



# Biosecurity Flagship

[www.csiro.au](http://www.csiro.au)

PAUL DE BARRO



# National Research Flagships



**BIOSECURITY**



**CLIMATE ADAPTATION**



**DIGITAL PRODUCTIVITY AND SERVICES**



**ENERGY TRANSFORMED**



**FOOD FUTURES**



**FUTURE MANUFACTURING**



**MINERALS DOWN UNDER**



**PREVENTATIVE HEALTH**



**SUSTAINABLE AGRICULTURE**



**WATER FOR A HEALTHY COUNTRY**



**WEALTH FROM OCEANS**

# What is Biosecurity?

The management of risks to the economy, environment and community from pests and diseases entering, emerging, establishing or spreading



# Biosecurity in context....



Globally changing risk profile



Increasing trade, travel and connectedness



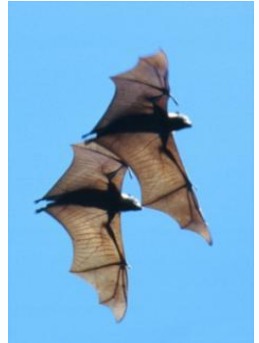
Climate change - increased pests & diseases



National Biosecurity reform agenda - opportunity



CSIRO – 30% of Australia's national capability



# Focus across the biosecurity continuum

- **Offshore** – Understanding risks. Measures to reduce the likelihood of exotic pests and pathogens reaching Australia
- **At the Border** – Targeted intervention (for imports) and assurance (for exports) of high risk items and pathways
- **Onshore** – Preparedness, surveillance, monitoring and response. Options to ensure market access.



# Where do we operate in Biosecurity science?

- Plants, animals + humans and environmental biosecurity
- Focus on exotic/emerging pests and pathogens
- Mitigate the impacts of invasive species
- Focus of the role of humans in biosecurity through social and economic research
- Bringing new technologies to achieve biosecurity outcomes
- Maintaining market access

Overall we aim for a biosecurity system which is responsive, resilient, and based on cutting edge surveillance, informatics and technologies



# Putting the human back into biosecurity



CITIZEN  
SCIENCE

SERIOUS GAMES



Biosecurity  
Communication

Biosecurity  
Intelligence



plantwise



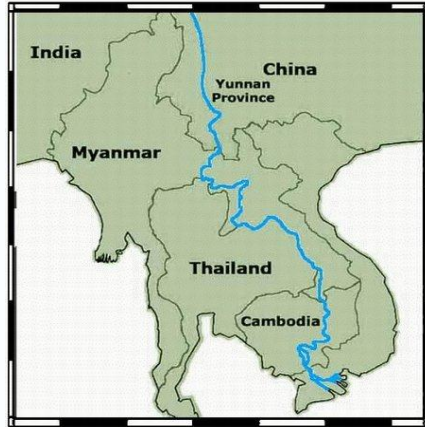
Social Research  
Designing for impact



Measuring performance



# Invasive weeds as competitors for food and water



**Biological control**



**Weed management technologies and strategies**



# New technologies – Smart Solutions

Remote systems for pest identification



Assistive technologies



Platform technologies



Designing for impact



Measuring



# Thank you

## Web Site

<http://my.csiro.au/en/Business-Units/Food-Health-Life-Science-Industries/Biosecurity-Flagship.aspx>

## Biosecurity Flagship

Dr Gary Fitt

Director

t +61738335665

e [Gary.Fitt@csiro.au](mailto:Gary.Fitt@csiro.au)

Dr Paul De Barro

Theme Leader

t +61 7 3833 5720

e [Paul.DeBarro@csiro.au](mailto:Paul.DeBarro@csiro.au)

[www.csiro.au](http://www.csiro.au)

