

Barriers to Gear Innovation

- Regulatory (current purpose, law enforcement)
- Feasibility (cost, technical, practical)
- Cultural (traditions, “social” interaction, fleet diversity)
- Incentives (uncertainty about them, creation of negative ones)
- Effectiveness (will it work, how will we know/evaluate)
- Unintended consequences (can we think ahead?)

Regulatory

- Current management based on history of solutions to problems
- Creation of new problems to solve?
 - E.g., Lost gear
- Risk of affecting enforcement of current regulations
 - E.g., Trap limits
- Questions about enforceability of new management
 - E.g., Requirements to report locations of submerged gear

Feasibility

- Cost
 - 500,000 lines on West Coast - 250-500 lines per fisherman
 - Time = \$\$\$\$\$; Management costs
- Technical
 - E.g., Reliability of retrieval
 - E.g., Compatibility with existing/available technology used
- Practical
 - Operational needs (e.g., time, safety, workable on deck)

Cultural

- Resistance to change practices and traditions – long history
 - Practices are not homogeneous
 - Late in the game for many fishermen
- The “social order” of fishing with/around each other
 - E.g., Surface gear = order, tolerance for transitory fishing
- Fleet diversity
 - E.g., Impact of change on social balance
- Rejection of need to change

Incentives

- Uncertainty about incentives or how they will be realized
 - E.g., What is gained by innovation / cost of not innovating?
 - E.g., Who is going to pay?
- Is anything being sacrificed by innovating – is it worth it?
 - E.g., Investments in gear
 - E.g., Comfort with current system?
- Creation of negative incentives
 - E.g., Opportunities for exploitation of loop holes?

Effectiveness

- Will it reduce number or extent of injury?
- How will effectiveness be evaluated?
 - Hard to evaluate
- What if innovations don't work well/good enough?
 - Does the cost of refitting preclude iterative development?
- Is innovation a more viable alternative to other measures?

Unintended Consequences

- Adverse environmental consequences
- Adding new dangers to very dangerous job
- New winners/losers and disruption of social order
- Creation of new regulatory/enforcement problems
- Inefficiency or uber-efficiency