Overview of Australian Research & Development

Submitted by: Australia
Secure Trade in the APEC Region (STAR V) Conference: Overview of Australian Research & Development

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Overview

- National Research Priorities
- Investment in science & technology / research & development
- Collaborative arrangements
  - Public - private
  - National, international
  - Critical infrastructure protection
- Review of transport security research & development

Role of Science & Technology

- Current Operations
- Future Operations & Contingencies
- Capability
- Role of Science & Technology / Research & Development
- Input to Capability
- Outputs from Capability
- Capability Gaps

National Research Priorities

1. Environmentally Sustainable Australia
2. Promoting & Maintaining Good Health
3. Frontier Technologies for Building and Transforming Australian Industries
4. Safeguarding Australia
   - Critical Infrastructure
   - Understanding our Region and the World
   - Protecting Australia from Invasive Diseases and Pests
   - Protecting Australia from Terrorism and Crime
   - Transformational Defence Technologies

Australian Investment in Innovation

- Approximately $12B per annum
- Over 50% is by business/industry
  - Other major components include:
    - Government – approximately 20%
    - High education – approximately 25%
    - Private non-profit
- A four fold increase in real terms over the past 3 decades

International Collaborative Arrangements for Science & Technology

Treaties in the APEC Region
- China
- Indonesia*
- Japan
- South Korea
- Russia
- USA

Other regions
- EU
- France
- South Africa*

* Not in force yet

Who is responsible for Critical Infrastructure Protection (CIP) in Australia?
- The Attorney-General’s Department (AGD) is the lead Agency.
- A Business Government partnership facilitated through the Trusted Information Sharing Network (TISN) [http://www.tisn.gov.au/]
- Sectors including: transport, food chain, energy, banking & finance, water, communications, health, and emergency services
- AGD deliver several CIP programs including:
  - Computer Network Vulnerability Assessment (CNVA)
  - Critical Infrastructure Protection Modelling and Analysis (CIPMA)
  - An All – Hazards approach

Research Network for Secure Australia (RNSA)
- Seeks to bring together the majority of Australia’s leading researchers, government and industry leaders.
  - Focus on critical infrastructure and other security issues
  - 14 industry partners
  - 29 Universities are members
  - Conferences (e.g. security technology Sep 2007)
  - Outreach program to industry
  - Young investigator grants

National Review of Transport Security Research & Development
- Research Network for Secure Australia - Apr 2007
- Inputs from 84 organisations
- Identified 82 projects (22% with Private lead)
- Evaluation by a panel of Government users of R&D identified 43 projects as relevant to their needs
- The primary source of tertiary institution research funding is ARC Linkage Grants and the most common Linkage Grant industry partner are State government-owned transport enterprises.
- For ARC linkage projects, the industry partner typically contributes about 50% of the amount that the ARC contributes.

<table>
<thead>
<tr>
<th>Projects relevant to transport security</th>
<th>Projects</th>
<th>Estimate of Total funds</th>
<th>Estimate of ARC funds</th>
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<tr>
<td>Security Policy, Risk Assessment, threats, Vulnerabilities and Decision Making</td>
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<td>Transport Systems, Planning, Development, Logistics and Networks</td>
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<td>CCTV, Surveillance and Computer Vision</td>
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<td>CBRNE Detection and Response</td>
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<td>Law Enforcement, Private Policing and Legal Issues</td>
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<td>Training</td>
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<td>Totals</td>
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