

Co-design, testing and stakeholder buy-in of Real-time Incentive fisheries management: THE CELTIC SEA CASE STUDY

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Context

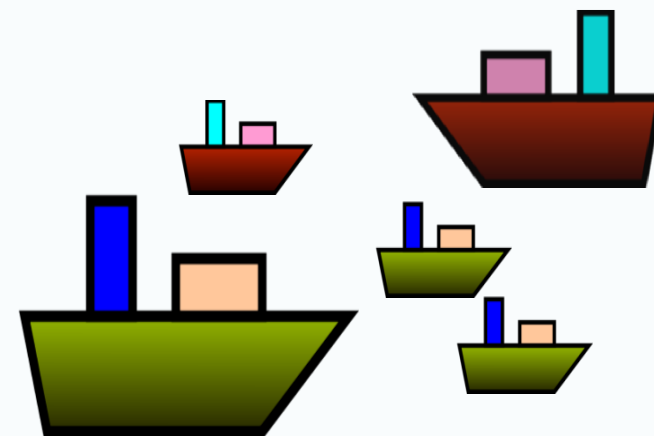
- Ecosystem approach to fisheries management
- Complex current system
- Wider ecosystem – MSFD – more rules?
- **Ultimate aim:**

*direct fishing effort where opportunities exist,
whilst avoiding choke spp & vulnerable
ecosystem components*



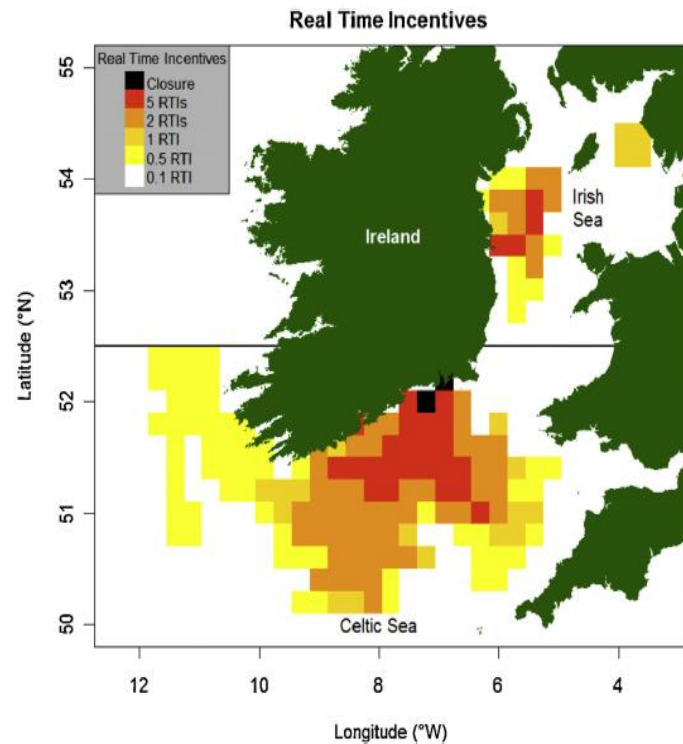
Current Project

- Full computer simulation (MSE)
 - Challenge system
 - Test limitations
 - Comparisons
 - Misreporting
- Biological Model
 - 23 fish species & nephrops
 - size spectrum model (in R)
- Exploitation Model
 - Individual-based DISPLACE model (Bastardie *et al.* 2013)



Stakeholder Consultation 'co-creation'

- New system – needs acceptability
 - Legitimacy & Transparency
- Needs fisher knowledge and input
- Experience-based Knowledge
- Fisher ecological knowledge
- Co-design/co-management
- We want to get it right
 - Useful
 - Adopted
 - Beneficial
 - Fishers
 - Ecosystems
 - Managers
- Power for policy



Methods

- Discussion groups (recorded, private)
- **Interviews** (anonymous)
- Questionnaires (potentially)
- Preferences
- Participation Fatigue



Stakeholder Consultation

- **Temporal Scale:** weekly, monthly and quarterly
- **Spatial Scale:** 'large', 'medium' and 'small' grid size

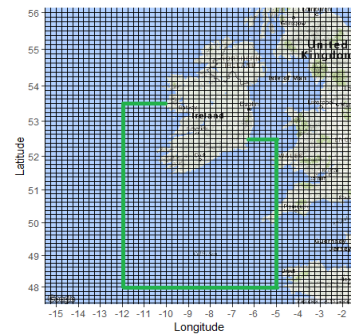
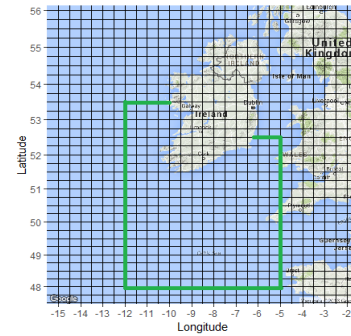
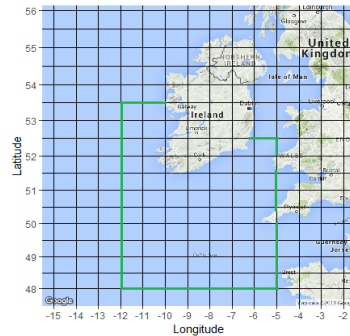
| January | | | | | | | February | | | | | | | March | | | | | | |
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| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 | 28 | 29 | | | | | | 27 | 28 | 29 | 30 | 31 | | |
| 31 | | | | | | | | | | | | | | | | | | | | |

| April | | | | | | | May | | | | | | | June | | | | | | |
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| 17 | 18 | 19 | 20 | 21 | 22 | 23 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 | 29 | 30 | 31 | | | | | 26 | 27 | 28 | 29 | 30 | | |

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| July | | | | | | | August | | | | | | | September | | | | | | |
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| October | | | | | | | November | | | | | | | December | | | | | | |
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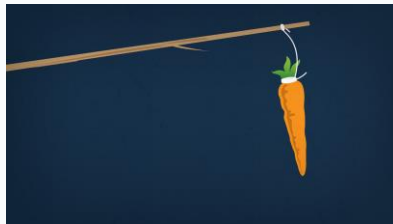


Stakeholder Consultation

- **‘Real-time closures’** –spawning aggregations, influx of protected species, high ‘unwanted catch’
- **Fisher behaviour:** predicted & possible responses



- **Incentives:** lower tariff for improved gear/ behavioural modifications/on board cameras/other?



- **Scenarios:** linked to TAC's? Single nations? Economics?

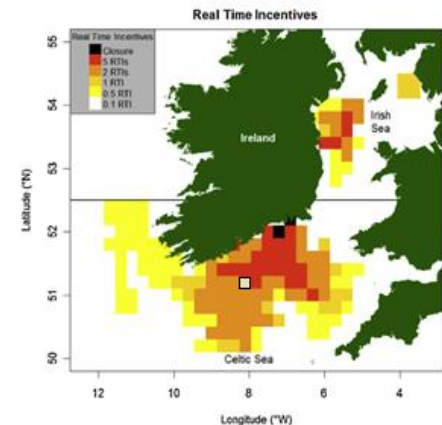
Stakeholder Consultation

- Thoughts on;
 - **Current quota management?**
 - **Issues?**
 - **Solutions?**
 - **Obstacles?**
 - **Discarding?**
 - **Landing Obligation?**
 - **Tactics?**



Initial Findings

- High level of agreement on practicalities
 - ‘inshore’ and ‘offshore’ divisions
- Deep understanding
 - Practical thought and implications
- Reluctance to FDF, but not all monitoring
 - Technological innovations/suggestions
- Major obstacles
 - Status quo
 - Relative stability & quota limitation
- Contributing ideas
- Happy to partake (& grateful!)
 - Even if skeptical about results!



Thanks Fishermen!



Project Partners



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