Biosecurity Research: Scion's Response to Government and Industry Challenges

FOA/MAF Workshop

February 22 2011

Science Biosecurity Programme Reviews

- **April 2007: Independent panel of 6 international scientists:**
  - Strong science impact
  - Benchmark industry/community impact
- **April 2008: Panel of international scientists, government and business representatives**
  - Very strong in end-user engagement and knowledge transfer “sets benchmark for world best practice”
  - Strong performance in science quality

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Outline

- New CRI operating environment
- Forest Biosecurity at Scion
- Stakeholder perspectives on biosecurity research and Scion programme
- Recommendations

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New CRI operating environment

Scion and CRI Task Force Review

- Importance of science elevated within government
- Statement of Core Purpose:
  - Forestry facing CRI
  - “Scion will….protect and enhance market access and improve risk management….”
  - Scion is the lead CRI for forest biosecurity, risk management, and mitigation
  - Shared responsibility for national biosecurity

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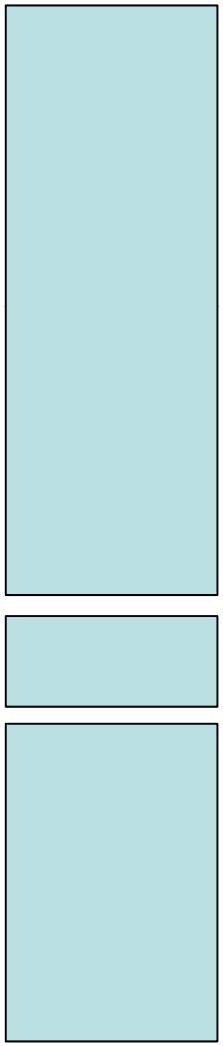
Changes to funding model

Current funding

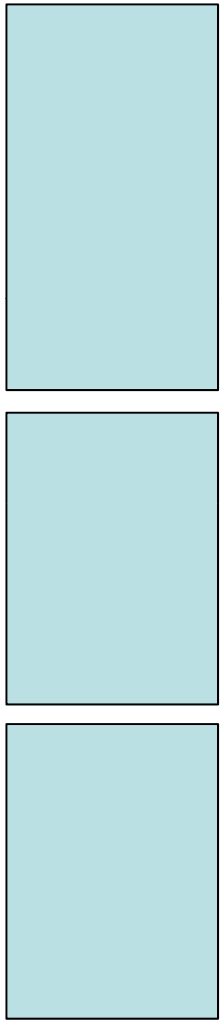


FRST Contestable

Capability funding

Commercial funding

New funding



Core purpose funding

Contestable MSI

Commercial funding

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New Role of CRI Board

- Scion board responsible for ensuring greatest economic growth from research investment
- Board reviewing Scion strategy and priorities
- Review process includes stakeholder engagement
- Board will allocate core funding to support delivery of overall strategy

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Other changes at Scion

- New Board Chairman: Tony Nowell
- New CEO: Warren Parker (ex-CEO Landcare Research), starts March 7

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Forest Biosecurity at Scion

Forest Biosecurity at Scion

- Protecting our forests from:
  - Insect pests
  - Pathogens
  - Weeds

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Scion forest biosecurity research programmes/funding

Forest Biosecurity FRST $2.0 m

B3: Cross-sectoral plant biosecurity:
4 CRIs, University, stakeholders
FRST $0.6 m

Scion Weeds FRST $0.6 m

Forest Biosecurity Research Council
$0.25 m

Other contracts e.g. MAF/FOA diagnostics

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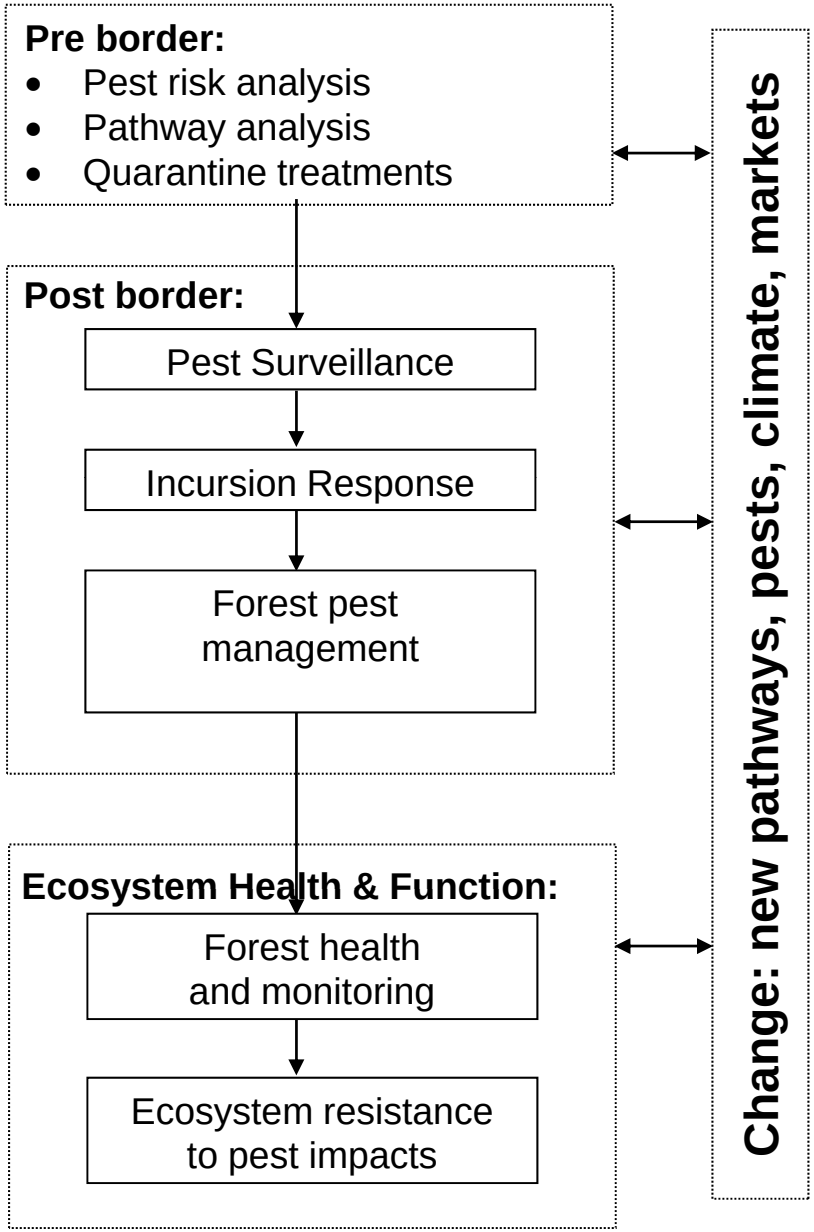

Biosecurity Research Themes

- Research capability allows us to tackle all areas of biosecurity
- Approx 23 FTE
- Substantial collaboration

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Stakeholder perspectives on biosecurity research and Scion programme

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Sector engagement process

- Visits were held with many key forestry companies and government stakeholders in Aug. / Sept. 2010.
- Interviews conducted with sector leaders to gain feedback on:
  - Research priorities
  - Research gaps
  - Effectiveness of engagement mechanisms
  - Effectiveness of science delivery / technology transfer

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Results

Strengths of current programme

- Government provides long-term funding to this area *(not inflation adjusted)*
- Good diagnostic capability
- New Zealand well resourced to diagnose and respond to incursions
- FRST research programme split between new pest threats and managing existing pests is appropriate
- Good track record of delivering benefits

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Weaknesses of current programme

- Sector fragmentation – larger forest owners involved in research, outputs, funding – many farm foresters or small-scale growers not involved
- Not enough research focus on some areas of core importance to the sector
- Industry contributions towards research programmes are low
- Limited ability to raise new funds
- Duplication in structures and mechanisms to identify priorities and deliver solutions

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High priority: Maintaining market access

- Key issue: biosecurity threats could trigger phytosanitary barriers for forest product export
- 5 yr STIMBR PGP programme will address some of these issues
- Focused largely on alternatives to methyl bromide treatment for log / sawn timber exports
- STIMBR programme short-term
- Longer term programme needed to develop broader solutions not relying on fumigation

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High priority: Solutions for needle diseases

- Key issue: needle diseases affect forest productivity, add costs, global issue of increasing significance:
  - Estimated loss of productivity $150m PA. for radiata
  - Treatment for dothistroma est. $2m PA
  - SNC decreasing productivity of Douglas-fir by est. 20%
- Increased research effort needed to more rapidly deliver knowledge and solutions
- Recent workshop to define priorities topics

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Other identified issues

- Other significant issues varied regionally and by company and included:
  - Nectria
  - Germplasm movement
  - Hylastes
- Distinct research strategy and funding stream for alternative species (other than radiata pine and perhaps Douglas-fir)
- *Science to underpin GIA process as required*

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Enhanced engagement

- Sector aware that considerable effort from Scion goes into engagement and creating awareness around biosecurity.
- There were many different perspectives on the effectiveness of this engagement.
- Encouraged more 1:1 visits rather than relying on communication through sector bodies.

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Simplified delivery mechanisms

- Acknowledged Scion makes large effort in bisoecurity-related technology transfer.
- Forest Health News, Annual Science report highlighted.
- But, sometimes hard to know what outputs are available and where to find them.
- Unsure of level of penetration of knowledge within companies beyond identified representatives on sector bodies.

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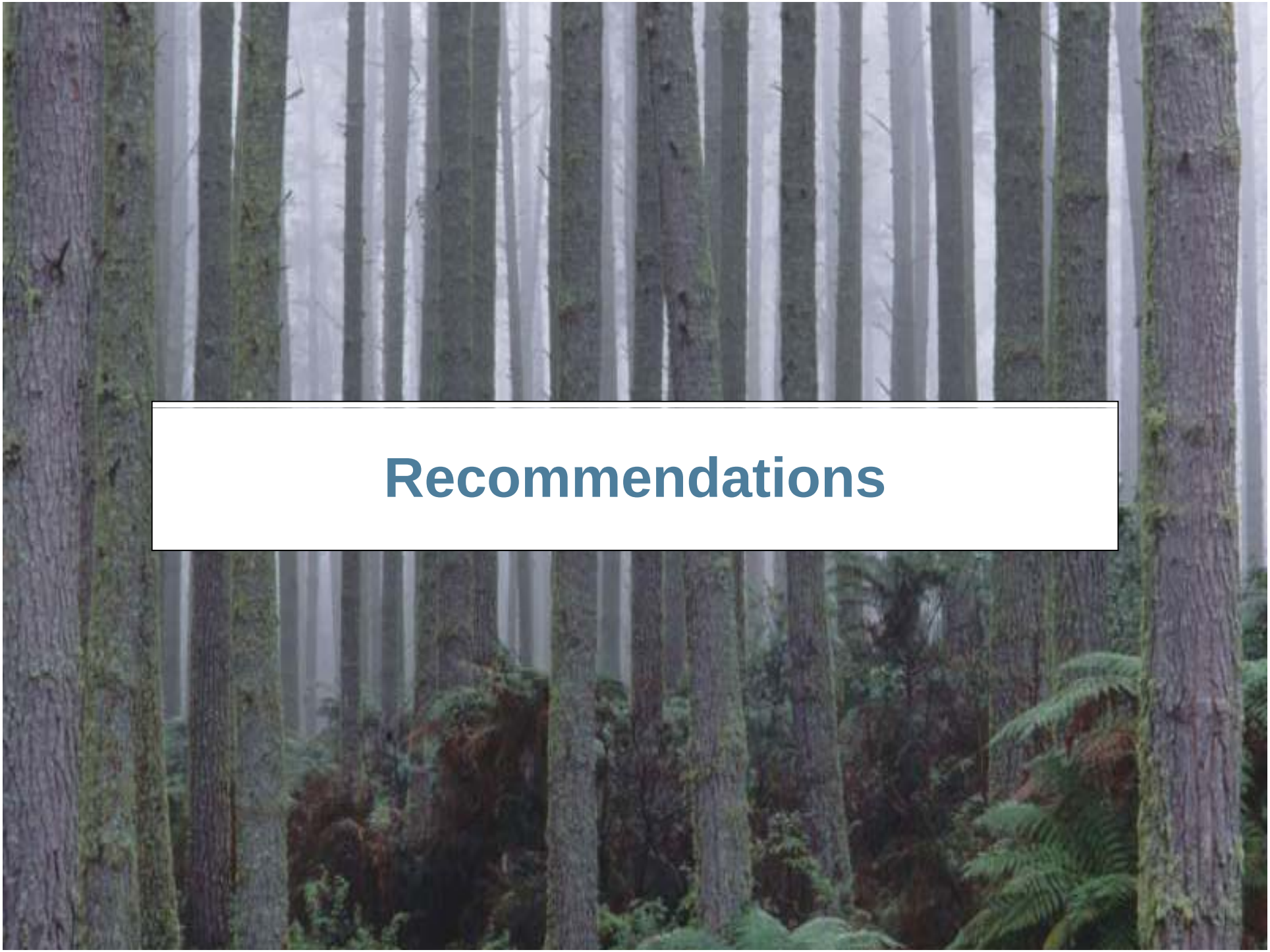

Recommendations

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- Re-evaluate research priorities across biosecurity spectrum and re-allocate funding to match priorities
- Take a multi-disciplinary approach to priority research initiatives
- Align new capabilities to research priorities (through succession process)
- Develop separate biosecurity research plan and funding streams for alternative species
- Increase level of 1:1 engagement with stakeholders
- *Support GIA process as required*

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