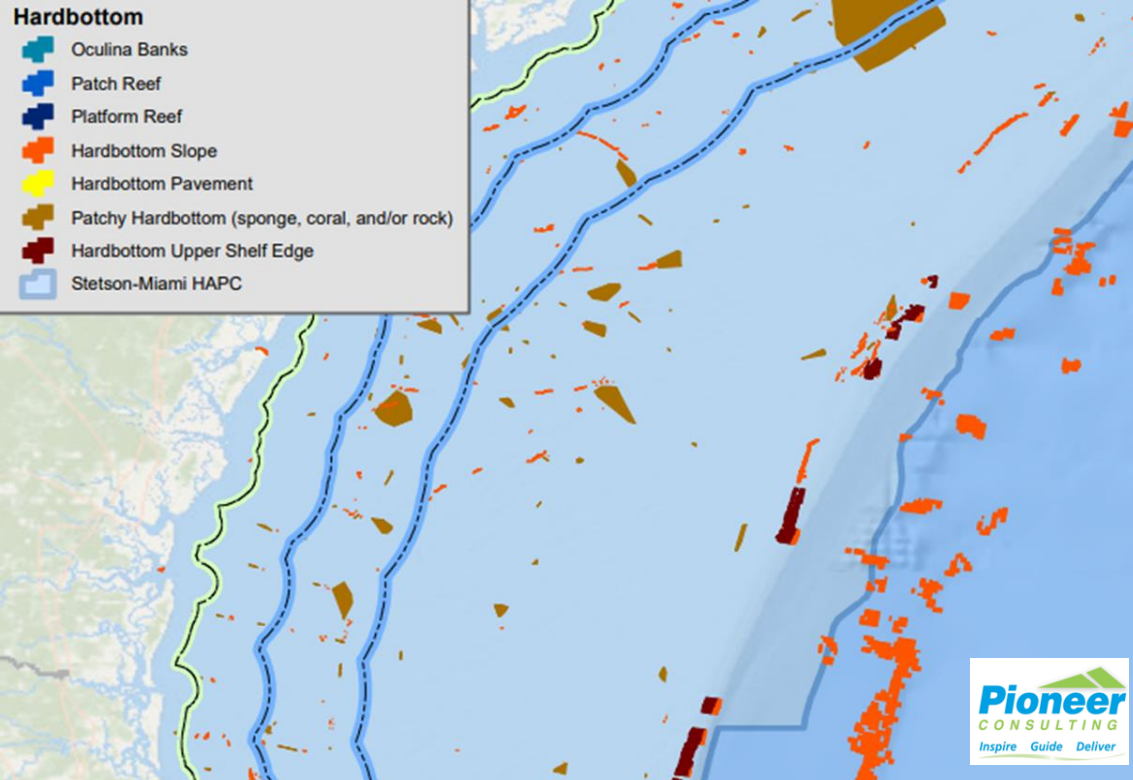


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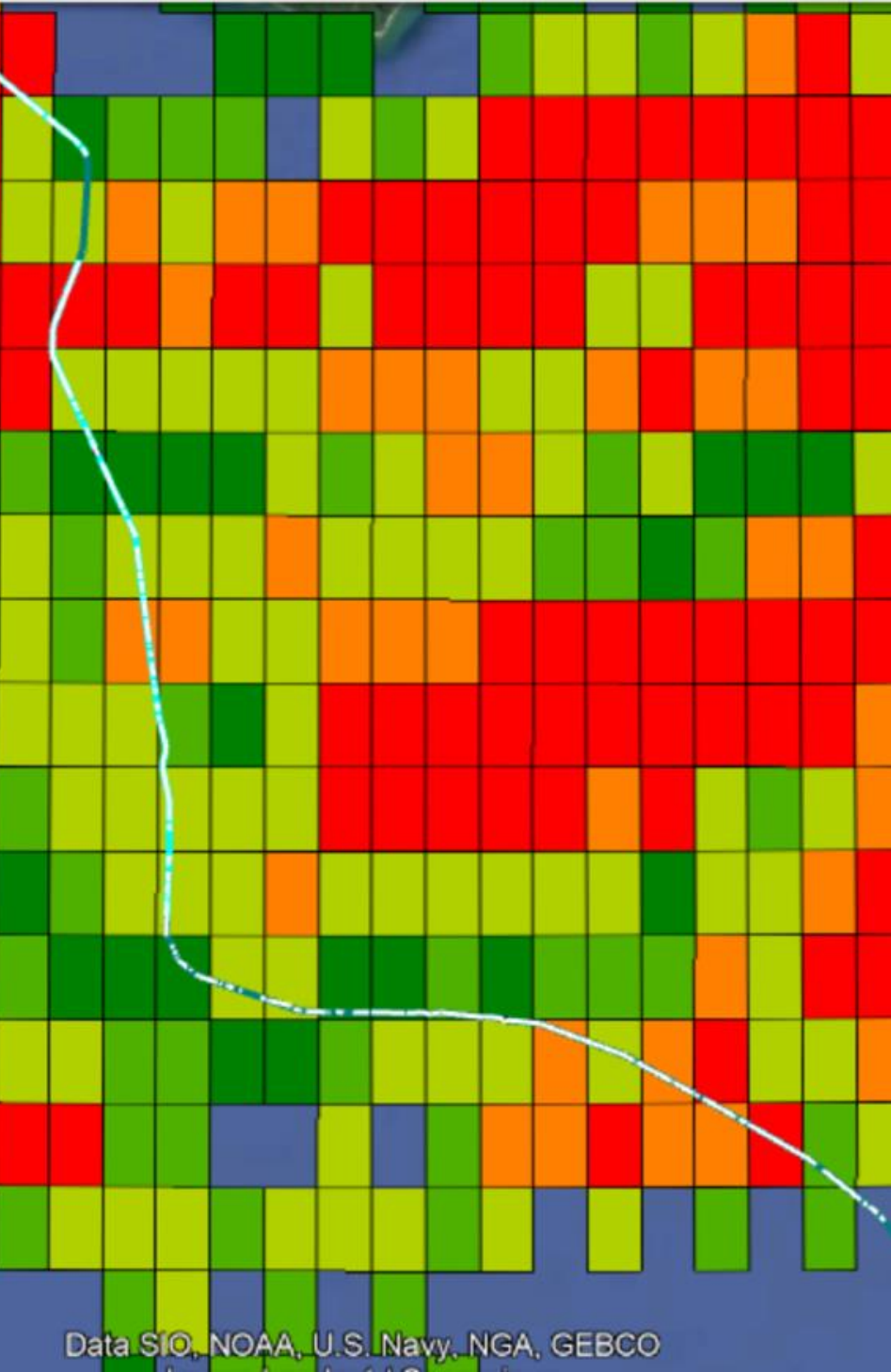
BENTHIC CHARACTERISATION

- Legislation serves to safeguard sensitive receptors
- Desk-based study should determine requirement for benthic survey
- Authorities generally will not provide feedback on survey design
- Saves time and money if MRS can do the benthic survey - careful scope coordination required

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Data SIO, NOAA, U.S. Navy, NGA, GEBCO

CABLE PROTECTION

- Authorities want Burial Assessment Study pre- and post- installation
- BAS demand high quality geotechnical sampling, regular (every 2km) in-situ testing along entire route and skilled interpretation
- In reality, BAS unfortunately can be an after-thought or de-scoped during survey contract negotiations
- Done well, this can be a good example of the data re-use ethos



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SEDIMENT DISPERSAL

- Suspended sediments can smother habitats and species
- Contaminant dispersion is an issue especially near food resources
- Storage of sediments require space onboard (freezer)
- If sediments retained, could avoid more surveys and mitigations



SURVEYING ARCHAEOLOGY

- Archaeology and UXO identification have similar equipment specifications and both require magnetometer array
- Archaeological authorities will provide survey specifications
- Prudent to have a specialist help coordinate this as they will have to provide a report on the MRS data



MERGING MRS & PERMITTING - THE ISSUES

- MRS Technical Specifications usually engineering-specific NOT for permitting
- Integrating the permit requirements adds additional cost (not necessarily planned for)
- De-scoping during survey contract negotiations has the potential to compromise reliability of results and could even mean a requirement for future unplanned-for surveys.



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CLOSING THE DATA GAP - KEY MESSAGES

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graph TD; PI([Project Inception]) --> EPS[Engage Permit Specialist]; PI --> STS[Survey Technical Specification]; PI --> ESC[Engage Survey Company]; EPS --> PFS[PFS]; PFS --> DDG([Determine Data Gaps]); DDG --> BSM[Benthic Survey with MRS? MRS to retain sediments? Scope in UXO and archaeology survey to MRS?]; BSM --> CV([Contract Variations]); CV --> S{Survey}; STS --> DTS[DTS]; ESC --> S; BD{{Baseline Data}} --> DTS; DDG -.->|"Collect Once, Use Often" = Saves $$$$| STS;
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Project Inception

Engage Permit Specialist

Survey Technical Specification

Engage Survey Company

Consult with Authorities on Data Requirements

PFS

“Collect Once, Use Often” = Saves \$\$\$\$

Baseline Data

DTS

Determine Data Gaps

Benthic Survey with MRS? MRS to retain sediments? Scope in UXO and archaeology survey to MRS?

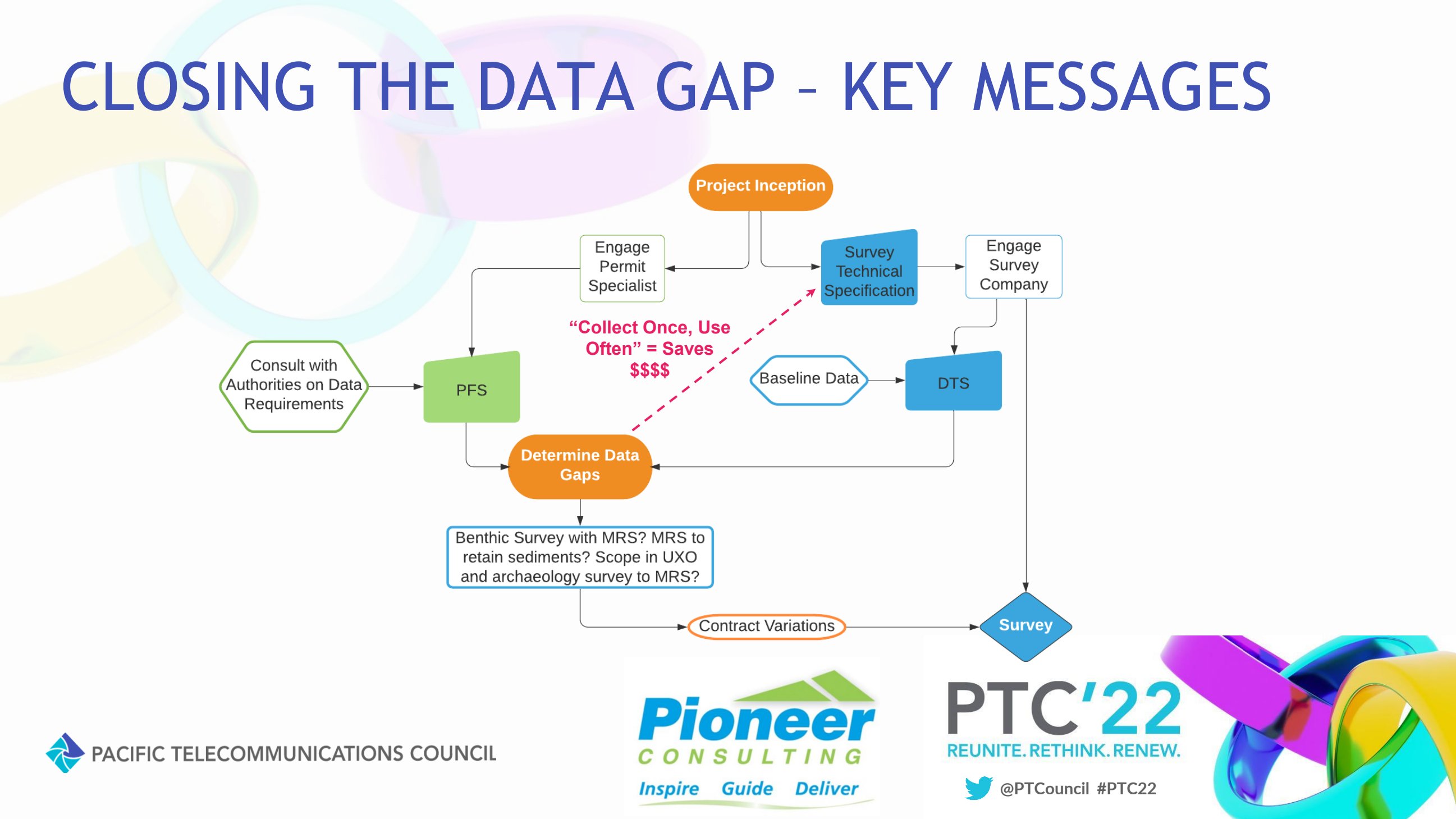
Contract Variations

Survey

Pioneer CONSULTING
Inspire Guide Deliver

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THANK YOU FOR
LISTENING!



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