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Reef Rescue R&D – back to basics

In initial design we envisaged –

- *Cannot unilaterally fix changing climate as stressor*
- *Can make a concerted effort to reduce water quality impacts – the other stressor*
- *Improving water quality will increase resilience*
- *Incentives to expedite adoption rates*
- *Must be practices that are:*
 - *Proven*
 - *More profitable*
 - *More sustainable*





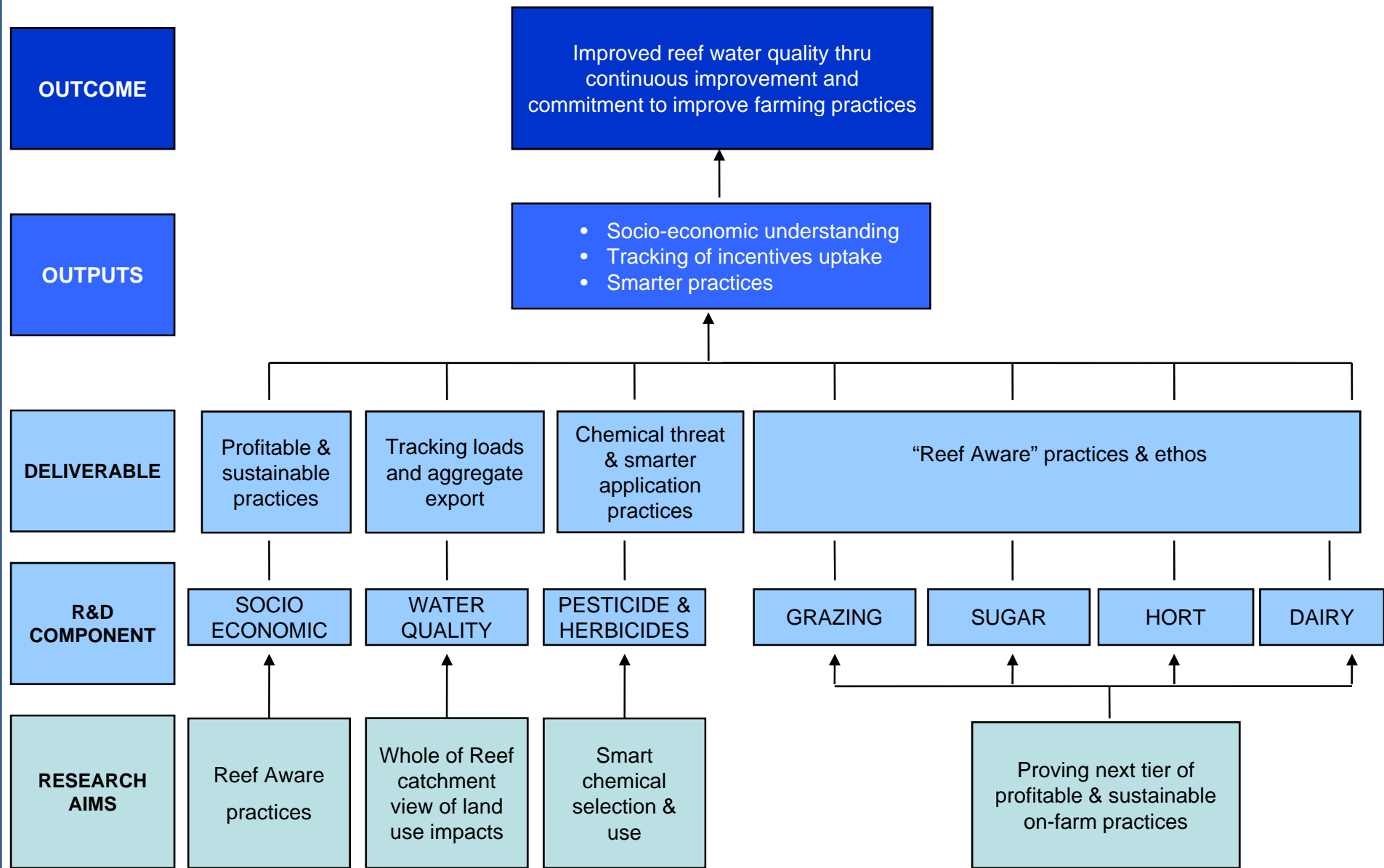
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Reef Rescue R&D – back to basics

R&D added because –

- *Practices will continually improve - investing in innovation is essential*
- *Systems, stocks, flows and residence times not fully detailed*
- *Chemical issues regarded as “the sleeper”*
- *Incentives on this scale are a “grand experiment” and worthy of monitoring & improving their delivery to maximise return on investment + set the model for Australia*







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Where to now?

- Core groups of R&D within and with synergies:
 - Grazing
 - Sugar
 - Horticulture
 - Dairy
 - Chemicals [pesticides and herbicides]
 - Practice adoption and improvement processes
 - Water quality outcomes

We now need to build from groups a program and most importantly capitalise on synergies with other investments





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Reef Rescue R&D – underlying basis

Natural resources management –

*- its really about people.....and
facilitating improved use of natural
resources by all of us*



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Reef Rescue R&D – land use practice

Some questions we must answer:

- *What other R&D is leading to innovation?*
- *How can we best link?*
- *How can we ensure farmers get reliable and useful information on practices?*
- *What are the impediments to adoption if more profitable [and assuming the profit analysis has been done]?*
- *What are the key gaps we need to work towards resourcing*





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Reef Rescue R&D – grand experiments

Some questions we must answer –

- *Is it working and are practices once adopted becoming “standard operating procedures”*
- *Is there any necessity for regulation...beyond what is there?*
- *How effective / efficient have the incentives been?*
- *Who is not accessing incentives and why?*
- *Is there a need for a second tranche of incentives?*
- *What are the lessons for Australia?*





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Reef Rescue R&D – towards reef resilience

Some questions we must ask –

- *Chemicals – sleeper or emotive issue?*
- *Residence times and outcomes – when, what and why?*
- *Is there a limit to improvements...and is their “acceptable levels of pollution [presumably above baseline natural – if we can estimate that]?”*
- *If not acceptable – what land allocation changes are imperative...and HOW???*
- *How do we foster even more lateral ideas – strongly evidence based*





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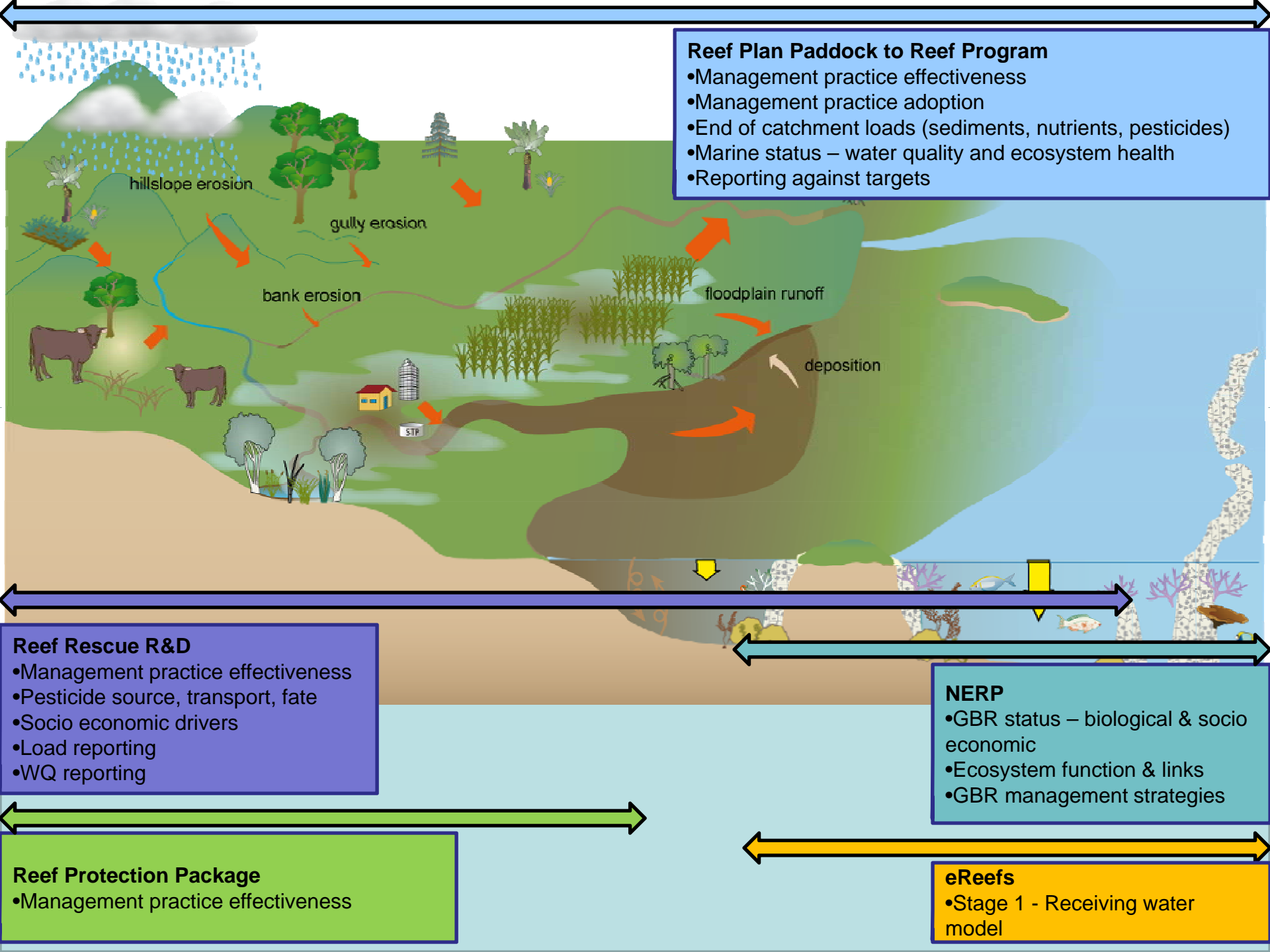
Reef Rescue R&D – synergies & opportunities

*Some images – courtesy of Jane and team....all a work
in progress for as to discuss as this workshop
continues.....*



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Reef Plan Paddock to Reef Program

- Management practice effectiveness
- Management practice adoption
- End of catchment loads (sediments, nutrients, pesticides)
- Marine status – water quality and ecosystem health
- Reporting against targets

hillslope erosion

gully erosion

bank erosion

floodplain runoff

deposition

Reef Rescue R&D

- Management practice effectiveness
- Pesticide source, transport, fate
- Socio economic drivers
- Load reporting
- WQ reporting

NERP

- GBR status – biological & socio economic
- Ecosystem function & links
- GBR management strategies

Reef Protection Package

- Management practice effectiveness

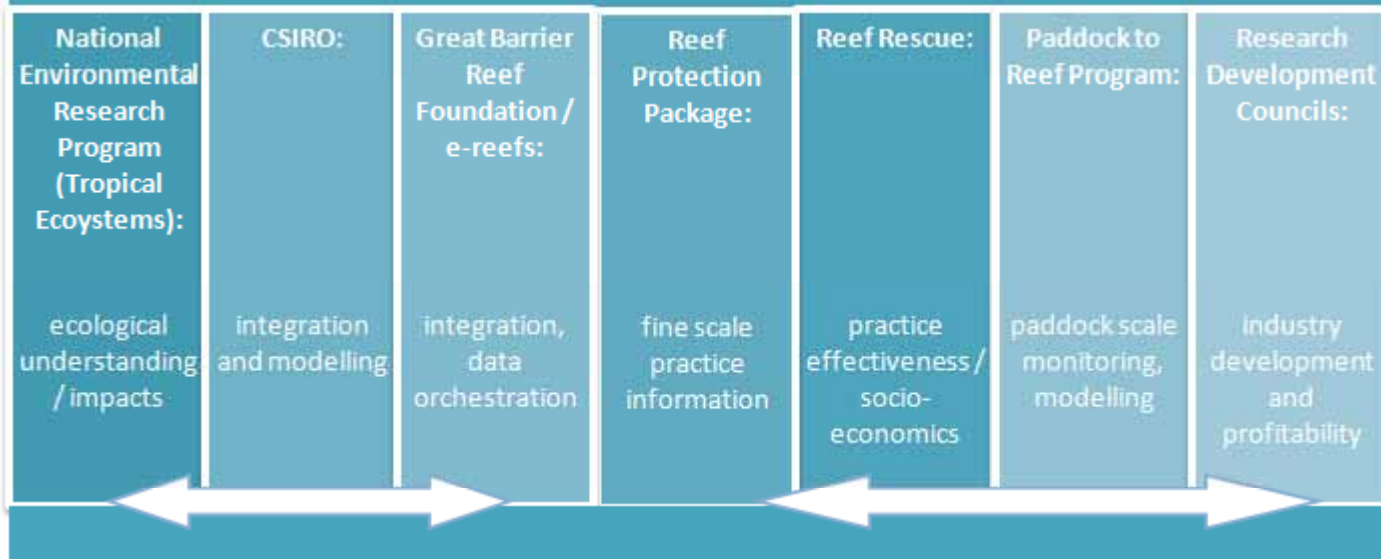
eReefs

- Stage 1 - Receiving water model



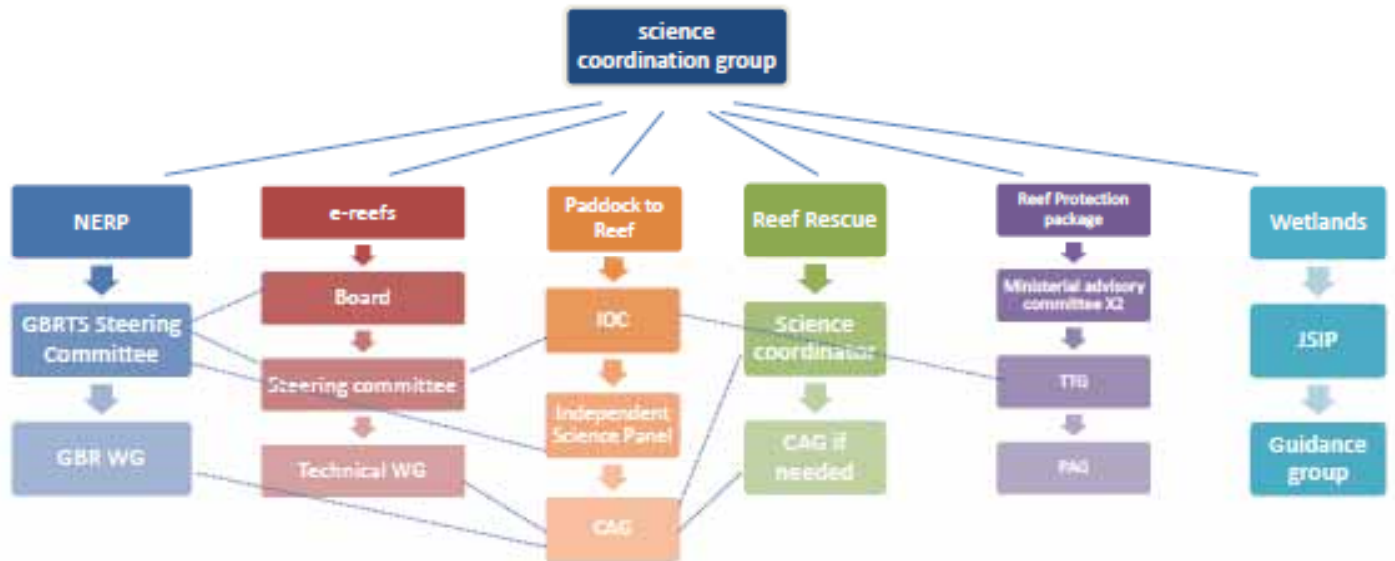
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Major research and development programs supporting Reef Plan



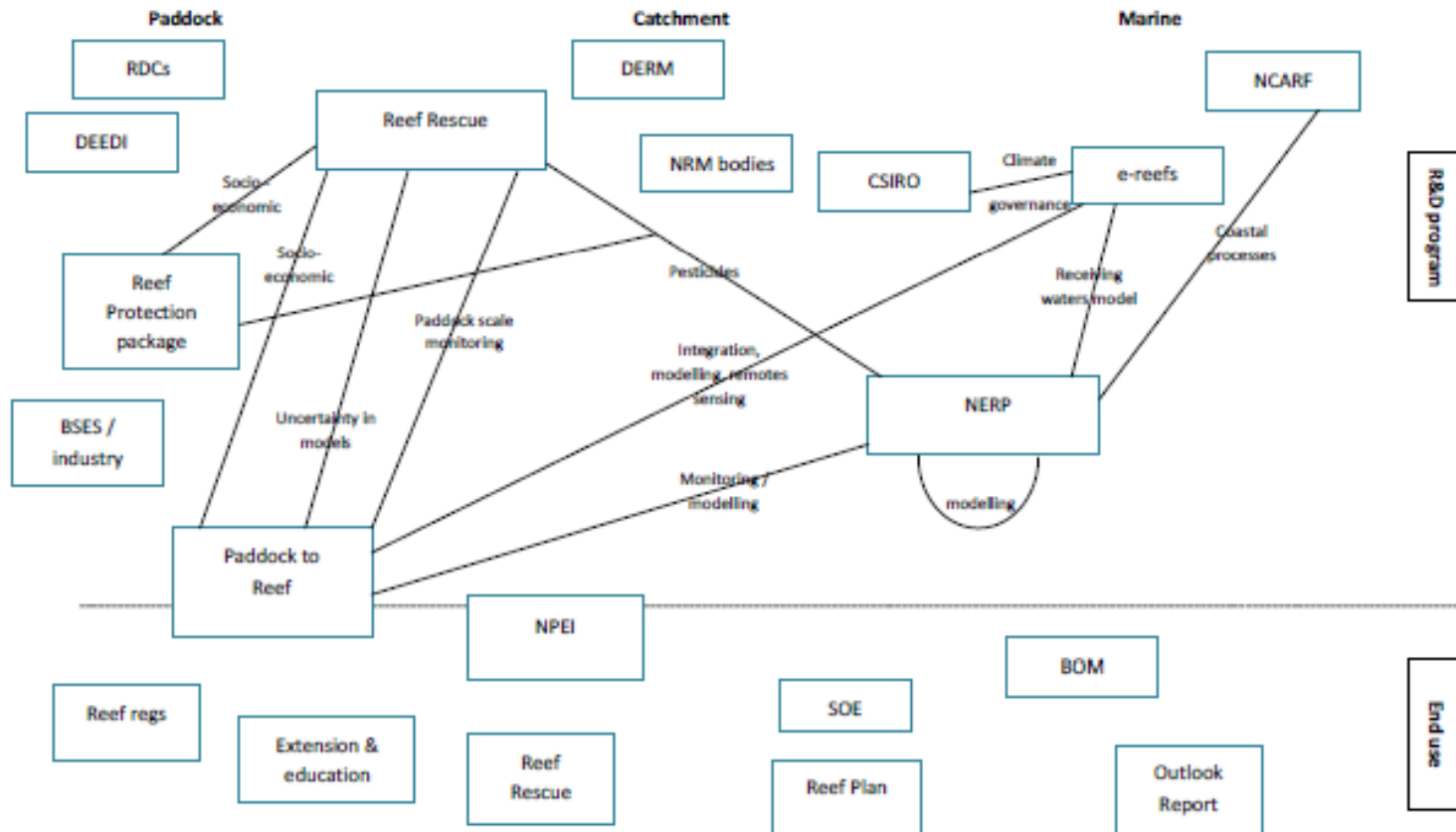


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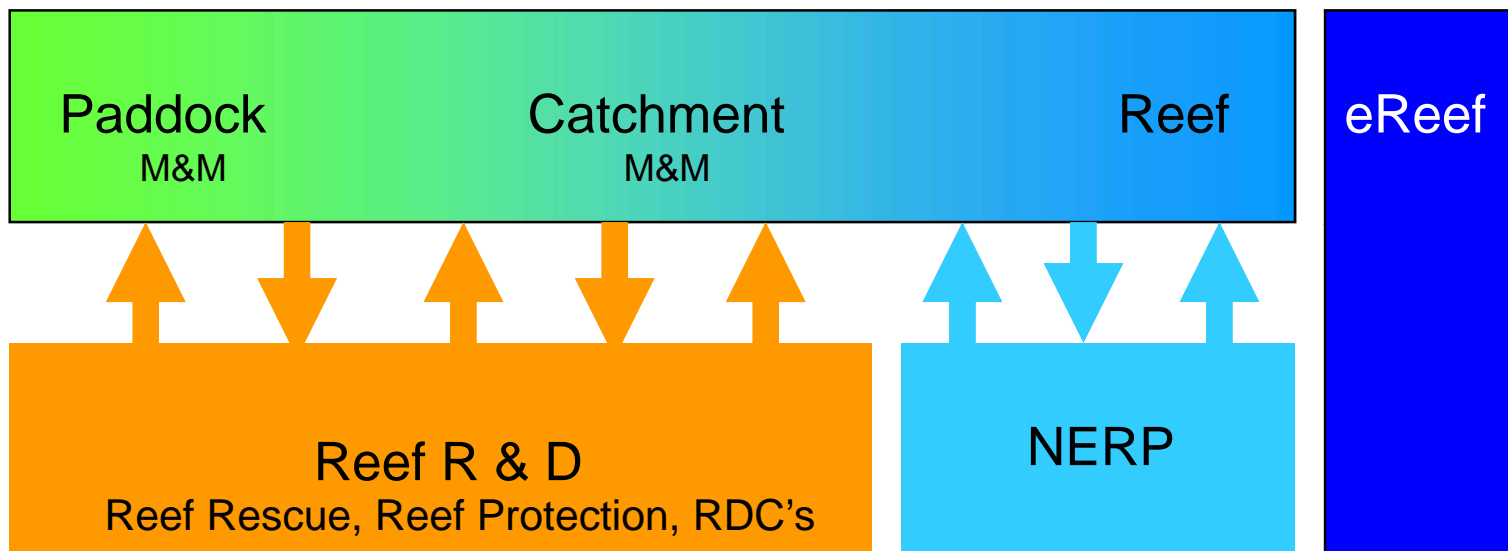
R&D program

End use





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Reef Rescue R&D – what is the legacy?

Knowledge outputs could include:

- *Next tier of profitable & sustainable practices*
- *Some clear signals as to what to improve next in practice*
- *Criteria for rolling out major incentives programs*
- *Sufficient systems understanding to target any further incentives [systems are **across** human and biophysical components]*
- *Quantification of what return for what additional investment*
- *Buy in and co-investment to any follow-on activities*





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Reef Rescue R&D – what would phase II look like?

This will be based on your findings!

+

Other investments / findings

+

Our collective thoughts in 2013



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Reef Rescue R&D – emerging gaps

*Again – we can start to brainstorm in this workshop
but*

This will be based on your findings!

+

Other investments / findings

+

Our collective thoughts in 2013



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Reef Rescue R&D – our next steps

Items 2 to 6 - this workshop –

linkages

results

risk management

events

collaboration

then we collate –

Integration framework

Communication strategy

Synthesis towards final reporting

Actively manage processes and outputs



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