CREATOR(S):	BROADBENT, I.
TITLE:	RiCORE: risk-based consenting of offshore renewable energy projects.
YEAR:	2016

RiCORE

Risk Based Consenting of Offshore Renewable Energy Projects

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on behalf of the RiCORE consortium

All-Energy, Glasgow
5th May 2016

RISK BASED CONSENTING FOR OFFSHORE RENEWABLES

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 646436.

Outline

- Project context
- Aims, partners and work packages
- Workshops and example quotes
- Overview of key project deliverables/reports
  - Review of the Survey, Deploy and Monitor policy
  - Current practices in pre and post consent monitoring
  - Commonalities/differences in approaches to pre-consent surveys
  - Innovative monitoring approaches
  - Marine Renewable Energy Licensing and Regulatory Systems
  - Legal and Institutional Review of National Consenting Processes
- Next steps

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The Challenge

- Challenges facing development of Offshore Renewable Energy* Projects
  - *defined as offshore wind, wave and tidal

  - Technology costs
  - Transmission grid infrastructure
  - Consenting procedures
  - Environmental impacts
  - Grant and revenue support

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An uncertain environment

Relevant EU legislation includes:

- Renewable Energy Directive (2009/28/EC)
- Marine Strategy Framework Directive (MSFD 2008/28/EC)
- Strategic Environmental Assessment, (2001/42/EC)
- Environmental Impact Assessment Directive (2014/52/EU)
- Water Framework Directive (2000/60/EC)
- Birds Directive (2009/147/EC) SPA's
- Habitats Directives (92/43/EEC) SAC's

- Legislation aims to address
  - climate change
  - promote low-carbon energy whilst maintaining biodiversity,
  - protecting endangered species and habitats,
  - minimising adverse impacts of development
  - protecting the marine resource base

- Uncertainty about appropriate application - further prolonging consenting processes
- EIA varies considerably in scope and intensity both within and across MS
- Different methodologies and timeframes are utilised
- Costly and time consuming surveys are required even for perceived lower risk projects

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- *"The current consent process is not fit for purpose, as the requirements for consenting a single prototype are broadly the same as those for a 1 GW commercial offshore windfarm. The timeframe and cost of achieving this represent an inefficient use of valuable resources and capital, and present a substantial roadblock to accessing investment and to the deployment of prototype devices".*

Offshore renewables project developer, 2016

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Project Aims

- To ensure the successful development of the ORE in the EU member states by reducing the cost and time taken to consent projects of low environmental risk through the development of a **risk based approach to the consenting of projects** which standardises the assessment of key components of environmental risk from ORE deployment.

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Survey, Deploy, Monitor

- The Marine Scotland Survey, Deploy and Monitor policy is based upon three main factors:
  - 1. Environmental Sensitivity (of the proposed development location)
  - 2. Scale of Development; and
  - 3. Device (or Technology) Risk.
- Supplementary guidance document to the licencing manual
- Risk-based approach for wave and tidal energy proposals.
- Distinguishes between proposed developments for which:
  - there are sufficient grounds to seek determination based on a minimum of 1 year of wildlife survey effort and analysis
  - and those where a greater level of site characterisation is required

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Project partners

ROBERT GORDON UNIVERSITY ABERDEEN

Offshore Renewables Institute

marinescotland

MaREI Centre for Marine and Renewable Energy

ERI Environmental Research Institute University College Cork

UCC University College Cork, Ireland Coláiste na hOllscoile Corcaigh

E-CUBE STRATEGY CONSULTANTS

WavEC Offshore Renewables

azti tecnalia

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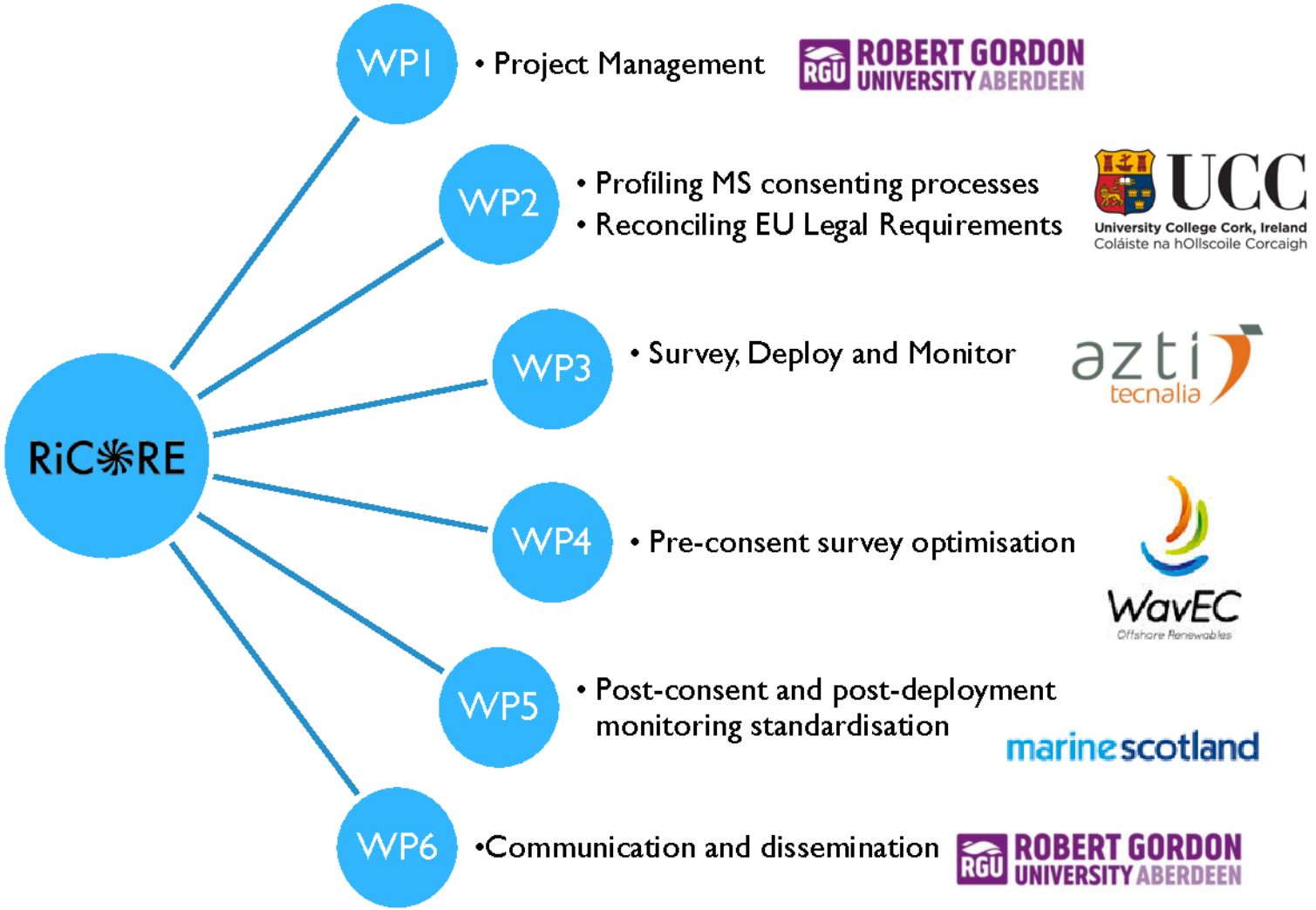
Project Work Packages and Leads



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Workshop schedule

- Inception Meeting 21-22/1/15 (RGU)
  - Workshop 1: WP4+5 - 20/4/15 (Bilbao)
  - Workshop 2: WP2 – 21/5/15 (Paris)
  - Workshop 3: WP3 + 2,4,5 – 9-10/11/15 (Dunkeld)
  - Workshop 4: WP2,3,4,5 – 12/4/16 (Cork)
  - 84 participants, from 7 EU Member States
  - Final project conference – June 2016 (Brussels)

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Workshop comments

- "Developers are often asked to gather unnecessary or duplicated information…. they may be asked to repeat work that has already been done."
- "one year is not much due to the inter-annual variability…..three years is very expensive and thus two years is the best option."
- "Where we have no or a low volume and/or quality of data a precautionary approach should be applied; therefore resulting in a grading of high sensitivity. In this scenario, it is unlikely that a one-year pre-consenting period would be sufficient."
- "Approaches such as Survey, Deploy and Monitor are beneficial particularly for initial small scale projects"
- "Survey, Deploy and Monitor is likely to identify potential issues early on, encourage development in more suitable areas, and away from more sensitive sites"

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Project Deliverable 3.1

- Bald, J., Menchaca, I., Bennet, F., Davies, I., Smith, P., O'Hagan, A.M., Culloch, R., Simas, T., Mascarenhas, P. (2015).
- Review of the state of the art and future direction of the Survey, Deploy and Monitor policy. (RiCORE deliverable 3.1)
- Describes the SDM policy and 2 case studies (Hywind Scotland Pilot Park and Meygen Tidal Turbine Array)
- Recommendations include:
  - Extend to post-consent monitoring
  - Update criteria for new technologies (offshore wind)
  - Establish common criteria for environmental sensitivity evaluation
  - Establish common criteria for technology risk evaluation
  - Guidance for pre- and post consent environmental monitoring
  - Introduce the aspect of uncertainty into the assessment
  - Weighting of environmental factors

Report available from:
http://ricore-project.eu/downloads/

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Project Deliverable D4.1/5.1

- Simas, T., and Heinrichs, J. (2015).
- Marine Renewables and environmental risks: Current practices in pre and post consent monitoring (RiCORE Deliverable D4.1/5.1)
- RiCORE Workshop 1 report
- Key findings:
  - Information requirements for pre & post consent established on case-by-case basis
  - Some MS are more prescriptive
  - Duration of monitoring activities is often main prescriptive requirement
  - Impact quantification is main prescriptive requirement post-consent
  - Consensus that >1 year of pre-consent data is needed (2 years typical)
  - Developers are concerned regarding length and cost of activities
  - Compromise between data utility/significance & data collection/processing costs
  - Focus on collecting data for what is really necessary
  - Methodologies need to be aligned between pre & post consent monitoring

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Project Deliverable 4.2

- Simas, T., Heinrichs, J., Bald, J., Menchaca, I., Culloch, R., Bennet, F. (2015)
- Report on the analysis of commonalities and differences in approaches to pre-consent surveys (RiCORE Deliverable 4.2)
- Key findings:
  - Review of spectrum of pre-consent monitoring practices across EU MS for various receptors
  - Most methodologies were found to be generally applicable/transferable to offshore wind (fixed and floating), wave and tidal
  - Some exceptions e.g. site depth for floating wind may influence types of benthos/sediments assessment, acoustic assessment
  - Use of drifting systems recommended in high tidal flow areas to minimise effects of flow noise
  - Some parameters/receptors may not be a concern for some MRE types (e.g. bats for wave/tidal projects, LIDAR wind resource measurement for wave/tidal)

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Project Deliverable 4.3

- Culloch, R., Bennet, F., Bald., J., Menchaca, I., Jessopp, M. and Simas, T. (2015)
- Report on potential innovative monitoring approaches, identifying potential reductions in monitoring costs and evaluation of existing long-term datasets (RiCORE Deliverable 4.3)
- Key findings:
  - Review of innovative technologies for various receptors
  - Costs of surveys varied considerably within receptors
  - Survey design requires initial assessment of logistic constraints of a site, and requirements of regulators
  - Review of aspects of survey design including power analysis
  - Key aspects of pre-consent survey design - can the data detect a change in abundance if it occurs – and is the data fit for purpose?

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Project Deliverables 2.1/2.2

- O'Hagan, A.M., Nixon, C. and Mascarenhas, P. (2015)
- Marine Renewable Energy Licensing and Regulatory Systems (RiCORE Deliverable 2.1)
- RiCORE Workshop 2 report
- Le Lièvre, C., and O'Hagan, A.M. (2015)
- Legal and Institutional Review of National Consenting Processes (RiCORE Deliverable 2.2)
- Key findings:
  - One-stop shop for consents and EIA processes
  - Works well in Scotland
  - Progress in France, Ireland and Portugal towards more integrated consenting systems
  - Parallel consents required in Spain
  - Current consenting legislation is compatible with wave and tidal but implementation and collaboration remain problematic
  - No specific legal barriers identified to implementation of risk-based approaches to consenting

Report available from:
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Next steps

- Completion of final project deliverables
- Final project report
- Delivery of recommendations to EU
  - Brussels June 15th
- Academic outputs/publications

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http://ricore-project.eu/

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