

**National Fisheries and Aquaculture RD&E Strategy
Stakeholder Group Workshop REPORT
Tuesday Nov 17 and Wednesday Nov 18, 2009.**

Location: Lakes Resort Hotel, 141 Brebner Drive, West Lakes, Adelaide.

Aims: to further develop a national RD&E strategy for fisheries and aquaculture as part of the national RD&E framework;

- to test and further develop Strategic Research Areas;
- to discuss and agree to the characteristics, features and governance of a RD&E framework.

The role for participants at this workshop was to provide feedback and test the elements of the Draft National Fisheries RD&E Strategy. The following notes are a summary of the main points raised during the workshop. Attachment 2 contains a list of participants.

Session 1 Sector Overview

Summary of feedback / comments (on Sector Overview document presented by Ewan Colquhoun):

- Language in the report sounds like Wild Catch is of declining importance – no future potential.
- Not enough on demographics (numbers employed etc) in commercial wild catch.
- Statement that “Technology seems to be at best level” – is a dangerous statement and we challenge whether this is true.
- One ‘driver’ for the industry that has not been mentioned – the non-extractive users driving agenda.
- Recognise that for Recreation and Customary fishing there are deficiencies in the quantitative data – you could use quantitative data.
- Report needs better (more) analysis of the value chain – the productivity through the chain.
- Some people would suggest that the effects of Climate Change are being observed now.
- Environmental aspects are not only driven by EPBC – there are legislative / policy issues driven by community perception.
- Missing – recognition of the lack of engagement with Indigenous heritage and knowledge.
- Is a useful document but the passive sector not emphasised enough; whole issue of access under-rated.
- Suggest another layer above this (ie. above the discussions on Sectors) that could talk about integrating the issues that are relative to all sectors – eg cross-section issues such as biosecurity, etc.
- Growth targets are useful – but we question the ability of aquaculture to fill the gap.
- Definitions – customary / indigenous fishing need to be better explained.
- There is a lack of description of economic benefit of Indigenous Fishing.
- Need to show better alignment between 100,000 tonnes and +6%.
- Lack of data on workforce / Recreational fishing / on household incomes and relevance / consumers knowledge of product / on threatened / endangered species as drivers.
- Need data on current changes – ie. the switch from export to domestic focus.

Summary of feedback / comments on the scenarios and RDE targets as provided in the sector overview summary document:

Commercial Wild Catch

- Scenarios – there could be more detail on the pessimistic scenario; and, increasing loss of access due to community pressure / climate change impacts.
- What about Industry’s high use of energy - impact / alternatives?

- Does not indicate infrastructure and jurisdictional changes required.
 - Some jurisdictions might maintain small fisheries for social reasons.
 - Base case – not necessarily a competition question – more about access and markets.
 - National Research on determining resource shares – is this a research question or management issue?
 - Difficult to put a Cost : Benefit for allocation to Recreational Fishing.
 - Could include Nationalisation of fisheries management (“harmonisation”).
 - Animal welfare?
- Issues across all sectors – hidden subsidisation / higher taxes.

Aquaculture

High labour and energy costs are not emphasised.

Risk of disease?

Impact of imported products / biosecurity versus being focussed on volume target – where does Industry see this?? – high value / lower volume and able to compete with imports.

Greater focus on domestic market.

RDE - greater focus on domestication of existing 6-7 species.

Lack of opportunities in the scenario to describe new aquaculture beyond food, eg bio-fuels.

Greater focus on pathway to resource access and issue of more timely response to access requests.

Need to include animal welfare.

Customary – question the title – indigenous and all aspects – need better definition / description.

Focus on engagement.

Opportunities for tourism.

Need more detail in Sector Assessment summary.

Recreational Fishing

Still very marine centric?

Include data on “experience”.

Not currently managed properly / not managing the catch / no limits.

Approximately 12% and relatively constant on the graph – but – varies a lot between species and tends to be an equalising activity.

Scenario – underdone – with population increase likely to have increase in recreation sector.

Which parts of recreation sector will grow??

Need to include the “value” of recreation sector – besides economic.

Increasing recognition of user pays.

Suggest there is more financial capacity for RDE and increased expectations on how the dollars spent on RDE.

Need more data for Recreation.

Include the Animal welfare issue.

What about the Recreation / Commercial Wild Catch interplay?

Tackle industry - ~\$1b in sales.

Have data on community “willingness to pay”.

Tension – perception that Fisheries managers want co-operative management in Commercial but want control in Recreation!

Session 2 Capability Audit

Summary of feedback / comments on presentation provide by Tom Lewis:

What about the Extension / Education activities of the Industry operators? And how to meld this with agency RDE providers?

Extension will always be a local thing – not necessary to combine?

“E” needs to be separated out and separate out the NZ data.

Lot of other “E” providers – eg Discovery Centres, Compliance Officers – that could be included.

How many are full-time employed versus on “soft \$” – ie. casual / permanency?

Could identify core dollars for RDE and the percentage from cost-recovery / Commonwealth / Industry levies, etc.

Separate out the technicians – separate category.

Suggest funding be split into R / D / E – by sectors.

Do you have any data on age classes of employees (concerned with ‘longevity’ of capability being measured)?

Present the data to distinguish Commonwealth Fisheries / Universities / CSIRO / States / Private.

What about capital investment / infrastructure?

Session 3 Strategic Research Areas

In this session participants provide feedback on draft strategic research areas as presented in figure on page 15 in draft Fisheries and Aquaculture RD&E Strategy (attachment 3) – and indicate key activities required under the main areas, with reference to the context for each sector

Indigenous

Most of the Strategic Research areas are applicable.

Needs to include:

- Sustenance, customary management.
- Difference between commercial / small scale local community / trade and barter.
- Active participation in Management and Regulatory systems – include self management of customary and integration of customary and contemporary systems.
- Data collection – valuing local knowledge and data collection (including networks for data collection).
- Resource access and allocation - understanding and incorporating traditional systems of ownership and custodianship.
 - native title – optimising opportunities (noting benefits for commercial and recreation sectors, and development of those sectors leading to indigenous opportunities).
- Business modelling and capacity building – understanding aspirations might be different - attracting young people to the workforce.
- Communication systems – specific to indigenous.

Wild Catch / Commercial

Needs to include:

- Value of habitats.
- Data collection – efficiency of systems.
- Better access to knowledge.
- Processes to improve environment – to help grow resource. And “claw back” – incentives to return habitat back to fisheries – put numbers to the value of habitat.
- Understanding the workforce / and dynamics.
- Better infrastructure / understanding supply chain.

- How to support cottage industries and the relevance of tourism – ie the experience.
- Build social support.
- ‘Innovative observation Systems’ does not convey the right message!

Question the “impact of fishing on environment” – wrong way around!! Should be environmental impacts (from cities and farming) on commercial fisheries.!

Management or EBFM??

Aquaculture

Suggest we need an overarching theme – “Growing Aquaculture” (nb. may be useful approach for the other sectors). Assumption – that access issues are solved!

Need to include:

- How to get investment?
- Aquatic animal health -- nutrition – growth for product outcomes; health.
 - disease – diagnostics; vaccination.
- Biosecurity – management; containment; translocation; exclusion; eradication;
- Climate change impacts.
- AAH Practitioners – pathologists; veterinarians.
- APVMA – chemicals for management purposes.
- Infrastructure and capability.
- Domestication – breeding/genetics – disease resistance and growth; climate change; market attributes.
- Impacts of Aquaculture on the environment.
 - Fish Meal Replacement – extension.
 - EIS – monitoring and surveillance; carrying capacity; collection of known resources; harmonisation.
- Impacts of the environment on Aquaculture – sediments; run-off; urban development.
- Trade and market access – credence values; chain of custody; food safety.
- Harmonisation across regions / States.
- Research on adopting new technologies (not develop own technologies) – probably need both!
- One gap is freshwater use – water use efficiency / processing side, etc.
- IMTA.
- Bio-actives / bio-fuels (overlap with other PISC Strategies).

Recreational Fisheries

Management and regulatory systems could be re-stated as – “constructive new management and governance arrangements”.

Suggested improvements:

- Biosecurity – relevant but low level issue.
- Aquatic Animal Health – relevant but low level issue.
- Management and regulatory systems – o.k.
- Constructing new management and governance arrangements –
 - promoting co-management; devolution of management of sector; reduced costs; reduced complexity; partnerships.
- Resource status / resource assessment / modelling – o.k.
- Climate change adaptation and mitigation – o.k.
- Improved productivity of natural systems.
- Development of EBFM policy and tools. Understand recruitment of key versus target species.
- Impacts (of Rec Fishing) on the environment – - environmental interactions of Rec fishing.
 - maintenance of habitats

- cost benefits of fish habitat / stock enhancement.
- Resource access and allocation – access / allocation / reallocation.
- Enhancing the Rec Fishing experience – environmental interactions.
 - new technologies – eg. Artificial reefs;
 - selling benefits to the community.
 - understanding behaviour, motivation and expectations of Recreational Fishers
 - understanding health and well-being value of Rec Fishing at community, family and individual levels.
- Education and empowerment partnership driven research and management.
- Regional community development (nb. this is relevant to all of Recreation, Wild Catch, Indigenous).

Fisheries Managers

AFMF identified that these R&D priorities are consistent with AFMF Strategic Directions. Could include - Issue of technological development for improve compliance - sub priority under innovative technologies and practices.

Aquaculture

- Biosecurity – protection of aquaculture production systems from introduced pest and disease.
- Aquatic Animal Health – animal welfare
 - - optimumising animal health to underpin profitable, sustainable aquaculture production.
- Climate Change / Mitigation – understanding impacts on aquaculture grow-out systems – identifying and planning response policy.
- Impacts on the Environment – understanding impacts of aquaculture grow-out systems on the marine environment.
 - design appropriate monitoring and management systems to mitigate negative impacts – provide for a sustainable industry.
- Resource Access / allocation
 - processes for planning for aquaculture development and allocation of water for development.
- Human Health Benefits – include – respond to community concerns regarding public health
 - shellfish quality assurance; inputs to production (eg. antibiotics)

Commercial Wildcatch Fisheries

- Biosecurity – protection of wild fish stocks from introduced pests and diseases.
- Management and Regulatory Systems – research required to support sufficient management and regulatory systems

Research Providers

Suggest that it would help to have overarching “themes” for the various sectors.

Cross sector research needs:

- New governance models – EBFM tools / ESD.
- Climate change.
- Resource Access and allocation – spatial management.
- Meeting overall seafood needs – over-arching theme.
- Internal drivers – more resilient business models : consumer preferences, etc.
- Socio-ecology – whole of system approaches : Atlantis ESD framework : alternatives.
- Management options – oceanographic and ecological processes.
- Energy efficiency.
- Biosecurity and Animal Health.
- Harvest strategies for data poor species, eg snapper or dewfish.

- Remote sensing technologies. Innovative data collection strategies. Assessing data poor fisheries.
- Social licence to operate – eg trawling perceived as still bad even if not catching seals. How do people value marine and freshwater assets in trust. Better advertising in the NGO sector. Poor (and declining) public image of fishing.

Aquaculture (covered well by the Aquaculture group).

Could add:

- Bio-prospecting – bio-actives; bio-fuels.
- New aquaculture industries.

Recreational Fisheries

- Cost effective recreational survey techniques. Routine national surveys.
- Cost effective approaches to managing recreational fishing.
- Allocation targets.
- What motivates recreational fishing.
- Socio-economic effects of the sector.
- Characterising the sector – what are you managing for; and then how do you do it.
- Stock enhancement – freshwater but for marine? – efficacy, native versus exotic; anti-acclimatisation; genetic diversity; artificial reefs.
- What are the impacts of a licence fee – is this part of the governance?

Session 4 Implementation Structure and Processes

In this session participants provide feedback on draft structure to implement the Fisheries and Aquaculture RD&E strategy as presented in figure on page 17 in draft Strategy document (attachment 3) – and provide advice on the functional groups.

*The notes from each table group are included as attachment 1. The following notes are a summary of the **main** discussion points.*

Most suggest that the top and middle functional groups (Innovation Policy Committee and National RD&E Investment Forum) be combined and that this combined group

- be no more than 12-13 people;
- include monitoring and reporting roles;
- at regular intervals re-assess the National RD&E priorities;
- ensure alignment with Sector Plans and priorities;
- requires two-way information flows – where the responsibility for information flow rests with members.

Need to clarify who this group needs to be accountable to (eg. PISC).

Other suggestions include:

- Research groups – to have a strong coordinating role
- Extension group – to have a strong coordinating and knowledge transfer role
- Indigenous Sector – requires an initial forum to identify needs and how to best fit with the Implementation Structure.
- Two-way information flow between Strategy and Policy group and FRAB's needs more work.
- Need to be realistic about commitment to Framework / ensure resources.
- Support "Forum/Network" terminology – but caution on "chosen few".
- Regional forums – support the concept but task for them is to understand and map the various groups in their region – utilise partnerships and be responsible for action.
- Research group – could include MDBA (Murry Darling Basin Association?).
- Research and extension networks – should apply the principle of "communities of practice" – encourage them to set own agenda ToRs and identify members needs.

- The Strategy and Policy Group needs to include Indigenous representative.

Session 5 RD&E Definition

In this session participants discussed the definitions of RD&E for the context of the Fisheries and Aquaculture RD&E strategy. The papers included a definition provided by a working group of research heads and a summary of this embedded in the draft strategy.

Summary of feedback / comments:

Participants discussed and there was largely consensus to support the recommendation by the research heads working group that tactical research that support stock assessments is not strategic research and is a development activity, however there were some strong points of view expressed by industry that the legislative requirement of states to access research to make management decisions, does not imply the requirement for the agencies to undertake the research. The suggestion is that agencies are not always the most cost effective groups to undertake stock assessments.

What is Extension?

- Uninhibited transfer of information between all stakeholder groups.
- The tool used to facilitate empowerment (capacity building of stakeholder groups) – knowledge / skills transfer / behaviour transfer / attitudinal change.
- Extension serves a two way function between policy makers / researchers AND the client – not one or the other .I... *(I haven't said this very elegantly ... but by example ... fishers information should go back into research planning and policy to make more efficient ... better outcomes for all!)*
- Extension is not an endpoint in itself, but a means to the endpoint.
- Extension is finding the most efficient / reliable / useful pathway for information to flow freely.
- Is about maintaining the networks and using networks.
- Extension may include –
 - i. Face to face (individual);
 - ii. Group extension – workshops;
 - iii. Publication of manuals, etc;
 - iv. Web-based extension– email campaigns / websites / social networking sites;
 - v. Traditional mass media;
 - vi. i, ii and (to some extent) iii depend on background of trust and relatedness between extension agency / person and stakeholder.

Suggestion is for the working group to consider the definition of Extension provided by Seanet

Major / Support / Link Concept for state capability specialisation

Summary of feedback / discussion comments:

Noted that M/S/L was previously referred to as lead/ participate / link

Focus is on pre-competitive research / public good – on National Research.

Suggest only include National Research / Strategic Research Areas and work over next five years for improvements in alliances / collaboration for D&E.

Draw on (include examples of) where collaboration is currently occurring in RD&E and opportunities for increasing collaboration. These should be included in the Strategy as appendices.→ some case studies of regional “R” and how to build on these (but do not confuse collaboration with capacity specialisation).

Concept works better for agricultural industries because RDC's provide majority of dollars - FRDC – only about 1/6 of investment (?).

Importance of governance to ensure delivery / assurance!

The following principles / criteria were suggested as a means of making decisions for M/S/L:

Capability audit. Previous track record. Overhead percentage – value for money; consistent cost recovery regimes. Infrastructure – age of Succession plan for staff. Reputation – stakeholder. Quality Management Systems.	Networks – industry, international, scientific networks. Staff training programs. Risk Management Plans. Demonstrated Strategic Plan. Capacity to do work proposed. Flexibility to adopt. Industry acceptance.
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Other comments from table groups:

Need to consider that there are some private researchers who may be a “major” in “R”, although largely they will be “support” in “D” or “Link” in “E”.

Processes – ‘D’ should be up to each jurisdiction whereas ‘R’ should go through this process.
Requires full “industry” involvement.
Start from “stock” or species fishery basis.
Short term adoption, eg Released Fish Survival.

Process will support and facilitate the identification of Major / Support / Link roles but will not force assigning of roles.

Session 6 Next Steps

Patrick Hone provided an outline of the major tasks X timelines for the completion of this Strategy (see attachment 4 that was provided as pre-workshop material).

Other points raised included:

Invite you to identify other groups who you think we need to consult with or other ways of communicating on this strategy.

Encourage individual views on specific points of the Strategy to be sent to Jo Ruscoe jo-anne.ruscoe@frdc.com.au

Workshop Notes – will be circulated for feedback, and there will be a further version of the Fisheries and Aquaculture RD&E Strategy circulated – noting that a strong case needs to be made for further inclusions in research strategies.

Representative organisations need to go back and discuss / communicate with their members.

Sector overview - Expectations / timelines:

- Finalise Sector Overview before Christmas.
- Put summary and scenarios from Sector Overview in Strategy document.
- Publish Sector Overview as a whole document.

Maps – currently developing spatial data.

Capability Audit – finished by end November. Then do gap analysis.

Working group meets weekly-fortnightly

Research Providers – meeting in January – on Major / Support / Link

Leadership group – meeting in February.

Extension Group – Peter Horvat – developing Extension approach.

Indigenous Group – Forum to be arranged on how to best engage with the Strategy.

There will be on-going communiqués and updates.

Website – documents from today will be posted.

Session 4 Implementation Structure and Processes

Table Group detailed notes

Table Group A (Jo)

- From investment forum down: needs two-way information flows – responsibility for two-way rests with representatives on each body – needs to be stated role.
- Regional Forums – need to identify existing structures, e.g. North Australian fisheries forum
- Move to regional advisory panels - current structures exist which are charged with informing on state RD&E needs (FRABS, industry groups, sub-programs, industry councils etc. but collectively these need to work better regionally → there is support for regional advisory panels
- The three climate change groups do this and are part of the regional forum structure.
- Task for the three regional groups is to understand and map the groups and information flows and partnerships that exist within the region and add value to these where possible. Therefore each region may operate quite differently.
- Research group – include MDBA.
- Support: Forum and network not committee (terminology).
- Caution: forums becoming the chosen few who actually write plans, eg the national forum approves the national extension plan.
- Research network – has a role in exploring, improving practices, maintaining communication, collaboration, skills – same for extension and training.
- Principle of “Community of Practice” for the forums.
- Indigenous F&A forum to establish how indigenous can be better engaged and supported. This engagement needs to extend to the policy level – the forum determines who.

Table Group B (Justin)

Implementation Structure & Process

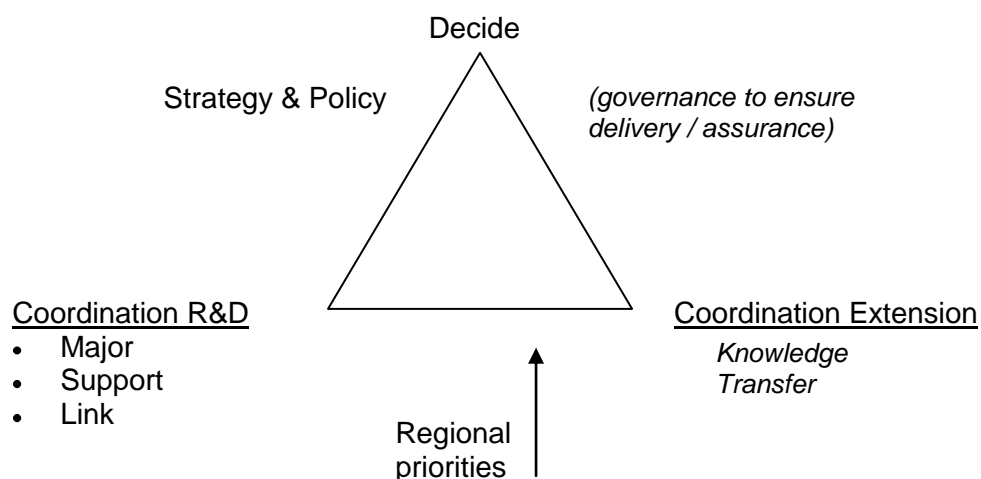


Table Group C (Rob Thomas)

Not replacing anything – a national FRAB – not about FRDC doing it differently.

Policy Committee – do we need it?

What investment decisions need to be made?

National Priority Forum – it could influence new initiatives, eg NCRIS under DIISR.

We want people to come and participate.

Priority and Information Forum to the Centre Group. ✓ But do we need a policy group – same sitting on both.

Centre Group is a mega FRAB? role and responsibilities, terms of reference, coordination role. If go with 3 or 4 regional groups, then what do we do with FRAB – regional FRABs rather than jurisdictional?

How do we pick up all research?

Where do we get cross-linkage with other research groups, eg biosecurity, water resources.

All need to simplify but FRABs only 20% of national research.

Who makes the decisions? Depends on the fund provider.

Recommendations:

- Get rid of top group.
- Larger central group.
- F&A RD&E Forum – new name.
- Clarify who accountable to? Report to MACC?
- Agree with roles – need to add monitor / strategy.

Membership – maybe two - Chair of AFMA; State governments need representation; Ministers. Regional Forums (Healthy tension – WA view versus SA view) – what is the point? – this is dealing with regional issues while central group is dealing with national industry strategies.

Alignment of plans through central group – and updating reviewing of national priorities.

Avoid unnecessary overlap – AFMA, FRDC, CSIRO, Agencies, Industry Sectors.

Now have an over-arching RDE strategy – all sector plans line up. WA will do its own thing on regional stuff. Central group focus on national issues only.

RICK – NRM component makes this different. WA will run its own course re regional investment but will contribute to national R&D.

Table Group D (Kate)

Extension –

Have local / regional extension forums that need to link industry and government research, and have decision making capability to drive R&D outcomes. These forums could be expertise based rather than representational.

Extension requirements (principles) – timely, flexible delivery and relevant.

Current National F&A extension o.k. but will need the above local groups to feed into “Region Forums” to make sure extension is relevant and possible to achieve. Utilise Seanet, etc and other extension providers.

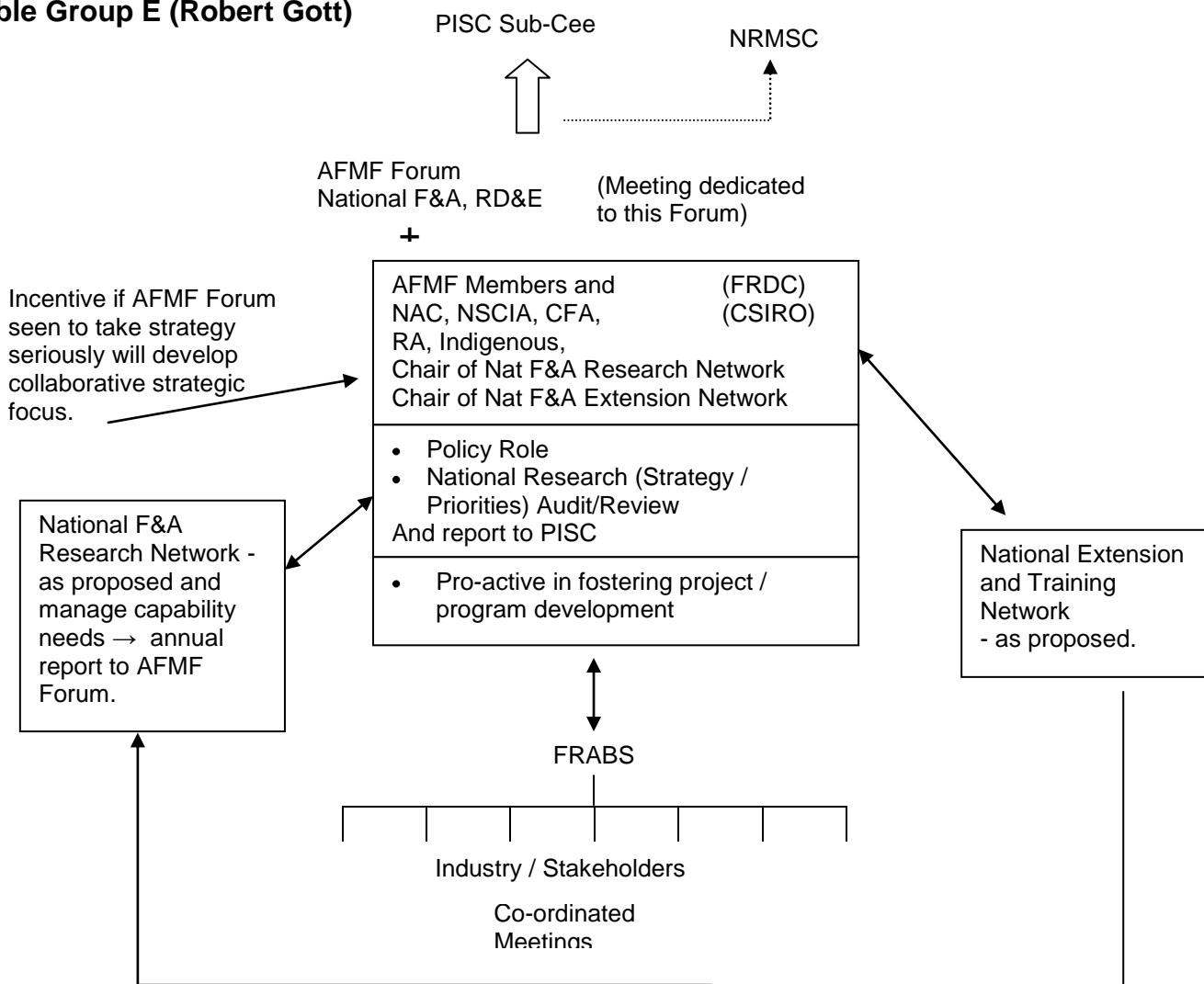
Regional Forums – need work and input from local / regional extension groups. If FRABs remain, need consistency between states.

Investment Forum – equals National Forum (ie. combine Policy and Investment groups) – have a strategy role.

Innovation Policy Committee – do not see a need for this – focus on central Investment Forum.

Do they report to PISC? Do not want to have to report back through other forums. Need to clarify the reporting line.

Table Group E (Robert Gott)



Attachment 2

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